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**EUROPEAN
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Directorate-General for Economic and Financial Affairs

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The economic and financial situation in Germany

This study was prepared under the sole responsibility of the Directorate-General for Economic and Financial Affairs, and submitted to the Economic Policy Committee which discussed it in April 1994. The forecast data included in this report are based on the European Commission's forecast from spring 1994.

Abbreviations and symbols used

Member States

B	Belgium
DK	Denmark
D	Germany
WD	West Germany
GR	Greece
E	Spain
F	France
IRL	Ireland
I	Italy
L	Luxembourg
NL	The Netherlands
P	Portugal
UK	United Kingdom
EUR 9	European Community excluding Greece, Spain and Portugal
EUR 10	European Community excluding Spain and Portugal
EUR 12-	European Community, 12 Member States including West Germany
EUR 12+	European Community, 12 Member States including Germany

Currencies

ECU	European currency unit
BFR	Belgian franc
DKR	Danish krone
DM	German mark (Deutschmark)
DR	Greek drachma
ESC	Portuguese escudo
FF	French franc
HFL	Dutch guilder
IRL	Irish pound (punt)
LFR	Luxembourg franc
LIT	Italian lira
PTA	Spanish peseta
UKL	Pound sterling
USD	US dollar
SFR	Swiss franc
YEN	Japanese yen
CAD	Canadian dollar
ÖS	Austrian schilling
R	Russian rouble

Other abbreviations

ACP	African, Caribbean and Pacific countries having signed the Lomé Convention
ECSC	European Coal and Steel Community
EDF	European Development Fund
EIB	European Investment Bank
EMCF	European Monetary Cooperation Fund
EMS	European Monetary System
ERDF	European Regional Development Fund
Euratom	European Atomic Energy Community
Eurostat	Statistical Office of the European Communities (SOEC)
GDP (GNP)	Gross domestic (national) product
GFCF	Gross fixed capital formation
LDCs	Less-developed countries
Mio	Million
Mrd	1 000 million
NCI	New Community Instrument
OCTs	Overseas countries and territories
OECD	Organization for Economic Cooperation and Development
OPEC	Organization of Petroleum Exporting Countries
PPS	Purchasing power standard
SMEs	Small and medium-sized enterprises
toe	Tonne of oil equivalent
:	Not available

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Part I

The German economy adjusting to unification and a changing global economy

1. Introduction¹

For the west German economy the period from 1987 to 1994 was marked by massive change. In late 1986 a period of strong growth started in most Member States, but especially from late 1989 west German output and employment expanded particularly rapidly. By the time that this initial growth dynamism began losing momentum, the establishment of the German Economic Monetary and Social Union (on 1 July 1990) and German unification (on 3 October of the same year) led to a new demand surge. Thus, by spurring economic activity in western Germany and many other countries, the boom period was extended by about two years.

However, also in the course of 1991 this dynamism began to slow. What was seen by many initially as a slowing-down of economic growth in the aftermath of the demand pull from eastern Germany and an adjustment to more sustainable output levels turned out to become a severe recession. As this downturn developed, a number of problems of a more structural nature, especially in the labour market, also became more apparent. Finally, it became evident that modernizing the east German economy and improving living standards in the region was a more complicated exercise than expected and that the costs involved would burden the fiscal position and the economy at large for a substantial number of years.

With hindsight it seems fair to conclude that in both the public and the private sector, the more positive aspects of unification, such as the development prospects in eastern Germany, the potential for demand, and the supply of skilled labour, were given more attention than were risk factors, such as the financial burden and the impact on costs and competitiveness. Again with hindsight, the very strong investment in the west German business sector can to a large extent be traced back to optimistic expectations about the long-term growth potential, which afterwards had to be scaled down. The buoyancy of business investment and hiring levels at the time reflect such optimism. In a very stylized manner one could argue that expectations raised by the European integration process and unification contributed to a wave of not entirely justified euphoria. The subdued demand situation prevailing during 1992 and 1993 has served to emphasize what became a disproportionate expansion of investment and employment.

The already strained situation in the West German labour market prior to unification produced rapidly rising wage claims. Public and private employers, faced with quickly rising revenues and profits, did not see a need for resisting these claims. However, the rate at which employment

expanded — 9% between 1987 and 1991 — was disproportionate in the light of both actual demand and output growth. Productivity growth had already been slow and unit labour costs had also developed unfavourably compared with other countries. As demand, and thus productivity growth, was now further reduced, unit labour costs soared. The public sector, through the transfers to eastern Germany, had experienced three consecutive years of expansionary policies which led the monetary authorities to react by imposing a strict regime of tightness. The fiscal consolidation course now embarked on, although inevitable, thus came at an unfortunate point in the economic cycle.

Not only is self-sustained growth in eastern Germany unlikely in the short term but also the growth potential of the west German economy in the short and medium term could be hampered by a number of structural difficulties. Unemployment, the public debt and the burden of taxation (including social security contributions) are rising to unprecedented levels. West Germany's industrial productivity and competitiveness have been eroded, and only during the last year have enterprises made visible progress in improving production efficiency. Difficult distribution challenges have to be dealt with, such as the transfers to eastern Germany and their financing, the redistribution between the public and the private sector, and, within the private sector, between enterprises and households. Expansion in eastern Germany has been constrained by the difficult economic situation in the western part of the country. Further, domestic demand growth in Germany as a whole may remain restrained by fiscal consolidation, depressed disposable income of households and rising long-term interest rates. Finally, increasing competition from low-wage countries will make it more difficult for Germany to regain the lost market shares as the world economy recovers.

In all, there is the possibility that with a recovery in western Germany from now onwards, it may take up to 1995 to reach the output level of early 1992. In the meantime the population will have risen so that GDP per head will still be lower than in 1992. Employment has also been falling since early 1992 and in spring 1994 unemployment is still rising.

Thus, the first and major challenge ahead concerns the issue of how growth potential, i.e. the conditions for the expansion of output and employment, can be improved. The related questions of economic policy appear then to centre around the five major problem areas which are summarized below and which will be dealt with in detail in this country study. They concern the following:

1. The restructuring and modernization of the east German economy and the implied financial obligations will continue to put pressure on the budget and the economy at

¹ The cut-off for this report was June 1994.

large. Consumption and investment in the region have been growing in spite of a sharp decline in locally produced output. Employment continues to fall and unemployment is rising again after a period of stabilization. How can self-sustaining growth and job creation be achieved?

2. The need for fiscal consolidation at an acceptable level of taxation forms the major economic policy challenge for Germany in the second half of the 1990s. The ratio of gross public debt to GDP now exceeds 50% and will rise to 60% in the next few years. Fiscal consolidation efforts have gained credibility with the introduction of two major fiscal packages of revenue increases and expenditure cuts. Success in these efforts would help in restoring private sector confidence. This may take time, however, and the more direct contractionary effect of consolidation may be more evident in the next few years. The total burden of taxation (inclusive of social security contributions) has risen to a record 44% of GDP in 1993 and is still on an upward trend. Structural improvement of the budget problem requires a self-sustained upswing in the eastern region.
3. The labour market problem is highlighted by the high level of unemployment. By 1995, 2¼ million workers may be unemployed in western Germany alone, some 9% of the working population. In the whole of Germany almost four million could be out of work by then (11%) with another two million people being covered by special labour market measures.
4. The competitive position of German industry and the attractiveness of Germany as a business location have been eroded during a number of years of slow productivity growth and rising unit labour costs. The German economy, and manufacturing in particular (in both eastern and western Germany), is going through a painful adjustment process. Three million jobs disappeared in east German manufacturing after unification, then one million more manufacturing jobs disappeared in western Germany in less than three years. It remains to be seen, however, to what extent the tradable sector can participate in world growth given the strong likelihood that much of the dynamism of economic growth will be centred outside Western Europe.
5. How to find the right policy mix, i.e. the right balance when weighing policy options? One important element of the policy mix concerns the trade-off between fiscal and monetary instruments: in particular, the way in which the evolving fiscal stance has accompanied the necessary tightening of monetary policy and what balance is appropriate as the unification transition continues. These ques-

tions also relate to the more general problem of the distribution challenge which has to be met, and to the question to what extent monetary policy choices can and should impact on this challenge.

This chapter continues with a short review of recent economic developments. It then details some of the more structural difficulties and draws out the implications of unification for the overall macroeconomic performance of the German economy. Those factors which underlie the fiscal position and the labour market situation receive particular attention in separate sections. Further, monetary developments, the policy response and the options for the appropriate policy mix are discussed. The final section deals with the medium-term outlook for the German economy as seen in early summer 1994 and attempts to provide a picture of the challenges and difficult policy choices which lie ahead.

2. The short-term outlook: how strong will the recovery be?

The year 1988 marked the beginning of a period of strong economic growth both in West Germany, and most other Community Member States. In West Germany this boom initially was driven primarily by investment and net exports, the latter especially as the result of strong investment in equipment in partner countries. In the course of 1991 economic expansion began to lose its dynamism and from the middle of 1992 output started to fall. GDP, industrial production and incoming orders continued to fall for a year. In the first quarter of 1993 GDP was down 2% on the previous quarter and 3,6% on one year earlier. By the middle of 1993 economic indicators began to show signs of improvement and west German output stabilized, raising hopes that the trough had been reached and that the economy would begin expanding again. GDP actually rose by 0,5% in the second quarter, and 1% in the third quarter of 1993. The contraction of GDP in western Germany for the whole of 1993 was 1,9% (and 1,2% in the whole of Germany).

A simple mechanical repetition of the recovery pattern in the three previous recessions in western Germany would produce GDP growth of close to 2% in 1994 (2,5% in Germany as a whole). The question arises as to the extent to which comparisons with the former West Germany are still appropriate. Unemployment, public debt and the burden of taxation have reached unprecedented levels and are still rising. In spite of recent improvements there are still problems of productivity and competitiveness, as well as the distribution challenge mentioned already.

The outlook is one which suggests gradual recovery for 1994, possibly strengthening in 1995. The Commission's spring forecast indicated 0,8% GDP growth in western Germany and 1,3% in Germany as a whole. Other forecasts for GDP growth in western Germany in 1994 varied between 0 and 1,5%. Eastern Germany was predicted further economic expansion of possibly 7%, supported by transfer payments from western Germany which amount to 5% of German GDP (60% of east German GDP). Since then prospects appear somewhat more buoyant and the autumn forecast of the Commission may show a substantial upward revision.

Nevertheless, economic growth remains limited by the following considerations. Real disposable income of households will be eroded by falling employment, inflation, wage moderation and higher taxes and social security contributions. The further fall in the savings ratio which supported private consumption in 1993 and early 1994 is assumed to continue but at a slower pace. Given the labour market situation and reduced real income expectations, households could even react by increasing savings which would depress private consumption further. Government consumption is expected to fall (in real terms) in the whole of Germany as a result of fiscal consolidation. Wage increases in the public sector in western Germany will be very modest in both 1994 and 1995, but wages in the public sector in eastern Germany will still show some increase. The reduction of excess employment in the public sector in eastern Germany is assumed to be slow. Fixed capital spending has been falling steeply and in early 1994 there were few indications of buoyancy. With a fairly low level of capacity utilization and still subdued business confidence, investment may not recover much in 1994. In early summer 1994, however, short-term indicators, notably the strength of export demand, pointed to the possibility that the recovery might gather strength more rapidly.

Inflation — currently mostly driven by services, rents and fiscal and administrative charges — is gradually coming down. The rise in the consumer price index (CPI) for the whole of 1993 was still 4,2%, but in May 1994 it had fallen to 3%, and the tendency is one of decline. Wage claims also continue to decelerate significantly and, with both production and productivity rising again, unit labour costs are falling considerably. The major risks for inflation now seem to come from the public sector and from import prices.

The outlook for the labour market is bleak — notwithstanding any acceleration of the recovery. After several years of strong growth — in September 1992 west German employment peaked at 29,4 million — employment is now steadily falling. West German unemployment will rise again in 1994. A risk is that Germany could join that league of European countries

with persistently high unemployment. Labour supply will continue to expand, mainly because of migration trends and rising participation by women. On top of the effect of the west German recession and the need for modernization in eastern Germany, there is the need for the restructuring required to restore the competitive position of west German industry. Unfavourable developments in west German unit labour costs, the sudden fall in average productivity in unified Germany, together with depreciations in some competitor countries, have together affected sales prospects for German products. This situation is to be corrected by a necessary and painful restructuring process.

During the early 1990s, particularly in industry, the growth of labour productivity in western Germany has been low compared with that in competitor countries and relative unit labour costs have increased. This rise was accelerated once production started to fall. In industry, therefore, a severe adjustment process is taking place in order to restore competitiveness (one million industrial jobs net are expected to disappear up to 1995 in western Germany alone).

The labour market situation and the recession in general put severe strains on the public finance situation. Due to the substantial public transfers to eastern Germany — currently at some 5% of GDP per year — a small surplus in the general government balance before unification (1989: 0,1% of GDP) turned into a sizeable deficit (2,6% of GDP in 1992). The government borrowing requirement was 3,3% of GDP in 1993. In the absence of considerable efforts for consolidation which have taken place, the situation would be much worse. It may be difficult, however, to improve this situation significantly in 1994. Unification and the fiscal response so far have caused total public expenditure to rise to above 50% of GDP.

The current medium-term fiscal plan — established in early summer 1994 — projects a successful consolidation. The assumptions underlying this plan concern an export-led recovery in 1994, a return of output to a medium-term growth path of 3% per year by 1996 and tight expenditure control. Much will depend on how economic growth actually proceeds. If economic expansion did not match that projected and given the already high total burden of taxation, further efforts would then have to be made for expenditure reduction which, again, might imply additional repercussions on the real side. To realize the projected crowding-in effects, business and consumers will need to be confident that the announced government measures and projections are realistic and implemented accordingly.

The urgent need for adjustment and better labour market performance, i.e. job-creation potential, is further accentuated by the situation in eastern Germany where no self-sustained

growth dynamism can yet be seen. The need to increase productivity and competitiveness has exerted downward pressure on industrial employment in the short term. The potential for job creation there has also been restrained by the recession in western Germany which limited investment initiatives to expand capacity in the private sector. In addition, a part of investment in eastern Germany is being undertaken with a view to replacing investment in western Germany. The job creation resulting from such investment is thus not necessarily adding to the total number of jobs in Germany as a whole.

It is not unreasonable to expect that the combined effect of high unemployment, rising taxes and social security contributions will to an extent limit the full potential for economic recovery. If, in addition, consumers react by increasing savings, the outlook for an improvement in private consumption could then weaken further. Restoring confidence and credibility, mostly in the area of public finance, seems to be crucial in order to avoid such an unfortunate chain of events arising.

In eastern Germany industrial production, although showing a somewhat erratic pattern, is now expanding. Output figures of the last few months are particularly promising. To what extent such increases will actually translate into more jobs will, however, vary according to the sector concerned. Overall, industrial employment is still decreasing. Investment has started to pick up and is taking place in infrastructure (railway, road building, telecommunications, etc.) and construction. But business investment, especially in the services sector, is also showing strong growth (albeit still from a low level). This should, nevertheless, gradually allow for self-sustained overall growth. Inflation in eastern Germany has mostly been driven by price increases in services and rents, largely resulting from the gradual deregulation of administered prices (rents, transportation, energy). The consumer price increase is about to approach the western level.

The German trade balance, although much lower than in the past, is remaining positive and even improving because of constrained domestic demand and improved terms of trade. More recently newly expanding exports have reinforced the upward trend in the trade balance surplus. The positive trade balance is, however, not making up for the considerable deficit in services, and on interest, profit and dividend accounts. The latter is expected to increase substantially, due especially to net payments of capital income abroad following large inflows of capital in the last few years.

3. The German economy after unification: considerable change in structure

While in the first 18 months following unification the economic implications were masked by a boom, the underlying difficulties became greater during 1992, and have been

clearly visible for some time now: inflation has been above a target rate of say 1,5 to 2% for a considerable period. Fiscal consolidation remains a challenge despite the attempts to make progress in the context of the Solidarity Pact and thereafter. Against a background of poor labour market conditions, growth prospects for the medium term offer a challenge for policy.

This section looks at the performance of unified Germany. Because of the rapid integration of both parts of the economy, it becomes increasingly inappropriate to assess the economic developments in eastern and western Germany separately. Although regionally and structurally both parts will remain fairly distinct, the potential for development is strongly inter-related. Integrating an economic area with a size of around one third, a population of one fifth, and an output potential of at present one tenth of the unified area has far-reaching consequences. Investment decisions in eastern Germany will depend not only on the underlying conditions in eastern Germany but will also be influenced by, for example, demand conditions in western Germany. The high west German wage level has already influenced the wage adjustment in the east while high unemployment in eastern Germany might increasingly influence wage settlements in Germany as labour market integration proceeds. The large differences in productivity in the two parts of Germany will have their effect on the overall German economy as low productivity in eastern Germany and the implied transfers have their impact on the overall supply conditions, e.g. through higher taxes and social contributions.

The consequences for western Germany are important. If a 'catch-up' in east German productivity does not materialize quickly, the need for large financial transfers will continue to burden the west German private sector through higher social contributions, higher taxes and less public spending in that area. As a consequence, cost pressures in enterprises increase and income expectations are lower with the risk that distribution conflicts within the private sector, between the private and the public sector as well as between the eastern and western regions may be intensified. By looking at the overall performance of the unified German economy in comparison with the (former) West German economy, one obtains a better impression of the quantitative importance of those changes which have already occurred.

Since 1992 the growth rate of unified Germany has exceeded that of West Germany by about half a percentage point. It remains a question as to what extent the indirect effect of public support, on which growth in the east has depended, hinders growth in western Germany such that the indirect negative growth impact outweighs the positive direct effect. Moreover, looking at simple actual growth rates only is misleading, since this does not take into account the very different levels of productivity and living standards.

Productivity (GDP per person employed) has advanced in eastern Germany but a significant productivity gap remains. GDP per person employed in unified Germany is some 10% below the west German productivity level. In historical terms, the level of productivity in unified Germany corresponds to the level of productivity of the early 1980s in West Germany. Similar differences exist with regard to living standards. If one compares the peak level of GDP per person in western Germany in 1991/92 with the expected 1994 average income level, the discrepancy is even larger, i.e. income per inhabitant has fallen by 15% in unified Germany in 1994 compared with the West German level at the beginning of the decade.

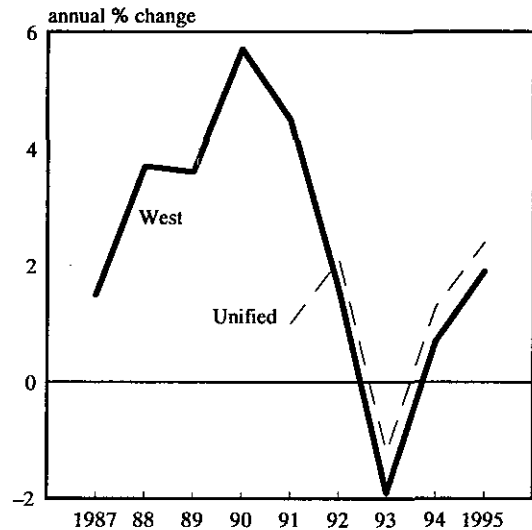
In terms of international comparisons, the change in the relative German income position seems less dramatic at first sight. GDP per inhabitant is still at the same position compared with that of West Germany before unification. While West Germany exceeded the EC income average by 27% in 1990, unified Germany still exceeds it by some 15% (1993). However, to a considerable extent this is due to the appreciation of the DM *vis-à-vis* partner countries. In terms of PPS, unified Germany has fallen back to sixth place (after 1992) compared with West Germany's top position (second) before unification.

The labour market situation has changed dramatically. While unemployment stood at 6,4% in 1990 in West Germany it rose to 9% in unified Germany in 1993. (Harmonized figures are 4,8 and 8% respectively.) This figure does not yet include a considerable number of people covered by special labour market measures, in particular in eastern Germany. This increase during the last three years is mainly due to the west German recession and the steep decline in employment in the aftermath of unification in eastern Germany (see Chapter 4 on the labour market).

A dramatic change has occurred with respect to the general government's finance situation. Whereas in 1989 there was no net borrowing requirement, the German deficit is now 3,3% (1993) of GDP. The public finance situation looks more worrying in view of the rapid rise in the public debt level. While in 1992 the public debt level of unified Germany was almost 45% of GDP, it is expected to be close to 54% of GDP in 1994.

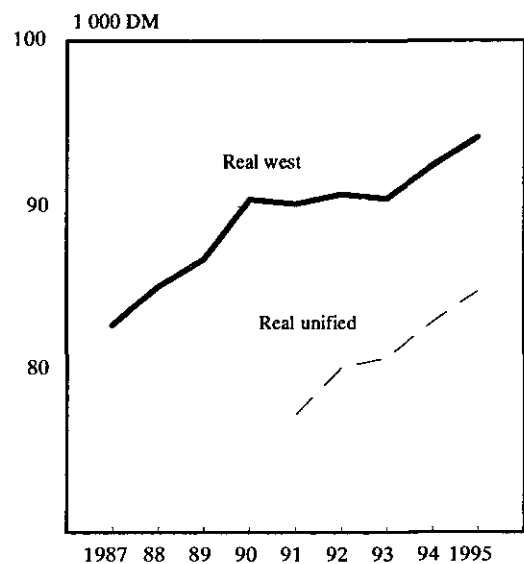
The apparent discrepancy between the relatively favourable deficit figures and the less favourable debt dynamics is due not least to important debt take-overs which have not appeared in the deficit figures. Furthermore, the debt figure for unified Germany is influenced heavily by the relatively low level of public debt in the former GDR. This, however, masked the true situation, as the enterprise sector was in

GRAPH 1: GDP at constant prices



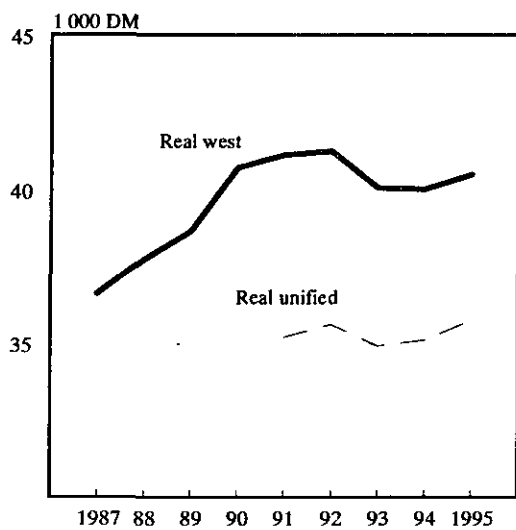
Source: Commission services.

GRAPH 2: GDP per person employed



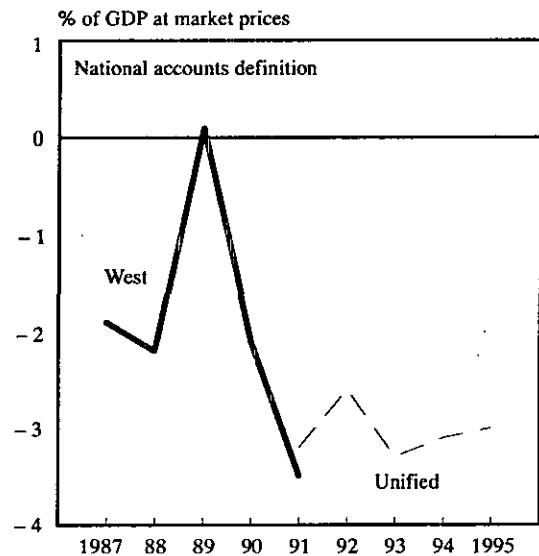
Source: Commission services.

GRAPH 3: GDP per inhabitant



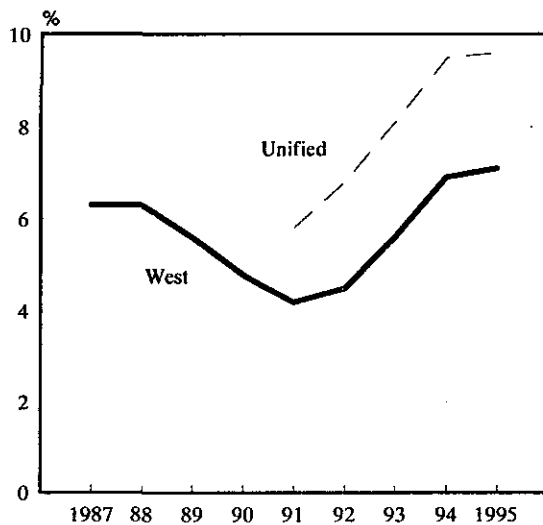
Source: Commission services.

GRAPH 5: Net government borrowing



Source: Commission services.

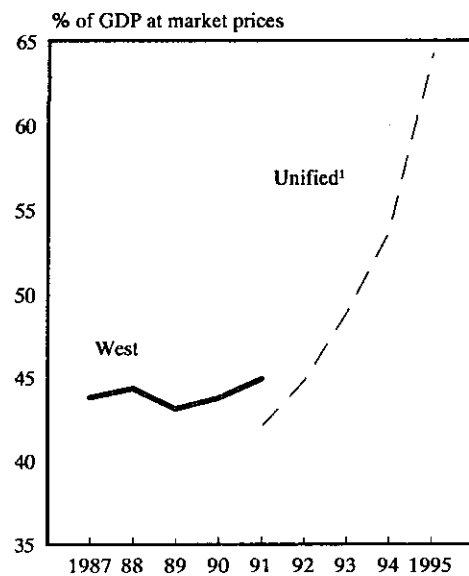
GRAPH 4: Unemployment rate¹



¹ National definition. The harmonized figure for western Germany is 5,6% (1993).

Source: Commission services.

GRAPH 6: Gross public debt



¹ Including take-over of eastern debt (Treuhand, etc.).

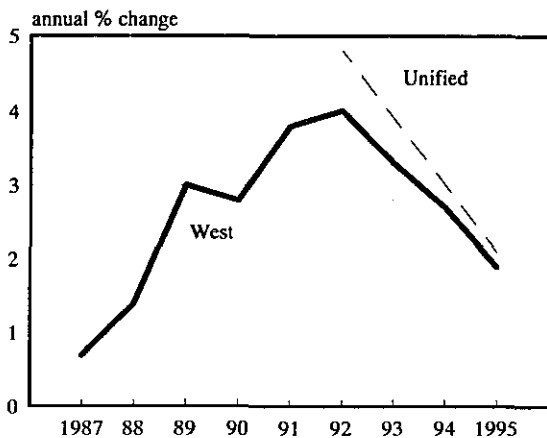
Source: Commission services.

financial deficit which ultimately feeds through to the public sector.

Inflation in West Germany has crept up since the 1986 reverse oil-price shock. It was around 4% in the more recent past but is now declining. While eastern Germany added almost 1 percentage point to the headline inflation rate in unified Germany, its contribution has fallen continuously. The additional contribution of eastern Germany is largely due to price-level adjustments. While in the aftermath of unification the entire price structure was changing with considerable price increases in formerly subsidized areas and price reductions in, for example, consumer durables, the difference is now mainly due to an adjustment of rents.

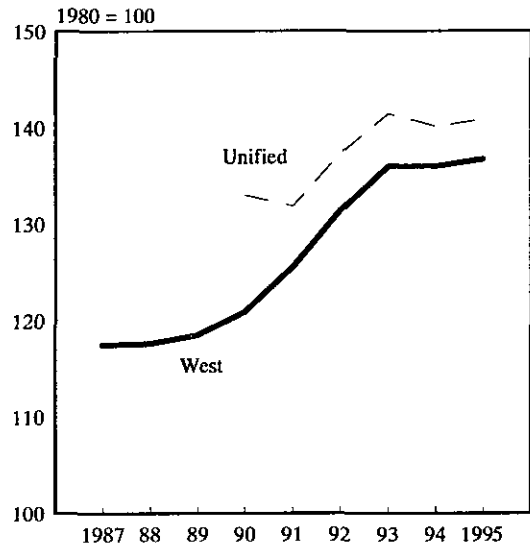
Unit labour cost increases have been accelerating in western Germany since unification until 1993. This is due to both weakening labour productivity and strong wage increases. The low level of productivity in eastern Germany initially added around 10% to unit labour costs in Germany as a whole (compared with West Germany before unification). However, due to some catch-up in productivity — largely achieved by lay-offs — it now contributes an additional 5% to unit labour costs. Compared with 1989, unit labour costs in 1993 have risen by around 20%. This compares with a rise in producer prices by no more than 1% implying a marked reduction in profit margins in industry.

GRAPH 7: Price deflator, private consumption



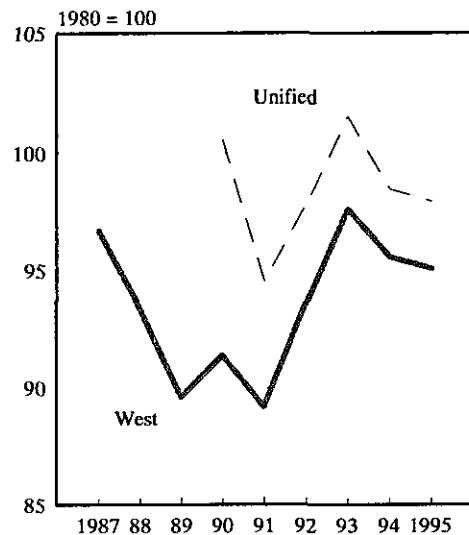
Source: Commission services.

GRAPH 8: Nominal unit labour costs



Source: Commission services.

GRAPH 9: Competitiveness (relative unit labour costs, total economy¹)



¹ Compared with 19 industrialized countries.
Source: Commission services.

It has become almost impossible to disentangle the current-account balance according to region. The large drop which has been observed in the aftermath of unification is a reflection of the large supply/demand gap prevailing in Germany at that time. While the east German economic potential became obsolete (reducing supply), demand was stimulated by large transfers and rapid wage increases. However, the persistence of a current-account deficit of around 1% of GDP during the recent recession can no longer be explained by the effect of unification alone. If the recovery in Germany were mainly driven by domestic demand which is desirable in view of the need for catch-up and investment in eastern Germany, the current-account balance might remain in deficit for some time.

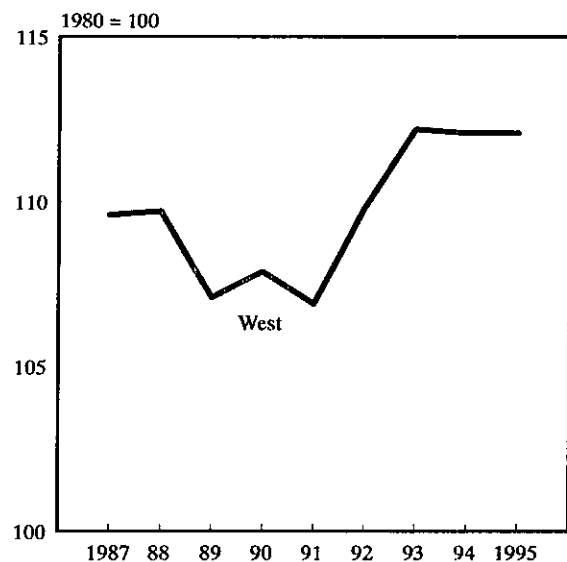
Moreover, the reorientation of west German exporters to serve the east German market after unification, together with the almost non-existence of an export capacity of the east German region, have reduced the export dependency of the unified German economy. While the export share of goods and services was above one third in West Germany before unification, that share has declined to below a quarter for unified Germany. Although Germany now seems to have regained market shares on the world market, its share has declined from 12 to around 10% recently.

In terms of saving/investment balances, it is not only the decline in public savings which is responsible for the current-account deficit — private saving is on a declining trend also. While private investment in relation to GDP has been on a declining trend since 1990 in western Germany, the public sector has expanded its investment until recently, mainly as a reflection of large infrastructure investment in both eastern and western Germany.

4. The fiscal situation

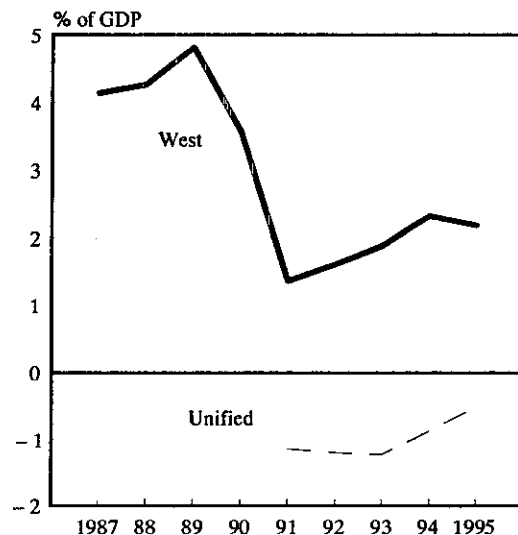
West German public finances were on a sound footing in 1989, the year prior to unification. Consolidation had been a priority in the political agenda since the early 1980s. The general government had even recorded a small surplus in 1989 and the debt/GDP ratio had stabilized at just above 40%. In response to the unique challenge of unification fiscal policy then became expansionary. The share of public spending in GDP increased by 5½ percentage points (45% of GDP in 1989, 49,4% in 1992 and 50,4% in 1993). This expenditure rise has been financed by both higher taxation and budget deficits. In addition, there are a number of substantial expenditure categories which have so far been kept outside the official budget. By 1995, when all these off-budgets will be fully accounted for, the public debt could possibly be seen to rise to more than 60% of GDP.

GRAPH 10: Terms of trade
(goods and services)



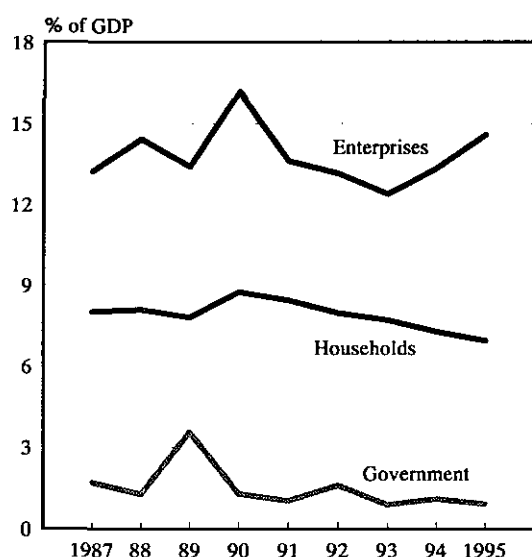
Source: Commission services.

GRAPH 11: Balance of current transactions



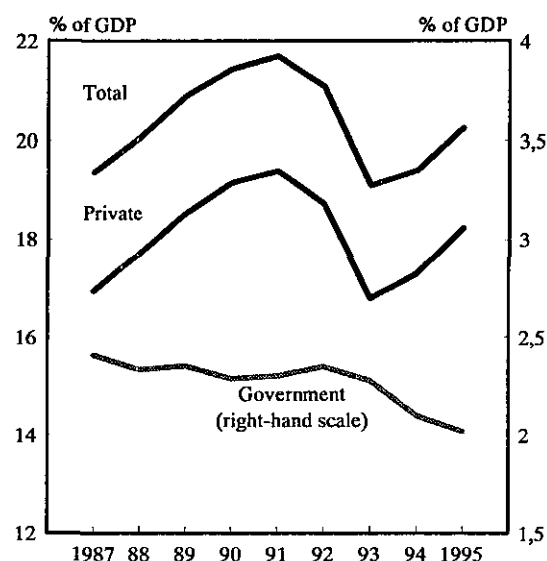
Source: Commission services.

GRAPH 12: Savings ratio
(western Germany)



Source: Commission services.

GRAPH 13: Investment ratio
(western Germany)



Source: Commission services.

Various factors contributed to this expansionary drive. The main underlying reason, however, was an assessment of the economic situation and the economic development potential in eastern Germany which, with the considerable advantage of hindsight, appears to have been somewhat optimistic. Spending estimates and targets were subject to frequent upward revision, whereas on the other hand, up until early 1991, government refrained from revenue raising. The concern about high fiscal pressure allowed for the introduction in 1990, in unrevised form and according to schedule, of an earlier planned income tax reform. Even though this reform involved a cut in rates worth some 1% of GDP, the effects of the unification boom were such that revenue increases abated only temporarily.

In this situation the west German ('old') *Länder* managed to cap their initially planned financial contribution to unification. By consenting to the unification treaties and to the Unity Fund — a temporary instrument for channelling mostly borrowed funds to the eastern part of the country — they received a far-reaching acquittal from further financial obligations. While the federal government had to bear most of the costs of unification, this arrangement permitted the old *Länder* to use their strongly rising revenues for local purposes. Three other elements contributed further to stimulating economic activity.

The first was the generous conversion of Ostmark stocks into DM. This asymmetric conversion of bank balance sheets (deposits up to certain thresholds were converted on a one-to-one basis, but credits one-to-two) implied an initial endowment of DM to east German residents, increasing their purchasing power. An important part of this was spent in western Germany or on imported goods from other industrialized countries. Government made up the gap in banks' balance sheets.

The second factor concerns the activities of the Treuhandanstalt, the agency charged with the privatization of the east German business sector. Given the poor competitive situation of east German firms and with a view to keeping many companies afloat, the Treuhand was forced into deficit spending and debt take-overs. However, although the Treuhand, strictly speaking, forms part of the enterprise sector, it acts on behalf of the federal government which will in time have to account for the debt the Treuhand has been accumulating.

The spending and borrowing dynamics of other publicly owned private sector companies form the third expansionary element. The railway and postal services expanded strongly as a result of unification. Overhauling the infrastructure in eastern Germany is a costly long-term task, which initially supported activity in western Germany. Some part of the

higher debt levels resulting from investment activities may end up with the government. The same may hold for the specialized banks owned by the federal government, which are charged with providing subsidized credits for the modernization of the business sector.

In 1991 it became evident that this initial fiscal response to unification had become unsustainable. The general government deficit had risen to just over 3% of GDP and the net actual borrowing of the territorial authorities was 3,8% of GDP on an administrative basis. When account was taken of the major off-budget items, the public sector borrowing was already 5%, with implications for the public debt. All this is so in spite of a process of painful fiscal adjustment that began in early 1991.

Emphasis was put on the revenue side. Indirect taxes were raised and a 'solidarity' surcharge was imposed on income taxes. The latter was implemented in July 1991 for a period of 12 months, reflecting the hope that the most acute problems would be overcome thereafter. The most pronounced rise was in social security contributions. Especially contributions to the unemployment system increased rapidly. Measures on the expenditure side were also taken.

The discretionary measures taken in 1991 and 1992 succeeded in stabilizing the situation. After the initial economic collapse in eastern Germany, public support to the region steadied, but then a recession worsened the prospects for public finances. In western Germany the slump was more severe than abroad, given the unfortunately necessary combination of fiscal restraint and, on the other hand, a continuation of tight monetary policies, in spite of a gradual easing since September 1992.

On top of the recession, fiscal policy has had to cope with a number of institutional and structural challenges. First and foremost, the fiscal constitution had to be adapted to unification. Apart from that, reform has been required in the areas of health care (in order to curb rising costs), care for the disabled, day child care, the railway system and subsidies to the coal industry. Further, following a ruling by the German constitutional court, the basic allowance for the income tax will be raised further, to a level that will allow for a minimum standard of living. Finally, scarce financial resources will be required for the government service envisaged move to Berlin.

Some of these structural issues have been settled successfully, for example the incorporation of the eastern *Länder* in the fiscal fabric by 1995. The arrangement provides for an amended revenue equalization scheme to which the old *Länder* will become net contributors. Part of the implied

'losses' of the west German *Länder* will, however, be made up as all *Länder* will receive a bigger share of the value-added tax and other federal tax revenue. Most of the burden of unification, together with the risks involved, are in any case on federal government. Also, the envisaged reform of the social security system has been implemented and the legislators have adopted measures for the railway system.

In spite of all this, deficits remain high and a number of structural difficulties persist. In particular, the future rise of the interest burden is a cause for concern. Up to now interest payments related to the public debt have risen from 2,7% of GDP in 1989 to 3,4% in 1993. As was emphasized above the actual debt is much higher. Interest payments could be some 4,5% of GDP, i.e. close to 9% of public expenditure, by 1995. The loss of room for manoeuvre is especially disconcerting at the federal level, where most of unification-related debt appears. In particular, the risk of a structural deterioration on the expenditure side with investment being cut back could have detrimental medium-term supply effects.

The consolidation effort so far suggests that a large part of the fiscal adjustment is concentrated on revenue increases. Revenue measures already enacted for 1994 and 1995 reinforce this view. In 1995, when the solidarity surcharge will be reintroduced, the total tax burden (i.e. including social security contributions) will be almost 5 percentage points of GDP higher than in 1990, the year of the income tax reform. Bearing in mind the disincentive impact this may have on economic activity, the government projects expenditure cuts and tax reductions in the medium term. A comprehensive savings package was adopted in late 1993 and the second German convergence programme calls for gradual deficit reduction.

The consolidation exercise comes at an unfortunate moment in the economic cycle. Yet, to some extent, the recession may have helped to make the structural deficiencies and the potential and readiness for change more transparent. In one sense, this fiscal operation is a replay of the fiscal consolidation programme from 1982 onwards. The current situation, nevertheless, is a lot more complicated. Firstly, the size of the current programme — some 2% of GDP in 1994 — is larger than in the past. Secondly, German industry has seen a considerable deterioration in its competitive position and there appears, therefore, to be less potential for growth through net exports during a period of constrained domestic demand and also because of the lower share of exports in GDP. Thirdly, as interest payments will be rising from a higher level than in the early 1980s, room for other spending will be more limited.

Consolidation is, nevertheless, imperative for confidence and credibility reasons and for preventing further increases in expenditure and taxation. Measures adopted and announced

so far are encouraging and there are some signs that spending dynamics are to abate. In November 1993 the German authorities presented their second programme for convergence. It presents government measures for enhancing the German convergence effort and for improving medium-term growth prospects. Table 1 shows the projections and targets of the programme.

The scenario projects a gradual reduction in the general government deficit from 1994 onwards. This is to be achieved mainly by expenditure restraint where the rise in public spending is to be scaled back to 3% per year in nominal terms. As a result of large debt take-overs related to unification, the gross public debt/GDP ratio will, nevertheless, continue to rise strongly up to 1995. Thereafter the debt/GDP ratio is assumed to begin to fall. The 3% deficit

criterion according to the Treaty on European Union should already be met by 1995 and the 60% public debt target in 1996 or 1997.

The macroeconomic scenario underlying these deficit and debt projections seemed on the optimistic side. More in particular can be questioned the extent of, first, the favourable impact that fiscal consolidation is assumed to have on growth through regained confidence in the short term and, second, the contractionary effect of expenditure restraint and tax increases in the next few years. Therefore, the ambitious policy course taken involves certain risks and further adjustments may be needed to restore credibility entirely. But the clear determination of the German fiscal authorities to stay with the principles of convergence even in a period of slow growth appears essential to avoid detrimental long-term effects of continuously rising expenditure and taxation.

Table 1

Germany: GDP growth, public deficit and debt

	1992	1993	1994	1995	1996	1997
Real GDP growth	2,1	-1	1,5	3% (on average p.a.)		
GDP deflator (western Germany only)	4,4	3,5	2,5	3% (on average p.a.)		
Consumer price deflator (western Germany only)	4,0	4	3	3% (on average p.a.)		
General government deficit (GDP %)	2,6	4	3,5	2-3	1-2	below 1
Public debt (GDP %)	44,1	48,5	53,5	60-63	59-62	57-60

Source: Second German convergence programme, November 1993.

5. Monetary policy

5.1. The final target: price stability

In Germany, as a target of economic policy, price stability has a high value in the minds of the general public. To a large extent this is explained by the historical experience of the 1920s. More recently, however, the explanation focuses on the costs, in terms of output and employment, of the stabilization crisis that became unavoidable, in order to break the inflation mentality of the 1970s. The Bundesbank's legal obligation to 'safeguard the currency' is generally interpreted, by the German public as well as by political authorities, as a commitment to low inflation. The Bundesbank itself gives the price stability target absolute priority in its policy strategy. More recently the Treaty on European Union (which represents to some extent a monetary constitution for Europe) also contains this high priority for price

stability. It therefore seems natural to look at monetary policies from the perspective of price stability performance.

German unification and its unavoidable economic consequences came at a time when the West German economy, after a long period of expansion, had already been operating close to its potential. Inflationary pressures were building up, and the Bundesbank reacted by tightening its policies. From a historical perspective, this anti-inflation course was quite successful. Despite the size of the real shock, and considerable uncertainties about the structure and behavioural patterns of the new currency area, the inflation rate did not reach the level forecast by pessimists. The inflation rate did not even reach half of the highest levels of the 1970s. However, it was markedly higher than the average of the 1980s and also higher than in many other European countries.

In assessing inflationary developments, the Bundesbank rightly focuses on the headline rate of inflation of the cost of living index (CLI). A main argument in favour of this index

is that most economic agents use this measure; in particular, wage bargainers use the index in their negotiations and, therefore, the CLI is the most important index affecting overall inflationary expectations. By focusing on CLI inflation, the Bundesbank then signals to the markets that it is not willing to accept a persistent deviation from its 2% norm and this helps to prevent a self-accelerating inflation spiral.

However, this index will not always provide a correct picture of underlying inflationary pressures. This is particularly so when major structural changes occur and also when certain measures are introduced which lead to price-level changes. An example is the budgetary consolidation measures, which as such have been warmly welcomed: the discretionary changes in indirect taxes — in July 1991 the increase in mineral oil and several excise taxes, in January 1993 the 1-point increase in the VAT rate, and at the beginning of this year the increase in indirect taxes and social contributions will all increase prices, i.e. the consolidation effect goes in the first round via the price mechanism. (However, only to the extent that a second-round passing-on to wages is prevented, is consolidation successful.) The latter is also true for the significant element of administered prices contained in the CLI which are not influenced directly by monetary policy measures. Hence the CLI may not be the most appropriate deflator for such economically relevant items as the real cost of capital and international competitiveness. In the light of this, some alternative measures of inflation should be examined.

A first step would be to adjust the CLI for the discretionary fiscal policy measures noted above. Even though there is not complete unanimity about the appropriate correction method, it is quite likely that the adjusted CLI series would not have exceeded 4.0%. Domestic final demand prices are a second indicator. Given the abovementioned disturbances to the CLI, this measure appears to be a useful indicator of the overall inflationary pressures in the German economy. The rate of increase of domestic final demand prices peaked in mid-1991 and since then has been on a clear downward trend. Latest available data indicate that, on the basis of final demand prices, underlying price stability has almost been reached, and the inflation rate has fallen even below its pre-unification level. If producer prices (PP) are examined, the message is even stronger. As with domestic final demand prices, the PPI (producer price index) had already reached a local peak in mid-1991 and then declined sharply until the beginning of 1993, when it fell to around a quarter of a percent below zero. It has stabilized at that level since then. Other indicators, like the retail price index and the wholesale price index, which have been falling throughout 1993, suggest an even better picture.

Quite apart from questions about the choice of the inflation measure, the medium-term outlook for inflation is of great

relevance for monetary policy, given that, as generally assumed, there is a 12 to 18-month lag between policy measures and the full effect on the final target. By mid-1992, most inflation measures, with the exception of the CLI, were already showing signs of deceleration. On the demand side, capacity utilization has been declining since the turn of the year 1990/91; the Bundesbank dates the start of the current recession to the first half of 1992.

On the cost side there were divergent developments: while falling import prices reduced the pressure on costs, unit labour costs continued to increase by 6% in 1991 and 4% in 1992. This was due first to wage agreements, which probably had reflected more the past boom than the beginning recession, and later to cyclical effects which became predominant.

However, with the onset of recession, accompanied by more favourable signals from labour unions, it has generally been expected that wages would cease to be a major stability threat. Last year's wage agreements confirm such forecast and the current year promises further progress on the wage cost side. The short-term evolution of prices also shows a significant slowdown. Its six-month moving average (excluding the impact from taxes) has fallen to some 2.5% in early 1994.

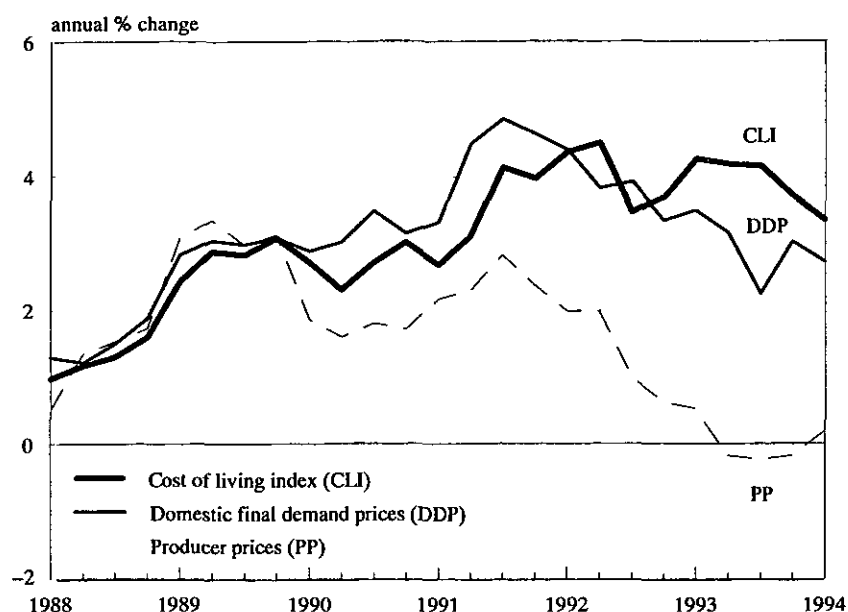
5.2. Monetary indicators

5.2.1. Monetary aggregates

While direct monitoring of inflation developments provided some indication that inflationary pressures were subsiding, the Bundesbank's main signpost, broad money supply, gave the opposite message. In 1992, the overshoot of the M3 target signalled that inflationary pressures had rapidly accumulated and continued to build up in 1993, although to a lesser extent. M3 developments over the past six months could be taken as suggesting rising inflation.

In 1992, the failure in meeting the target was the largest in 18 years of monetary targeting and it was feared that the target overshoot laid down the foundation-stone for future inflation. The question whether the target was missed because the target itself was inappropriate was dismissed by the Bundesbank's examination. It could be argued, however, that to an extent the target might have been overambitious. Although forecast inflation after unification was markedly higher, the Bundesbank stuck to the tight 2% inflation target in order not to jeopardize its credibility. In addition, during the months of September and October of that year, monetary aggregates became inflated by the liquidity effects of intervention in the exchange markets. In any case, given the

GRAPH 14: Inflation measures



Source: Commission services.

increase in nominal final demand (7,7% in GDP terms and 7,3% in terms of domestic final demand), the 1992 M3 growth rate appears to have been fully compatible with traditional money demand functions,¹ as for example estimated by the BIS.

From 1993 onwards, however, monetary aggregates again became more difficult to interpret. The difficulty lies not so much in the fact that in January 1993 M3 fell 2,4% below the average level of the 1992 fourth quarter (this can be seen as a 'return to normal', after M3 had been inflated by currency intervention during the autumn 1992 ERM turmoil). But, from January to December, demand for broad money increased by almost 10,2% on an annualized basis, as compared with an (estimated) increase in nominal final demand of only 3% for the year as a whole. In January 1994, M3 growth even accelerated further reaching 21,2% growth against the fourth quarter of 1993. Strong M3 growth prevailed until early summer 1994. This cannot be explained by nominal final demand or interest-rate developments, the main factors in traditional money demand functions. In the light of this, 1993 may mark a transitory deviation from the

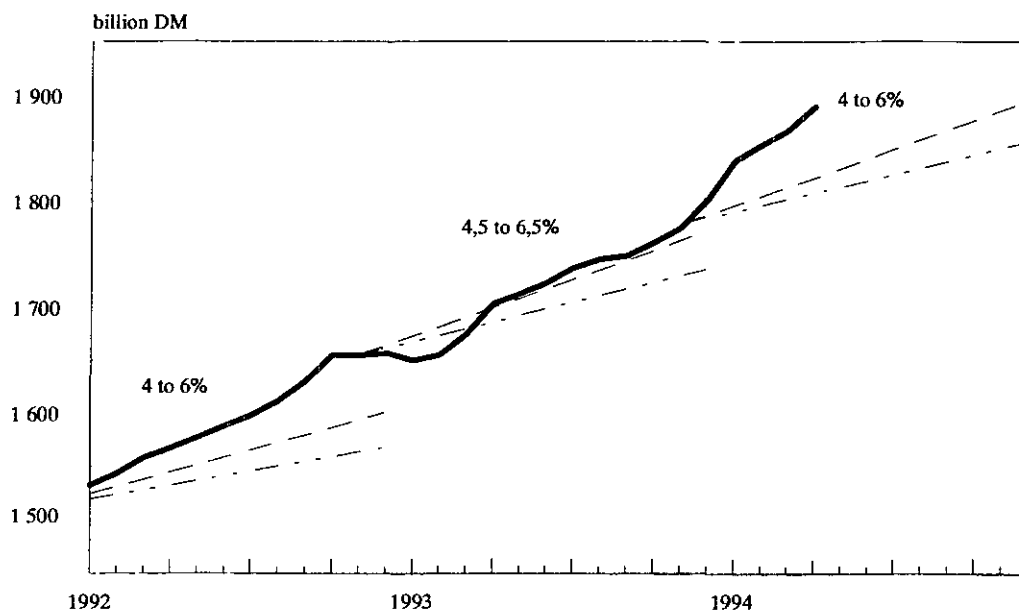
usual demand for money pattern. Several special factors, for example influences from changes in the tax system, have been mentioned, in particular towards the end of 1993 and at the beginning of 1994. However, it cannot be completely excluded that recent developments indicate a structural break.

5.2.2. Exchange-rate developments

The Bundesbank has been able to exercise a greater independence in its interest-rate policies than many other EMS members, due to its leadership role in the ERM. It has used this comparative freedom, quite naturally, to put its domestic stability considerations at the forefront. Nevertheless, the external side has never been irrelevant for monetary policy, with interest-rate policies and exchange-rate developments being closely linked. The stability of the ERM currency grid was one factor to be considered. In addition, the political commitment to create a closer union, within a framework of monetary policy coordination, necessarily implied that the monetary authorities were constrained. However, with the widening of the ERM bilateral exchange-rate bands to 15% on both sides, the exchange-rate mechanism as such ceased to be an effective formal constraint. Moreover, the effective external value of the DM has always been a matter of concern for the Bundesbank. In particular, the evolution of the

¹ BIS annual report, 1 April 1992 to 31 March 1993, Basle, 14 June, pp. 155-157; Gerlach, S. (1993), 'Is the demand for German M3 stable? A note on the econometric evidence', BIS discussion paper, July 1993.

GRAPH 15: M3: targets and outcomes



Source: Commission services.

DM/USD rate has been monitored carefully. The legal obligation to 'safeguard the currency' has always been interpreted by the Bundesbank as also having an important external dimension because exchange-rate developments may have serious consequences for price development.

Between July 1988, when official and short-term money market rates were at a trough comparable with current money market rates in the USA and Japan, and September 1992, the Bundesbank tightened money market conditions, and the two 'leading' rates, the discount floor and the Lombard ceiling rates, reached their historically highest levels, just prior to the first ERM crisis. Tensions resulted in the devaluation of the Italian lira, and two days later, on 16 September 1992, in the ERM 'black Wednesday' when sterling left the ERM. These events coincided with the turning-point in the direction of interest-rate changes. The second ERM crisis fell into a period where the Bundesbank had already switched to its current strategy of cautious cuts in interest rates.

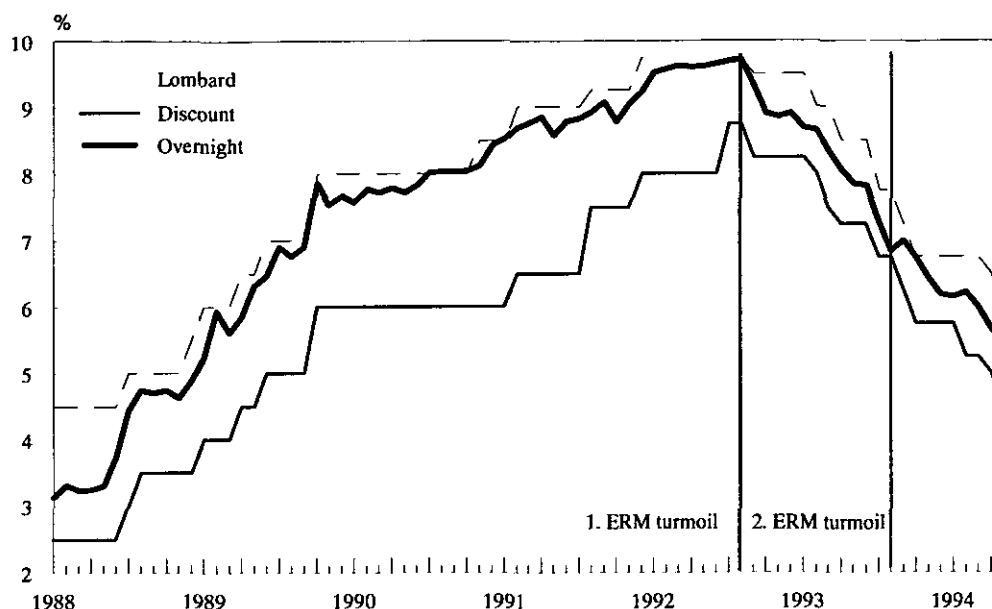
Tensions in the ERM on their part affected monetary policy. Despite heavy currency intervention in August/September 1992, short-term money market rates not only remained at a very high level but continued their upward trend (a clear indication that the Bundesbank could, in effect, fully sterilize the effects of currency inflows on the German money

market). However, the ability of controlling monetary aggregates was reduced: M3 growth accelerated in the autumn. In so far as the intention was to curb the accelerating growth in M3, the required interest-rate increase was substantial. Any such significant rate hike could have immediately threatened the ERM currency grid, and would have been difficult to reconcile with the government's exchange-rate policy.

Equally, during the period of 'false calm' in the ERM, the Bundesbank was continuously testing market expectations, and outside pressures for faster and larger cuts in interest rates. Implicit in the three-month rate at the time was the expectation that short-term rates could fall to a level of around 4,5% by the end of 1993. In the assessment of the Bundesbank, however, such a course would have been at odds with the DM's stability at that time. In addition, if the monetary authorities had given way to external pressure, credibility would have been at risk. The disappointment of market expectations with respect to interest rates, together with doubts as to whether Germany's partners were able to follow the Bundesbank's strict stability course, were factors — besides others — behind the second ERM turmoil which set an end to the ERM's strict margin arrangement.

The two major events in the EMS had resulted in an effective appreciation of the DM against other ERM currencies, as

GRAPH 16: Short-term interest rates, 1988-94



Source: Commission services.

well as an appreciation against other currencies, in particular the USD. By 1 September 1993 the DM's nominal effective exchange rate against 19 industrialized countries had increased by almost 10% since the end of 1988. In the current state of the cycle, such an appreciation, as much as it may have helped to contain inflationary pressures, became more of a burden to the export sector. It furthermore occurred against a background situation where unified Germany's competitiveness, as measured by the real effective exchange rate in terms of relative unit labour costs, was lower than West Germany's competitiveness before unification. This is a result of the fact that potential output per head in the new economic area has fallen by some 12%, as compared with the West German pre-unification level. The nominal and real appreciation of the DM in recent years, as well as the drop in the 'equilibrium' real exchange rate, measured as the real effective exchange rate in terms of relative unit labour costs, confront the Bundesbank policy with an important challenge. However, recent positive developments in wage costs and the demand pull, in particular for investment goods from partner countries, alleviate the situation at the moment.

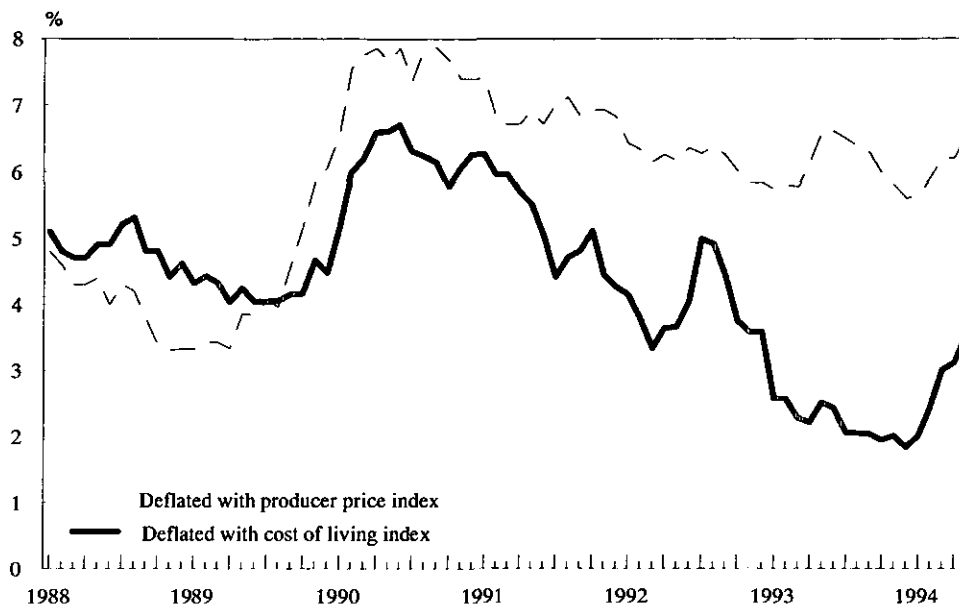
5.2.3. Real interest rates and the yield curve

It can be argued that, in the short term, irrespective of whether economic growth and employment are in the set of targets of the monetary authorities, monetary policy cannot

be expected to influence the final inflation target without affecting the real economy. These real effects are the larger the less flexible labour and goods markets are. In the medium term, monetary policy might contribute to reducing the output costs of disinflation by reducing uncertainty and by making anticipations easier. Developments in long-term real interest rates are important for investment decisions and also for consumption of durable goods. At first sight, real long-term interest rates, defined as the government bond average yield, deflated by the current headline CLI inflation rate, seem to be at a historically (within a 30-year period) low level.

In a number of respects, however, it might be wondered what degree of relevance the current rate of inflation, which has been influenced by special developments, has for decisions concerning the future. Ideally, one would prefer a measure of expected inflation which may be well below the present rate. Further, the CLI itself is not necessarily a relevant deflator for all purposes. For firms, producer prices might be more important, whereas for investors in the housing market rents and house prices are more relevant. These price indices have been strongly divergent since 1990 as a result of administered price increases and fiscal adjustment. It is of particular interest in this context that despite the sharp recession, real long-term government bond rates, when

GRAPH 17: Inflation-adjusted long-term interest rates



Source: Commission services.

measured in terms of producer prices, have remained roughly unchanged at the high level they had reached after Germany's unification. In so far as real rates are not the same for all investors, one can argue that monetary policy affects economic sectors differently.

On an *ex-ante* basis, if it were assumed that inflation would return to the presumed target range for the CLI of 1,5 to 2% in the next two years, with bond rates prevailing at the first half of 1994 levels, real interest rates would be around 4 to 4,5%. This level would not appear to be particularly low. Alternatively, if it were assumed that inflation did not soon return to the target range, the maintenance of monetary targeting procedures based on such an assumption would probably be associated with a prolonged period of low growth.

The predictive power of the tilt of the yield curve (the simple difference between the yield of long-term public bonds and short-term money market rates) for the real economic activity has found renewed interest.¹ The usual lag of 12 to 18 months

between the two series coincides with the typical lag of the effects of monetary policy measures on real economic variables. It has therefore been suggested to use the tilt of the yield curve as an indicator for the stance of monetary policy against the background of a particular cyclical position. This tilt has become moderately positive in early 1994, after having been negative for the last two to three years. How to interpret the link between the yield curve and real developments is, however, an open question. Whereas some see it as a causal relationship between interest rates and the real economy, others interpret it in the sense of a reaction function of the central bank, which tries to bring inflationary pressures under control.

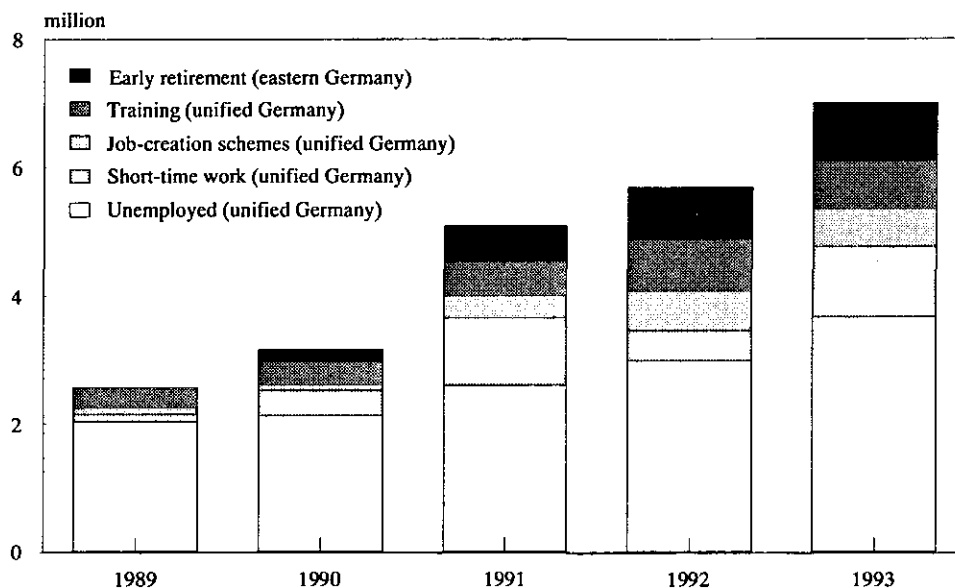
6. Labour market challenges

6.1. Unemployment rising to unacceptably high levels

The reduction of unemployment will probably be the most important challenge of economic policy during the rest of the decade. In 1993, six million people, some 15% of the total German labour force, were unemployed or covered by

¹ See Krämer, J. W. and Langfeldt, E. (1993), 'Die Zinsdifferenz als Frühindikator für die westdeutsche Konjunktur', *Weltwirtschaftliches Archiv*, 34-42; Hu, Z. (1993), 'The yield curve and real activity', IMF Staff Papers, 781-805; Bernanke, B. S. and Mishkin, F. (1992), 'The predictive power of interest-rate spreads — Evidence from six industrialized countries', mimeo.

GRAPH 18: Indicators of unemployment and underemployment



Source: Bundesanstalt für Arbeit.

special labour market measures. The official west German unemployment rate was 8% of the labour force in early 1994 and the east German rate 16%; in total some 3,6 million people were officially unemployed in the whole of Germany. Prospects for the German labour market are not bright, mainly because of three factors: the 1993 recession, the restructuring in eastern Germany and structural problems in western Germany.

Historical evidence suggests the existence of important hysteresis elements in German unemployment. During each of the past three recessions unemployment jumped to a higher level from which it did not fall much thereafter. The only exception (though short-lived), was the unification boom period during which employment expanded rapidly and unemployment fell significantly below the peak level of the early 1980s.

6.2. The impact of the west German recession

The economic boom period in the aftermath of unification led to a strong expansion of employment in western Germany. With west German GDP growing by 12% in the period 1990-92, employment increased by 6,5%. In September 1992

west German employment peaked at 29 million. After the first quarter of 1992, GDP and employment began to decline and 2,5% net jobs had already been lost by the end of 1993. Given the time-lags between the fall in production and the adjustment in employment, the adjustment in employment may be far from being completed. Assuming a trend growth of productivity of 2%, the Commission services' forecast would suggest that employment will have to adjust further by some 300 000 people below the level of end-1993.

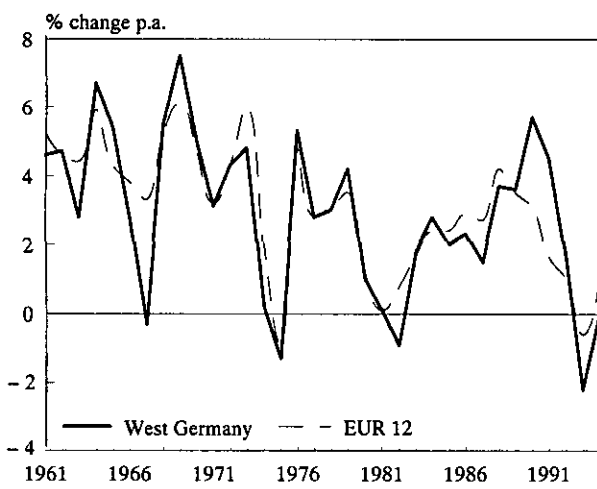
Given past experience, it may well prove very difficult to create jobs in those sectors which are now releasing employment and it may be difficult to significantly reduce unemployment. In other words, the German economy faces the task of coping with all the burdens implied by a high level of unemployment: financially, socially and politically.

6.3. The restructuring in eastern Germany

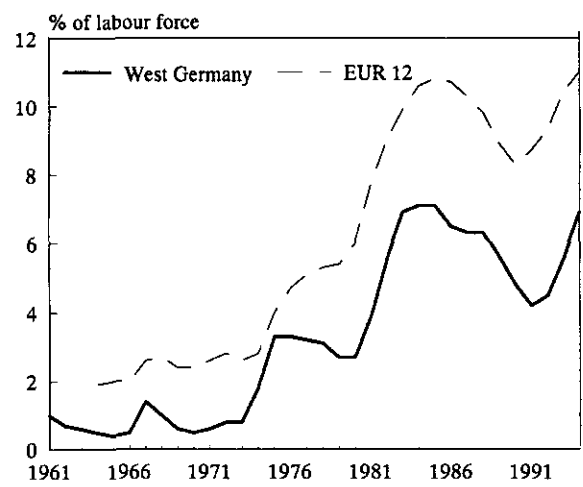
The exposure of the former GDR economy to world market competition led to the need for a complete restructuring of the economy. The GDR was not only overindustrialized (with services underdeveloped), but also production techniques were inefficient, technology was outdated, and energy

GRAPH 19: GDP growth and employment

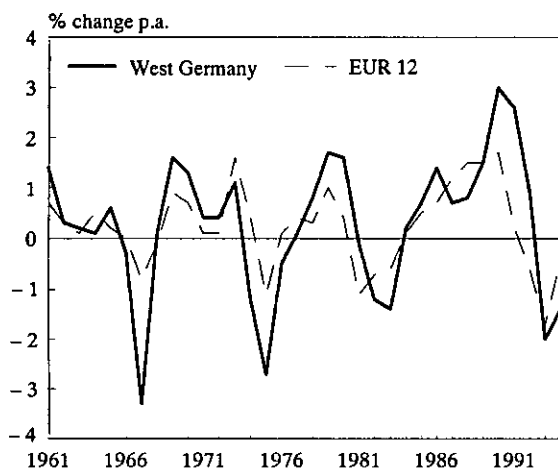
Real growth of GDP



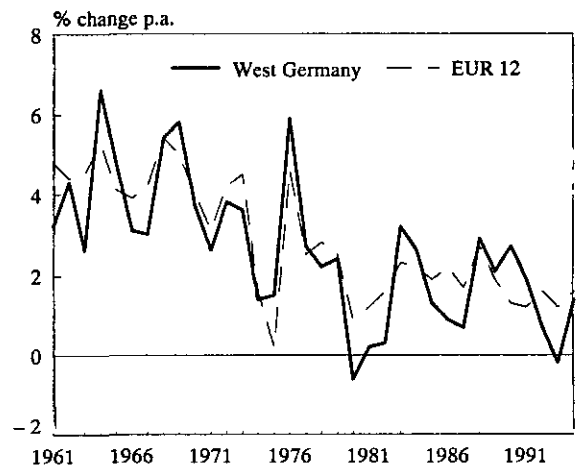
Unemployment



Employment

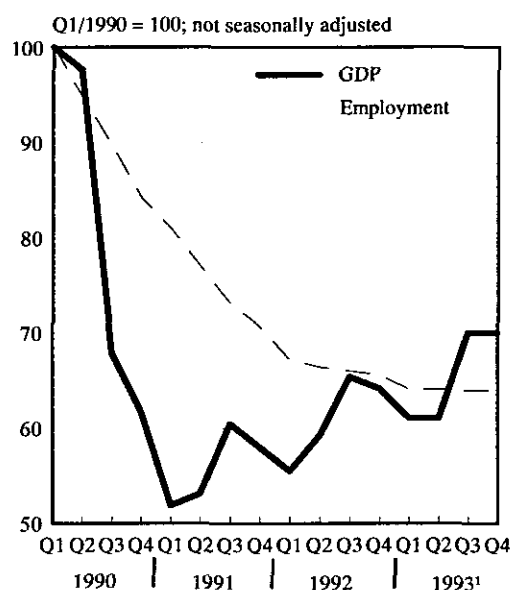


Labour productivity



Source: Commission services.

