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Economic Trends 2005/2006

'Arbeitskreis Konjunktur' at DIW Berlin
(Study Group 'Business Cycle')

World Economy in Calm Waters

The economy lost momentum worldwide during the winter half of the year; the pace of growth was nonetheless strong, however, as financing conditions remained favorable and profits remained high. World growth was curtailed by rising commodity prices and a significant shift to a more restrictive economic policy stance in some countries. In addition, further currency appreciations dampened exports in the euro zone and in Japan.

The pace of global economic growth will not accelerate again over the forecast period. In the USA, where the upswing is based on persisting lively investment and enduringly robust private consumption, the recent substantial increase in price pressure suggests that a further tightening of the monetary policy reins will gradually slow the pace. Following a rise of 3.5% this year, Gross Domestic Product will expand at a somewhat weaker rate – around 3.2% – next year (cf. table 1).

In China and other Asian countries, the high growth rates will flatten out, however. Japan's deflationary trend appears to be gradually coming to a halt; rising profits, stronger consumption growth, and continuing good prospects for exports indicate that recovery is likely. GDP in Japan will increase by 1% this year and probably by 2% next year. Output in East Asia as a whole will expand both this year and next year by around 4.5%.

However, there are a number of risks threatening the world economy. These include the ongoing expansion of the USA's current account deficit as well as developments on the commodity markets. The imbalance in the USA's export economy is viewed with particular concern on the financial markets, in part because the resulting portfolio restructuring could well intensify the upward pressure on the currencies of other regions and in itself curb their competitiveness. However, it is unclear as yet when this might occur and who exactly might have to bear the burden of adjustment. Thus, for example, at present the U.S. current account deficit is substantially and increasingly sustained by the fact that Asian central banks are purchasing U.S. government bonds; the share of the U.S. government debt held by non-private foreign investors rose in recent years by around 10 percentage points and currently accounts for over 25% of the public debt. As long as the financial market actors are willing to finance the U.S. current account deficit at the present long-term interest rates – which are extremely

Table 1

Real GDP, Consumer Prices and Unemployment Rate in Selected Countries

	Weight (%)		GDP			Consumer prices[1]			Unemployment rate[2]		
			Change (%) on the previous year						(%)		
	GDP	German exports	2004	2005	2006	2004	2005	2006	2004	2005	2006
Germany	8.8	–	1.6	0.9	1.5	1.7	1.6	1.4	9.5	10.3	9.5
France	6.6	12.9	2.3	1.7	2.2	2.3	1.8	1.5	9.6	9.9	9.7
Italy	5.5	9.0	1.2	–0.7	1.0	2.3	2.0	1.8	8.1	8.1	8.3
Spain	3.2	6.3	3.1	3.5	3.1	3.0	3.2	3.2	10.8	10.0	9.5
Netherlands	1.9	7.8	1.4	0.4	1.8	1.4	1.2	–2.5	4.7	5.1	5.0
Belgium	1.1	7.1	2.9	1.5	2.3	1.9	2.1	1.8	7.8	8.0	7.8
Austria	1.0	6.8	2.0	1.8	2.2	1.9	2.0	1.9	4.5	4.6	4.4
Greece	0.7	1.3	4.2	2.3	2.5	3.0	3.2	2.8	10.4	10.5	10.5
Finland	0.6	1.1	3.3	2.4	3.0	0.2	0.6	1.5	8.9	8.7	8.5
Ireland	0.6	1.2	5.4	4.5	5.0	2.3	2.0	2.4	4.5	4.2	4.0
Portugal	0.5	0.7	1.0	0.3	1.8	2.5	1.9	1.9	6.7	7.3	7.2
Luxembourg	0.1	0.6	4.5	3.8	4.0	3.2	3.6	2.8	4.2	4.5	4.2
EMU countries[3]	30.6	–	2.0	1.2	1.9	2.1	1.9	1.5	8.8	9.0	8.7
EMU countries excl. Germany[3]	21.8	–	2.2	1.3	2.1	2.3	2.1	1.6	8.5	8.5	8.4
EMU countries excl. Germany[4]	–	54.7	2.2	1.4	2.1	2.1	2.0	1.3	–	–	–
Great Britain	6.9	10.5	3.1	2.7	2.7	1.3	1.8	1.9	4.7	4.8	4.8
Sweden	1.1	2.7	3.5	2.8	2.3	1.0	0.8	1.5	6.4	6.0	5.9
Denmark	0.8	1.9	2.4	2.2	1.9	0.9	2.0	1.7	5.4	5.3	5.2
EU-15[3]	39.5	–	2.3	1.5	2.1	1.9	1.9	1.6	8.0	8.2	8.0
Poland	0.8	3.2	5.5	2.5	4.0	3.6	2.4	2.3	18.8	17.8	17.4
Czech Republic	0.3	3.1	4.4	4.2	4.4	2.8	1.5	2.1	8.3	8.1	7.9
Hungary	0.3	2.1	4.1	3.4	3.8	6.8	3.8	4.3	5.9	6.4	6.3
Slovakia	0.1	1.0	5.5	5.0	4.7	7.5	2.4	2.8	18.0	15.6	15.1
Slovenia	0.1	0.5	4.6	2.7	3.8	3.6	2.0	2.0	6.0	5.9	5.7
Lithuania	0.1	0.3	6.7	5.8	7.0	1.2	2.3	2.4	10.8	8.2	7.2
Latvia	0.0	0.1	8.5	6.8	6.0	6.2	6.4	6.2	9.8	9.3	8.8
Estonia	0.0	0.1	6.1	7.0	5.5	3.0	3.3	3.1	9.2	7.8	7.0
Switzerland	1.2	4.8	1.7	2.0	2.0	0.8	0.8	0.8	4.4	3.8	3.6
Norway	0.8	0.9	2.9	2.6	2.4	0.6	1.8	2.0	4.4	4.3	4.2
Western and central Europe[3]	43.4	–	2.4	1.6	2.2	2.0	1.9	1.6	8.8	8.9	8.6
USA	38.1	11.1	4.4	3.5	3.2	2.7	3.3	3.0	5.5	5.2	5.0
Japan	15.3	2.2	2.7	1.0	2.0	0.0	0.0	0.2	4.7	4.6	4.4
Canada	3.2	0.8	2.8	2.7	2.8	1.8	1.9	2.0	7.2	7.0	6.9
Total[3]	100.0	–	3.2	2.3	2.6	1.9	2.1	1.9	7.1	6.9	6.7
Total excl. Germany[3]	91.2	–	3.4	2.4	2.7	2.0	2.2	2.0	6.8	6.6	6.4
Memo item: Total weighted by exports[4]	–	100.0	2.9	2.1	2.5	2.2	2.0	1.7	–	–	–

1 EU-15 and Norway: harmonized index of consumer prices. — 2 Standardized. — 3 Total of countries listed. GDP and consumer prices weighted by 2003 GDP in US dollars; unemployment rate weighted by 2004 labour force. — 4 Total of countries listed. Weighted by countries' shares in German exports 2004.
Sources: OECD Economic Outlook; Eurostat; National Accounts; national statistics and DIW Berlin calculations; 2005 to 2006: DIW Berlin estimate and prognosis.

low by historical standards – there is no further risk of significant currency appreciations in other regions. Overall, then, a similar situation to that found in the Bretton Woods system, with fixed but adjustable exchange rates, seems to be emerging. There is a US dollar currency zone with an anchor currency country (high current account deficit, investment and transaction currency) and a group of peripheral countries relying on export-driven growth in a context of exchange rates that threaten to appreciate and therefore tend to be undervalued. An ideal example is China, which in recent years has defied all upward currency trends by buying massive quantities of dollars – occasionally spending double-figure billions per month – and has maintained its

high level of competitiveness by means of this strategy. The central banks concerned basically have unlimited possibilities for intervention (unlike those of countries whose currencies are at risk of depreciation and which are threatened by potential outward flows of foreign currencies) because there are no restrictions on the amount of the local currency that can be issued. This is why there is much to suggest that the situation will remain stable over the forecast period.

The Economy of the European Union

Stronger growth in the non-EMU countries

The non-EMU economies of the European Union grew much more robustly on average than the countries in the euro zone. Macroeconomic growth in Great Britain has remained on a upward trajectory since last year. The growth trend was sustained in particular by business investments and public spending. But private consumption also expanded perceptibly, albeit at a somewhat slower pace. The external balance remained unmistakably negative, however.

The Bank of England had raised base rates from 3.5% to 4.75% between 2003 and summer 2004 with a view to averting inflationary risks, especially in the property sector. Now, following the boom in housing property, it seems that the sought-after soft landing has actually been achieved; the Bank of England did not further increase base rates as was initially expected. Fiscal policy, which had bolstered growth in recent years by means of sharp increases in spending on infrastructure measures and the health system, is gradually swinging to a moderate path. The budget deficit, which had risen to around 3.5% last year, will probably be reduced to around 3% this year if the economy remains strong; fiscal policy will therefore exert a slightly restrictive effect.

Growth will presumably amount to over 2.5% next year. Thus, real GDP will rise at almost the same pace as potential growth. The inflation rate will remain somewhere in the vicinity of the reference value of 2%. The unemployment rate will remain entrenched at almost 5%, which is low compared with other European countries.

Growth has weakened overall in the new member states of the EU – and especially in the countries of central Europe – since the beginning of the year. The reasons have been both slower export growth and a slowdown in the pace of domestic demand growth. Private consumer spending was dampened both by higher inflation rates following accession to the EU and by wage agreements. In some countries, the expansion of government consumption spending also diminished. The slowdown is most evident in Poland. But despite weaker demand from the euro zone, some countries managed to improve their external trade balance in the first quarter of the year. For example, the Czech Republic achieved a surplus in the balance of trade for the first time in a number of years. This was due not least to the inauguration of export-oriented production plants.

In the Baltic countries, by contrast, growth remained robust and continued to be accompanied by substantial imbalances in foreign trade. Latvia, in particular, where the inflation rate has fallen only marginally since the middle of last year, showed signs of overheating. In most of the other countries prices calmed down – despite the price pressure exerted by energy products – as the effects of indirect tax increases related to joining the EU expired. Unemployment rates are comparatively high, although some countries saw a significant decline.

Growth in the new member states will continue to exceed the EU average over the forecast period. This will be due, in addition to the recovery of the economy in the euro zone, to a livening up of domestic demand. Consumption will not show any significant momentum, however, in view of moderate wage growth and efforts to consolidate the public budgets. Investment growth, by contrast, will accelerate, not least thanks to assistance from the EU.