GRAPH 20: Real GDP and employment profiles



¹ 1993 based on half-yearly data.

Source: DIW, Statistisches Bundesamt.

excessively used. Compared with West Germany, employment was especially high in agriculture, mining and various areas of consumer goods production. Furthermore, demand for east German products more or less collapsed after unification.

It was no surprise, therefore, that employment had to fall considerably. Only a rapid, self-sustaining upswing would have been able to mitigate the labour market challenge. As this has not taken place, prospects remain gloomy. Given the price/wage/productivity situation, products can only become competitive by rising productivity. As regards the existing capital stock, rationalization is crucial. Given the present overall demand situation, capital-widening investment in eastern Germany is unlikely to take place on a large scale or it will be undertaken with a view to replacing investment in western Germany.

Therefore, unemployment in eastern Germany is mainly a structural phenomenon. Employment, which was 9,5 million in 1989, has fallen to around six million, some 10% of which is subsidized. The official unemployment rate (1993) is 15% (1,1 million) while labour market measures are aiming at reducing the critical labour market situation.

6.4. Structural problems in western Germany

In the integrating European economy with liberalized capital movements the relative supply-side performance of a country will determine the level of employment, as investment will be attracted to the country where the expected real rate of return is highest. Therefore, it is not enough to focus on the profitability situation of a country in isolation. A horizontal comparison is required in order to obtain information about the relative position of a country. All in all, it seems that the German industrial sector has lost some ground over the last couple of years relative to partner countries.

During the 1980s the adjusted wage share declined considerably from about 73 to 65%. However, these macro data mask the somewhat poorer performance of the German manufacturing sector which is at the core of the current recession. In particular, while wages grew faster in manufacturing during the 1980s (4,5% per year) than in the whole economy (3,5% per year), productivity growth was lower (1,5% in manufacturing against 1,8% in whole economy). Indeed, Germany stands out as the only Community country in which the level of productivity in manufacturing seems to be inferior to that in the whole economy.

The unification boom seems to have aggravated this discrepancy further; it brought about a demand boom which, however, was perceived as a more permanent lasting demand shock. Excessive expectations had their effect both on the demand and the supply of the labour market. The strong rise in the number of jobs led to rapidly increasing wage claims. Consequently the Okun ratio (employment growth over GDP growth) was surprisingly large (0,5) for a temporary phase of an increase in demand. When at the end of 1991 the growth dynamism began to slow, the deterioration of unit labour costs accentuated.

Especially in manufacturing, the rise in wages relative to productivity was out of proportion. Between 1987 and 1991 the rise in productivity in manufacturing was less than half of that in other sectors, but manufacturing wages nevertheless increased a lot more. The cumulative rise in unit labour costs was 20% in manufacturing against 7% in the rest of the economy. Real unit labour costs in manufacturing increased by 12%, against a 7% decrease for the rest of the economy, implying reduced profit margins while profits were improving in the rest of the economy.

In an international comparison, the German economy may have lost some cost competitiveness against both the USA and European partner countries. While relative competitiveness developments between Germany and the European Community were synchronized until 1985, German cost

competitiveness deteriorated relative to EC partner countries thereafter. This development cannot be traced back to exchange-rate movements alone, although since September 1992 they aggravated the problem.

In Germany, during the 1985 to 1992 period, manufacturing output per employee increased by 10% less than in any Member State but Denmark. Germany's main competitors achieved productivity gains between 15 and 25% in that period. With a DM devaluation constituting only a second-best solution, quite apart from the fact that it would be difficult to attain, it was unavoidable, in order to achieve better cost competitiveness, that the German manufacturing sector improved its productivity.

Table 2

West Germany: output, wages and productivity (total economy)

	<i>(Annual average % change)</i>		
	1962-74	1975-81	1982-92
GDP	4,0	2,1	2,4
Employment	0,1	0,0	0,8
Labour productivity (output/employee)	3,9	2,1	1,5
Nominal wages per employee	9,2	6,3	3,9
Nominal ULC (DM)	5,1	4,2	2,3
Real ULC (DM)	0,5	-0,1	-0,8
Real ULC (USD) (relative to 19 ICs)	1,7	-2,8	0,6

Source: Commission services.

Improving competitiveness will imply further rationalization in the sector concerned, leading to a relative and absolute decline of manufacturing employment in the short term. In the long term, however, employment in the manufacturing sector can only be ensured if productivity increases. Indeed, for the time being, the share of manufacturing in overall employment is the highest in the whole OECD area. Manufacturing employment in western Germany is some 30% of total employment compared with 20% in most other industrialized countries.

German manufacturers are now reacting with major rationalization efforts. Industrial employment has fallen sharply (5% in 1992, 7,5% in 1993). This decline is no longer concentrated in mining and steel. Automobiles, machinery, electrical engineering and chemicals are also expecting a decline. This process will continue and will add to the cyclical lay-offs. It is very likely that industrial employment will not return to previously observed levels once the German economy recovers from the current recession.

External cost competitiveness suffered from a decline in productivity relative to partner countries, high wage settlements and some nominal appreciation of the DM against European partner countries. Especially the first two factors now seem to be adjusting in the appropriate direction: measures to enhance productivity growth through labour market reform are being taken and wage moderation is seen to continue. On balance, the DM exchange rate has not appreciated since October 1993. If these trends continue, competitiveness and export demand expectations will be improving with profit margins increasing.

6.5. Combining wage moderation with flexibility

Wages are the most important cost factor, thus having a major impact on profits, investment and thus job creation, and wage moderation forms the key for recovery. In this respect the 1994 wage round resulting in settlements of no more than 2% together with the achieved productivity gains and the emergence of output growth should significantly contribute to better competitiveness and profitability. A continuation of favourable wage developments are decisive to achieve a satisfactory medium-term growth trend.

However, the success of wage moderation can be strengthened if the private sector would react positively. In an environment of liberalized capital markets, the private sector reacts more strongly to expectations. Therefore, if wage moderation is considered to reflect an adjustment to a general deterioration of economic performance, real income expectations might be reduced, consumption will be adjusted — perhaps even more than proportionately — and finally the resulting demand effect could lead to falling consumption and investment. Therefore, wage moderation should be accompanied — or possibly achieved — by greater flexibility of the labour market. Greater flexibility could be considered as a positive supply factor in its own right as enterprises can expect that the labour market will continue to adjust more quickly in cases of economic shocks.

In Germany, the social security system might contribute to a downward rigidity of low wages. First, the reservation wage (social benefits) might be relatively high, in particular for workers with many dependants. Given the narrow limits to reduce the standard of living of the people concerned, reform of the social system might be justified, for example in the direction of providing lump-sum allowances for low-income earners instead of tax exemptions. Social contributions are driving a growing wedge between costs to the employers and disposable income to the employee. This is particularly true for low-income earners, as high incomes exceeding a special

threshold are partly exempt from social contributions. As the costs of unification are significantly financed through the social system (and indirect taxes which have similar effects), the employment conditions for these groups of the labour market have worsened.

Therefore, wage moderation has to be accompanied by greater labour market flexibility. Only this combination can produce positive supply-side effects. Moreover, flanking policies devoted to reducing the wage costs and the wedge between gross and net wages are required in order to improve the employment possibilities of low-productivity workers. Moreover, the incentive to work should be increased by providing lump-sum support in some social areas. The work income would then be additional and not reduce social benefits.

6.6. The east German labour market: a structural challenge

The high level of unemployment in eastern Germany is primarily due to the economic reconstruction process. The required reduction of employment in the existing industry is evident. Either the capital stock was economically obsolete and had to be scrapped, or productivity had to be strengthened by streamlining the production with fewer people. The extent of job losses has been underestimated by the authorities and the hoped-for emergence of new jobs in industry has not yet materialized to the desired extent. As the adjustment process is not finished more job losses will prove unavoidable.

In order to become an attractive place for production, the east German labour market should become more flexible relative to western Germany. This does not only imply greater wage flexibility but also the whole range of labour market regulations. The agreed multiannual wage adjustment scheme was a disadvantage as it did not take due account of the uncertainties concerning the catch-up in productivity. In the meantime, measures to increase wage flexibility at the sectoral and enterprise level have been taken.

More flexible working times in eastern Germany may enable people to compensate for lower hourly wages with longer working times. It may also enable enterprises to use their machines with more elasticity. Given the severity of the east German labour market situation, such measures should prevail for a long time-period, i.e. at least 10 years. Greater wage differentiation should be allowed in order to enable enterprises to succeed in their adjustment strategy or to provide incentives for new investment. Given the unsatisfactory financial situation of east German enterprises, models of

profit participation should be developed in order to strengthen the own-capital base of enterprises.

Subsidies should be examined carefully in an east-west perspective. If subsidies provided in western Germany exceed those necessary to keep east German production alive, production should be moderated in western Germany in order to favour more east German production. Such a situation seems to prevail in mining and agriculture, where east German production appears to be at least no more uncompetitive than in the west. Opposite cases can eventually be made in sectors like steel and shipbuilding where (modern) overcapacities exist in western Germany.

The German Government provides large-scale investment subsidies to foster new investment in eastern Germany. However, most of this investment has been undertaken in the distribution sector and far less investment has taken place to create new jobs in the industrial sector. It is, of course, an open question if other instruments, for example wage subsidies, would have proved more efficient from a labour market point of view.

Regulatory labour market measures will continue to remain important in eastern Germany. In this regard the ABM — a scheme aimed at keeping people close to the labour market without interfering too much with the regular labour market — is highly relevant. These measures should continue until the regular labour market is able to absorb more workers. Otherwise skills would be lost and social tensions might accelerate if open unemployment grows to more dramatic levels.

7. Summary and conclusions

This study addresses the major challenges which the German economy is facing. For the most part they can be traced back to the implications of German unification, the recent recession and a number of structural rigidities which the German economy has been confronted with for a long time. These challenges and the prospects for the German economy have to be assessed in the light of a changing environment. It is no longer valid to compare the unified German economy with the former West German economy. Increasing globalization, together with the integration of the East European countries will lead to structural change in response to stronger competition. This will, however, also provide new opportunities.

The German economy is now going through a major process of adjustment and restructuring. In many respects, the economy is at a crossroad and policy-makers have to take

far-reaching decisions. Fiscal consolidation is imperative for regaining both confidence and long-term credibility. Therefore measures are now being implemented accordingly but their inevitable contractionary effect in the short term has come at an unfortunate point in the cycle. As to monetary policy, a further reduction of short-term interest rates in early 1994 benefited the domestic economy and was regarded as feasible in the light of the reduced risk of inflation. The rise in consumer prices, in early 1994 a little more than 3%, is now moderating and the 'underlying rate of inflation' is very close to the Bundesbank's 2% target zone. This downward pressure is further illustrated by producer prices which remained practically unchanged for more than a year. Against this background, the renewed acceleration of M3 growth at the end of 1993 and early 1994 is more surprising than worrying. It may well serve to confirm that, in the current circumstances, special factors and eventually structural changes make the interpretation of monetary movements difficult and perhaps less useful as a measure of inflationary risks.

The labour market is adjusting to the changed situation. Stronger competition together with a loss in competitiveness due to slow productivity growth and, subsequently, rapidly rising labour costs relative to partner countries require the streamlining of production processes to improve efficiency. The need for better productivity and competitiveness may continue to cause downward pressure on employment in both western and eastern Germany for some time and official unemployment may continue to rise until 1995. Integrating into competitive activities those who have lost jobs, particularly in industry, will be crucial. Greater flexibility in working time and creating more employment opportunities, for example in sheltered sectors, will contribute to the reduction of what have become labour market problems. Very recently, signs of greater flexibility can be seen but an immediate favourable effect in the form of net job creation might not arise in the short term.

German unification has been a secular event and it has changed many characteristic features of the economy. Average income and productivity have declined significantly. There remain important distributional challenges with regional differences increasing, and institutional arrangement may have become less appropriate than previously. Macroeconomic features have also changed. The public sector financial position is likely to be a burden for a long time. Monetary policy has become more difficult and the inflation performance now presents a challenge for the authorities. The current-account balance could be in deficit for some time.

Recently, in response to these changed circumstances, encouraging signs of greater flexibility can be observed. Furthermore, the task of reconstructing eastern Germany is being tackled. Rebuilding of the infrastructure is taking place and economic growth in eastern Germany is the highest in the Community. Achieving endogenous dynamic growth in eastern Germany would significantly alter some of the more troublesome aspects of the German economy.

In the short term, one must expect that to some extent actual growth potential will be limited by the consequences of unification, namely the costs of restructuring in eastern Germany together with the need for fiscal consolidation given the distributional difficulties. The depth of the 1993 recession has presented the authorities with the difficult problem of designing a policy mix which serves the joint purpose of controlling inflation whilst not impeding those incentives required for a successful unification process. This situation has not been helped by the stage of the general economic cycle in which partner countries have found themselves. However, those adjustments which are being undertaken in both the private and the public sectors together with the reorientation of government policies, if pursued energetically, will ensure that gradual improvement in long-term growth prospects can be realized.

Part II

Extended assessment of major issues

Chapter 1

Fiscal policy¹

1. Introduction

The joint effects of unification and the 1993 recession are having important implications for the public finances in Germany. The experience of economic recession is of course not new. In particular, there are useful lessons to be learned and carried forward from the successful budgetary consolidation efforts in the policy response to the recession of the early 1980s (see Section 2).

This time, however, the challenge is much greater because of the structural element. The scale of the transfers required to finance east German restructuring after unification is turning out to be larger than expected, with consequences for the public debt, interest payments and their financing. The economy is having to operate with a higher tax burden and the likelihood that the scale of the transfers required will necessitate that some other public spending be curtailed and possibly some public investments be postponed. Section 3 deals with the structural changes caused by unification.

The final part of this chapter addresses the challenge ahead. In several respects, the task facing Germany is a task for Europe also. That is to say, for all countries in the Union, the 3% deficit to GDP requirement demands that a successful consolidation process be implemented. For Germany, current circumstances make this task much harder.

2. A brief look back

The fiscal problems Germany is now facing are a rerun of the early 1980s. Then there was considerable concern about deficits and discussion about the future course of action. The emphasis of fiscal policy shifted towards consolidation. This reorientation proved very successful and, by the end of the decade, room for manoeuvre had been regained which was used for important tax reductions with a view to improving supply-side conditions.

¹ This chapter was prepared by Stefan Anwärter of the National Economics Directorate.

An analysis of that period of successful consolidation should help improve the basis for an understanding of today's challenge. The opening part first looks at the impact of economic recession on public finances, then assesses the impact of consolidation on economic activity and finally draws some conclusions from this period.

2.1. The impact of recessions on German public finances

Over the last 30 years, three periods of noticeably increasing deficits can be identified which coincide with periods of weakening activity. Accelerating labour market spending and weaker revenue inflows contributed to rising deficits which created a higher stock of public debt and caused an increased interest-rate burden (see Table 3).

A common feature was that the rising debt level during a period of recession was stabilized afterwards but not reversed. This was not a major problem, however, in view of the relatively low levels of debt. Nevertheless, the interest burden became heavier after each cycle. Generally, during the previous recessions, the deficit reached a peak when the economic downturn was strongest. This was mainly due to the working of the so-called automatic stabilizers while government capital spending acted procyclically. The reduction in public sector deficits was facilitated by a rapid recovery after each of the first two recessions. During the 1970s, the government sector — in terms of expenditure over GDP — expanded by about 10 percentage points, in particular during the first half of the decade, while revenue rose comparatively less. Following the 1975 recession, any move to consolidation was limited. After the recession of the early 1980s, however, consolidation was high on the political agenda but the recovery was less buoyant than after previous recessions.

2.2. The 1981/82 consolidation efforts: successful but facilitated by special events

In the early 1980s slackening growth coincided with deficits rising further from an already high level. The federal government tried to counter the fiscal deterioration. Late in 1981, when the economy had not yet gained momentum, a savings programme (DM 10 billion, ½% of GDP) was launched for 1982. Notwithstanding these measures, weaker than expected tax revenues and extra labour market spending quickly triggered renewed discussions about how to consolidate.

Table 3**Growth and its impact on fiscal aggregates**

	Real GDP (% change)	General government net lending/ net borrowing (% of GDP)	Total taxation (% of GDP)	Total expenditure (% of GDP)	Public debt (% of GDP)	Interest charges (% of GDP)
1961	4,6	3,0	34,5	33,8	17,0	0,7
1966	2,8	- 0,2	34,6	36,8	18,1	0,8
1967	- 0,3	- 1,4	35,2	38,8	21,1	1,0
1968	5,5	- 0,8	36,0	39,1	21,4	1,0
1974	0,2	- 1,3	41,0	44,4	19,2	1,2
1975	- 1,3	- 5,6	41,0	48,7	24,6	1,4
1976	5,3	- 3,4	42,3	47,7	26,0	1,6
1977	2,8	- 2,4	43,3	47,7	27,2	1,7
1978	3,0	- 2,4	42,7	47,2	28,6	1,7
1981	0,1	- 3,7	42,7	49,0	34,9	2,3
1982	- 0,9	- 3,3	42,8	49,3	38,3	2,8
1983	1,8	- 2,6	42,3	48,0	40,0	3,0
1984	2,8	- 1,9	42,5	47,6	40,7	3,0
1985	2,0	- 1,2	42,8	47,2	41,5	3,0
1989	3,6	0,1	42,4	45,0	41,6	2,7

Sources: Statistisches Bundesamt, Commission services. Public debt according to national statistics (Statistisches Bundesamt, Fachserie 14, Reihe 5).

As is currently the case, fiscal policy was confronted with the difficult task of tackling consolidation during a weak cyclical period. In such circumstances the economy is exposed to the short-term contractionary effects of discretionary measures to reduce the deficit while benefiting from improved private sector expectations which, however, often take a longer time to work through. Additional support may come from other developments, for example interest rates and external conditions.

The demand-side effect of consolidation depends to a large extent on the volume and the composition of the savings package. The overall net savings finally arrived at in 1982/83 were some DM 17 billion (1% of GDP), on top of the measures of a year before. However, the net volume comprised various elements which were designed to provide a stimulus to growth. In particular, capital spending was granted tax incentives. Thus spending cuts across all levels of government, including social security, were supplemented by higher total taxation (i.e. taxes and social security contributions) and their effect on activity was partially mitigated by specific tax reductions, predominantly for enterprises (see Table 4).

Offsetting effects via improved private sector expectations are more difficult to assess. Nevertheless, there are ingre-

Table 4**Fiscal packages in 1981/82, effective 1982/83**

	1982	1983	1982/83 total (Billion DM)
Spending cuts	4,5	9,8	14,3
Higher revenues	5,9	13,8	19,7
Tax reductions	0,8	7,0	7,8
Overall, net	9,6	16,6	26,2
Overall, in % of GDP	0,6	1,0	1,5

Sources: Sachverständigenrat 1983, pp. 138f., Statistisches Bundesamt.

dients for an evaluation and, finally, the *ex-post* private sector response might also serve as an indication. In order to reappraise the need for corrective action perceived at the time, a few key figures might help appreciate the 'general mood' with respect to the fiscal situation. For instance, the higher the tax pressure to help pay for a consumption-driven expansion of the public sector, the higher the boost private sector expectations could experience from a fiscal turnaround.

Table 5 shows that total taxation as a percentage of GDP edged up until 1982, although it remained below the historic

high for West Germany (43,3% in 1977). Expenditures peaked in 1982 with capital spending on the retreat while debt interest dynamics were considerable. The stickiness of

the deficit at unusually high levels provided the background for rising public concern. The public debate strongly intensified in 1982 with a negative impact on confidence.

Table 5

Key figures for public finances in the early 1980s
(general government)

	(% of GDP)						
	1975	1980	1981	1982	1983	1984	1989
Revenue							
Taxes	24,8	25,9	25,2	24,9	24,9	25,1	25,2
Social security contributions	16,3	16,9	17,5	<u>17,9</u>	17,4	17,4	17,2
Total taxation	41,0	42,8	42,7	42,8	42,3	42,5	42,4
Expenditure							
Interest payments	1,4	1,9	2,3	2,8	<u>3,0</u>	3,0	2,7
Public investment	3,9	3,6	3,3	2,9	2,5	2,4	2,4
Total expenditure	48,7	48,0	49,0	<u>49,3</u>	48,0	47,6	45,0
Net lending/borrowing	<u>- 5,6</u>	- 2,9	- 3,7	- 3,3	- 2,6	- 1,9	0,1

NB: Figures underlined are peak values for West Germany. Totals may not add up exactly due to rounding.
Source: Commission services.

Improving depressed private sector confidence and stimulating consumption and investment require credible public action. Such a process of 'crowding-in' could be seriously jeopardized if government measures were perceived as inadequate or cosmetic. This could, for instance, be the case if lower deficits for one layer of government were intentionally offset by higher overruns elsewhere.

Evaluating the measures effective in 1982 and 1983 against this background and in the light of the actual outturns lends support to the view that the necessary factors were in place to restore confidence. The general government deficit fell, supported by fiscal adjustments, most of which lasted well beyond 1983. Total taxation fell very slightly while the containment of spending was more pronounced. Debt interest effects became less of a problem. Only capital spending did not recover. But probably the most important stimulus for private sector expectations at that time was the change in government in autumn 1982. To some extent this change was due to the fiscal situation and the new government was perceived as committed to act, i.e. fiscal policy suddenly regained credibility.

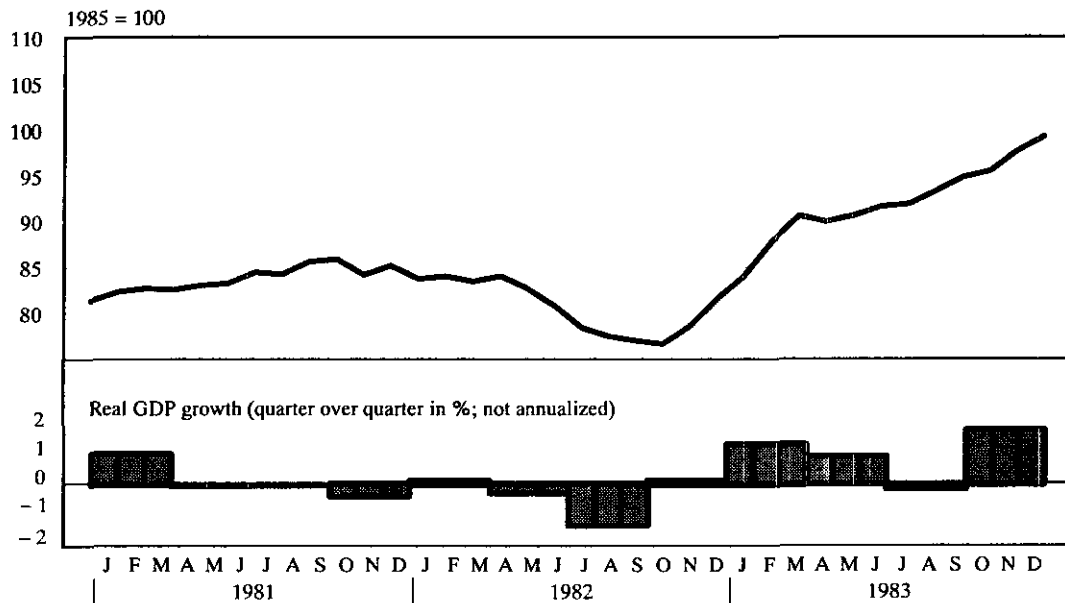
One indicator for improving private sector expectations is the decline in the saving rate which started to fall noticeably from the second half of 1982. The business confidence

index in manufacturing may serve as another illustration (graph 21). While this index clearly reflects cyclical developments (the low of the index coincides closely with the trough of activity in Q3, 1982), it was also influenced by the greater credibility of fiscal consolidation. The index rose sharply in Q4 while output remained very subdued.

The shift in fiscal policy thus contributed to strengthening private sector confidence. Additional support from other developments helped to translate this into higher activity, despite the short-term demand effects of consolidation. First, monetary developments were favourable. The monetary policy stance was tight in early 1981, for both domestic (inflation) and external reasons (preceding depreciation of the DM against the USD). Short-term rates peaked in March 1981 at almost 14%. Key rates started falling in October with the special Lombard facility (Sonder-Lombard) dropping from 12 to 9% by May 1982 when it was replaced by the normal Lombard window. That rate declined another 400 basis points to reach the trough in March 1983. At that time also long-term rates bottomed out after falling 300 basis points within a period of almost two years. Already in summer 1982, the yield curve swung back to its normal, upward sloping form.

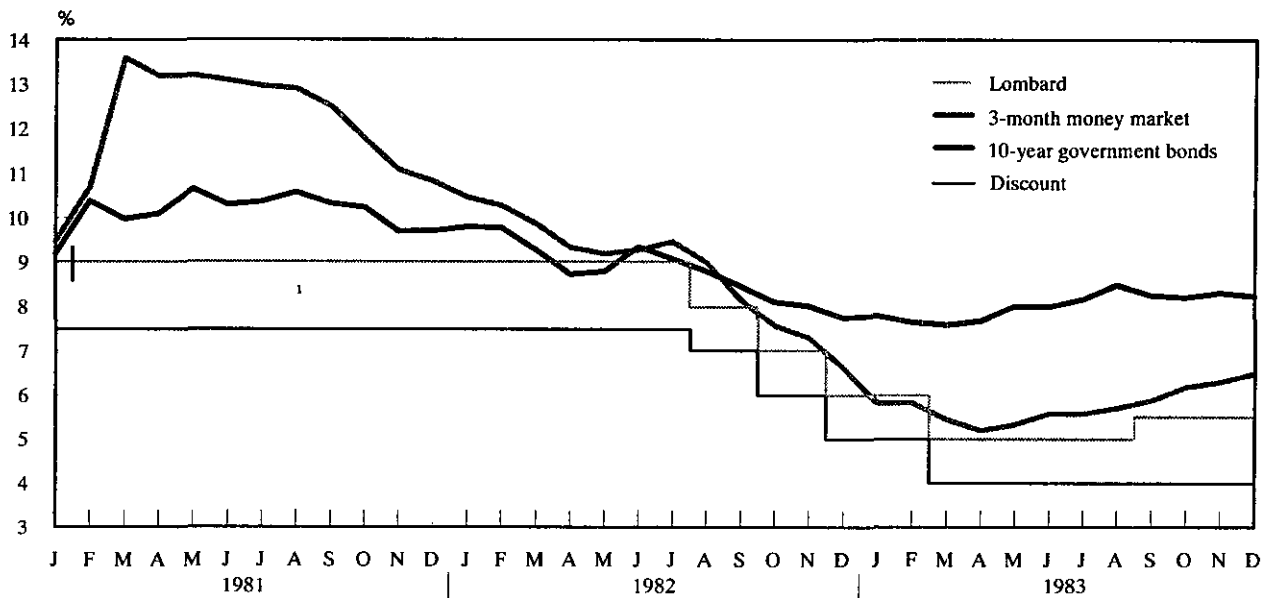
Second, the external side also provided some support to activity in 1982. Growth in the Community as a whole was

GRAPH 21: Business confidence indicator, 1981-83
(manufacturing industry)



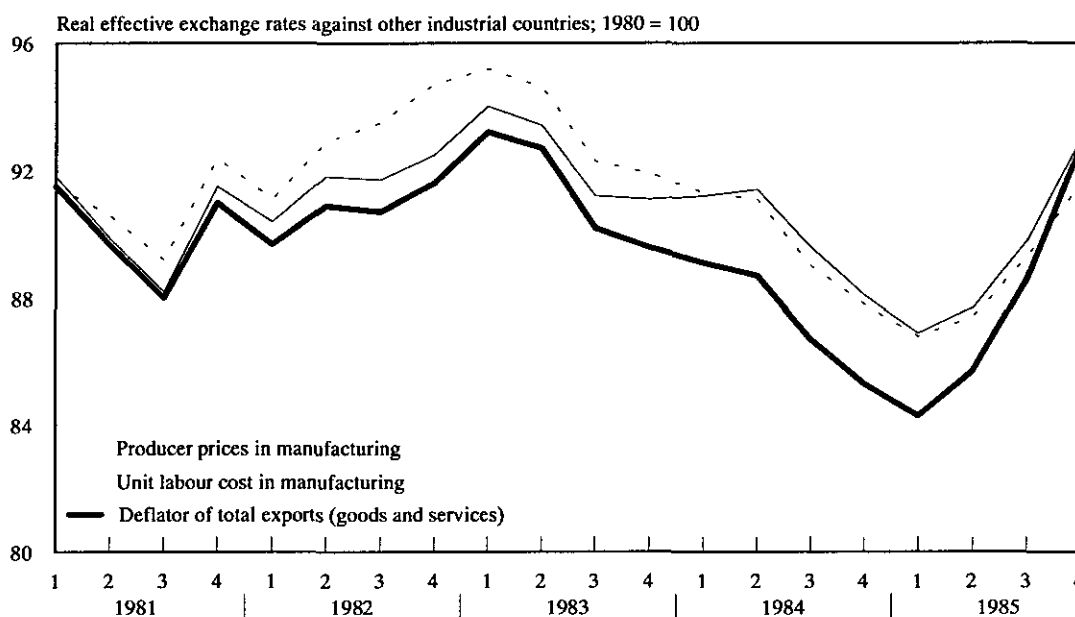
Sources: IFO Institute, Deutsche Bundesbank.

GRAPH 22: DM interest rates, 1981-83



¹ Standard Lombard window closed: 20.2.1981 to 6.5.1982.
Source: Deutsche Bundesbank.

GRAPH 23: Indicators of competitiveness, 1981-85



Source: Commission services.

1 ¼ percentage points higher than in Germany. This growth differential more than compensated for a slight deterioration in German price competitiveness; on balance the trade surplus continued to rise and thus contributed to limiting the depth of the recession.

All in all, the fiscal efforts of 1981/82 were successful. Consolidation advanced and both expectations and confidence improved markedly towards the end of 1982. Certainly this cannot be ascribed to a shift in fiscal policy alone; it did contribute to it, however. Some crowding-in occurred with the private sector's regained dynamism outweighing the relative retreat of the public sector. Private consumption and investment, in particular in machinery and equipment, picked up again in 1983 and later on the external side supported the recovery. However, the upswing was weaker than that following the preceding recession in 1975. Contrary to that experience, there was no growth contribution from government consumption.

2.3. Continuing consolidation: some lessons from the 1980s

Efforts to consolidate were not limited to 1981/82. From 1983 to 1989, the growth of public expenditure was kept below nominal GDP growth in most years; on average

spending rose 3,8% compared with (nominal) growth of 4,9%. Interesting features of this period of medium-term consolidation are the following.

First, growth performance was rather subdued during many of these years (on average a little more than 2 ½%). Not surprisingly, the growth contribution of government consumption to GDP was fairly limited after being negative in 1982. The expansion of public investment was even more subdued than that of public consumption. Domestic demand in general was rather sluggish until 1985. In the more buoyant years, such as 1984 and 1988/89, investment or net exports provided support. When one lost strength the other compensated. Hence, while the policy shift toward consolidation was certainly an improvement as compared with the situation in the early 1980s, it did not automatically imply solid medium-term growth. Overall conditions had to be supportive. Monetary conditions remained relatively loose throughout the period due to general disinflation which continued after the collapse of oil prices. Favourable price developments improved German cost competitiveness up to the mid-1980s. When competitiveness started to deteriorate in 1985 due to a weakening USD, Germany benefited from an investment boom in many Community countries; and the substantial decline in import prices in 1986 triggered terms-of-trade improvements. Cheaper imports, and more

particularly cheaper raw material imports, resulted in higher purchasing power which had a stimulating effect on domestic demand.

Second, reducing the deficit takes time and requires political determination. Spending restraint and revenues rising faster than outlays bring about an improving balance. There was a substantial reduction in the deficit up to 1985. Spending then became more buoyant, while the granting of tax reliefs had an adverse impact on revenues. Nevertheless, a small surplus finally materialized in 1989.

Third, consolidation slowed down the rise in public debt. Yet it continued to edge up as a percentage of GDP during the period with the exceptions of 1986 and 1989, which featured both an exceptionally low deficit (1986) or even a slight surplus (1989) and satisfactory growth. Only a favourable combination of the fiscal balance and economic growth can prevent the debt/GDP ratio from rising and such a combination is not easy to generate even when consolidation is high on the political agenda.

Fourth, there are substantial lags between the beginning of consolidation and the reaction of interest payments. While the rate of increase in interest outlays on a year-to-year basis decelerated when the deficits declined, the ongoing rise in the debt level implied that interest payments as a fraction of government spending and GDP did not start to fall until 1987, even though (long-term) interest rates almost halved from their peak in 1981 to the trough in 1987.

2.4. The situation in 1989, after extended consolidation

Overall, the consolidation effort undertaken during the 1980s succeeded in eliminating the deficits which had caused such concern at the beginning of the decade. In 1989, there was a small surplus on the general government account. Besides the general attempt to consolidate and a pick-up of growth in the run-up to the internal market, the 1989 outcome was also due to more specific factors on both the revenue and expenditure side. Revenue rose strongly — contrary to the year before and after — also due to the phasing-in of a staggered reform in income and corporate taxation, i.e. tax cuts in 1986, 1988 and 1990. Revenue losses due to this reform were partly compensated for by higher petrol taxes as of January 1989. Expenditure growth was subdued in 1989 partly because cuts in health spending became effective. In addition, employment increased, favouring the unemployment insurance system.

However, the more structural features of public finances were less encouraging. Although the ratios of debt and interest payments to GDP had started to improve, they were not far off their peak levels. Within 30 years (1961-89), the debt/GDP ratio rose by almost 2½ times while the interest/GDP ratio nearly quadrupled (Table 3). The wedge between the overall budget balance and that excluding interest payments, i.e. the so-called primary balance, widened from ¼ points of GDP to 2¼ points.

Nevertheless, at the end of the 1980s fiscal policy had regained room for manoeuvre. This was gradually exploited to improve the supply side of the economy through tax reductions. Key structural features started to improve slowly and prospects were for a continuation of these trends. However, after 1989, German unification fundamentally changed the public finance situation.

3. Unification from a fiscal point of view

Unification caused a profound change to public finances. Over and above the recession this has been augmenting the fiscal challenge. It is, however, the non-cyclical features which make the fiscal situation particularly difficult. This section presents the structural changes experienced during the turbulent period of 1990 to 1992, i.e. from the decisive stages of unification to the year when the eastern economy first registered growth after its dramatic collapse. The challenges fiscal policy was confronted with and its reactions are dealt with, some light is shed on the often fairly complex institutional arrangements conceived in this context and major consequences of the policy approach chosen are analysed.

3.1. The initial fiscal approach to unification

In the early stages of the unification process, the official assessment was that its financial consequences would be limited. Tax increases were not considered necessary. This view reflected optimistic hopes held by the federal government about the shape of the GDR economy and its prospects in a unified Germany.

This optimistic view was based on seemingly encouraging key economic data. Eastern wages appeared to be in line with productivity, namely at approximately a third of the western level. Monetary union would require an increase of M3 broadly compatible with the addition to the size of the economy. While there would certainly be considerable problems of transition, a highly skilled and motivated local

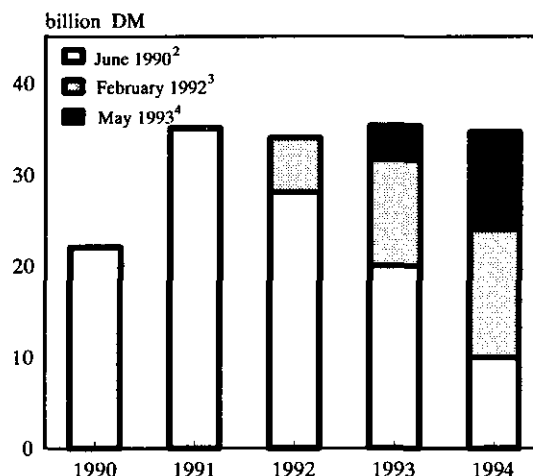
workforce plus the new legal and economic framework should provide a sound basis for a speedy upswing in the east.

These ideas and the view that the GDR economy represented a considerable overall asset dominated official language and had an impact on the Unification Treaty (Einigungsvertrag — EV). Accordingly, initial transfers going east were termed ‘taking-off financing’ (‘Anschubfinanzierung’). Eastern statements and figures suggested that the net value of State property was considerable. While the Treuhand would incur temporary deficits in helping companies which required restructuring, the loans would be repaid from privatization proceeds, generally no later than end-1995. In addition, the ‘Treuhand-Vermögen’ (EV, Article 25) was to pay half of the interest due on GDR debt and to take over a part of that debt by the end of 1993. Finally, the remaining wealth of the Treuhand was earmarked for distribution to the public in order to ‘compensate’ for the asymmetric (1:2) conversion of bank deposits exceeding certain thresholds.

The above view, in effect, generated the fiscal policy stance adopted by the authorities. While considerable extra net spending was foreseen, this was expected to remain limited, both with respect to size and time. The choice was to incur temporarily higher deficits; since there would be no permanent burden, there was no need for higher taxes. However, this view was not universal. Understandably, the Bundesbank favoured early consolidation efforts, including even some tax increases to limit the expansionary effect of unification on the west German economy and to limit the deficit. Not least, the willingness of the western population to pay higher taxes was probably at its peak during the eventful months in the run-up to unification.

While the official policy stance was mainly a reflection of the optimistic scenario for eastern Germany, it was nevertheless also shaped by other factors. Germany was a country with comparatively high taxation. In order to enhance its locational attractiveness, tax cuts had brought down the tax to GDP ratio close to the EC average by 1990. A turnaround was considered inappropriate in view of the approaching internal market. In addition, public finances were fairly favourable in 1989. After almost a decade of consolidation, a slight surplus emerged on the general government account. Some restraint on non-unification-related spending (and cashing in on reductions in outlays caused by Germany’s — and Europe’s — division) would continue to be beneficial. Finally, in spring 1990, growth prospects and expectations of tax inflows were running high. There appeared to be ample resources.

GRAPH 24: The Unity Fund: transfers to eastern territorial authorities¹



¹ 1990: former GDR territory.

² Initial projection.

³ Upgrading in the context of the decision to increase VAT as of 1993.

⁴ Upgrading in the context of the solidarity pact.

Source: Ministry of Finance.

Many of these ideas showed up in the plans for the Unity Fund which was officially set up by the Law on German economic, monetary and social union (GEMSU) in June 1990. There were to be noticeable, yet limited, transfers to the east, initially rising but declining gently thereafter (see Graph 24). Some of the funds required would result from savings on other spending; most of it, however, would be financed on the capital markets.

3.2. Reality proved to be less benign

However, reality turned out to be rather different. Once GEMSU had started in July 1990, eastern products quickly proved to be uncompetitive with devastating consequences, in particular on industrial output and employment. After this painful experience on the ‘domestic’ market much the same happened on the external market in 1991. Once the transfer-rouble-based Comecon trading system ceased to exist and with the immediate transition to convertibility, east German exports (mainly to Eastern Europe) fell by more than 50% within one year. Nevertheless, before July 1990, wages were already rising faster than productivity. The problems of transition proved more pervasive and more stubborn than hoped, skills and motivation of the workforce

were not sufficient to overcome the drawback of a run-down capital stock and the new legal framework created teething problems.

Consequently, transfers going east have risen steadily since summer 1990. The channels used have varied over time, given that the political and administrative set-up in eastern Germany evolved (e.g. the eastern *Länder* re-emerged financially in 1991) and since laws governing various public sector payments were phased in gradually (e.g. old-age pension payments have been calculated according to western rules since 1992). But clearly support for eastern Germany is now considered both more a medium-term phenomenon and a more substantial one than had been the case previously. The latter point may be illustrated by the upgradings to the Unity Fund since it was set up in June 1990 (see Graph 24 above). Overall, net transfers totalled some DM 150 billion or 5% of GDP in 1992.¹ Table 6 below provides an overview.

Such reappraisals were not limited to economic activity and the level of transfers. Capital stock figures, also, turned out to be less favourable than those presented by former GDR officials. There was less marketable wealth than hoped for earlier. Instead of finishing privatization with a positive 'Treuhand-Vermögen', the Treuhand will have accumulated debts of at least DM 230 billion when it will be dissolved at the end of 1994. Treuhand operates 'off budget' as a specialized agency basically charged with privatizing the formerly State-owned corporate sector. The accumulated debt, which stems from both annual deficits of the agency

and debt take-overs from companies which are privatized, will, however, be inherited by the government in 1995 (for more details on Treuhand, and other 'off-budget' operations, see Box 1 at the end of this chapter).

Other debts stem from official GDR liabilities and debt related to the banking system (mainly asymmetric currency conversion), included in the Loan Management Fund (Kreditabwicklungsfonds — KAF). These debts, now expected to be some DM 140 billion, are also higher than earlier assumed.

In this context it may be surprising that only a minor part of these liabilities is constituted by the debt of the Government of the GDR as such (DM 28 billion). This is mainly due to the previous 'fiscal' system. Within the State (people-owned) economy, the government obliged companies to shift funds to the State, with government deficits accumulating in the form of companies' debts to the local (State-owned) banks. The allocation of these levies and thus debts bears no clear relationship to the companies' trading performance. This somewhat arbitrary procedure was the reason why, at an early stage, it was recommended to cancel corporate debt generally. Partially, this was done by the 2:1 Ostmark-DM conversion, which shifted debts from companies to the public sector (through the halving of bank assets which were in turn offset by compensation claims against the government). Yet this debt reduction often proved insufficient to permit the survival of companies. The Treuhand has, therefore, taken over additional debt on a case-by-case basis during privatization.

Besides debt related to companies (Treuhand), the GDR Government and banks (KAF), there are debts attached to housing. Originally it had been planned to 'privatize' these

¹ Figures were very similar in 1993. See Sachverständigenrat 1993, p. 151.

Table 6
Public transfers to eastern Germany, 1992

	Bund	Western <i>Länder</i> /local authorities	Unity Fund	EC, European recovery programme	Social security	Total
<i>(Billion DM)</i>						
Expenditure						
Transfers to eastern governments	16	6	34	5	—	61
Transfers directly to households	28	—	—	11	94	133
Other transfers	35	4	—	—	1	40
Gross expenditure	79	10	34	16	95	234
Revenue						
Total taxation	41	—	—	—	43	84
Net transfers west/east	38	10	34	16	52	150

Source: Sachverständigenrat 1992, p. 146.

debts together with real-estate property. By now, however, it is clear that DM 31 billion (out of DM 52 billion of total old housing debt by 1995) will go on the government's books. This is to support housing, in particular by facilitating privatization, especially via sales to tenants. There are similarities to the proceedings in the case of enterprises.

There now remains a considerable net stock of debt related to unification for the public sector. This additional amount of approximately DM 400 billion comes on top of the 'normal' debt fuelled by the 'regular' flow of annual deficits — a flow which itself has reacted to the changed circumstances.

3.3. Reactions to reality

By the beginning of 1991, it had become clear that earlier hopes about economic prospects in eastern Germany and their impact on public finance would not materialize. Attempts to contain the deficit led the federal government first to announce higher social security contributions and, on 8 March 1991, to raise taxes. Enforced by circumstances, including the German financial support for the Gulf War allies, there was finally a policy turnaround. But the necessary containment of the deficits also required great resolve to reconsider spending priorities at all levels of government. Federal spending rose at an annual rate of approximately 6% in 1991/92 from the high post-unification level reached in 1990. Also, spending by western *Länder* and local authorities did not abate quickly. The *Länder's* expenditure increased by some 6% in both 1991 and 1992 and the local authorities' spending rose by more than 9% on average in both these years. Thus, notwithstanding the various discretionary measures to raise revenues as of 1991 (see Table 7), deficits increased markedly that year.

Table 7
Discretionary revenue increases, 1991 and 1992

	(Billion DM)	
	1991	1992
Tax increases		
Solidarity surcharge	10,5	13,0
Mineral oil tax	5,2	12,6
Other consumer taxes	0,9	3,4
Total	16,6	29,0
Social security contributions		
Pension scheme	- 7,8	- 12,9
Unemployment insurance	18,7	24,7
Total	10,9	11,8
Reduction in tax reliefs	1,3	6,4
Grand total	28,8	47,2

Source: German Parliament paper (Bundestagsdrucksache) 12/4926.

3.4. Consequences

The collapse of eastern economic activity together with fiscal policy choices have left their impact on the public accounts. This can be seen by comparing the general government accounts for 1989 — the last year largely unaffected by unification — and 1992, the first year the eastern economy registered growth.

Unification and transfers to eastern Germany have not been the only changes since 1989. Other factors have also had an impact on the fiscal balance. Some were not linked to unification, such as stage three of the income tax reform which brought a net tax relief of DM 25 billion (1% of GDP) in 1990 or the extra spending related to the Gulf War (DM 12 billion) in 1991. Some other factors were linked indirectly to unification and have mitigated the considerable swing in the deficit, for example the western boom in 1990/91 which mirrored the eastern collapse, certain efforts to contain spending as of 1990, or the various discretionary measures to increase revenues enacted since 1991.

Notwithstanding the various other factors impacting on the budget and with the benefit of hindsight, it seems fair to say that, when Germany seized the historic chance of unification, its basic fiscal response was deficit spending. Confronted with considerable extra spending, financing was predominantly via a higher deficit (up some 2¼% of GDP since 1989), only in second place higher total taxation (up approximately 1 point) and some expenditure restraint. This is brought out by the key figures in Table 8.

The emphasis on debt financing is even more pronounced when incorporating publicly owned businesses which have sometimes been referred to as 'off-budgets'. The *Treuhand* activities (excluding take-over of old debt) and eastern housing (accrued interest) had a deficit of more than 1% of GDP in 1992. But also the borrowings of the railway systems and postal services have developed considerable momentum since unification (Table 9 below). The latter cannot be considered as increasing the general government's net borrowing in as far as they represent entrepreneurial State activity. Nevertheless, even if much of the resulting rising indebtedness reflects stronger investment and is thus not on the same footing as deficit developments generally, these borrowing requirements add to the overall public recourse to capital markets (see also Box 1 on off-budget items).

Besides highlighting Germany's basic fiscal response to unification, the data in Table 8 provide some additional insights, albeit of a less general nature. On the revenue side social security contributions in particular rose. In the west a

Table 8**General government accounts, 1989 and 1992**

	1989W ¹ (1)	1992W ¹ (2)	1992U ¹ (3)	(% of GDP) Change (3-1)
Revenue				
Taxation	25,2	25,3	25,0	- 0,2
• Indirect taxes	12,5	13,0	12,9	+ 0,4
• Direct taxes	12,7	12,2	12,1	- 0,6
Social security contributions	17,2	17,2	18,5	+ 1,3
Total taxation	42,4	42,5	43,5	+ 1,1
Total current receipts	45,1	45,5	46,8	+ 1,7
Expenditure				
Transfers	20,0	22,9	21,7	+ 1,7
• Transfers to enterprises	2,3	1,9	2,3	0
• Transfers to private households	16,4	15,6	18,0	+ 1,6
Interest	2,7	3,0	3,3	+ 0,6
Government consumption	18,8	17,9	20,0	+ 1,2
• Compensation of employees	10,0	9,6	10,6	+ 0,6
• Purchases of goods and services	8,1	7,6	8,7	+ 0,6
Total current expenditure	41,6	43,9	45,0	+ 3,4
Public investment	2,4	2,4	2,8	+ 0,4
Total expenditure	45,0	47,8	49,4	+ 4,4
Net lending/borrowing	+ 0,1	- 2,3	- 2,6	- 2,7

NB: Totals may not add up exactly due to rounding.

¹ W and U refer to West Germany and unified Germany, respectively.

Source: Commission services, based on Statistisches Bundesamt.

trend towards lower contribution rates was reversed by the measures of 1991. In the east the non-standard macro-economic structure (income from dependent labour roughly equal to GDP) played a major role in the rise of the contributions to GDP ratio in the whole of Germany. The 1990 income tax reform and the various rises in indirect taxes are reflected in the evolution of the tax structure. The regional pattern shows that western tax pressure was higher in 1992. While this appears straightforward for direct taxes (different income levels), it also holds for indirect taxes (e.g. different degree of motorization).

On the expenditure side a major part of the increase consisted of higher transfers to private households. The divided labour market, the upgrading of eastern benefits and, again, the eastern GDP structure are reflected in a noticeable difference in the regional pattern. Also, transfers to east German enterprises were comparatively higher. But efforts to save in the west maintained the overall figure at the 1989 level. Also, for government consumption, the substantial increase over time

is the result of a western decrease and a disproportionate structure in 1992, pointing to relatively high eastern staffing and procurement expenditure. On top of current expenditure capital spending was expanded with an emphasis on eastern Germany.

Table 9**Borrowing dynamics of public railways and postal services**

	Railways		Post	Total	
	Bundesbahn (Billion DM)	Reichsbahn (Billion DM)	Bundespost (Billion DM)	Billion DM	% GDP
1989 ¹	1,4	—	2,0	3,4	0,2
1990	2,9	1,3	4,8	9,1	—
1991	3,5	3,8	10,3	17,6	0,6
1992	10,0	3,3 ²	15,4	25,8	0,9

¹ West Germany.

² Of which DM 3 billion was borrowed from the Bundesbahn.

Source: Deutsche Bundesbank.

The public finance choice after unification has had several important consequences for the economy:

- (i) The coincidence of the 1990 tax reform with the unification-related demand boom in western Germany and accelerating government spending together resulted in a western overheating in 1990/91.
- (ii) Between 1989 and 1992, the current account of the balance of payments experienced a swing of some 5% of GDP, most of which occurred in the second half of 1990. Seen from the perspective of the domestic sector's saving-investment balances, two sectors mainly contributed to this swing. Enterprises increased their capital spending while their saving (i.e. profits) decelerated in 1991. Somewhat later, cost pressures made further inroads into profits. Government also increased capital spending. The quantitatively most important change, however, was the decline in public saving. The collapse in 1990 and 1991 boosted the deficit and contributed, on the external side, to the disappearance of the traditional current-account surplus.
- (iii) Strong growth in western Germany had an impact on inflation. Beginning in 1990, wage settlements rose and, later, prices edged up. Monetary policy became increasingly restrictive, temporarily pushing the Lombard rate up to 9,75%, the highest level since the period of 'Sonderlombard' in the early 1980s. There was evidence of some lack of coordination between the main areas of economic policy.
- (iv) Even after the shift in fiscal policy, there continued to be policy-mix coordination problems. The impact of most measures to raise revenue increased cost pressures. Higher social security contributions, together with excessive wage settlements, contributed to competitiveness problems for German suppliers in all markets. Higher indirect taxes fed through to prices directly, pushing up headline inflation and thus nominal wage claims.
- (v) The sizeable increases in social security contributions (to the unemployment insurance scheme) which were required to limit the deficit triggered a debate about the financing of unification-related extra spending. The high level of eastern unemployment owes less to cyclical developments than to the structural disadvantages of the region. Therefore, tackling the problem is more a task of broad economic policy than of the unemployment insurance scheme alone.

Taken together, unification and the fiscal response so far have pushed the public sector beyond the limits which had become customary by the late 1980s, with total expenditure approaching 50% of GDP in 1992 and the ratio of taxes and levies to GDP also rising to an all-time high of 43,5% the

same year. Given the speed of unification and its economic consequences and thus the amounts involved, reacting or even coping has been a highly demanding task. Now, after the initial shock has been overcome, it has become clear that challenging tasks remain ahead. Consolidation is called for, both in the sense of transparency in fiscal matters and in the sense of reversing the expansion of the public sector, as soon as circumstances permit.

4. The challenges ahead

Recession in western Germany coincided unfavourably with the fiscal consequences of unification. Both debt stock and flow aspects have called for action. Meeting the convergence criteria of the Treaty on European Union requires discretionary efforts. In the shorter term the task is to maintain confidence in fiscal policy — another reason for consolidation efforts.

This final part outlines the worrying debt and deficit dynamics of the recent past and future, analyses various reasons and the options for consolidation, and assesses the chances of successfully repeating the consolidation exercise of the 1980s.

4.1. Worrying debt and deficit dynamics

In the early stages of unification, debt was not a major concern. The overall official assessment was basically optimistic. An organizational and accounting framework was set up to deal with various unification-related stocks and flows on an off-budget basis. This setting has not facilitated a broad view. For some time it made fiscal matters look better than the underlying reality. The real difficulties in quantifying some liabilities probably contributed to this approach.

Within the framework of the solidarity pact to better support eastern Germany, the federal consolidation programme of spring 1993 was agreed upon. According to this programme, all major temporary arrangements due to unification will be terminated by 1995, implying important consequences for public sector debt. The Treuhand will cease to exist in its current form by the end of 1994. The same holds for the Loan Management Fund ('Kreditabwicklungsfonds'). Their accumulated debt will be shifted to the 'Redemption fund for inherited liabilities' ('Erblastilgungsfonds'). This fund will also accommodate the major part of eastern housing debt. Contrary to earlier plans which foresaw a participation of eastern states, the new fund will be serviced by the Bund alone. Basically, 1995 will see a rearrangement of existing debt at the expense of the government — the debts of the

Treuhand and housing societies will shift to the government. In early 1994 the same has already happened to the debt of the railways as part of a rail reform plan.

The federal consolidation programme has enhanced transparency in fiscal matters. Reducing deficits will be achieved less quickly. Weakening activity or outright recession tends to push the deficit up. This holds for the federal budget in particular as it is the layer of public finances most sensitive to cyclical influence. Firstly, the proportion of tax income strongly linked to fluctuations in activity is larger at the federal level than at state and local levels. Secondly, and more important, any financial shortfall of the unemployment insurance scheme has to be covered by the Bund. Considerable amounts may be involved as the recent past demonstrates. At the end of 1992, the first figure for payments to the Federal Labour Office (Bundesanstalt für Arbeit) in 1993 was DM 5 billion (initial federal budget), it rose to DM 18 billion in May 1993 (supplementary budget) and finally arrived at DM 24 billion (outturn). The overall upward drift of the 1993 budget deficit in line with the unfolding recession is presented in Graph 25 below.

The impact of contracting activity on the general government finances is likely to be even more pronounced than earlier. Since 1992, the total tax burden as a percentage of GDP exceeds its previous peak level (of 43,3% in 1977). Thus weakening growth has a significant impact on revenue; every percentage point of nominal growth was worth almost DM 14 billion in revenue in 1993.

As regards spending, it has been the practice in periods of recession that spending be relatively strong, and the spending to GDP ratio rose. Since the underlying structural level of unemployment has risen following previous recessions (the 'hysteresis' effect), there is a risk that social security spending will also continue to rise strongly beyond 1993. Every 100 000 rise in unemployment implies extra spending of not less than DM 3 billion. If recession and structural problems combine unfavourably, unemployment might indeed rise strongly. Further, a western recession now implies additional burdens via its impact on the eastern economy. Weak western growth slows down the eastern pick-up and is thus detrimental for any hoped-for improvement on the eastern labour market.

In total, the unification-induced charges combined with the recession have driven the 1993 general government net borrowing requirement up to 3,3% of GDP. In the two earlier recessions the shortfall was higher (1975: 5,6%) or the same (1982: 3,3%). In those years, however, off-budget items were of less importance than currently. In early summer 1993 the federal government signalled a shift in emphasis when for the first time publicly including the Treuhand deficit in global public borrowing requirements.

The broader view of looking at public borrowing in a wider sense is warranted for different reasons. Firstly, such borrowing may end up later directly with the government (Treuhand, railways). Secondly, even if the liability remained with a specialized non-government entity, the dynamics of the borrowing may yield additional insights. Finally, borrowing may have an impact on capital markets and other monetary developments. Table 10 highlights the orders of magnitude at stake.

Borrowing in this broader sense amounted to more than 6½% of GDP in 1993. This was an unsustainable situation and — if it were maintained for a longer period — would threaten macroeconomic stability. In a situation like this, the task of monetary policy to limit credit expansion is made more difficult as these borrowings are much less interest-sensitive than private sector credit demand. There may be *important crowding-out effects with a negative impact on private sector productive investment*. If credit expansion cannot be reduced to a level consistent with stability, the threat of an ongoing rise in the ratio of broad money to GDP will increase long-term interest rates with detrimental effects on activity. The dilemma for monetary policy could be increased further if a loss of credibility affected exchange-rate expectations.

In the second German convergence programme presented in November 1993 and based on that year's official medium-term projections, a reduction in general government net borrowing to below 3% of GDP is envisaged. This is expected to be achieved by a combination of expenditure restraint and a favourable growth performance. Fiscal consolidation is recognized as an essential contribution to better growth conditions. Given the dynamics in the debt service requirements, the consolidation efforts in terms of the primary balance will be even greater. If investment expenditure is not to be cut substantially, rigidities in other areas of public spending will have to be overcome.

Table 10
Public borrowing requirements in a broader sense

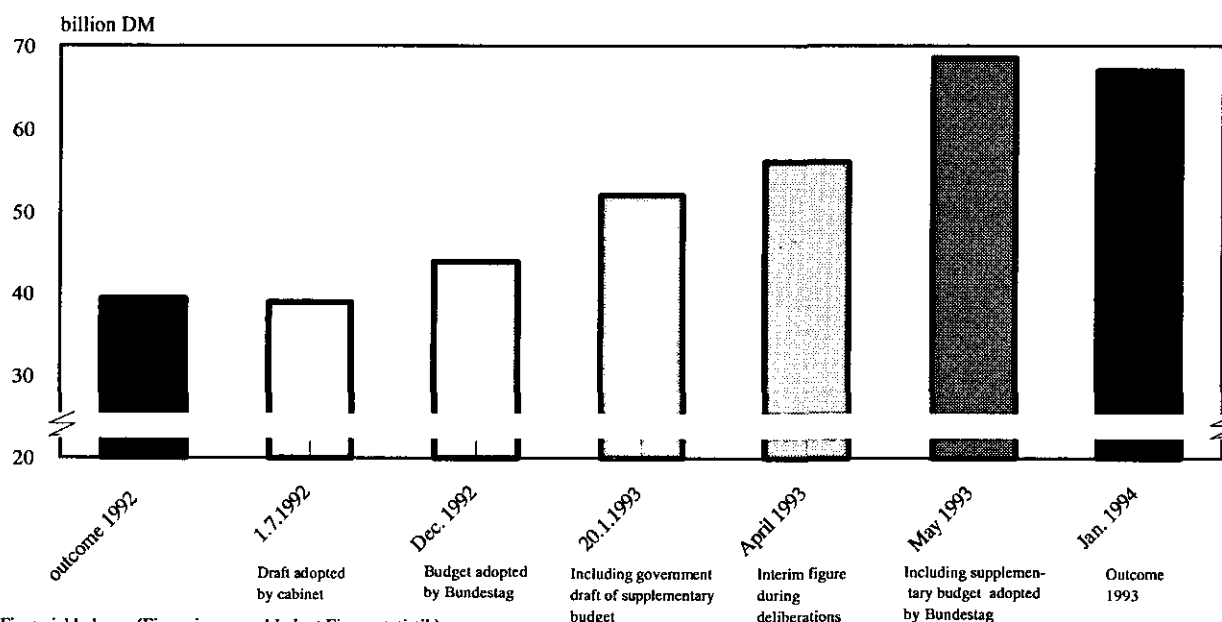
	1989 ¹	1992	1993
Central government and local authorities ² (% of GDP)	26 (1,2)	102 (3,4)	159 (5,1)
Treuhand	—	29	39
Railways ³	1	10	13
Total (% of GDP)	27 (1,2)	142 (4,7)	211 (6,8)

¹ 1989 data refer to West Germany only.

² Net market borrowing ('Marktmäßige Nettokreditaufnahme'). This is different from general government net borrowing on several accounts. For some details about these more technical features see Box 2 at the end of this chapter.

³ In principle, this borrowing is not considered government borrowing as it is due to entrepreneurial activity of the State, reflecting investment which adds to the capital stock of the enterprise sector. However, for reasons given in the text, it is included in this table focusing on a broader view.

Source: Deutsche Bundesbank, monthly report 2/1994, pp. 39 and 76 (the latter page is the source of 1989 data).

GRAPH 25: Recession and the 1993 federal budget deficit¹

¹ Financial balance (Finanzierungssaldo laut Finanzstatistik).

Source: Ministry of Finance, press.

The overall critical public finance situation is reflected in the data of Table 11. It is based on the 1993 official projections¹ and combines stock and flow aspects, especially the rearrangements of debts scheduled for 1994/95 and deficits under the impact of recession. Particularly striking is the trend in gross public debt which will rise to more than 60% of GDP in 1995.

The special financing arrangements devised in the context of unification are responsible for the peculiarity of the overall debt profile from 1989 to 1995. Basically they account for a discrepancy between actual accrual of debts and their 'showing up in the books'. This is why the debt to GDP ratio remained essentially unchanged up to 1991 and has increased since. By 1995 the stock of debt will have risen to an absolute level more than twice that of 1989. During the same period the debt to GDP ratio will have increased by some 20

percentage points. Not surprisingly, similar increases are not on record in post-war German fiscal history.

4.2. Reasons for and steps towards consolidation

4.2.1. The consolidation challenge

The developments presented in the preceding section portray a deterioration in public finances. Consolidation is required to comply with the convergence criteria for EMU. Corrective fiscal action is necessary for other reasons, too, not least to preserve credibility.

The fiscal convergence criteria of the Maastricht Treaty call for a general government deficit of not more than 3% of GDP and, ideally, a debt to GDP ratio not in excess of 60%. As seen above, the German debt to GDP ratio is currently rising and expected to exceed 60% in 1995 (Table 11). Purely mechanical conditions for a stabilization of this ratio can be formulated in different ways. Reasoning along these (more theoretical) lines may yield some insights of practical importance.

¹ The federal government updates its medium-term projections annually. Within this framework it does not, however, publish data on general government net borrowing. Hence it is not possible to provide here a complete Table 11 on an official 1994 basis. This appears not to be a serious drawback since the accessible data from the 1994 projections do not signal any substantial change in the overall situation. The main differences are: (1) a better than expected outcome in 1993, and (2) less rapid consolidation in the future (1995 and beyond) because of a better assumed inflation performance which has, on balance, a negative impact because of lower tax revenues.

Table 11

Deficits and debt levels

	(Billion DM)						
	1989 ¹	1991	1992	1993 ²	1994	1995	1996
1. General government net borrowing, ³ in % of GDP ⁴	- 0,1	3,2	2,6	4	3½	2-3	1-2
2. Central government and local authorities financial balance ⁵	- 27	- 123	- 116	- 156	- 147	- 115	- 75
% of GDP ⁴	1,2	4,4	3,9	5,0	4,5	3,3	2,1
3. Loan Management Fund, change in allocated debt ⁶	—	0	64	17	12	10	9
(debt level reached)	(—)	(28)	(92)	(109)	(121)	(131)	(140)
4. Total public debt outstanding, 'old' ⁷	925	1 166	1 332	1 505	(1 664)	(1 789)	(1 873)
% of GDP ⁴	42	41	44	49	51	52	51
5. Treuhandanstalt ⁸							
New debt	—	24	54	91	135	—	—
Debt take-over	—	18	57	86	95	—	—
Total	—	42	111	177	230	—	—
6. Total public debt outstanding, 'new' from 1994 ⁹	(925)	(1 166)	(1 332)	(1 505)	1 738	2 100	2 184
% of GDP ⁴	42	41	44	49	54	61	60
(Index, 1989 = 100)	100	126	144	163	188	227	236
Nominal GDP ⁴	2 224	2 816	3 028	3 099	3 242	3 437	3 643
Real GDP growth ⁴				- 1	1½	3	3
Nominal GDP growth ⁴				3	4½	6	6
p.m.:							
7. Eastern public housing ¹⁰	—	42	47	52	52	21	n.a.
8. Railways and postal services ¹¹	110	124	150	176	119	129	n.a.

All historical debt data in this table are from hitherto standard debt series as published in Germany. They are very close to, but not identical with, general government gross consolidated debt as defined in the Maastricht Treaty. The main reasons for the difference between lines 1 and 2 of this table are explained in Box 2 at the end of this chapter.

¹ 1989 data refer to West Germany only.

² 1993 outcomes: general government net borrowing 3,3%, financial balance (line 2) 4½%, real GDP growth - 1,2%.

³ Actual outcome until 1992. Projections of the second German convergence programme of November 1993 for 1993 and beyond. The most recent — January 1994 — public forecast of the federal government for 1994 is 3%.

⁴ From 1993 projections of the Ministry of Economics (BMWi) of early summer 1993. Projections of early summer 1994 are: real growth of 1½%, 2½% and 3% for 1994-96, and nominal growth of 4%, 4½% and 5½%.

⁵ (Finanzierungssaldo öffentlicher Gesamthaushalt, laut Finanzstatistik). From 1993 projections of the Fiscal Planning Council (Finanzplanungsrat) of early summer 1993. Projections of early summer 1994 are: unchanged for 1994, DM - 130 billion for 1995 and DM - 98 billion for 1996.

⁶ German Parliament paper (Bundestagsdrucksache) 12/5857, autumn 1993.

⁷ End of period. Up to 1992 Statistisches Bundesamt, Fachserie 14, Reihe 5. 1993 ff.: stock of previous year plus lines 2 and 3.

⁸ Cumulative totals, end of period. German Parliament paper (Bundestagsdrucksache) 12/5857.

⁹ Line 4 plus rearrangements of public debts (1994: rail reform, 1995: Treuhand, eastern public housing) plus DM 7 billion deficit of the public rail holding (Bundeseisenbahnvermögen) p.a. in 1994/95.

¹⁰ German Parliament paper (Bundestagsdrucksache) 12/3617. Debt was not serviced up to the end of 1993 with interest capitalized. In 1995, DM 31 billion will be taken over by the government.

¹¹ German Parliament paper (Bundestagsdrucksache) 12/5857. 1994: railways debt relief of DM 67 billion.

One approach to debt stabilization is to consider the interaction between, on the one hand, growth and the debt level reached, and, on the other, the current fiscal deficit. When the economy stagnates in nominal terms, any deficit increases the debt to GDP ratio. Conversely, nominal growth coinciding with a balanced budget causes the debt to GDP ratio to decline.¹

These mechanics, combined with the general feature that deficits tend to be higher than usual in periods of weak growth because of the working of automatic stabilizers, are the basis for claiming that it may be very difficult to stabilize the debt to GDP ratio during recession. In an 'ideal Maastricht setting' a 3% deficit, coinciding with nominal growth of 5%, leaves the debt ratio unchanged at 60%. In a recession, with nominal growth at for example 2½% debt stabilization requires a deficit of not more than 1½%. Certainly, recessions recede and the Maastricht Treaty calls for a flexible application of the debt rule. Yet the framework can be narrow and demanding, principally in more extended periods of slow growth.²

¹ In terms of a formula the condition for stabilizing the debt/GDP ratio may be written as: $s \cdot n = d$,
where: s = public debt outstanding, in % of nominal GDP,
 n = nominal GDP growth,
 d = fiscal deficit, in % of nominal GDP.

² For an elaborate analysis see Matthes (1992).

Applying the above reasoning to the 1993 medium-term economic planning of the federal government shows that debt stabilization is envisaged for the years from 1995 onwards.³ It is not, however, for the slow growth period up until then. Achieving the fiscal targets outlined in the plans implies discretionary consolidation efforts.

Between 1989 and 1992, interest payments at the general government level have risen by an average of 19% a year. Given the debt profile presented above this rate is likely to abate only modestly. After the 1995 fiscal rearrangements will have been completed, interest outlays could amount to some 4½% of GDP. Hence to meet the 3% deficit target agreed upon in the Maastricht Treaty, a surplus of 1½% of GDP is necessary excluding interest, i.e. on the primary balance. Compared with 1993, that would require an improvement of 1½ percentage points of GDP.

³ From 1996 onwards according to the 1994 medium-term plans. The main reason for this change is lower nominal growth expectations, namely 4½% instead of 6% for 1995, mainly due to expectations of a better inflation performance.

Table 12

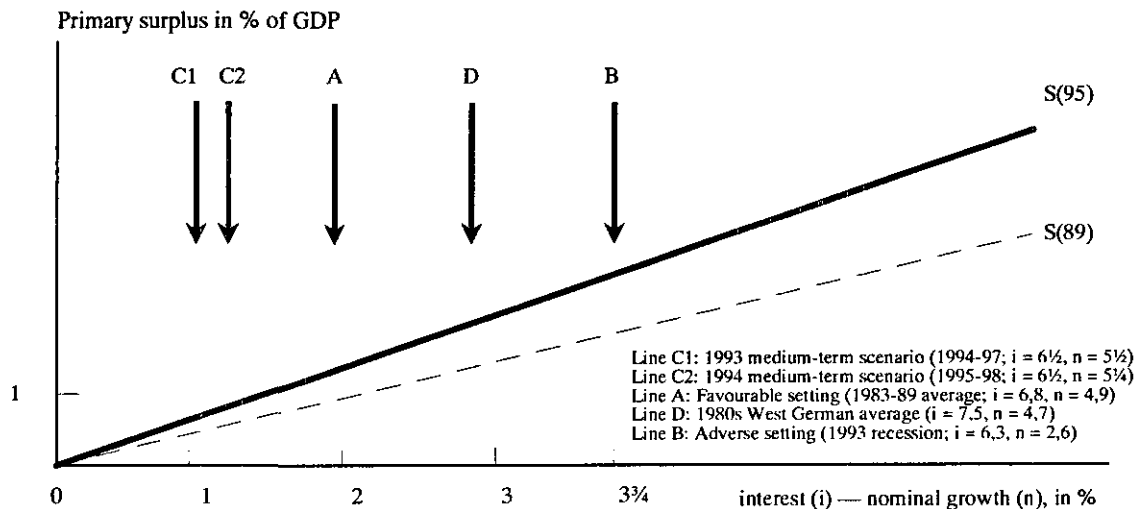
Interest-rate dynamics¹

	1989	1991	1992	1993	1994	1995
Interest payments						
Billion DM	60,5	77,6	101,1	104,2	125	157
% of total public expenditure	6,0	5,7	6,8	6,7	7½	9
% of GDP	2,7	2,8	3,3	3,4	4	4½
1989 = 100	100	128	167	172	207	260

¹ General government, 1989 data refer to West Germany only.