Six countries have been participating in the ERM II exchange rate mechanism since April; the new members – in addition to Estonia, Lithuania, and Slovenia, which had already joined ERM II last summer – are Latvia, Malta, and Cyprus. The latter two countries were admitted on condition that they reduce their budget deficits, while Latvia must reduce its inflation rate in the long term. During the forecast period, convergence reports will be drawn up for the first three countries, in which compliance with the Maastricht criteria will be monitored. At the moment, only Slovenia fulfills the criterion of moderate inflation rates; at 4.6%, inflation in Estonia has significantly exceeded the reference value of 2.7% since the beginning of the year.

Weak momentum in the euro zone

The economic situation in the euro zone has deteriorated further since the beginning of the year. While the growth rate of real GDP – 0.5% in the first quarter of the year compared with the previous quarter – showed an improvement, this was only due to the high rate in Germany, which greatly exaggerated the actual strength of economic growth in the country. The pace of growth slowed in most of the countries in the euro zone; real GDP growth in the euro zone (not including Germany) amounted to only 0.1%.

The sharp downturn in the pace of growth was caused mainly by external trade. Real exports in the euro zone (excluding Germany) fell by almost 2% in the first quarter of the year, and this decline was much stronger than the fall in imports. Since mid-2004, the increase in the price of oil coupled with the appreciation

of the exchange rate against the US dollar has curbed economic expansion. Another relevant issue is the fact that regions experiencing dynamic growth, such as the Asian countries or indeed the new member states of the EU, are expanding their market shares. This development is affecting countries such as Portugal and Italy, in particular, which have substantial proportions of labor-intensive industry and whose unit labor costs have risen comparatively sharply in recent years.

Domestic factors just about compensated for the decline in external demand, although private consumption rose at a weaker rate in the first quarter of the year than in the final quarter of 2004. Fixed capital formation in the euro zone (excluding Germany) expanded only slightly, especially as a result of the weak growth in equipment investments. One possible explanation for this development is the fact that in addition to the weaker level of capacity utilization, it is also particularly difficult to pass on higher oil and commodity prices to final prices when the economy is in a lull. Uncertainty about future oil prices is an additional factor.

Employment rose slightly according to preliminary data from a number of member states. The decline in employment in the manufacturing industry was more than offset by a rise in employment in the service sector. The unemployment rate in the euro zone has amounted to almost 9% since the beginning of the year.

The inflation rate is fluctuating around 2%. Price pressure is currently exerted mainly by energy prices, which were 10% higher in April than one year previously. On the other hand, the core inflation rate (Harmonized Index of Consumer Prices excluding alcoholic beverages, tobacco, foodstuffs, and energy), at 1.3%, was much lower in April; the HICP has been falling since the beginning of the year as a consequence of slowing economic activity, but also because of the nominal appreciation of the euro.

The pace of growth will pick up in the second half of the year. The dampening effects exerted by the oil price and the exchange rate are likely to wear off; in addition, financing conditions will show some improvement. Investments will therefore grow again at a stronger rate. Private consumption will also expand at a faster pace as, given relatively steady income growth, the savings ratio decreases to an extent and the burden exerted by the oil price lightens. The expansion of the world economy will continue to bolster exports. Nonetheless, the external balance of many countries will not improve as competitive pressure from Asia and from the new member states of the EU remains strong. This applies especially to Italy and Portugal.

Growth of 1.2% is expected for the euro zone overall this year, while it is likely to amount to 1.3% for the eleven EMU countries excluding Germany. The unemployment rate will amount to 9% this year and to 8.7% next year. The inflation rate will fall slightly as the effects of the oil-price rise wear off, amounting to an annual average of 1.9% in 2005 (1.5% in 2006).

Monetary situation: renewed rise in real interest rates

Short-term (three-month) interest rates in the euro zone have been fixed at 2.1% (cf. figure 1) for two years now. Measured against the core inflation rate, however, short-term rates have actually risen in real terms since last fall, from 0.1% in November to 0.7% on the most recent figures. The yields on government bonds maturing within ten years were 3.6% on recent figures, which corresponds to around 1.75% in real terms. These are low rates by historical standards. Nonetheless, the rise in real short-term interest rates is still exerting a dampening influence. On the other hand, the monetary parameters have recently improved again as a result of the depreciation of the euro, having passed through a temporarily more restrictive period at the beginning of the year.

This forecast is based on the assumption that, in view of the threat of a slowdown in growth in the euro zone, the European Central Bank will reduce base rates by half a percentage point in mid-2005 and subsequently leave them unchanged at this level. Given the very moderate level of wage growth, this would not represent any threat to price stability. Money supply growth will likewise not represent an inflationary risk, which is considered possible at the earliest in the medium term.

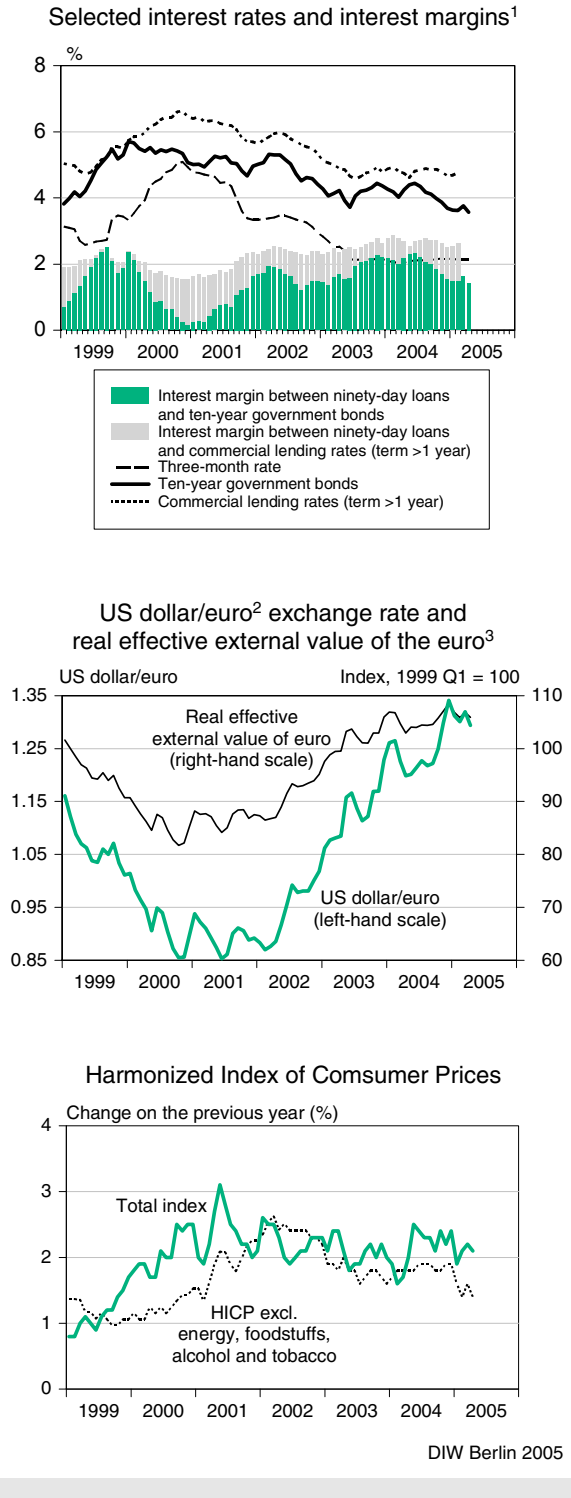
Fiscal policy slightly restrictive

The situation of the public budgets has deteriorated significantly in the euro zone in recent years – primarily as a consequence of the disappointing rate of economic growth. The aggregate deficit amounted to 2.7% of GDP in 2004 (cf. table 2); at the beginning of this year, DIW Berlin had still expected a noticeable improvement in 2005 and 2006. On current figures, such a positive trend can no longer be expected. On the one hand, the pace of economic growth is much weaker. On the other, the budget situation is less favorable than previously in a range of countries following the revision of the systems used in the calculation of the national accounts. In most cases, the systematic revision of the accounts has a positive effect on the deficit ratio, because GDP generally works

Figure 1

The Monetary Situation in the Euro Zone

January 1999 to April 2005



1 Lending rates from January 2003 onwards: 1 to 5 years, up to 1 million euro. — 2 Prior to 1998: exchange rate between US dollar and 'synthetic' euro. — 3 Relative to a broad range of countries, based on consumer prices.
Sources: European Central Bank; Eurostat; DIW Berlin calculations.

Table 2

Public Budget Financial Balance[1] for the EMU Countries, 2001 to 2006

As % of nominal GDP[2]

	2001	2002	2003	2004	2005	2006
Germany	–2.8	–3.6	–3.8	–3.6	–3.5	–3.2
France	–1.5	–3.2	–4.2	–3.7	–3.3	–3.1
Italy	–2.6	–2.6	–3.1	–3.1	–3.7	–4.4
Spain	–0.4	–0.3	0.3	–0.3	0.1	0.1
Netherlands	0.0	–1.9	–3.2	–2.5	–2.3	–1.9
Belgium	0.5	0.1	0.4	0.1	–0.3	–0.4
Austria	0.3	–0.2	–1.1	–1.3	–2.0	–1.8
Finland	5.2	4.3	2.5	2.1	1.7	1.7
Greece	–3.7	–4.1	–5.2	–6.1	–5.0	–4.1
Portugal	–4.4	–2.7	–2.9	–2.9	–6.5	–6.0
Ireland	0.9	–0.4	0.2	1.3	–0.8	–0.5
Luxembourg	6.4	2.3	0.5	–1.1	–1.3	–1.6
EMU countries[2]	–1.6	–2.4	–2.8	–2.7	–2.8	–2.7

1 As % of gross domestic product; apportionment according to Maastricht Treaty. — 2 Total of countries listed. Weighted by 2004 GDP in euro.
Sources: ECB; Eurostat; European Commission; 2005 and 2006: DIW Berlin estimate and prognosis.

out higher under the new method, but in an increasing number of countries the data is being revised to correct past (occasionally deliberate) false entries, which is leading to much higher past deficits and also past deficit ratios. The higher base figures will influence the result over the forecast period.

This year, as last year, the aggregate deficit in the euro zone will amount to at least 2.8% of GDP; as the growth trend remains weak, 2006 will also fail to bring any improvement.

The German Economy

Overview: no hope of a robust upturn

Hopes of an upturn in the German economy this year have not yet been fulfilled, although the first quarter of the year saw growth increase by a full 1% on the previous quarter. The optimism was based on the expectation that the huge impetus exerted by the export sector would spread to the domestic economy, leading there – via livelier demand for investment goods – to higher incomes and increased consumer demand. This, however, did not come to pass, although the trend for foreign demand remained very positive and investment in machinery and equipment (e.g., copyrights and self-produced software) also expanded. The main obstacle to a more positive macroeconomic trend is the weak level of private consumer spending, which is mainly a consequence of low income growth rates and unfavorable labor market prospects. The lack of investment in the construction sector is also curtailing growth. In addition, despite the tax cuts, the public budgets are not providing expansionary impulses.

The apparent good start to this year disguises the weak basic economic trend and is actually the expression of a split development. The spark from the booming export economy has failed to ignite domestic demand. The surprisingly high growth rate in the first quarter was due exclusively to the brisk expansion of foreign trade; private and government consumption spending fell by 0.6% adjusted for prices (cf. figure 2). The growth rate was inflated by a technical effect, that is, by the adjustment for seasonal and calendar-related influences.

A contrary effect came into play in the second quarter. A glance at the average for the last three quarters indicates the weak basic economic trend. From the fourth quarter of 2004 to the second quarter of 2005 (estimated figures), the growth rate amounted to only 0.3%. The second quarter can also be expected to show an unfavorable result as incoming orders in manufacturing industry decreased slightly in the first quarter, while the confidence indicators also deteriorated. The decisive factor behind the decline in orders was a fall in domestic orders. At the same time, the Ifo Business Climate Index for the industrial sector continued to weaken, while the estimates of the economic trend provided by financial analysts surveyed by the Centre for European Economic Research (ZEW) were also more negative than previously. One likely important reason for the pessimism are the persisting high oil prices. The recent depreciation of the euro, by contrast, had not had any effect at the time the survey was carried out.

DIW Berlin expects that while the economic lull will be slowly overcome in the second half of the year, the recovery will be only moderate (for the assumptions underlying this forecast, cf. box 1). The positive impulses will continue to be provided virtually exclusively by external demand. The recent depreciation of the euro is likely to help German enterprises further improve their competitiveness on foreign markets outside the euro zone, with the consequence that their market shares will expand. This will at least compensate for the slight drop in demand for German products resulting from the somewhat slower pace of world growth. In addition, the oil-exporting economies will increasingly use their oil earnings to purchase investment goods on the world markets. German industry is likely to benefit especially from this development. Oil prices themselves are unlikely to exert any additional dampening effects on the German economy. Once the inhibiting effects of the oil-price rise wear off, private households will not suffer any further loss in real income. Nonetheless, domestic demand will remain weak because it will be difficult for consumption to recover in view of the low rate of income growth. Government demand is also more likely to exert restrictive effects.

All in all, an average real GDP growth rate of 0.9% can be expected this year (cf. table 3). In order to quan-

Box 1

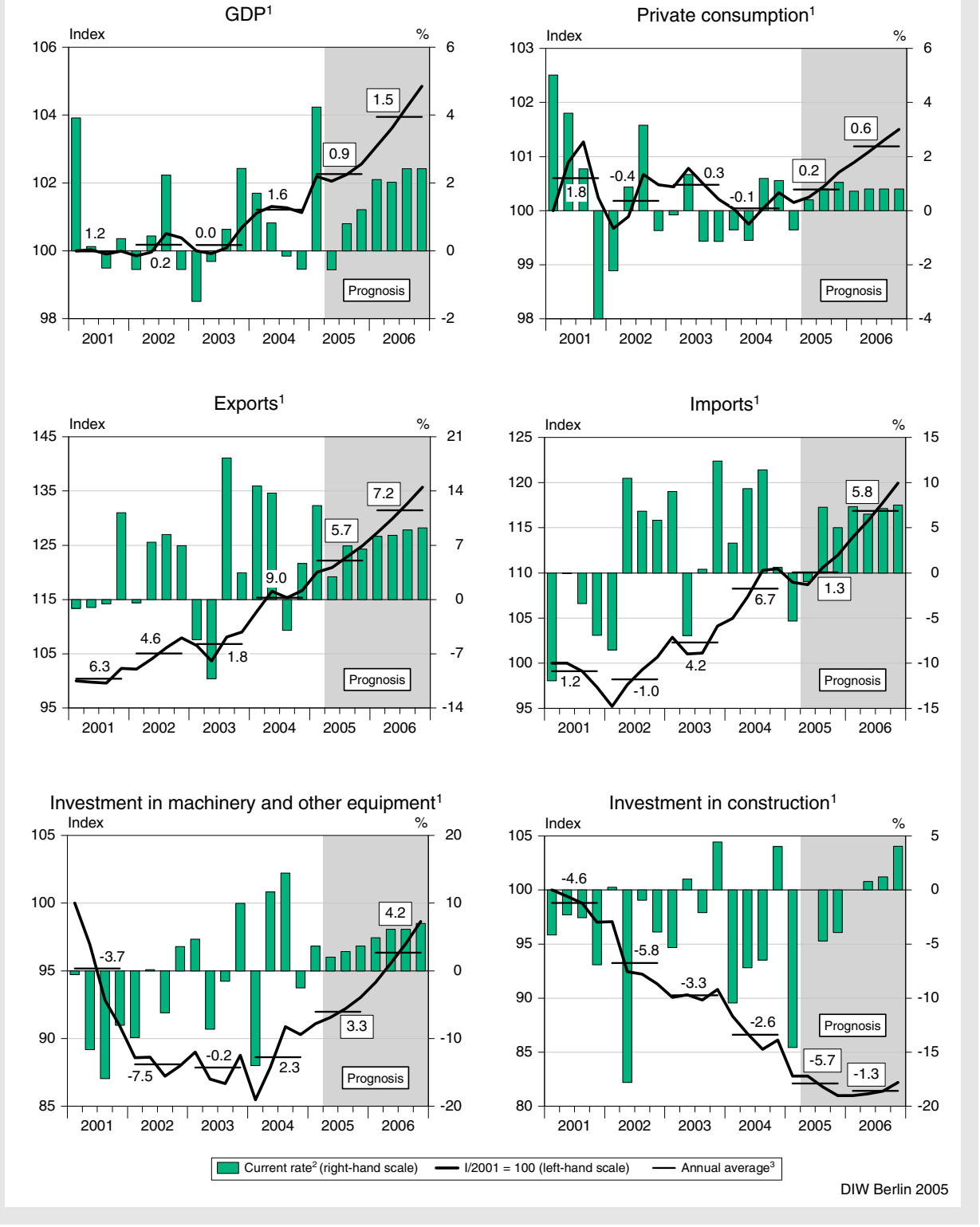
Assumptions underlying the prognosis

This forecast is based on the following assumptions:

- The ECB will reduce base rates over the course of this year by 50 basis points and will leave them unchanged at this level until the end of the forecast period.
- The price of oil will fall to US $ 48 per barrel (North Sea Brent) over the course of the year and will remain unchanged at this level until the end of the forecast period.
- The euro/dollar exchange rate will amount to US $ 1.22 per euro and will not change over the course of the forecast period.
- Negotiated wages will rise both this year and next year at the same rate as in 2004.

Figure 2

GDP and Important Components



1 Price- and seasonally adjusted (chain-linked index 2000 = 100). — 2 Change (%) on the previous quarter, annualized rate (right-hand scale). — 3 Change (%) of the original values on the previous year.

Sources: Federal Statistical Office; DIW Berlin calculations.

Table 3

Key Forecast Figures for Germany, 2001 to 2006

	2001	2002	2003	2004	2005	2006
Gross domestic product[1] (percentage change over previous year)	1.2	0.2	0.0	1.6	0.9	1.5
Gainfully employed[2] (in 000s)	39 315	39 092	38 720	38 861	39 084	39 404
Unemployed (in 000s)	3 853	4 060	4 377	4 381	4 787	4 451
Unemployment rate[3] (as a percentage)	8.9	9.4	10.2	10.1	10.9	10.1
Not gainfully employed[4] (in 000s)	2 923	3 224	3 686	3 931	4 039	3 701
Percentage not gainfully employed[5]	6.9	7.6	8.7	9.2	9.4	8.6
Consumer prices[6] (percentage change over the previous year)	2.0	1.4	1.0	1.7	1.6	1.4
Unit labour costs[7] (percentage change over the previous year)	0.8	0.7	0.5	-0.9	0.0	0.0
Public sector financial balance[8]						
Euro billion	–58.6	–77.4	–81.4	–80.0	–78.0	–74.8
As % of nominal GDP	–2.8	–3.6	–3.8	–3.6	–3.5	–3.2

1 Price-adjusted (chain-linked index 2000 = 100). — 2 National (annual average based on quarterly figures). — 3 Unemployed as a percentage of the national workforce. — 4 In accordance with the convention of the International Labour Organization (ILO). — 5 Persons not gainfully employed as a percentage of the national workforce. — 6 Price index for the cost of living of all private households. — 7 Labour costs (compensation of employees per employee) in relation to labour productivity (price-adjusted gross domestic product, chain-linked index 2000 = 100) per person gainfully employed. — 8 As defined by the national income and expenditure accounts (ESVG95 – Europäisches System volkswirtschaftlicher Gesamtrechnungen – European System of Integrated Economic Accounts).
Sources: Federal Statistical Office; German Bundesbank; DIW Berlin calculations; 2005 and 2006: DIW Berlin estimate and prognosis.

tify the risks for the forecast, simulation calculations were carried out using the NiGEM model. The aim was to show how the forecast would be affected when certain assumptions were made about the oil price, the exchange rate, and interest rates (cf. box 2).

Real GDP is expected to rise by 1.5% in 2006. Seen from today's perspective, there is little reason to hope that the economy can shift to a steeper growth trajectory. The trend will still be sustained by the expansion of foreign trade. There is no sign of the economy cooling

Box 2

Assumptions underlying the prognosis

NiGEM is a multi-country macro-econometric structural model which groups all the important industrialized countries as well as the OPEC countries and numerous threshold countries in separate blocks. The impact of the oil price is mainly exerted via the price trend and the shift in exchange relationships; exchange rates and interest rates have a direct effect via gains or losses in competitiveness and via the impact on investment and consumption decisions. Endogenous reactions on the part of monetary and fiscal policy are taken into account by means of reaction functions.

The following specific scenarios were examined:
- a long-term rise in the oil price by US $ 25 per barrel
- a long-term fall in the oil price by US $ 10 per barrel
- a long-term effective appreciation of the euro by 5%
- a temporary interest-rate reduction by 50 basis points for three years

The results of simulations based on the model can be used to illustrate the effects of changes in exogenous variables on the forecast (cf. table).