Sources: 1989-93: Statistisches Bundesamt and Commission services; 1994/95: DG II forecast, spring 1994.

GRAPH 26: The debt – primary surplus constraint



The graph shows combinations of macroeconomic settings (interest-rate level minus nominal GDP growth) and fiscal performance (primary surplus in % of GDP, i.e. budget balance excluding interest payments) which imply a stabilization of the government debt to GDP ratio. Stabilization occurs at the intersection of the vertical lines (A-D, representing different macroeconomic settings) with the upward sloping lines (S(t) representing various debt to GDP ratios). The higher the debt ratio, the larger the surplus required for debt stabilization in any macroeconomic setting. For the sake of simplicity, interest rates used (lines A-D) are market rates, not the average rate paid on outstanding debt.

An alternative approach to looking at the stabilization of the debt ratio focuses on interest payments. In a zero nominal growth situation, the debt ratio is stable when the budget is balanced, namely the primary balance is in a surplus position in line with the accumulated debt and the level of interest rates. Clearly, the higher either of the latter two, the higher the primary surplus required. It can be lower, however, when nominal growth is positive. Then the rise of GDP permits an increase in debt, compatible with an unchanged debt to GDP ratio.

Hence debt stabilization is particularly difficult in high interest/low growth periods. This becomes even more demanding when there have been 'sins of the past', i.e. a high stock of debt has accumulated. These relationships are visualized in Graph 26. Line A represents an interest rate/nominal growth setting as, on average, experienced in the 1983-89 period. Debt stabilization at the 1989 level ($S_{89} = 0,42$, as in Table 11) would require a primary surplus of less than 1% of GDP. On the basis of the debt level expected for 1995 ($S_{95} = 0,61$), the surplus would have to exceed 1%. In a less favourable setting, such as the 1993 recession (line B), the surplus requirement is more demanding — and the impact of the higher debt burden is more pronounced.

In other words, the structural deterioration experienced by the German public finances since 1989 requires an increasingly higher primary surplus for any interest/growth scenario in order to stabilize the debt ratio.

The structural shifts of the last few years can also be visualized in a European context. The comparison of the fiscal performance of Germany and the Community as a whole during the 1980s and 1992 yields three key results (see Table 13 below). First, fiscal pressure has risen in relative terms. Although Germany has 'traditionally' been a country with above-average total taxation, of late this feature has become even more pronounced. Second, total spending has caught up. Spending used to be below the Community average. It is now closer to par. Third, because of fiscal slippage in other Member States, the deficit has even improved slightly in relation to the average. It continues to be lower than in the Union at large, but the picture is less favourable if unification-related off-budget items are added to the figures of the general government accounting framework, i.e. if the broader view as in Table 10 above is adopted.

Another reason for adopting corrective fiscal action might be mentioned here. It is not specific to Germany but applies to

Table 13

German and European budgetary data
(general government)

	1981-90 average			1992		
	West Germany	EUR 12	Difference	Germany	EUR 12	Difference
Revenue						
Total taxation	42,2	40,5	1,7	43,5	41,6	1,9
Expenditure						
Debt interest	2,8	4,5	- 1,7	3,3	5,4	- 2,1
Capital spending	2,5	2,8	0,3	2,8	3,0	- 0,2
Total expenditure	47,1	48,4	- 1,3	49,4	50,2	- 0,8
Net borrowing	- 2,0	- 4,4	- 2,4	- 2,6	- 5,1	- 2,5

Source: Commission services.

all countries experiencing a recession. Clearly, to let the automatic stabilizers work in a downswing, as decided by the federal government in late 1992, contributes to the stabilization of economic activity. However, this approach is not entirely without risks. Often enough, the downswing is a mixed phenomenon, containing cyclical and structural elements, with the latter preventing output from rising back to its previously estimated potential growth path. Then the working of automatic stabilizers contributes to a steeper increase in deficits, debt and interest commitments than in a purely cyclical scenario. As it is difficult to separate cyclical and structural components, there is a considerable risk that developments which would be transitory under exclusively cyclical conditions become permanent.

4.2.2. Consolidation measures taken

The consolidation measures adopted until early 1994 range from reform in structural matters to consolidation in the narrower quantitative sense, first concentrating on revenue but more recently emphasizing the expenditure side.

More permanent solutions for handling intra-German fiscal relationships as of 1995 were agreed in the Solidarity Pact settlement of spring 1993. The new institutional framework will replace the temporary arrangements conceived in 1990.

In particular, the Unity Fund will expire. This device to provide eastern states and local authorities with western funds outside the standard channels of fiscal revenue-sharing was upgraded repeatedly; in 1994 some DM 35 billion is being channelled east. As of 1995, eastern territorial authorities will participate in an updated regular revenue-sharing system.¹ On balance, they will receive an extra DM 20 billion (less in the years thereafter), mainly from the federal level and earmarked for gradually overhauling their infrastructure.

The initial approach of financing unification by incurring higher debt has been accompanied more and more by revenue-enhancing measures. In addition to those effective by 1992 and already presented above (Table 7), an extended list of further measures has since been established, major items of which are an increase of VAT (15% instead of 14%, since January 1993), an increase of old-age pension contribution rates (up 1,7 percentage points since January 1994) and once again higher petrol taxes (also since early this year). In 1995, when major off-budget debts will have to be serviced on budget for the first time, the solidarity surcharge will be reintroduced (7,5% of income tax due), effectively twice what was charged in 1991/92. Altogether, the measures are expected to push the total taxation to GDP

¹ The basic features of German budgetary coordination and revenue-sharing are dealt with in European Commission (1990, Chapter 8).

ratio up almost another 2 percentage points beyond the 1992 level (43,5%), which was at the time the German peak rate, and 2 points higher than the Community average.

Therefore, additional efforts to consolidate should not be based on further tax increases. Supply-side reasoning points in the other direction. A permanently higher level of taxation could seriously interfere with incentives to work and further undermine tax morality (currently, the peak marginal income tax rate is 57% of taxable income and set to rise to 61% in 1995). Furthermore, the decision of mobile businesses on where to settle also reflects relative fiscal pressure. Any additional direct taxation would seriously reduce the attractiveness of Germany for investors. The European internal market imposes constraints on national fiscal policy in this respect (this is exemplified by the Investment Location Law or 'Standortsicherungsgesetz' which provides for lower peak rates of business taxation since 1994). Increases in social security contributions would have the same effect because of adding to labour costs, aggravating the already critical labour market situation, and raising indirect taxes would slow down the return to satisfactory price stability.

This explains why, in the renewed German discussion about consolidation as of early summer 1993, the federal government shifted away from the position of half a year earlier, namely to let automatic stabilizers work, and stepped up attempts to contain spending. The result was a major savings package with expenditure cuts for 1994 worth more than half a percentage point of GDP, without which it would have become impossible to remain close to the deficit targets of the 1993 medium-term fiscal plan (Table 11). The package was incorporated into the second German convergence programme and finally adopted by the legislative bodies late in 1993.

4.3. The challenge of successful consolidation: 'crowding-in'

Some similarities exist between 1982 and 1993. In both years, the west German economy was in recession, there was considerable concern about the fiscal situation and the respective governments decided to consolidate. Once again, efforts to lower deficits during recession have been initiated. The aim is to strike a positive balance between the dampening demand impact of a shift in fiscal policy and its beneficial indirect effect. This, in principle, should help growth prospects over the medium term — via a crowding-in of private sector activities driven by expectations and supported by the potential for lower interest rates. Based on the analysis of the

early 1980s in Section 2.2, an attempt is made to compare the situation then and now.

The overall volume of the various discretionary fiscal policy measures for consolidation purposes amounts to some DM 65 billion or 2% of GDP in 1994. This comes on top of measures which became effective already in 1993 (see Table 14 below). The 1994 volume is approximately twice the corresponding amount of 1983. In both years saving measures became effective in the social security system. Also in both periods, efforts were made to support growth. The draft Investment Location Law (Standortsicherungsgesetz) was amended accordingly. Original plans called for this law to be neutral in budgetary terms, i.e. the impact of lower corporate tax rates would have been balanced by a reduction in depreciation allowances. With a view to supporting investment, the latter part was deferred.

Table 14

Fiscal packages in 1992/93, effective 1993/94

	<i>(Billion DM)</i>		
	1993	1994	1993/94 Total
Spending cuts	14	22	36
Higher revenues	32	48	80
Tax reductions	—	6	6
Overall, net	46	64	110
Overall, in % of GDP	1½	2	3½

Sources: Ministry of Finance, German Parliament paper (Bundestagsdrucksache) 12/4926, press.

An improvement in private sector confidence appears essential to counter the restrictive fiscal impulse. Confidence has improved but is still rather low in early 1994 and private household income expectations are particularly affected. The latter is partly due to the recession but the fiscal position will have had an impact also. In quantitative terms transfers east are most important, at approximately 5% of GDP, followed by rapidly rising interest payments, approaching 5% of GDP. (Both also have a bearing on income distribution.) Broadly speaking, these two relatively fixed spending items amount to 10% of GDP or 20% of general government spending. Not surprisingly, this has had an impact on income expectations and on confidence.

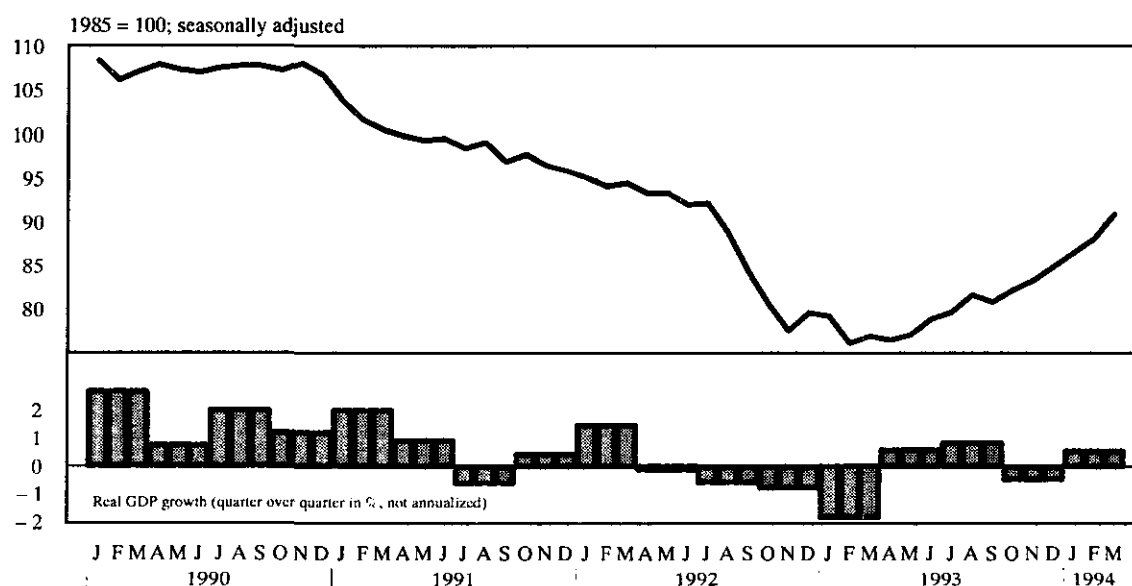
Positive perspectives are essential for improving subdued confidence. Fiscal policy can contribute to this. However, favourable supply-side effects of consolidation are not

guaranteed automatically. During the difficult period of the early 1980s, the German Council of Economic Advisers elaborated some criteria which should be fulfilled in order to achieve the hoped-for positive medium-term impact on private sector activity. The major items on the list are (Sachverständigenrat 1982, p. 225):

- (1) Consolidation should be pursued at all levels of government. Savings from one source serve little if they imply higher deficits elsewhere. Such manoeuvres might be counter-productive in the medium term since they could destroy goodwill by undermining credibility.
- (2) Efforts should be recognizably of a reliable nature. That is, measures taken exclusively for the current or next period may be ineffective when the reasons for taking these measures are of a longer-term nature.
- (3) A permanent upward drift of the total taxation to GDP ratio should be avoided. Otherwise private sector agents' behaviour could be adversely affected.
- (4) Also during consolidation the spending-mix should not neglect capital spending, i.e. the basis for future growth.

Looking at the measures becoming effective in 1993 and 1994 against this background points to some progress towards supporting confidence. Certainly the various measures taken by the government provide the private sector with the message that corrective action is being taken. Yet this does not apply to all levels of government in a wider sense (e.g. *Treuhand*, see Table 10). And, for the time being, any structural fiscal improvement is being veiled by the recession. Contrary to the 1982 outcome, the general government deficit rose in 1993. The measures adopted for 1994 at the federal level were officially introduced to avoid a further deterioration; no reduction of the deficit was promised. However, the second criterion of the Council (efforts of a reliable nature) appears to be fully met. The consolidation measures are designed to be long-term in order to maintain credibility. Unfortunately, in view of the extended list of revenue enhancements, according to the third criterion (fiscal pressure), this advantage rather turns into a drawback — an important point of difference between developments in the early 1980s (total taxation as a percentage of GDP edging lower) and expectations for the 1990s (drifting upwards). Finally, capital spending is doing rather well, at least until recently. Here the current situation differs positively from the past.

GRAPH 27: Business confidence indicator, western Germany, 1990-94
(manufacturing industry)



Source: IFO Institute, Deutsche Bundesbank.

According to the criteria above, fiscal policy is contributing to improving private sector expectations on some accounts, yet the overall impact could be somewhat ambiguous. It might be added that one very special event greatly enhancing fiscal credibility and expectations at large in the early 1980s, namely a change in government, was unique to 1982.

On balance, fiscal policy is more on the restrictive side in the current period than was the case a decade ago. Deficits are higher, consolidation efforts are more substantial and, with this, the short-term restrictive impulse is larger. Favourable supply-side effects of consolidation should have a mitigating impact over the medium term but it is difficult to see that these effects could be more pronounced nowadays than a decade ago. The same seems to hold for other factors important for supporting growth during consolidation.

Monetary policy has been easing since July 1992 and market interest rates have been falling. Compared to a decade ago, rates departed from a lower level but at a generally somewhat slower pace and rate cuts sometimes were comparatively smaller. By the end of 1993, official interest and short-term market rates were higher than at the

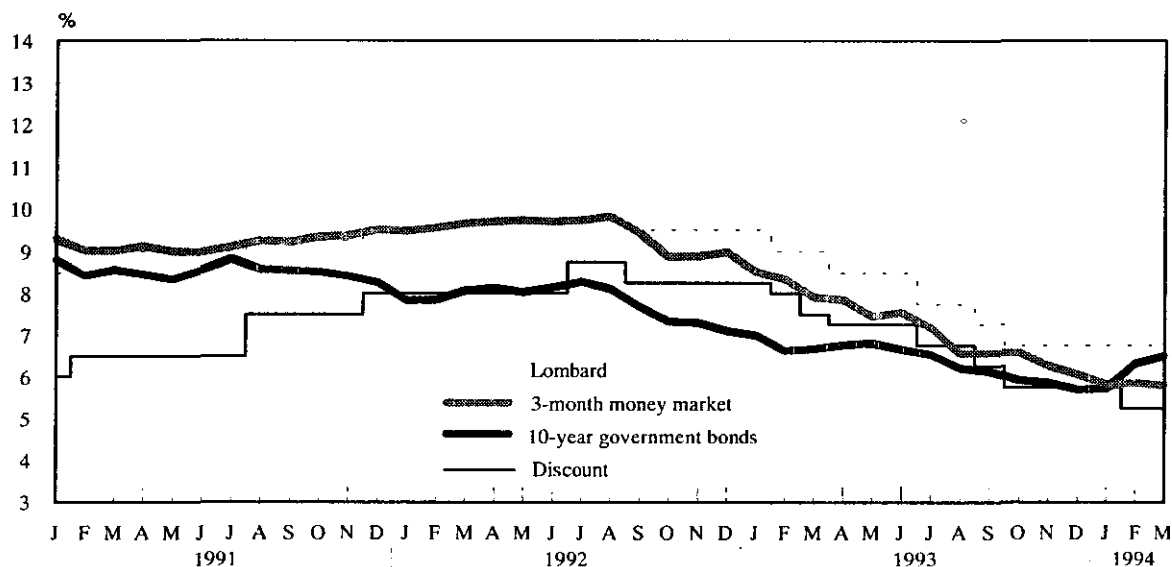
close of 1982; the opposite held for capital market rates. But real rates for the industrial investor were higher this time and the yield curve was still inverted, contrary to the final months of 1982.

A re-emergence of monetary conditions fostering investment in a non-inflationary environment would help growth to gain momentum and thereby contribute to solving the difficult task of gradually checking fiscal imbalances. Indeed, the yield curve has returned to its normal, upward sloping form in early 1994, yet partly so because of rising capital market rates.

Contrary to 1982, growth abroad has been comparatively less dynamic. Moreover, cost and exchange-rate developments over the last years have resulted in a loss of competitiveness. This may well have contributed to the sharp deceleration in real growth in 1993. However, there have been some improvements in competitiveness since spring 1993.

Bringing together the various factors which bear on 'crowding-in' and which have been looked at in this section (synopsis: Table 15 below) shows that a basis is

GRAPH 28: DM interest rates, 1991-94



Source: Deutsche Bundesbank.

emerging for a successful repetition of the efforts of the early 1980s — although a comparison of these factors cautions that success may be more difficult to attain on this occasion.

Table 15

Key economic factors during the 1982/83 and 1993/94 periods

	1982/83	1993/94
Fiscal policy stance	restrictive	more restrictive
Private sector confidence	initially depressed but improving	initially depressed, gradual improvement
Potential for improvement	very large	large
Monetary policy stance	easing	slowly easing
External side:		
• growth differential	supportive	less supportive
• competitiveness	supportive	less supportive

4.4. Safeguarding the conditions for recovery: what are the risks?

A basic issue at present is that the current imbalance is the outcome of two major factors. The first is structural, being the result of unification. The second is the cyclical downturn following the more general world recession. In other words, the authorities are faced with the dual task of managing the normal automatic stabilizers but with an added element; namely the provision of fiscal transfers to the east.

The fiscal plan of early summer 1993, upon which is based the second German convergence programme, is one which aims to achieve successful budget consolidation in the medium term. The plan includes discretionary measures, the intention of which is to reduce the deficit during 1994, so leading to a position by 1995 whereby the Maastricht 3% benchmark for the general government net borrowing to GDP ratio is broadly satisfied.

Also included in the plan is a tight control of public expenditure which allows for an average nominal increase of only 3½% per year for 1994-97, with 3% for 1995-97, or zero growth in real terms. Nominal GDP growth is set at 5½% for the former and 6% for the latter period, which

implies a falling share of government expenditure. The targets of the 1994 fiscal plan are more ambitious with respect to spending — both nominal and real — and government's spending as a fraction of nominal GDP.

The planned fiscal adjustments imply that the debt to GDP ratio by 1995 would peak just a little above the Maastricht 60% criterion. The realization of this outcome will depend very much on the success with which the German economy can generate primary budget surpluses (the budget balance excluding debt interest payments) sufficient to begin to reverse a rising public debt.

Long-term interest rates of say 6½% — approximately the 1993 average — being somewhat higher than the assumed medium-term growth of nominal GDP (5½% according to the 1993 plans and 5¼% according to those of 1994) would require a small primary surplus in order to stabilize the debt to GDP ratio at close to 60% (Graph 26 outlines the dynamics of debt). Hence, a possible source of risk would be if the gap were larger than the above 1% or 1¼% which is relatively low by the standards of the 1980s. If this were to occur, bigger primary surpluses would be required with possibly further consequences for the tax burden and public expenditure cuts.

In reality, much will depend on the effectiveness of fiscal planning in establishing credibility such that expectations on the part of producers and consumers are strengthened and underpinned. A credible consolidation plan will, in principle, do much to foster a climate which is favourable to a lowering of interest rates. This in turn would add to those market incentives necessary for encouraging the 'crowding-in' of private expenditure to fill the gap created by public sector restraint.

A further possible source of risk, therefore, is that given the range of priorities, the authorities will find it hard to stick to their spending targets. This task is likely to be that much more difficult as economic recovery gathers momentum and when pressures to relax will begin to show. One must caution that history is not overly kind in this respect. Over the past 20 years, there are only two examples of years in which public spending in Germany declined in real terms; namely 1982 and 1983. For the EU as a whole, this occurred on three occasions only, 1977, 1983 and 1986.

Given the importance of credibility it is essential that the consolidation plan be adhered to in order to avoid adverse consequences from higher interest rates and taxes which would probably follow any slippage.

Box 1: 'Off-budgets' in the context of German unification

Unification has caused substantial extra spending and related borrowing by the German public sector. Some of this is currently not accounted for within the general government concept. Here the key characteristics of the major off-budgets are presented briefly and the question is addressed to what extent their activities could/should be included in the general government framework.

1. Treuhand

The Treuhand is in charge of handling the non-banking enterprises formerly owned by the GDR with a view to privatizing as much as feasible. Three categories of spending are involved:

(a) Capital transfers to enterprises

Companies considered fit for survival but with negative capital balances ('Eigenkapital') have been allocated claims against Treuhand to raise their net wealth to zero. Furthermore, they have been granted an additional endowment of own resources by means of having Treuhand take over some of their outstanding debt. Both transactions are transfers from Treuhand to enterprises. Although these transfers take place between enterprises, the funds emanate from a public institution, which will cease to exist at the end of 1994 and its liabilities will then be taken over by the government according to present law. Seen from this perspective, these transfers could be easily interpreted as government expenditures since the accumulated stock of debt will become part of the government's debt. Official estimates put the volume of these cumulated transfers at more than DM 90 billion (3% of GDP).

(b) 'Uncertain liabilities'

This item stands for various (potential) liabilities Treuhand has already accepted or may accept (for example, guaranteed borrowing by Treuhand-owned companies, costs for the cleaning up of polluted industrial sites). Basically the same reasoning and conclusions as under (a) apply. The government's estimate of the amount involved is over DM 45 billion (1½% of GDP).

(c) Raising of funds by Treuhand

In order to service the debt taken over and to finance other expenditures for its operation, the Treuhand has had to raise money on credit markets. Its proceeds from selling enterprises have not been sufficient to cover costs. Debt servicing is a consequence of earlier transfers and could thus again be characterized as part of government spending. Expenditures for Treuhand's operation as such could be considered government consumption as they relate to a service provided to the public,

ultimately paid for by government. The Treuhand credit law entitles the agency to take up credits of up to almost DM 140 billion until 1994.

To sum up, the government's estimate of Treuhand debt of DM 230 billion by the end of 1994 reflects transactions which largely could be considered government spending with the corresponding impact on current deficits and debt. (The amount of DM 230 billion excludes item (b) which is scheduled to be handled on-budget from 1995 onwards.)

Risks involved: Losses by companies still owned by Treuhand push capital requirements mentioned under (a) up further; this the more so since official policy has recently stressed to keep afloat companies which cannot be sold. Further there may be additional risks from guaranteed borrowings under (b).

2. Kreditabwicklungsfonds

The Kreditabwicklungsfonds (KAF) was established to collect liabilities related to the east German banking system. This debt is already now on the public debt record. Interest charges, however, are split: 50% are taken care of by the federal government, i.e. included in general government, and the remainder is financed by Treuhand, i.e. currently not covered by general government. There are four major sources of debt accumulation in the KAF.

(a) GDR debt

Claims against the GDR did not become void after the debtor ceased to exist. They were taken over by the KAF. This could be considered a public capital transfer to the creditors (worth some DM 28 billion).

(b) Asymmetric currency conversion

The 2:1 conversion of stocks in the balance sheet of the banking system except for some liabilities (deposits of up to Ostmark 6 000 per person) amounted to partial relief for debtors (non-bank enterprises) and a loss for creditors (banks). However, this loss was not allowed to materialize since banks received a corresponding capital transfer under the heading of equalization claims (DM 70 billion, incl. item (c), 2% of GDP).

(c) 'Satisfactory worthiness of bank assets'

At the outset of German economic, monetary and social union, the financial situation of various east German enterprises was shaky. As far as this would have had repercussions on banks' balance sheets, banks received equalization claims to prevent banking failures. This amounts to public capital transfers.

A similar operation has been designed to cover bank losses resulting from claims denominated in transfer-roubles (the

means of payment and unit of measurement used in trade with Eastern Europe until end 1990). While these claims are not necessarily worthless, they will not be serviced for eight years following a German-Russian agreement of 1992.

(d) Equity endowment

In order to enable banks to operate properly, they were granted further public transfers by means of equalization claims: their own resources ('Eigenkapital') were lifted to 4% of the balance sheet volume, a figure derived from the corresponding ratio of west German banks.

Overall, the volume of equalization claims issued ((b) + (c) + (d)) is DM 110 billion at least (4% of GDP), according to government estimates. All in all, the KAF's liabilities amount to not less than DM 140 billion (5% of GDP). All of this could be considered as government capital transfers to the private sector. As such, they would have to be included in the general government deficit (contrary to what has been done) and are part of government debt (in accordance with present public accounting).

Risks involved: The financial situation of enterprises could have been worse than envisaged initially. This would make the volume of equalization claims under (c) rise.

3. Eastern public housing

The unification treaty stipulated that ownership of people-owned flats would be allocated to local authorities and cooperatives. Housing debts were not serviced and interest was capitalized under a moratorium which expired at the end of 1993. Total debt is estimated to amount to DM 52 billion (local authorities: DM 31 billion).

According to accounting conventions debts of publicly owned enterprises are not part of overall government debt. Yet economic reasoning suggests a different treatment of eastern housing. The inability to service debts is a consequence of regulated (low) rents. Capitalized interest therefore is the counterpart of public transfers to private households. This would show up more clearly, were the setting similar to the one in western Germany and as it is gradually becoming in the east, i.e. higher rents are coupled with housing subsidies ('Wohngeld') paid to tenants.

The accrual of interest ought therefore to be considered as government spending. Regarding the debt, arrangements were made in spring 1993 to cap the level allocated to current (and possibly future) owners with the government taking over the exceeding fraction, namely DM 31 billion. The debt relief can

be considered a capital transfer (from government to publicly owned enterprises). As such it would have to show up in deficit figures — not planned — and debt levels — as scheduled.

4. Railways and postal services

As stated under (3), publicly owned enterprises are not part of general government. Yet as seen there, too, some transactions may, on economic grounds, be considered as government activities.

Spending, deficits and debts of railways and postal services have gained considerable momentum over recent years, a pace not experienced before unification. As this is mainly the counterpart of capital spending, the effect on net worth is in principle zero. Indeed, substantial eastern investment is channelled through these public companies. To the extent, however, that rising deficits reflect (imposed) pricing below costs, they should be taken on board by the government.

This latter point is not specific for eastern Germany. It has contributed to the shaky financial health of the railway system at large. Therefore, the envisaged privatization requires a debt take-over. In addition, it might be feasible only if the government covers a part of the operating costs, namely part of the salaries, too. This would imply showing openly a possibly more permanent burden.

5. Specialized public banks ('Förderbanken des Bundes')

The traditional business of specialized publicly owned banks has been to grant and administer credit programmes at preferential rates. After unification their business has expanded. This has led the banks increasingly to draw on capital markets. All this is private sector activity (as e.g. in (4)). Yet it also involves a public component, namely the subsidy content of the preferential loans. This is already in the general government accounts via either of two possible channels: (1) subsidies are paid directly from government to banks to cover the interest gap; (2) banks receive no transfers for running the credit programmes; the adverse impact on their profits reduces the corresponding income of their owner, i.e. the Bund.

6. Summary

To a large extent, the various funds created after unification have been charged with tasks which normally can be considered as tasks of general government. That is why most of the debts accumulated in these funds are already now or will in 1995 (at the latest) be part of officially reported public debt (see Table 11).

Box 2: Borrowing series — the German case

The analysis of fiscal performance is based upon various time series for government and public borrowing. In some periods they differ considerably (e.g. general government net borrowing amounted to 3,3% of GDP in 1993 while public borrowing in a broader sense was 6,8%). The main differences between these series are set out below.

The standard and internationally comparable framework for assessing fiscal flows in national income accounting terms is general government. This is also the concept embodied in the Maastricht Treaty. Thus, the convergence criterion on public deficits refers to general government net borrowing (series 1 in Table 16 below). These accounts are on a net wealth and an accrual basis which implies that there may be considerable differences to the public accounts on a cash basis (series 2 in

Table 16), basically due to financial transactions. An example of these are government loans to e.g. developing countries or domestic companies.

The convergence criterion relating to government debt in the Maastricht Treaty refers to general government gross consolidated debt at nominal value (consolidated between and within the subsectors of general government) which implies that total liabilities are not net of any financial assets which government may hold.

Hence the evolution of government debt may not be wholly explained by general government net borrowing alone. Basically two other items need to be incorporated, namely (1) borrowing incurred to finance the acquisition of financial wealth, and (2) debt take-overs inasmuch as they are not already accounted for within general government net borrowing.

Table 16**Borrowing series for Germany**

	(% of GDP)			
	1991	1992	1993	1994
A — Borrowing requirements according to different accounting systems ('Finanzierungssaldi')				
1. General government net borrowing	3,2	2,6	3,3	3
2. Central government and local authorities net balance to be financed (public accounts — 'Finanzierungssaldo öffentlicher Gesamthaushalt')	4,4	3,8	4 ½	4 ½
B — Actual net market borrowing ('Marktmässige Nettokreditaufnahme')				
3. Central government and local authorities	3,8	3,4	5,1	4
4. Treuhand and railways	1,0	1,3	1,7	1
5. Total	4,8	4,7	6,8	5

Sources: Ministry of Finance, Deutsche Bundesbank, Commission services.

In Germany, there are well-established official time series which include the financing of monetary wealth formation (series 2 and 3 in Table 16 above). These series serve as an indication of the change in gross debt to the extent that no debt take-over has occurred.

Series 2 has been larger than series 1 because it includes the borrowing required to finance an accumulation of financial assets. The more government grants loans for example in the context of development aid, the larger the difference. Other factors causing a difference and working in the same direction are the omission in series 2 of social security and of non-budgeted 'excess-profits' of the Bundesbank. The balance of social security is normally close to zero. However, when it improves in any one period, the recorded deficit as in series 1 falls, whereas there is no change in series 2. Hence the gap between series 2 and general government net borrowing widens. Similarly, rising non-budgeted central bank profits reduce net borrowing, while they have no impact on series 2.

Opposing influences (i.e. a higher deficit according to series 1 relative to financing needs as in series 2) arise from debt take-overs accounted for within general government and privatization proceeds. Transfers of wealth increase net borrowing without impacting on series 2, whereas cash inflows from sales of assets reduce series 2 without altering net borrowing. In view of the various factors at work, the difference between series 2 and 1, in principle, is liable to swings. Nevertheless, in practice, it has been fairly stable at 1% — plus of GDP approximately over recent years.

The difference between series 3 and 2 reflects the possible existence of 'hoarding' borrowed funds arising from debt management operations. Thus in 1993, the net balance to be financed was smaller than actual net market borrowing, since the Bund in particular has financed an excess of what was actually needed the same year. This may reflect the timing of some expenditure and interest-rate expectations of debt managers. Another reason for differences between series 3 and 2 is

that part of the Bundesbank profits mentioned already which exceeds what was budgeted *ex-ante*. It has no impact on series 2 but is, according to German budgetary law, used directly to pay back outstanding debt, i.e. reduces series 3. To the extent that such 'excess profits' occur, series 2 will overstate the evolution of government gross debt. Overall, the gap between series 3 and 2 can be positive or negative and also its size varies — it exceeds ½% of GDP occasionally.

Borrowing of public enterprises is not borrowing of general government. Yet reporting series 4 reflects the currently special German situation because of unification and rail reform, i.e. both the debts of the Treuhand and railways will be taken over by the federal government. That is to say, the past borrowing of

these entities are both current (railways, as of 1994) and future (Treuhand, as of 1995) elements of gross consolidated government debt. (These debt take-overs are not impacting on general government net borrowing, essentially because both the indebted institutions cease to exist when they are stripped of their liabilities, i.e. there is no recipient for the transfer of wealth granted by general government.) The gap between series 5 and 3 has widened to almost 2% of GDP in 1993, mainly due to rising net market borrowing by the Treuhand.

Overall, Germany was very close to meeting the Maastricht deficit criterion of 3% in 1993 (series 1). Nevertheless, public borrowing of almost 7% (series 5) will increase gross debt. In the current special situation in Germany, both of these figures are of analytical interest.

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Chapter 2

Inflation and monetary policy¹

1. Introduction

The Bundesbank's legal obligation to 'safeguard the currency' is generally interpreted, by the German public as well as by political authorities, as a commitment to low inflation. The Bundesbank itself gives the price stability target absolute priority in its policy strategy. The Treaty on European Union has taken over the high esteem for price stability, and raises the predominance of the inflation target into a quasi-constitutional rank. It seems therefore natural to look at monetary policies from the perspective of price stability performance.

This chapter starts with a description of inflation developments. The cost of living index (CLI) is the Bundesbank's preferred, at least most often used, measure of inflation. However, this index does not always give a correct picture of inflationary pressures in the economy: it reflects to a significant extent discretionary policy measures, such as tax changes or administered price changes, the deregulation of previously subsidized prices, and changes in relative prices, in particular linked to the restructuring of the east German economy. It is also not the most appropriate deflator for measuring the real cost of capital or the level of competitiveness. In addition, current inflation is a lagging indicator, and the speed of adjustment appears to be particularly slow for the CLI. Therefore a number of additional measures of the inflation rate should be looked at too. Implicit final demand deflators, import, producer and retail prices, as well as (trend adjusted) unit labour costs all tell a story different from the cost of living inflation: inflation peaked in mid-1991; by mid-1992, the well-established, strong downward trend was clearly visible; and some price indices actually declined in 1993.

While direct monitoring of inflation developments indicated that inflationary pressures were subsiding, the Bundesbank's main signpost, broad money supply, gave the opposite message. Never in 18 years of monetary targeting had the failure been as large as in 1992. The target overshoot was feared to lay down the foundation stone for future inflation. Section 3 starts with a discussion of the reason and the

possible consequences of missing the target. Section 3.2 deals with interest-rate and exchange-rate movements. Both areas are closely linked, not least because of the exchange-rate mechanism of the EMS, with causation lines probably running both ways. Developments in long-term real interest rates, and the tilt of the yield curve, which are both considered to have some explanatory power for economic growth, are also discussed there. This section concludes with a discussion of the evolution of the DM's real effective exchange rate, with particular thoughts given to the effects of German unification on the country's competitive position.

The final part examines the so-called P* approach to the link between prices and money. It was unavoidable that this part became quite technical. Section 4.1 develops the basic concepts, which can be traced back to the very old concept of the quantity equation of money. Section 4.2 examines the long-term relation between broad money and nominal income, before and after the German monetary union. Section 4.3 deals with measures of production potential. The dynamics of inflation adjustment are looked at in Section 4.4. Despite its technical form, the conclusions drawn from the estimations and simulations are relevant for politics. Monetary policy is unlikely to influence its final inflation target without significantly affecting the real economy, whether or not economic growth and employment enter the set of targets of the monetary authorities.

2. Inflation developments

2.1. The cost of living index (CLI)

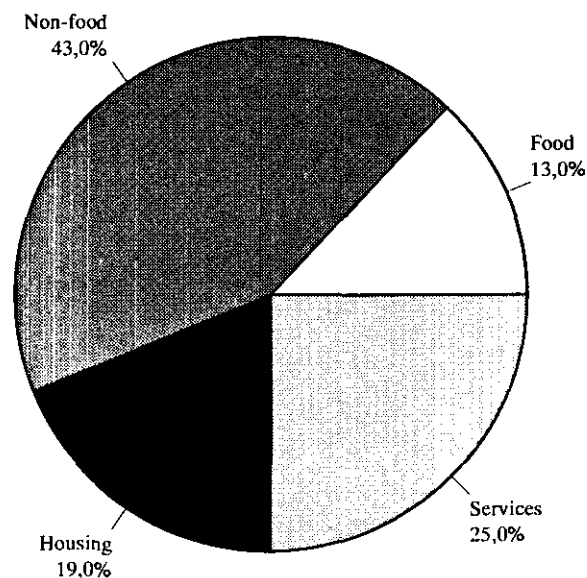
The cost of living index (CLI) is based on a basket of goods and services typical for all private households or a specified sub-group. The main argument in favour of this index is the fact that trade unions and wage earners usually take the CLI inflation figures (or forecasts of them) into consideration when they set wage demands. By focusing on CLI inflation, and signalling that it is not willing to tolerate any persistent deviation from its 2% target, the Bundesbank intends to prevent inflationary expectations from entering the process of wage bargaining. Such a feedback would otherwise bear the risk of setting into motion a vicious and self-accelerating inflationary cycle.

Composition

The main items and their respective weights in the 1985 CLI basket are given in the graph below. Services and housing are likely to continue the trend of gaining weight in the basket. In the period 1985 to 1992, the average yearly inflation rate for the four groups differed considerably: while prices for food and non-food consumption goods increased

¹ This chapter was prepared by Werner Schüle of the Monetary Matters Directorate.

GRAPH 29: The composition of the CLI basket



very moderately (1,4% and 1,1% per year), housing and service prices increased two times as much (by 3,0% and 2,9% per year respectively). This trend has been even more accentuated recently. Rents have risen faster than prices of other demand items, in particular in urban centres, due to bottlenecks in supply and demographic developments, and the deregulation of administered prices.

The divergent individual rates of price increases, some of which are hardly affected, at least in the short term, by monetary policy measures, reveal that the average CLI inflation rate not only reflects a generalized rise in prices, but also contains a significant component of relative price changes. Shifts in relative prices and output proportions can create serious index number problems. Even when individual prices and outputs are correctly measured, both the Laspeyres, or base-year-weighted, and Paasche, current-year-weighted, indices tend to be biased upward for price changes and downward for quantity changes.¹ This implies that the

¹ See K. Osband (1992). The author puts particular emphasis on the measurement of prices and quantities during periods of transition from a system of administered prices to a system of market prices. He shows that, in transition periods, distortions exceeding 5 percentage points for growth and 10 percentage points for inflation are not unlikely. Unlike the east, west Germany is not undergoing a major regime change in this area. Nevertheless, there have been relative price changes of more than 20 percentage points even within the CLI. Therefore the results of his analysis also apply here, at least qualitatively.

pursuit of a zero inflation target for the CLI as a whole (a strategy that was never pursued in Germany) might actually involve deflation in at least some of its components.²

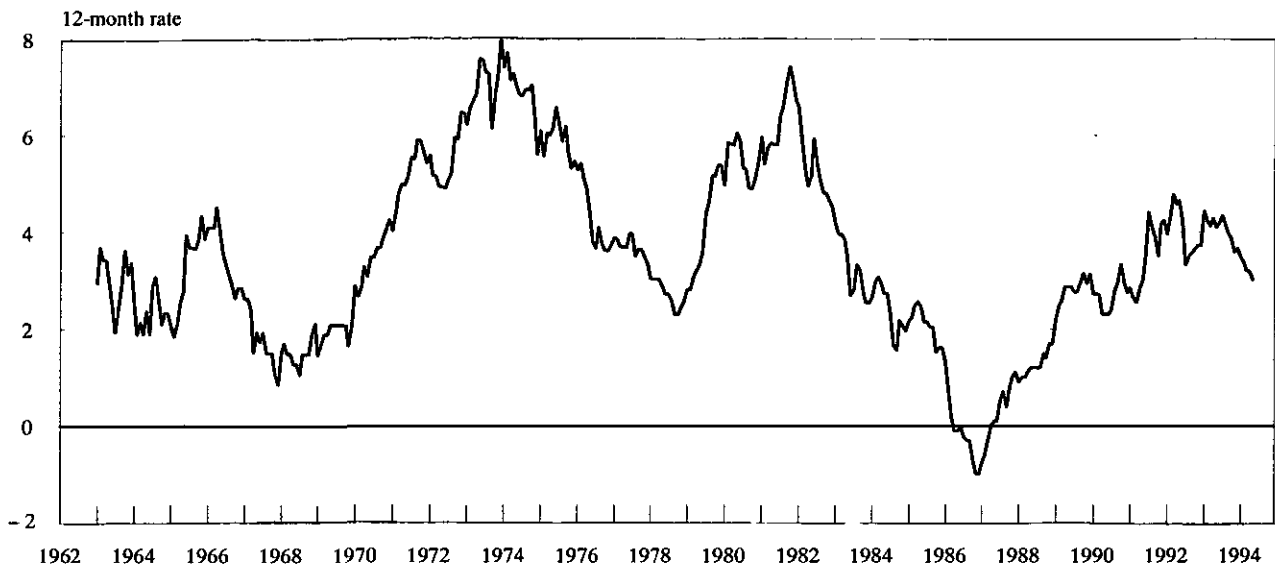
Over and above that, the CLI inflation rate is to a considerable extent influenced by administered prices. It is difficult to quantify with precision the importance of this factor.³ Nevertheless, the effects of administration are likely to be strong. Last but not least, the necessary budgetary adjustment at all levels of the public sector in Germany has contributed to the above-average rate of price increases in the services sector.

² In the USA, this bias is often put at around 1,5%. Recent research in the Bank of England arrives at a similar conclusion for the United Kingdom. Research in Canada puts the bias there at a lower, but still significant, figure of 0,5%.

³ The share of administered prices in the CLI basket was recently estimated by the Commerzbank at 40%. They specify four broad categories: (i) directly administered prices, such as TV and radio fees, 5%; (ii) partially administered prices, i.e. rents, health care, 16%; (iii) quasi-administered prices, goods subject to excise duties, 9%; and (iv) indirectly administered prices, food prices influenced by the EU's common agricultural policy, 10%.

In an exercise of 'inflation accounting', the Economic Unit of the Committee of Governors calculated an influence of 'residual factors including changes in indirect taxes' of 44% for the average of the years 1990 to 1993. This 'residual' factor was particularly large in 1993, when it accounted for 2,3 percentage points out of the 4,2% CPI inflation rate.

GRAPH 30: Inflation rate from 1963 to 1994
(cost of living index)



Source: Commission services.

Long-term evolution

Over a rather long 30-year period from the end of 1963 to the end of 1993, the average annualized rate of CLI inflation was 3,6%, about as far away from the Bundesbank's 2% target as the current inflation rate. Within this period, there have been considerable fluctuations, ranging from a minimum rate of -1,0% on the basis of annualized 12-month changes in mid-1986 (after the negative oil-price shock), to a maximum rate of 7,9%. These fluctuations are also reflected in the standard deviation of 1,9 around its average rate. With respect to German inflation, the 'classical' EMS period, from March 1983 until 1987, was characterized by a continuous, rapid decline in price rises from a level of almost 7,5% in the early 1980s to around zero by 1987.

Recent developments

Recent development in CLI inflation was, over and above the mentioned disturbances to relative prices, strongly influenced by discretionary changes in indirect taxes in two steps: the increase in mineral oil and other excise taxes in July 1991, and the one percentage point increase in the VAT rate at 1 January 1993, which affected the index by 0,4 percentage points. If crudely adjusted for tax changes, the smoothed¹ CLI inflation rate was therefore close to the Bundesbank's

inflation norm at the beginning of 1989, but it was, with some fluctuations, creeping up until mid-1992. Including the tax changes, inflation topped 4,6% in the first quarter of 1992. Since the beginning of 1993, the adjusted and the non-adjusted rates have shown a clear downward trend. There is, however, a significant distance in levels between both rates: while the reported series have remained above 4% for most of the year and declined to 3,2% in March 1994, the adjusted series remained below 3,5% most of the time. From the point of view of guarding price stability, it would, however, be completely inadvisable to disregard the non-adjusted series; without any doubt these (unadjusted) price levels affect wage demands and, to the extent that they are passed on to wages, they affect inflation to the same extent as 'pure' wage demands. An even more rapid decline can be got if one looks at the annualized change over a moving six-month period:² this rate fell, for the CLI, from 4,1% in May 1993 to 2,5% in February 1994.

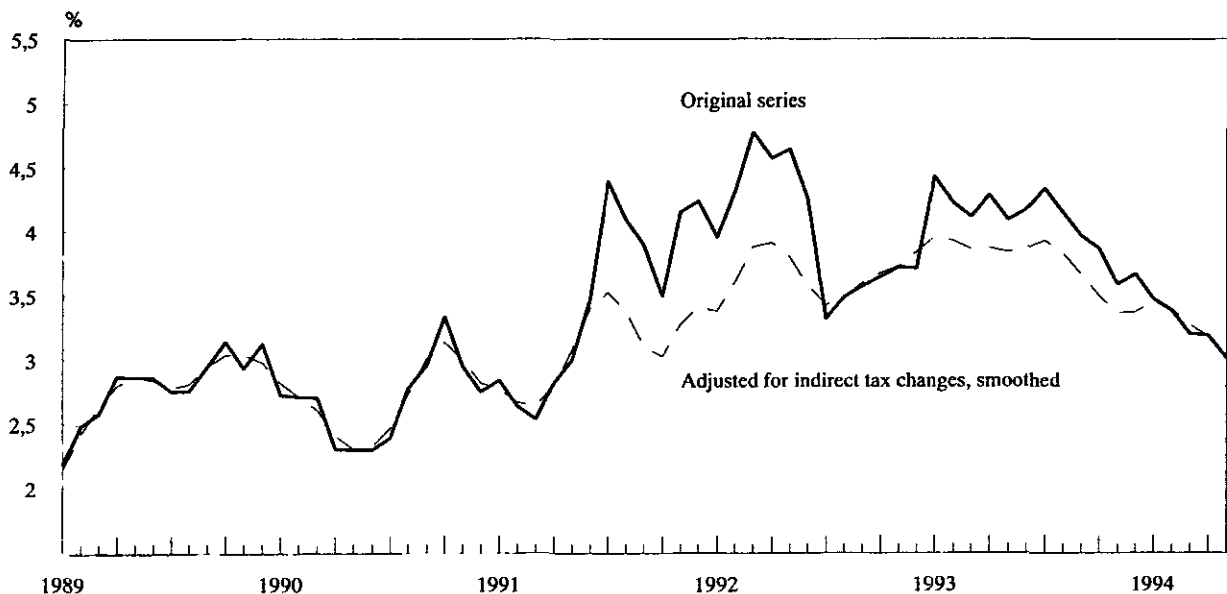
Outlook

In the immediate future the picture for inflation is very positive: the low capacity utilization in the production sector, as well as moderate nominal wage increases in 1993 and

¹ A simple three-month moving average.

² This is done by the Bundesbank; see the statistical series to the monthly report of the Bundesbank, seasonally adjusted series, February 1994.

GRAPH 31: Headline inflation and tax-adjusted rate, 1989-93



Source: Commission services.

additional significant wage moderation in 1994, should work in the direction of a further decline in CLI inflation. However, this picture is to a certain extent blurred for the headline inflation rate by tax increases on 1 January 1994, and possibly by budgetary adjustment measures, which will add to the reported inflation rate, in so far as rising fees and prices for public services are involved. In addition, the CLI inflation rate has shown some persistence over the last four months of 1993, as witnessed by the annualized moving six-month rate which remained flat at 2,9% from September to December of last year. It has dropped, however, to 2,5% in February, if the effect of the hike in mineral oil taxes is excluded. Further, it is comforting that the underlying tendency remains clearly downwards. The headline inflation rate might fall into a range of 2 to 2,5% during the remainder of this year, and a fall below 2% is possible next year. Adjusted for taxes and other public fees, the rate might even fall significantly below 2%.

2.2. Domestic demand prices and GDP component prices

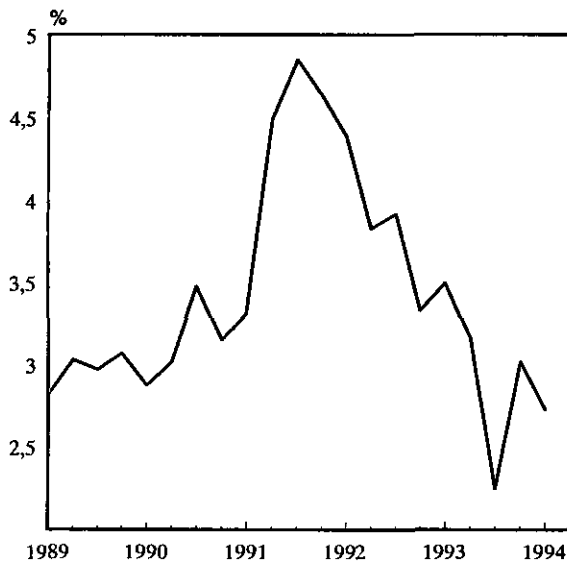
Final domestic demand prices are a highly significant indicator for the overall inflationary pressures in the economy and not

so heavily disturbed as the cost of living index.¹ Final domestic demand prices are also superior to the implicit GDP deflator, in particular during periods of significant changes in import prices. According to the final domestic prices inflation measure, inflation peaked in mid-1991 and is since then on a clear downward path. It reached 2,3% in the third quarter of the past year. But changes in relative prices are also an important element for the overall evolution of the GDP deflator, and, although to a lesser extent, for the deflator of domestic final demand. The different inflationary trends of the final demand components can be explained by four factors: (1) relative scarceness, in particular, with a lack of supply, in the housing sector, and, with a lack of demand (together with the second factor), for investment goods; (2) the degree of international competition, which usually exerts a dampening effect of respective inflation rates; (3) productivity developments, and (4) external prices and exchange-rate movements for import prices.

The different speeds of price increases on the level of final demand components are additionally illustrated by Graph 33.

¹ The Bundesbank itself uses this measure in its empirical research, i.e. concerning money demand, or the link between monetary policy and prices. See various issues of the Bundesbank's monthly report.

GRAPH 32: Implicit price deflator of final domestic demand



Source: Commission services.

Table 17
GNP component prices (annualized changes)

		Private consumption	Public consumption	Investment	Construction	Exports	Imports
1989	I	2,6	3,5	2,5	2,8	3,2	5,4
	II	3,0	2,6	3,1	3,2	3,3	7,6
	III	3,0	3,2	2,6	3,3	2,6	4,0
	IV	3,1	3,8	2,1	3,4	1,7	3,0
1990	I	2,4	3,7	1,8	5,1	1,0	0,2
	II	2,2	4,5	1,7	6,3	0,4	-1,9
	III	3,0	3,4	1,7	6,8	-0,1	-1,4
	IV	3,1	3,3	2,1	7,1	0,4	1,9
1991	I	2,8	2,2	2,0	6,6	0,9	1,7
	II	3,4	6,6	3,1	6,9	1,5	2,3
	III	4,6	4,9	3,0	6,8	2,2	4,7
	IV	4,0	5,0	2,9	6,4	1,8	1,0
1992	I	4,5	5,0	2,8	6,3	2,1	0,4
	II	4,8	1,3	1,9	5,3	1,5	-0,3
	III	3,4	6,1	1,3	5,3	1,1	-1,5
	IV	3,3	3,7	1,9	4,9	1,2	-1,5
1993	I	3,7	3,7	1,3	4,7	1,6	0,3
	II	3,2	3,6	0,6	3,9	1,4	-1,1
	III	3,1	0,5	0,5	3,1	1,4	-0,2
	IV	3,5	2,2	0,4	2,8	0,9	0,1

2.3. Producer prices

On the producer price (PP) level, inflationary pressures have not been apparent since the early 1980s, when they reached a level above 8% in the fourth quarter of 1981. The time profile looks similar to the one for domestic final demand prices: producer price inflation reached a (small) local peak at a comparatively low level of 2,5% in mid-1991. Since then, it has been on a clearly declining path. In all four quarters of 1993, producer prices actually fell in absolute terms. The comparatively low rise in producer prices can be partially explained by tough international competition, including competition from newly industrialized countries, and for the most recent quarters by falling prices of intermediate imports on the cost side. On the other side, wages have risen faster than productivity, and to the extent that competition has made it difficult to pass wage costs on to prices, profit margins in this sector have been under pressure.

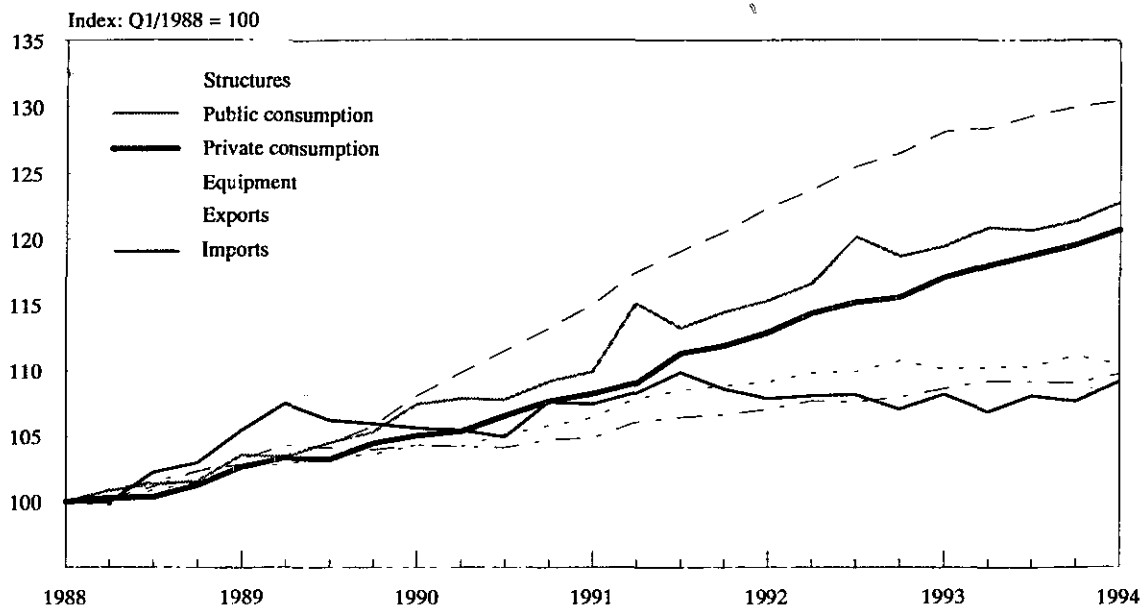
For firms many production and investment decisions depend on the real cost of capital, and the relevant deflator is producer prices. For producing 'on stock', short-term financing costs are relevant, while for long-term investment projects the expected rate of producer price inflation might be compared with long-term borrowing rates. The expected PP inflation rate is unlikely to remain at its current depressed and even negative level, but on the basis of the past 10 years, and given tough international competition, there is little reason to expect a strong increase in producer prices in general. Therefore, on the basis of the current and expected development in PP inflation the level of real interest rates can hardly be judged as very low by historical standards.

3. Monetary policy

3.1. Monetary aggregates

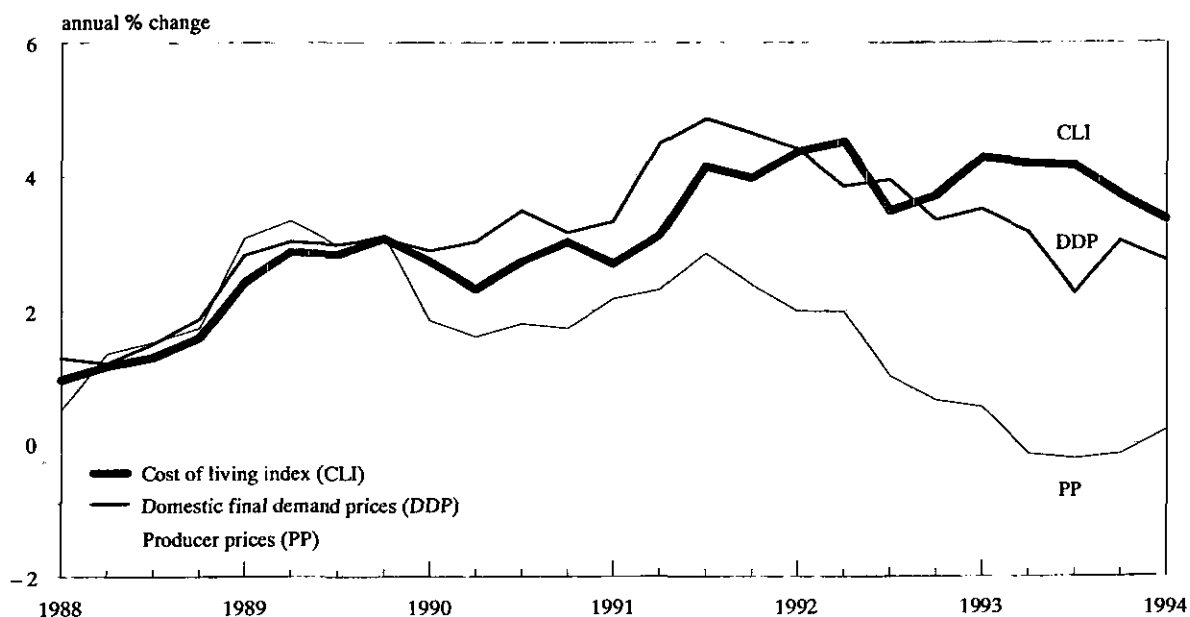
In 1992, for the first time since 1988, when the Bundesbank changed its monetary target from central bank money to M3, monetary authorities clearly failed to meet the self-imposed target range. The divergence from the 1992 target of 3,5 to 5,5% was also the most significant in 17 years of monetary targeting in Germany. Fourth-quarter M3 exceeded its level in the fourth quarter of 1991 by 9,4%. Given the scale of unification-related transfers and new credit demands from the east, combined with wage pressures, there were reasons for this in the new environment of monetary policy. However, the way the target was depicted may have also played an important role.

GRAPH 33: Price indices of GDP components



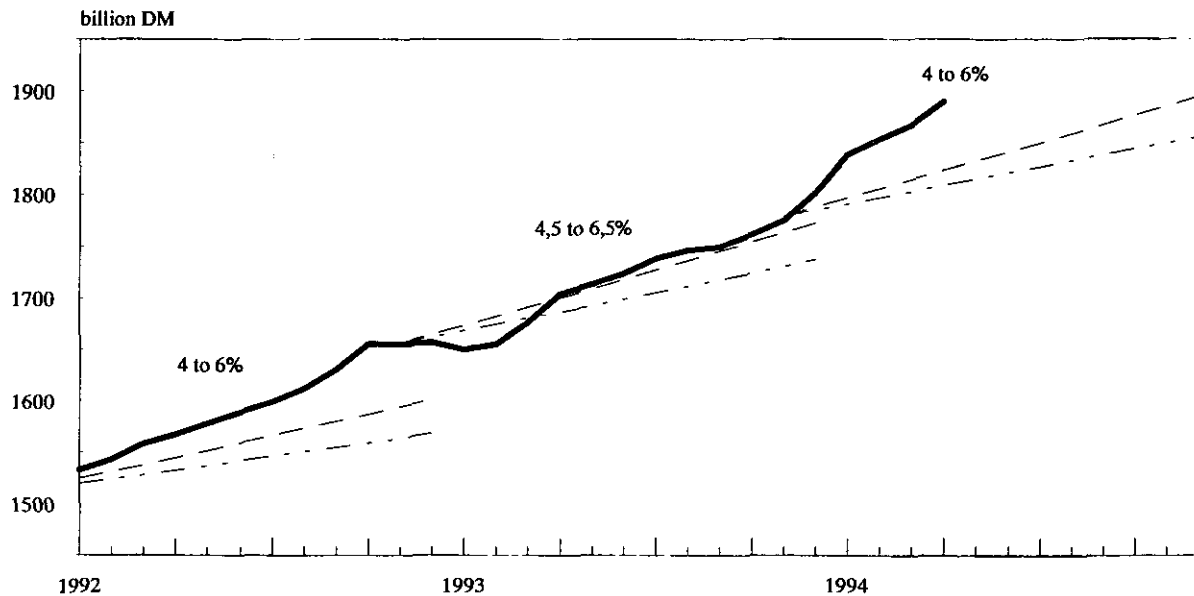
Source: Commission services.

GRAPH 34: Inflation measures



Source: Commission services.

GRAPH 35: M3: targets and outcomes



Source: Commission services.

After the disturbance brought about by the German monetary union was thought to be over in 1993, the development of broad money has again become very difficult to interpret. The difficulty lies less in the fact that in January 1993 M3 fell 2,4% below the average level of the 1992 fourth quarter. This can be seen as a 'return to normal', after M3 had been inflated by currency intervention during the autumn-1992 ERM turmoil. However, in December 1993 M3 was 8,1% above the average of the fourth quarter of 1992, and the target was again overshot. The six-month dynamic was even stronger; on this measure M3 was up 9,2% in December on an annualized basis. And in January 1994 M3 was up 21,2% from the average of the fourth quarter of 1993. This figure exaggerates, however, the underlying growth trend, which might be better approximated by the annualized six-month rate which stood at 11,8% in January and at 12,7% in February 1994. Nevertheless, the very strong 'underlying' expansion in M3 can hardly be explained by nominal final demand or interest-rate developments, the main factors in traditional money demand functions. Whether 1993 marks a transitory deviation from the usual pattern of demand for money or indicates a structural break remains to be seen.

Decomposing the deviations from the M3 target

It is useful to split the gap between the Bundesbank target and the outcome in 1992 into two components: first, the extent to which the target itself was overambitious, and second, the gap between a well-designed target and the outcome.

To this end a decomposition of the factors behind the departure of M3 from the Bundesbank target is an interesting exercise. The observed gap between the failure of meeting the intermediate M3 target on the one hand, and the satisfactory German inflation performance on the average of the period between 1975 and 1992 on the other hand, motivates a deeper investigation of the link between broad money and inflation (see Section 4 of this chapter). As a first step in the analysis a description of the facts might help. The *ex-post* deviations of actual inflation from the target inflation rate (the so-called 'unavoidable' rate until 1984, and thereafter the normative target rate) have been split into five components:¹

$$(p - p^t) \equiv (m - m^t) - (y^* - y^e) + (v^* - v^e) - (y - y^*) - (v^* - v)$$

¹ Otmar Issing, 'Theoretische und empirische Grundlagen der Geldmengenpolitik der Deutschen Bundesbank', in: *Wirtschaftsdienst* 1992/X.

where all variables are expressed in growth rates:

m, m^t	= actual, target M3,
p, p^t	= actual, target price level
y, y^*, y^e	= actual output, estimated actual, forecast production potential,
v, v^*, v^e	= actual, trend, and forecast velocity

The first component on the right-hand side measures the degree of missing the intermediate M3 target. The following two components measure the errors in forecasting the potential output and the trend velocity. The fourth component is a measure of capacity utilization. The final component measures the deviation of actual velocity from its long-term trend.

The most important result of this analysis of components¹ was the following: while there were larger deviations from the money growth target in some periods, that average growth in M3 has been one percentage point above the middle of the target range. This target overshoot did not lead to a corresponding increase in inflation, because the bulk of it was compensated by a decrease in velocity. The reasoning so far would imply that the trend decline in velocity in the determination of the money supply target should have been higher in the past. Estimates for the trend decline in velocity vary between 1,3 and 1,5% per year for the period until 1987, during which a zero trend was assumed. For the entire period from 1973 to 1990, the trend decline was around 1,25% per year on the basis of published figures. The Bundesbank's internal figures for M3, which are adjusted for statistical breaks, lead to an estimate of a 1,0% trend decline of velocity for the entire period. As from the year 1994, the Bundesbank has taken this 1% decline into account. (See the box on targets and outcomes from 1975 to 1994.)

In spite of having failed to hit the target several times in the past, monetary policy has been — according to Issing — quite successful with respect to its ultimate target price stability, since 1975. However, in the short term, meeting the target would be neither a sufficient nor a necessary condition for the achievement of the stability target. These observations are important in themselves; however, the analysis also provided an interesting insight into the treatment of the 'trend decline in velocity' in fixing the annual M3 growth target by the Bundesbank.

¹ The Bundesbank's analysis covers the period between 1975 and 1 July 1990.

Measures of the 1992 target overshoot

An alternative view of the velocity problem is based on the following reflection:² while a trend increase in velocity can theoretically be explained by the progressive introduction of innovative payment techniques (for example, the use of debit cards reduces the need for cash holdings), a trend decrease can hardly be explained and dealt with in the same way. The perceived trend decline in velocity might be explained by the fact that the broad aggregate M3 is relatively far from the function of money to serve as a means of transaction. Demand for M3 is also influenced by portfolio decisions or 'net financial wealth'. It was therefore suggested to remove the restriction of a unit elasticity of the demand for money. Estimates of the income elasticity of real broad money balances vary between 1,4 and 1,8.³ H. Lehment arrived at an income elasticity of the demand for real money balances of 1,7 with respect to real GDP for the period 1973 to 1989. Calculations by the Commission services for the period 1975 to 1991 have confirmed these results with an elasticity of 1,75. The income elasticity of M3 extended⁴ was even higher. However, longer-term estimates, including the 1960s, for the income elasticity of demand for broad money were found to be lower, slightly above 1,5.

The implications of the two alternative approaches for monetary targeting are striking: for a predicted rate of growth of potential output of 2,75% (implicit in the 1992 M3 target) and a normative inflation target⁵ of 2%, the middle of the target range should be set at 5,75% according to the Bundesbank's linear trend approach⁶ (against 4,5% in the 1992 target), and at 6,8% according to Lehment's elasticity calculations in terms of real GDP. Both mid-ranges ignore, however, any *ad hoc* adjustments for the 'liquidity overhang'.

The Bundesbank had reduced its 1992 target by one percentage point, to account for a suggested post-unification liquidity overhang. For 1994, the adjustment was 0,5 percentage points. There was no theoretical justification given for this adjustment, and the measure of the appropriate degree of adjustment remained arbitrary.

² See *inter alia*: Harmen Lehment, 'Zum Zusammenhang zwischen Geldmenge und Bruttoinlandsprodukt in der Bundesrepublik Deutschland'. The same reasoning is implicit in the P^* approach, see Section 4.

³ At the low end of the spectrum are Bundesbank estimates; for example Issing and Tödter (1994) found a value of 1,43.

⁴ M3 extended includes certain Euro-DM deposits of German residents, essentially those held with the branches of German banks in Luxembourg.

⁵ The Bundesbank's long-term target is a more ambitious range for the rate of inflation of 0 to 2%

⁶ (or 6% if the 1,25% trend decline, on the basis of published M3 data, is taken).

Table 18

Measures of the target overshoot

Model	Determinants			Target range	Overshoot ¹ 1993	Overhang ² 1988-93	
	y*	p	v*			(i)	(ii)
Bundesbank	2,75	2	0,75	4,5 to 6,5	2,6	10,5	4,0
Issing	2,75	2	1,5	4,75 to 6,75	2,4	7,8	1,3
Lehment	2,75	2		5,5 to 7,5	1,6	3,5	- 3,0

¹ Overshoot of the increase in M3 from the target ceiling. In 1992, M3 grew with 9,4%.

² Cumulated deviations from the target mean for the period 1988 to 1993: (i) on the basis of the 2% inflation target; (ii) on the basis of *ex-post* inflation rates (base drift accommodated).

Table 18 summarizes the degree of target overshooting according to various concepts. The table shows a wide range of measures for the appropriate target overshoot from 0,1 to 3,9 percentage points.

- The Bundesbank's target was overshoot by almost five percentage points in 1992, and 2,6 percentage points in 1993.
- However, the 1992 target may have been too tight, even on the basis of the Bundesbank's own analysis.
- The gap shrinks further if the target is set on the basis of Lehment's estimated elasticities instead of assuming a (deterministic) trend.
- Finally, if a 3% target for the inflation rate in the difficult post-unification adjustment period were allowed for, and the assumption for potential growth were slightly more optimistic, the overshoot vanishes completely.

In the last column of the table the cumulated overhang, calculated at the basis of the three concepts for the six-year period since 1988, is reported. If the Bundesbank's target mean for each respective year is taken as the reference, the accumulated monetary overhang reached some 10,5% by the end of 1993. However, if base drift is allowed for, or if realized inflation rates are used instead of the 2% target rate, reflecting the fact that the final stability target is meant as aiming at a stable and low rate of inflation rather than at maintaining a certain price level, the cumulated overhang boils down to some 4% or less, depending on the measure (the measures ignore a possible overhang, created with German monetary union). All these calculations, for what they are worth, show one thing: the room for arbitrariness in the derivation of the target is sufficiently large to allow for an additional degree of freedom, without compromising monetary targeting.

The Bundesbank Council decisions appear, however, to be consistent with the second Bundesbank concept of assuming a stronger trend decline of velocity. Since 1993, the assumption about the trend decline has been revised upwards and has reached one percentage point for the 1994 target.

While with respect to the treatment of the decline in velocity the approach has become more realistic, it remains a question whether the assumption for potential growth in the unified economic area, which has been revised downwards for 1994, should not allow for a somewhat stronger growth in western and eastern Germany. In addition, if the 2% normative inflation target is maintained not as a medium-term target, but as a norm for each and every year, failing to consider the current extraordinary situation and administrative tax measures and the deregulation of prices in eastern Germany would imply an inflation rate even below the ambitious target for some years later.

As discussed in Section 4 of this chapter, the long-term relationship between money and nominal income in Germany may have remained stable. But the dynamics of the process of adjustment of real balances to short-term disturbances (for instance, an excess demand for real balances with respect to real income resulting from swings in fiscal policy or from a sudden increase in aggregate demand) is complicated. Theoretical models of such adjustment¹ imply that there will be damped cycles in both the inflation rate and the output gap. In the long-term, econometric studies of related P* models suggest around 10 years; the inflation rate is predicted to reach a steady state value determined by the rate of money growth.

¹ See, for instance, W. H. Buiter and M. Miller, 'Real exchange-rate overshooting and the output cost of bringing down inflation: some further results', 1982, mimeo, LSE.

However, if there are hysteresis effects then the steady state will involve a permanently higher rate of unemployment if the initial position of real balances is too restrictive. In addition, the cycles in inflation are themselves clearly negative in welfare terms and adversely affect the efficiency of the price-signalling mechanism.

Finally, during the process of adjustment (and especially if the final equilibrium involves permanently high unemployment and permanently low productive potential), the difficulties of fiscal adjustment are increased. If the targeted degree of fiscal adjustment is invariant to the path of productive potential implied by monetary policy, explosive downward oscillations of the real economy are likely to result.

Avoiding these unfavourable dynamics would require the monetary authority to supply — once the target inflation rate has been reached — the level of real balances consistent with closing the output gap at the current natural rate of unemployment.

Given the lags in monetary policy, this would involve making adequate provision of real balances once the rate of inflation (measured on the basis of the best indicator of the inflation trend, which is probably normalized unit labour costs) two years forward is forecast to have reached the inflation target.

The analysis in Section 2 of this chapter indicates that the rate of increase of unit labour costs will certainly be consistent with reaching the presumed inflation target range of 1,5 to 2,0% within the current two-year forecast horizon. Indeed, the target, on this basis of measurement, may even be undershot.

3.2. Interest-rate policies and exchange rates

Due to its leadership role in the ERM, the Bundesbank enjoys a high factual independence in its interest-rate policy. The Bundesbank uses this freedom in order to put its domestic stability considerations in first place. Nevertheless, the external side has never been irrelevant for monetary policy:

- The stability of the ERM currency grid was a factor to be considered. In addition, the political commitment to create an ever-closer union, and more specifically, tied into a framework of monetary policy coordination, has constrained the authorities to a certain extent, which has varied over time. With the widening of the ERM bilateral exchange-rate bands to 15% on both sides, the exchange-

rate mechanism as such¹ ceased to be an effective constraint in practice.

- The effective external value of the DM has always been a matter of concern for the Bundesbank. In particular, the evolution of the DM/USD rate has been watched carefully.²

Short-term money market rates and official rates

The Bundesbank uses mainly three interest-rate instruments: the discount rate, the Lombard rate and the rate for open market transactions under repurchase agreements (the repo rate). The discount rate represents in effect a floor for money market rates at the very short end of the market; it also serves at times as a 'signal' rate. The Lombard rate for short-term emergency refinancing needs of banks serves as a ceiling rate. And the repo rate is the most relevant rate for steering the money market in the very short term. The following graph shows the history of ceiling and floor rates in Germany.

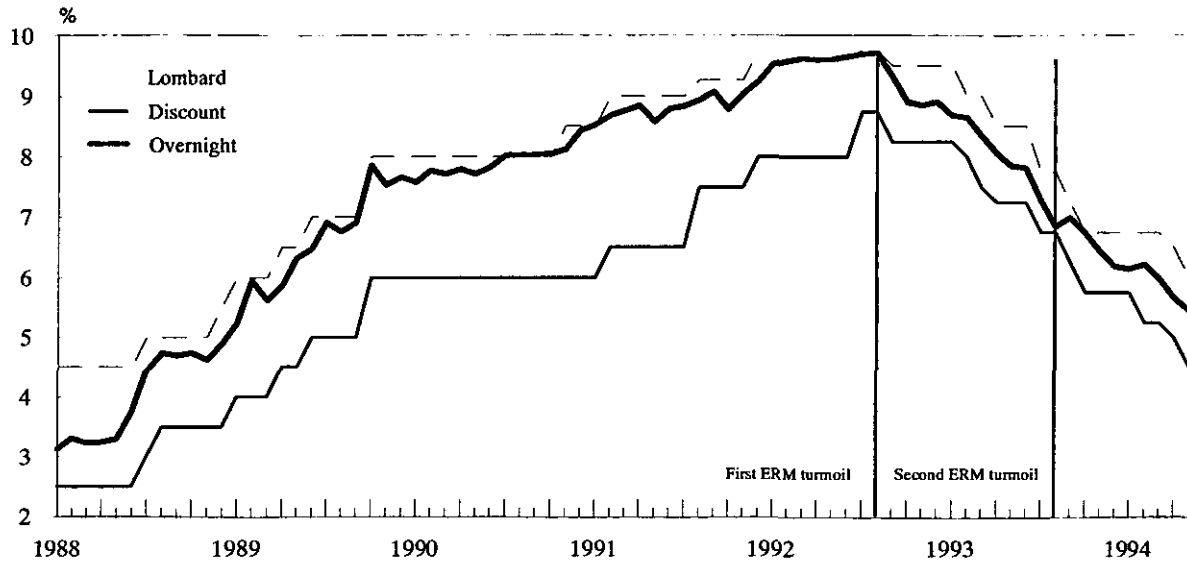
The Bundesbank started a long period of hikes in its official interest rates on 1 July 1988, when it decided to increase the discount rate from 2,5 to 3,0%. The Lombard rate was left unchanged at 4,5%. Until 6 October 1989, both official rates were increased to a level of 6,0% for the discount rate and 8,0% for the Lombard rate, in a succession of frequent 50 to 100 basis points steps. Then monetary policy strategy switched: both official rates remained stable for more than a year, until the end of 1990.

The Bundesbank resumed the policy of tightening money markets by increasing the Lombard rate, which was at the time an effective ceiling to very short-term interbank rates. On 2 November 1990, the Lombard rate was at a level of 8,5%, and by 20 December 1991 it reached its top level of 9,75%. Despite heavy currency intervention in July and August 1992, forced by the first ERM turmoil, short-term money market rates not only remained at a very high level but continued their upwards trend. This is a clear indication that the Bundesbank did, more or less, fully sterilize the effects of currency inflows on the German money market. The discount rate had little restrictive power during this period and served mainly as a signal — a role, however, which should not be underestimated, in particular against the background of tensions within the EMS.

¹ The policy strategy of 'shadowing' the old narrow bands represents an effective restriction only for those members who follow this type of strategy, not for the Bundesbank.

² An early discussion of potential conflicts in this area is provided in O. Emminger (1977).

GRAPH 36: Short-term interest rates, 1988-94



Source: Commission services.

The turning point in the direction of interest-rate changes coincided with the decision to devalue the Italian lira on 14 September 1992, which was followed two days later by the ERM 'black Wednesday', when sterling and the lira left the ERM. The second ERM turmoil fell into a period where the Bundesbank pursued a strategy of cautious cuts in interest rates.

While, during the phase of tightening, the Lombard rate represented an effective ceiling to the repo and overnight rates, the discount rate effectively provides a floor to very short-term money market rates in the current phase of easing. The three-month rate deviates at times from the very short-term end of the money market. It reflects expectations of market traders about the direction of monetary policy in the near future.

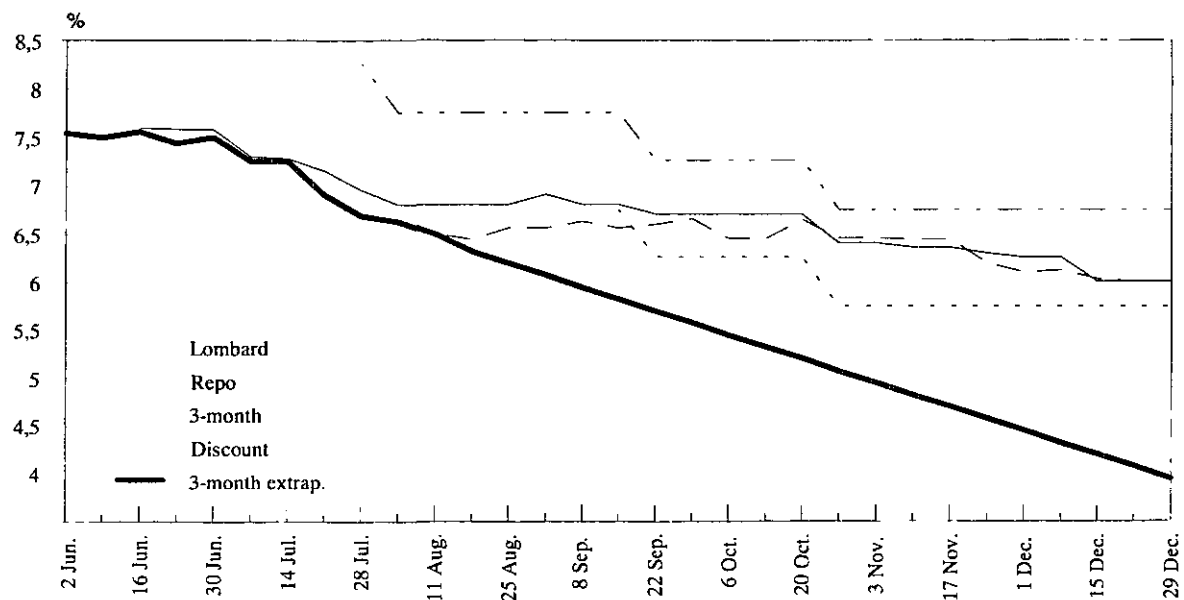
In July 1993, the Bundesbank allowed its repo rate to fall to the discount floor. Markets had expected, as clearly witnessed by market sentiment and indicated by the three-month rate, a Bundesbank decision to cut the discount rate. The disappointment of markets on the non-move probably played a trigger role for massive speculative attacks on the ERM grid. In the perception of markets, the Bundesbank's 'go slow' policy

was at odds with the policy preferences in a number of Member States. In this respect, a once and for all discount-rate cut of some 50 basis points would probably have provided only a temporary relief. Only a complete strategy change towards a significantly faster easing speed would have had a chance to sustain the currency grid, implying a switch in Germany's monetary policy strategy which was not acceptable to the authorities at the time.

A continuation of the Bundesbank's policy of cautious easing steps implied a further decline in official and market rates in 1993 and 1994; however, rates came down much later and probably at a lower speed than expected by markets during the summer of 1993. Graph 37 gives an indication of the difference between the strategy expected by markets, in July 1993 under the assumption of a sustained ERM grid, in August under the assumption of uncoordinated rate cuts, and the path followed by the Bundesbank. If monetary policy had followed a linear prolongation line of the July to mid-August three-month slope, overnight rates would have dropped to a level of below 4,0% by the beginning of 1994.

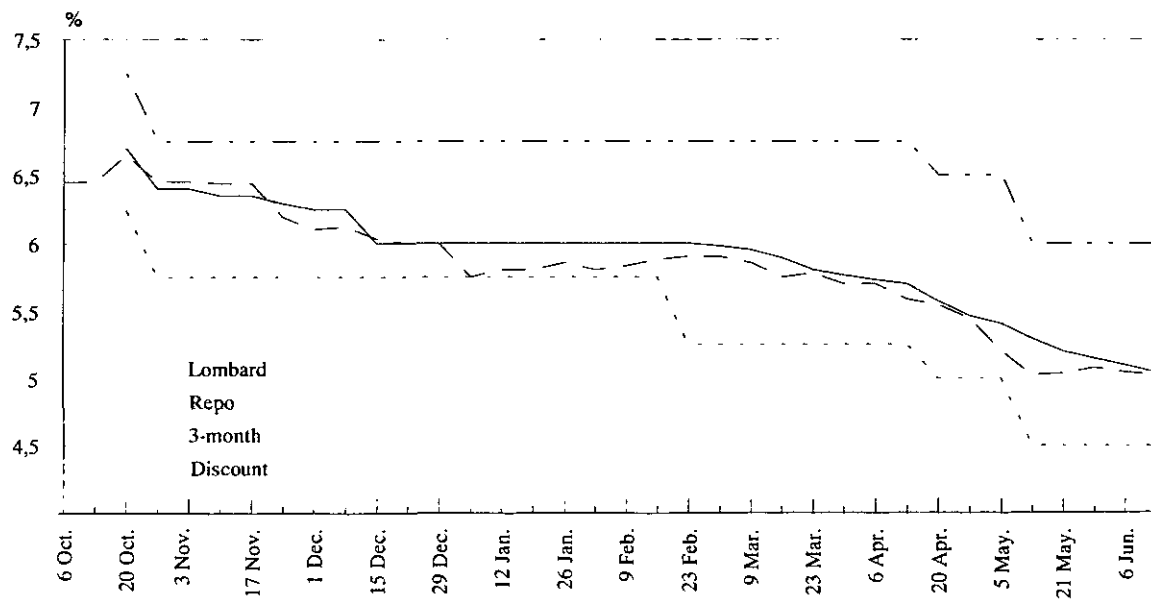
Between 22 October 1993 and 22 February 1994, the two official rates have remained unchanged at 5,75 and 6,75%

GRAPH 37: Extrapolating market expectations, 1993



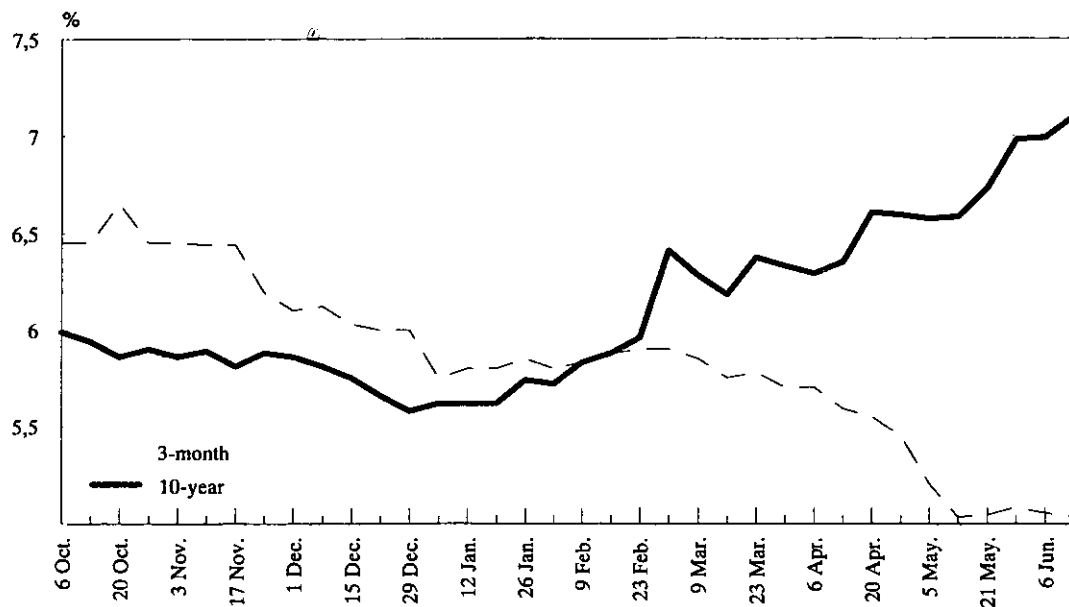
Source: Commission services.

GRAPH 38: Short-term interest rates – recent developments, 1993



Source: Commission services.

GRAPH 39: Short-term and long-term interest rates, 1993



Source: Commission services.

respectively. On 18 February 1994, the discount rate was cut to 5,25%, on 20 April the discount rate was cut to 5,0% and the Lombard rate to 6,5%, and on 13 May both rates were cut further to 4,5 and 6% respectively. Since 17 July 1992, when both rates had reached their top levels of 8,75 and 9,75% respectively, the two rates have been cut by 425 basis points (discount rate) and by 375 basis points (Lombard rate). This is a marked decline; nevertheless both rates have not yet reached their bottom levels from previous easing cycles, when they reached respective levels of 3,0 and 4,0%. The repo rate declined to 5% by 22 June. It has been allowed to decline again since 3 March, after it had been fixed at 6,0% for a 13-week period. Long-term interest rates have increased sharply since the beginning of the year, following rates in the USA. At the same time bond prices have become very volatile. Since the beginning of the year, the 10-year benchmark rate has increased by more than 150 basis points to 7,2% in June. As a result the yield curve has become normally shaped, but, given that economic growth dynamics are still weak and inflation is on a declining trend, probably not entirely for welcome reasons.

Are real interest rates historically low?

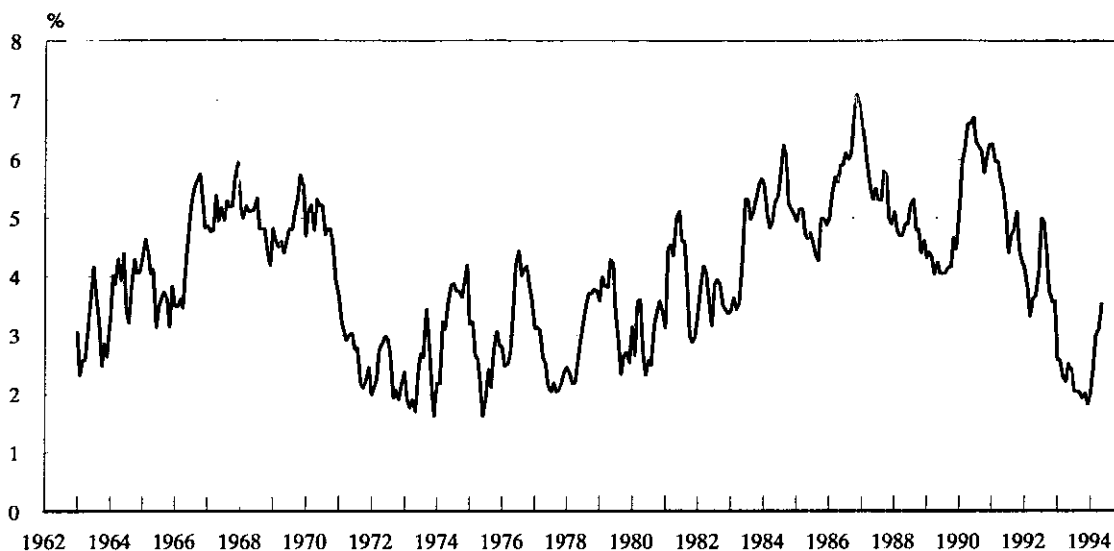
At first sight, the real long-term interest rates, defined as the government bond average yield, deflated by the current

headline CLI inflation rate, seem to be at a historically (within a 30-year period) low level. However, this measure of real rates may be misleading in a number of respects:

- The current rate of inflation is of little relevance for decisions concerning the future. The current inflation rate should therefore be replaced by the integral of expected inflation of the maturity horizon.
- An alternative to deflating nominal long-term interest rates with forecast inflation rates would be to look at '(inflation) target consistent'¹ real interest rates, defined as the difference between long-term (government bond) interest rates and either, in the case of monetary aggregate targeting, the normative inflation rate, which is used to derive the broad money supply target, or, in the case of direct inflation targeting, the average medium-term inflation target level.
- The choice of the nominal interest rate depends on the purpose. The government bond average rate is central for

¹ See L. E. O. Svensson (1993), 'The simplest test of inflation target credibility', Seminar Paper 560, Institute for International Economic Studies, Stockholm. In Germany, this approach would suggest a long-term inflation rate of between 1 and 2%.

GRAPH 40: Inflation-adjusted long-term interest rate
(government bond average rate deflated with CLI inflation)



Source: Commission services.

the Finance Minister, but to a much smaller extent, however, for private households and firms. They are more affected by mortgage rates, rates on instalments, overdrafts and other forms of credit.

- The CLI inflation rate (or rather its expected future average value) is important for households' savings decisions; however, it is irrelevant for investment decisions. For firms producer prices are more important. The two price indices have been strongly divergent since 1990 (see Section 2 of this chapter), partly as a result of administered prices and fiscal adjustment. Despite the sharp recession, on the basis of producer prices, real long-term government bond rates have remained roughly unchanged from the high level they had reached after Germany's unification.
- For the investment decision in residential houses the situation is blurred by a number of direct and indirect interest-rate subsidies. House prices (and rents) have been increasing faster than the average price level. However, it is uncertain whether this trend will carry on; there might even be a risk of a fall in prices in the future, if demand for new housing becomes less buoyant and the construction sector faces overcapacities.

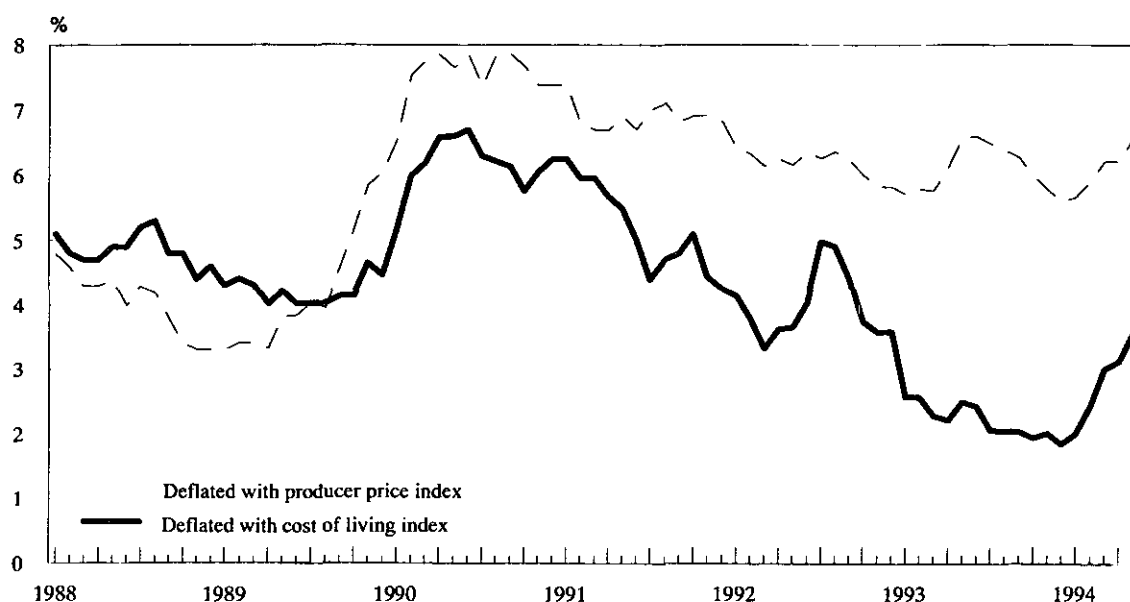
3.3. Developments in real exchange rates

The determination of the appropriate level of the DM's long-term equilibrium real exchange rate,¹ which is distinct from the movements of the real exchange rate around this 'equilibrium level' as a result of alternating positive and negative output gaps, is the subject of the following. Bearing in mind that it is difficult to determine the equilibrium real effective exchange rate in absolute terms, and that an absolutely 'correct' measure might not be readily available, two points can be made about where to find the equilibrium exchange rate as compared to the current one:

- (i) The assessment of the long-term evolution of the DM's real external value is sensitive to whether the analysis is based on price or cost measures, and if the point of departure has been well chosen. A study of price competitiveness seems to suggest that for the overall effective rate purchasing power parity (PPP) cannot be rejected in the long term. However, the same is not true

¹ That is, the real exchange rate that would be consistent with maintaining the economy on its trend path (for both output and absorption), assuming 'animal spirits' both in Germany and the rest of the world were at 'normal' levels, and that budget deficits and debt, both in Germany and in the rest of the world, were at appropriate levels.

GRAPH 41: Inflation-adjusted long-term interest rate



Source: Commission services.

for bilateral exchange rates, in particular for the USD-DM real rate. In terms of unit labour cost developments the competitiveness picture is less favourable for Germany. It might be that the price indicator significantly understates competitiveness problems, due to the established preference of German exporters for reducing margins rather than to take losses in market shares. Since unit labour cost measures contain, if unadjusted, a cyclical element, they therefore tend to overstate problems in a period of weak output growth.

- (ii) Potential output per head in the unified German economic area has fallen as compared with the former West German level. This should have its bearing on the equilibrium real exchange rate.

(a) Long-term developments in the real effective exchange rate

Various measures of the real effective exchange rate of the DM differ significantly. Calculations of changes over time as well as reference levels are sensitive with respect to (i) whether a price or a cost variable is used in order to derive 'real' values from nominal figures; and (ii) the choice of the starting point in time.

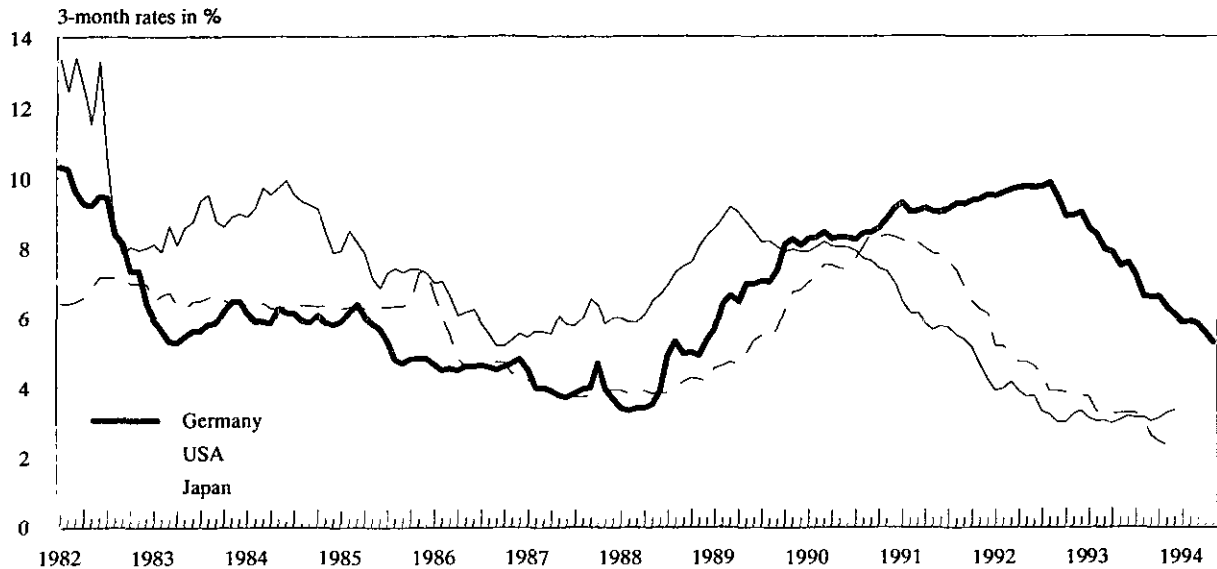
A price measure

The Bundesbank has recently published an analysis of the developments in the DM's effective exchange rate over a 30-year period from 1973 to 1993.¹ This long observation period might have the advantage that the relative importance of a possible error in the starting value is decreasing in time. On the other hand, structural shifts in the economy involving changes in the equilibrium real rate are more likely to be important over such a long period. The study measures the real exchange rate in terms of relative final demand prices.

The result of the Bundesbank study was that while in effective terms the DM appreciated roughly in line with the inflation differentials, on a bilateral basis this was not always the case. In particular against the USD, the DM appreciated on the average of the 30-year period at a rate of 2,7% per year, while the inflation differential was only 2,0% per year. This would imply an accumulated loss of competitiveness against the dollar area of some 23%, against the average value of the USD in the second quarter 1993, at one dollar equal to DM 1,62.

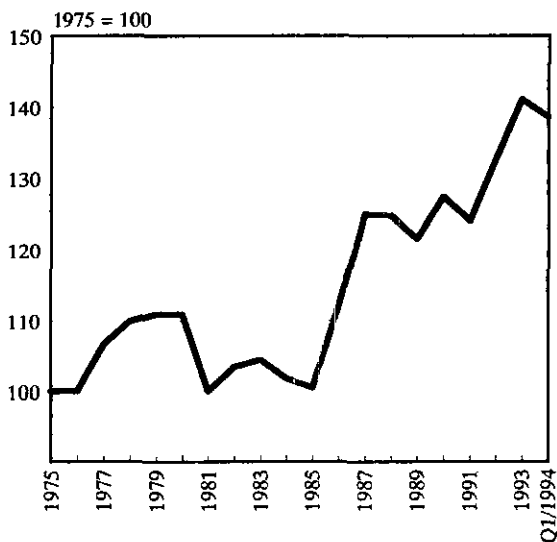
¹ See Monthly Report, November 1993.

GRAPH 42: Short-term interest rates in Germany, the USA and Japan



Source: Commission services.

GRAPH 43: Real effective exchange rate
(in terms of unit labour costs in manufacturing)



Source: Commission services.

The Bundesbank study ignores the implications of German unification on relative productivity and unit labour costs. Should the DM return to its PPP level against the USD, and given the weight of the USD in the effective rate, there remains an overvaluation in real terms of slightly more than 3% against other currencies, which could be easily closed.

The divergent behaviour of the bilateral real exchange rate of the DM against the USD can be partially explained by the relative importance of capital flows as compared with trade relations between the two currency areas. The DM/USD movement, at least from a medium-term perspective, seems to be largely determined by portfolio decisions. As can be seen in Graph 42, since the beginning of 1990, when short-term interest rates in the USA, Japan and Germany were more or less at the same level, the direction of monetary policies has been strongly divergent: in the USA, and followed by Japan, short rates were eased from a level of around 8% to rates below 3%, while at the same time policy tightening continued in Germany until mid-1992, and rates were driven to levels of more than 9,5%.

A cost measure

A measure of the real effective exchange rate in terms of unit labour costs in manufacturing has a number of advantages: firstly, the cost conditions in the manufacturing sector better

represent a country's competitive position on international markets than conditions in the overall economy. This is particularly the case when external performance depends, as in Germany, crucially on exports of finished goods. Secondly, unit labour costs are also a useful measure for the 'underlying' inflation rate. And finally, price indicators can provide misleading indications for changes in competitiveness. For example, the exporting industry in a country which is in a good competitive position can use this relative strength to increase its profit margins (the opposite applies to the competitor countries), and as a result the price measure would indicate a worsening situation, contrary to the event.

Whether the choice of 1987, which had probably been taken because this was the time of the last general realignment in the ERM before the 'breakdown', is appropriate is difficult to judge:

- (i) On the basis of the time profile over the past 20 years, the choice of 1987 for Germany seems to be fair, as can be seen in Graph 43.

The real effective DM rate in terms of unit labour costs in manufacturing and compared with 20 industrialized countries¹ remained roughly constant during the period 1975 to 1985, which was characterized by a relatively high degree of nominal exchange-rate flexibility, as it includes the phase of floating as well as the early phase of the ERM, with relatively frequent realignments. In contrast, the unit labour cost measure of the DM real rate appreciated significantly in the period from 1985 to 1993, in two steps:

from 1985 to 1987, when it increased sharply; after which it remained relatively little changed until 1991;

until 1993, there was a second strong real appreciation, due to two factors: the rising wage cost after the unification boom, and the nominal DM appreciation in the context of the ERM turmoil.

Given that the period preceding 1987 saw a sharp real DM appreciation, it is unlikely that the level of the real DM was at that time particularly low (this would be even more so the case if as often the exchange rates had initially overshoot in the adjustment process).

Figures from the IMF² (and from the OECD, not reported here) for unit labour costs taken together with Bundesbank figures for the nominal effective DM rate tell a similar story: from 1975 to 1984, the DM real effective

rate was little changed; it appreciated by 1% over the period as a whole; from 1985 to 1993, the implicit real rate in terms of manufacturing unit labour costs appreciated by some 20%.

Table 19

Implicit real DM appreciation, 1975-93

(Average yearly % changes)

	IMF unit labour cost manufacturing			BBK nominal effective IC18	Implicit real effective
	West Germany	F ¹	Industrialized countries		
1975-84	3,2	9,5	7,0	3,9	+ 0,1
1985-93	2,6	1,4	2,2	1,8	+ 2,2

¹ Reference value only.

- (ii) However, the existence of a large current-account surplus before German unification might be seen as an indication of an undervalued DM in real terms during the years 1987 to 1989. In order to assess the significance of the current-account surplus it would be helpful to distinguish between a cyclical component and a structural component, and to determine how big, given for example the problem of an ageing population, the structural component should be on a medium-term equilibrium path.

(b) The effect of German unification on the DM's real effective exchange rate

It had been argued that the DM had to appreciate in real terms after German unification. But, as soon as excess demand would vanish, the real external value of the DM was bound to decrease.³ In the event, due to excess demand after

¹ Calculated by the Commission services on the basis of actual productivity. In times of dissynchronous trade cycles in Germany and its trade partners this measure might overstate movements in the 'underlying' real exchange rate.

² IMF, *World economic outlook*, May 1993.

³ The 'issues for discussion note' of the last German country study, to take just one example, expressed this view as follows: 'To the extent that the demand impact of GEMSU does initially exceed its supply impact, the DM must appreciate in real terms. This could be completely avoided only if fiscal policy within GEMSU became more contractionary. Real appreciation could take the form either of a nominal appreciation of the DM or of inflation in Germany faster than in partner countries. Neither of these alternatives would be welcome in the context of Stage 1 of EMU. Further, on the favourable assumption that supply potential in GEMSU does ultimately increase very substantially, the initial period in which demand exceeds supply is likely to be succeeded, perhaps after two or three years, by one in which supply outstrips demand. In those circumstances, a fiscal loosening would be required (probably contrary to the dictates of a policy directed towards medium-term and supply-oriented objectives) if the DM were not depreciated in real terms, ...' in: 'The economic and financial situation in Germany', note for the attention of the Monetary Committee; Issues for discussion and questions, Brussels II/199/90-EN.

unification, wage and price inflation at levels above those of its partners and the Bundesbank's tight monetary policy, the DM's real effective exchange rate indeed appreciated, in terms of unit labour costs in manufacturing, by some 16% against 20 industrialized countries,¹ from its average level in 1989 to the fourth quarter of 1993.² The latest exchange-rate developments seem to suggest that the real external DM value might have passed its peak.

The effect on the equilibrium real exchange rate

If the real effective exchange rate is measured in terms of relative unit labour costs, the effect of Germany's unification on this rate can be derived in a straightforward manner. There must have been a significant decline in the long-term equilibrium exchange rate initially, because average productivity for Germany as a whole has fallen. Here, an estimate is given for this gap between the actual and the 'new equilibrium' level of the DM's real exchange rate.

The real DM exchange rate measured in terms of relative unit labour costs (ULC) can be expressed as:

$$E_{\text{real}} = E_{\text{nominal}} \cdot \text{ULC}_{\text{IC20}} / \text{ULC}_{\text{Germany}}$$

this can also be expressed in terms of relative wages (W) and productivities (α):

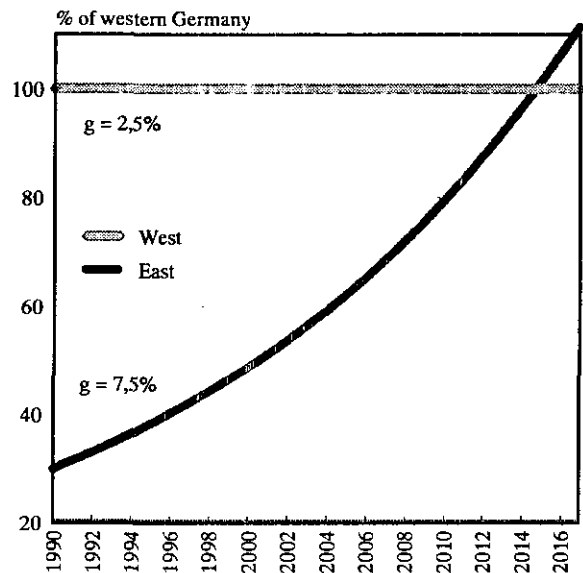
$$E_{\text{real}} = E_{\text{nominal}} \cdot (W_{\text{IC20}} / W_{\text{Germany}}) \cdot (\alpha_{\text{Germany}} / \alpha_{\text{IC20}})$$

The potential output per head in eastern Germany was estimated at some 30% of the west German level and given a weight of east German labour supply in the whole of Germany of some 17%, average productivity (measured at normal utilization) has fallen by some 12%. Other things kept unchanged, this also gives the initial decline of E_{real} in the new equilibrium.

If eastern Germany catches up, the new equilibrium E_{real} will tend to rise again. But it will not reach the pre-unification equilibrium level, since in the interim the maintenance of east German absorption at levels very considerably above productive potential implies a deterioration in the net foreign assets position of Germany as a whole. This wealth reduction, also expressed in a permanent deterioration in the interest, profits and dividends account of the balance of payments, will reduce the equilibrium rate of absorption in unified Germany below equilibrium productive potential, requiring an improvement in competitiveness if internal balance is to be established.

¹ It appreciated by about the same amount *vis-à-vis* the 12 EU members (16,2%) and the ERM countries (16,4%).
² Estimate of Commission services.

GRAPH 44: Potential output per head



Source: Commission services.

In any case, the process of eastern Germany's catching up in output potential per head is likely to take a considerable time. In the above graph, a realistic scenario (from today's perspective) is illustrated. Average potential growth in western Germany is assumed to stay at 2,5%, while east German potential increases by 7,5% for an indefinite time period. It can be seen that it takes a very long time for average productivity to equalize; and that particularly in the first few years the gap narrows very slowly.

4. Linking money supply with inflation: the P* approach

The P* approach has recently been introduced as an important tool in the analysis of the policy strategy of targeting a broad money aggregate.³ The P* indicator is, however, neither itself a monetary policy target in Germany,⁴ nor is it explicitly

³ O. Issing, 'Theoretische und empirische Grundlagen der Geldmengenpolitik der Deutschen Bundesbank', *Wirtschaftsdienst* 1992/X, p. 537; and 'Zum Zusammenhang zwischen Geldmengen- und Preisentwicklung in der Bundesrepublik Deutschland', *Monatsberichte der Deutschen Bundesbank*, January 1992, p. 20.
⁴ See O. Issing, K.-H. Tödter, 'Geldmenge und Preise im vereinigten Deutschland', Beitrag zur Sitzung des Ausschusses für Geldtheorie und Geldpolitik im Verein für Socialpolitik, Frankfurt, February 1994.

taken into account when the Bundesbank Council sets up its target for the coming year. The setting of the annual monetary targets is described in Section 3 above.

In principle, this approach can be traced back to a very old concept (the quantity equation of money) which is based on the assumption that in the long-term money supply determines the overall price level. The basic concept was elaborated further and tested empirically for US data at the board of the Federal Reserve in Washington by J. J. Hallmann, R. D. Porter, and D. H. Small (1989, 1991). They define P^* as the price level which is consistent with the current money supply, equilibrium in goods markets (a zero output gap) and velocity at its long-term equilibrium path (a zero velocity gap). The deviation of P^* from the current price level P provides a simple indicator for inflationary pressures. Finally, a dynamic model of price adjustment describes the impact of this measure of inflationary pressures on the actual inflation rate.

Hoeller and Poret (1991) applied the P^* approach to a set of OECD countries. They found a significant influence of the price gap on inflation in 17 out of 20 countries. However, when estimated in the unrestricted form, which allows for separate coefficients of the output and velocity gaps, the results were less conclusive. Recently, Allen and Hall (1991), Hall and Milne (1992), and Funke and Hall (1992) tested for the direction of causality. They found that for both the USA and the UK the causality within the system — contrary to the prediction of the quantity theory — runs from prices into money and not the reverse direction. In the case of Germany, however, the causality seemed to go both ways.

In this part, the P^* approach is applied to unified Germany with an estimation period beyond those in the mentioned studies (they all end at the fourth quarter of 1990 at the latest). Particular attention is given to the measures of long-term velocity and potential output for unified Germany. The fourth part is structured as follows: Section 4.1 develops the basic concepts, which are indispensable for the following sections. Section 4.2 examines long-term velocity before and after the German monetary union. Section 4.3 deals with four distinct measures of production potential. The dynamics of inflation adjustment to its determinants is looked at in Section 4.4. And, finally, policy conclusions are drawn from the estimations and simulations.

4.1. Basic concepts

The simple quantity equation provides the starting point for the P^* approach:

$$(1) \quad P \cdot Y = V \cdot M$$

This equation describes the *ex-post* identity between nominal income (the product of the price level P and real income Y) and the product of nominal money supply M and velocity V .

Hallman et al. (1989) define the price level P^* as the product of actual money supply and long-term equilibrium velocity, divided by potential output Y^* :

$$(2) \quad P^* = \frac{(M \cdot V^*)}{Y^*}$$

P^* is therefore a measure of the price level consistent with long-term velocity, actual money supply, and output at its potential path. Any positive (or negative) gap between P^* and the actual price level P is assumed to lead to an increase (or decrease) in current prices, until the price gap is closed. The validity of the assumption that money supply causes prices hinges on: (i) a stable and predictable long-term velocity relation (a stable money demand function) and (ii) the assumption that money supply (monetary policy) does not affect potential output in the long-term.¹

Equations (1) and (2) can be combined:²

$$(3) \quad p^* - p = (v^* - v) + (y - y^*)$$

The price gap ($p^* - p$) represents a combination of the velocity gap ($v^* - v$) and the output gap ($y - y^*$).

The dynamic adjustment model is formulated in the following error-correction formula:

$$(4) \quad \Lambda_4 \cdot p_t = \sum_{i=1}^k \beta_{1,i} \cdot \Lambda_4 \cdot p_{t-i} + \beta_2 \cdot (p_{t-1}^* - p_{t-1})$$

Implicit in this formulation is the restriction that the coefficients for the influence of the velocity gap and the output gap collapse into a single price gap coefficient. This restriction, if justified, has important policy implications: in the long-term the price level is neutral with respect to fiscal policy. An expansionary fiscal policy which pushes y above y^* must be fully compensated for by an increase in current velocity above its long-term trend (probably through higher

¹ This is a very controversial assumption; see, for example, L. Ball, N. G. Mankiw, D. Romer: 'The new Keynesian economics and the output-inflation trade-off', *Brookings Papers* 1988:1, and O. J. Blanchard, 'Why does money affect output? A survey', B. M. Friedman and F. K. Hahn (eds) *Handbook of monetary economics*, Chapter 15, Amsterdam 1990.

² Here, as in the remainder of the annex, lower-case letters stand for the natural logs of their level counterparts, i.e. $x = \ln(X)$.

interest rates), such that the price gap remains unchanged.¹ Whether or not the restriction is justified can be examined by estimating the unrestricted form, and testing for significance and equality of β_2 and β_3 :

$$(5) \quad \Delta_4 \cdot p_t = \sum_{i=1}^k \beta_{1,i} \cdot \Delta_4 \cdot p_{t-i} + \beta_2 \cdot (v_{t-1}^* - v_{t-1}) + \beta_3 \cdot (y_{t-1} - y_{t-1}^*)$$

The model in its restricted or unrestricted form can be compared with a standard expectation-augmented aggregate supply curve (see Hallman et al.) or with a standard expectation-augmented Phillips curve (Hoeller, Poret and others). Both models are rival to the P^* approach. They can be formulated as follows:

$$(6) \quad \Delta_4 \cdot p_t = \beta_3 \cdot (y_{t-1} - y_{t-1}^*) + \beta_4 \cdot \Delta_4 \cdot p_t^e$$

which is identical with equation (5) if:

$$(7) \quad \beta_4 \cdot \Delta_4 \cdot p_t^e = \sum_{i=1}^k \beta_{1,i} \cdot \Delta_4 \cdot p_{t-i} + \beta_2 \cdot (v_{t-1}^* - v_{t-1})$$

In the case of β_2 not being significantly different from zero, the P^* approach reduces to a standard expectation-augmented Phillips curve, with adaptive inflation expectations.

In the case of β_2 being significantly different from zero but not equal to β_3 , the P^* approach reduces to an expectation-augmented Phillips curve, but now with the velocity gap containing information relevant for the formation of inflation expectations. The influence of interest rates is considered a major factor behind the deviation of velocity from its long-term trend.

4.2. Long-term velocity

Hallman et al. relied heavily on the stationariness of the US M2 velocity; in this case the simple sample mean can be used as a measure of the long-term (equilibrium) velocity v^* . In many other countries² velocity contains a trend. In Germany, velocity of M3 has been declining steadily.

Since 1988, when the Bundesbank changed its target variable from 'central bank money' to M3, the declining trend in

velocity has been allowed for by assuming a linear trend decrease of 0,5% per year, and of 1,0% for 1993 (see the box on the Bundesbank M3 target definition). However, the decrease in velocity is difficult to explain by a linear time trend,³ which is in general a proxy for 'technical innovations' (such as plastic money, etc.). These innovations should normally work in the opposite direction of an increase in velocity (rationalizing the use of 'money'). The decrease in velocity indicates that M3 contains elements which are used as a store of value rather than for transaction purposes. Funke and Hall (1992) therefore use a financial wealth variable to capture the long-term decline in velocity. Reliable, and quarterly,⁴ data of financial wealth for the relevant domestic sectors⁵ are not readily available. Therefore, in the estimates below, the elasticity of demand for real money with respect to real income is allowed to deviate from the unity assumption.⁶

In the short-term, velocity tends to increase with interest rates. The long-term velocity should, however, be independent from interest-rate changes. The long-term velocity equation is therefore:⁷

$$(8) \quad \bar{v}_t = a_0 - a_1 \cdot y_t$$

This velocity equation was estimated with four different sets of data: two of them with real GDP as activity variable for West Germany during the period 1969 Q1 to 1990 Q2, and for unified Germany from 1969 Q1 to 1993 Q2; and the other two sets of data with real final domestic demand as activity variable. The effect of German monetary union was assumed to be captured by an additive dummy variable.

The estimation results for long-term velocity are reported below.

The tests for co-integration confirm the existence of a long-term relationship⁸ for the GDP activity variable; for domestic final demand the results are less significant. It is interesting to see how little the estimates of the elasticity of

¹ See Hallman et al. (1991), p. 845, where the authors add: 'Without this restriction, the effect of fiscal policy through the output gap could dominate the effect through the velocity gap.'

² For the USA too some authors have questioned the stationariness of M2 velocity.

³ To that point Hoeller and Poret write: 'The likely presence of unit roots in output and velocity implies that they do not revert to some deterministic time trends or historical averages in the long term. Thus, the use of time trends or mean values for calculating potential output and equilibrium velocity can yield non-stationary price gaps, which is inconsistent with the assumptions of the P^* model.'

⁴ The construction of quarterly data from yearly data (as done by Funke and Hall) does not improve the information available for long-term econometric studies. See J. Y Campbell and P. Perron (1991).

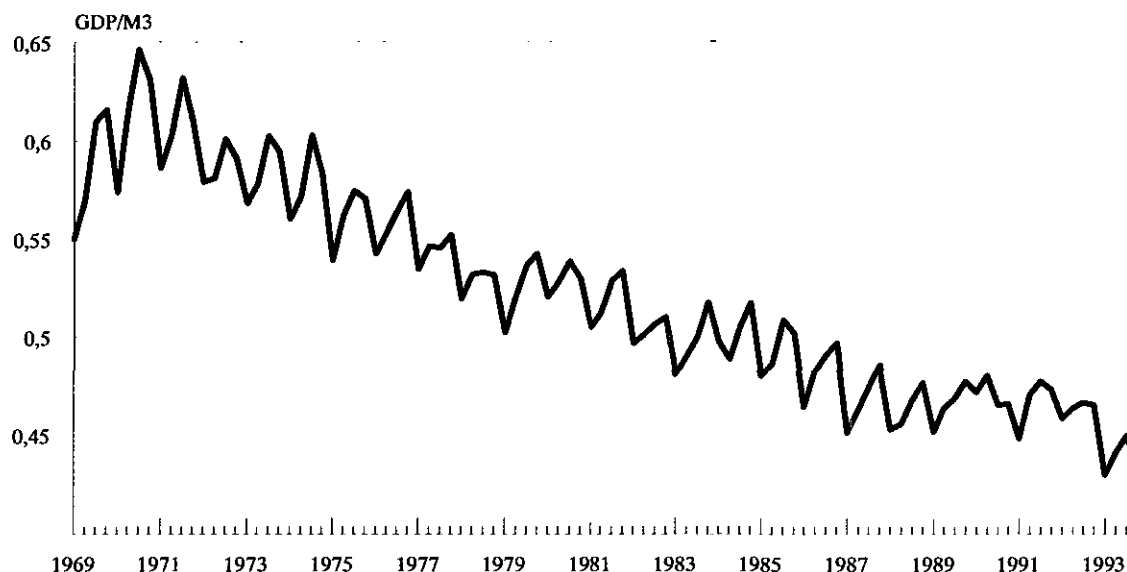
⁵ And of foreign sectors, if cross-border holdings, which might also be motivated by portfolio selection needs, are to be included.

⁶ The Bundesbank's target definition has also been based on the unity assumption.

⁷ This equation can be re-read, using the definition of \bar{v}_t in the following form: $m_t - p_t = -a_0 + (1 + a_1) \cdot y_t$, where $(1 + a_1)$ measures the elasticity of real money with respect to real income.

⁸ It should be noted that several unit roots might exist; see Funke and Hall.

GRAPH 45: Velocity



Source: Commission services.

velocity (real money demand) with respect to the real activity variable has changed, after the introduction of the German monetary union. This confirms the Bundesbank's position that long-term money demand in Germany has remained remarkably stable, if allowance is made for the shift in the constant. It does not, however, necessarily mean that also in the short-term broad money M3 has retained its stability and hence its indicator function.

In the remainder of the chapter, the velocity equation with GDP for unified Germany is chosen as a basis to calculate P^* and the respective gaps:¹

$$(9) \quad p_i^* = 3,57 + m - 1,697 \cdot y_i^*$$

The following graph shows actual and estimated velocity.

4.3. Production potential and output gaps

Measuring production potential for unified Germany is a difficult task. In particular, few reliable data are available about the capital stock, the quality of labour supply and

the 'true' employment situation in the new federal states. Employment and production sites have apparently been protected, but to which degree remains uncertain. In addition, scrapping for technical reasons might not have the same importance as in western Germany; 'economic' depreciation figures are not available. As the potential scope for errors is large in this field, four different measures of production potential were applied to the P^* model. It can be seen that the main results are qualitatively little sensitive to the choice of the particular measure of potential output.

The measures are:

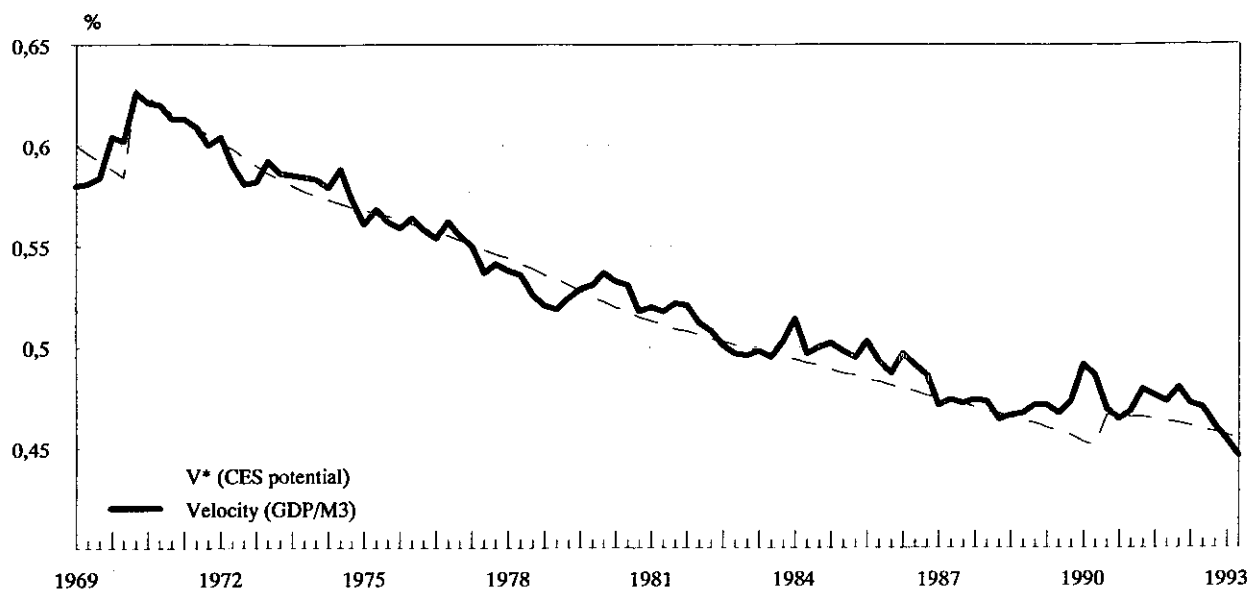
1. The low frequency component of real (seasonally adjusted) GDP: the Hodrick-Prescott filter technique applied here is more appropriate than the sometimes used time trend approach, as the time series under consideration is likely to contain a stochastic trend.
2. The production function approach: the second and third measures of potential output are based on the estimation of a CES production function for western Germany, which is supplemented by a special treatment of depreciation of

¹ The same was done for the other three specifications with similar results.

Activity variable	const.	y	d.gmu		DF	ADF4
GDP						
West Germany	3,57 (27,1)	0,697 (31,9)	—	R2: 0,93 DW: 1,0	- 4,2	- 3,3
Unified Germany	3,56 (26,5)	0,695 (31,2)	0,12 (10,5)	R2: 0,94 DW: 0,97	- 4,4	- 3,7
DFD						
West Germany	4,18 (18,7)	0,803 (21,7)	—	R2: 0,86 DW: 0,50	- 2,6	- 3,0
Unified Germany	4,13 (18,4)	0,795 (21,4)	0,21 (11,2)	R2: 0,86 DW: 0,56	- 3,2	*

NB: t statistics are give in brackets:
* = no lag was significant.

GRAPH 46: Velocity – estimate and realization



Source: Commission services.

the vintage capital stock.¹ The CES production function is estimated in the labour demand equation form, with the assumed distributions parameter of 0,7 and an estimated substitution elasticity of 0,62.

The estimated parameters of the CES function are then used to calculate production potentials for unified Germany based on (i) the number of employed persons (LE); and (ii) the labour force (LF). For the capital stock in eastern Germany a ratio of capital per head of an employed person of 25% of the western German capital stock ratio was assumed. The labour force in unified Germany was calculated as the sum of west German labour force (employed plus unemployed persons) and east German labour force with a deduction of 15%, to take account of the likely reduction in the eastern participation rate.² It can be seen that the production potential for unified Germany based on labour employed (LE potential) is likely to overestimate potential output during the first two years of German monetary union.

3. The production potential implicit in the Bundesbank's target definition: the Bundesbank has based its yearly target for monetary expansion (among other factors) on the assumption of a certain growth rate of production potential. In order to calculate an implicit potential variable, real GDP in the first quarter of 1985 was chosen as a benchmark. This was a quarter considered to be of

normal capacity utilization by firms which had been asked by the IFO institute.

The differences between the four measures of production potential (apart from differences in the 'scale', which is of minor importance for the dynamics of price adjustment) are relatively small, except, and not surprisingly, for the years 1989 to 1992. The measured output gaps too (with the exception of LE potential) show a similar evolution over the entire period.

4.4. The dynamics of price adjustment

Graph 48 plots the evolution of the price gap against the evolution of the deflator for domestic final demand. A brief examination of the developments of both variables seem to suggest a (lagged) relationship.

The dynamic price equations (5) and (6) developed above were estimated with the price deflator of domestic final demand (in periods of extraordinary changes in import prices, the GNP and GDP deflators reflect the increase in import costs in the wrong direction; (the two deflators were particularly divergent from domestic final demand prices in the 1986/87 period; see also the discussion in Section 3.1). The set of two equations was estimated with and without a measure of the change in import prices, which serves as a proxy variable for 'imported' price shocks.

The results of the six equations for the dynamic adjustment of final demand prices to its respective determinants, with potential output (LF potential) measured with a CES production function with two factors, labour force and capital for unified Germany, are summarized in the following table.

Equation	Lags on prices	Import prices	$p^* - p$	$v^* - v$	$y - y^*$	R2	DW
(3)	0,90		0,067 (2,46)			0,85	2,01
(4)	0,80			0,03 (0,54)	0,149 (4,02)	0,87	1,94
(4a)	0,80				0,154 (4,49)	0,87	1,96
(3')	0,75	0,060 (3,10)	0,102 (3,59)			0,87	1,96
(4')	0,69	0,044 (2,85)		0,049 (1,09)	0,155 (4,27)	0,88	1,89
(4'a)	0,70	0,039 (2,31)			0,162 (4,54)	0,88	1,88

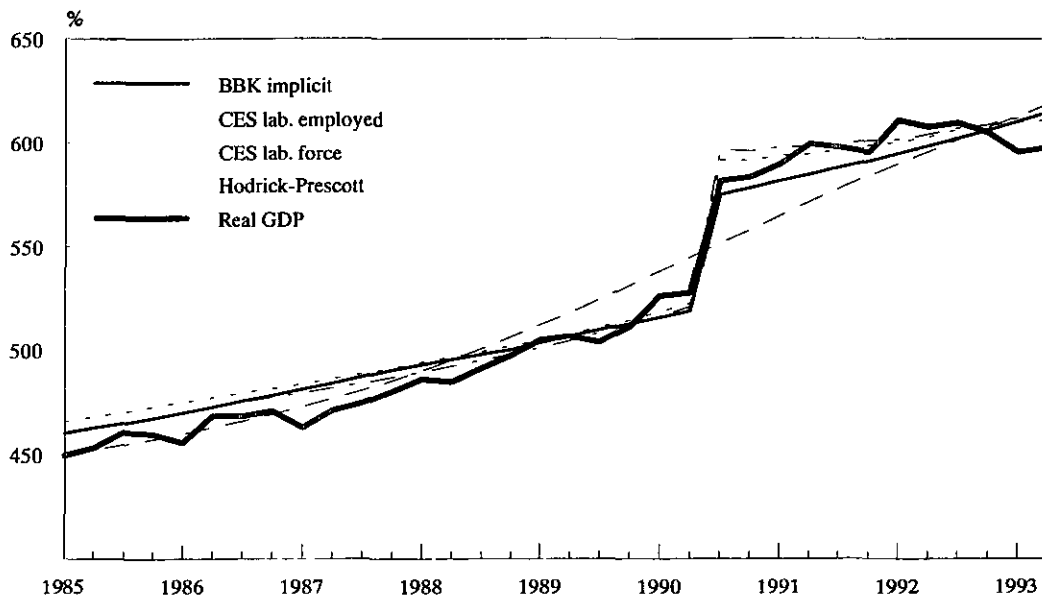
NB: t statistics in brackets;

Estimation period: 1971 Q1 to 1993 Q2.

Deflator: domestic final demand prices;

Output gap: percentage difference between real GDP in unified Germany and potential output as measured by the CES production function and unified Germany's capital stock and labour supply.

GRAPH 47: Measures of potential output



Source: Commission services.

The price gap ($p^* - p$) was always significant and the magnitude of the estimated coefficients was in the range of previous studies on Germany. At first sight, the most striking result is the insignificance of the velocity gap ($v^* - v$) in equations (4) and (4').¹ However, Issing and Tödter have shown that, on the basis of a long-term money demand equation, the velocity gap can be expressed as a function of the output gap and an interest-rate term, which is in their formulation the difference between the actual shape of the yield curve and its long-term average slope. Defining the slope of the yield curve as the difference between long-term bond rates and a short-term money market rate, the velocity gap can be expressed as:

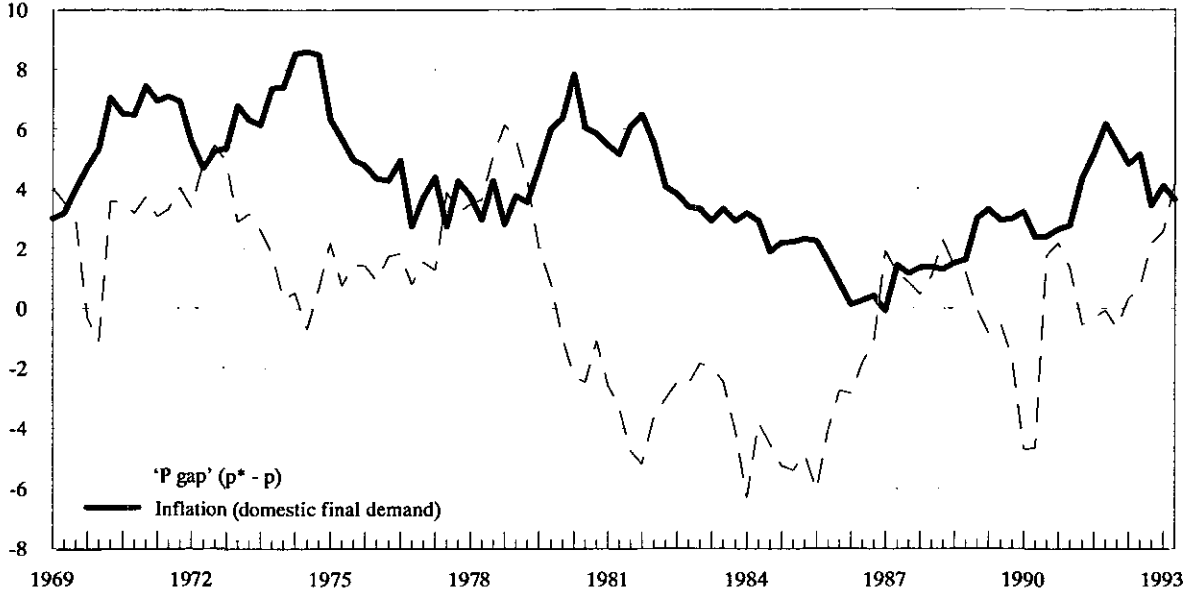
$$(10) \quad v^* - v = \phi (y - y^*) - \gamma ((rl - rs) - (\overline{rl} - \overline{rs}))$$

¹ Hoeller and Poret have also found insignificance of the velocity gap for Germany and other countries. In the mentioned Bundesbank publications an estimation of the P^* model in the unrestricted form was not reported.

This equation shows that the influence of the velocity gap on prices is already partly captured in the output gap term of the unrestricted price equation. The second term of equation (10), the deviation of the slope of the actual yield curve from its long-term average, might be seen as representing expectations in two ways: (i) given the predictive power of the yield curve for future output, mentioned in Box 2 it might represent a forecast of the output gap in the future; and (ii) the difference between long-term and short-term interest rates is suggested to reflect long-term inflation expectations. The fact that the velocity gap proved insignificant could either mean that expectation effects are not present in the price-setting process, or that such expectations are insufficiently modelled in the P^* approach. A strong *a priori* suspicion that expectations do play a significant role in pricing would imply that the P^* concept is too simplified to capture these effects.

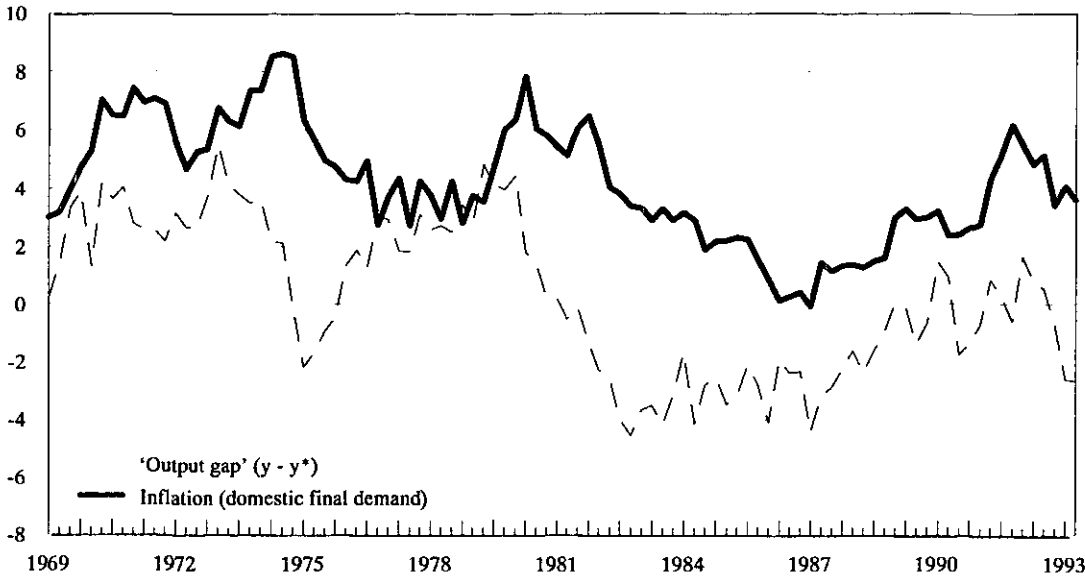
This qualitatively important result of a dominant output gap was confirmed when the set of four equations was estimated for different measures of the output gap and also for the period 1971 Q1 to 1990 Q2 for West Germany only. In the resulting 16 equations, the output gap was always highly significant, while the velocity gap was never significant — not even at the 10% level. The equations (4) and (4') have therefore also been estimated without the velocity gap as an

GRAPH 48: The price gap and inflation



Source: Commission services.

GRAPH 49: The output gap and inflation



Source: Commission services.

explanatory variable. Graph 49 plots the output gap against the inflation rate. The inflation rate appears to follow the output gap. If this link remains intact, the sharp decline in output, which resulted in a widening negative output gap, will lead to a further decline in inflation in the near future.

4.5. Some implications

The Bundesbank's procedure to define its yearly money expansion target, while having the advantage of being simple and therefore easy to understand by the non-specialized public, is not fully consistent with the P^* approach. It is questionable to assume unit elasticity of demand for real money balances with respect to real income, and to use instead a linear trend decline in velocity to capture wealth effects. In addition, the annual average decline in equilibrium (long-term) velocity was probably underestimated by the Bundesbank in the past.

The gap between the estimated 'equilibrium' price P^* and current final demand prices has a significant influence on inflation, but the mechanism behind this influence is not the simple quantity theory which predicts a direct causation from money (M3) to prices.¹ The output gap dominates the development in inflation, import prices have an additional significant influence, but the insignificance of the velocity gap in the price-adjustment equation shows that the influence of expectations might not have been satisfactorily dealt with in the P^* approach. Therefore, the P^* approach, in its unrestricted form, does not provide a better insight into the factors determining inflation than a simple Phillips curve.²

¹ The direction of causality has not been directly investigated in this chapter.

² For a detailed examination of the link between wages, prices and the output gap (capacity utilization) see W. Franz and R. J. Gordon (1993).

This has important implications for monetary and fiscal policy, both in the short and in the long term. An expansionary fiscal policy can cause a rise in the inflation rate above the level of inflation that would have prevailed without such expansionary fiscal measures (the same is true for any demand expansion that originates in the private sector). If monetary policy aims at reducing the rate of inflation, there are basically three channels: (i) the output gap; (ii) import prices (or the exchange rate); and (iii) the formation of expectations. In the absence of exchange-rate changes, and given the difficulty of influencing expectations independently of a prior change in either the exchange rate or measures reducing the output gap, and given that it might take a very long time to improve the process of expectation formation, the major channel is a widening of the output gap.³ If a rapid reduction in the rate of inflation is the target, a negative output gap is necessary, as prices react sluggishly. As a simple rule, the faster the target reduction in inflation, the deeper must output fall below its potential path. Unemployment is bound to rise, and, in the presence of hysteresis, risks are set to become permanent.

In the medium-term, a strategy of stabilizing the output gap results in a stabilization of the inflation rate at a certain level if society has an inflationary bias, or there exists a minimum rate of inflation for efficiency reasons. If monetary authorities choose a target level of inflation below this 'bias' rate, the output gap consistent with such a strategy is permanently negative.

Targeting money expansion is, in the long-term, compatible with the stabilization of output around its potential path. However, it is likely that monetary policy is not neutral with respect to long-term potential growth itself. If monetary policy is set too tight over a prolonged period, there is the risk of reducing the country's growth possibilities.

³ A tight monetary policy is at the same time likely to encourage an appreciation of the currency, which in itself and via its expenditure switching effects reduces inflationary pressures.

Box 1: Major issues in the pursuit of monetary targets

Table 20

Targets and outcome, 1975-94

Year	Target growth		Underlying assumptions			Realized growth	Inflation
	first	mid-year	pot	π	trend		
1975	8					10	5,9
1976	8					9	4,3
1977	8					9	3,7
1978	8					11	2,7
1979	6-9	7				6	4,1
1980	5-8	6				5	5,5
1981	4-7	5			0	4	6,3
1982	4-7	6			0	7	5,3
1983	4-7	6			0	7	3,3
1984	4-6		2	3	0	5	2,4
1985	3-5		2	2	0	5	2,1
1986	3,5-5,5		2,5	2	0	8	-0,1
1987	3-6		2,5	2	0	8	0,2
1988	3-6		2	2	0,5	7	1,3
1989	5		2,5	2	0,5	5	2,8
1990	4-6		2,5	2	0,5	6	2,7
1991	4-6	3-5	2,5	2	0,5	5	3,5
1992 ¹	3,5-5,5		2,75	2	0,5	9,4	4,0
1993	4,5-6,5		2,75	2	0,75	8,1	4,2
1994 ¹	4-6		2,5	2	1,0		

¹ An *ad hoc* deduction of 1% was made in 1992, and of 0,5% in 1994.

- Target definition: from 1975 to 1987, central bank money; since 1988, the target has been M3, to avoid the 'currency bias' of CBM. The target was set in terms of the annual percentage change in the fourth quarter against the same quarter of the previous year, for most of the 1975 to 1992 period, with the exception of 1976, 1977 and 1978, when it was based on annual averages.
- Inflation target: up to 1984, the Bundesbank had allowed for an 'unavoidable' rate of inflation, which at times was set to 3%. The target for 1985 was based for the first time on a normative price increase. The choice of 2% was justified at the time as an 'extrapolation of last year's inflation rate of 2% (for the GNP deflator), which actually implies — as in previous years — ambitious goals in the field of stabilization policy'.¹
- Velocity of circulation: an unchanged velocity was assumed until 1988, characterized in the 1984 Report as a major factor of the Bundesbank's money market management: 'If the "velocity of circulation" of money is measured in terms of production potential at current prices — only this method is appropriate to the objectives of the medium-term potential concept — it turns out that this relationship has hardly changed at all in the long run.' Between 1988 and 1992, the target was based on the assumption of a 0,5% trend increase in velocity, in 1993 on 0,75%, and in 1994 on 1%.
- Target range: most of the time a range of +/- 1,0 percentage points around the point target was chosen, to take account of uncertainties. Sometimes this range was widened to +/- 1,5 percentage points.
- Euro deposits: the strong growth of external deposits — M3 extended, which includes these deposits, grew by 9,3% as compared with 8,1% of traditional M3 — has not yet led to a change in the target definition.
- Base drift: the Bundesbank made a 1 percentage point deduction from its 1992 target to offset a 'liquidity overhang' from the previous year. It is questionable if there was any overhang in 1991 (the target was met).

¹ Annual Report of the Bundesbank, p. 40.

Box 2: Yield curve as a predictor of economic activity

The tilt of the yield curve, defined as the difference between the yield on long-term government bonds and a short-term money market interest rate, has shown a close relationship to the business cycle in a number of countries. While the theoretical underpinning of such a relationship is currently not far developed, the yield curve empirically seems to have some predictive power for output and investment growth.¹

In the following graph the difference between the average government bond rate and the three-month interbank rate in Germany is overlaid by phases of cyclical downturn.² There is a clear coincidence between cyclical downturns and the inversion

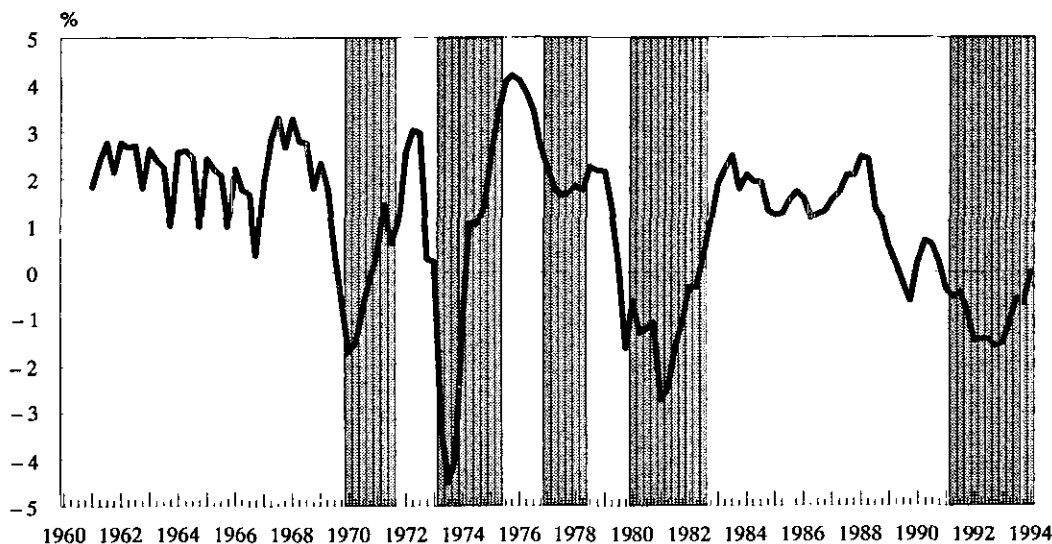
of the yield curve (with the exception of the light growth recession in 1977/78). The graph also suggests that in the past the economy left recession behind after the yield curve turned significantly positive.