Table 4

Results of Simulation using NIGEM Model

Deviation from base simulation as percentage points

Scenario	Effect on growth		Effect on inflation	
	After 1 year	After 3 years	After 1 year	After 3 years
Oil price (US $ +25 per barrel)	–0.4	–0.3	0.4	0.1
Oil price (US $ –10 per barrel)	0.2	0.1	–0.2	0
Appreciation (5%)	–0.2	–0.1	–0.3	–0.1
Interest-rate reduction (0.5 percentage points)	0.1	0	0.05	0.05

Source: DIW Berlin calculations.

down in the important export regions. On the contrary, a slight acceleration is more likely, especially in Europe. Growth will continue to be impeded by excessively weak domestic demand, for there is no sign of a fundamental change for the better in this respect. Mass incomes will continue to rise only moderately, and no further tax cuts will enter into force. The reduction in capital market interest rates could provide a slight boost.

Individual trends

Private consumer spending showed a disappointing trend in the first quarter of 2005 (a decline of 0.2% on the previous quarter) given that tax cuts had entered into force at the beginning of the year, raising disposable income by over 6 billion euro this year. However, some of this income will flow into savings as – compared with the other income brackets – high incomes benefit to an above-average extent from the tax relief. In addition, private households are facing a range of additional burdens, for example, reduced unemployment assistance or social benefits, and higher contribution rates for health insurance and (in some cases) nursing-care insurance. Growing job uncertainty is likely to be an even more important factor, in addition to income losses through the abolition of (paid) overtime and special bonuses. Even if it can be assumed for the further course of the year that private consumer spending will expand to some extent, in real terms 2005 will bring only a slight improvement on the previous year, namely 0.3%. Private consumption will thus remain the main stumbling block on the road to recovery.

The coming year also fails to promise any profound change. There will be no relief from taxes or social security contributions, on balance, but equally no additional burdens are planned (for example, the abolition of tax concessions). Given that no further rise in oil prices is assumed in the forecast, the real value of disposable income will increase at a somewhat stronger rate than this year. As the savings ratio declines slightly, a 0.8% rise in real consumer spending can be expected.

The rise in the cost of living will remain moderate as a consequence of the weak rate of economic growth. This year will see substantial price rises implemented by energy suppliers, whose prices are adjusted to the oil-price trend following a certain time lag. Administered prices will also rise at an above-average rate. The burden of these factors will gradually diminish over the forecast period. All in all, the average inflation rate will amount to 1.4% this year; an inflation rate of 1.1% is forecast for next year.

The recovery since last year of investments in machinery and other equipment will continue. This will mainly be a consequence of the export boom and the very favorable financing conditions. Investment conditions are likely to remain favorable over the forecast period, as are the profitability prospects of enterprises as unit labor costs continue to fall. The yield on ten-year government bonds will still be extremely low by historical standards, while share prices will stabilize at a high level. This will facilitate the financing of investments. However, investment activity will be dampened by the weak level of domestic demand, for the sales expectations of enterprises are the most important motivator behind capacity expansions. All in all, investments in machinery and other equipment are likely to rise this year by almost 4% and by over 5% next year.

The downward trend in construction investments will continue. The decline actually intensified in the first quarter of this year, although this was partly due to bad weather conditions. A renewed negative trend for the construction industry can be expected over the forecast period, as is indicated by the figures for construction permits and incoming orders. The main reason for the bad prospects is the high number of vacancies in housing and office property. In addition, construction prices have been rising more rapidly because of the sharp price increases for steel products since last year. This situation will reduce the profitability prospects of commercial investors in rental housing and offices. Numerous construction projects for which permits have already been acquired in anticipation of the abolition of the subsidy for owner-occupied housing construction are not likely to be concluded; one reason are the stagnating incomes of private households. Moreover, in view of the strained financial situation of the local authorities, public construction investments are likely to decline again this year at the least. All in all, construction investments will fall by 6% on annual average in 2005 and by 1% in 2006.

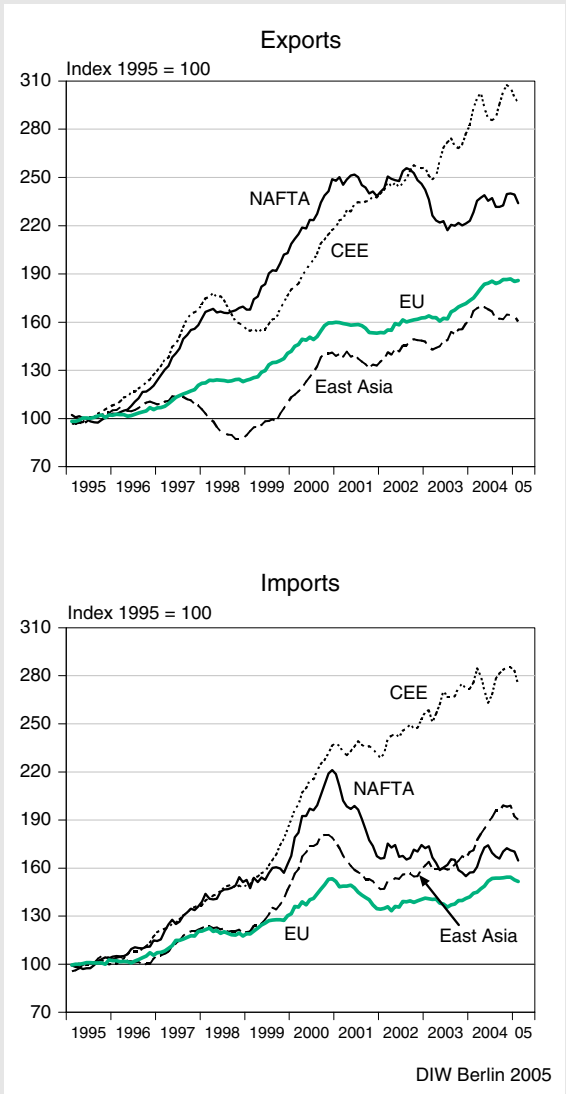
Exports are the pillar of economic growth. While they lost a degree of momentum in the second half of last year as a result of the slight downturn in the world economy, they returned to an upward trajectory in the first quarter of this year (for the regional trends for German exports, cf. figure 3). The conditions for exporters will remain favorable over the forecast period: The world economy has overcome its weak phase, while the recent depreciation of the euro will provide an additional boost. The competitiveness of enterprises will also be improved by the ongoing decrease in labor costs. Export growth is estimated to amount to over 6% this year and to over 8% next year. By contrast, imports will rise only slightly in real terms this year. This will be mainly due to the only weak rate of private consumption growth.

Import growth will be somewhat stronger next year as the economy strengthens. While net exports will rise robustly this year as a result of the disparity between the export and import trends, they will grow at a much weaker rate next year. The terms of trade are likely to decline. The main reason is the fact that the high prices for oil and commodity imports will now no longer be curtailed by the rise in the exchange rate, rather imports will become more expensive as a result of the euro's depreciation.

The labor market trend is showing the effects of labor market policy measures; thus, the numbers of

Figure 3

Regional Trends for German Foreign Trade[1]

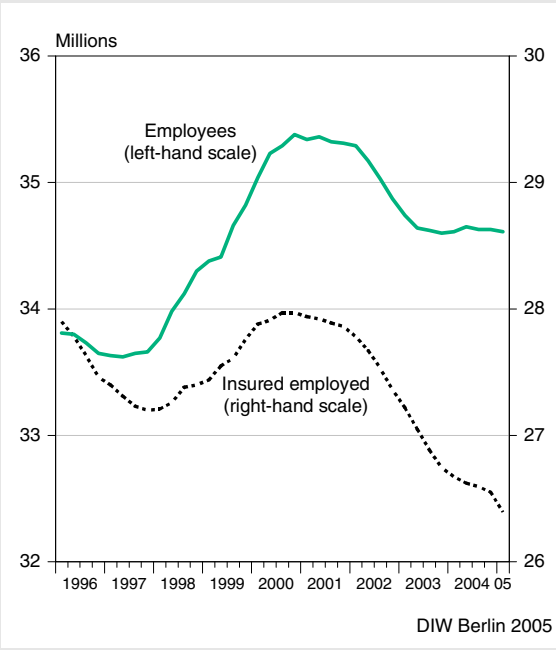


1 Special trade, nominal; seasonally adjusted according to Berlin method (BV4); moving three-month average.
Sources: Federal Statistical Office; DIW Berlin calculations.

Figure 4

Domestic Employees and Insured Employed[1]

Seasonally adjusted



1 New statistical procedure since June 1999.
Sources: Federal Statistical Office; Institute for Employment Research (IAB); Federal Labour Office.

'mini-jobs', 'Ich AG' business start-ups, and supplementary jobs have all expanded significantly. The number of employees subject to mandatory social insurance illustrates the basic economic trend even more clearly (cf. figure 4). This figure will probably decline further this year (by 0.5%), while a negligible increase (0.1%) can be expected next year. The number of people in marginal employment and supplementary jobs is likely to increase by 300 000, respectively, within two years, however. The number of unemployed is also distorted by labor market policy interventions, in this case the fusion of unemployment assistance and social welfare benefits. Thus, most of the high number of new unemployed this year are former social welfare beneficiaries and relatives of former recipients of unemployment assistance who are now looking for work.

Public budgets: Slight decline in deficits

The public budget deficit can be expected to decline only slightly this year – from 80 billion euro to 78 billion euro. At 3.5% of nominal GDP, the deficit will again

exceed the limit stipulated in the Stability and Growth Pact, despite the fact that savings – some of them extremely substantial – will be made at all levels of the budget. The fact that the deficits will not decline to a greater extent this year is due, on the one hand, to the income-tax reductions amounting to 15 billion euro that entered into force at the beginning of the year; on the other, the weak economy will curtail the growth in government revenue. The deficits are likely to decline only marginally next year, too – to 75 billion euro; this would correspond to 3.3% of nominal GDP.

Apart from the impact of the tax cuts, the trend for tax revenue this year will be characterized by a weak increase in wage tax and an acute rise in corporation tax. With respect to wage tax, the effect of the progressive tax rate will remain negligible as a result of the only marginal rise in earned income, while the extremely favorable rate of profit growth will expand the income earned from corporation tax; business tax will also show a renewed perceptible increase following its upward leap last year, as will assessed income tax. Turnover tax, a source of substantial revenue, will grow at only a below-average rate compared with the macroeconomic tax base as growth will be borne primarily by exports, which are not subject to this levy. Revenue from mineral-oil tax will fall as consumers react to the high price of oil with consumption restraint. All in all, tax revenue is likely to rise by only 0.6%. An increase of 2.2% is expected for next year. Even then, because of the weak rate of wage growth, income from wage tax will increase only slightly, while profits tax will continue to expand briskly. Domestic demand will liven up only slowly, so that consumption-related taxes are likely to rise only moderately.

Income from contributions to the social security funds will rise at much the same rate this year as tax revenue. Here, too, the reason is to be found in the income and employment trends. Contribution rates will remain stable overall. Next year, the contribution rates to statutory health insurance will probably be reduced to some extent; all in all, revenue from contributions will rise by 1%. This negligible increase means the government contribution to pension insurance will require stocking up.

Special factors come into play with respect to other types of revenue. For example, a number of federal states will be receiving retrospective interest payments on assets they had transferred to their federal State banks in the past; this situation will result in one-off payments amounting to over 3 billion euro. All in all, the government's revenue will probably increase by 1% this year. A similar rate of increase can be expected next year, although no special factors are included in the calculation.

The spending side will see only a slight increase this year (0.6%). Personnel spending will continue to decline as jobs are shed and public service revenue rises only marginally. Social benefits in kind will increase moderately following last year's decline. It is difficult to predict the trend for monetary social benefits because of the impact of the comprehensive labor market reforms. Moreover, the unfavorable situation on the labor market must also be taken into account; the number of beneficiaries is much higher than last year. The fact that pensions will not be raised will curb spending, but at the same time the number of pensioners will increase. On balance, spending will not decline, as originally hoped by the German government, rather will actually rise slightly (0.6%). Spending on subsidies and other government transfers will be reduced compared with last year. Public investment is also likely to decline, although the financial situation of the municipalities will improve discernibly. Interest spending will expand appreciably (3%), by contrast, as a result of the high level of new debt. The rise will be curbed by the fact that when debts are restructured the local authorities will benefit from the low interest rate, although this effect will become less significant.

Next year the austere spending policy is likely to be maintained; the rise in government spending will probably amount to less than 1%. Wages in the public service will not be increased and further jobs will be shed. Monetary social benefits will also expand only slightly. The situation in the pension funds will consist of a growing number of beneficiaries, on one side, faced by stagnating pensions, on the other, as pension rates are again not raised. The burden on the unemployment insurance system is likely to be eased somewhat as a result of the Hartz IV labor market reforms and the fact that the number of unemployed will not rise any further. By contrast, social benefits in kind will increase again once the effects of the health reform have worn off. A change in trend can be expected with respect to public investment spending because the local authorities are likely to have greater resources available again for investment purposes. Interest spending will expand sharply as a result of the high level of new debt.

All in all, fiscal policy will exert slightly restrictive effects both this year and next year on the overall demand trend. The expansionary effects of the tax cuts will actually be more than offset by the restrictive effects on the spending side.

Economic Policy

The German economy is suffering immensely from its excessively weak level of domestic demand. This problem manifested itself even more clearly than previously during the temporary lull in world economic growth. Mass income is stagnating, and government spending cuts are curtailing the expansionary effects of the tax reductions. Persisting gloomy labor market prospects are undermining consumer confidence with respect to the future and impeding the required decrease in the savings ratio. Domestic demand is very unlikely to recover without expansionary impulses from economic policy. Even an export boom of the caliber of that of recent years will never mature into an upswing if domestic demand remains curbed by the economic policy parameters.

Fiscal policy

Fiscal policy makers will once again fail to achieve the goal they laid down in their stability program; this year they planned to reduce the government deficit to 3%. Next year's deficit is also likely to be higher than the target originally pursued by the federal government. The reason for the renewed failure to meet the target is purely economical; the pace of recovery is much weaker than expected by almost all professional forecasters. Nonetheless, a growing number of politicians are calling for a rapid reduction of the deficit instead of waiting for the 'automatic stabilizers' to take effect – even though the reform of the Stability and Growth Pact has increased fiscal policy's room for maneuver to combat unfavorable economic developments. Thus, for example, an excessive deficit procedure can be averted if real GDP growth remains extremely marginal over a long-term period; this was only possible to date if GDP growth declined by at least 2% within a single year.

Policy makers have responded appropriately thus far to the decline in the overall prospects of the economy and have not implemented any further austerity agreements. In any case, spending policy is already characterized by extreme moderation – as it has been for all the past years; this year, too, a substantial portion of the tax cuts are to be 'financed' via spending cuts. There is no doubt that in the current situation a renewed reduction of government spending would further weaken the economy and consequently also the revenue basis for the public budgets. Tax increases would also be detrimental to growth if the additional revenue were used to reduce the government deficit. Disposable income and, as a consequence, the demand potential of private households and/or enterprises would diminish without any additional demand being created in the public sector. The only way to avoid a reduction in private demand would be if the accumulation of savings decreased to the same degree in these sectors.

The debate centers around the question of an increase in value-added tax. But budget consolidation is not the only possible advantage cited. Another reason given in favor of a VAT rise is that it would create room for maneuver either for urgent spending, especially in the domain of education, research, and transportation, or for rescheduling in the social insurance system. Advocates of this solution argue that VAT is particularly suitable because it is low in Germany compared with the European average. Different issues must be taken into consideration here.

A rise in VAT in itself weakens consumer demand to the extent that enterprises manage to fully pass on the higher tax rates to consumers via prices. This is more likely to succeed during a phase of burgeoning rather than weak demand; when demand conditions are unfavorable, the process of passing on takes longer, and the profits of enterprises are diminished. Because of the slightly regressive distribution effect, the burden is particularly heavy on households with a high consumption rate (and with a lower income). However, tax exemptions (housing rent, pharmaceuticals, medical services) and allowances (foodstuffs, books, periodicals) appreciably reduce this effect. Only an average around 60% of the consumer spending of all private households is taxed at the normal rate, while 15% is subject to the reduced rate, and 25% is not taxed at all. If the withdrawal of purchasing power is offset by a reduction in savings, then the restrictive effect of the tax increase diminishes.

Other effects can be expected when the higher income from the VAT increase is spent again. There is an urgent need for increased public investment and for higher spending on education and research. Comprehensive tax cuts have entered into force in recent years and the national tax rate has fallen to a historical low. The price of the cuts has been a reduction in spending in the areas mentioned above; it has not been possible to absorb the decline in the tax rate by means of a corresponding reduction in tax concessions.

A higher VAT rate could also be used, however, to finance social security in a more sound way, that is, to once again strengthen the equivalence principle in the social insurance system. Considerations of this kind are directed in particular at non-insurance benefits, which have rocketed skywards in Germany, not least as a consequence of German reunification. If a larger share of these benefits were financed from tax revenue, it would be possible both to reduce contribution rates and to

expand the group of contributors. At the same time, this restructuring of the system would lead to a reduction in labor costs, improving the competitiveness of German enterprises on international markets. Simulation calculations show that sizeable positive employment effects could be achieved in this way, and this remains true when the burden on those who previously did not participate in financing non-insurance benefits is also taken into account.

An increase in VAT could, therefore, make a lot of sense; any verdict on its wisdom essentially depends on the questions as to when it should be implemented and how the resources gained should be deployed. A VAT increase should not be pushed through during the current phase of weak growth, but the situation will change when the recovery has taken hold. The regressive distributive effect could be tempered if the reduced VAT rates were increased only partly or not at all. In any case, the prospect of additional revenue should not prevent political decision makers from combing the domain of tax concessions in search of other possibilities for reductions. The concessions under examination should not, however, by any means include only those granted to workers in the form of subsidies for owner-occupied housing construction, flat-rate mileage allowances, or tax-free bonuses for night work and Sunday work. Other areas that deserve equal scrutiny are tax concessions granted to enterprises, measures to close tax loopholes – a problem that has been sorely neglected in the past – and the V.A.T exemption for postal enterprises. If the goal is further reductions in tax rates for enterprises, then there will be no way to avoid reviewing the relatively favorable regulations on profit assessment, including the area of write-offs, in other words comparing 'visible' with effective tax rates. Then, however, the quandary facing policy makers would become evident: Reducing the visible tax rate would result in less favorable depreciation conditions, and nothing would be gained for investments.

Monetary policy

The ECB is facing a dilemma. On the one hand, growth has weakened further in the euro zone – a situation that would call for an expansionary monetary policy stance. On the other, for several years now in the euro zone money supply has been rising at a stronger rate than nominal GDP – a situation that may have led to the accumulation of an inflationary potential. However, portfolio restructuring in favor of liquid forms of investment has probably exaggerated the increase in money supply. The core inflation rate gives no indication of inflationary pressure; it last amounted to 1.3% in the euro zone and to 0.9% in Germany. The ECB is basing its decision not to switch to a more expansionary stance on the dispersion of the inflation rates in the euro zone, which is accompanied by price bubbles on the property markets. DIW Berlin analyses demonstrate that there are many reasons for the differences in inflation rates, but that the weight of these factors is constantly decreasing with the result that the dispersion is gradually diminishing (cf. special section 'Inflation differentials in the euro zone', pp. 259 ff).

The ECB cannot fail to recognize – in light of the current ailing economic situation in many member countries and of the criticism targeted at the European institutions – that more is expected of it than only monitoring price stability. The example of the U.S. Federal Reserve with its distinctly anti-cyclical monetary policy casts a shadow over the rigid attitude of the ECB. The bank must act now. This forecast is therefore based on the assumption that monetary policy will be relaxed. Base rates will be reduced by 0.5 percentage points by the end of the year. A step of this kind would emit a positive signal, even if the impulses for growth will probably remain moderate all the same (cf. figure 2).

The concern that a reduction in interest rates could further inflate the property bubble in some EMU countries is unfounded, for the central banks of the individual countries still have a measure of freedom with respect to national monetary policy. Each country can lay down its own upper limits regarding debt financing of both property and securities. It is therefore up to the individual national central banks to use their room for maneuver to impose a more restrictive monetary policy.

Labor market policy

A series of labor market reforms, some of them profound, have been introduced in recent years. Because it will take time for the measures introduced to take full effect, only a few basic evaluations can be presented here.