It might be that: (i) the main advantage of the yield curve is not to be a forecasting tool as such, but to serve as an indicator for the stance of monetary policy; (ii) the yield curve was a better indicator for the likely impact of monetary policy on real activity (output, investment, growth, employment) than monetary aggregates; and (iii) the good performance of the yield curve as a 'forecaster' is not only a technical virtue but indicates a strong role for monetary policy as a trigger factor in trade-cycle history.

However, the interpretation of movements in the yield curve might also depend on whether the inversion or reversion to a normal (positive) slope is brought about by a fall in short rates or a rise in long rates, and whether the move is accompanied by a strengthening of the currency or a weakening.

¹ See, for example, Bernanke, B. S. and Mishkin, F. 'The predictive power of interest-rate spreads: evidence from six industrialized countries', mimeo, December 1992; Hu, Z. 'The yield curve and real activity', IMF Staff Papers, December 1993, pp. 781-805.
² Taken from the Bundesbank's Statistical Series No 4, various issues.

GRAPH 50: Yield curve and business cycles



Source: Commission services.

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Chapter 3

The balance of payments¹

1. Important shift in the external balance following unification

The sharp swing in Germany's external account forms one of the striking illustrations of how Germany's economic position has changed following unification. In the years prior to unification, economic growth in West Germany had a strong export component. Domestic demand expanded relatively slowly because of fiscal consolidation and wage moderation. The resulting high and persistent surplus that West Germany was running in its trade with the rest of the world and on its current account were a cause of concern and frequent debate in the international economic and political arena. With hindsight, the pressure at the time by partner countries who urged Germany to follow more expansionary policies and to act as a 'locomotive' for growth seems exaggerated. The cautious course of consolidation taken at the time and the fiscal balance that resulted — the public sector actually ran a small surplus in the year prior to unification — implied in any case that there were no major public finance problems from the past to be settled at the time of unification.

¹ This chapter was prepared by Jan Willem Blankert of the National Economies Directorate.

In 1989, one year before unification, West Germany's trade surplus was DM 135 billion (6% of GDP) and the current-account surplus DM 108 billion (4,8% of GDP). In the years before unification the services balance fluctuated around zero, showing modest deficits or surpluses. A deficit in travel was typically offset by surpluses in other services, especially investment income and transport. West Germany was to an increasing extent a net exporter of capital in those years. In 1988 and 1989 high net outflows of capital offset the surpluses in merchandise and services trade and the overall balance of payments showed a deficit.

Unification changed this situation dramatically. Since 1991 the trade surplus has been some DM 100 billion (some 3,5% of GDP) lower than in 1989. The current account has been in deficit (DM 39 billion in 1993, 1,25% of GDP) and is expected to show a deficit again in 1994, mainly as a reflection of the fact that transfers to eastern Germany are not covered by domestic savings.

The new situation has also changed the size and direction of capital flows. Germany has now turned into a net importer of long-term capital, much of which is foreign investment in government bonds. Following high short-term interest rates in Germany and the turmoil on currency markets, 1991 and 1992 also saw important net inflows of short-term capital (in September 1992 alone DM 80 billion was invested from abroad as a result of the problems in the ERM). Over the whole of 1992 the net amount of short-term capital from abroad was DM 60 billion, more than 2% of GDP and only a little less than that year's surplus on the balance of payments. Short-term capital, however, has now changed direction.

The two main questions that will be addressed in this chapter concern, first, the factors that underlie this change in Germany's foreign position and, second, if this change is temporary or possibly of a more permanent character.

Table 21

Germany: external balances and public sector balance

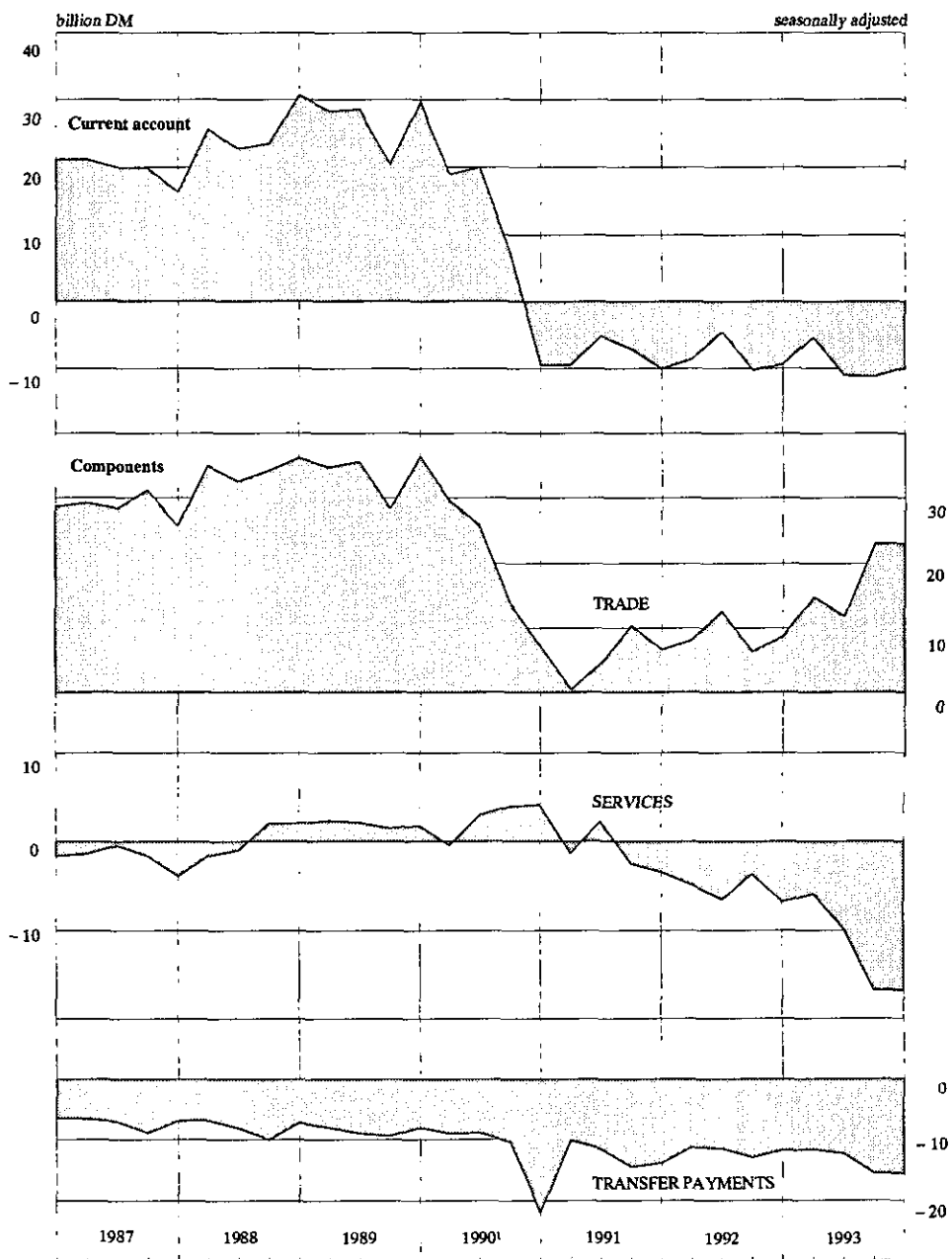
	(% of GDP) ¹								
	1985	1986	1987	1988	1989	1990	1991	1992	1993
Trade	4,0	5,9	5,9	6,1	6,1	4,3	0,8	1,2	1,3
Current account	2,6	4,5	4,1	4,2	4,9	3,1	- 1,2	- 1,4	- 1,2
Public sector ²	- 1,2	- 1,3	- 1,9	- 2,2	0,1	- 2,1	- 3,2	- 2,6	- 3,3

¹ Before 1991 West Germany, unified Germany thereafter.

² Net lending (+) or net borrowing (-), general government.

Source: Commission services.

GRAPH 51: Current account of the balance of payments



¹ From the third quarter of 1990 including the former GDR.
 Source: Deutsche Bundesbank.

Table 22

Germany: external balances, 1985-93

	Trade	Services	Transfers	Current account	Long-term capital	Short-term capital	of which: banks	Total capital account	Balance of payments
1985	73	5	-29	48	-13	-42	-28	-55	-7
1986	113	2	-27	86	33	-116	-59	-83	3
1987	118	-5	-29	82	-22	-17	-7	-39	43
1988	128	-8	-32	89	-87	-41	-20	-128	-39
1989	135	9	-34	108	-22	-113	-57	-135	-27
1990	105	8	-36	76	-65	-24	1	-89	-14
1991	22	3	-58	-32	-27	47	40	20	-12
1992	34	-19	-50	-34	40	60	64	100	66
1993 ¹	59	-39	-52	-35	186	-166	-99	21	-14

¹ 1993 provisional.

Source: Deutsche Bundesbank.

2. The changing pattern of exports, imports and capital flows

The important reduction of the current-account surplus was for the most part the result of a changed pattern of merchandise exports and imports. Unification immediately produced a strong rise in household incomes (i.e. in convertible currency) in eastern Germany and in the demand for products from industrialized countries. This income rise resulted from the generous one-to-one parity with the DM, income transfers from western Germany and, somewhat later, the rapid catching-up of wages in eastern Germany. Demand was further thriving, as east German financial assets were liquidated. Supply by east German producers, on the other hand, virtually collapsed since cost levels had become unsustainable.¹ In addition, as a first reaction to the opening-up to the Western industrialized world, east German consumers turned massively away from locally produced goods and to products from the West. As a consequence, deliveries to the east German region from industrialized countries (including western Germany) surged. This first direct trade effect of unification was especially pronounced for specific consumer products (e.g. automobiles, certain food items).

This supply-demand gap in Germany occurred precisely at a time when growth in western Germany had been losing

momentum as demand in major partner countries was faltering (and therefore also German exports). In a way, the strong demand rise resulting from unification delayed an imminent EC-wide growth slowdown. In the period from mid-1990 to the third quarter of 1991, EC Member States, EFTA countries, the USA and Japan all increased their exports to Germany. Denmark, Belgium and Spain moreover saw important rises in their shares in this growing market. The overall cumulative impact on GDP growth in the Community in the one-year period from the middle of 1990 to mid-1991 is estimated by the Commission services at about 1%, with the Benelux countries benefiting most.

German imports peaked in the third quarter of 1991 at DM 165 billion (seasonally adjusted). They were then 15% higher than one year earlier. Some 90% of goods and services from abroad destined for eastern Germany arrived (and still arrive) there via the western part of the country so that imports of western Germany alone increased even more (17,5% in one year). At the same time exports of west German products abroad slowed. This was firstly because of the slowing of growth in partner countries (in spite of the effect of unification) and, secondly, because a part of west German trade potential was diverted to eastern Germany. In 1991 the trade surplus of Germany as a whole had shrunk to no more than DM 22 billion.

Services showed a similar development, although smaller in absolute size. For the most part these invisibles consist of a net inflow of income on investment accumulated abroad, a surplus in transport services and the travel balance which is negative. A modest overall surplus in services of DM 8 billion in 1990 fell to a tiny DM 2 billion in 1991 and

¹ Output per employee was about one third of productivity in western Germany and wages per employee were 60% of west German wage levels; taken together this means that unit labour costs were 80% higher in eastern Germany. Production was also inefficient in many other respects, such as for energy consumption and overall management resources.

turned into a DM 24 billion deficit in 1992. In addition, the exceptional circumstances implied very large incidental transfer payments abroad. They concerned, first, payments for the return home of the Soviet military in former East Germany and, second, large financial contributions in relation to the Gulf War. In all, the size of the swing in the current-account balance was more than 5% of GDP.

In the second half of the 1980s West Germany had to an increasing degree become a net exporter of capital, and in the years up to unification, net capital outflows had exceeded current-account surpluses. Especially, direct investment in other EC Member States increased as a result of the integration process and expectations concerning the internal market. The financial requirements related to unification and the restructuring of the east German economy reversed this situation. In 1993 the net inflow of long-term capital was DM 198 billion. It is to be noted, however, that the private sector has continued to be an important exporter of capital for direct investment purposes and financial assets. Table 23 below illustrates how the private sector is increasing both its gross and net position with regard to direct investment. In addition, DM 46 billion of private money was invested in foreign financial assets in the first nine months of 1993 (75% more than in the same period in 1992), to a great degree as a result of the newly introduced system of tax collection on interest income and the operations of investment funds in Luxembourg in this respect. Credit to the public sector, on the other hand, is now the single biggest component of capital imports. In 1993 the public sector accounted for DM 163 billion in long-term capital imports. Most of these capital imports are explained by the sale of government bonds to private persons and institutions abroad.

Table 23

Foreign direct investment (stock)

	<i>(Billion DM)</i>		
German investment abroad	1989	1990	1991
Total	206	226	257
% in EC countries	44	50	51
% in the USA	28	24	23
Foreign investment in Germany	1989	1990	1991
Total	143	166	185
% from EC countries	36	36	36
% from the USA	30	30	30

Source: Deutsche Bundesbank, Zahlungsbilanzstatistik.

Especially in 1992, events on currency markets were a further factor which attracted large flows of (short-term) capital. As this inflow of foreign capital resulted in higher interest payments abroad, it contributed to the abovementioned swing in the services balance. An important component of the inflow of capital concerns money from German private investors which for fiscal reasons has first been sent abroad to be channelled back subsequently via a variety of financial institutions (Luxembourg plays a particularly important role in this re-routing).

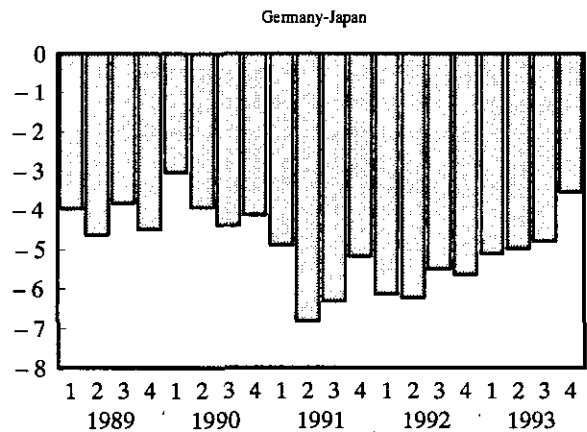
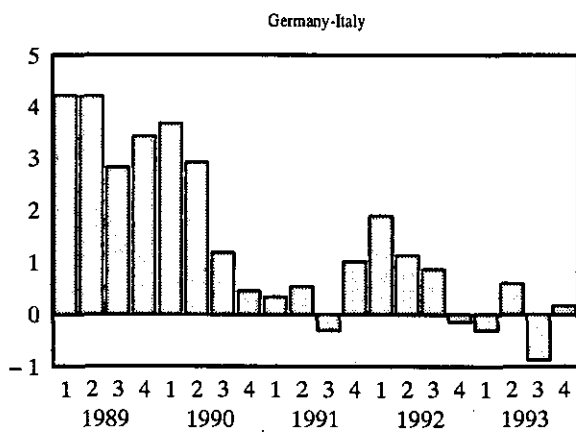
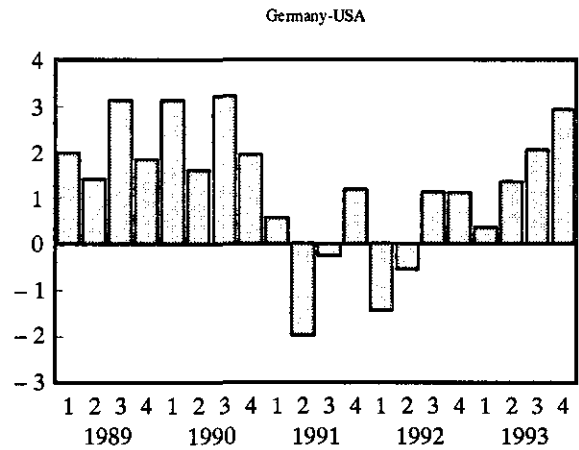
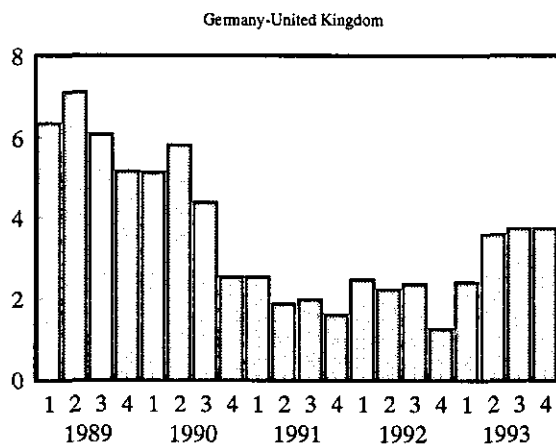
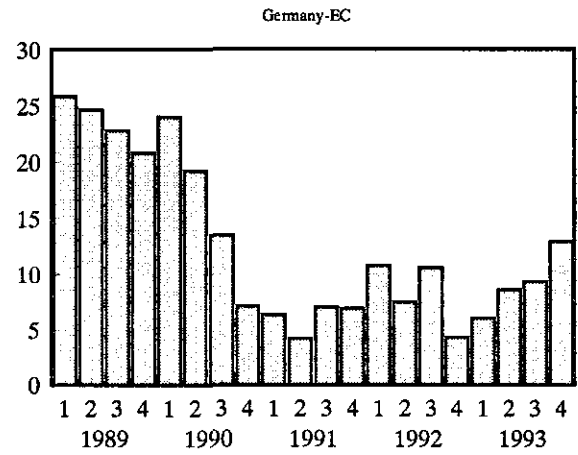
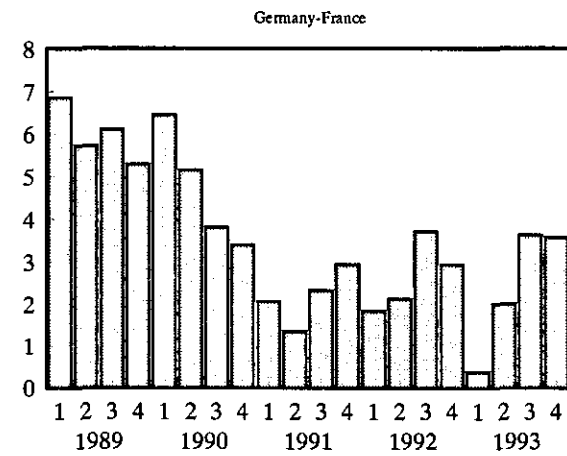
As the first direct effect of catching-up in eastern Germany subsided and western Germany and other Member States slid into recession, both German imports and exports began to falter. The economy of eastern Germany, however, supported by the continuous income transfers from western Germany, has continued to grow by 7 to 8% a year. Although this was (and still is) from a low level after the economic collapse following unification, it has implied a strong and dynamic regional demand component. This specific effect and the functioning of western Germany as a gateway for imports to that region probably imply that west German imports are less depressed than they would have been otherwise during a recession as deep as the current one.

Countries which are successful in selling their products in eastern Germany should benefit and do relatively better than economic developments in western Germany would suggest. This implies that the relationship between the fluctuations in GDP growth rates of western Germany, on the one hand, and, for example, the Netherlands and Belgium, on the other, should now have become less narrow. These growth rates, which moved fairly closely in parallel, tend to show more divergence now than in the past. The divergence becomes smaller (the fit improves), once account is taken of the 'East Germany effect', i.e. if the growth rate of Germany as a whole is taken, rather than that of western Germany alone.

Notwithstanding this 'East Germany effect', imports began to fall rapidly from early 1993. They actually declined faster than exports and consequently provided, in mechanical terms, some positive contribution to growth (in 1993 imports were 15% lower than in 1992, exports 10%). At the end of 1993 imports of Germany as a whole may be back at the level of West German imports in 1989 (i.e. the year before unification).

The initial strong change in Germany's external position was, of course, for a large part the immediate demand effect of unification together with slow growth in its partner countries. The present situation may, however, very well point to the possibility of a more permanent change. Already the fact that Germany is now running a current-account deficit during a period of severe recession — GDP in western

GRAPH 52: Bilateral trade of goods
(balance in billion DM)



Source: Deutsche Bundesbank.

Germany fell by 1,9% in 1993 and by 1,4% in the whole of the country — could indicate that this deficit may rise once the economy begins to pick up. A substantial improvement of the situation in eastern Germany — and the implied expectations concerning future sales prospects and incomes — could lead to increases in investment and consumption and thus contribute to the potential for an external deficit.

It has to be stressed that a current-account deficit as such is not necessarily a situation which is less desirable. Neither is a surplus necessarily something to aim for, nor is a balanced foreign account an indication that the economy is in equilibrium nor does a deficit or a surplus tell us anything about competitiveness. Moreover, in integrating economies of the European Union, the interpretation of current-account developments is becoming more difficult. In particular, the financing aspects of current-account imbalances lose much of their significance in the presence of fully liberalized capital movements. Rather than aiming at current-account equilibrium as a target of economic policy, the issue is one of the appropriateness of the external position within the overall economic performance of a particular economy.

3. Underlying factors: domestic expenditure/savings balances

The balance of the current account reflects conditions in the real economy. If, for example, unemployment is relatively high, or productivity is relatively low, policies to improve the productive potential of the economy could be associated with the emergence of a current-account deficit, as capital flows in from abroad to take up profitable investment opportunities. In such a case, the deficit would be a positive development as imported capital is used to temporarily alleviate the constraint imposed on the level of domestic investment by the level of national savings. As the domestic production potential increases, the deficit would be expected to be self-correcting.

Similarly, the emergence of a current-account surplus need not necessarily reflect positive supply conditions. If the profitability of domestic investment opportunities is perceived to be relatively low, capital may flow out of the economy in search of higher returns abroad, resulting in reduced levels of domestic activity and the emergence of a current-account surplus. While these considerations have increased in importance now that progress has been achieved in liberalizing capital movements, traditional factors explaining current-account trends still remain important. In considering the recent developments and the outlook for the external balance, it is necessary to address the various

expenditure and savings balances of the domestic subsectors that underlie these changes.

The large changes in Germany's financial accounts, and especially those of the public sector, relate for the most part to the financial consequences of the restructuring process in eastern Germany. In 1989 the general government account showed a small surplus (DM 4,3 billion). One year later this had turned into a deficit of DM 84 billion (3% of GDP). After some modest improvement in 1992, general government borrowing increased again (to about 3,5% of GDP) in 1993 and is not expected to improve much in 1994. As explained in greater detail in the chapter on fiscal policy, these figures do not include off-budget deficits which will, nevertheless, have to be accounted for by the public sector at a later stage. Involved are, for instance, deficits in relation to the Treuhandanstalt, the east German housing fund and railways. Their inclusion produces a 'true' public deficit of several GDP percentage points more. The Bundesbank, which has repeatedly warned against the risks involved, in this context arrived at a figure of 7,5% of GDP in 1993.¹

Transfers to eastern Germany, which are not matched by output, will not decline to an appreciable extent in the near future. The government has announced and is implementing a number of important expenditure cuts and tax rises. However, the already high level of overall taxation (inclusive of social security contributions) and the limited potential for growth in the next few years will put constraints on the possibilities to raise public revenues. The public sector is therefore likely to continue to run deficits of substantial size, i.e. for German standards and against the background of the Maastricht criteria.

Will the other domestic sectors be willing and/or able to finance these increased needs from the public sector? Private households are an unlikely candidate for generating more savings in the short or medium term as they will save a smaller share of reduced incomes. Real disposable incomes have been declining in 1993, will fall again in 1994 and will remain under severe constraint for a number of years beyond as the result of wage moderation, weak employment growth and pressure from taxes and social security. Forecasts for the German economy for the whole period 1993 to 1995 are based on the assumption that households, in order to protect consumption, will reduce their saving considerably.

The business sector, after the severe drop of profits in 1993, may see some income rises in 1994 following improved productivity (as a result of both production increases and lay-offs) and wage moderation. This may be limited, how-

¹ Deutsche Bundesbank, various monthly bulletins.

ever, given possible pressure on prices, especially in export markets, while a possible appreciation of the USD exchange rate would cause upward pressure on import prices.

However, if profits were also to recover, it would be highly undesirable if business were tempted to channel available funds into investment in government bonds (or if there were a disproportionate share of falling household savings). First and foremost, because self-sustaining growth in eastern Germany can only be achieved by high levels of private investment for a substantial number of years, which will to a large extent inevitably have to come from domestic sources. In the second place, because important private investment flows will be required for restoring western Germany's competitiveness and productivity and with that the outlook for long-term growth and job-creation potential.

Business investment actually fell by 15% in 1993 and the outlook is far from bright in 1994. In the current situation of poor confidence and sales prospects, business may indeed prefer to invest in financial assets rather than in equipment. However, once the overall economic outlook begins to improve, private sector investment should also recover.

Given the probably large size of the finance requirements from both the public and the private sector, exports (including invisibles) should be higher than otherwise. An improvement in Germany's competitive position would therefore seem to be necessary. Even with such an improvement, Germany is likely to remain an importer of long-term capital in the coming years. These capital imports as such should not be a cause for concern. The problem, however, lies with the fact that it is the public sector which is absorbing these imports. The question which is looked at in the next section concerns the degree to which these foreign capital needs might be met by higher exports.

4. The outlook for exports: the effect of the DM exchange rate

Chapter 4 elaborates in greater detail how Germany's competitive position has been eroding over the last few years. Factors highlighted there concern slow productivity growth, already before the boom years, and strong wage increases, these notwithstanding the boom. The resulting rise in unit labour costs became very serious when output growth first began to slow and then became negative. In the chapter concerned, it is argued that over-hiring rather than the resulting strong wage rises as such were fundamental in explaining the loss of German competitiveness and in manufacturing in particular.

In partner countries either unit labour costs in manufacturing rose a lot less than in Germany (see Table 24), or their currencies had to be depreciated in order to correct for lost competitiveness. This picture needs completion by taking account of the downward productivity shock in the DM area as a result of unification.

Table 24

Cumulative change in nominal unit labour costs

(1987-92, in national currency)

	West Germany	F	NL	B	I	UK	USA
Total economy	15	15	10	16	45	50	25
Manufacturing	23	9	5	8	32	29	4

Source: Commission services.

At the time of unification, output per employee in eastern Germany was about one third of the west German level. Unit labour costs in east German industry were 50 to 60% higher. The large reduction of employment that followed has resulted in important productivity gains, but as wages increased at roughly the same pace unit labour costs have not come down as yet. In all, unit labour costs in the whole of Germany can be assumed to have risen between 10 and 15% at the moment of unification.

Depending on how productivity is defined, which year is taken as a base or to what extent one is prepared to assume that the DM's exchange rate before unification did more or less correctly reflect real conditions, the DM's loss of competitiveness can be estimated at 10% at least. As, given the anchor function of the DM, depreciation has to be excluded as an option for correcting the situation, the implicit medium-term choice is for restoring productivity and limiting unit labour costs. In the short term this can only be achieved by the further reduction of the labour force and wage restraint which is now taking place.

In the four years from 1990 to 1992 German exporters already lost a cumulated 7% in market share. German exports are hampered by the recession in Europe while competitors have been catching up in quality. However, wage claims are now coming down rapidly and productivity began to improve from the second quarter of 1993. The latter resulted mostly from lay-offs (this was especially the case in industry). Unit labour costs in manufacturing (in national currency) have been declining since early 1993 after a 7.5% rise in 1992. Once output recovers, unit labour costs could fall even more.

Table 25**German exports: change in market share**

	(% changes on previous year)				
	1990	1991	1992	1993	1990-93 cumulative
Market growth	5,2	4,7	4,4	2,0	17,3
Growth of German exports	4,8	4,0	0,2	1,0	10,3

Source: Commission services.

The pattern of foreign investment implies a constraint on Germany's export potential. The high surpluses of the past have been invested abroad with the purpose of replacing exports, and also future investment potential will partly be channelled to other countries (e.g. automobile production, chemicals). In the short term some relative DM depreciation (e.g. as a result of a higher USD) would improve the export outlook, although this does involve the risk of higher inflation. In the medium term the government's policy course of restoring confidence by fiscal consolidation and thereby creating the potential for eventual reduction of the burden of taxation and, more generally, measures which improve market functioning and reinforce the supply side seem the most promising way to improve prospects. Deserving of mention in this context is the package of measures introduced in the course of 1993, which should ensure Germany's attractiveness as a business location (the 'Standortsicherungsgesetz'). It involves, amongst other things, a reduction of corporate taxation and greater flexibility with respect to corporate structure.

5. Conclusion: will Germany continue to run a current-account deficit?

German export growth may, however, be constrained for several years to come. This is so in spite of the greater relative importance exports have in GDP in Germany, and therefore for growth, than in the case of, for instance, the USA or Japan. Market shares that were lost in the last few years are unlikely to be regained in the short term. Given current high cost levels and the reserve-currency role of the DM, restoring Germany's price competitiveness will take some time, during which German exports will face increased international competition. Another factor with longer-term impact is that a part of investment abroad that has taken place in the past was done with the purpose of moving economic activity abroad. This implies that it will replace exports and it may take some time until offsetting balance of

payments inflows materializes. Further, once the economy begins to recover, imports will also rise again.

The strong-growth economies in East Asia and the markets of a number of developing countries are, particularly in Germany, sometimes referred to as an opportunity for expansion for German exporters. This would especially be the case since the imports of these countries have a large investment goods component, an area where German products are traditionally well-represented. However, undeniable as the growing future importance of those markets is, their present importance for German exports remains limited (some 5% of total exports) for influencing German export conditions fundamentally in the next few years.

In addition, an important part of growth in these markets is accounted for by intraregional trade and the extent to which German, or other European, exporters will be able to establish a firm position in these markets remains to be seen. In all, the current trade surplus may not rise much above some 1% of GDP, especially when imports begin to recover. The travel account will remain in deficit (typically a little more than 1% of GDP). The strong inflows of net capital income, on the other hand, will tend to become smaller as Germany has now become a net importer of capital and its net foreign position is being reduced.

In a very stylized manner, three scenarios can be conceived with regard to prospects for Germany's current account. First, one where the overall competitiveness of western Germany is not restored or only very slowly. In such a context a persistent deficit of considerable size on the current account would seem inevitable. A second possibility is one of restored west German competitiveness, and a better export performance, together with a continued weakness of domestic demand in western Germany (and possibly a slowing of growth in eastern Germany). In this case the current deficit might disappear, but partly in the context of relative economic weakness. The third scenario could be one which involves restored competitiveness of west German industry and rapid catching-up in eastern Germany. Private demand for both investment and consumption resulting from this catching-up process would contribute to a demand-supply gap and could produce a deficit on the current account. However, as long as this would be the reflection of the build-up of production capacity in eastern Germany, such a deficit should not be a cause for concern.

Weighing these alternatives against each other, it seems fairly likely that a current-account deficit will persist for a number of years to come, although possibly smaller than the current one. In the most likely case, and given the high costs involved in the catching-up process in eastern Germany, this is not a cause for concern. As it is related to a net inflow of

foreign capital it is rather more the natural implication of unification. The underlying capital movements relate to the more fundamental problem of how the modernization of the east German economy is financed; this is dealt with at greater detail in other parts of this country study.

If, or to what extent, foreign resources should be used to finance unification is not the real issue. More important is the so far apparently inevitable but none the less regrettable emphasis on public resources. In a stylized manner the situation can be summarized as follows. Private capital continues to leave Germany (i.e. in net terms) implying that private investors (on balance) assess opportunities outside Germany more favourably than inside Germany (be it the western or the eastern part). The capital account, on the other hand, reflects a deficit in the public sector and a rise in the public debt and, more particularly, the extent to which government bonds are bought by foreign investors. The latter implies capital imports now and capital income payments in future. However, this rise in the public debt/GDP ratio involves the potential for higher taxes in future. To this extent, the situation would then entail certain risks of further reducing the potential net return on investment inside Germany.

Table 26

Exchange rates against 18 industrialized countries

	<i>(Changes on previous year)</i>	
	1992	1993
Belgium	2,3	0,0
France	3,1	0,5
Germany	3,0	2,5
Italy	- 3,0	- 15,0
Japan	4,6	20,0
Netherlands	2,3	2,5
Spain	- 2,2	- 15,0
United Kingdom	- 3,7	- 7,0
USA	- 2,3	3,0

Source: Deutsche Bundesbank.

Table 27

DM exchange rate

	<i>(End 1972 = 100)</i>							
	USD	FF	HFL	LIT	UKL	YEN	EC	18 ICs
end of:								
1975	123	108	102	144	142	122	121	117
1980	165	146	108	263	162	108	163	145
1985	131	193	112	378	213	85	215	162
1988	181	215	112	408	236	74	231	176
1989	190	215	112	416	278	89	240	186
1990	216	214	112	418	262	95	237	189
1991	213	215	112	420	266	86	238	188
1992	200	215	112	506	310	81	256	195
11/1993	188	218	111	551	297	68	263	193

Source: Deutsche Bundesbank.

Table 28

Leading exporting countries in 1992

		<i>(Billion USD)</i>	
		Merchandise trade	Commercial services
USA	447	USA	148
Germany	428	France	84
Japan	340	Germany	60
France	236	Italy	56
United Kingdom	191	United Kingdom	53
Italy	175	Japan	46
Netherlands	140	Netherlands	32
Canada	135	Belgium + Luxembourg	32
Belgium + Luxembourg	120	Spain	31
Hong Kong ¹	118	Austria	25

¹ Including re-exports.

Source: GATT.

Chapter 4

The labour market: trends in productivity and cost competitiveness¹

1. Introduction

In the three decades prior to unification the number of jobs in West Germany increased by 6,7% in total, i.e. by about 0,2% per year on average. This is roughly similar to trend growth in the rest of Europe, which also implies that it is a very modest figure compared with performance in non-European OECD member States.

From the middle of the 1980s the productivity and competitiveness of the West German manufacturing sector were subject to erosion, reflecting the fact that employment increased at a faster rate than one would typically have expected on the basis of output growth. Excessive growth expectations during the boom years 1988-91 led to a particularly strong further expansion of employment and enhanced the underlying productivity slowdown. The situation was aggravated by the DM exchange-rate appreciation and the recession. The adjustment process that is now taking place is especially putting a heavy burden on the labour market. Both cost competitiveness and the demand for labour have to be restored simultaneously. This difficult situation may imply downward pressure on real wages for a number of years to come.

In early 1994, more than one million manufacturing jobs (net) had already disappeared and the decline was continuing. Employment in eastern Germany, already 3,5 million lower than at the time of unification, was also still declining. In April 1994, registered unemployment in the whole of Germany stood at 3,8 million (2,6 million in west, 1,2 million in east, 10% of the labour force).² A further 2,5 million were covered by special labour market programmes, implying that some 15% of the German labour force were in inactivity, a

¹ This chapter was prepared by Jan Willem Blankert of the National Economies Directorate and Werner Röger of the Directorate for Multilateral Surveillance.

² In this chapter national unemployment figures will be used save in cross-country comparisons. Harmonized Eurostat unemployment figures, which exclude unemployed who are not immediately available for a job, are roughly 2 points lower.

GRAPH 53: Employment
(total economy)

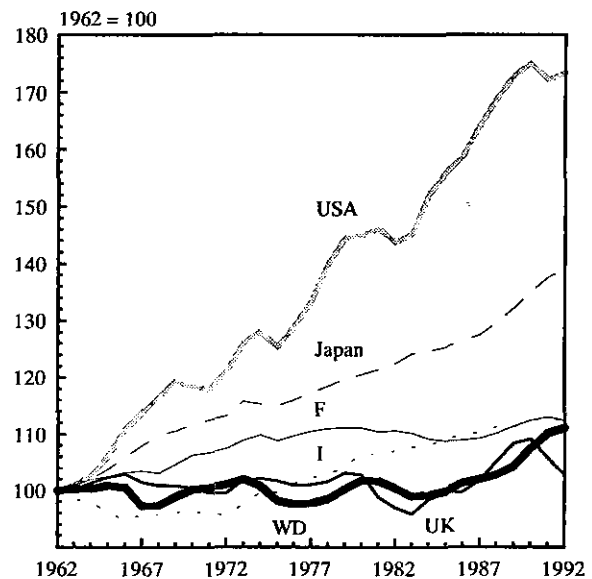


figure which is unlikely to fall before the end of 1995. The challenges involved concern the need for industrial restructuring in both western and eastern Germany (for different reasons), the further growth of the labour supply and the increasing importance of structural tendencies in unemployment.

The principal questions that are addressed in this chapter concern, firstly, how the current problematic situation emerged, secondly, what developments can be envisaged for the future, and, thirdly, possible measures that could mitigate these difficulties. In the first section a general overview is given of labour market performance. Recent trends are assessed against the background of long-term developments in western and eastern Germany. In Section 3 macroeconomic questions concerning the west German labour market are considered relating to the wage determination process, the structural level of unemployment and the potential for employment and real wages to adjust. It appears that problems in manufacturing industry, and more particularly a structural lagging behind of productivity growth, aggravated the cyclical difficulties. Section 4, therefore, addresses a number of structural and sectoral issues. It is striking — and actually a feature not found in

other industrialized countries — that output per employee in west German industry is lower than in the rest of the economy. This may point to an overconcentration of employment in industry and a need for considerable restructuring. The structural difficulties of the east German industry are further complicating the situation.

Section 5 deals, firstly, with the unpromising labour market outlook for the next few years. It may take until 1995 for employment growth to resume, possibly even beyond. Given the trend growth of labour supply, unemployment is unlikely to fall in the next few years. Self-sustaining recovery in eastern Germany has also become more difficult because of the recession in western Germany. Catching-up scenarios for eastern Germany are examined as are long-term prospects for the German labour market as a whole.

Germany is now likely to join (or has already joined) the league of European countries with persistently high unemployment. If the threat for European countries is the prospect of 10% permanent unemployment, this would imply very important policy issues: should (and could) a policy be pursued which encourages the conditions for a 'US model' or 'Japanese model' to apply? What are the implications of high unemployment for the welfare State system in a situation of fiscal imbalances? What are the prospects for further market opening and the integration of East European countries? These and a number of other labour market issues of a more general nature are reviewed in Section 5. If a conclusion can be drawn at all, it would be that a standard prescription for ensuring healthy growth of output, employment and productivity is not at hand. Certain adjustment measures can, nevertheless, be identified which seem obvious candidates for improving the functioning of the labour market and reducing the burden of high unemployment.

2. Recent trends against the background of long-term developments

2.1. Performance of the west German labour market: an overview

In the 1960s and early 1970s GDP growth in West Germany averaged about 4% per year. Similar to developments in the rest of the Community, growth was less buoyant in the period after the first oil-price shock (2,3% per year from 1975 to 1992). Productivity growth, in terms of the annual rise in output per person employed, has been showing a tendency to fall.

In the whole period from 1960 to 1986, i.e. up to the start of the most recent upswing, the net increase in the overall number of jobs in West Germany was no more than 2% in total. Periods of employment growth (the years up to 1974 and, subsequently, in the late 1970s) were followed by substantial job losses during recessions. In the same period the population aged 15 to 64 increased by 16%. Unemployment showed particularly steep increases during the recession periods and typically did not fall — or fell only very little — thereafter, pointing at a hysteresis problem. The rise in employment during the late 1980s was in any respect without precedent. Also, when account is taken of the further decline of employment that is expected in 1994, employment growth after 1983 (and particularly after 1985) is impressive in an EC context (a cumulative 8,5 and 7,5% respectively up to 1994) and actually some 4% higher than could be expected on the basis of evidence from previous cycles. A part of this could probably be explained by a lasting 'East Germany effect' on the supply of labour (and possibly also on overall demand), but moderation of wages may also have played a role in this respect. The question arises therefore as to whether this higher job creation will be permanent or if a further reduction of employment will follow after 1994.

Table 29

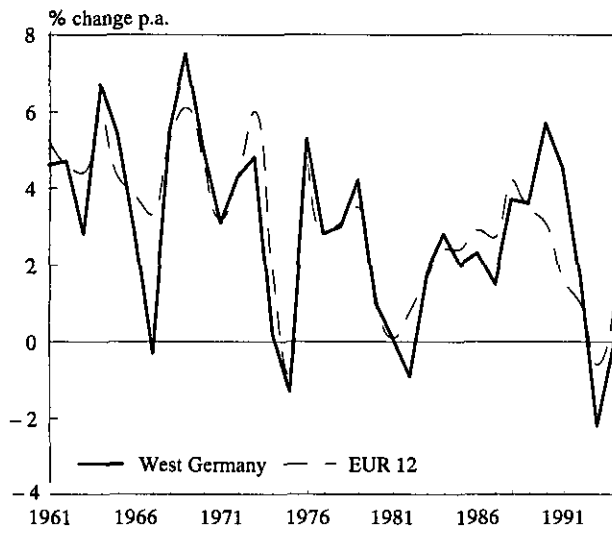
GDP, employment and labour productivity

	<i>(Average annual % change)</i>	
	1962-74	1975-92
GDP	4,0	2,3
Employment	0,1	0,5
Labour productivity	3,9	1,8

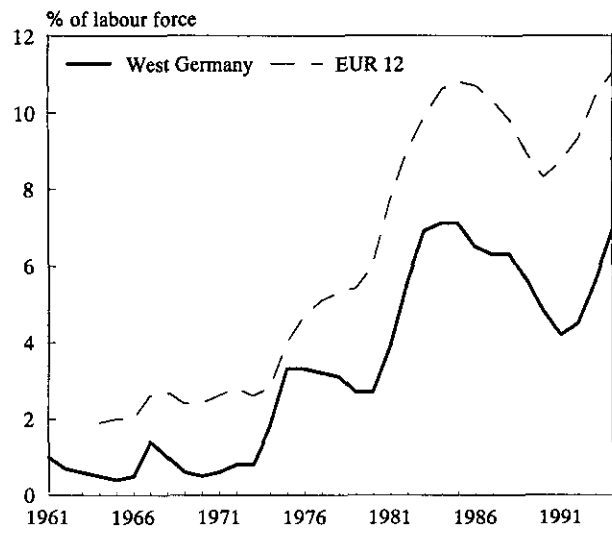
The fall in oil prices in 1986, the investment boom beginning in 1987 (not only in Germany but throughout Europe and, therefore, spurring both German investment demand and exports) and the strong demand and investment effect of unification resulted in a very rapid increase of employment (9,7% in the six-year period 1987-92). Notwithstanding the strength of this boom — GDP expanded by 20% over this period — job creation was high relative to the actual growth of output and, as a consequence, productivity growth was relatively slow. With hindsight, one may conclude that growth expectations and job creation were overoptimistic at the time. The positive aspects of unification such as the potential for demand and

GRAPH 54: GDP growth and employment

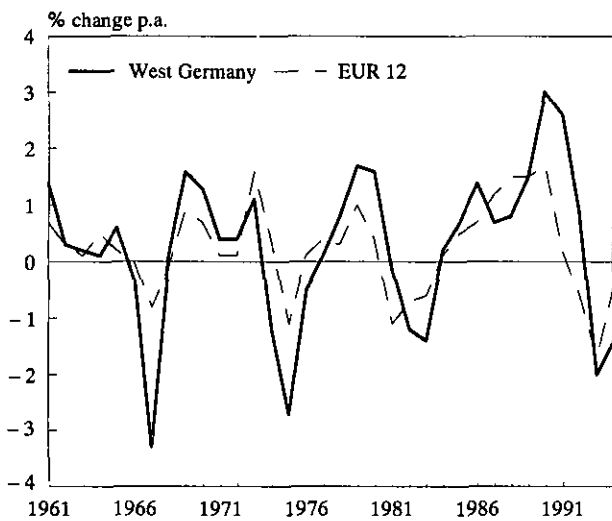
Real growth of GDP



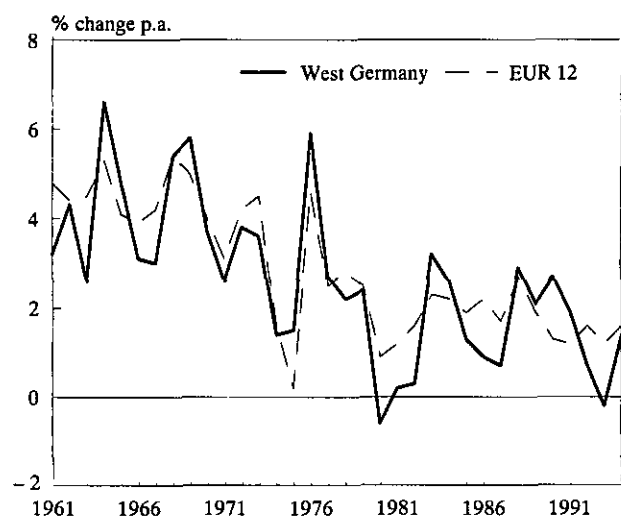
Unemployment



Employment



Labour productivity



Source: Commission services.

the supply of skilled labour may have been better recognized than risks for costs and competitiveness. The ratio (employment growth/GDP growth) — an indicator for the 'labour content' of growth — which used to vary around 0,25 during periods of cyclical upswing (the reverse is referred to as Okun's 'law'), was 0,5 on average from 1987 to 1992. Given the already strained situation on the West German labour market before unification, the rapid rise in wage claims that resulted is therefore not surprising. Due to lagging productivity growth unit labour costs had already developed relatively unfavourably compared with

other countries, but now they exploded. This pattern was especially pronounced in industry.

Employment peaked at 29,4 million in September 1992 (seasonally adjusted employment already in March that year, however), but then began to decline (from the third quarter of that year GDP started falling). In early 1994, one million jobs net had disappeared, more than 3%. On top of the effect of the recession came the restructuring required for restoring the competitive position of west German industry and a further fall in employment has to be envisaged.

Table 30

West Germany: population and activity

	1960	1965	1970	1975	1980	1985	1990	1995
Population (million)	55,4	58,6	60,7	61,8	61,6	61,0	63,3	66,5
Population 16-64 (million)	37,5	38,7	38,8	39,6	41,1	42,8	44,2	45,5
Labour force (million)	26,5	26,9	26,8	27,1	27,9	28,8	30,4	31,3
Employment (million)	26,0	26,8	26,6	26,6	27,0	26,5	28,5	28,2
Activity (% total population)	47,8	45,9	44,2	42,2	43,9	47,2	48,0	47,1
Activity (% population 16-64)	70,7	69,5	69,1	68,4	67,9	67,3	68,8	68,8

Source: Statistisches Bundesamt and own calculations, 1995 Commission services' forecast.

Labour supply will continue to expand (at a rate of some 0,5% per year on average), mainly because of migration trends and the rising participation of women. Female participation increased in particular during the recent years of strong employment growth. In 1991 some 12 million women were employed and female participation was 40% (as against 10 million women employed and a participation rate of 34% in 1982). Participation of women will probably rise further, possibly even at a more rapid rate. This is so because the need to restore competitiveness may put a persistent constraint on real wages and, consequently, on family incomes. An emerging trend to a shorter time in formal education could also add to upward pressure on labour supply.

West German unemployment, which was still fairly moderate up to the summer of 1993, had reached 2,6 million (8,4% of the labour force) in April 1994 and was still rising, although at a slowing pace. Given the lag between a reduction of production and the corresponding adjustment of employment — particularly in Germany — unemployment may continue to rise for a considerable time after economic recovery has set in, possibly until well into 1995. If the lack of flexibility that was seen in the past is to persist, unemployment could remain high for a number of years to come. The urgent need for adjustment and better labour market performance, i.e.

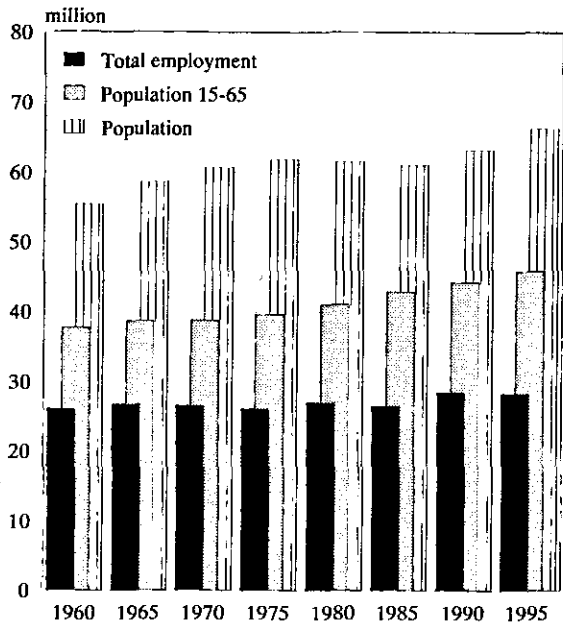
job-creation potential, is accentuated by the situation in eastern Germany where no satisfactory self-sustained growth dynamism can yet be seen and where employment is likely to contract further.

2.2. Main features of the east German labour market

In East Germany the zero unemployment policy pursued before unification had resulted in overstaffing and inefficiency in virtually all areas of the economy. In 1989, overall productivity in terms of GDP per employee was about DM 30 000, one third of West German productivity. The highly inefficient and rigid — although to some extent stable — production system had accommodated a great number of structural problems. Among them were overindustrialization and an underdeveloped services sector (for instance, a highly inefficient distribution system), inadequate pricing practices, backward technology and, as a consequence, excessive use of energy and raw materials.¹ Traditional production methods

¹ Lappe, Lothar. 'Der Zusammenbruch des Arbeitsmarktes in den neuen Bundesländern', in *Arbeitspapier* 1992/4 of SAMF.

GRAPH 55: Employment and population



were often encouraged instead of being reduced. Sectors such as energy production, metallurgy and shipbuilding were expanded although they were not at all competitive under market conditions. Compared with West Germany (and other Community countries) employment was especially high in agriculture, mining and various areas of consumer goods production.

The introduction of the one-to-one-parity with the DM on 1 July 1990 meant a 300 to 400% revaluation of the Ostmark making East German products uncompetitive overnight. With labour productivity at one third of West German productivity and wages 60% of West German wage levels, East German unit labour costs were 80% higher. At the same time Western products, which already had greater appeal anyway, came within reach for East German consumers.

In addition to the breakdown of the domestic market that resulted and following the abolition of the convertible rouble in 1991, east Germany's traditional export market, the East European trading block, not surprisingly, collapsed. East German exports fell by 50% in one year and a further 20%

Table 31

Employment shares by major sector, 1988

	GDR	FRG	EUR 12
Agriculture	12	3	3
Industry	48	39	34
Services	40	58	63

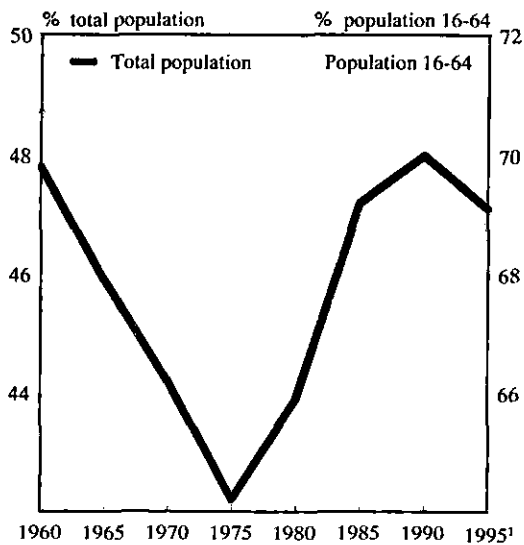
Table 32

Employment by sector in eastern Germany, 1989-93

	1989	1990	1991	1992	1993
Million					
Total employment	9,9	9,2	8,4	6,5	6
Percentage distribution					
Agriculture	10	7	6	6	5
Industry	45	43	40	35	27
Transport and communications	17	17	19	20	20
Other services (including government)	28	33	35	39	48

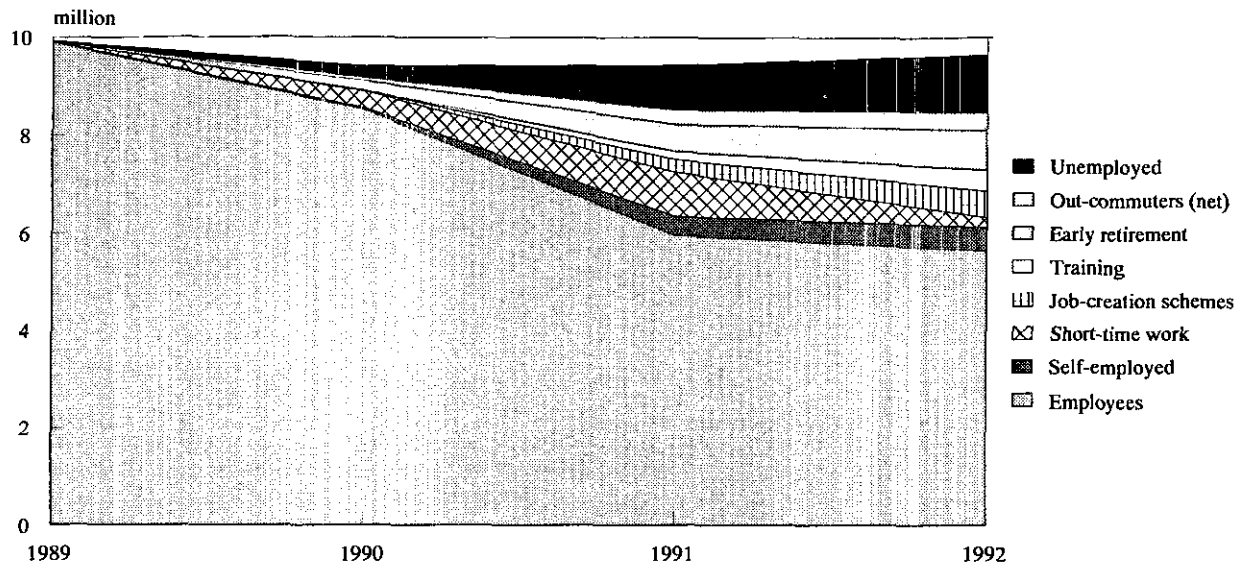
Sources: Statistisches Bundesamt, DIW and own calculations.

GRAPH 56: Activity rate, 1960-95



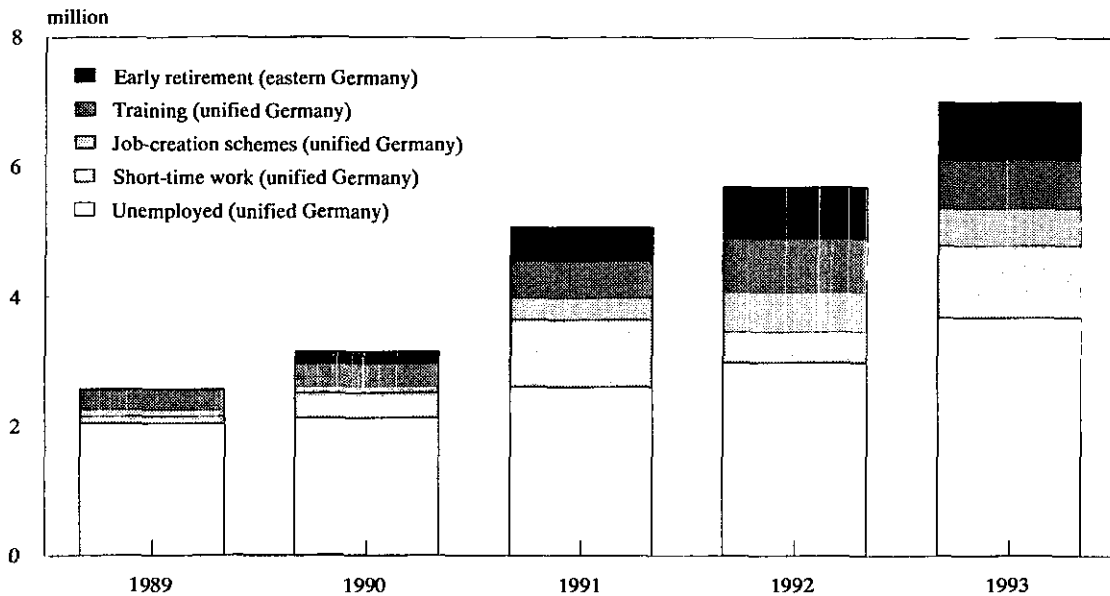
¹ Forecast

GRAPH 57: East German labour market
(in full-time equivalents)



Source: Dieter Blaschke et al. in *Mitteilungen aus der Arbeitsmarkt und Berufsforschung*, No 2/1992.

GRAPH 58: Indicators of unemployment and underemployment



Source: Bundesanstalt für Arbeit.

in the year thereafter. Total economic output fell by some 50% (industrial output by two thirds). Somewhere in 1991 the fall in output bottomed out, but the reduction of employment continued. Moreover, in the course of 1993 the cyclical downturn in western Germany began to make itself felt. As the sales potential for east German products (in western Germany) diminished, investment perspectives in eastern Germany worsened. The recession in the west has also affected the pattern of east-west commuting. The number of commuters has been falling and fewer job-seekers work in western Germany.

2.3. The structure of unemployment

In April 1994, west German official unemployment stood at 8,4%; the east German rate was 16%. In total 3,8 million were officially unemployed in the whole of Germany (10% of the labour force). An additional 2,5 million relied on special labour market programmes, such as short-time work (400 000 in west), job-creation schemes and training programmes (400 000 in east), early retirement (630 000 in east), etc. All in all, some 6,3 million, 15% of the total German labour force, were unemployed or covered by these labour market schemes. Recorded unemployment is rising in both western and eastern Germany (in the latter part after earlier signs of a possible stabilization). Unemployment in western Germany has had a marked downward stickiness and is likely to remain somewhere at its newly achieved higher level once this recession is over (see Graph 59).

Compared with other countries, youth unemployment is low in western Germany. Unemployment rises slightly with age and is somewhat higher among women, but the differences by age or sex are not dramatic. In 1992 the long-term unemployed (i.e. for more than 12 months) accounted for 45% of total unemployment in western Germany,¹ but that figure is now rising. Unemployment in western Germany is, however, particularly high among immigrant workers. At the end of 1993 they accounted for 16% of the unemployed, which is twice their share in the labour force. Probably the disproportionately high number of 'Arbeiter' (blue-collar workers) is related to this. They constitute 66% of the unemployed, but only 35% of the labour force. In eastern Germany unemployment is much more pronounced among women and rises more clearly with age. In 1992 unemployment among women aged 55 to 60 was, for instance, 34%. Male unemployment in that age group was 21%.² No attempt is made here to analyse the possible importance of inactivity not counted in the official unemployment figures.³

¹ The figure for the Community was 45% on average in 1992. In most other OECD member States (including the EFTA countries) long-term unemployment is much less predominant.

² Statistisches Bundesamt, *Zur wirtschaftlichen und sozialen Lage in den neuen Bundesländern*, April 1993.

³ Evidence for the UK and the USA suggests that many males of working age without a job have given up the search for work and are therefore no longer counted as unemployed; see, for example, Balls, E. and Gregg, P. *Work and welfare: tackling the jobs deficit*, 'Institute for Public Policy Research, 1993.

Table 33

Unemployment rates by age and gender

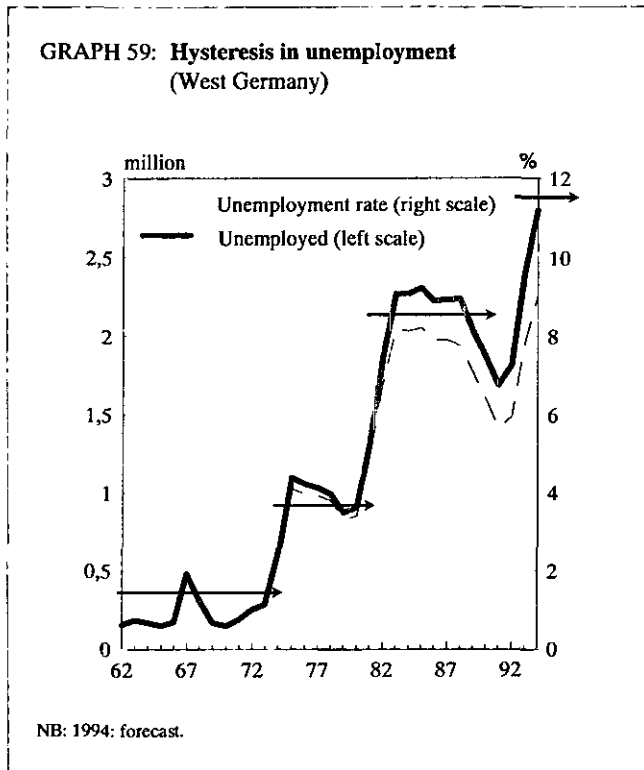
Age	Western Germany, 1991			Eastern Germany, ¹ 1992		
	Total	Males	Females	Total	Males	Females
15-20	3,3	3,1	3,5	8,8	6,3	12,5
20-25	4,0	4,0	4,0	20,0	16,9	23,7
25-35	4,1	3,7	5,2	18,1	12,4	23,7
35-45	3,7	3,0	5,2	15,1	10,6	19,8
45-55	3,7	3,1	4,7	16,9	12,3	21,8
55-60	7,2	6,3	8,7	25,9	21,3	34,1
60-65	4,1	4,1	4,1	26,3	25,8	77,0

¹ Eastern Germany: Statistisches Bundesamt, January 1992.

3. Macroeconomics of the west German labour market

This section examines how the current recession, and more particularly the deteriorating labour market situation, emerged. Firstly, unemployment/inflation dynamics are looked at.

Secondly, the marked structural element (hysteresis) in unemployment is considered. Unemployment typically has shown steep jumps during recessions to reach a level from which it did not subsequently fall (or fell only very little). It is shown that the overall wage/productivity performance does not satisfactorily explain this persistence of unemploy-



ment, nor its present rise, if wage developments are considered in a strictly domestic context. This picture already changes somewhat when the analysis is extended to take external cost competitiveness into account (i.e. productivity changes are regarded relative to other countries and in connection with wages there and nominal exchange-rate movements). The current difficult situation can only be fully understood, however, if manufacturing industry, which is at the core of the current recession, is looked at separately. It appears that productivity performance of west German manufacturing has been poor relative to other countries. This notwithstanding, wages in manufacturing have been rising faster than in the rest of the economy. Adverse exchange-rate movements added further to the problem of cost competitiveness. The present recession, therefore, requires above all a painful adjustment process in manufacturing industry to restore productivity and labour cost competitiveness.

3.1. Inflation/unemployment dynamics

Within the period from 1962 to 1992 three subperiods can be identified, each with a rather specific pattern of labour market characteristics. Graph 60 highlights how the 1974 and 1982 recessions each seem to mark the introduction to an entirely new setting.

If the reference to a Phillips-like curve is appropriate at all in the short term, it could be considered more or less vertical

between recession periods, i.e. unemployment does not react (or not much) to changes in the inflation rate and/or vice versa. Taking a more long-term view it appears that from the mid-1970s each recession shock causes the economy to reach — as it were to 'slide' into — a new inflation/unemployment 'zone' where unemployment is considerably higher and the inflation potential somewhat lower. This relates to the hysteresis element referred to above.

Table 34

West German labour market: key data

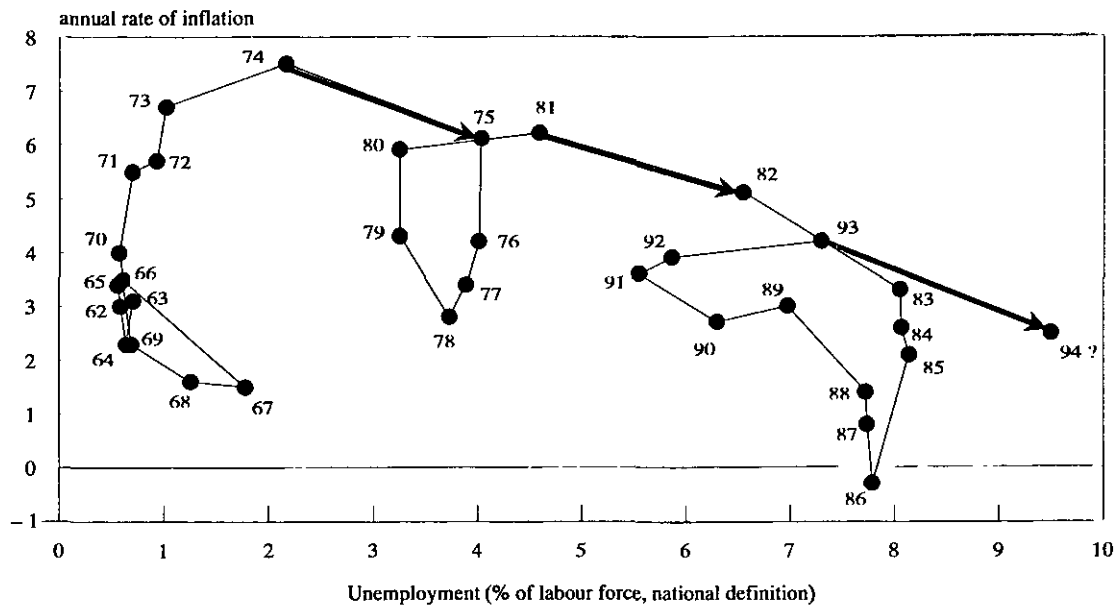
	1962-74	1975-81	1982-92
Unemployment rate	0,8	3,7	7,0
Inflation (CPI)	3,7	4,6	2,5
Adjusted wage share (% of GDP)	72	74	70

Mechanical extrapolation of the pattern perceived in the previous recessions suggests that official unemployment in western Germany could rise to some 9,5% during the current economic downturn. The rise in unemployment is especially worrying in view of past experience. As in the rest of the Community, unemployment has shown a tendency to remain high after the pronounced upward jumps during recessions and actually fell only very little thereafter (Graphs 59 and 60). The years of the unification boom were the most noticeable exception but, as is now becoming clear, it was a short-lived one as well. The downward stickiness of unemployment in the 1970s can possibly be explained by — and in any case occurred together with — a disproportionate rise in wages. In the 10-year period up to 1974 the adjusted wage share rose, but from then on it was on a steadily declining trend (Graph 61). In the 1980s wage claims were apparently adjusted to the gradual fall in productivity growth and wage increases during that period do not, on average, appear out of proportion.

Wage moderation even resulted in (or in any case contributed to) a gradual fall of the adjusted wage share to a 30-year low of 65% of national income in 1990. Real unit labour costs in DM in the economy as a whole had, on average, already fallen since 1975 and declined at a faster pace after the 1982 recession. Even the strong wage rises during the unification boom can readily be interpreted as a catching-up after a number of years of fairly moderate wage rises.¹ The above

¹ Model exercises by the Commission services indicate that, in 1990, employment was 2% higher than if wages had increased fully in accordance with productivity growth. The rise in labour supply from eastern Germany may also have played a role by slowing wage rises or wage claims. These additional jobs are immediately at risk, however, once the wage moderation trend is relaxed.

GRAPH 60: Inflation and unemployment



NB: 1994 figure is forecast.
Source: Commission services.

abstracts, however, from two essential qualifications. First, events should be seen in an international perspective, i.e. account should be taken of real exchange-rate movements. This means that wage developments should be considered in the light of wage and productivity developments in other countries and with reference to nominal exchange-rate movements. Second, macro-data mask the relatively poor performance of German manufacturing where the employment situation became particularly problematic.

When taking the first of these two points by itself, events after the 1982 recession are illustrative. Nominal wages adjusted quickly and the rate of increase of nominal unit labour costs was lower than before the recession. In a strictly domestic context real unit labour costs in DM even started to fall. However, real exchange rates moved in the opposite direction because of more rapid productivity growth in partner countries than in West Germany and nominal appreciation of the DM exchange rate.¹ These events demonstrate

how the impact of wage moderation can be nullified by adverse trends in productivity and/or nominal exchange rates.

Table 35

West Germany: output, wages and productivity (total economy)

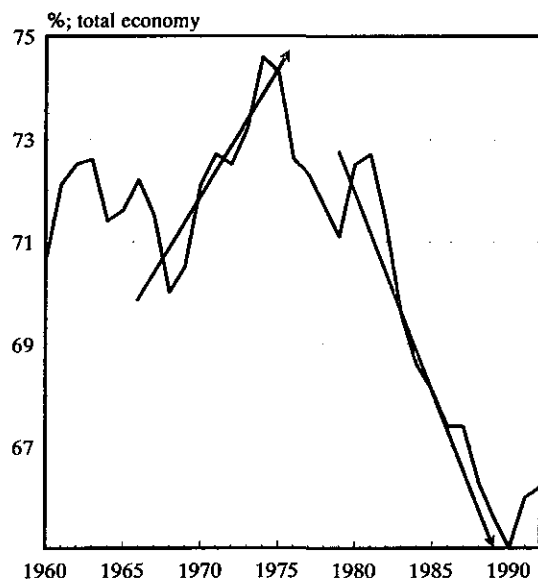
	(Annual average % change)		
	1962-74	1975-81	1982-92
GDP	4,0	2,1	2,4
Employment	0,1	0,0	0,8
Labour productivity (output/employee)	3,9	2,1	1,5
Nominal wages per employee	9,2	6,3	3,9
Nominal ULC (DM)	5,1	4,2	2,3
Real ULC (DM)	0,5	-0,1	-0,8
Real ULC (USD) (relative to 19 ICs)	1,7	-2,8	0,6

3.2. Wage/productivity pattern in west German manufacturing eroding competitiveness

The picture given so far becomes more pronounced when manufacturing, which is most exposed to international competition, is considered separately. During the 1980s, the productivity growth of West German manufacturing (in

¹ See also, for example, *Germany, economic developments and selected background issues*, IMF, 1993.

GRAPH 61: Adjusted wage share
(West Germany)



terms of output per employee) has slowed in comparison with most competitor countries (Table 36 below). Between 1980 and 1985 most of these countries saw manufacturing productivity improve by some 20%. This was achieved by major restructuring efforts, implying very important reductions of manufacturing employment. In France, where the improvement during this period was as modest in size as in Germany, productivity caught up rapidly in the second half of the 1980s. In West Germany, however, the cumulative growth of manufacturing productivity between 1985 and 1992 (in terms of output per employee) was lower than in any Member State but Denmark and the Netherlands. Other Member States achieved much higher productivity gains in that period.¹ In the Netherlands, which saw rapid productivity growth up to 1985, the impact of lagging productivity per person in the years thereafter seems rather to be the effect of a deliberate policy of overall wage moderation aimed at employment growth together with an important increase in part-time work.² The only country which did worse than

¹ See also a recent study which compares productivity levels and trends in industry branches in the USA, Japan and Germany (McKinsey Global Institute, *Manufacturing productivity*, October 1993).

² In recent years this slowdown of productivity growth has, however, become a reason for concern in the Netherlands. See also DG II, *Country study Netherlands*, June 1992.