Advanced training measures for the unemployed should be more closely geared to the goal of future reintegration into the labor market. Policy makers have laid down a placement rate of 70% for persons who have participated in vocational qualification schemes. The likely result of this policy is that the people being selected for Advanced and Vocational Training measures are those who already have relatively good prospects on the labor market, so that other unemployed, who are in particularly dire need of a qualification, are being excluded. Even more significant is the assumption

that – despite mass unemployment – there is a lack of skilled labor that can be filled by this very measure. Measures of this kind can indeed be very effective if there really is a shortage of skilled labor. The shortage is likely to be slight, however, in a period of high unemployment and weak economic growth. In this case, then, there is a substantial risk of participants in qualification measures displacing other persons on the labor market ('carousel' effect).

Numerous 'Ich AG' businesses have been founded on the basis of aid for business start-ups without the plans behind them first being assessed for viability. It is possible that this type of support has been used by people who feared they would no longer be eligible for unemployment benefit under the new regulations. Viability assessments are now being carried out since the end of 2004, with the result that since February of this year there has been a massive decline in the number of subsidies for business start-ups being granted. Clearly only a few of the start-up projects submitted were considered viable.

Personnel Service Agencies (PSAs) have not lived up to expectations. The stocks of people registered for placement with these agencies amounted to only 26 000 in May and has hardly changed in months. In addition, the integration rate of only one-third is disappointing, although it is certainly also a reflection of the difficult situation on the labor market.

Without question, the most important reform is the fusion of unemployment assistance and social welfare benefit into Unemployment Benefit II (Hartz IV). The aim of this reform is to increase the incentive for the unemployed to actively seek work – and especially low-paid work – by reducing their benefits. Basically, then, the goal is a shift in the wage structure such that employment in the low-wage sector increases. A political debate is currently being waged on the question of relaxing regulations so as to offer the unemployed more opportunities for earning additional income, but this would create incentives in exactly the opposite direction and reduce the strength of the original mechanism. If, moreover, some of the earned income were not taken into account at all in the calculation of unemployment benefit, the result would be a risk of beneficiaries formally declaring only earned income that did not exceed the stipulated allowance, while any income above and beyond this figure would not be revealed. This would practically amount to an open invitation to take up illicit employment in this form because it would be so difficult to detect.

Finally, the reforms also seek to provide better support for the unemployed via the employment agencies. There is evidently still much room for improvement here, with the shortfalls up to now being blamed on problems related to the switch to Hartz IV. One can only hope that counseling and placement will be rapidly improved.

The amount of employment provided under Art. 16 SGB II (Social Security Statutes II), that is, employment in 'one euro jobs', has remained far inferior to the goals set. A total of 600 000 jobs of this kind were announced, but only 130 000 have been created, and their number has hardly risen at all in recent months. The probable reason is that these jobs by definition must be in the non-profit sector and constitute additional employment, so as to avoid creating competition with private suppliers where jobs could be displaced. In addition, government institutions are not permitted to resort to one-euro jobbers for tasks they have carried out themselves to date, so as to avoid displacement of regular jobs in the public sector. There are many examples of displacement effects of this kind having already taken place. This measure illustrates the danger of the principle of remunerating useful employment in accordance with market conditions being counteracted by labor market policy.

Wages policy

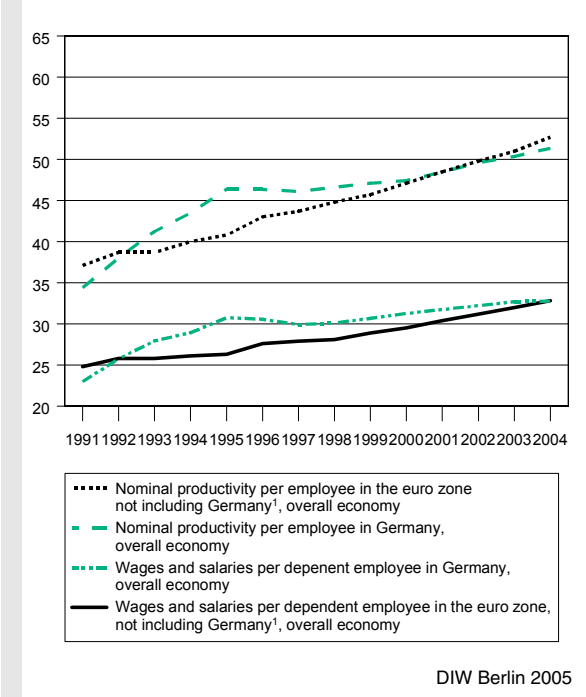
Wages policy has a dual task with respect to the overall economy. On the one hand, if wages policy is to promote stability and neutral distribution, then increases in hourly wages must be based on trend productivity growth while also taking the appropriate (target) inflation rate for price stability into consideration. On the other hand, wages policy must bear in mind that unemployment has reached record levels in Germany (for the trend for labor productivity and wages and salaries in Germany and the euro zone, cf. figures 5 and 6).

A productivity-oriented wages policy plays an important role in stabilizing disposable income, which is a crucial determinant behind the growth of domestic demand. This kind of wages policy should be planned for the medium term and should not pass on short-term fluctuations in labor productivity and inflation - for example, those following oil-price shocks - in the form of erratic wage fluctuations. This approach prevents temporary shocks from having second-round effects and stabilizes the economy. Seen from the long-term perspective, then, the guiding principle for wages policy in Germany and the other EMU countries should be determined by the sum of the ECB's target inflation rate of almost 2% and the average productivity growth of the individual member state in question. In Germany, a rise in hourly wages of around 3% would be compatible with this principle.

Figure 5

Overall Labor Productivity and Wages and Salaries in Germany and the Euro Zone (excluding Germany)

Euro/ECU 000s (nominal)

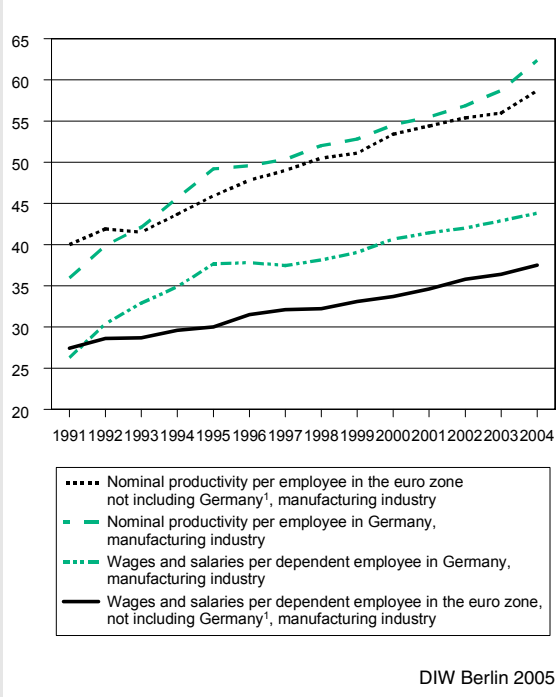


1 France, Italy, Spain, Netherlands, Austria, Finland.
Sources: Eurostat; DIW Berlin calculations.

Figure 6

Labor Productivity and Wages and Salaries in Manufacturing Industry in Germany and the Euro Zone (excluding Germany)

Euro/ECU 000s (nominal)



1 France, Italy, Spain, Netherlands, Austria, Finland.
Sources: Eurostat; DIW Berlin calculations.

In the neoclassical labor market model, persisting underemployment indicates a substantial gap between the real rate of pay and the marginal productivity of the unemployed. This remains true when one looks at the average level of real wages, since nominal wages in Germany exceeded distribution-neutral levels (and occasionally significantly so) during the course of reunification at the beginning of the 1990s, although inflation was moderate overall. Financing the costs of German reunification is still a burden on labor costs and continues to dampen employment growth. Much more important, however, is the fact that the magnitude of the imbalance between productivity and the respective real wage varies very substantially across the different part-time labor markets. This situation is made particularly evident by the high share of low-skilled workers amongst the long-term unemployed in Germany. In view of substantial differences in the profits being earned between regions and sectors as well as within sectors, a sharp general rise in negotiated wages that failed to take account of the variety of profit situations could lead to further job losses.

An approach to wages policy that gives consideration to employment figures must take adequate account of both aspects. This can be done, for example, through a combination of two measures. On the one hand, a larger wage differential between sectors and enterprises should be sought, in addition to the establishment of a low-wage sector. In this case, consideration would have to be given to the compatibility of incentives. On the other, there is still the problem of excessively high labor costs, including ancillary wage costs. If non-insurance benefits were financed out of general tax revenue, labor costs could be reduced. According to DIW Berlin calculations, this financing solution, achieved via a VAT increase, could create several hundred thousand new jobs. An even more job-friendly solution would be counter-financing through the abolition of subsidies.

All in all, a 3% rise in average negotiated wages would be appropriate under these circumstances. If, at the same time, ancillary wage costs were reduced following an increase in VAT, the rise in labor costs – by one percentage point – would be much lower for enter-

prises. If there were no sign of a reduction in ancillary wage costs, then a lower wage rise – of around 1.5% to 2% – is recommended in order to further reduce the imbalances created at the beginning of the 1990s. However, a strategy of this kind can only bear fruit if it is possible to maintain the increase in prices superior to a nominal wage rise that has been adjusted for productivity growth; in other words, if unit labor costs increase at a weaker rate than the general price level. Today's core inflation rate is 0.9% in Germany, and so this condition is currently fulfilled. A further reduction in the inflation rate should be avoided, however. This means effective demand must be stabilized via the instruments provided by monetary and fiscal policy.

At the same time, the scope for a sharper differentiation of negotiated wage increases should be used. In addition, enterprises that are earning well can pay wages that exceed negotiated rates or share profits with their staff by means of bonuses.

Inflation Differentials in the Euro Zone

The inflation rates of the EMU countries have exhibited extremely different trends since the launch of monetary union. The variance of the inflation rates, which had fallen sharply during the process of convergence in the run-up to EMU, expanded tremendously subsequent to 1999. While the dispersion of the inflation rates has diminished again to an extent since early 2004, the differences are still broader than they were during the convergence process.

This phenomenon is often interpreted as indicating that the common monetary policy does not do justice to the economic situation of the individual member countries. Those who espouse this point of view argue that monetary union reinforces divergences in economic growth, which are then manifested in diverging inflation rates. Instead of having a stabilizing effect on demand, these observers contend, monetary union amplifies economic imbalances and impedes stable and enduring growth.

This view is based on the fact that in a monetary union two possible instruments used for adjusting to changing supply and demand conditions are no longer available at national level. Thus, base interest rates are fixed on the basis of the average for the euro zone. Likewise, in the event of certain wage and price rigidities, it is impossible to achieve an increase in demand and an improvement in the competitiveness of a single country with the help of the nominal exchange rate. Even when the EMS was in force many countries had based their exchange rate on the deutschmark as anchor currency and did not therefore have free scope in their monetary and exchange rate policies, but the margin of fluctuation and the possibility of changing the central parity rate still left them with some room for maneuver. This scope was used in particular by countries with higher inflation rates to restore competitiveness via currency depreciations.

In the EMU, adjustments to changing supply and demand conditions must, as a rule, be carried out directly via prices and wages. While it is possible to respond to temporary asymmetrical shocks with fiscal policy interventions, long-term adjustments require a change in the price level and the real wage. The need to carry out adjustments via prices and wages is reinforced by the fact that real interest rates react inversely in the EMU. They are lower in countries with higher inflation rates, which additionally bolsters demand. By contrast, pressure to correct possible imbalances within the monetary union is exerted by foreign demand. Here, too, the correction can only take effect following a relatively lengthy interval because deficit financing is made easier

by the disappearance of the risk premiums for exchange rate fluctuations. If corrections only take place at a relatively late point in time, then a process of this kind can be accompanied by high swings in the price trend and in growth.

In addition, an adjustment process can be made more difficult by the fact that the reactions of the individual EMU countries vary. For example, the indexing regulations used in some countries mean above-average inflation rates can be reduced only slowly. Likewise, the doses in which anti-cyclical fiscal policy measures are delivered can vary. Overall, there is always the risk that a monetary policy based on averages will end up not satisfying any country.

However, different inflation rates are not a problem in themselves for stability in the monetary union. On the contrary, they represent a remaining adjustment mechanism when national economies are exposed in different ways to changes in supply and demand conditions. Corrections to the relative price level and to competitiveness can only be achieved via a change in prices themselves. In addition, inflation differentials can also be caused by factors that have only temporary character or have no impact at all on competitiveness.

All in all, differences in inflation rates can have the following causes:

- price level convergence;
- differences in the weighting of the HICP categories;
- adjustments of indirect taxes and regulated prices;
- structural differences in responses to shocks and asynchronous economic trends;
- adjustment of interest rates and exchange rates on entry into monetary union.

Price level convergence probably played only a minor role in creating the differences in inflation rates in the initial years of monetary union. The adjustment of the prices of tradable goods is a very slow process because not all transaction costs (e.g., transport costs) are reduced by the advent of a common market. Market segmentation, differences in indirect taxes, the market power of particular suppliers, language barriers, habits, and cultural diversity can all also have an impact even after the foundation of the single market. Similarly, the adjustment of the prices of non-tradable goods according to the Balassa-Samuelson model was also only marginally responsible for the differentials. On the one hand, convergence is a long-term process; on the other, it is very difficult to prove the impact of the Balassa-Samuelson effect in the countries in the monetary union.

While differences in the weights of the HICP categories may be significant, in that the same price increases have a different impact on the inflation rate of each country, this effect is only temporary and is irrelevant for monetary policy.

By contrast, adjustments of indirect taxes and regulated prices had a substantial impact. Up to now, both VAT and indirect tax rates (excise duties for tobacco and alcoholic drinks, for example), as well as fees for public services, vary across the EMU countries. Adjustments of regulated prices are equally not uniform. Increases can be determined by the need to consolidate the public budgets (such as in Germany, France, and Portugal in recent years), but also by theoretical considerations related to demand-side management (e.g., ecological taxes in various EMU countries) or to the distribution of the tax burden (e.g., the shift from direct to indirect taxes in the Netherlands at the beginning of 2001). Another possibility is a reduction in indirect taxes such as that carried out in Finland for alcohol tax in 2004; this was a major factor behind the negative inflation rates shown for a number of months. Long-term inflation differentials only accrue from changes in tax rates and regulated prices if second-round effects arise via wage increases or if growth effects are prompted by adjustments in purchasing power.

The emergence of a shock, for example a rise in the oil price or an abrupt change in the exchange rate, will produce differences in the inflation rates. First, a shock of this kind does not necessarily have the same impact on different national economies, so that the extent of adjustment required will vary. There are substantial discrepancies both with respect to countries' dependence on oil and with respect to the weight of energy prices in the HICP. Likewise, the share of member countries' GDP accounted for by imports and the significance of external trade with non-EMU countries is not consistent. The effects of a change in exchange rates on the price index and on growth will therefore vary.

Secondly, the adjustment processes themselves can diverge. A long-term rise in the oil price results in real income losses that must be accepted by wage-earners. If wages are raised in order to compensate the loss, then the adjustment process is prolonged; if the amount of this compensation varies across the member countries, then over the long term differences in their inflation rates will emerge. How long these disparities last will depend on the second-round effects triggered by wage increases. While a strong currency depreciation exerts pressure on prices in just the same way as a rise in the oil price, it also represents an impulse for growth. The consequences for the duration and intensity of the inflation differences are then also determined by the extent to which changes in competitiveness must be corrected with respect to the other countries in the monetary union.

After the oil-price shock, it was actually possible to observe wage increases drifting apart in the euro zone. Just like inflation rates, wage increases were also much

higher than previously in 2001, as was the variance between them. This suggests that compensation payments were made in some countries to offset the price shock, leading to second-round effects, whereas in other countries this did not happen. Nonetheless, it is still true that the increases in nominal wages in reaction to the price thrusts of the years 2000 and 2001 were relatively low compared with periods prior to the introduction of monetary union. However, this does not apply to the years 1996 to 1998, when the EMU countries were focusing on meeting the criteria for nominal convergence.

There were several reasons for the divergence of the inflation rates following the shocks. First, indexing clauses further prolonged the adjustment process in some countries. Second, the sharp depreciation of the euro initially compensated for a possible loss in competitiveness within the EMU. The slowdown in adjustment was reinforced by the inverse effect of real interest rates. Third, the pace of economic growth was already inconsistent across the different countries prior to the shock. For example, there were indications of overheating in both Portugal and the Netherlands, while at the same time other economies were expanding only moderately.

The laborious adjustment process following shocks at the beginning of monetary union could also be related to teething problems and difficulties with the transition to the new system. Thus, having to depend on the ECB's inflation target as the only nominal anchor was a novelty for most countries. Apart from Germany, each country's exchange rate with the deutschmark previously played a significant role as an indicator of ECB policy and for the generation of inflation expectations. In Germany, by contrast, monetary policy was based on national trends, while interest-rate policy helped to stabilize demand. The standard for expectation formation has changed in Germany from the implicit price norm, which was based on the domestic situation, to the ECB inflation target for the euro zone as a whole; in the other countries it has shifted from the implicit or explicit exchange rate target (combined with a money supply or inflation target) to exclusively the inflation target. It is possible that the understanding of the change in the variables on which expectation formation is based is still prone to teething problems.

Moreover, several countries showed a substantial decline in real interest rates – in some cases even arriving at negative rates – during the process of nominal interest rate convergence. The Long-term equilibrium capital stock is now higher, and adjustment to this path could take several years. The growth impulse exerted by the reduced real interest rates could overcompensate for the potential negative consequences of inflation differentials and deteriorating competitiveness for a certain period of time.

In addition, there may have been a need to correct the entry exchange rates. In order to avoid corrections immediately after the launch of monetary union, exchange rates should have been fixed at a level that would correspond in the long term to the relative prices between the national economies. During the preparatory phase it was considered prudent for reasons of credibility that each country should enter monetary union with the exchange rate that had been accepted by the market. In Spain and Italy, in particular, exchange rates were at the relatively low level that had taken hold following the depreciations in 1992 and 1993 and the subsequent only minor corrections. These rates also included risk discounts based on the greater degree of uncertainty concerning inflation and exchange rate trends as well as participation in the EMU. Germany, by contrast, joined with a relatively high real exchange rate - on the one hand, because of the upturn in prices during the course of German reunification and, on the other, because of the nominal appreciation during the EMS crisis. However, the asymmetric shock of German reunification necessitated a subsequent real depreciation, and this was not able to occur until after monetary union because of the nominal convergence process taking place at the time in the countries in the euro zone.

Differences in the inflation rates of the EMU countries can also be expected in the future. However, they are likely to be narrower than in the first few years following the introduction of monetary union. Possible transitional effects will wear off, and the adjustment mechanisms will be based on the situation in the EMU. However, to this end the adjustment of prices and real wages must become more flexible. Likewise, the possibilities for anti-cyclical fiscal policy must be strengthened. Experience with monetary union to date has shown that the countries whose inflation rates deviate most conspicuously and persistently from the EMU average are those for whom entry into the monetary union meant being deprived for the first time ever of the adjustment instruments provided by the exchange rate (Spain, Portugal, Italy) or of an independent monetary policy (Germany).

Appendix 1

Federal Republic of Germany
Key National Accounts Data – Estimate and Forecast for 2005 to 2006