West Germany over the whole period 1980 to 1992 was Denmark (8.4% productivity improvement in 12 years), which went through a long period of economic stagnation.

Productivity developments shown here are defined in terms of output per employee. A country's performance is, therefore, affected if and to the extent that the number of hours worked per employee (per week, per year) changes compared with other countries. Work-time reductions may indeed have been larger in western Germany than elsewhere. The possible productivity loss and cost disadvantage thus suffered should then in principle be compensated by corresponding adjustments of wages (or wage rises). Unit labour cost developments suggest, however, that this has not been the case in Germany (Tables 37 and 38). Table 37 further illustrates how West Germany (and Denmark) diverge(s) especially in two respects. First, nominal unit labour costs in manufacturing rose much faster than in the other hard-currency countries in the period under consideration. Second, unit labour costs in manufacturing increased faster than in the rest of the economy (in West Germany even much faster).

Figures on cost competitiveness are summarized in Table 38 where the combined effect is shown of changes in productivity, wages and exchange rates relative to other countries. The year 1987 has been chosen as the base year for comparison because it was the beginning of a fairly long period of relative exchange-rate stability. Between 1980 and 1985 EC manufacturers improved their relative position because of productivity gains, the rise in the USD and slow productivity growth in the USA. Especially from 1985 to 1990, but also thereafter, west German manufacturing performed relatively poorly. It must, of course, be noted that the improvement in other Member States in the last few years was partially achieved by currency depreciations consequent to unfavourable wage/productivity developments.

The relative worsening of the competitive position of west German manufacturing demonstrated above should, in theory, have led to restructuring efforts and/or further wage moderation (as in the Netherlands) and/or a weakening of the DM nominal exchange rate. A complicating factor was the hard-currency policy option followed by a number of competitor countries in the 1980s. These countries, by pegging their currencies to the DM and subsequently aiming at, and actually achieving, inflation rates similar to or lower than inflation in Germany — particularly during the boom period — gradually improved their competitive position relative to German products. By the logic of this implicit 'monetary union' German competitiveness could, within this 'union', only be restored through the labour market, i.e. by

improvements in wage/productivity performance. The strong impact of unification on demand (for both goods and labour)

veiled, however, this need for change. Instead, it created excessive expectations and caused the opposite to happen.

Table 36

Trends in manufacturing productivity

	<i>(Value-added/employee, 1985 = 100)</i>									
	West Germany	F	NL	B	DK	I	UK	E	USA	Japan
1980	90	89	82	75	95	79	n.a.	80	82	82
1990	106	120	106	121	100	121	125	105	119	127
1992	108	122	108	121	103	128	134	113	127	123

Source: Commission services.

Table 37

Cumulative % change in nominal unit labour costs

	<i>(1987-92, in national currency)</i>									
	West Germany	F	NL	B	DK	I	UK	E	USA	Japan
Total economy	15	15	10	16	20	45	50	42	25	7
Manufacturing	23	9	5	8	24	32	29	39	4	4

Table 38

Unit labour costs in manufacturing industry

	<i>(Index in a common currency, 1987 = 100)</i>									
	West Germany	F	NL	B	DK	I	UK	E	USA	Japan
1980	89	107	108	131	87	99	121	125	111	68
1985	80	96	88	92	81	95	108	98	154	74
1990	102	94	93	96	91	111	107	130	92	86
1992	107	94	94	104	89	109	106	130	86	100
1993/IV	113	97	98	105	88	89	96	107	88	127 ¹

¹ Japanese manufacturing output fell in both 1992 and 1993 (by a cumulative 10%), but the nominal yen exchange rate soared, nevertheless. What was initially seen as cyclical difficulties is now accepted as possibly pointing to more fundamental structural problems.

Source: Commission services, DG II, *Price and cost competitiveness*, fourth quarter 1993 (Doc. No II/244/4/93).

3.3. The unification boom: excessive expectations

With hindsight, and in the midst of the recession, the unification boom could be recognized as a strong, but temporary upswing followed by adjustment. During the demand spur, however, many in the private and the public sector alike mistook it for a more lasting phenomenon. This seems to have created expectations which, again with hindsight, can be considered overoptimistic. Prospects for market expansion were apparently better acknowledged than aspects of cost and competitiveness. Moreover, one may add, the inflationary potential involved and the monetary policy reaction that followed were probably not fully anticipated. This had, of course, implications for the labour market.

It first translated in a very strong rise in the demand for labour. Against the background of actual output growth, job creation was very high indeed, not only in manufacturing but throughout the economy. This can, for instance, be illustrated by the ratio of employment growth to GDP growth. Whereas this ratio used to vary around 0,25 in periods of economic upswing, from 1987 to 1992 its value was 0,5 on average. This means that, for five consecutive years, employment expanded at twice the rate one would have expected on the basis of actual output growth. Not only the unification euphoria, but also three other factors may have played a role in this respect.

First, wage rises had been fairly modest in West Germany in the 1980s: as already mentioned, the adjusted wage share (as a percentage of GDP) had been falling for a number of years and real wage cost per employee (i.e. corrected for the GDP deflator) increased less than productivity. Employers may therefore have paid less attention to costs and to productivity performance. Second, the large supply of skilled labour in East Germany suddenly came within reach of (and partly available to) the over-stretched West German market. It is likely that employers did not want to miss this one-off chance to tap from this supply, even if they were aware of the risks involved. Third, for political and social reasons a rapid catching-up of wages in eastern Germany was decided. The upward pressure of this wage equalization scheme was not limited to east German wages alone. It also increased the price of east German labour on the west German market and therefore reduced the potential of the dampening effect on wage claims during the boom period.

Private employers and public authorities may have seen little need to resist rapidly rising wage claims. After all, profits and public revenues were soaring and expectations were at a high. Wages increased rapidly, especially in manufacturing. The combined effect of, first, this strong expansion of

employment and, subsequently, rapid wage rises put a very heavy burden on the wage bill, which was further pushed up by increasing tax pressure on wages.¹ It was argued above that slow productivity growth had already pushed up unit labour costs relative to other countries (despite modest wage developments). The slowing of GDP growth in 1991 accentuated this deterioration and the actual fall in output from mid-1992 led to an explosion of unit labour costs. This was, again, especially the case in manufacturing where hiring had been more out of proportion relative to output growth and where wage rises had been higher than in other sectors. Table 39 illustrates this disparity. From 1987 to 1991 the cumulative rise in unit labour costs was 21% in manufacturing against 7% in the rest of the economy. This discrepancy is even more pronounced when real unit labour costs are compared, i.e. when account is taken of the fact that output prices increased less in manufacturing (note that the figures in Table 39 do not reflect exchange-rate developments).

Table 39

Cumulative increases, 1987-91
(ULC in national currency)

	Manufacturing	Rest of the economy
Employment	7	10
Output	12	22
Productivity	5	12
Wages per employee	26	19
ULC	21	7
Real ULC	12	-7

All in all, the unification boom seems to have delayed structural adjustment in manufacturing, and, instead, to have contributed to unsustainable wage cost pressures. International comparison of levels of productivity is complicated by a great number of measurement problems. There is, nevertheless, evidence suggesting that output per person employed in manufacturing is now lower in western Germany than in France (see also Section 5 of this chapter).

As already mentioned above, these developments, together with the real appreciation of the DM, would in theory suggest a tendency for the DM to weaken. All Member States where nominal unit labour costs in manufacturing had risen as much

¹ Following the income tax reduction in 1990 average tax and social security contributions on labour income fell from 32 to 30,5%. The corresponding rates for 1991 through 1993 are 32,5, 33,4 and 35,5% respectively. The wedge between gross labour costs and net wages in the period 1989-92 was 47,8, 43,9, 48,2 and 50%.

as or more than in western Germany had depreciated by mid-1993. However, a deliberate weakening of the DM was excluded as an option for correcting the situation in Germany, especially because of the DM's anchor function. The consequence was a heavy adjustment burden placed on the German labour market (and disruption and recession in the whole ERM area more generally).

Again in theory, a reduction of nominal wages and, for instance, a related wage freeze in eastern Germany would be an alternative option, but it is a very unlikely one. The most probable scenario, which actually is already being realized, is for manufacturing to go through a painful restructuring process. Labour market conditions in manufacturing are adjusting. Almost one million jobs in west German manufacturing disappeared and an important number are at risk (and, in addition, some 400 000 more jobs in manufacturing in eastern Germany), even if the present trend of modest wage rises, implying a reduction of real wages, continues.

3.4. Concluding remarks: structural unemployment one step up again

For a number of years German products remained competitive in spite of high labour costs. This was achieved by productivity gains, high quality and, not least, quality appeal. It has been argued above that the recession was partly the result of adverse productivity and real wage developments in west German manufacturing relative to other countries (and other sectors of the economy). The analysis particularly points at inadequate 'quantity adjustments' by manufacturers which led to slow productivity growth relative to other countries. Strong demand on the labour market subsequently resulted, in spite of rising supply, in excessive wage claims and, therefore, a further erosion of cost competitiveness. Adjustment started with large reductions in manufacturing employment, but wage claims finally also reacted to the change in economic climate and have come down considerably. Wage agreements concluded in early 1994 fixed wage rises in western Germany at 0 to 2%. This implies a substantial fall in real disposable labour income (given the rate of inflation, negative wage drift, the discontinuation of fringe benefits and higher taxes and social security contributions).

What will happen with those who will become unemployed? The experience of the past shows that relatively few workers who lose their job can be placed in vacant positions. Age and health limitations appear to be of considerable importance in this respect. There is, however, also evidence of mismatch unemployment and lack of mobility between sectors, factors which probably explain much of the marked hysteresis in the

labour market, the stepwise rises in structural unemployment.¹ The current wave of structural adjustment leads especially to large job losses in manufacturing and for blue-collar workers. It is likely to produce unemployed with low chances for re-employment. A fairly generous social security regime which is not particularly tied to job search also contributes to this situation. New jobs in other sectors, for example the services sector, are anyway more likely to be occupied by new entrants to the labour market. Only a very strong 'demand pull' like the one experienced during unification may have the capacity to bring unemployment down.

The typical recession pattern whereby structural unemployment jumps to a higher level is therefore likely to be repeated. Taking further into account that the adjustment process now taking place may be concentrated in certain subsectors of manufacturing, it becomes even more likely that, with the current structures untouched, only a very small part of the new unemployed can be expected to become re-employed soon, if ever.² With the expected further rise in labour supply (some 0,5% per year on average), any net demand surplus — let alone a pronounced one — is, however, unlikely to arise in the next few years.

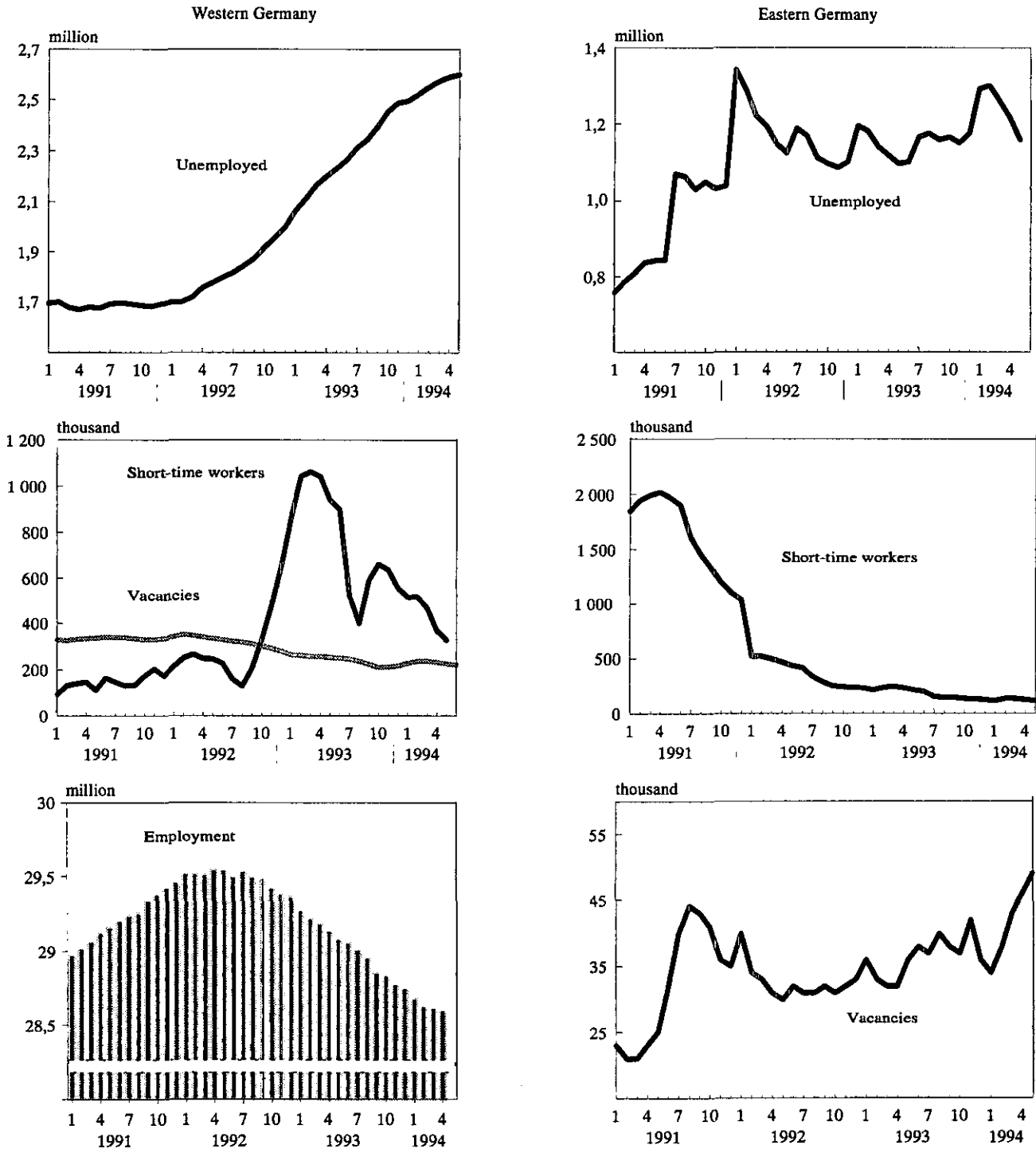
Industrial investment fell by 14% in 1993 compared with 1992. Given the overcapacity and loss of productivity suffered in the past, a pronounced recovery of investment activity is unlikely in 1994. Prospects for a pronounced rise in industrial output in the short term are not excellent, which makes the outlook for renewed strong industrial investment — and job creation — unpromising. Much of the investment taking place is moreover for rationalization purposes, implying that it will rather lead to further job losses.

The 'unemployment threshold' in western Germany (the rate of GDP growth at which employment begins to grow) is about 1,5%. Such a growth rate seems difficult to envisage before 1995. The required structural adjustment could, other things being equal, cause this threshold to rise moreover. Therefore, any increase of labour demand that may occur in the near future would at best seem to be sufficient to absorb new entrants. It is difficult to see how this unpromising outlook can change without more structural changes in the patterns of labour market behaviour.

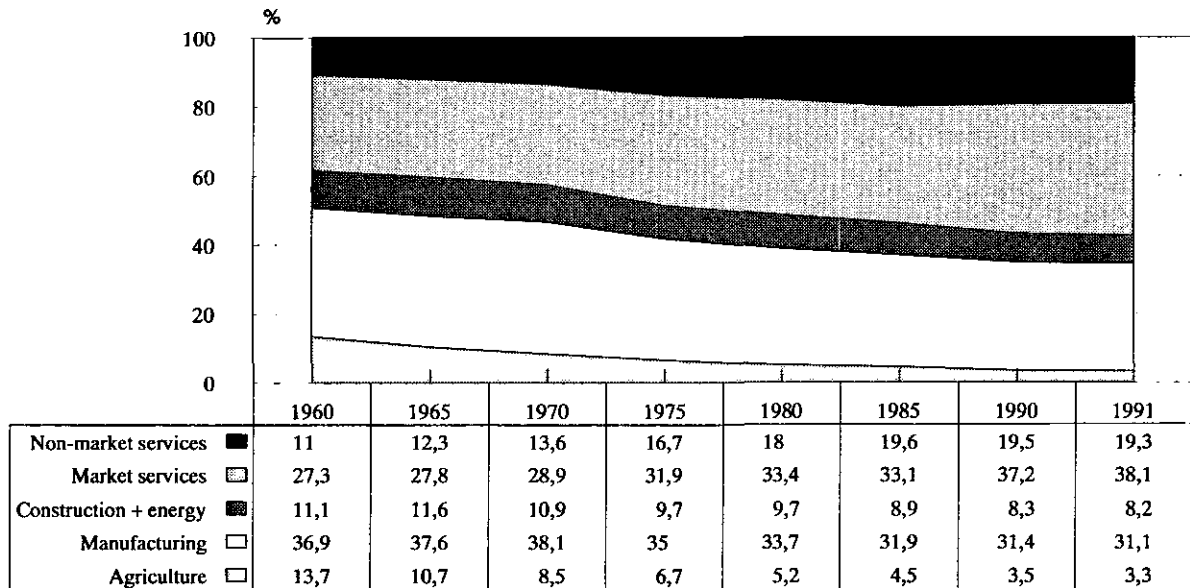
¹ For mismatch problems see Buttler, F. and Cramer, U. 'Entwicklung und Ursachen von mis-match-Arbeitslosigkeit in Westdeutschland', *Mitteilungen aus der Arbeitsmarkt- und Berufsforschung*, 3/1991.

² D. Goodhart with reference to unskilled workers in the UK: '[they are] displaced by machines, women and the cheaper labour of workers in developing countries'. (*Financial Times*, 18.1.1994). This may apply to blue-collar factory workers more in general.

GRAPH 62: The German labour market



GRAPH 63: Employment by sector
(not including-self employed)



Source: Statistisches Bundesamt.

4. Structural issues

In this section a number of structural issues related to the labour market will be discussed. There seems to be a case for arguing that Germany is 'overindustrialized' or at least that employment is overconcentrated in industry. The productivity slowdown in manufacturing of the last few years and, on the other hand, the fact that output per employee in industry is lower than in the rest of the economy point at the possibility of an 'employment bubble' in industry, which is now being corrected by rationalization efforts. A number of structural rigidities are pointed at, which constrain the flexibility of the labour market and, therefore, the ease by which the adjustment process might proceed. Thereafter, the severe structural difficulties that the labour market in eastern Germany is faced with are reviewed. Finally, some other rigidities, not only in the labour market, are examined.

4.1. The sectoral employment pattern: is western Germany 'overindustrialized'?

At first sight the long-term changes in the sectoral pattern in western Germany seem broadly similar to what happened in other industrialized countries. Between 1960 and 1990 the

employment share of the services sector (both market and non-market services) increased while agriculture and industry saw their relative importance diminish (Graph 63). In the case of western Germany, however, the proportion of jobs in manufacturing — and in industry as a whole (i.e. inclusive of construction and energy) was traditionally higher than in other countries and has been declining at a slower pace. In 1992 manufacturing employment in western Germany was some 30% of total employment as against 20% in most other industrialized countries (and 24% in Japan).

This concentration on industry in Germany is sometimes referred to as a possible 'overindustrialization'. It seems difficult — and is probably senseless — to decide on the 'optimal' degree of industrialization by any absolute measure. Something may be tentatively concluded, however, from relative industrial performance. For instance, by comparing industrial productivity with the other sectors of the economy.

In Table 40 the relative productivity of industry — calculated from the ratio of industry's share in GDP/industry's share in employment — is given for a number of countries. A ratio greater than 1 means that industry accounts for a bigger share in GDP than in employment, i.e. labour productivity in industry is higher than in the other sectors. These data

suggest that Germany is the only country where output per employee in industry is lower than in the rest of the economy. This could be further confirmation of an overconcentration of employment in industry (i.e. more employment than would be expected on the grounds of output conditions). Some care in drawing conclusions from these figures is appropriate. A low ratio could reflect a particularly good performance of the other sectors of the economy. The comparison may be flawed by structural factors, such as, for instance, a lower degree of 'externalization' (or contracting-out) of services by German enterprises (e.g. transport, repair services, finance, insurance, etc.). The evidence put forward in the section on the macroeconomics of the German labour market, however, also seems to give support to an 'overindustrialization' thesis, at least in so far as employment is concerned. This would then precisely point to the underlying reason for the adjustment now taking place.

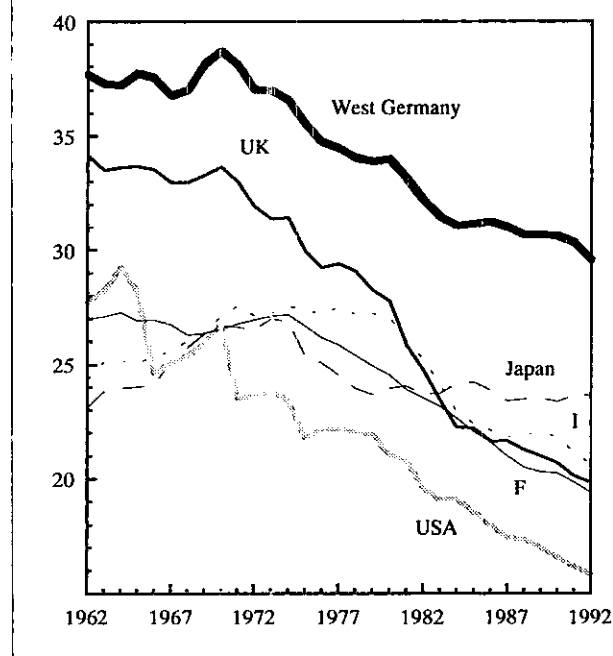
Table 40**Relative productivity of industry, 1988**

	A Industry's share in GDP	B Industry's share in employment	Ratio A/B
West Germany	39,1	39,8	0,98
F	30,8	29,9	1,03
E	35,4	33,4	1,06
I	34,3	32,4	1,06
L	32,6	30,7	1,06
P	37,6	34,9	1,08
DK	28,1	25,6	1,10
B	32,0	28,7	1,11
UK	33,0	29,5	1,12
NL	31,8	26,3	1,21
IRL	36,6	28,7	1,28

Source: Eurostat.

Table 41**Output per employee in manufacturing**
(current prices at current exchange rate)

	West Germany	F	I	UK
	(1 000 ECU)			
1960	3	3	2	3
1970	7	6	5	5
1980	20	20	15	14
1985	31	30	27	25
1990	38	42	37	29

GRAPH 64: Share of employment in manufacturing

Further support is given when levels of productivity are compared between countries. These figures should be considered with great care as numerous measurement problems *interfere in their construction*. The comparison is made in current prices and exchange rates. This means that differences and/or rankings between countries in a given year should be looked at rather than at how the figure for one specific country develops over time. For whatever their worth, these data appear to indicate that labour productivity in French manufacturing is now higher than in western Germany.

In conclusion, the cyclical difficulties in western Germany seem to have added to an underlying structural problem. Under the pressure of the recession (and exchange-rate developments), German industrial companies are now reacting with major rationalization efforts. Already one million jobs (net) disappeared in just a little more than two years. Industrial employment continues to fall (by 0,6% a month) and will probably be some 15% lower than three years earlier by the end of 1994. Not only are mining and steel concerned, but also the automobile industry, machinery manufacturing, electrical engineering and the chemical industry, i.e. Germany's traditional industrial core. In automobile manufacturing, for instance, 40 000 jobs out of the 733 000 in the sector were cut in 1992 (5,5%), although production still showed a modest rise. In 1993 a further 50 000 jobs disappeared.

Productivity in new automobile plants, including those in eastern Germany, can be up to three times as high as in older plants.

However, in a sense, western Germany's 'overindustrialization' and the high productivity of the services sector relative to manufacturing might also constitute an advantage. It could imply that the services sector in western Germany has a relatively large potential for expansion and job creation compared with other countries. This notwithstanding, the drive to higher industrial productivity and a moving of employment out of industry might even help to improve Germany's overall productivity. This is especially so since the externalization of services may lead to greater efficiency, not only in the industrial core firms concerned, but also through the production of these services in specialized firms.¹

4.2. Inflexibilities, but recent signs of improvement

It appears important that all the possible obstacles to labour market flexibility are removed once the economy begins to emerge from the current recession. A number of factors contribute to this lack of flexibility.² Among them are rules concerning working hours and the strictness of regulations concerning dismissal. Strict dismissal protection deprives employers of some of the possibilities to react flexibly to fluctuations in demand. It constitutes a considerable recruitment barrier to those seeking work. Training and education should reduce the currently existing mismatch between skills offered and those required.

The authorities further stress a number of particular areas where rigidities hamper the potential for growth and job creation. Among them figures, for instance, the lack of mobility in the labour market. In January 1994 the government presented its action programme for improving growth and employment which should be effective from 1 July. With a view to improving transparency and reducing mismatch, the programme envisages allowing private employment agencies on to the market. This means an end to the Federal Labour Office's monopoly on placing workers. Other elements of the programme involve measures for greater flexibility in the use of unemployment benefits³ and to encourage part-time work.

The gradual reduction of the working week together with (largely already existing) limits on plant operating times may have reduced the productivity of capital and overall production potential. In March 1994 a regulation was adopted making working hours more flexible. It would also be an improvement if the wage-setting process could allow for greater differentials between regions, sectors and firms so as to allow for speedier wage/productivity adjustment at micro-level. At least as important as adjustments in the legal framework are changes in attitudes and behaviour of the market parties in this respect. Some recent developments in this area seem, apart from their substance, of particular importance as they are without precedent and include elements unthought of only several years ago.

The first major breakthrough in this respect was when employers and workers in eastern Germany decided to delay the wage-equalization scheme and to make wage rises dependent on company-specific developments. The flexibility this may give in wage differentials and working hours could be important for improving business conditions and private investment performance. West German labour market regulation is increasingly considered as too demanding even for the well-developed and productive west German economy. The implementation of this regulatory body in its entirety in eastern Germany has contributed to the strains and in a number of cases actually meant a reduction of flexibility in eastern Germany. Given the proximity of the nearby East European countries, aiming at overall wage competition at macro-level is not a feasible option. Adaptability at micro-level, however, might allow for a substantial number of low-productivity jobs to continue to exist and possibly even to emerge.

Also in western Germany fundamental aspects of labour market conditions are now put into question and recent agreements show signs of unexpected responsiveness and adaptability. This may, for instance, be illustrated by the contract reached at Volkswagen in late 1993, involving a 20% reduction in both working hours and salaries (salary costs actually; net salaries allegedly would fall by 10%). According to Volkswagen estimates, 30% of its 100 000 jobs in western Germany would be saved this way. It must be noted that it remains to be seen to what extent both elements of this apparently defensive strategy (decided after a 15% fall in car sales in the Community) are reversible. If wages recover more rapidly than working hours when output recovers, unit labour costs will only be higher in the long term and Volkswagen's competitiveness would be reduced. Another example is the chemical sector where a 2% rise in wages was agreed upon together with flexibility in working hours in accordance with the needs of individual companies. These developments seem to form the introduction to greater overall flexibility and competition.

¹ See also Institut der deutschen Wirtschaft, *IWD-bulletin*, 16 December 1993, where evidence is given that labour productivity is particularly high in a number of service industries.

² See also Commission of the European Communities, White Paper on growth, competitiveness and employment, 1993.

³ Unemployment benefits may, under certain conditions, be used as wage subsidies or, for a limited period, to encourage unemployed persons who wish to start a business.

Other areas can be referred to, not especially in connection with the labour market, where greater flexibility and better market functioning could contribute to increasing the potential for economic growth and job creation. Among them are better infrastructure, accelerated planning and authorization procedures, deregulation in the transport market, reduction of subsidies, increased competition in postal services, the railways, energy supply, etc. The German authorities put much stress on the need for greater flexibility and the improvement of economic structures. In September 1993 they presented their views and envisaged policies in this area in a major report on ensuring the future attractiveness of Germany as a business location.¹ Further, in the new *Länder* in particular, the speed, transparency and predictability of administrative procedures should be enhanced. The uncertainty with regard to property rights in eastern Germany obviously stands out as a very special obstacle.

In April 1994 two thirds of the measures announced in the 'Standortsicherung' paper had already been put into law and an important part was being implemented. Corporate taxes had been reduced, a number of infrastructure projects accelerated and innovation schools and additional places for professional training in eastern Germany were established. The privatization of residential housing in eastern Germany and the liberalization of goods and passenger transport markets were gradually being implemented. Planning procedures had been facilitated.

The precise relationship between public investment and growth potential in the rest of the economy is difficult to demonstrate. There is, nevertheless, always the implicit assumption — and strong impression — that public investment, in principle, contributes to better productivity performance in the private sector. In considering the catching-up and subsequent overtaking of French industry *vis-à-vis* German industry which has already been referred to — and especially the improved productivity performance in France — one may wonder about the possible role public investment has played in this respect. In the last decade, public investment in France has been persistently higher (some 1 percentage point of GDP) than in western Germany (and than in the Community on average). France and Portugal seem to be the only Member States where public investment has not suffered from the strains on public expenditure in the 1980s.

In comparing, again, performance of the German economy with that of France, one may further add that in the latter country, already many years ago, a number of important issues in infrastructure planning were decided which in

Germany are even now still pending. The most clear examples are probably in energy supply and road and rail transport facilities. The issue here is not whether the policy choices for nuclear energy, the 'autoroute à péage' and the TGV (high-speed train) were as such better solutions than other options available, but rather that in France clear decisions were taken whereby these important policy issues were settled. Not only the resulting infrastructural improvements count in this respect, but also the implications for technological progress and, not least, the degree of predictability that was created for investors in the private domain. In Germany, as in many other Member States, major decisions in these areas are still pending. This contributes to uncertainty for private investors and consumes the time and energy of policy-makers.

4.3. Structural problems continue in eastern Germany

The causes of unemployment in eastern Germany are mainly structural in nature. Products are uncompetitive and, given the price/wage/productivity situation, production methods are outdated. In terms of productivity the east German economy is possibly comparable with the poorest Member States, but wage levels in DM terms are much higher. Employment (9,5 million in 1989) had fallen to six million by the end of 1993, some 10% of which was still subsidized. In all sectors except construction the number of jobs continues to fall. The need to increase productivity will cause further downward pressure on employment, not only in industry. The potential for job expansion is further restrained by the depressed situation in western Germany which has limited investment in the east, particularly by the private sector. In addition, part of investment in eastern Germany is undertaken with a view to replacing investment — present and future — in western Germany. Job creation resulting from such investments therefore will not necessarily add to the number of jobs in Germany as a whole.

The 9% east German inflation rate in 1993 was mostly driven by price increases of services, particularly rents. Producer prices increased by no more than 1%, which could mean that prospects for restoring competitiveness and productivity are worse still. Products are uncompetitive and, given the price/wage/productivity situation, production methods are outdated.

¹ Bundesminister für Wirtschaft, *Bericht der Bundesregierung zur Zukunftssicherung des Standortes Deutschland*, Bonn, September 1993.

Table 42**Wage costs and productivity in eastern Germany**

	DM 1992	West Germany = 100	
		1991	1992
Wage costs per employee	35 000	46	60
GDP per employee	37 000	28	39
Unit labour costs	—	166	155

Source: Statistisches Bundesamt, *Zur wirtschaftlichen und sozialen Lage in den neuen Bundesländern*, November 1993.

The east/west wage parity scheme agreed at the time of unification seriously complicated the labour market situation. It envisaged a rapid catching-up of wages in eastern Germany to western levels implying wage rises of more than 20% per year. In 1993 wage costs per employee in eastern Germany were 60% of western wages, but output per worker was still less than 40% of output per worker in the west and unit labour costs were still 55% higher than in the western part of the country (Table 42). Staying with the timetable set for wage equalization would mean that any achieved productivity increase would immediately be absorbed and many more jobs would be put at risk. In a number of industry sectors delay of the parity scheme was therefore agreed. The explicit reference to the economic health of individual firms is an important new element, uncommon to German labour arrangements. It could set a precedent for future labour contracts being negotiated at a less centralized level, also in the western part of the country.

Employment has continued to fall, however, in all sectors except construction. Obstacles firms continue to be faced with involve lack of proper business facilities, infrastructure and skilled labour. Further, the uncertain situation with regard to property rights hampers the business climate.

5. Prospects for the German labour market

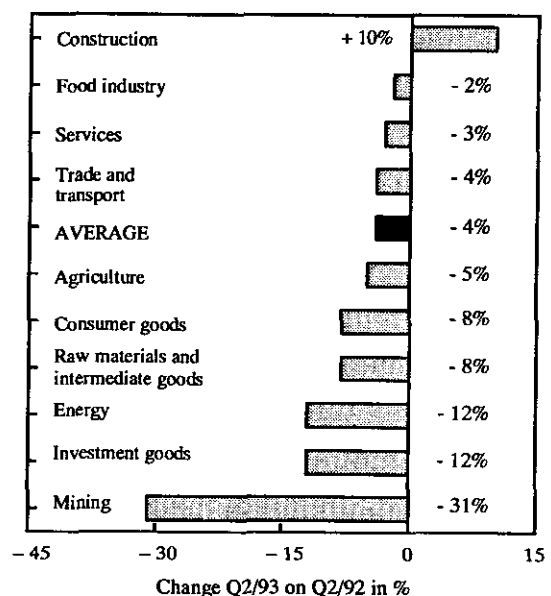
5.1. The short-term outlook

In 1993 unemployment in western Germany increased by 600 000 to reach 2,5 million (8,1% of the labour force) at the end of that year. In early 1994 the economic outlook was gradually improving and west German GDP might grow by 1% this year. Employment might continue to decline throughout 1994 and the output expansion will in any case not be enough to stop the rise in unemployment, especially as

structural adjustment will continue. Official unemployment could be around 2,8 million at the end of 1994 (9% of the labour force). A more unfavourable development is actually suggested by mechanical extrapolation of the pattern of unemployment in earlier recessions (Graphs 59 and 60).

In eastern Germany, GDP is now strongly expanding, although from a low level. A number of sectors, especially producing for the domestic market, are seeing significant output increases (e.g. construction, food products and certain service industries). At the beginning of 1994, overall industrial production was rising at an annual rate of 14%; the latter, however, after a 65% fall after unification. More time will be needed before substantial restructuring and satisfactory production growth can be achieved and output growth will translate into more jobs. The strong rise in construction output eventually resulted in job growth, but employment continues to fall in all other sectors. Overall employment fell by 4% in 1993 in spite of a 6,5% rise in GDP. Also in the government sector major adjustment has still to take place. Investment in industrial equipment in eastern Germany moreover could to an increasing degree take place for rationalization and modernization purposes in order to cope with rising labour costs. Future job losses will, more than in the past, result in open unemployment. All in all, a number between 1,2 and 1,3 million unemployed (16 to 17% of the labour force) is not unlikely.

GRAPH 65: Changes in employment by sector (eastern Germany)



For Germany as a whole the above would imply that unemployment would not fall below its present level and would be around 10 or 10,5% of the labour force. As has been argued above, for both west and east much of the rise in unemployment is likely to become structural. Wage costs in eastern Germany are on average 60% of wages in the western part of the country. Given these differences it would be misleading to think in terms of one German labour market. There are, none the less, certain mutual influences. The most obvious consists, of course, of the migrants and commuters. Their number peaked in 1992 at 450 000, but fell thereafter as job opportunities decreased. Less easy to quantify is the interaction between wage differences and investment in both parts of the country. Even a modest wage differential could, for certain activities, make eastern Germany an attractive place for investment in high-productivity greenfield plants. However, of importance to investors are not wage costs at present, but rather rises that may be expected in the future. In this respect the more recent signs of responsiveness and adjustment that can be seen in both eastern and western Germany appear promising.

5.2. Scenarios for the labour market and catching-up in eastern Germany

Rapid adjustment of living standards in eastern Germany has been one of the major policy targets from the beginning of the unification process. Shortly after unification fairly precise time profiles for the adjustment of wages and salaries were negotiated between employers and trade unions. Given the current economic situation these adjustment schemes have been modified to some extent, now permitting longer time spans and more flexibility.

In this section an attempt will be made to clarify the interaction between wage adjustment, investment and growth potential for output and employment. The possible trade-off that exists during the adjustment process (and also thereafter) between relatively high wages, on the one hand, and investment and employment, on the other, is generally recognized. In order to give, in quantitative terms, some idea of the size of this interaction a framework of standard growth theory has been used — calibrated to meet some key features of the present labour market situation in eastern Germany — to picture various possible scenarios for the adjustment process (see the box at the end of this chapter for a more detailed exposition of the theoretical framework).

The model exercise suggests that initial wage moderation is particularly important for improving the long-term outlook for investment and, consequently, employment and output growth. Relatively high wages at the start of the convergence

process may lead to permanently lower levels of output and employment as they discourage investment — i.e. the creation of future output potential — at an early stage of catching-up.

The results also clarify the obvious asymmetry that exists. To the extent that initial wage moderation creates additional investment opportunities, the future marginal productivity of labour will be increased and thereby provide the basis for future wage increases. It leads to the suggestion that relatively minor reductions in wage growth early in the convergence process may lead to relatively large gains in both capital formation and employment later.

The results of two scenarios are compared. First, the convergence process is looked at assuming a wage scenario with high indexation of wages to productivity, i.e. one that corresponds with wage behaviour in western Germany. In the second scenario the consequences are analysed of modestly lower wage indexation. In both scenarios it is assumed that the initial capital stock in eastern Germany is 30% of the west German level and that total factor productivity is 60%.

The figures in Table 43 below compare a reduction in the ratio of wage rise to productivity rise from 0,9 to 0,8. The results indicate that already with such modest reductions in annual wage growth, after five years output and employment may be 5% higher than would have been the case otherwise.

Table 43

Scenario: Economic effects of a reduction in the annual wage rise/annual productivity rise ratio from 0,9 to 0,8

	Effect after:		
	1 year	5 years	15 years
GDP (%)	2	5	7
Investment (%)	6	7	8
Total employment (%)	3	5	7
Productivity/wages	- 0,01	- 0,5	- 0,25
Capital stock (%)	½	4	7

Thus the outcome of this simulation points to the importance of moderation of wages at the beginning of the restructuring process. Flexibility of wage formation, which is not taken into account in the macro-framework of the model, is probably also very important for the adjustment process. On the one hand, certain areas of manufacturing will be sufficiently productive and may be able to afford wages at west German levels. In this respect one could particularly include greenfield plants applying state-of-the-art tech-

nology. Potential for downward flexibility, on the other hand, should allow for a range of low-productivity low-pay jobs to arise. In strictly mechanical terms such jobs will put downward pressure on overall productivity. But they will, nevertheless, add to total output without distorting wage/productivity performance. Where wage moderation is insufficient the possibility of wage subsidies should not be excluded.

5.3. The long-term outlook, major challenges ahead

The major challenges the German economy as a whole is now facing can be summed up as follows:

First, the cost competitiveness of both western and eastern Germany has to be restored. As has been argued above, the situation was particularly difficult in manufacturing. The strong rise in the nominal DM exchange rate in the course of 1992 accentuated an already severe problem. This rise followed several years of lagging productivity growth in manufacturing in western Germany and, on the other hand, a pronounced downward productivity shock in the DM area as a whole, resulting from unification. The combination of these factors caused the recession to be particularly pronounced in western Germany.

Second, the huge investment requirements in eastern Germany need to be addressed. Business conditions have to be created in order to instil confidence in private investors. As regards wage-setting it should be noted that for investment behaviour and, therefore, long-term perspectives for the economy, expectations about wages and the possible degree of wage flexibility are of greater importance than today's wages only. Wage moderation and flexibility seem of particular importance at the start of the convergence process. Lack of these two elements may create an obstacle to investment — i.e. the creation of future output potential — at an early stage of catching-up. This could lead to permanently lower levels of output, employment and wages.

Third, the shock of the restructuring process has to be mitigated and the flow of workers becoming redundant has to be absorbed to some extent. As manufacturing companies and processes are subject to 're-engineering', 'downsizing' and 'delaying' jobs in manufacturing continue to disappear. The flexibility of firms is being enhanced by (further) subcontracting. This implies that a number of activities are rearranged rather than disappearing entirely. Examples are transport, design, financial management, legal services, research, etc. which are statistically allocated to manufacturing as long as they are undertaken in-house. To the extent that they are 'externalized' these activities will simply be moved

to the services sector. However, the drive for productivity improvement implies that after their 'reappearance' they will be undertaken by fewer people than before and, very probably, also by other people. This notwithstanding, the high productivity of the German services sector relative to manufacturing may point to a certain potential for employment expansion there.

The unemployment challenge is accentuated by the trend of rising labour supply. Taking into account an annual rise in labour supply of about 0,5% it is difficult to see how German unemployment could come down substantially in the next few years. It therefore appears that Germany now also has to face the problem of persistent high unemployment. The rate of officially recorded unemployment could stay somewhere around 10% in Germany as a whole.

The German labour market, like labour markets in most European countries, seems to lack dynamism and employment-generating capacity. The hysteresis effect that was shown for western Germany is seen in most EC Member States (albeit at different levels). The officially recorded rate of inactivity in Germany is still modest in the European context. Unemployment in the whole EC, after having peaked at 10,8% in 1985, has never fallen below 8% (in 1990). By 1994, 11% of the total labour force in the EC is expected to be officially unemployed. The recession has accentuated, once more, the problematic functioning of labour markets in European countries. The performance is particularly poor when compared with the USA and Japan. Can this be explained? It is in this context that the discussion concerning a 'US model' or a 'Japanese model' for the labour market becomes relevant.

5.4. The evolution of wages

In the previous sections it has been argued that a consistent wage/productivity mix relative to competitors is essential for creating and maintaining employment possibilities. Wages as the most important cost factor are an essential element in determining the rate of return on any investment project. For new investment being considered expected wage levels (in relation to expected productivity) are of even greater importance. Therefore, the agreed scheme for wage parity in eastern Germany could work against the efficiency of planned investment since great uncertainty existed about trend productivity. In this regard any discussions of wage developments should particularly be seen in the context of wage flexibility.

In an environment of liberalized capital markets the success of a wage moderation policy will essentially depend upon

the reaction of the private sector. If wage moderation is seen as a reaction to a general deterioration of an economy's performance it may also have the effect of reducing income expectations with consequences for consumption. There is a risk that this income or demand effect can be stronger than the hoped-for substitution effect and the final overall impact on sales expectations and investment could even be negative. In the present economic situation in Germany, a general policy of wage moderation might have this effect as it could be considered as a means of achieving fiscal consolidation, facilitating transfers to eastern Germany, compensating for higher social security contributions for employers and of adjusting to the lower productivity of unified Germany.

Although permanent wage restraint will help in maintaining existing jobs, the effect on the sustained creation of new jobs has also been questioned.¹ There are good reasons why claims for real wage adjustments which are justified by productivity performance should be respected. Moreover, the results of a policy of overall wage moderation are at risk if a wage shock arises and/or if exchange rates move adversely. A permanent policy of wage restraint, finally, inevitably implies an built-in slowing of productivity growth, technological innovation and economic dynamism. It therefore seems important to search for a wider range of measures which improve market functioning, such as (de)regulation, privatization, possibilities for self-employment and openness to international competition and investment.

To the extent that present wage levels are too high, this could also, in part, be a reflection of a lack of wage differentiation, i.e. the possibility to adjust wages according to differences in productivity among groups of workers or firms. The high proportion of unskilled workers in unemployment suggests the particular relevance of this aspect. The factors leading to such a situation are well known and involve minimum wage levels (be it legally set or actually paid) leading to a high reservation wage and rigidities which prevent wages from being differentiated according to age, experience and/or productivity.

Even if the desired flexibility for such wage/productivity adjustment is achieved in the private sector, an obstacle continues to exist arising from the system of social security as the wedge between an employee's cost to the employer and that employee's disposable income is relatively high for

lower middle-income wage levels. The fact that social security contributions are only payable up to a certain income ceiling causes the marginal rate of taxation (i.e. including social security contributions) even to decline for groups with incomes above this ceiling (the 'Beitragsbemessungsgrundlage'). In addition, indirect taxes have tended to increase disproportionately in the aftermath of unification imposing a further 'terms of trade' effect and reducing employees' real wages.

All in all, greater wage flexibility, particularly at the lower end up to around the middle of the 'productivity scale', should be accompanied by policy measures which reduce problems related to the reservation wage and the wedge. This might be achieved by lower social security contributions for low income levels and by not putting too much emphasis on indirect taxes as a way of addressing the public deficit challenge.

6. The unemployment problem: some general observations on labour market performance

Over the last few decades the USA and Japan have achieved much higher employment growth than the EC (or Europe in general).² Whereas in Japan, during this period, both output and employment expanded strongly at the same time, the USA saw a combination of strong employment growth and only a very modest rise in output, the latter implying lagging productivity growth. In a very stylized manner these developments are summarized in Table 44 below. One could be tempted to wonder if the case of the USA should lead to the conclusion that a trade-off exists between productivity growth, on the one hand, and job creation, on the other, as is sometimes suggested. Second, one may wonder what made this Japanese miracle happen?

The suggestion that there exists a trade-off between productivity growth and job creation actually represents the old 'technology destroys jobs' argument. To some extent, but only more recently, the same phenomenon of relatively strong employment growth together with low productivity growth has been seen in the Netherlands. It is worth noting that precisely in the USA and the Netherlands there has been concern about this lagging productivity. It will be argued here that productivity growth is a necessary condition for output growth. The level and growth of productivity is in the long term the main determinant of a country's capacity to maintain or raise standards of living. In the long term healthy productivity growth will be reflected in a country's

¹ 'Wage restraint may only have led to the preservation of jobs that would otherwise have been scrapped. The creation of new jobs (...) is much more connected to business prospects and sales expectations.' L. Broersma in *The effect of wage restraint on labour and market flows*, 12.1993, on evidence for the Netherlands. The Dutch government's forecasting branch CPB is more positive about the effect of wage restraint. The results one obtains depend, of course, crucially on model parameters concerning substitution and income effects.

² See also OECD, *Employment/unemployment study*, January 1994.

international competitiveness, investment opportunities and job creation potential. Low productivity growth, on the other hand, will tend to have a negative impact on business expectations, the real rate of return, investment and economic dynamism.

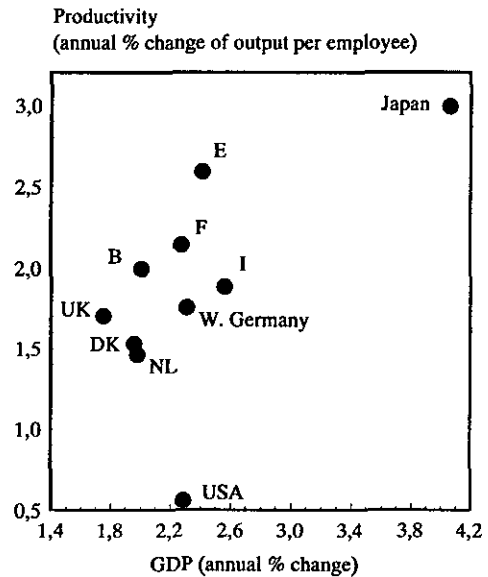
Table 44

GDP, employment and productivity

	<i>(Average annual % change)</i>		
	1961-70	1971-80	1981-90
GDP			
West Germany	4,4	2,7	2,1
EC	4,8	3,0	2,3
USA	3,8	2,8	2,5
Japan	10,5	4,5	4,2
Employment			
West Germany	0,2	0,2	0,5
EC	0,2	0,3	0,5
USA	1,9	2,0	1,9
Japan	1,4	0,7	1,1
Productivity			
West Germany	4,2	2,5	1,6
EC	4,6	2,7	1,8
USA	1,9	0,8	0,6
Japan	9,1	3,8	3,1

The point may be further stressed by reflecting on what a low productivity option would actually imply. Encouraging the growth of output and employment traditionally forms one of the cornerstones of macroeconomic policies. Measures which relate to the improvement of productive potential, on the other hand, relate more to microeconomic policies. Microeconomic policy measures explicitly aimed at increasing productivity involve, for example, competition policy, (de)regulation, market functioning and the like. The productive potential of a country is also raised, however, by improvements in the education system, management methods, public infrastructure, the health-care system and technological achievements. Once one looks at policy measures which actually have the effect of improving productivity, it becomes clear that such measures, apart from influencing living standards (and the rise therein), are to a large extent intrinsic components of those living standards. Also at the level of the firm all considerations of efficiency

GRAPH 66: Productivity and GDP, 1975-92



Source: Commission services.

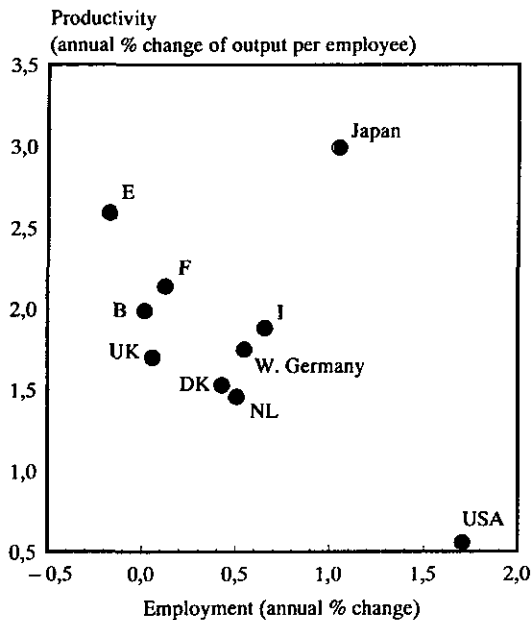
and cost-cutting mean a permanent search for improving productivity performance. It is difficult to imagine a firm deliberately seeking to become less efficient.

Particularly with a view to what happened in Japan there is evidence for arguing that not only employment growth was high because output growth was high, but also that output growth was high precisely because of the strong productivity growth achieved. For Japan, exports are relatively less important than for most European countries. Japanese export industries particularly flourished, however, and contributed considerably to the good growth performance. Export growth was largely the result of competitiveness gains which followed productivity improvements. It seems, therefore, above all the permanent search for better productivity performance that has spurred output and employment growth in Japan.¹

If the causal sequence is one in which productivity growth leads to output growth which in turn leads to higher

¹ Japan's current economic difficulties indicate that some qualification is appropriate here. For instance, employment appears to include an important proportion of hidden inactivity. This notwithstanding, Japan's unemployment rate (2,5% in 1993) would still be modest by European standards even if it tripled.

GRAPH 67: Employment and productivity, 1975-92



Source: Commission services.

employment, why then has trend growth of productivity and therefore output in Europe been declining? One reason for this slowdown may be seen in the declining rate of growth of the capital stock. Over the past 30 years the ratio of gross capital stock to employment has been growing but at declining trend rate. In addition, whereas the overall investment/GDP ratio has persistently been around 30% in Japan, it is no more than some 20% in Europe (and a little less in the USA). From the late 1960s up to 1974, Europe's investment/GDP ratio on average was 24%. It is not only in labour-saving technology that the Japanese economy has improved its performance *vis-à-vis* Europe and the USA. Other indicators such as the energy consumption/output ratio also suggest a greater efficiency of the Japanese economy. These input-saving policies seem to have resulted in better competitive performance, higher growth of output and, finally and consequently, higher employment growth.

The above suggests that, compared with Japan, European economies lacked the capacity to adjust and that investment levels have been insufficient to generate jobs. It is now generally accepted that inflexible supply conditions on the labour market are an important element in explaining this

lack of structural adjustment and relatively weak investment behaviour.¹

The persistently superior employment growth observed in the USA is explained in part by its greater labour market flexibility, together with large inflows of immigrants from low-wage countries. There is the strong impression that this expansion was primarily driven by the emergence of low-productivity low-pay jobs, actually leading to an important decline of real wages for low-wage earners (wages at the upper end of the wage scale actually increased substantially). In mechanical terms this resulted in a slow-down of overall productivity growth. These jobs, nevertheless, added to overall output without distorting wage/productivity performance.

In Europe to some extent the opposite happened. High levels of minimum wages and reservation wages — the latter especially because of well-developed social security systems — caused many of the low-productivity jobs to disappear. During recessions this development was accelerated. Lack of flexibility, especially downward flexibility, prevented their re-emergence after recessions. The 'productivity threshold' (the minimum level of productivity required for a worker to stay in the labour market or to enter it) was persistently pushed upwards, causing ever more workers to fall below this threshold. In addition, the burden of public expenditure related to unemployment (and other labour market and/or social security measures) was mostly and increasingly borne by those remaining in work, thus causing further upward pressure on the required level of productivity. It caused the wedge between wage costs to the employer and employees' actual disposable income to increase persistently and thereby set a vicious spiral of distortions in motion on both the supply and the demand side of the labour market.

Greater labour market flexibility, providing room for downward adjustment of wages to possible low-productivity levels, could be another useful option for improving this situation together with a policy of overall wage moderation. The latter should be seen as a macro-policy option whereas the problem of European labour markets is not least their lack of capacity to adjust at micro-level. There is a possibility that general wage moderation, although (other things being equal) leading to a lower total wage bill, may even lead to an artificial compression of the wage structure without necessarily producing the wage/productivity adjustments required at micro-level. This could have the perverse effect of adding to inflexibility and involves the risk that low or lagging productivity performance and investment activity

¹ European Commission, White Paper on growth, competitiveness and employment.

are accommodated instead of being corrected. Finally, the possible contractionary effect of overall wage moderation on demand — through lower incomes and income expectations — may reduce and possibly even offset totally the employment creation effect desired.

In conclusion, it seems, therefore, that the lack of labour market flexibility, on the one hand, and relatively low levels of investment — both private and public — on the other, form two of the main obstacles to renewed employment growth in Europe. Greater wage flexibility at the lower end of the wage scale will allow for a widening of the wage scale in accordance with productivity performance and market conditions. Overall wage moderation, on the other hand, could imply an artificial compression of the wage structure, greater inflexibility and even some contraction of demand.

7. Conclusions

Over the last 30 years unemployment in West Germany has typically risen faster during recessions than it fell during periods of economic expansion. Unemployment peaked at 2,3 million in 1985 in the aftermath of recession. In August 1993 the number of officially unemployed was again 2,3 million, but this time it continued to rise. Unemployment in western Germany (2,6 million in April 1994) is still rising and will not fall before 1995. Some 9% of the west German labour force may be officially unemployed in 1995. In eastern Germany 3,5 million jobs (net) have disappeared since unification, but, in spite of considerable output growth, employment continues to fall in all sectors save construction. Official unemployment, after having shown some signs of stabilizing, has recently risen again above 15%.

The need for improving productivity and competitiveness apparently continues to cause further downward pressure on employment in both western and eastern Germany. Some 10,5% of the German labour force could be in officially recorded unemployment by 1995 and possibly more. In addition, many more are covered by special labour market measures (early retirement, job-creation schemes, etc.). Given the less bright prospects for economic growth and the marked downward stickiness observed in the past, unemployment is likely to remain high over the next few years.

West German manufacturing saw an important loss of its competitiveness in the last few years mainly because of three factors. The most visible and explicit one was, of course, the increase of the nominal DM exchange rate. More important, however, was the combined effect of a more structural productivity problem and, on the other hand, strong wage increases in 1991 and 1992 which were, again, much more pronounced in manufacturing than in the rest of the economy. The picture needs to be completed by taking account of the downward productivity shock in the DM area as a result of unification. This situation is now being restored, for the most part by a process of adjustment in the labour market, implying lay-offs and a reduction of real wages.

High wages in eastern Germany relative to productivity reduced overall German cost competitiveness by about 10%. In western Germany unification led to over-optimistic growth expectations and employment expanded at an unprecedented rate, even compared to the strong rise in output, thereby aggravating the productivity problem. Rapidly rising wages subsequently made this situation untenable. In manufacturing, a further reduction of the labour force seems inevitable in both western and eastern Germany.

Trend growth of employment in western Germany has in general been reasonable in a European context, but very modest compared with OECD countries outside Europe. Therefore, given the productivity challenge and, on the other hand, the steady rise in the labour supply that can be expected, the capacity of the German labour market to generate jobs needs to be improved. A number of inflexibilities in the labour market can be identified. Greater wage flexibility and a reduction of the tax wedge could contribute to job creation at the lower end of the wage/productivity scale. Overall wage moderation seems to involve a number of risks to sustainable long-term growth of employment as it tends to accommodate low productivity growth. Better investment performance — both private and public — seems to be another essential factor for restoring sustainable employment growth in the future.

Very recently, in response to the depressed economic situation, signs of greater flexibility can be seen. However, in the current climate one should not expect an immediate favourable effect in the form of net job creation (although existing jobs might be saved for the time being). It is, nevertheless, important that all possible obstacles to labour market flexibility are removed once the economy begins to recover. It is to be hoped that these changes will last beyond the present period of economic weakness.

Box: A model for regional growth and convergence

The theoretical framework underlying the convergence simulations is a standard neo-classical growth model of a small open economy, augmented by a bargaining model for the labour market. In order to keep the model relatively simple and also allow to focus on the labour market and investment the following assumptions are introduced. The converging region produces a commodity which is a perfect substitute for commodities produced in neighbouring regions. It is also assumed that there is free capital mobility, such that firms can finance their investment at a given world interest rate, i.e. national saving in the converging region does not constitute a constraint for investment. A firm operating in this environment faces exogenously given capital costs and exogenously given prices for its own commodities as well as for investment goods. Note that under these conditions regional demand does not influence prices and real interest rates (see Matsuyama, for example, 1987). The economy can therefore be analysed entirely by concentrating on the supply side. It is further assumed that the firms know the wage rule, i.e. they know how wages respond to changes in productivity, unemployment and possibly other determinants. Burda (1989) analyses a similar investment problem of a firm. We deviate slightly from the most simple growth model by assuming that firms face convex costs of adjusting their capital stock. This assumption is of course important to ensure that convergence of a small open region is not instantaneous when there is free capital mobility. We think, however, that there is sufficient evidence from the empirical investment literature pointing towards the existence of adjustment costs for firms.

Behaviour of the firm

Firms try to maximize the after-tax present value of their current and future cash flow by appropriately choosing investment and employment strategies. Formally they solve the following decision problem:

$$(1) \quad \text{Max}_{\{I, N\}} V_0 = \int_0^{\infty} (1 - \tau)[F(K, N, E) - wN - I] \exp(-\int_0^t r ds) dt$$

where $F(K, N, E)$ is a linear homogenous production function in capital (K) and labour (N) and the variable E indicates the level of technology; w is the wage rate and I is investment expenditure. Output and investment prices are assumed to be identical and are normalized to one. Firms also face costs of adjusting their capital stock, therefore investment expenditure is composed of two components, the cost of new investment goods (J) and adjustment costs, which are rising with the rate of change of the capital stock.

$$(2) \quad I = J(1 + .5\phi J/K).$$

The capital stock evolves according to

$$(3) \quad \dot{K} = J - \delta K.$$

The Hamiltonian at t is

$$(4) \quad H = \exp(-\int_0^t r ds) [(1 - \tau)(F(K, N, E) - wN - J(1 + .5\phi J/K)) + q(J - K)]$$

where q is the shadow price of capital. For a more detailed derivation and interpretation of q see Hayashi (1982). The first order conditions are:

$$(5a) \quad q = -(1 - \tau)F_K + (r + \delta)q - .5\phi(J/K)^2$$

$$(5b) \quad -(1 + \phi(J/K)) + q = 0$$

$$(5c) \quad (1 - \tau)F_N = w$$

where F_K and F_N are the marginal products of capital and labour respectively. The transversality condition is:

$$\lim_{t \rightarrow \infty} q(t) K(t) \exp(-\int_0^t r ds) = 0$$

The solution to the optimization problem of the firm under the various constraints it faces can be shown to result in the following investment rule:

$$(6) \quad J = [(q - 1)/\phi]K$$

and the shadow price of capital can be obtained by integrating equation (5a) forward:

$$(7) \quad q = \int_0^{\infty} [(1 - \tau)F_K + .5\phi(J/K)^2] \exp(-\int_0^t (r + \delta) ds)$$

which is the appropriately discounted present value of the marginal product of capital. Since the marginal product of capital in each future period depends on the real wage rate, this shows how predictions on future wage developments determine present investment decisions of the firm.

Wage behaviour

In contrast to normal growth analysis we do not close the model by imposing full employment for labour but instead it is assumed that wage formation is the outcome of a bargaining process between workers and firms. As in standard labour market models, the bargaining process results in a wage rule, which

links wages to productivity, a reservation wage (w_{res}) and the unemployment rate (U).

$$(8) \quad w = c + \beta F_N + (1-\beta)w_{res} - \gamma U$$

This wage rule can be regarded as a rather general representation of the bargaining process between workers and firms. The precise magnitudes of the parameters (β , γ) of the wage equation will be determined by workers' preferences and the relative bargaining power of workers and firms. Following the analysis in Pissarides (1990), β is a measure of the relative bargaining power of trade unions. Two extreme examples may serve as bounds for these parameter values. Consider first an insider-dominated trade union whose members do not face severe competition from unemployed workers. Under these circumstances β will be very high and most productivity gains accrue to currently employed workers. Also, in this case the reservation wage will not influence wages in an important way, and γ will be very close to zero. Alternatively, consider a less segmented labour market. In this case the unemployment rate becomes a more important determinant of real wages, while workers are less able to extract productivity gains from the firm.

We assume that both technology (E) and the labour force (L) grow with constant rates. Their evolution is governed by the equations:

$$(9) \quad E_t = E_0 \exp(\pi t)$$

$$(10) \quad L_t = L_0 \exp(gt)$$

It is assumed that technical progress is labour-augmenting. The unemployment rate is implicitly defined by $N=(1-U)L$.

The behaviour of the economy in the long-term

For this model economy it is easy to characterize the properties of the growth path in the long term. This is important for at least two reasons. First it shows which factors determine the long-term rate of growth and, more importantly, the long-term levels and proportions of key economic aggregates, such as the capital/labour ratio or the unemployment rate. Also, as is explicitly clear from the investment rule, the long-term expectations of the marginal product of capital influences expectations today and thereby exerts an effect on current decisions. More precisely, in this section we ask the question: what will be the levels of per capita income, productivity, real wages and employment in the steady state and how will those be influenced by wage rules specifically?

We define a variable X in efficiency units per employed worker as $x = X/(EN)$ and we denote steady-state values of a variable by an asterisk. We assume for the moment that steady-state

employment N^* will be a constant fraction of the labour force. As we proceed it will become clear that for the wage rule chosen above, a constant steady-state unemployment rate is feasible.

In the steady state the ratio between gross investment and the capital stock is:

$$(11) \quad J^*/K^* = (\delta + g + \pi)$$

Therefore the long-term shadow price of capital is approaching a constant:

$$(12) \quad q^* = 1 + \phi(\delta + g + \pi)$$

Since the rate of interest is also exogenously determined, marginal productivity approaches a constant determined by domestic technology:

$$(13) \quad f'(k^*) = (1/(1-\tau))[(r+\delta)(1+\phi(\delta + g + \pi)) - .5\phi(\delta + g + \pi)^2].$$

Depending on the precise parameters of the production function, this condition determines the steady-state capital/labour ratio. It is worth noting that the steady-state capital/labour ratio is independent from the parameters of the wage rule under the small country assumption. It is also easy to see that both real wages and labour productivity are independent from the country-specific wage behaviour in the long term. This follows immediately from rewriting the marginal condition for labour (equation (5c)):

$$(14) \quad w^* = (1-\tau)\{f(k^*) - f'(k^*)k^*\}E$$

and the production function

$$(15) \quad Y^*/N^* = f(k^*)E$$

in intensive form. Real wages are a function of the capital/labour ratio in the steady state and the level of technology (E). Obviously, under this international environment the wage rule in the specific country will only determine the long term level of unemployment. This follows immediately from the wage rule. Now the long term unemployment rate is defined via the equation:

$$(16) \quad U^* = 1/\gamma\{c - (1-\beta)(f(k^*) - f'(k^*)k^*)E_0 + (1-\beta)w_{res}\}$$

The steady-state level of unemployment in this model is a positive function of the degree of wage indexation to productivity and the reservation wage and is inversely related to γ . The parameter c is a positive constant from the wage equation and it constitutes an upper bound for the unemployment rate in the case of full indexation of wages to productivity.

Parametrization

The key structural coefficients of the east German economy cannot be estimated, therefore parameter values need to be assumed. In calibrating the model, we make the key assumption that both technology and wage behaviour converge towards relations similar to those currently prevailing in western Germany and we set initial conditions for the capital stock, the level of technology (*TFP*), productivity and real wages using currently available information on the east German economy.

We assume that east German technology can be described by a Cobb Douglas production function with an output elasticity equal to .65. This estimate is close to the West German average wage share over the period 1960-90. For the adjustment cost parameter ϕ a value of 7. is assumed. It is also based on an estimate for West Germany over the period 1960-90 and it implies that adjustment costs amount to about 10% of total investment expenditure in the steady state. Our investment function does have the realistic feature that adjustment costs will be much higher at the beginning of the convergence process. As regards the initial stock of fixed capital we follow Sinn (1991) and assume that it reaches about one third of the west German level in per capita terms.

With respect to total factor productivity we assume that the level of technology in eastern Germany reaches about 60% of the west German level. This figure is taken from the Bundesbank's econometric model (see, for example, Toedter, 1992). In particular, technological convergence is parametrized as follows. Let E^w denote the technology constant in the west German production function (E^w corresponds to E_0 in equation (9)) and let E_t^e be the state of technology in eastern Germany in period t . Due to

government investments in infrastructure, education and training, etc. E_t^e will approach E^w as determined by the equation,

$$(21) E_t^e = \mu E^w + (1 - \mu)E_{t-1}^e$$

A value of .02 for μ was chosen, with the time subscript denoting quarters of a year. Together with the initial condition for E^e , this implies a growth rate of TFP in the first year of 8% which appears roughly consistent with the growth performance of the east German economy in 1992. Extrapolating this process with unchanged coefficients would lead to technological catching-up after around 25 years.

With respect to wage behaviour we have selected a set of parameter values which roughly characterize wage behaviour in West Germany over the period 1975-90. Based on previous wage equation estimates a value for β of .9 was chosen, thus indicating a high indexation of wages to productivity. The parameter γ is estimated to be 1.9. As a rough measure for the reservation wage, expenditure on benefits per unemployed person is calculated which amounts to about 20% of the average west German wage rate (see, for example, Nickell, Layard and Jackman, 1990). The constant in the wage equation is adjusted so as to ensure a steady-state unemployment rate of 6%.

Though this is not a realistic description of current wage behaviour in eastern Germany, we imagine that after an initial transition phase, east German wage behaviour may approach a similar rule. The main reason for selecting this rule, however, is technical. It ensures a long-term rate of unemployment equal to the west German level. In order to match more closely the current level of productivity and unemployment in eastern Germany (in the year 1992) we allow for a temporary wage premium implying that trade unions ask for wages which are about 25% higher than under similar conditions in western Germany. This wage premium is assumed to decline continuously and to disappear after about five years.

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Chapter 5

Economic developments in eastern Germany since unification¹

This chapter deals with the economic developments in eastern Germany. The introduction summarizes briefly the main events leading to unification. The major reasons for the adverse eastern developments are then analysed, with the main themes being the unfavourable cost-productivity mix and the problems of transition, given the divergent paths which were followed by east and west over four decades. The various structural consequences of the above factors are then examined in and after the initial shock period. Finally, some important issues are discussed concerning the long process towards catching up with western standards.

1. Introduction

On the evening of 9 November 1989 the Berlin wall was breached. This was the first major incident in a sequence of events driven by rising discontent in the GDR, which

¹ This chapter was prepared by Stefan Anwärter of the National Economics Directorate.

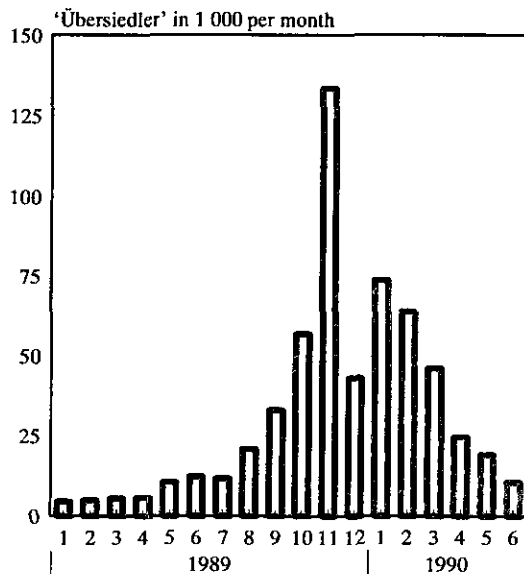
reflected the inflexibility of the political establishment in a changing world and the shortcomings of a centrally planned economy.

Already before 9 November there had been a rising flow of emigration, particularly so after 11 September, when Hungary opened its western border.

In view of the surging numbers of east-west migrants and to speed up the course of events politically, the federal government offered German monetary union on 13 February 1990. For those who regarded the idea of a monetary union as being remote this came as a surprise. Bond prices slumped because of growing uncertainties and inflationary fears.

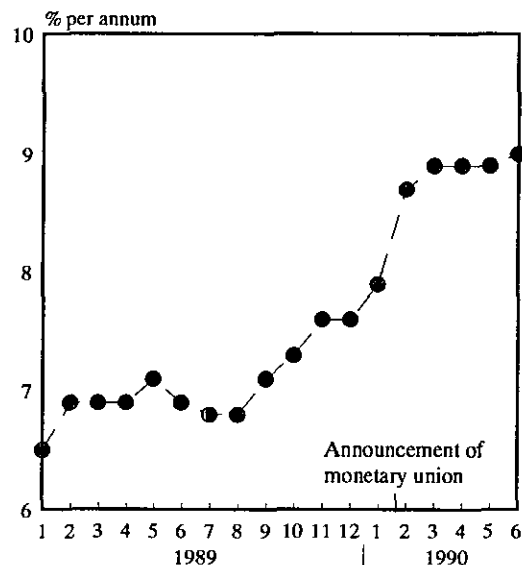
One central topic during the negotiations on the terms of monetary union was the conversion rate. There were, however, the conflicting objectives of economic viability and east-west politics. On economic grounds a rather higher Ostmark to DM rate was thought desirable in order to mitigate the shock of transition. On 2 April, the Bundesbank presented a 2:1 proposal, after some upward adjustment of principal flows (wages, pensions) for changing price patterns (ending subsidies for 'essentials'). Political practicalities rendered this impossible. On the assumption of broadly unchanged eastern wages, a 2:1 conversion rate would have

GRAPH 68: East-west migration in Germany



Source: Bundesanstalt für Arbeit.

GRAPH 69: Interest rate (yield on outstanding public bonds)



Source: Deutsche Bundesbank.

implied east-west wage ratios of possibly less than 1:5. The inevitable public discussions about such a figure would almost certainly have had the effect of stimulating intra-German migration even further. Hence on 18 May, the respective finance ministers, Messrs Romberg and Waigel, signed the treaty on German economic, monetary and social union (GEMSU) providing for a 1:1 flow conversion rate. This decision may have been influenced by a relatively optimistic assessment of the GDR economy with seemingly encouraging estimates about wage and productivity ratios which to some extent supported the chosen 1:1 conversion.

Serious problems of transition were foreseen before and after GEMSU became effective on 1 July 1990. But there was hope that they would remain limited. The new framework set with GEMSU — largely implanting the western economic and social order eastwards, eastern enthusiasm and training, western assistance and financial support — would finally succeed. The Schumpeterian notion of creative destruction was emphasized particularly in this context. In this environment negotiations on a second state treaty, the treaty on political unification, advanced. This was signed on 31 August, ratified on 20 September and became effective on 3 October 1990.

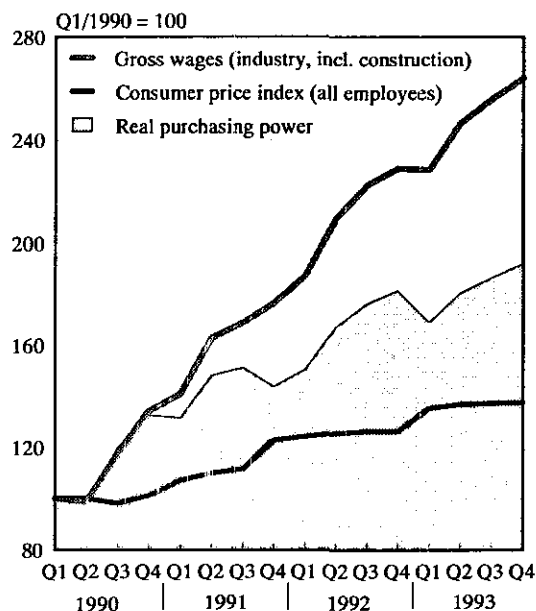
In the event, reality turned out to be much harsher than expected. The eastern economy, in particular the industrial sector, nearly collapsed. GDP fell by more than 40% within one year before stabilizing during 1991. Employment fell rather less, but still by more than a quarter from 1989 to 1991, and is still continuing to decline.

2. Reasons for the crash

The key reason for the collapse of the eastern economy in the aftermath of GEMSU was a lack of competitiveness. It stems from both an input problem, i.e. an unfavourable cost-productivity situation, and an output problem, connected with the development and marketing of products in the new world of consumer sovereignty. To this were also added the inevitable other problems of transition.

The federal government presented a policy response to these problems in 1990. The main elements were (i) an effort to privatize as quickly as possible, (ii) initiatives to advance investment, both public and private and particularly by small and medium-sized enterprises, and (iii) financial support to cushion the social consequences of transition, especially with respect to (un)employment.

GRAPH 70: Gross wages and consumer prices



Source: Statistisches Bundesamt.

The policy options in 1990 have already been discussed in the preceding country study on Germany and will, therefore, not be dealt with again here.¹

2.1. The cost-competitiveness problem

It was not easy to assess the competitiveness of the GDR economy in 1990. Some indicators were available, although often originating from different accounting systems and hence of limited comparability. Some of the available data suggested that a 1:1 conversion rate was not unreasonable. Eastern gross wages were at 30 to 40% of the western level and labour productivity appeared to be broadly in line with this. Another indicator based on a recalculation of eastern GDP figures for 1989² appears to be in line with the view that the eastern economy may even have had a slight competitive edge over its western counterpart, with relative unit labour costs at some 90% (see Table 48).

Such figures and calculations, however, miss the important point that before GEMSU, eastern products were not com-

¹ See Commission of the European Communities 1990, in particular Sections 4.2 and 4.3.

² Hein R., Hoepfner, D. and Stapel S., 1993, p. 477.

petitive on a 1:1 basis in free markets. While the GDR officially maintained a 1:1 exchange rate for the western public, its internal calculations for commercial transactions were based on 4.4:1.¹ Hence GEMSU later came to be called a 400% revaluation of the Ostmark.² This placed local producers who were now subject to outside competition at a great disadvantage.

However, not all producers faced such an effective sharp revaluation. In the non-tradable goods sector, the chances of survival were better. The implied 400% revaluation did not apply to everybody. But, at the outset, irrespective of what the 'average' rate of effective revaluation may have been, clearly the 1:1 conversion implied a serious disadvantage in terms of cost competitiveness.

Driven in part by optimistic assessments of prospects in the east, wages started to catch up rapidly to western levels. Western employers and trade unions set up their organizations' counterparts in the former GDR. It is possible that initially many western employers did not put up strong resistance since they may have regarded eastern producers as potential competitors.

On balance, the wage settlements agreed upon ensured a significant rise in real terms. This was so even after taking into account the withdrawal of subsidies on many 'essentials' which raised prices. Thus, real purchasing power continued to rise, even when stepwise increases of rents and the relaxation of other administered prices occurred (Graph 70).

Turning to competitiveness, Table 45 shows that gross wages per employee have risen strongly following the start of GEMSU and roughly doubled in three years.

Table 45

Gross wages per employee

	1990 H2	1991	1992	1993
Gross wages/employee ¹ (per month in DM)	1 319	1 763	2 423	2 758
Index	100	134	184	209

¹ Domestic concept ('Brütto-lohn- und Gehaltssumme je beschäftigten Arbeitnehmer im Inland').

Source: Statistisches Bundesamt, *National Income Accounting 3/1994*.

¹ See Deutsche Bundesbank, *Monthly Report 7/1990*, p. 25, footnote 1.
² E.g. Heilemann, U. and Jochimsen, R., 1993, p. 11.

Productivity growth has not provided a sufficiently strong offsetting effect. Productivity started from a low level due mainly to the poor state of the capital stock and reflecting long-term disinvestment. The comparatively low priority accorded to the maintenance of physical assets, the lack of spare parts, the absence of technology transfer because of lack of hard currency all contributed to this. Some of these factors disappeared after GEMSU had started. Better access to such things as spare parts provided some boost to productivity and in some limited cases the impact may have been considerable.

However, output declined much faster than employment (see Graph 71), which offset the productivity gains achieved. Only later did agreements in manufacturing and other sectors designed to slow down the decline in employment begin to be phased out. Investment gained a further momentum and productivity started to advance in 1992. It rose by approximately half within three years (Table 46).

Table 46

Real GDP per employee

	<i>(At 1991 constant prices)</i>			
	1990 H2	1991	1992	1993
GDP/employee (per month in DM)	2 182	2 199	2 787	3 116
Index	100	101	128	143

Source: Statistisches Bundesamt, *National Income Accounting 3/1994*.

Nevertheless, productivity increases have not provided a sufficiently strong counter-effect to neutralize rising costs. Furthermore, one can compare eastern developments with those in the west over the same period (Table 47).

The important point to emerge from Table 47 is that despite the relatively unfavourable cost-productivity situation at the outset of GEMSU, things have not improved. The eastern cost developments have outstripped productivity gains, albeit at a strongly decelerating pace as of 1992. In 1993, unit labour costs rose less than in western Germany. Overall, however, the extent to which eastern competitiveness deteriorated outpaced by far corresponding developments in the west.

Table 47

	Unit labour cost developments (development of gross wages/employee to real GDP/employee)			
	1990 H2	1991	1992	1993
East	100	133	144	146
West	100	100	105	108

(1990 H2 = 100)

Source: Statistisches Bundesamt, National Income Accounting 3/1994.

2.2. The marketing problem

Reasons for the sharp decline in the east are not confined to problems such as wage developments and a poor capital stock. The sudden move towards full currency convertibility transformed the east German economy from one which was supply constrained to one based on consumer sovereignty. In the previous, sheltered setting with supply shortages, almost every product could be sold. The move to a consumer-led system required an ability to successfully market products. This in turn made it necessary to identify and develop attractive products — an effort which has always taken time, and time unfortunately was extremely scarce.

The developments on east European markets provide some idea of the problems to be faced. Exports fell sharply in 1991, after the old transfer-rouble based Comecon exchange system had ceased to exist. In the second half of 1990, exporters received DM, at a favourable rate, for their transfer-rouble claims with these lower value assets going to government and the difference feeding the loan management fund (for more details, see Chapter 1, Box 1 'Off-budgets'). Typically, such declines in exports have been attributed to the economic difficulties of those countries in transition. However, the general problems of competition were the same as on the domestic or western markets after the move of eastern countries towards a market economy. Therefore, the significant decline in exports to the former Comecon countries was not surprising and is fully compatible with the parallel positive performance of west German products in the very same difficult market (see Table 55 in the annex).

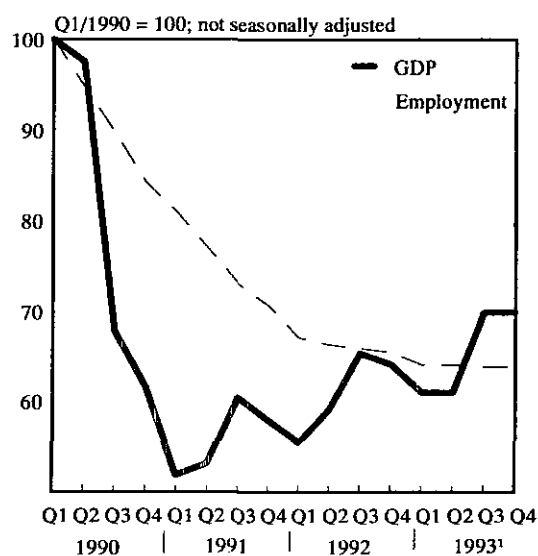
2.3. Other problems of transition

Until 1990, economic activity in the GDR, as is well known, was based on the principles of a State-planned economy, tied into a scheme for the division of labour within the Comecon

area. Relative stability was obtained at the cost of large-scale inefficiencies, resulting from an inadequate mechanism for allocation and an absence of the pressures of world market competition.

From summer 1990 onwards, the difficulties of adaptation have been underlined. Whilst a response to the simpler and more obvious market incentives can be quite rapid, it is more time consuming to adjust structures.

Throughout German history, property rights in former central Germany have changed hands frequently. Expropriations occurred after 1932 under NS rule, were imposed under Soviet command after World War II and happened in the 40 years over which the GDR existed. Often conflicting claims were the result. Restitution was one strategy to deal with the problem; that is to return an asset to its former owner, unless the most recent user was considered to hold a title to definitively acquire such property rights (a view applied, for example, to present owner-occupied housing). The basic economic rationale for restitution is a key function of private property in a market economy, i.e. enhancing allocation and efficiency. Another strategy was selling assets and, possibly later, paying off former owners with the proceeds. The rationale behind this was the saving of time to ensure the quick start-up of business. Extended negotiations

GRAPH 71: Real GDP and employment profiles

¹ 1993 based on half-yearly data.

Source: DIW, Statistisches Bundesamt.

about who was entitled to a specific asset threatened to block its use. Mounting criticism that the first approach was a hindrance to any upswing resulted in a gradual shift towards the second approach in 1991. This went further than the corresponding clauses in the second State treaty envisaged.

Although less important, other legacies of the past such as the covering up of large-scale pollution on both civil and military estates continue to be drawbacks for the region. Cleaning costs are significant and must ultimately be borne by the tax-payer. The presence of former Soviet troops until summer 1994 could prevent the development of some areas and exposes a considerable financial burden (approximately DM 18 billion DM in the years 1991-94, including support for forces returning to their homes).

3. The eastern economy following the initial shock of adjustment

This part presents some major macroeconomic features, starting with the overall development of activity, and focuses on various structural characteristics which have developed. In several respects, these could be regarded as unique, given the overall setting of a largely uncompetitive economy in the absence of a standard balance of payments constraint.

3.1. The overall situation after the collapse

The overall consequences of unification were a dramatic decline in output and employment, predominantly within the first year after GEMSU had started on 1 July 1990 (see Graph 71). The decline in employment initially was not so pronounced, its fall being delayed by the various agreements and conventions mentioned above (Section 2.1). Both developments together had a negative impact on eastern productivity in the immediate aftermath of the creation of GEMSU.

The data in Table 48 show that initial hopes that wage and productivity relationships would evolve roughly in line did not materialize. Already in the second half of 1990, a considerable cost disadvantage developed with wages edging up in relative terms and productivity¹ weakening initially.

¹ Time series for productivity, i.e. units of output per unit of input, normally focus on 'real' developments, i.e. inflation is not affecting productivity. Basing a comparison of productivity on output at constant prices, may, however, be inappropriate when the price structure of the two areas compared is different and evolving. This holds for an intra-German comparison of productivity because the distorted eastern price structure is approaching the western market determined pattern. Using constant (1991) prices in this case would imply, for example, continued evaluation of value-added in the east German housing sector at an arbitrarily low level. Therefore, productivity ratios in Table 48 are based on output in current prices.

The disadvantage widened until 1991, because of the lagged fall in employment. But since 1992 the cost-productivity shortfall has diminished, albeit at a moderate pace, because now productivity improvements are outweighing cost developments. Nevertheless, unit labour costs in eastern Germany are still some 50% higher than in western Germany.

Table 48

East-west wages, productivity and unit labour cost ratios

	<i>(East in % of west)</i>				
	1989	1990 H2	1991	1992	1993
Gross wages per employee ¹	35,1	35,6	47,6	62,1	68,7
GDP/employee ²	38,5	24,1	26,2	37,2	44,5
Unit labour costs ³	91	148	182	167	154

¹ Domestic concept.

² Based on current prices, DM (except for 1989: DM/M).

³ Ratio of wages to output, i.e. of lines 1 and 2.

NB: The absolute values from which the above ratios were derived are presented in Table 56 of the annex.

Sources: 1989: Hein R., Hoepfner D. and Stapel S., 1993; from 1990 H2 on: Statistisches Bundesamt, *National Income Accounting* 3/1994.

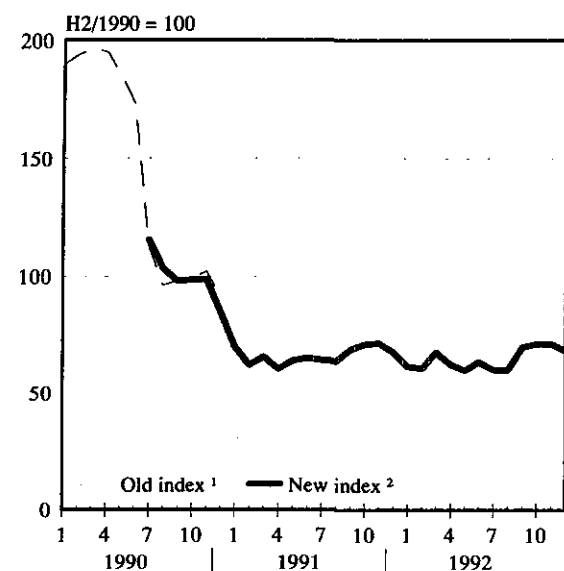
The data in the table portray the east-west situation. It is important to note that west Germany has experienced setbacks in its competitive edge as against other industrial countries over recent years (this point is elaborated in greater detail in Chapter 5 on the labour market). Compared to other areas in transition in eastern Europe, when appraised in terms of price competitiveness at current exchange rates, the situation is even more serious.

3.2. Structural features

Here, three features are analysed, namely the sectoral pattern, the distributional setting and the overall demand structure.

The economic consequences arising from German unification have been strongest for tradable goods; local output has suffered a big setback with competition from external suppliers being most severe. The negative shock to the manufacturing sector occurred in two major steps (see Graph 72). The first and most important was in the summer of 1990 as GEMSU started. Demand and prospects for sales edged lower once the terms of monetary union had emerged (June) and dropped sharply in July. Western supply proved to be very responsive to the opportunities arising. The second and only slightly smaller step — in relative terms — came with the 'end' of exports to east European markets in early

GRAPH 72: Manufacturing output



¹ 'Industrielle Warenproduktion'.
² Net production in manufacturing.
 Source: Statistisches Bundesamt.

1991 (see Table 55). Manufacturing output halved twice within six months.

As one might expect, the structure of the eastern economy has started to evolve towards that of west Germany. In some cases this reflects changed patterns of availability. Food and energy were formerly accessible on world markets only to a limited extent. In other cases this reflects changed political preferences. In the GDR — as in any socialist country — emphasis was put on 'material production', less so on services. Rents were kept very low, being frozen at the 1936 level and quite insufficient to cover inputs, thus implying negative gross value-added in housing.

Rapid wage rises outpacing productivity gains depressed profits. The situation has been particularly bleak in industry. In 1991, gross monthly earnings were very close to gross value-added. However, profitability may have bottomed that year given the lagged adjustment of employment to output. This view is also supported by the data in Table 50, since 1992 earnings have more clearly fallen short of value-added.

Table 49

Sectoral contributions to total gross value-added¹

	East Germany		West Germany		Germany	
	1989	1993	1993	1993	1993	1993
Agriculture	9,2	1,3	1,1	1,1		
Industry	59,0	35,5	36,4	36,3		
Utilities, mining	8,7	:	2,7	:		
Manufacturing	43,7	:	27,5	:		
Construction	6,6	:	6,1	:		
Trade + transport	12,4	11,9	14,1	13,9		
Trade	6,8	:	8,4	:		
Services	7,0	28,0	34,8	34,2		
Financial	4,0	:	6,2	:		
Housing	- 0,6	:	8,2	:		
Other	3,6	:	20,4	:		
Government, etc.	12,3	23,4	13,6	14,5		

¹ Nominal, unadjusted ('unbereinigt'); based on Ostmark (1989), DM (1993). Totals may not add up exactly due to rounding.

Sources: Hein R., Hoepfner D. and Stapel S., 1993, p. 477; Statistisches Bundesamt, *National Income Accounting 3/1994*.

Table 50

Value-added and earnings in industry¹

	1990 H2	1991	1992	1993
Gross value-added ²	40,5	69,3	85,2	100,8
Employment ³	3,711	3,001	2,321	2,177
Value-added ⁴				
per capita	10,900	23,100	36,700	46,300
per month	1,820	1,920	3,060	3,860
Gross earnings ⁵				
per month	(1,500)	1,820	2,620	2,940

¹ Produzierendes Gewerbe.

² Billion DM.

³ 'Erwerbstätige', million.

⁴ Thousand DM.

⁵ Gross earnings, i.e. excluding employers' social security contributions, thousand DM.

Sources: Statistisches Bundesamt, *National Income Accounting 3/1994* and Kusch H., 1994, p. 22.

The above table suggests that industrial enterprises incurred losses in 1991 (see footnote 5 in the table). Such losses, however, were not limited to industry. In those sectors which were performing comparatively well, e.g. construction and

trade, there were still no profits in 1991. A first analysis of balance sheet data published by the Bundesbank in summer 1993 (for selected data, see Table 51 below) indicates that this was the case. While reporting companies on average recorded losses, there were considerable deviations from this average. Losses were most pronounced in manufacturing. For every DM 100 of turnover a loss of DM 23 materialized. Businesses in the trade sector did considerably better, however, (loss DM 2,90) and construction managed almost to break even (loss DM 1,50). In addition, the recorded ranges for the balance sheet data were quite wide, which implies that the best performing companies in the most dynamic sectors did manage to generate profits.

While the profit situation is expected not to have deteriorated further since 1991, the more aggregated data available for more recent periods does not yet signal a break even for the corporate sector as a whole. The major distributional data on a macro level are given in Table 52.

These data show that from 1991, profit and wealth-related incomes have improved in relative terms, i.e. compared to income from dependent labour. Judged by western standards, however, the distribution of income is still very favourable for the latter. Further, capital income consists of different flows. Allowing for positive interest income serves to highlight the poor shape of profits and income from rental estate.

Table 51**East German companies: selected balance sheet figures, 1991**

	All eastern companies	Ranges	Manufacturing	Construction	Trade companies	All western
						(% of turnover)
Material inputs ¹	69	70-63	66	54	79	63
Personnel outlays ²	27	41-20	33	42	13	20
Profit after taxes ³	- 14	- 41-6	- 23	- 2	- 3	2

¹ 'Materialaufwand', 'Wareinsatz'.² 'Personalaufwand'.³ 'Jahresüberschuß'.Source: Deutsche Bundesbank, *Monthly report 7/1993*, pp. 27-39.**Table 52****Key distributional data (current prices)**

	East Germany						West (1993,%)
	1991	%	1992	%	1993	%	
National income	160	100,0	198	100,0	229	100,0	100,0
Income from dependent labour	186	115,8	223	112,6	242	105,6	72,5
Income from entrepreneurial activity and wealth	- 25	- 15,8	- 25	- 12,6	- 13	- 5,6	27,5

NB: Totals may not add up exactly due to rounding.

Source: Statistisches Bundesamt, *National Income Accounting 3/1994*.

The decline in overall employment has resulted in various forms of unemployment (see Chapter 4 on the labour market). Except for the cases of complete withdrawal from the market, the unemployed are eligible for some form of financial compensation. Most of these relief payments originate from outside the region. They constitute the major part of west-east intra-German fiscal transfers. They also show up in the income data and obviously their structure diverges from the west German pattern (Table 53).

Table 53**Key income data**

	<i>(1993, current prices)</i>			
	Billion DM	East	West	E % of W
GDP	275,5	100	100	9,7
GNP	286,8	104,1	99,6	10,2
National income	229,0	83,1	74,4	10,9
Disposable income				
of households	262,0	95,1	62,8	14,7
of which: transfers	108,4	39,3	16,2	23,7
Disposable income per inhabitant, thousand DM	16,7	—	—	61,7

Source: Statistisches Bundesamt, *National Income Accounting 3/1994*.

The data in the above table summarize various structural features of the east German economy after more than two years of transition. The 1993 east-west nominal GDP ratio has clearly risen above that in the second half of 1990 (7,5%). This is the result of two opposing influences, namely the real collapse until 1991, followed by noticeable real growth since and the upward drift in nominal terms fuelled by the catching-up of wages. Commuting to western Germany accounts for the fact that eastern GNP exceeds GDP. The comparatively small gap between GNP and national income points to the relative importance of subsidies compared to indirect taxation. Substantial transfers to private households were such that disposable incomes broadly approximated to the level of GNP. All this points to an economy which is not facing a standard balance of payments constraint. However, disposable income per inhabitant is still a long way below western levels (62%), reflecting the low base from which it started (second half of 1990: 41%).

The changes experienced by the eastern economy since GEMSU have caused locally produced output to shrink and domestic absorption to rise. The gap caused by the lack of competitiveness in the new market environment has been bridged by western support, predominantly via fiscal transfers and loans, often at preferential rates. This feature

accounts for the unfamiliar structure of the 1993 national income demand components as portrayed in Table 54.

In 1989, the domestic demand structure of the former GDR economy appeared to correspond roughly to that in West Germany. Being a member of the planning and exchange system, Comecon seems to have made the eastern economy even more open than its western counterpart. It should be noted, however, that the pattern of relative prices had a strong influence with both capital goods and raw materials being expensive compared to basic consumer goods.

The 1993 eastern demand structure is apparently characterized by 'low' GDP and 'high' absorption. Consumption appears to be extremely strong with an eastern share in GDP more than 1,5 times the western figure. If domestic demand is taken as the point of reference, consumption noticeably falls short of the western figure. On a per capita basis, the 62% east-west ratio mirrors closely the ratio of disposable income per inhabitant which implies that saving rates are similar in both areas.

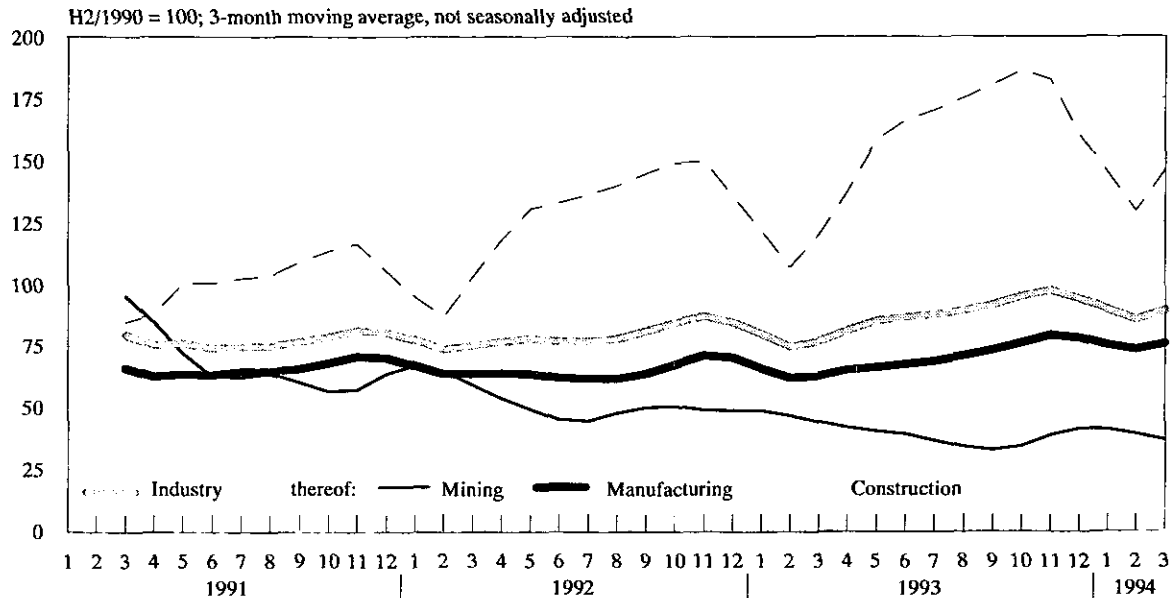
Much the same holds for investment. On a per capita basis however, the east-west ratio reached more than 100% in 1993, twice the ratio in the second half of 1990. The 1993 ratio was particularly high for public investment (some 135%) and for corporate capital spending (approximately 110%). This implies that residential construction was still comparatively low.

4. A look ahead

Since 1992, the eastern economy has recorded growth, albeit at rates falling short of earlier, more optimistic, expectations (see Graph 71). Nevertheless, these growth rates have been the highest in the European Union. The figures for the east German economy as a whole do not make explicit the substantial dynamism which has unfolded in some sectors. Growth has been supported by the development of a services sector together with construction. Also, manufacturing seems to have bottomed out as the scrapping of unviable plants is now increasingly being replaced by putting into operation state-of-the-art factories (see Graph 72 versus Graphs 73 and 74).

Considerable investment is taking place. This is partly explained by the involvement of the public sector. A comparatively large share of capital spending is still made directly by the State (1993: 15% versus 11% in western Germany) and much of the remainder is receiving support from the government.

GRAPH 73: Industrial output in eastern Germany



Source: Statistisches Bundesamt.

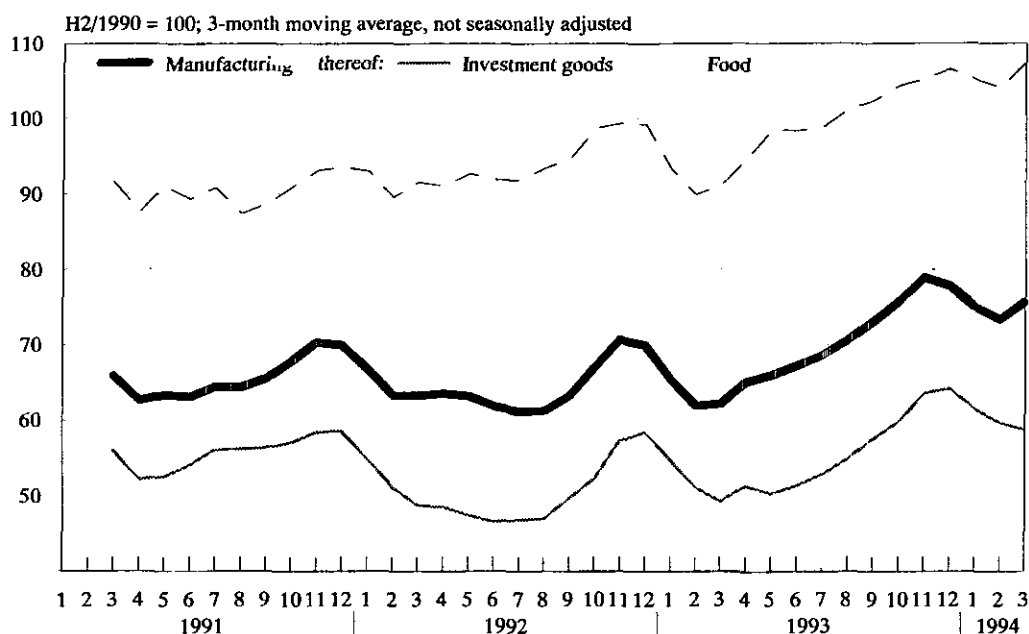
Table 54

Demand components (current prices)

	1989		1993		E % of W DM per inhabitant
	East	West	East	West	
	% of GDP		% of GDP		
Private consumption	52,2	54,9	84,3	55,1	62
Government consumption	21,3	18,8	42,2	17,9	96
Investment	27,9	20,4	50,5	20,0	103
Machinery and Equipment	16,4	9,2	18,8	7,8	99
Construction	11,4	11,0	31,8	12,2	106
Domestic demand	103,3	94,6	177,1	92,1	
External contribution	- 3,3	5,4	- 77,1	7,9	
Exports (goods and services)	49,1	31,5	19,1	31,4	25
Imports (goods and services)	52,4	26,1	96,2	23,4	168
<i>p.m. in % of domestic demand:</i>					
Private consumption			47,6	59,9	
Investment			28,5	21,7	
GDP	96,8		56,5	108,6	

Sources: Hein R., Hoepfner D. and Stapel S., 1993; Statistisches Bundesamt, *National Income Accounting* 3/1994.

GRAPH 74: Manufacturing output in eastern Germany



Source: Statistisches Bundesamt.

Over and above, the future of the region very much depends on the development of a favourable climate for long-term investment. However, being considered an attractive location for business requires that the major weaknesses of the region are remedied.

4.1. Prospects for the cost-productivity challenge

4.1.1. Wage costs

The pace of wage increases has caused serious problems which may remain for some time. Although the rapid rise of wages since 1990 (see Graph 70) has contributed to the rise of unemployment, at the same time it has helped to narrow the east-west gap in household incomes. Consequently the topic is a politically sensitive issue and has dominated public discussion.

From the theoretical point of view, a less aggressive rise in wages stimulates both growth and employment. The former benefits from more projects promising a positive net return; the latter from a more favourable relationship of factor prices. These effects are taken up in Chapter 4 on the labour market.

In practical terms, cost pressures in manufacturing, the sector most vulnerable to outside competition, have not risen since 1991. Productivity gains prevented wage rises from translating into higher unit labour costs. Yet the level is still considerably higher than that in western Germany. Therefore pressures to reduce the rate of pay increases in the east are likely to remain strong.

One must expect that agreement on wages will continue to be difficult. There remains the question of internal migration; of not letting all the more mobile and more active members of the labour force leave the region. Further, the notion of similar standards of living across the country in general continues to exert upward pressure. In addition, and increasingly more important, is the issue of differentiation. East German factories are — more than elsewhere — a heterogeneous group of production sites. Whereas a new or modernized plant may easily cope with wage rates equal to western levels, an old one will not. To apply a uniform wage tariff in all cases is likely to cause frictions.

One possible solution could be to set the going (tariff) wage at a rather low level, i.e. a level compatible with the performance of the weaker factories in the sector. That level would then be what a tariff-wage was always meant to be, namely a floor for standard cases. Effective wages could

always be higher provided the situation in an individual factory warrants this. In addition, an emergency clause could provide for downside deviations — as agreed upon, for example, in the metal and engineering sector during the labour dispute of spring 1993. It could allow for lower wages in cases of a very poor performance of the company. Its application has, however, been restricted to date. The main limitation is that the final decision about applying the clause is not confined to the company level. Employers and unions at large are involved also.

4.1.2. Productivity

High productivity is essential for an internationally competitive industrial sector. The market incomes generated here are the basis for much of the more local economic activities as, for instance, services. The current situation is not living up to this. Industry is performing comparatively well in local markets, much less so elsewhere. Therefore, local demand relies on both market incomes earned in the region and substantial transfers. This holds although there has already been a very significant rise in productivity. It advanced by more than 80%¹ from the second half of 1990 to 1993.

In eastern Germany, the reduction of overstaffing has played an important role in raising productivity. In view of the increasing pace of activity, this process may almost have been completed by now, at the level of the overall economy. It has advanced significantly in the industrial sector where the drop in output has been particularly steep. It appears, therefore, that further productivity gains will come increasingly from improvements in the capital stock. Originally, average productivity was boosted by a shake-out of poorly performing plants. More and more, investment is becoming the driving force. The very dynamic development of capital spending over recent years substantiates this.

Nevertheless, it is an unfortunate fact that in Germany, the lag between an investment proposal and its realization as a productive asset is currently still rather long. The issue of property rights may be a delaying factor although less than it was earlier. Furthermore, there are many administrative rules and procedures with which the eastern public-sector staff have yet to be fully familiarized. Some relief is coming, however, from initiatives to speed up the various administrative procedures.

On a more fundamental level, the nature of the problem is highlighted by the relative size of the capital stock and investment flows. The number of years required for an

overhaul depends on the volume of annual capital spending. Investment has gathered considerable momentum, but it started from a low level and the process of re-equipping will take some time. At the extreme, some have suggested that it could even take decades for eastern productivity to converge to western levels. This latter view would be strengthened if the present flow of investment were to be curtailed. Yet the sooner the effects of the 1993 recession are overcome, the less companies will need to reconsider their capital spending plans.

4.2. Fiscal support

Some 20% of total public outlays (general government) are currently spent in eastern Germany. This partly represents the normal working of government services, while some of the finance is earmarked to facilitate and advance the transformation of the region. During this process, endogenous fiscal resources are limited. Intra-German transfers amount to some 5% of GDP.

There is no doubt that upgrading eastern infrastructure is a top priority. Much has been done along these lines and more is in the offing.

Also, as noted, with the more highly productive capital being in such short supply and with the start-up conditions for entrepreneurs having been so difficult, there may be few fundamental objections to some subsidizing of investment. But there are some problems which arise with respect to the practical implementation of this policy. The higher the fiscal support and the larger the target groups the more likely 'windfall profits' are for investors, i.e. investment would have occurred anyway; so-called 'deadweight loss'. Support levels can exceed 50% of the investment costs in the most extreme cases. Initially, eligibility for subsidies was not very restrictive but now suggestions that subsidies be limited to companies serving the market for manufactured tradables have been implemented. In addition, some reductions in subsidies are scheduled with respect to the rate applicable (e.g. 'Investitionszulage' to be reduced from 8 to 5% as of July 1994).

There is more doubt about the policy goal of maintaining 'industrial cores', which emerged within the solidarity pact discussions due to the impact of widespread plant closures in the region. The serious risk seemed to be that unviable structures would be perpetuated, absorbing resources which could find better alternative uses and ultimately blocking the revitalization of the region. In addition, a pronounced core policy would probably have given a further boost to the inevitable dependency culture in eastern Germany which is,

¹ Measured as value-added at constant 1991 prices per person employed in industry ('Produzierendes Gewerbe').

in this respect, already showing some of the less desirable features of the western economy.¹ Finally, an approach of virtually unlimited subsidies to companies which are not prospering is likely to have adverse image effects which could discourage outside investment.

The discussion about industrial cores has calmed down noticeably after the solidarity pact debate. An increase in the borrowing ceiling of the Treuhand, up approximately 25% from an initial DM 30 billion in both 1993 and 1994, has probably facilitated ongoing privatization. (More details about Treuhand activities and its fiscal implications are presented in Chapter 1 on fiscal policy.) By April 1994, the number of enterprises still owned by the Treuhand had shrunk to less than 700, compared to almost 2 600 at the end of 1992. But whilst the problem has thus greatly been reduced in quantitative terms, a few problematic cases remain. Some of them might end up with the federal government in 1995 when the Treuhand has stopped its privatization business. For these companies much of what was said in the preceding paragraph is likely to hold, luckily on a greatly reduced scale.

Another unsettled issue is how to reduce the consumption component of intra-German fiscal transfers. More than half of these funds are channelled directly to private households. The alternative might consist of developing a secondary labour market. For many worthwhile tasks to be tackled the market is either not yet ready, or unwilling to pay the going wage rates, e.g. general renovation of polluted sites or the provision of some social services. Currently, the government is offering such jobs on a limited scale.

From a purely fiscal point of view, a large-scale application of such schemes might be attractive if wages were below, or equal to, benefit levels. But this could imply some form of compulsory employment system which for political and other reasons would be unattractive.

If, however, net wages paid were to exceed benefit levels, then such a system would become expensive in financial terms. Government would pay more than before, with the risk of driving existing companies out of business. In some instances the net impact of advancing the region may be positive; but such an approach is hard to reconcile with fiscal consolidation.

4.3. Conclusions

Despite the substantial progress achieved to date, the road to east German economic prosperity must be expected to be a difficult one. Full real convergence with western Germany or other more advanced regions of the EU could be a matter of a considerable number of years. Thus it is important that every possible opportunity to advance the region be taken. Close cooperation between the private and public sectors appears to be one major factor.

Geographic location might prove helpful in two respects. First, inputs from low-cost suppliers could alleviate the cost problem. This implies fewer jobs in the short term but more permanent ones for the future. Second, when East (Central) European recovery gathers pace, the location at the eastern edge of the EU provides the basis for the development of various businesses.

The privatization policy has been relatively successful to date. The Treuhand has almost completed its task to sell the once 'people-owned' companies to private investors; the stock of more than 12 000 companies had melted down to less than 700 at the end of April 1994 and every month more are being sold. In particular it has proved possible to avoid giving too many *de facto* (public) employment guarantees which run the risk becoming unsustainable in the longer term.

What holds for the economy at large applies as well to the agency charged with privatization. Once the primary unification task has been achieved, there is in principle no reason for the Treuhand to continue. Follow-up tasks such as monitoring proper execution of numerous contracts can be handled by a much smaller successor, as discussed in Germany in spring 1994. The accumulated specific knowledge of the agency will be useful for other purposes and should therefore not be lost. Marketing in a wide sense could prove to be a worthwhile continuing activity.

Improving competitiveness in Germany at large also benefits its various regions. Thus applying positive eastern experiences to the west might be done on a wider scale. Late shopping hours or some recycling patterns are simple examples.

Finally, moving the seat of government to the capital will have a substantial economic effect on the entire region. Less desirable possible side-effects such as overheating in specific sectors, e.g. housing, may be difficult to avoid. But to keep postponing the move could kill some developments already under way. Probably even more important is the belief that relocating government itself would suggest that Germany is less rigid than often suggested and less prone to lobbying by well-organized pressure groups. In more general terms, it would prove that Germany finally accepts the country's changed structures after unification.

¹ Similar in OECD 1993, p. 30.

Annex

Table 55

German export patterns

	(1990 = 100)	
	1991	1992
Total exports	97,8	98,5
Total exports to Eastern Europe ¹	70,2	70,0
Eastern total	45,9	35,4
Eastern total to Eastern Europe ¹	38,3	23,8
Western total	100,9	102,2
Western total to Eastern Europe ¹	110,6	128,1

¹ Country allocation changed in 1991. Yet the quantitative impact is minor (approximately DM 500 million out of exports to Eastern Europe of about DM 38 billion) and by no means voids the overall developments presented.

Source: Statistisches Bundesamt, Fachserie 7, Reihe 1, p. 11 (issues 12/1991 and 12/1992).

Table 56

Background data for Table 48 on east-west productivity, wages and unit labour cost ratios

	1989		1990 H2		1991		1992		1993	
	abs.	E%W	abs.	E%W	abs.	E%W	abs.	E%W	abs.	E%W
GDP E ¹	335,9	15,1	95,2	7,5	180,9	6,9	233,4	8,4	275,5	9,7
GDP W ¹	2 224,4	—	1 265,3	—	2 635,0	—	2 794,2	—	2 832,0	—
Employees E ²	9,677	39,3	8,035	31,2	6,857	26,2	5,933	22,4	5,683	21,9
Employees W ²	24,647	—	25,750	—	26,183	—	26,432	—	25,968	—
GDP/employee E ³	34,747	38,5	11,848	24,1	26,382	26,2	39,339	37,2	48,478	44,5
GDP/employee W ³	90,250	—	49,138	—	100,638	—	105,713	—	109,057	—
Gross wages E ⁴	136,2	13,8	63,6	11,1	145,1	12,5	172,5	13,9	188,1	15,0
Gross wages W ⁴	988,1	—	572,7	—	1 163,1	—	1 237,9	—	1 250,4	—
Gross wages										
per employee E ³	14,075	35,1	7,915	35,6	21,161	47,6	29,075	62,1	33,099	68,7
per month E ³	—	—	1,319	—	1,763	—	2,423	—	2,758	—
Gross wages										
per employee W ³	40,090	—	22,241	—	44,422	—	46,833	—	48,152	—
per month W ³	—	—	3,707	—	3,702	—	3,903	—	4,013	—
Unit labour costs ⁵	—	91	—	148	—	182	—	167	—	154

¹ Current prices in DM billion (1989: billion DM/Ostmark).

² Employees, domestic concept, million.

³ Thousand DM.

⁴ Gross wages, domestic concept, billion DM.

⁵ East-west ratio of wages to output.

Sources: 1989: Hein R., Hoepfner, D. and Stapel S., 1993 and Statistisches Bundesamt, 'Zur wirtschaftlichen und sozialen Lage in den neuen Bundesländern' Q3/1993, p. 142; from the second half of 1990 on: Statistisches Bundesamt, *National Income Accounting* 3/1994.

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Chapter 6

The financial system¹

1. Introduction

Germany's financial sector is highly developed and efficient. It has managed to provide a very broad and deep range of financial services for its domestic clients at relatively low cost. Furthermore, financial institutions and markets have traditionally been financially sound and spared from major crises or failures. The main driving forces behind this healthy situation have been a strong economy paired with low inflation, an openness towards international competition, and deliberate private sector and supervisors' action to adjust the structure to new challenges.

Nevertheless the German financial markets and its institutions are facing a number of challenges, the replies to which could influence the future performance and competitiveness of the whole system. After years of high net capital outflows to the rest of the world, the situation has changed profoundly after the country's unification and the consequent capital needs to finance restructuring in the new *Länder*. The ongoing abolition of barriers to international flows of capital and financial services, and the further reduction of transaction costs in international financial markets have increased competitive pressure on the German financial system and revealed some areas where its adjustment was necessary.

At the same time the DM has further increased its role as the uncontested second reserve currency in the world (see Graph 75).

The financial community has been aware of these changes and ready to adjust. Led by the major banks, emphasis was primarily put on the development of the German securities markets. Diverging interests within the financial community, such as between Frankfurt and the smaller regional market places, has in the past sometimes slowed down overall progress in increasing efficiency.

Despite some weaknesses in international competition, several factors have contributed so far to affording high stability and remarkable profitability to German financial institutions.

Some of them, the strong German economy until mid-1992, the exceptionally high volume of securities transactions during the currency turmoil in the autumn of 1992 and in 1993, or the reduced pressure to increase loss reserves for loans to foreign debtors, are losing some of their impact and their gradual disappearance will also put additional pressure on the profitability of German financial services.

2. Policy strategies for the financial sector

Until now the relative size and state of development of Germany's economy, as well as the role of DM as a denominator for international financial transactions, have not yet been fully reflected by a similar position of Germany's financial markets.

DM-denominated financial transactions have gained additional importance. In fact, in the first quarter of 1993 20% of all Eurobond issues were denominated in DM, only behind USD issues (33%), but well ahead of other currencies, with Sterling and Canadian dollar issues sharing third place after the DM with 11% each. In international currency trading the DM is, behind the USD, the second most heavily traded currency. Similarly, on the international derivatives exchanges, again, DM denominated contracts now hold the second position behind USD-denominated contracts. Thus, the DM has been established as a major international currency (see Table 57).

Table 57

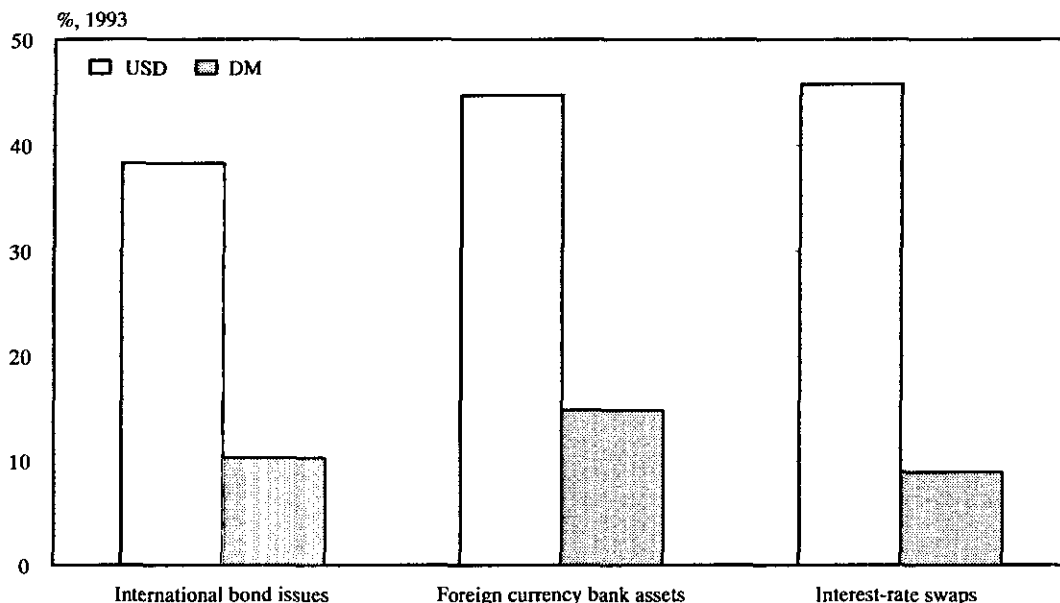
USD and DM

	USD	DM
International bond issues		
amount outstanding (31.9.1993)	38,3	10,3
new issues (1993)	35,9	11,8
Cross-border foreign-currency bank positions (end-June 1993)		
assets	44,7	14,8
liabilities	46,9	15,1
Interest-rate swaps		
amount outstanding (end 1992)	45,7	8,9
new swaps (1992)	47,3	8,4
Foreign-exchange turnover (April 92)	41,0	19,8

Source: Euromoney, BIS.

¹ This chapter was prepared by Peter Grasmann of the Financial Instruments and Capital Movements Directorate.

GRAPH 75: International use of the DM and the USD



Source: Euromoney, BIS.

On the other hand, international banking or securities underwriting and trading, or cross-border insurance underwriting has developed more rapidly in other countries. The large centres of international finance, New York, London and Tokyo, have for a long time been the main locations for financial intermediation and the export of financial services; Frankfurt was far behind. This lag reflects to some degree the deliberate decision not to promote off-shore activities in Germany. With the volume of international finance having increased rapidly and smaller financial centres in Europe picking up, German markets and institutions felt under pressure to react faster and more substantially.

The reaction had to come at two different levels: on the private markets by market participants, and by the public regulatory authorities. Private participants have not always had the same interest, but, especially during the past five years they have started to overhaul the securities' trading system, led by the large Frankfurt-based banks. And the insurance companies, led by the industry leader, used the opportunities stemming from unification and thus the enlargement of home markets to develop linkages with banks

to diversify the sales system and engage in foreign takeovers to prepare for the single European market.

Part of these private sector activities had in the past to some extent, for reasons of monetary policy or financial markets' control, been deliberately slowed down by public authorities. The supervisory authorities for banking and insurance (BAK and BAV) as well as the Federal Cartel Office, all three seated in Berlin, have exerted a relatively tight control, with the clear goal of the first two institutions being to minimize the likelihood of bankruptcies.¹ Retail consumer protection has been particularly enhanced by court rulings.² The Mergers and Monopolies Commission, also because for a long

¹ With the partial exception of securities trading, where many forms of regulation in the field of admission of securities and exchange legislation exist, but until the second 'Finanzmarktförderungsgesetz' enters into force (see section 6) no general day-to-day supervision of trading activities existed.

² Such as the rules on interest-rate calculation or publicity, or more recently, in a specific case (Hypo-Bank/Siemens) the obligation of banks to justify their voting behaviour and recommendations in the case of proxy votes.

time it had been legally constrained as regards financial institutions, has not really been active as regards market behavior of suppliers.

The most notable impact has probably been a slowdown of domestic suppliers' concentration, which had been quite easily enforceable, as the banking and insurance supervisors effectively reduced the chance of stiff competition and a subsequent industry shakeout.

The Deutsche Bundesbank has equally been concerned by the effects of unchecked market development and change. The Bundesbank's agenda as regards the domestic financial sector has been to fight any approach that could destabilize the hitherto stable money demand function and to preserve a stable and shock-proof domestic banking sector. It has always taken the position that the promotion of the financial sector cannot be a goal in itself, but that the financial markets have to be part of the general strategy of monetary stabilization, which, in turn, would benefit the development of the financial sector.

The supervisory authorities have been successful in that sense. Financial markets and institutions have indeed been extremely stable. Also, in the German political decision-making process, stability seems to have been clearly on top of the agenda, as compared to major competing financial centres.

This prominence of regulatory concerns had, besides the general impact on the business culture in the German financial sector, several tangible consequences:

- The market for commercial paper (CP) took off only in 1991, when the minimum reserve requirement on that instrument and the authorization procedure were lifted. And only in summer 1992 were non-residents allowed to tap the DM-CP market.
- Certificates of deposit (CDs) still face such restrictions: CDs issued by domestic banks are subject to minimum reserves. Foreign banks' CDs are forbidden.
- Money market funds are disallowed by the Bundesbank.¹
- Germany is the only EU country where the ecu is still not fully acknowledged as a currency *sui generis*, with related consequences for the scope of business.
- The supervisory authorities fought for stricter capital adequacy rules for banks than EU legislation is imposing.

¹ They will be allowed with the entry into force of the second 'Finanzmarktförderungsgesetz' foreseen for 1 August 1994.

Such restrictions put limits on the development of the financial markets, even at the cost of creating substitutes or driving major banking activities out of the country or out of the currency (see Table 58).

Table 58

Trade of financial services, 1991

	<i>(Million USD)</i>			
	Banking		Insurance	
	Export	Import	Export	Import
Germany	894	300	4 821	6 739
France			4 807	4 915
Spain	582	349	804	658
UK	3 377			
Japan			651 ¹	1 309 ¹
USA	4 689	2 430	2 063	2 639

¹ 1989.

Source: OECD.

Nevertheless, the German government has in the past increasingly focused on the international competitiveness of German financial services.² The 'Zweites Finanzmarktförderungsgesetz' (securities trading act), prepared by the Ministry of Finance, (see Section 6) will mark a clear improvement of the functioning of German securities trading and help to strengthen German exchanges in international competition for trading business.

3. Capital movements

Complete freedom of capital movements for a long time...

Germany has since the 1950s adopted a very liberal regime of capital movements to and from the rest of the world. It is thus, together with the Netherlands and Luxembourg, one of the few countries which allowed economy and financial markets to develop within the framework of unrestricted financial flows to and from abroad. Such a policy stance has been crucial for the establishment of Germany and its currency as one of the main anchors in international finance and the European counterpart to US markets. Low capital market interest rates, as compared to other countries, and the gradual development of German financial institutions into

² Summarized in its position paper on the 'Finanzplatz Deutschland' in January 1992.

Table 59

Gross cross-border securities transactions

(Billion DM)

	Residents				Non-residents		
	Shares	Funds	Bonds	Total	Shares + funds	Bonds	Total
1985	59,6	0,3	289,9	349,8	107,7	161,2	268,9
1990	66,4	21,2	415,4	503,0	257,7	624,8	882,5
1991	61,4	53,7	510,9	626,0	172,9	767,4	940,3
1992	60,7	126,6	789,5	976,8	205,0	1 362,0	1 567,0
1993	99,6	186,5	1 120,4	1 406,5	343,1	3 519,4	3 862,5

Source: Bundesbank.

global and successful players were some of the immediate benefits derived from this policy.

... facilitated the dramatic swings of financing accounts ...

Cross-border capital flows between Germany and abroad have in the past few years mainly been influenced by three factors:

- (i) the high financing need of the German economy in the course of unification,
- (ii) the introduction of a withholding tax on interest income, and
- (iii) the currency crisis in autumn 1992.

Due to the financing needs in eastern Germany, Germany's financial accounts experienced deep changes. A government net deficit of just DM 9 billion in 1989 fell to a DM 18 billion deficit in 1992 (4,2% in terms of GDP), and an estimated 3,5% of GDP in 1993. The corporate financial deficit increased, due both to higher net investment and, recently, lower profits as well. Since households' saving was unable to keep pace with these financing needs, the current-account balance underwent a dramatic change from an all-time high in 1989 (+ DM 108 billion) to a deficit of DM 34 billion in 1992 and DM 35 billion in 1993. Between 1989 and 1991 this swing was more or less matched by a corresponding change in the capital account.

However, in 1992 this relationship between current account and capital movement changed dramatically, when the net capital inflow jumped from around DM 20 billion in 1991 to nearly DM 100 billion the following year. Of these huge 1992 inflows DM 80 billion flowed into Germany in

September 1992 alone,¹ when the European Monetary System was subject to heavy speculative attacks on the currency markets. This strong capital inflow led to a correspondingly strong increase of the Bundesbank's foreign reserves, which reverted when foreign exchange market conditions normalized. In 1993, particularly due to a high outflow of short-term capital, the surplus on the capital account shrank to DM 21 billion and the official foreign reserves fell by more than DM 34 billion.

... amplified by the new withholding tax

The introduction of a withholding tax on interest income² as from 1 January 1993 was, after the ruling of the Federal Constitutional Court (Bundesverfassungsgericht) in June 1991, in principle known to market participants from autumn 1991, although some details were only decided later and changed once again. Since January 1993 practically all capital income earned by German residents is normally subject to a 30% withholding tax and a 35% rate applies for over-the-counter securities purchases ('Tafelgeschäfte'), deducted by the paying agent, typically the banking system.³

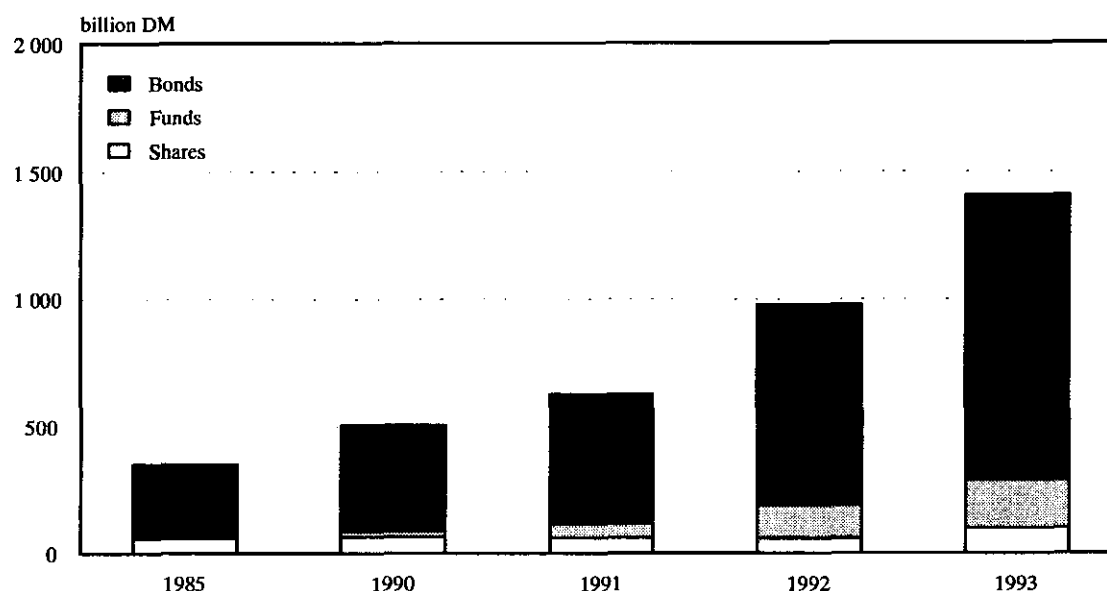
However, up to DM 6 000 (12 000) for single (jointly filing) tax-payers remains untaxed, effectively leaving around 80% of all tax-payers completely unaffected. Only in 1992 did

¹ Mainly on the interbank money markets and by British-based institutional investors' purchases of German government bonds.

² Domestic dividend income was already subject to a 25% withholding tax.

³ This arrangement is in striking contrast to the 1989 withholding tax, when the domestic debtor had to deduct the tax, thus leaving income from non-resident debtors, such as Eurobonds, untaxed, and on the other side making non-resident lenders to resident debtors go through a tedious recuperation process. Both factors led to a much higher net capital outflow from Germany.

GRAPH 76: Cross-border securities transactions
(residents)



Source: Bundesbank.

investors slowly start to adjust their portfolio selection to this new situation: led and organized by the German banking institutions themselves, capital outflow began to rise rapidly.

... leading to massive outflows to Luxembourg ...

The main vehicle for capital outflows has been purchases of Luxembourg-based mutual funds, typically sponsored by the German banks and administered by their Luxembourg affiliates (see Graph 76). At the end of 1993, 67 German banks had a subsidiary in Luxembourg after only 40 two years before and thus constituted the largest group of all 218 foreign banks based in Luxembourg. In 1992 German net purchases of Luxembourg¹ mutual funds rose from DM 11 billion in 1991 to DM 59 billion in 1992. This trend continued in the beginning of 1993:² in the first quarter of 1993 alone, another DM 30 billion was invested in such funds based in Luxembourg.

The total asset volume of German residents in Luxembourg funds has reached DM 125 billion, which is higher than total

assets of funds in Germany itself (excluding open real-estate funds), and about one third of the total assets of Luxembourg's funds. But the volume of outflow, although still considerable, obviously has considerably slowed down in the course of 1993 and even sharply reversed in December 1993 (mainly for tax reasons but also due to the falling money market rates).

Obviously the initial phase of portfolio reallocation, following the change of the tax regime, has been completed.

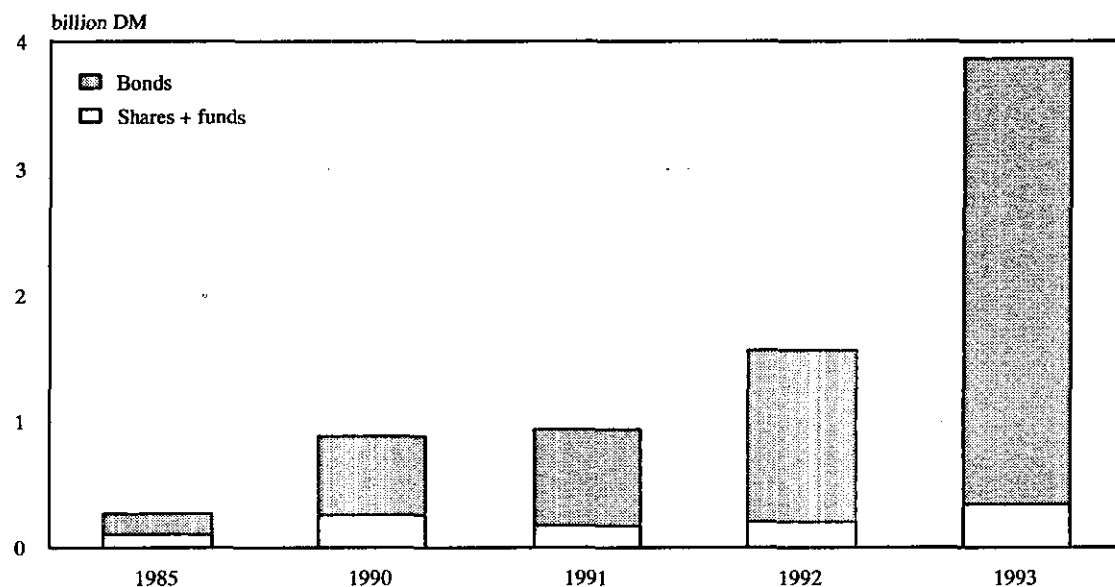
... and subsequent recycling back to German markets ...

However, although these massive and mounting capital movements to Luxembourg do affect the German tax base and tax returns, they have until now not strained the German capital markets. Those foreign funds have overwhelmingly invested their asset increases back in German fixed-income securities: in 1993 Luxembourg investors bought on a net basis DM 44 billion of German bonds, slightly down from DM 46 billion in 1992, but sharply up from just DM 3 billion in 1991. This amount was to a smaller degree invested in government bonds, but mainly in bank bonds, issued by the respective German parent bank of the Luxembourg fund,

¹ Strictly speaking, funds in Luxembourg and Belgium, but the latter constitute a negligible item.

² Although on a month-by-month basis it decelerated somewhat.

GRAPH 77: Cross-border securities transactions
(non-residents)



Source: Bundesbank.

thus making up for the outflow of deposits held by Germans to Luxembourg-based instruments.

Hence, this form of recycling of savings back onto German capital markets did not only prevent any net capital outflow, but even left the distribution of available funds among different intermediaries intact. Thus, although the volume and structure of capital movements changed substantially, the resulting total net long-term capital transactions between Germany and Luxembourg did not change dramatically: from DM - 13 billion in 1991 to DM - 12 billion in 1992 and DM + 40 billion in 1993.

... thanks to the specific regime adopted

This neutrality of the new tax on net capital movements (not on tax evasion schemes) differs from the German experience during its first episode of introducing a withholding tax on interest income in 1989. The crucial difference seems to be the change of the fiscal collection agent. In 1989 a proper withholding tax was adopted with the debtor and interest payer having to deduct the tax. The new German law puts the burden on the paying agent, which is normally the borrowers' bank.

As regards the functioning of capital markets and financial intermediation, this difference counts if:

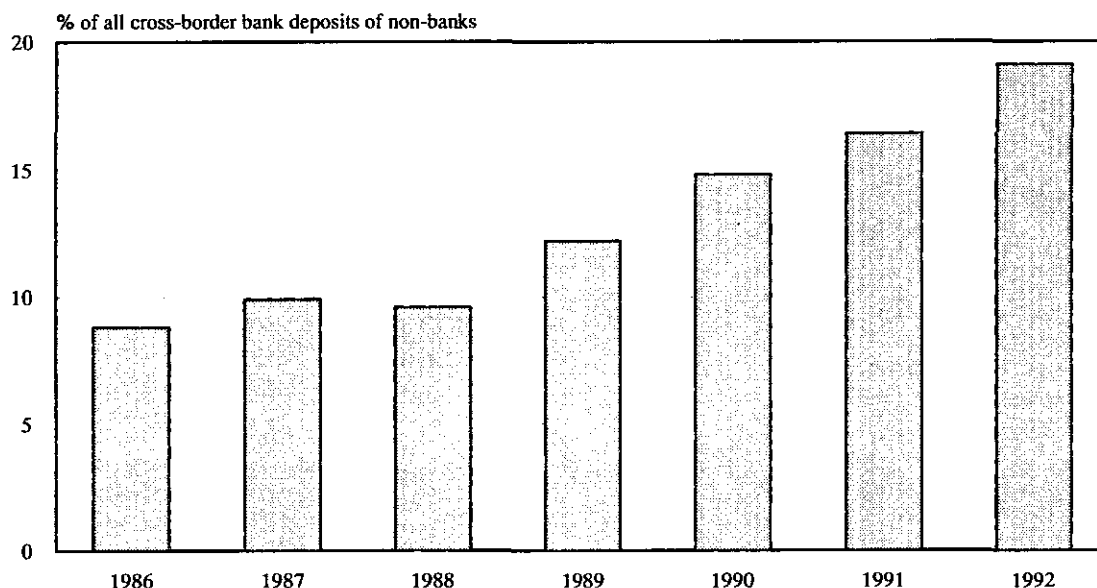
- (i) either the debtor or the receiver of the interest income is a third-country resident, and
- (ii) there is in principle a different tax treatment between residents and non-residents envisaged.

As the debtor is in general not able to distinguish between resident and non-resident lenders, the solution is the withholding of taxes on all interest income with recuperation procedures open to non-residents.

However, this option for non-residents is nevertheless linked with some administrative burden and implicit interest costs for the delay until the tax is paid back. As the German 1989 withholding tax episode has indeed proven, this should still deter non-resident investors. Thus under the old model the possibility is greater that a net capital outflow and interest-rate rises occur.

In comparison, the present payment-agent solution avoids this danger, as the banks themselves can identify non-residents and exempt them from withholding tax from the beginning. Thus negative capital market effects are less

GRAPH 78: Deposits of German non-banks at foreign banks



Source: IMF.

likely (apart from a probably more cost-efficient tax collection system). The present regime of withholding tax is, under the constraints of highly mobile financial markets and the ruling of the Federal Constitutional Court, apparently a highly efficient solution.

Although the bulk of tax-evasion assets went into mutual funds in Luxembourg, bank deposits in Luxembourg and in other some other neighbouring countries registered some German capital inflow as well (see Graph 78). In Switzerland assets in DM trust accounts rose by about 40% in 1992, thanks to a net inflow of around DM 11 billion. It has been reported, however, that in the first three months of 1993 more foreign money moved to Switzerland than in the whole of 1992.

The Austrian banking system saw its liabilities to foreign non-banks rise by 33% in 1992 or the equivalent of around DM 8,4 billion. This increase was much larger for the savings bank sector, which is particularly well represented in regions adjacent to Germany. But, parallel to the pattern of net capital flows to Luxembourg, this development came to a halt in 1993, which on balance even saw some repatriation of such funds back to Germany.

Such portfolio reallocation, as well as a large-scale use of the tax-free threshold of DM 6 000 (12 000) for single taxpayers (joint-filing couples), often by formally transferring securities to the investor's relatives, have yielded a much lower tax revenue than previously expected. A previous expectation of DM 24 billion for 1993 contrasts with an actual revenue of only DM 11 billion. For 1994 the official estimate amounts to DM 15,5 billion.

Total cross-border securities transactions between Germany and abroad reached DM 2 544 billion in 1992, nearly double the value of merchandise trade, and 62% up from 1991 levels.

Foreign direct investment bolstered by Treuhand sales ...

Foreign direct investment in Germany amounted to just DM 4 billion in 1993, even less than the figure for 1992 (DM 6 billion), despite the massive sales of the Treuhandanstalt's former GDR State-owned assets.

From the beginning of the privatization programme in 1990 until March 1994, 836 firms, or parts of firms, have been sold to foreign investors, nearly 6% of the total.¹ Total

¹ Source: Monatsinformation der Treuhandanstalt.

commitments taken by the buyers for further investment reached DM 21,4 billion, more than 11% of the total. Of these 836 firms bought by foreigners, 131 were taken over by Swiss, 125 by British, 101 by Austrian, and 93 by Dutch investors. The privatization activities of the Treuhand, and particularly the deliberate and active selling to foreign investors, have overall been a clear success and a very positive contribution not only to the reconstruction of the east German industry but also to the strengthening of German capital markets and to increasing its ties with abroad. However, with most of the firms already being sold,¹ and the end of the Treuhand's operational business very close, new foreign direct investment in eastern Germany is likely to drop from next year on, although the sales contracts partly include investment guarantees by the buyers, which will create some investment in the future, even if not all these guarantees may actually be fulfilled.

As most of the former industry holdings of the federal government² have been privatized, privatization activity of such industry holdings in western Germany has slowed down. Since 1982, when the present government came to power, some privatized firms have been yielding between DM 15 and 20 billion. One of the few remaining cases is Lufthansa, the air carrier. The government wants to sell its 51,4% share, after this privatization had been delayed for different reasons. After Lufthansa started to suffer from operational losses in 1991 and 1992, as did most international airlines, the marketability of this stake had considerably worsened. Apart from this problem, stemming from the general situation in the European airline industry, a special obstacle to rapid privatization was the huge amount of pension liabilities to the employees of the company, which at the moment are on the books of the government, but which would have to be transferred to the company when privatized.

Both these problems have been settled in the meantime. Successful cost-cutting measures have helped to turn the company around and the cooperation with a US carrier should further boosting its profitability. The pension liabilities will, with financial support from the government, be transferred to a company pension fund. Thus, the objective for 1994 to reduce the government's stake to below 50% is within reach.

¹ At the end of March 1994 there were just 788 companies with around 136 000 employees remaining in public ownership; compared to 13 960 concluded privatization deals this is a relatively minor figure and shows the remarkable efficiency of the Treuhand in its efforts to dismantle the former GDR State-owned company portfolio. A considerable number of the remaining companies is already close to a deal.

² One of the recent privatizations concerned a *Land* government: in one of the largest privatizations the state of Bavaria sold in March 1994 the electrical utility Bayernwerk to Viag for DM 2,3 billion and a 25,1% stake in Viag.

After the privatization of industrial holdings the government finally wants to start with the privatization of the three parts of the formerly integrated German post office: Telekom, the German telecommunications company, Postbank, and Postdienst, the genuine postal services company. As a necessary first step, the legal form of this company had to be changed from a public utility to a private-law company.

The privatization efforts will probably focus first on Telekom, but certainly not start before 1995. This transaction would certainly be the largest privatization in Germany ever, with some sales proceeds estimates in the vicinity of DM 70 billion. However, similar to the case of Lufthansa, large volumes of unfunded pension claims will have to be dealt with first. This problem is particularly severe for the postal services; at the moment their pension liabilities seem to exceed the whole asset base.

A similar first step, the change of companies' legal form, has been made for the German railways, with the incorporation of Deutsche Bahn AG, combining the former West German and East German railway companies.

... but hampered by institutional entry barriers

Although a generally efficient stiff competition on the goods markets and certain structural weaknesses of Germany as an investment location certainly add to deterring foreign investment, it remains a fact that at the same time investment in Germany by German residents does take place to a much larger extent. Foreign direct investment amounted in 1992 to just 0,8% of total gross fixed capital formation in Germany, a ratio just matched by Japan (see Table 60). In 1993 this ratio dropped further to almost 0%. Besides general competitive problems, certain other factors seem to add to this phenomenon of low foreign direct investment.

Inefficiencies exist in the market for corporate control in Germany. Several mechanisms can effectively deter foreign investors from taking over German companies.

Table 60

Foreign direct investment inflows

	(% of GDP)
	1987-91 yearly averages
Germany	0,2
Spain ¹	2,1
France	0,4
Italy	0,5
Netherlands	2,0
UK ¹	2,6
Japan	0,0
USA ¹	1,0

¹ Including reinvestment earnings.
Source: OECD, own calculations

German financial institutions hold large stakes in German companies. Shares of German banks in other domestic companies have continued to rise rapidly. At the end of 1992 stakes of nearly DM 50 billion¹ were on the banks' books. The share of participations in total banking assets continued to rise in the past few years, despite a strong growth of total assets: this share amounted to 7,3% at the end of 1992, up from 6,9% a year ago, or 5,8% at the end of 1985. In 1990² Deutsche Bank held 15 participations in the 100 largest German companies, the same number as Allianz, and well ahead of Dresdner Bank with 8 participations. For all these companies this meant an increase of corporate participations over 1988.

Furthermore, in widely held public companies German banks represent many small shareholders in the general assemblies of the companies, which tends to reinforce the influence of these banks. However, the implementation of the EC second banking Directive (4. KWG-Novelle) has considerably tightened upper limits for participation of banks in industrial companies. However, the banks do enjoy a 10-year transitional period for the necessary adjustments.

Total capital interdependence³ between the 100 largest companies amounted to 12,6% in 1990, also clearly up from the respective 1988 levels. Banks and insurance companies held 15% of all owners' seats on the supervisory boards of these large companies.

In many large companies voting restrictions effectively protect the present shareholders from corporate raids. At least 17 of the largest German companies⁴ have such a rule in place, among them Deutsche Bank, and BASF and Bayer, two of the three large chemical companies. The two common forms are upper limits on voting rights attributed to single ownership stakes, irrespective of their size, and registered special shares 'vinkulierte Namensaktien' which, in order to use the attached voting rights, have to be registered in the company shareholder register. When French insurer AGF built up a stake of 25%⁵ of shares in AMB, the insurance and banking conglomerate, for some time the board of the German company could legally block the registration of these shares, effectively limiting AGF's voting rights to 8%.

Net foreign assets and net foreign capital income falling

The total economy's net foreign assets at 30 June 1992 amounted to DM 510 billion according to Bundesbank

calculations, which equals around 183% of 1992 GNP. This net asset position has fallen by DM 25 billion since December 1990, reflecting a current-account deficit of DM 52 billion in this period as well as exchange-rate and asset price changes.

The structure of recent capital flows has had a corresponding impact on the change of these asset positions: net foreign liabilities of government increased sharply from DM 127 billion to DM 162 billion, net foreign assets of credit institutions decreased equally sharply by DM 66 billion to DM 133 billion, whereas private securities holdings and direct investments both increased by 33% to DM 173 billion and by 50% to DM 111 billion respectively, within just 18 months.

The current-account deficit and the resulting fall in net foreign assets contributed to the erosion of net capital income from abroad. Other factors, such as the further appreciation of the DM against most of the major international currencies and the interest-rate differential between Germany and alternative markets added to this trend.

As a result, net capital income from abroad dropped from DM 29,9 billion in 1991 to just DM 6,9 billion for the whole of 1993, after the fourth quarter registered a deficit for the first time in many years. The main driving force of this development has been the amount of interest on fixed-income securities paid to foreigners, from just DM 17 billion in 1991 to DM 42,9 billion in 1993.

4. Banking industry

Financial intermediation by banks has traditionally been very cost-efficient. International comparative studies suggest that as regards average interest margins on domestic borrowing and lending and average relative labour costs, domestic banking intermediation is amongst the most efficient in Europe, matched only by the Dutch banking system.

High and stable profits ...

German banking has enjoyed an almost 10-year period of unprecedented growth and profitability. This development has lent to German banking a position of strength which enables it to play an increased role in international banking. However, as profits grew more slowly than total assets and even less than capital, relative profitability was partly eroded. Own capital profitability⁶ in 1983, still over 20%, fell to less than 15% in 1991 and to 12,3% in 1992. Only the cooperative banking sector was spared from this profitability decline. However, this decline of profitability was to a large extent due to a very

¹ Book values. Actual market values, especially of shares bought before 1986, tend to be much larger.

² Source: *Neuntes Hauptgutachten der Monopolkommission 1990/91* (ninth report of the Monopolies Commission), July 1992.

³ Share of the capital of the 100 largest companies held by another company of this group.

⁴ According to a study by Swiss bank Julius Bär.

⁵ Increased in June 1993 to 33,5%.

⁶ Total profits before taxes as a percentage of average annual own capital.

large increase in loan loss reserves. Excluding these, own capital profitability has actually increased in the late 1980s and early 1990s. In contrast to widespread banking weaknesses since the late 1980s in many industrialized countries, this sector has remained very healthy in Germany.

... due to a mix of structural and exceptional reasons ...

A series of reasons accounted for this result:

- A relatively tight cost management. Total operational costs, as a percentage of total assets, fell slightly between 1985 and 1992, from 1,52 to 1,5%. This was mainly due to relative savings in personnel expenditure, whereas other operational costs, especially for new computer and telecommunications equipment, continued to rise more strongly than total business.
- Increasing fee business, particularly stemming from securities business; whereas net interest income grew by 49% from 1985 to 1992, fee business more than doubled (+104%) in the same period. For the whole banking industry fee business amounted in 1992 to 22% of interest income.
- The major role of the DM on the international markets which gave German banks a strategic advantage and boosted their securities trading and exchange operations profits.¹

¹ In 1992 fee income of all large banks grew heavily and, with the exception of Commerzbank, much more strongly than net interest income. For the two market leaders fee income has reached around 40% of net interest income.

- The special economic situation in Germany after unification, with strong growth and mounting government deficits, which supported credit business. In this respect the stability of the real-estate markets, in remarkable contrast to many other countries, was an important factor (see Graph 79). Between 1985 and 1992, when in almost all other large countries real-estate prices fell, they increased in Germany, although falling somewhat in 1992. This stability in the late 1980s and more recently was mirrored by an opposite development in the early 1980s, when almost all over the world, but not in Germany, real-estate prices started to rise sharply. However, the collapse of the large property developer Schneider in April 1994, which left the banks with around DM 5 billion outstanding loans, might mark the end of this period.

German banks used this period of profitability to bolster their capital endowment. German banks are now amongst the best-capitalized in Europe.²

... but subject to high international competition ...

Other incidents in banking support this view: Germany's position in international banking had been affected by the instruments of monetary policy used by the authorities. The minimum reserve requirement on bank deposits had driven out large deposits to London or Luxembourg, long before the withholding tax on interest created an additional driving force (see Table 61).

² Deutsche and Dresdner have a capital ratio of about 9 to 9,5%, Commerzbank of about 8,5%.

Table 61

Cross-border bank loans and deposits

(German market share of total industrialized countries' position)

	Lending of German banks to foreign banks (1)	Deposits of foreign banks at German banks (2)	Lending of German banks to foreign non-banks (3)	Deposits of foreign non-banks at German banks (4)	Lending of foreign banks to German non-banks (3)	Deposits of German non-banks at foreign banks (4)
1996	5,7	3,3	7,4	4,2	11,4	8,8
1987	5,7	3,1	8,0	4,9	11,8	9,9
1988	5,3	3,0	7,6	4,1	10,5	9,6
1989	6,2	3,2	8,0	4,2	9,4	12,2
1990	7,0	3,9	9,3	4,7	8,5	14,8
1991	7,1	4,2	10,0	4,9	8,8	16,4
1992	6,5	4,7	10,2	5,9	10,3	19,1

(1) % of all cross-border interbank loans.

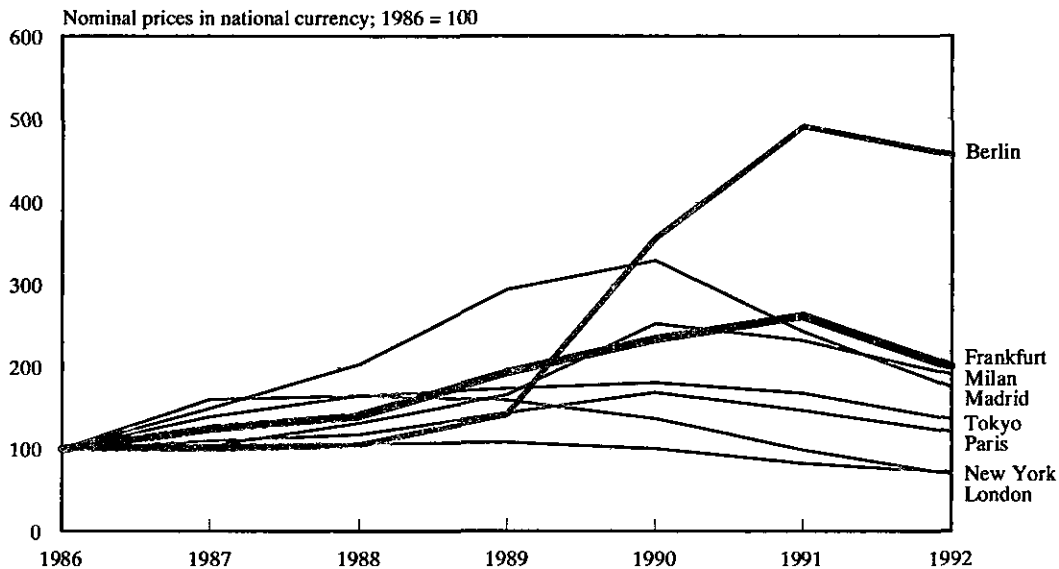
(2) % of all cross-border interbank deposits.

(3) % of all cross-border bank loans to non-banks.

(4) % of all cross-border bank deposits of non-banks.

Source: IMF, own calculations.

GRAPH 79: Commercial property prices



Source: BIS.

In a move to alleviate this disadvantage, the Deutsche Bundesbank has reduced its minimum reserve requirements twice since the first quarter of 1993. With effect from March 1993 the rates for time and savings deposits were lowered from 4,95 and 4,15% respectively to 2%. From March 1994 on, minimum reserve requirements on demand deposits have been lowered quite considerably from 12,1 to 5%. At the same time the distinction between residents' and non-residents' demand deposits was abolished. Until then for residents' demand deposits a progressive tariff of minimum reserves (between 6,6 and 12,1%) was applied; accounts of non-residents were invariably subject to the highest rate.

These fundamental changes in the regime of minimum reserve requirements have reduced the interest-rate differential to the Euromarkets stemming from minimum reserves on domestic deposits. Compared with February 1993 the reserves which the German banking system must maintain at the Bundesbank have fallen sharply from DM 84 billion to an estimated DM 37 billion.

This reduction of required reserves by more than 50% should be crucial to lowering the competitive disadvantage of domestic banking in deposit taking. At the same time, it did not impair the effectiveness of required reserves as a monetary policy instrument.

These competitive disadvantages in deposit business, at least until very recently, also largely explain the relative weakness of Germany in international currency trading. Germany is far behind market-places such as London, New York or Tokyo. And its position would be weaker without the specific role of the DM on the international markets as the second most heavily traded currency after the USD. In Germany around 80% of exchange operations are USD/DM deals (see Table 62). Trading in other currencies is, compared with other exchange centres, rather weak. Another factor that might hamper Germany's role in trading international assets is the relatively high cost of personnel, as compared with London, where average pay is not necessarily lower, but where the institutions can more easily and cheaply lay off traders with a below-average productivity.

... and thus a changing scope of business ...

German banks could traditionally rely on their unique role as universal banks, including mortgage banking and the full range of securities business. The only competitors on mortgage financing have been the independent building societies (Bausparkassen). Some shifts in the respective market shares have occurred over the past five years: at the end of 1993 their total lending to private non-banks amounted to DM 160,2 billion, up around 22% from the level of end-1988.

Table 62**Reported exchange-market turnover**

(in April 1992, net of inter-dealer double counting)

Country	Total billion USD	Currency traded in % of all trades ¹					
		USD	DM	YEN	UKL	SFR	Other
UK	300,2	80,4	41,3	15,2	23,9	7,6	31,6
USA	192,3	88,7	43,8	25,6	11,5	10,0	20,4
Japan	126,1	92,4	18,6	73,9	5,6	2,1	7,4
Singapore	75,9	90,4	36,6	31,5	14,7	10,1	16,7
Switzerland	68,1	72,9	43,5	8,8	8,2	46,4	20,2
Hong Kong	60,9	90,2	32,4	28,0	13,5	4,6	31,3
Germany	56,5	75,8	83,4	7,1	5,8	4,5	23,4
France	35,5	61,2	54,7	6,8	6,6	2,6	68,1
Total	1 130,3	82,1	40,8	22,6	13,2	8,5	32,8

¹ Adds up to 200.

Source: BIS.

During the same period the private and public mortgage banks increased their lending to non-banks by 36% to DM 580,6 billion at the end of 1993. Some of the Bausparkassen have started to establish ownership links with commercial banks.

The position of the banks in the securities sector has been strengthened by the recent foundation of the Deutsche Börse AG (see below). The banks' expansion into other related sectors has continued, notably into insurance (see below) and business consulting. The largest bank set the example and a few years ago acquired a majority stake in the domestic business consultants' market leader, Roland Berger. Several other banks have set up new, and often still rather modest, consultancy outlets.

The bundling of banking services within one institution obviously, as the existence of 'house banks' shows, creates benefits for the clients. On the other hand, this combination of banking and consulting has raised similar questions about the compatibility of these activities with banking and securities trading. The inherent conflict of interest between these activities and the difficulties in regulating such a potential conflict has not yet been shown to lead to any difficulties.

Another quite successful and rapid entry into new markets has been the credit card business. Credit cards for a long time

held a rather modest position in the payments system. Only after the German banking industry started to heavily promote Eurocard/Mastercard has this payment instrument started to expand rapidly, though from very low levels. The number of credit cards grew from 1,8 million at the end of 1988 to around 7 million at the end of 1992. But payments with credit cards still account for only around 3% of all immediate payments.¹ Eurocard/Mastercard, supported by the banks' promotion and by aggressive commission cutting,² had increased its market share to an impressive 58% by the end of 1992. Visa (23%), American Express (14%) and Diners Club (5%) lag far behind. It seems that in the medium term only Visa will be able and willing to contest Eurocard/Mastercard and that the other market players will only survive in some narrow niches.

... but with little impact on banking competition and concentration

Considerable competition takes place on two different levels: between the individual institutions and also between the different major groups of institutions (private commercial

¹ Cheques account for around 15%, the rest being cash payments. However, as regards total payment transactions, Germany has reached a very efficient, mostly paperless, regime, dominated by bank transfers and direct debits.

² Until only a few years ago commissions on Eurocard/Mastercard transactions amounted to around 3 to 5%. Now they are reduced to the range of 2,25 to 3,75%. Particularly American Express with its higher commissions (4 to 6%) is facing increasing reluctance of the retail sector to accept such commissions.

banks, public banks, cooperative banks, building societies, etc.), which, in maintaining the competition within these groups, constitute as a whole distinct factors of market activity and competition.

Despite mounting competition in some fields from other countries, the relatively comfortable domestic profit situation has spared Germany from a process of take-overs and mergers, which several other banking markets have witnessed.

The suppliers' structure has remained relatively stable over the last 20 years. The so-called 'big three' banks¹ held at the end of 1993 a combined market share of just 38% of all commercial banks (up from 33% in 1990), and just 9% (1990: 11,4%) of all banks. However, in certain market sectors their market share is considerably larger. For example, they combine about 23% of all credits to domestic manufacturing industry.

As regards assets, public sector banks, of which the largest subgroup consists of the savings banks and the 'Landesbanken' (which play the role of the savings banks' regional head institutes but increasingly carry out their own independent bank activities), still hold a market share of over one third (see Table 63), with commercial banks and cooperative

banks following behind. The respective shares have barely changed in the past few years. In the savings bank sector and even more in the cooperative bank sector, however, there is an ongoing process of concentration.

In particular, the nearly 2 800 independent cooperative banks (Volksbanken and Raiffeisenbanken) with an average asset volume of around DM 27 million, and especially the smaller of them which, in the medium term, are obliged to reduce large risk exposure,² face further concentration pressure. A similar concentration process could further take place on the level of the head institutions. In some parts of Germany two levels of head institutions exist (regional Genossenschaftszentralbanken and, on top, the DG-Bank), whereas in other parts DG-Bank has taken over the former regional Genossenschaftszentralbank.

However, the savings banks also have to reconsider their market positioning, particularly after the traditional difference between commercial banks and savings banks, as regards institutional framework and market position, is about to come to an end. The legislators in several *Länder* are about to change legislation and particularly the internal organization of savings banks, which would allow them to expand the scope of their products³ and also to compete with each other.

¹ Deutsche Bank, Dresdner Bank and Commerzbank, all Frankfurt-based. Deutsche Bank is nearly as large as the other two banks together. In 1992 Bayerische Vereinsbank, Munich-based, overtook Commerzbank in asset size, although substantial parts of this asset volume is in the mortgage banking sector, whereas Commerzbank participates in this sector only indirectly by subsidiaries.

² The relevant EC Directive is included in the next banking bill amendment.

³ Historically the savings bank laws specified those products and services which savings banks could offer with other banking services being excluded. Although nowadays the range of products is almost identical to those of commercial banks, the savings banks would like to change the last restrictions, allowing them to offer all, except explicitly excluded, products.

Table 63

Share of total banking sector
(at 31.3.1993)

	Total assets	Credit to domestic:				Bank deposits	Non-bank deposits	Capital
		Banks	Companies	Households	Government			
Three large banks	9,4	6,2	12,9	9,7	3,4	10,1	11,3	16,1
Other private banks	13,6	10,7	16,1	14,1	12,2	19,6	10,8	19,5
Savings banks	37,2	38,9	33,4	40,8	41,7	34,3	41,1	31,5
Mutual banks	14,7	15,3	13,7	20,9	10,3	13,8	20,9	14,3
Foreign banks	4,5	6,7	2,4	2,4	2,2	10,8	2,5	6,4

Source: Bundesbank, own calculations.

Some mergers of the savings banks' head institutes, the Landesbanken, took place, in order to allow them to compete more effectively on domestic and — indirectly due to a larger size — on international markets. The Norddeutsche Landesbank (NordLB) was able to expand its operations into the new *Länder*, Sachsen-Anhalt and Mecklenburg-Vorpommern. The Hessische Landesbank (Helaba) assumed the role of head institute for the savings banks sector in Thuringia. In Baden-Württemberg the two formerly independent Landesbanken for Baden and Württemberg finally merged. Some Landesbanken have even entered into fierce competition for enlarged regions, such as NordLB and WestLB in the fight for Schleswig-Holstein's Landesbank.¹

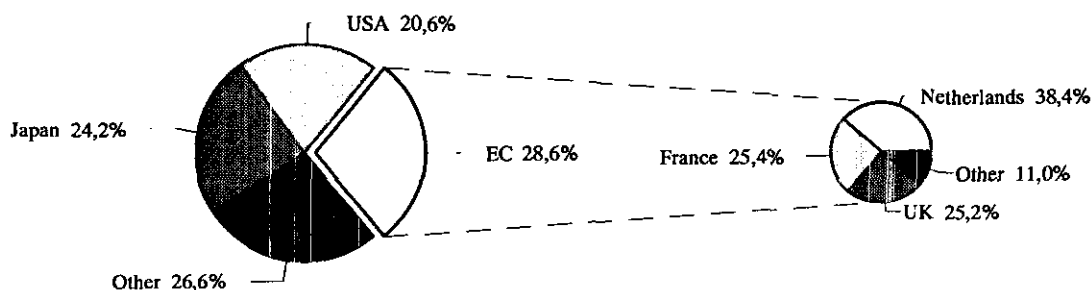
The respective regional governments in several cases remain a substantial shareholder of these institutions, besides the respective regional savings banks, which are owned by the respective communal authorities (cities and counties), and consider them to be a potential instrument for conducting economic and regional policy.

¹ As a result, WestLB acquired 39,9% and SüdwestLB 10%. The remaining 50,1% are, by equal shares, held by the *Land* and the savings banks of the *Land*.

The 146 (year end 1993) foreign-owned banks have not been able — and do not seem to be trying — to make further inroads into the German retail market. Their overall market share of total banking has remained subdued at around 5% of total balance sheets. However, this figure does not take into account all the business which these banks refer to their foreign parent companies or other subsidiaries of the same parent. The market share in the wholesale business is estimated to reach around 20%, and they are considered to be very strong in different fields of fee business, such as securities and derivatives trading. There are just two institutes present (BfG Bank and Citibank Privatkunden AG) on the retail market; the others more or less concentrate on investment or international banking (see Graph 80 and Table 64). Foreign investors in German banking come mainly from overseas, Japan and the USA, and only lately from France. Foreign presence in German banking thus is in remarkable contrast to German banks' investment abroad: the latter is much higher, and the bulk of investment of German banks abroad is to be found in other EC countries (see Table 65).

In the period 1987-93, German financial institutions were, after their French counterparts and at the same level as those in the UK and Spain, very active in creating links with other financial institutions in other EU countries, either by

GRAPH 80: Foreign direct investment in banking
Foreign banks in Germany
(year end 1991)



Source: Bundesbank.

take-overs or other forms of alliance.¹ The main target countries were France and Spain. On the other hand, Germany was to a much lesser degree a target country for financial institutions based in other EU countries. Again, France and Spain accounted for most of the transactions in this direction.

Table 64

Ten largest foreign-owned banks
(asset volume at end-1992)

<i>(Billion DM)</i>		
BfG Bank	F	44,7
Citibank (all subsidiaries)	USA	20,5
Salomon Brothers	USA	10,2
Opel Bank	USA	8,5
Schweizerische Bankgesellschaft	CH	7,9
Schweizerische Kreditanstalt	CH	7,5
Trinkaus & Burckardt	UK	6,9
Banco di Napoli	I	5,9
Société Générale	F	5,7
J. P. Morgan	USA	5,7

Source: *Die Bank*, 9/93.

Table 65

Foreign direct investment in banking
(year end 1991)

A — German banks abroad

Country	Billion DM	% of total
EC countries	16,64	74,0
of which:		
Luxembourg	6,55	29,1
UK	3,55	15,8
Ireland	2,19	9,7
Italy	1,37	6,1
USA	1,38	6,1
Other	4,46	19,8
Total	22,48	100,0
% of total German FDI		8,7

¹ See 'Cross-border alliances in banking and financial services in the single market', *Bank of England Quarterly Bulletin*, August 1993, pp. 372-378.

B — Foreign banks in Germany

Country	Billion DM	% of total
EC countries	4,09	28,6
of which:		
Netherlands	1,57	11,0
France	1,04	7,3
UK	1,03	7,2
USA	2,95	20,6
Japan	3,47	24,2
Other	3,81	26,6
Total	14,32	100,0
% of total FDI in Germany		7,7

Source: Bundesbank, own calculations.

5. Insurance industry

German insurance has until now been relatively strongly regulated by law and its supervisors. Foreign competition in the form of cross-border sales of contracts has been of minor importance, though free trade in services by means of correspondence was exempted from supervision. However, foreign insurance companies have for more than 40 years been free to enter the market in the form of German subsidiaries and branches.

The German insurance market is the largest in Europe. The share of insurance contracts in the financial assets of households is in no other EU country larger than in Germany (see Table 66). After unification it has grown even further; new business generated in eastern Germany boosted 1991 results. In 1992, it seems that, after initial demand for insurance contracts in eastern Germany was met, new business and premium income fell or slowed down. In 1993 total insurance premiums grew by 9%, whereas life insurance enjoyed a higher increase (9,7% to DM 60,2 billion) and non-life insurance grew by just 7,6% to DM 60,0 billion. Most of these increases were due to higher premiums per contract. The business volume grew much more moderately. In life insurance, total insurance claims grew by just 2,8%, the number of new contracts even fell by 6,2%.

Table 66

Household saving, 1992

	Germany ¹	Spain	France	Italy	Finland ¹	Sweden ¹	Japan	USA ¹
								(%)
Deposits	46,9	58,6	34,5	34,8	85,3	43,9	62,8	22,0
Bonds	18,0	2,9	3,8	19,8	14,5	6,2	7,9	9,6
Shares	5,6	17,3	41,1	20,9	0,0	17,6	6,2	20,1
Net equity of insurance and pension plans	26,3	9,0	12,0	9,2	0,0	14,0	23,0	28,1
Other	3,2	12,2	8,4	15,2	0,2	18,2	0,0	20,2
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0

¹ 1991.

Source: OECD, financial accounts.

A dominant player ...

As regards life insurance, Allianz-Lebensversicherung has continued to maintain its strong position on the market. Although it accounted for only around 13% of all insurance premiums in 1992, this means double the amount of the next largest company (Hamburg-Mannheimer).

But the real strength of Allianz¹ on the German financial markets, being one of the two 'centres of gravity', is not reflected in these simple market-share considerations.

- It owns several other formally independent life insurance (and non-life insurance²) companies,³ also operating on the German market.
- Within the last few years the company was effectively restricted in increasing its market share in Germany. Relative growth due to price or product competition was slowed down by a tight supervisory regime. Growth by means of take-overs of other insurance firms was made impossible by the Federal Cartel Office (Bundeskartellamt), thus it decided to continue its growth externally. It now has quite significant stakes in almost every major

insurance market in the industrialized countries, where these markets were open to foreigners. This process of internationalization speeded up in the second half of the last decade. Whereas in 1985 only about 18% of its total premium income came from outside Germany, this foreign share now amounts to around 50%. Allianz is now by far the largest insurance company in Europe and, after Japan's Nippon Life, the second-largest in the world. It accounts for large parts of German insurance companies' investment abroad (see Table 67).

- It also holds a large cross-participation in Münchener Rückversicherung (Munich Re), the world's largest re-insurance company, effectively creating a joint insurance conglomerate.
- Allianz holds important stakes in two large German banks, in Dresdner Bank (about 23%), the second-largest German bank, and the Munich-based Hypo-Bank, the fifth-largest private bank (estimated at 25%). In both cases Allianz is by far the largest individual shareholder, giving it quite an effective say in management decisions. For example, certain cooperation agreements were concluded with both banks, under which these banks offer Allianz insurance contracts via their respective banking retail network.

¹ Several operational companies and participations managed by the Munich-based holding company.

² Typically German insurance companies conduct both life and non-life business, although due to supervisory obligations via legally independent companies

³ Karlsruher Leben, Frankfurter Leben, and an important minority stake in Aachener + Münchener.

Allianz is a public company, one of the most heavily capitalized on the German stock market, one of the 30 DAX components, and widely traded. A majority of its shares, however, are held by a few other large domestic financial institutions, particularly Münchener Rück (26%), and the

three largest banks, Deutsche Bank, Dresdner Bank and Bayerische Vereinsbank (10% each).

... challenged by Allfinanz trend

Table 67

Foreign direct investment in insurance
(year end 1991)

A — German insurance companies abroad

Country	Billion DM	% of total
EC countries	14,40	62,0
of which:		
Ireland	4,08	17,6
Netherlands	4,05	17,4
France	2,63	11,3
USA	6,73	29,1
Other	2,08	9,0
Total	23,21	100,0
% of total German FDI		9,0

B — Foreign insurance companies in Germany

Country	Billion DM	% of total
EC countries	0,94	29,6
of which:		
UK	0,44	13,8
France	0,21	6,6
Switzerland	1,76	55,3
Other	0,48	15,1
Total	3,18	100,0
% of total FDI in Germany		1,7

Source: Bundesbank, own calculations.

A major competitor, equal in size and financial strength, has emerged, as Deutsche Bank has decided to enter the insurance business. In contrast to other German banks, it decided to build up its own life insurance company from scratch. On top of that it bought majority or controlling stakes in Gerling Versicherung, Germany's non-life business number two after Allianz, and in Deutscher Herold, as well as a large minority stake in Nürnberger Versich-

erungs AG. This has given Deutsche Bank quite a complete range of insurance business with a significant stake in the German market.

Conservative asset allocation ...

Asset allocation of German insurers has traditionally been conservative and consequently with modest returns. Such behaviour has only partly been the result of supervisory rules, as the insurance supervision Law ('Versicherungsaufsichtsgesetz') imposes rather tight limits on more risky assets, such as shares, derivatives, or foreign assets. But even within these boundaries, which can be quite considerably circumvented by the instrument of special investment funds ('Spezialfonds'), German insurers have often not even used these permitted thresholds applying to these assets. Thus these limits quite regularly have no effective binding force.

Since 1991 German life insurance companies can invest up to 30% of their reserves in shares, and 5% completely freely, including in derivative financial instruments. But this freedom has hardly been used. Total investments of German insurance companies amounted to DM 841 billion¹ on 30 September 1992, nearly two thirds by life insurance companies. Of these total investments, about 42% are held in direct government credits or non-transferable fixed-income securities ('Namensschuldverschreibungen') with a typically below-the-market return but with, in the eyes of the insurance companies, the great advantage of not having to be marked to the market, thus lending to the companies in times of heavy interest-rate changes more continuity in their results. The alternative to such hedging against interest-rate changes by means of financial futures and options, sometimes considered to be much more cost-effective, has not really influenced actual behaviour yet.

... also due to only moderate competitive pressure in life insurance ...

The minor role of direct price competition between the life insurance companies² (without subsequent pressure to deliver attractive investment returns) and accounting rules based on the principle of purchase prices (as foreseen in EC legislation) might have contributed to such a highly

¹ Book value; due to very conservative accounting rules, the true market value would be considerably higher.

² The only form of indirect price competition is the degree of profit redistribution to policyholders.

risk-averse and low-yield investment behaviour, together with the lack of management expertise to run a portfolio, which is based more on stocks and more recent financial instruments. From 1 July 1994 on, however, the obligation to get an authorization for the specific conditions and premiums of the offered contracts will cease to exist and will thus increase the scope for direct price competition.

Competition in the non-life insurance sector has traditionally been much greater than in the life insurance business.¹ This fact and the very large market size² have led to a relatively efficient market structure.

An indirect indication of the deepness and efficiency of the domestic casualty insurance market might be the fact that so-called captive insurance companies, where companies set up their own, often offshore, insurance company, play, in contrast in particular to Anglo-Saxon countries, a very minor role in Germany, although Luxembourg could potentially serve as a prime base for captives of German origin. Industry estimates point to not more than one to three active captives set up by German companies.

However, as in the life insurance sector, the market is, compared with other European countries, very fragmented. In 1989 the largest companies had a combined share of just 37%; compared with 62% in France, 65% in the UK or 51% in Italy. An adjustment of German supply structure towards other markets, and thus an increased pace of concentration, is thus likely.

A recently published study³ shows that during the 1980s German insurance enjoyed the highest average profitability and lowest volatility in profits of all major European insurance markets.

... and adjustment problems in general corporate policies

Corporate culture, except in parts of the companies' sales force, still resembles more that of public utilities than of market-driven companies. Sales of German insurance

contracts are, despite the increased linkages between banks and insurance companies, still rarely done via the banking network. Independent insurance brokers also still play a very modest role compared with other countries' insurance markets. The vast majority of policies are underwritten by small and medium-sized insurance agents. These sales agents, and their business practices, are much less supervised than other parts of the insurance business.

Consequently, after unification a relatively aggressive fight for market share came about in eastern Germany.⁴ A number of complaints about sales methods and a high cancellation rate (for the whole of Germany 5,8% in 1993, after 5,4% in 1992) seem to indicate a certain problem in this field.

The internal insurance market within the EU, to be completed in July 1994, will gradually fully expose German insurers to foreign competitors, which, especially in some countries, have more expertise as regards asset management beyond fixed-income securities and product development. Furthermore, the average salary level in German insurance companies is much higher than in main competitor countries. In 1991 gross monthly salary was 11% higher than in the UK. Since then the devaluation of sterling has widened the gap. Equally large differences also exist with regard to salaries in the French and Dutch insurance industries. These differences are considerably larger than in the respective banking sectors (see Table 68).

German insurance will have to adjust profoundly on all levels of business. A more rapid pace of consolidation and domestic and foreign take-overs, until now still relatively rare,⁵ should be expected to take place on the insurance market in Germany and profoundly change market structure and behaviour. Foreign presence on the domestic insurance market is, compared with German insurance companies' presence abroad, still small, and to a large part confined to Swiss insurance companies (see Graph 81).⁶ Overall efficiency and results should be greatly enhanced by this mounting European competitive pressure.

¹ Apart from some minor segments, such as industrial fire insurance, where in some parts of Germany State-owned monopolies ran the business. However, the change in EC insurance legislation (third non-life Directive) forced German legislators to abandon these monopolies.

² Germany's non-life insurance market is not only in absolute terms the largest within the EU (around 30% of total premium income) but even in relative terms as premium income per capita. The life insurance sector in Germany is, in relative terms, considerably lagging behind the UK, the Netherlands, Ireland and France. In absolute terms it is the third largest, behind the UK and France.

³ Gerard Dickinson in *European Economy and Social Europe*, No 3, 1993, pp. 183 *et seq.*

⁴ In all, 51% of the former GDR State insurance company was, already before unification, taken over by Allianz and the remaining 49% in 1992 by the same company. The other insurance companies had to find a new sales force and client base.

⁵ Only French companies have until now, and only in 1992 and 1993, been successful in taking over substantial parts of German insurance companies. The most spectacular case was the acquisition of a 25% stake of Aachener + Münchener (AM) by the French AGF. This take-over was facilitated by the fact that the holding company of AM had a few years previously acquired the former trade unions' bank BfG, which ran into financial difficulties, and to which the French investor could, through Crédit Lyonnais, give support.

⁶ In January 1994 Winterthur, one of the four large Swiss insurance companies, agreed with Commerzbank to pool their insurance holdings in Germany, with Winterthur holding 75% and Commerzbank 25% of the joint holding company.

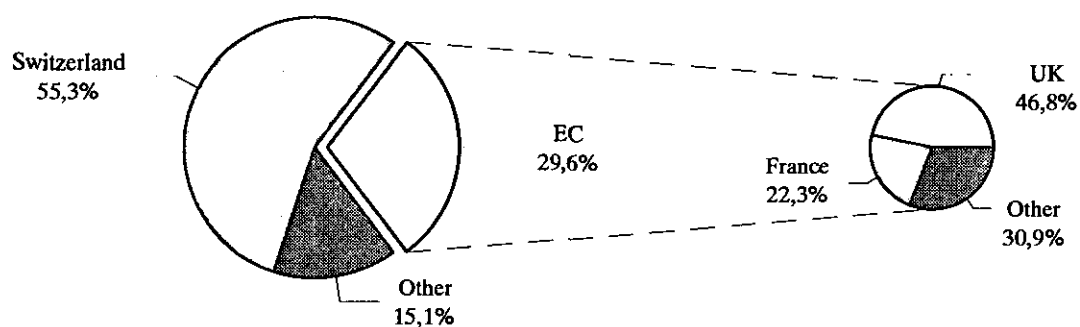
Table 68**Average gross monthly earnings**

(ECU)

	Banking				Insurance			
	D	F	NL	UK	D	F	NL	UK
1985	1 513	1 326	1 388	1 510	1 663	1 261	1 474	1 552
1986	1 618	1 377	1 533	1 328	1 824	1 289	1 565	1 320
1987	1 764	1 422	1 583	1 565	1 887	1 354	1 600	1 532
1988	1 830	1 524	1 604	1 835	1 957	1 395	1 612	1 782
1989	1 872	1 616	1 627	1 898	2 057	1 495	1 654	1 840
1990	1 959	1 719	1 676	2 076	2 107	1 630	1 736	1 978
1991	2 105	1 764	—	2 179	2 335	1 650	—	2 104

Source: Eurostat.

GRAPH 81: Foreign direct investment in insurance
 Foreign insurance companies in Germany
 (year end 1991)



Source: Bundesbank.

The major, but temporary, barrier to fast foreign influx into the German insurance market will be the specific insurance sales system in Germany. Almost all business is underwritten by agents tied to specific insurance companies. The banking industry plays a minor role in sales of insurance contracts. In 1992 only 8% of life insurance contracts were sold over the counter of a bank, compared with 40% each in France and the UK, or even 70% in Spain. Independent insurance brokers, the natural channel for increased foreign presence are, with the exception of some segments of industry insurance, extremely rare in Germany.

6. Securities industry

The trend towards securitization slow and with interruptions

The securities markets have been at the centre of consideration and reform in order to strengthen the general 'Finanzplatz Deutschland'. Two factors have contributed to this emphasis.

In Germany disintermediation had to some extent progressed until 1991, before a partial trend reversal was seen in 1992. However, the situation and development in Germany are not clear-cut at all, and this level of banking intermediation remains, by international standards, high.

Securitization, the shift from bank intermediation to securities-based lending, has been particularly present in households' savings behaviour.¹ In 1991, only 33% of total savings

were collected by banking institutions. Five years earlier, the percentage was still 42% and in 1982 even 48%. In 1992 this share jumped to almost 44%, 39% in the west and 69% in the east (see Table 69). On the other hand, securities purchases amounted to nearly 22% of total savings in 1982, 33% in 1987 and 37% in the western part of the country in 1991 (28% in the new *Länder*, 36% in Germany as a whole). Here again, in 1992 a sudden reversal emerged as securities investment dropped to 22%.

This trend does not correspond with widespread progress in securitization in the field of corporate finance via corporate bonds or the issue of new shares. New share issues, after having experienced a relative boom in 1986 and 1987, when companies made use of the then burgeoning stock markets, reached a peak in 1990, but declined steadily afterwards. Net issues of shares contributed to barely 4% of total corporate finance in 1992. The total number of new share issues fell to 7 in 1992, down from 19 in 1991 and 26 in 1990.

Bank credits, on the other hand, still amounted to 27% of total corporate financing sources in 1992, and, disregarding internal financing,² even to over 58% in Germany as a whole and to 68% in the western part alone. The Treuhand's heavy activity in issuing securities was the main factor behind a relatively weak position of banks in east German corporate finance. But with the Treuhand's gradual phasing out, this phenomenon will clearly be temporary and allow German banks, at latest from 1995 on, to acquire a much larger market share in this segment as well.

² Particularly in the case of large companies, internal financing is enhanced in Germany by the instrument of internal pension reserves ('Pensionsrückstellungen'): for large companies this source of financing typically exceeds that from new bank credits; for SMEs the opposite holds.

¹ West German households only.

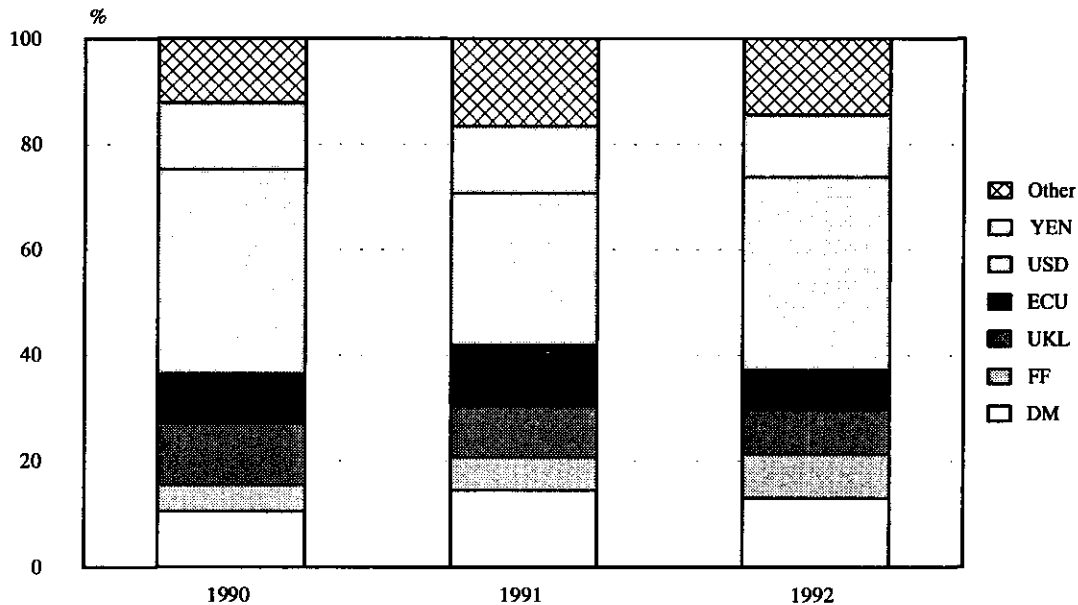
Table 69

Domestic savings and financing structure, 1992

Corporate financing sources	Total		Households' financial savings		(%)
		of which: eastern Germany		of which: eastern Germany	
Internal funds	54,0	10,8	Demand deposits	16,5	9,9
Bank credits	26,7	32,0	Other bank deposits	27,0	59,5
Insurance company credits	0,6	(0,8)	Mortgage banks saving	2,6	11,9
Bonds (including CPs)	8,2	16,4	Insurance companies	24,5	1,4
Shares	3,3	39,1	Securities	22,1	17,3
Other	7,2	2,5	Other	7,3	0,0
Total	100,0	100,0	Total	100,0	100,0
(billion DM)	509,0	115,0	(billion DM)	250,3	35,3

Source: Bundesbank.

GRAPH 82: Euromarket volumes by currency



Source: Euromoney.

The instrument of commercial paper, as an alternative to bank lending, was feasible from 1991 on, after some regulatory changes. After that date total outstanding volume rose to a peak of nearly DM 17 billion in April 1993. In the further course of the year, however, high liquidations let the outstanding volume drop again to a volume of only DM 10,5 billion at the end of January 1994. This amounts to around 0,6% of total bank credit to domestic companies, a low figure compared with other developed capital markets. But as the minimum denomination of one programme has been established at DM 100 million, this instrument will be useful only for relatively few large corporations, with the Treuhand leading the issuer league.

The domestic banking system accounts for the overwhelming part of German securities business.¹ Thus the structure of bank earnings has reflected this gradual change in direction of securities, as fee business has in absolute and relative terms increased and net interest earnings have lost some importance in overall banking earnings. The share of net fee earnings in total earnings increased from 13,6% in 1981 to 14,6% in 1986 and to 18,2% in 1991.

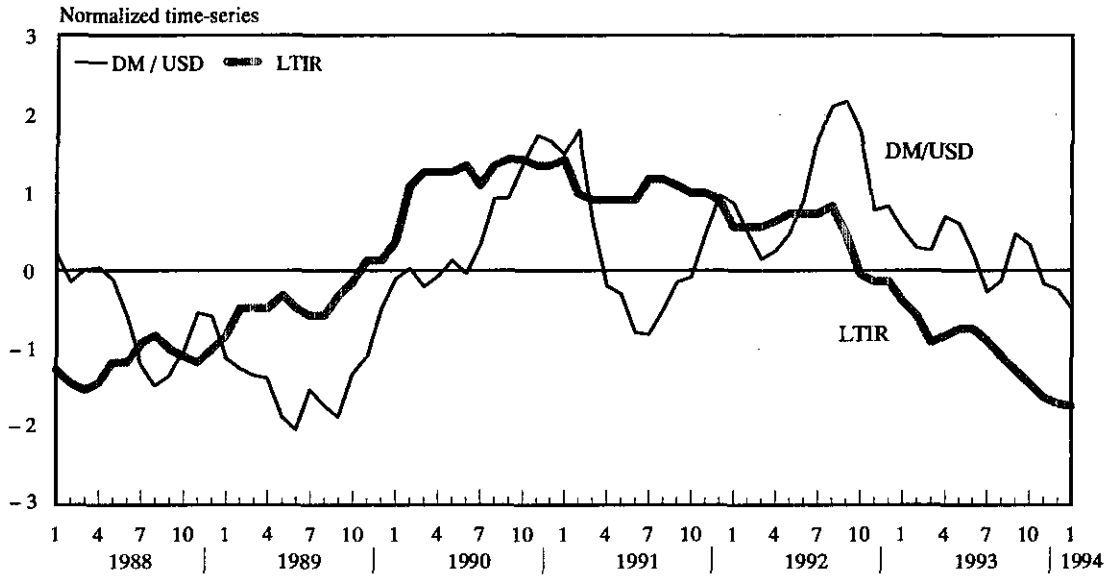
¹ Domestic brokerage firms do not play any role. Only some foreign, mainly US-owned, institutions are competing on the market.

Behind these total banking sector averages, quite different situations apply for the different bank sectors. For the large banks and the smaller privately held banks this share has already exceeded 25%, whereas for the savings and cooperative banks fee business still amounts to not more than around 15% of gross income. Thus the three large banks, although holding in 1991 in balance sheet terms a share of just 12,5%, in 1992 had a combined net fee income amounting to 27% of total German banks' fee income. Thus the reliance on securities-driven fee business is very unequally divided among the banking community.

Foreigners' purchases strongly influence market development ...

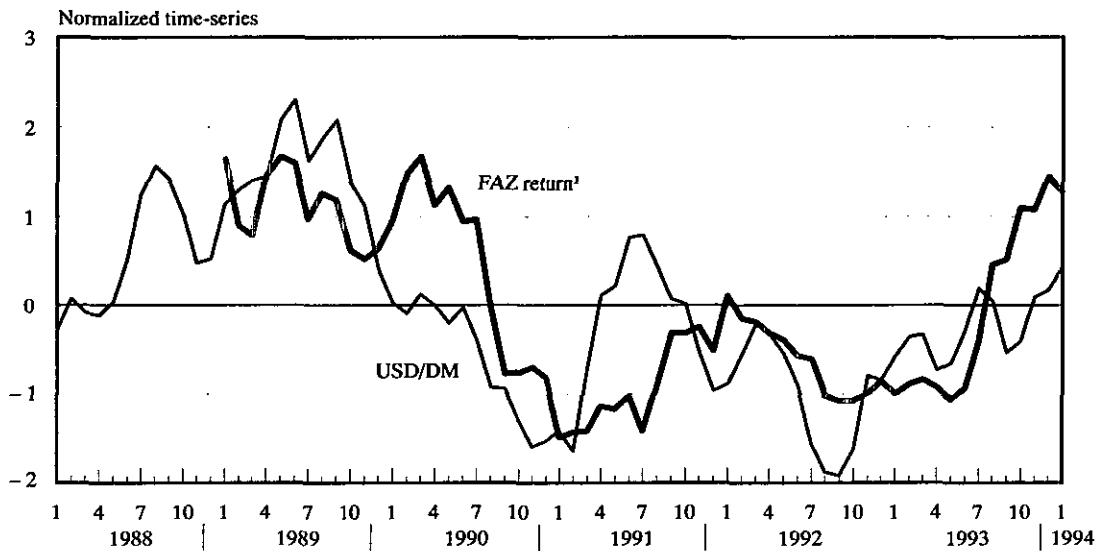
Foreign-market participants in the DM securities markets have in recent years played a very important role as issuers (see Graph 82) and as investors. Especially in 1992 foreign purchases of bonds almost equalled purchases by residents and exceeded those on the stock market. However, this strong foreign presence stems to a large part from the exchange-rate development and the specific role of the DM as the counterpart to USD denominated assets. Thus the course of turnover and prices on the securities markets are closely linked to foreign investors and thus to the foreign-exchange markets (see Graphs 83 and 84).

GRAPH 83: Long-term interest rates and exchange rate of the DM vis-à-vis the USD



Source: Commission services.

GRAPH 84: German stock-market return and exchange rate of the USD



¹ FAZ index t/FAZ index t-12.
Source: Commission services.

In the stock-market segment, foreigners were still on the selling side in 1992, reducing their portfolio of German shares by around DM 5,5 billion. In 1993 they returned strongly into this market, buying German shares for a net amount of around DM 15 billion, which equalled nearly 50% of the new supply. This foreign buying spree was particularly strong from May to August.

This foreign presence supported the German stock-market prices in their prolonged upward trend in 1993 after an overall stagnation in 1991 and the slump of around 8% in 1992. From October 1992, when the stock market bottomed out, stock-market prices, in terms of the DAX index, grew until the end of 1993 by approximately 60%, which made German stocks the top performers in 1993 of all major markets worldwide.

... and foreign competition in securities trading from London

Foreign competition in the field of securities and securities derivatives trading has been intensified in the past few years. It has mainly been London posing this competitive challenge to the German markets. In the DM-denominated securities sector SEAQ London has attracted quite considerable amounts of institutional business, although considerably less than in most other stock-market segments.

Germany's derivatives market coming late, but catching up

In the financial derivatives sector, LIFFE¹ first (in 1988) introduced DM contracts. The major traded contract is the DM Bund future contract (8½ to 10 years government debt), which apart from the Paris-traded 10-year French government futures contract is the only heavily traded and thus liquid European long-term interest-rate contract.

Germany's DTB entered this market in 1990. It initially got considerable support from the large German banks, which partly deliberately chose to channel their business through the DTB screens rather than via London.

Entry was, particularly in the beginning, rendered difficult by the fact that it had, as regards contracts traded in London, to cope with an already operating exchange with established liquidity. This liquidity gap might have helped to keep clients in London, including even many German institutions. A clear-cut comparison of overall trading costs on the respective exchanges is difficult, as not only the respective fees

differ, but also the respective fee bases, and different fixed or access costs occur. However, it seems clear that on a cost basis for many trades of many market participants DTB offers a very competitive alternative to LIFFE.

Thus, for Bund futures, in 1992 LIFFE still had a healthy market share of 72%, and of even 73% in 1993. German Bund futures are worldwide the only major financial derivatives product which is significantly traded on two different exchanges. For all the other products the need for maximum market liquidity led to the concentration of trading on just one exchange. In the case of Bund futures, large and increasing demand have until now helped both exchanges to coexist.

However, Germany's DTB runs the risk of losing this specific market segment² in the long term, if it is not able to increase its market share considerably. Otherwise the much larger volume in London (and the absence of German advantages in trading costs) will serve as a self-enforcing device to attract even more business.

It will be decisive which exchange will be able to get a cooperation agreement with the two Chicago exchanges for introducing a DM futures contract on their newly introduced screen-based 24 hour Globex system. Facing these problems in the flagship contract, DTB is about to complete its product range. It has started to offer a five-year DM bond contract.

Relative growth of trading, though, was even more remarkable for the medium-term Bund contract (3½ to 5 years government debt), trading of which only started in October 1991 and which could in the future become the most important DTB instrument in the interest-rate market segment. Although LIFFE decided to compete for this contract as well, and entered the market in early 1993, DTB held a market share of 81% in 1993 and even almost 97% in the first quarter of 1994 (see Table 70).³

Table 70
Market shares in DM interest-rate futures trading

	Bund futures			Bundesobligationen futures		
	1992	1993	1994/Q1	1992	1993	1994/Q1
DTB	28,1	27,2	26,8	100	81,2	96,8
LIFFE	71,9	72,8	73,2	0	18,8	3,2

Source: Bundesbank, own calculations.

² LIFFE runs at least an equal risk of losing other contracts, and via such an erosion of DM business even its present strength in DM Bund futures.

³ Trading on LIFFE almost came to a halt in April.

¹ The London International Financial Futures Exchange.

Thus, in this case LIFFE runs the very high risk of failing and being forced to leave the market.

In March 1994 DTB completed its spectrum of DM interest-rate futures by introducing two new contracts: one on bonds with a maturity of between 15 and 30 years, and a three-month contract based on FIBOR. Both contracts are new on the market. For the former contract the issuing of enough underlying instruments only started in December 1993.

Three-month contracts, based on LIBOR, have already been traded on LIFFE for five years, thus DTB might have some indirect competition for its contract.

Much more successful, and uncontested by other exchanges, has been the option contract on Germany's stock index DAX. It was only introduced in 1991, but in 1992 it was already the second most heavily traded stock index contract in the world,¹ behind Chicago's Standard & Poors 100 index option. In 1993 trading in this instrument grew by another 63%, making this contract by far the most important DTB-traded instrument.

DTB's screen-based system should benefit from the ongoing liberalization in the EU securities industry. At the latest from 1996 on it will be permitted to place its screens everywhere in the EU Member States, including London, which might help it to attract additional genuine and arbitrage business.

Stock markets: lack of institutional investors ...

Germany's stock trading is hampered by a still relatively small overall volume. Total stock-market capitalization of the 796 domestic listed German shares amounted at the end of 1993 to only 28% of total German GDP, lower than in other large countries or the EU average of 44%.² This average stock-market capitalization, though clearly subject to stock price developments, has remained pretty stable over the past few years. At the end of 1989 it was equally 28%. However, German stock markets have proven to be very liquid. Trading is heavy in and concentrated on blue chips (in 1993 the 30 DAX shares amounted for 83,4% of total turnover), and was even larger than in the UK domestic markets. In 1993 a rise of more than 40% was registered for equities turnover. The creation of an organized options and index options (DAX index) market, and the abolition of

the turnover tax have certainly helped to attract foreign stock traders.

Unlike in other markets (Anglo-Saxon countries, Netherlands, Japan) there are not enough institutional investors which could form the backbone of the market. Pension funds do not play a large role, as private firms' old-age pension claims mostly are not funded, but rather remain within the respective company. Life insurance companies, on the other hand, have been relatively conservative in their asset allocation.

They, as other institutional investors, have for several reasons,³ traditionally and increasingly contracted their asset management out to so-called 'special funds', managed by specialized 'Kapitalanlagegesellschaften (KAG)' (asset management companies). These companies are in most cases still owned by the large banks, which thus have a three-way interest (and earning potential) in the institutional investors' asset management: as asset managers via their KAGs, as securities traders, and as depository institutions for the KAGs.

The market for asset management is to some extent shielded from foreign competition, as the German legislation ('Versicherungsaufsichtsgesetz') forces life insurance companies especially to turn to recognized domestic companies. This means that foreign competitors have to be established in the market rather than being able to provide cross-border services.

The real threat to the dominance of the domestic banks in this field comes from the insurance companies themselves who have increasingly started to set up their own independent asset management company. In early 1993 the first industrial firm, Siemens AG, did the same. Thus the share of KAGs owned by the large commercial banks has shrunk from more than three quarters in the late 1970s to under 50% at the end of 1991.

... and regionally split exchange markets ...

The German stock exchanges additionally suffered from the division of work and liquidity on eight different exchanges. Until the end of last year they were completely unconnected and direct competitors. However, their relative size is very different. Frankfurt accounts for more than 70% of total business, Düsseldorf for around 10%, and the rest is shared

¹ Though far behind the US Standard & Poors 100 index, which in 1993 had an almost four times larger trading volume. The next largest European stock index contract is the Spanish IBEX 35 index with just about half the size of DTB's DAX option.

² This average is, however, largely influenced by the UK, which boasts around 43% of total EU stock-market capitalization, or 95% of its GDP.

³ Apart from the primary reason, namely to buy some expertise the company does not avail of, this vehicle can partly circumvent asset allocation restrictions imposed by insurance supervision, and has some accounting advantages.

by the six other¹ smaller exchanges. Frankfurt pushed hard to establish its exchange as the only market-place in order to concentrate market volume and liquidity as crucial elements in the competition with London. The regional exchanges, and the respective regional governments backing them, were resistant to this development.

... led to some action ...

Thus at the end a compromise was worked out. Since the beginning of 1993 the seven regional (and smaller) exchanges jointly hold a 10% stake of the newly founded Deutsche Börse AG. This new company is responsible for the Frankfurt exchange, the futures and options exchange (Deutsche Terminbörse), and all securities' technical and settlement systems (Deutsche Kassenverein AG, Auslandskassenverein AG) in Germany. The rest of the shares are held by the banks according to their respective size² and the stockbrokers.

This reorganization will certainly reap sizeable savings from joint operations. However, it does not sufficiently tackle the latent and mounting rivalry between Frankfurt and the other exchanges. The regional exchanges will continually struggle to define their proper place in the German financial sector. They not only face competition from Frankfurt, but, for large transactions, from London as well, and to some extent for the most internationally traded shares from overseas.³

Furthermore, in an additional step to reduce transaction costs and increase trading possibilities and thus to keep large block trades on the domestic markets rather than losing them to London's SEAQ, the Frankfurt banks introduced IBIS, a screen-based large volume trading system for the 30 most important shares⁴ and some liquid bonds. Trades via this system are settled within two days by Deutscher Kassenverein. As compared with normal market trading this system has two advantages: it is cheaper and it allows trading also outside the very limited trading hours on the German

exchanges (10.30 a.m. to 1.30 p.m.). IBIS runs between 8.30 a.m. and 5 p.m. This system has become widely accepted for larger transactions, particularly in shares of the largest companies. In 1993 more than 30% of total turnover of the 30 DAX shares were done via IBIS. And this share is likely to increase further. This system is also responsible for the fact that, in contrast to other groups of shares, like the French or Dutch ones, SEAQ lost market share in total trading volume of these shares, mainly to IBIS.

The functioning of the physical trading floor has been enhanced by the introduction of an electronic order routing system (BOSS). Introduced in 1992, it had some start-up problems, but in 1993 already accounted for an average of 55 000 — and on some days more than 80 000 — transactions per day. It also created, before its introduction, some dispute amongst market participants: market specialists on some regional exchanges, notably from Düsseldorf, feared that this system would channel additional business via Frankfurt and thus distort competition. They sued the Frankfurt exchange, but afterwards reached a satisfactory arrangement. In the meantime BOSS is operational on all German exchanges and thus does not create potential biases for the competition between the different exchanges.

In a very recent move the Frankfurt and the Paris stock exchanges agreed on close cooperation to fight off the London challenge. According to published plans, the respective market participants in Frankfurt and Paris shall also be entitled to trade on their respective exchanges. It is foreseen that this mutual arrangement will also be opened to other smaller exchanges, such as in Scandinavia, Austria and Switzerland.

All these moves have primarily been focused on its core DM business. As long as it is confined to that, and not competing in the full range of international securities, those markets that are able to do so will have a structural advantage, an advantage that threatens DM business as well. But Germany is not yet able to compete on such a scale. Even very basic features, such as foreign-currency securities settlement, are, with the exception of settlement in ecus, not yet in operation, although foreseen to be launched in 1994. This is threatening to turn the original advantage of a very efficient settlement system (for DM claims) into a disadvantage when competing internationally.

... and regional exchanges left with a struggle for survival

These profound and ongoing changes in the German securities industry might add additional pressure to the position of the regional exchanges which continue to coexist next to Frankfurt. As the perception is gaining ground that these

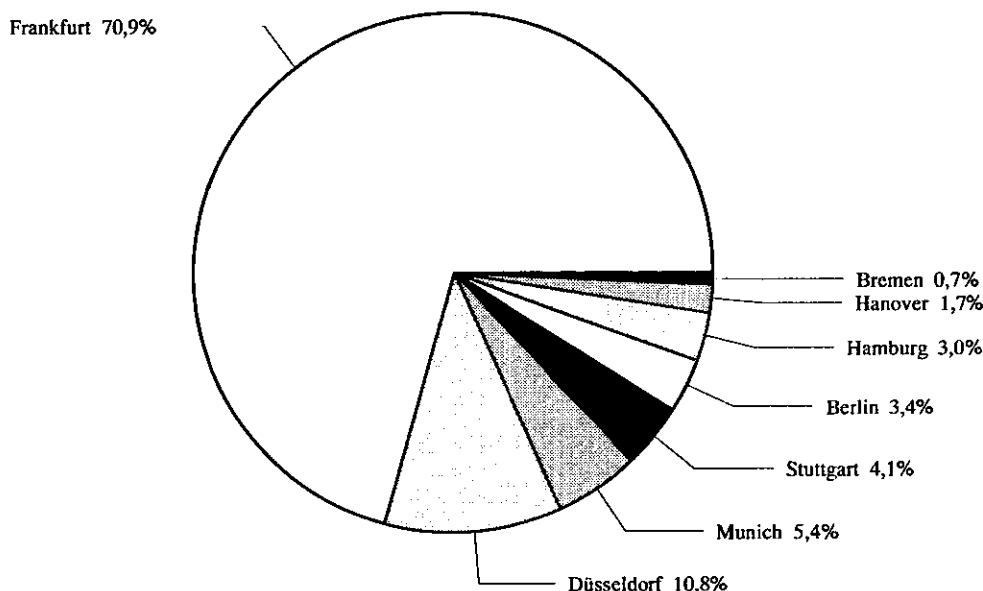
¹ Berlin, Bremen, Hamburg, Hanover, Munich and Stuttgart. For a while after unification the idea was floated by eastern politicians to establish another exchange in Leipzig. But these plans were firmly rejected by the banking and securities industry.

² In total 80%, with Deutsche Bank as the largest single shareholder.

³ Quite recently Daimler-Benz AG, the motor vehicle, aircraft and electronics holding company, Germany's largest company, let its shares be listed on the New York Stock Exchange. Until then this was not possible for German companies, as their disclosure practices did not satisfy the US Securities Exchange Commission. But Daimler-Benz reached a compromise with the SEC which could serve as a precedent for other large German companies.

⁴ These constitute the basis for the DAX index, which has, since its launch in 1990, become the clear benchmark for German stocks, ending the long rivalry of different bank or newspaper-sponsored indices, such as the FAZ or Commerzbank index. It is the only index on which future and option contracts exist.

GRAPH 85: Stock exchanges: market share
Share of total securities turnover in 1993



markets will face increasing difficulties in the direct competition with Frankfurt for trading and maybe even listing of larger companies and major benchmark bonds, these minor markets are trying to define a new role, partly in some niches of securities trading.

For example, Düsseldorf, the second-largest market, and quite well positioned in North Rhine-Westphalia, the home of many German blue-chip companies, has quite successfully started to develop trading in long-term stock options ('Optionscheine') as an additional field of business. The Bremen exchange, the smallest one, tried to improve its position by installing the MIDAS trading system which would have immediately allowed simple international stock trading, especially between Germany and London. This could have helped to advance financial integration in Europe. But this system would have competed with another system favoured by Frankfurt. Thus, it was finally decided to drop this plan. The Düsseldorf and Stuttgart exchanges have formed a partnership with other European 'second-tier'¹ market-places such as Bilbao, Edinburgh, Lyons and Turin, to cooperate and increase sustainability.

¹ That is not No 1 but with enough resources and strength of the local financial community to survive in the longer term.

Direct price competition between the German exchanges is still quite low, perhaps partly because of lack of interest of the members of the exchange boards, which to some extent belong to the same big banking institutions, equally present in most parts of Germany, a similar phenomenon which might have made it difficult for Luxembourg to set up a DM Bund futures market. But with innovations difficult in competition with Frankfurt,² and a waning commitment of large German companies to have their shares listed on each of the German exchanges, several of the regional exchanges will have difficulties to survive as active market-places.

Strong bond markets ...

Bond markets have seen a steady price rise since early 1991 (see Graph 85). Trading volume has been strong as well. On the organized exchanges³ bond turnover has more or less grown steadily in the last 10 years: in 1993 alone by 54%, after almost 52% in 1992, reaching a total of DM 4 881

² This was for example the key to the success of US regional exchanges to regain some market share from the dominant New York Stock Exchange.

³ Bonds are, however, unlike stocks, mainly traded off the exchange.

billion, well ahead of the stock turnover of just DM 1 983 billion.

Foreign investors play a heavy and increasing role on these markets. It is estimated that already 30% of all outstanding DM bonds are held by non-residents. This number is probably even larger for the large and liquid benchmark issues.

Trading in DM bonds is concentrated (around 95%) on the large and liquid government bond issues, with a concentration of bonds traded on official exchanges in Frankfurt (in 1993 around 71%) and Düsseldorf (11%). The scrapping of turnover tax as from 1991 clearly helped to recuperate DM bond trading back from London and Luxembourg.

At the end of 1993 around 20 000 different bonds were listed on the German exchanges, of which nearly 19 000 were domestic issues, much more than in London or Paris. But, most of these bonds just fulfilled their listing requirement and are quite illiquid bank bonds. Furthermore, in contrast to stock markets, some of German bond trading, particularly in bank bonds, is done over the counter, hence bypassing the official exchange.

... further liberalized, leading to intensified competition ...

Until August 1992, German exchanges had a safe and competition-proof business in listing DM-denominated bonds. Until then the Deutsche Bundesbank insisted on each of these securities being listed on a German exchange.¹

In 1992 the Deutsche Bundesbank scrapped most of these provisions:

The lead manager of a DM bond issue does not have to be an institution incorporated in Germany any more. Furthermore, a DM-denominated fixed-income security does not have to be listed on a German exchange any more. Cheaper foreign exchanges will be able to compete for DM bond business. Luxembourg, whose exchange serves as a major listing device for Eurobonds, is the most powerful competitor in this field.

Also foreign law can now be applied as well, contrary to the previous situation, where only German law could be applied. This particular relaxation is said to have paved the way for

additional sovereign bond issues, such as those by the UK Government, which soon after the liberalization issued a very large volume of bonds.

These liberalization measures also allowed the issuing of the first DM-denominated 'global bond issue' by the World Bank in October 1993 (DM 3 billion). Such global bond issues, until then mainly denominated in USD, CAD or YEN, are specified in a way which allow them to equally target all major capital markets, particularly the Euromarkets and the US domestic market.

... but some restrictions remain

Foreigners are in general a large and active part of German bond markets. Not only do they play a heavy role as issuers and buyers of German bonds, but they are also involved at the level of securities underwriting and trading. The Government bonds underwriting syndicate (Bundesanleihekonsortium), altogether 108 banks, includes not less than 52 foreign-owned banks.

The restrictions concerning DM issues, which have been maintained by the Deutsche Bundesbank, are:

- the exclusion of foreign banks from issuing DM-denominated securities of less than two years' maturity (especially certificates of deposit);
- the banning of certain types of securities, such as money-market funds, until the entry into force of the new securities trading act (probably on 1 August 1994);
- the provision that the lead manager of any DM-denominated bond has to be an institution that is based in Germany.²

The latter restriction might have helped German banks to consolidate their strong position on the market for Euro-DM issues. In 1992 Deutsche Bank had by far the largest market share with other German banks making up most of the rest of the market. The Central Bank claims that these restrictions would be necessary to preserve its control over monetary policy.

Maturity range partly extended ...

Apart from two 30-year bonds issued in 1986 the longest German government bonds had a maturity of just 10 years. These 10-year government bonds are the backbone of DM

¹ The Bundesbank claims that this provision, together with several others, such as the application of German law or the introduction in the German securities settlement system, was not an attempt at protection of the domestic financial sector but rather an attempt to safeguard the DM and the Bundesbank policy instruments by hindering developments which could effectively circumvent Bundesbank policy.

² Either as a head institute or as a subsidiary of a foreign institution or just as a branch. The latter possibility, a lead manager being just a German branch rather than a subsidiary, was the result of the liberalization package of August 1992.

bond trading. On 28 December 1993, the Ministry of Finance finally decided to issue a bond with a 30-year maturity. This first issue of that type had a volume of DM 10 billion. Funding considerations determined the timing of this issue, as it allowed German debt managers to lock into relatively low yields (of around 6,3%).

Such an extension of maximum maturity of German government bonds should greatly enhance the attractiveness of the German bond market, particularly for domestic and international institutional investors which have expressed a clear interest in such long-term securities. Turnover figures from Euroclear and CEDEL for February and March 1994 already show a very high turnover and thus liquidity of this issue on the secondary markets.

However, at the low end of the maturity range, German Treasury bills are missing. Thus marketable government securities are still confined to securities of five years' maturity ('Bundesobligationen') or longer up to 30 years ('Bundesanleihen'). The neglect of the short-term range does not fully reflect the active interest in the international investor community.

In February 1993 the Bundesbank introduced new forms of short-term government securities (Bundesbank liquidity paper, or 'Bulis') with three, six and nine months' maturity. Although formally government debt, this is economically rather a Central Bank security, created mainly for the purpose of extending the range of instruments of monetary policy. They are issued by a regular auction process, but the Bundesbank will not assume the role of a market-maker for these securities.

This instrument will satisfy some demand by institutional investors for short-term paper, but, since it is not a regular and marketable Treasury debt, it cannot completely close the gap in the short-term range of DM securities. One of the obstacles to the introduction of regular Treasury bills is the reluctance of the Bundesbank to give up control of the short-term DM debt market, as such issues would be a serious alternative to term deposits which are liable to minimum reserve requirements imposed by the Bundesbank.

... and a range of issuers

DM bond issues are confined to either bonds issued by domestic banks (around 51% of all outstanding public bond issues at the end of 1992), government bonds (29%), bonds of government agencies, states or municipalities (7,5%) and international issues. Domestic industrial issues are (with a share of 0,1%) quasi non-existent. Also, unlike other large international bond markets, the bulk of issues are of high

investment grade (AA or better), which reflects the excellent credit standing of German government authorities and banks, but which limits the possibility of investors to diversify their DM portfolio into securities with higher return and risk, such as bonds of less than investment grade. Such issuers could be mainly found in German non-financial companies. However, these are actually not present on the capital market.

... with a well-developed segment of asset-backed securities

However, apart from the liquid, internationally traded benchmark government bonds, the German domestic bond market relies heavily on bank bonds. In 1993 net issues of these bonds amounted to nearly DM 160 billion, or around 39,7% of all new net issues (against around 60,3% for government bonds). The impact of these bonds is even larger considering the outstanding amount: at the end of 1993, they amounted to around 55% of all domestic outstanding bonds. This is partly due to the fact that in previous years, their share in net new issues was larger than in 1993, and that their average maturity is longer than government bonds.

Most of these bank bonds are bonds particularly backed by mortgages ('Pfandbriefe') or public sector loans ('Kommunalobligationen'). The issue of such bonds is specially regulated in German legislation under the mortgage bank law. Such bonds have to be 100% matched by corresponding mortgages or public sector loans of the same maturity and at least the same yield. Only specially licensed mortgage banks (presently 26 institutions, of which Bayerische Vereinsbank and Bayerische Hypotheken- und Wechsel-Bank are equally normal commercial banks, and the other ones specialized mortgage banks, most of them owned by commercial banks) are allowed to issue them. Due to this strict and constant supervision there has never been a case where these bonds could not be serviced. Thus, on the one hand, these bonds have proven to be a very efficient and flexible tool for the financing of construction in Germany and have enhanced the scope of German capital markets as an alternative to government bonds with almost the same degree of credit quality.

Typically these bonds have only a very small yield margin of around 5 to 10 basis points as compared with government bonds.

Foreigners still partly banned

For a long time it was German policy to ban non-residents from purchasing certain government securities, such as for, example, the five-year bonds. Nowadays non-residents' purchases of a certain class of government securities, federal

(six or seven years) savings bonds ('Bundesschatzbriefe') are still reserved to German private investors and non-profit-making organizations.

Commitment to tighter supervision

Germany's exchanges and its participating institutions have historically operated under a regime of relatively loose supervision of their actual trading performance. The respective *Länder* ministries of economics or finance which are formally responsible for this task, have not supervised operations on a day-to-day basis.¹ German criminal law did not sufficiently rule out criminal behaviour on the exchanges either. Insider trading, for example, is still not a criminal offence. Only some rules of conduct, self-imposed by the market participants, try to guide trading behaviour. This has turned out to be insufficient.

Several insider-trading cases in the past few years have been an indication of this problem.

The EC Directive on insider trading, which entered into force on 1 July 1992, is in the process of finally being transposed into German law.

The merits of tighter supervision instead of complete self-regulation have also been supported by the fact that the expansion of German products and markets abroad came to a halt, partly due to the lack of central supervision. The US authorities especially were sceptical about the German supervision system, and discouraged for example DTB, the derivatives exchange, from setting up terminals in the USA, and in the past has banned German shares from being listed on a US exchange.

¹ The supervisory office of the *Land* Hessen, responsible for Frankfurt (stocks, bonds, futures), and thus for around 75% of German securities and derivatives trading, has presently, after a recent increase, eight officers on its payroll.

The draft 'Zweites Finanzmarktförderungsgesetz, (second Law on the promotion of financial markets), submitted by the federal government at the end of last year, will create an improved and strengthened market and supervisory environment and transpose new EC legislation (Directives on insider trading and on transparency, and parts of the new securities Directive). In doing so, and by additional provisions, it adjusts the legal framework of German financial markets to international supervisory and market needs. In particular this Law provides the following:

- It will strengthen the supervision of securities trading by introducing for the first time a direct market supervision of securities markets and by establishing a Federal Office for Securities Trading Supervision. The task of these supervisors will be supported by stricter obligations for the reporting of trades.
- Insider trading will constitute an offence under criminal law and be penalized by a gaal sentence of up to five years.
- Companies listed on the exchanges have to report substantial changes in their financial situation and important changes in the structure of their shareholders.
- The freedom for institutional investors ('Kapitalanlagegesellschaften') to invest in the field of derivative products will be enhanced.
- Banks will be allowed to buy and sell their own shares for trading purposes. This provision, at the specific request of the German banking industry, will allow those banks to fully participate in the trading of derivatives of these shares. Such a trading activity makes the possibility of trading in the underlying instrument necessary.
- The range of securities admitted to international clearing and settlement systems has been extended and now covers all securities issued in the European Economic Area (EEA).

This Law is expected to enter into force on 1 August 1994.