	2004	2005	2006	2005		2006	
				1st half	2nd half	1st half	2nd half
			1. Components of GDP				
			Change (%) on the previous year				
Employed labour force (domestic)	0.4	0.6	0.8	0.5	0.7	0.9	0.8
Working hours	–1.1	0.2	0.4	–0.7	1.0	–0.1	0.9
Working days	1.5	–0.7	–0.7	–0.1	–1.2	0.0	–1.3
Labour volume (by calendar month)[1]	0.8	0.1	0.6	–0.2	0.4	0.8	0.3
Productivity[2]	0.8	0.8	0.9	1.1	0.4	0.4	1.4
Gross domestic product at 1995 prices	1.6	0.9	1.5	0.9	0.9	1.2	1.7
			2. GDP by type of expenditure at current prices				
			a) Euro billion				
Private consumption[3]	1 304.2	1 325.6	1 352.2	645.3	680.3	662.8	689.4
Government consumption	412.9	412.6	416.1	196.8	215.7	198.8	217.2
Gross investment	381.3	364.1	371.2	186.6	177.5	187.2	184.0
Fixed capital formation	379.5	374.0	379.5	178.4	195.7	179.5	200.1
Machinery, equipment and other	148.4	151.9	157.4	71.3	80.6	73.6	83.9
Construction	206.3	196.8	196.3	94.8	102.0	93.4	102.9
Domestic demand	2 098.4	2 102.2	2 139.5	1 028.8	1 073.5	1 048.9	1 090.6
Exports	838.6	888.3	956.5	434.5	453.9	466.3	490.2
Imports	729.7	745.5	793.7	360.9	384.6	383.2	410.5
Gross domestic product	2 207.2	2 245.0	2 302.3	1 102.3	1 142.7	1 131.9	1 170.3
			b) Change (%) on the previous year				
Private consumption[3]	1.4	1.6	2.0	1.3	1.9	2.7	1.3
Government consumption	–0.4	–0.1	0.8	–0.4	0.2	1.0	0.7
Gross investment	1.0	–4.5	2.0	0.2	–9.0	0.3	3.7
Fixed capital formation	–0.3	–1.4	1.5	–0.8	–2.1	0.6	2.3
Machinery, equipment and other	1.0	2.3	3.7	3.7	1.1	3.1	4.1
Construction	–1.4	–4.6	–0.3	–4.2	–5.0	–1.5	0.9
Domestic demand	1.0	0.2	1.8	0.8	–0.4	2.0	1.6
Exports	9.1	5.9	7.7	5.4	6.5	7.3	8.0
Imports	7.0	2.2	6.5	3.7	0.8	6.2	6.7
Gross domestic product	2.0	1.7	2.5	1.6	1.8	2.7	2.4
			3. GDP by type of expenditure, price-adjusted, chain-linked index (2000 = 100)				
			b) Change (%) on the previous year				
Private consumption[3]	–0.1	0.2	0.6	0.1	0.2	0.7	0.5
Government consumption	–0.7	–0.2	0.3	–0.6	0.2	0.4	0.2
Gross investment	4.0	–5.6	0.8	–1.5	–9.6	–1.5	3.3
Fixed capital formation	–0.5	–1.6	1.2	–0.9	–2.2	0.3	2.0
Machinery, equipment and other	2.3	3.3	4.2	5.2	1.6	3.7	4.6
Construction	–2.6	–5.7	–1.3	–5.6	–5.7	–2.5	–0.1
Domestic demand	0.6	–1.0	0.6	–0.4	–1.5	0.3	0.8
Exports	9.0	5.7	7.2	5.1	6.3	6.8	7.5
Imports	6.7	1.3	5.8	2.5	0.3	5.6	6.0
Gross domestic product	1.6	0.9	1.5	0.9	0.9	1.2	1.7

Appendix 1 (contd)

Federal Republic of Germany
Key National Accounts Data – Estimate and Forecast for 2005 to 2006

	2004	2005	2006	2005		2006	
				1st half	2nd half	1st half	2nd half
			4. GDP by type of expenditure: price level of domestic demand				
			b) Change (%) on the previous year				
Private consumption[3]	1.5	1.5	1.4	1.2	1.7	2.0	0.8
Government consumption	0.3	0.1	0.5	0.2	0.0	0.6	0.5
Gross investment	–2.8	1.2	1.1	1.7	0.7	1.9	0.4
Fixed capital formation	0.2	0.2	0.3	0.1	0.2	0.3	0.3
Exports	0.1	0.2	0.5	0.3	0.2	0.5	0.5
Imports	0.2	0.8	0.6	1.2	0.4	0.6	0.6
Gross domestic product	0.4	0.8	1.1	0.6	0.9	1.5	0.7
			5. Origin and distribution of income				
			a) Euro billion				
Compensation of employees	1 134.3	1 139.0	1 154.7	540.6	598.4	547.4	607.3
Wages and salaries, gross	912.3	919.3	934.8	434.1	485.2	441.3	493.6
Wages and salaries, net	600.7	610.3	619.2	285.6	324.8	288.7	330.5
Entrepreneurial and property income, gross	501.8	539.2	584.4	274.5	264.7	300.0	284.4
National income	1 636.1	1 678.2	1 739.1	815.1	863.1	847.4	891.7
Gross national income	2 196.7	2 239.5	2 290.4	1 099.2	1 140.3	1 122.4	1 167.9
			b) Change (%) on the previous year				
Compensation of employees	0.2	0.4	1.4	–0.2	0.9	1.3	1.5
Wages and salaries, gross	0.3	0.8	1.7	0.1	1.4	1.7	1.7
Wages and salaries, net	2.0	1.6	1.5	0.8	2.3	1.1	1.8
Wages and salaries, gross per employee	0.4	0.6	1.0	0.1	1.0	0.9	1.1
Wages and salaries, net per employee	2.1	1.4	0.7	0.8	1.9	0.3	1.1
Entrepreneurial and property income, gross	7.0	7.5	8.4	6.5	8.5	9.3	7.4
National income	2.2	2.6	3.6	2.0	3.1	4.0	3.3
Gross national income	2.2	1.9	2.3	2.0	1.9	2.1	2.4
			6. Private households' incomes and expenditure				
			a) Euro billion				
Mass income	978.5	983.3	986.7	473.9	509.3	473.5	513.2
Wages and salaries, net	600.7	610.3	619.2	285.6	324.8	288.7	330.5
Monetary social benefits	457.9	454.9	450.8	229.6	225.3	226.6	224.3
Minus: charges on social benefits[4]	80.1	81.9	83.3	41.2	40.8	41.8	41.6
Other primary income[5]	497.5	516.2	538.0	270.5	245.7	288.4	249.6
Other transfers received, net[6]	–35.3	–36.2	–33.9	–18.9	–17.3	–17.9	–16.0
Disposable income[7]	1 440.7	1 463.3	1 490.8	725.6	737.8	744.0	746.8
Memo item: increase in claims on company pension schemes	18.7	20.3	22.3	9.5	10.9	10.5	11.9
Private consumption[3]	1 304.2	1 325.6	1 352.2	645.3	680.3	662.8	689.4
Current savings	155.3	158.1	160.9	89.7	68.4	91.6	69.3
Savings ratio[8]	10.6	10.7	10.6	12.2	9.1	12.1	9.1
			b) Change (%) on the previous year				
Mass income	1.3	0.5	0.3	0.2	0.7	–0.1	0.8
Wages and salaries, net	2.0	1.6	1.5	0.8	2.3	1.1	1.8
Monetary social benefits	0.9	–0.6	–0.9	–0.1	–1.2	–1.3	–0.5
Minus: charges on social benefits[4]	4.2	2.3	1.7	2.5	2.0	1.5	2.0
Other primary income[5]	1.0	3.8	4.2	4.2	3.3	6.6	1.6
Disposable income[7]	1.2	1.6	1.9	1.4	1.7	2.5	1.2
Private consumption[3]	1.4	1.6	2.0	1.3	1.9	2.7	1.3
Current savings	0.8	1.8	1.8	2.5	0.9	2.1	1.3

Appendix 1 (contd)

Federal Republic of Germany
Key National Accounts Data – Estimate and Forecast for 2005 to 2006

	2004	2005	2006	2005		2006	
				1st half	2nd half	1st half	2nd half
			7. Government revenue and expenditure[9]				
			a) Euro billion				
Revenue							
Taxes	482.0	484.9	496.2	237.7	247.3	243.8	252.4
Social contributions	396.5	398.8	401.7	194.2	204.6	195.4	206.3
Property income	11.6	10.2	10.5	5.3	4.9	5.6	4.9
Other current transfers[10]	66.2	70.2	68.5	34.9	35.3	32.6	35.9
Total revenue	956.2	964.0	976.9	472.0	492.1	477.4	499.5
Expenditure							
Inputs[11]	254.7	258.1	262.7	123.6	134.4	125.8	136.9
Compensation of employees	166.6	165.8	164.7	78.5	87.3	78.0	86.7
Property income, transferred	63.5	67.9	70.0	33.6	34.3	34.7	35.3
Subsidies	27.5	26.0	25.0	12.4	13.6	12.0	13.0
Social benefits	423.3	426.0	426.6	213.5	212.5	213.8	212.9
Private households	418.4	421.0	421.5	211.0	210.0	211.2	210.3
Rest of the world	4.9	5.0	5.1	2.5	2.5	2.6	2.6
Other current transfers	38.0	35.1	40.9	17.8	17.3	20.5	20.5
Capital transfers	33.6	34.9	32.2	19.4	15.5	18.0	14.2
Gross investment	30.4	29.9	31.0	12.9	17.0	13.2	17.8
Net increase in non-produced capital goods	–1.5	–1.5	–1.5	–0.7	–0.8	–0.7	–0.8
Total expenditure	1 036.2	1 042.1	1 051.7	510.9	531.2	515.2	536.5
Deficit/surplus	–80.0	–78.0	–74.8	–39.0	–39.1	–37.8	–37.0
			b) Change (%) on the previous year				
Revenue							
Taxes	0.0	0.6	2.3	0.4	0.8	2.6	2.1
Social contributions	0.4	0.6	0.7	0.5	0.7	0.6	0.8
Property income	–32.1	–12.3	3.6	–9.5	–15.1	7.0	0.0
Other current transfers[10]	0.1	6.0	–2.4	11.8	0.9	–6.6	1.7
Total revenue	–0.4	0.8	1.3	1.1	0.6	1.2	1.5
Expenditure							
Inputs[11]	–0.4	1.3	1.8	1.4	1.3	1.8	1.9
Compensation of employees	–0.9	–0.5	–0.7	–0.3	–0.6	–0.6	–0.7
Property income, transferred	–0.4	6.9	3.1	6.7	7.0	3.3	2.9
Subsidies	–4.9	–5.7	–3.7	–7.7	–3.9	–2.8	–4.4
Social benefits	0.8	0.6	0.1	0.4	0.9	0.1	0.2
Private households	0.8	0.6	0.1	0.3	0.9	0.1	0.1
Rest of the world	6.0	2.4	2.0	2.0	2.9	2.4	1.6
Other current transfers	–1.5	–7.7	16.6	–3.3	–11.7	14.9	18.4
Capital transfers	–5.8	4.0	–7.7	1.9	6.6	–7.2	–8.4
Gross investment	–4.6	–1.9	3.9	–2.9	–1.1	2.7	4.7
Net increase in non-produced capital goods	–	–	–	–	–	–	–
Total expenditure	–0.5	0.6	0.9	0.5	0.6	0.8	1.0

1 Calculations by the Institute for Research on Employment and by the DIW Berlin. — 2 Gross domestic product, price-adjusted, chain-linked index (2000 = 100), per hour worked. — 3 Incl. private non-profit organisations. — 4 Incl. consumption-related taxes. — 5 Self-employed income/operating profits plus property income received minus property income losses. — 6 Transfers received minus other transfers. — 7 Expenditure concept. — 8 Savings as a percentage of disposable income. — 9 Federal, state and local government and social security funds. — 10 Other current transfers. Capital transfers. Sales and other subsidies. — 11 Incl. social benefits in kind and other production charges.
Sources: Federal Statistical Office (Series 18 of the National Accounts); DIW Berlin calculations.

Supplement: Economic Indicators
Weekly Report No. 21/2005
(data as of 20 July 2005)

Germany – Selected Seasonally Adjusted Economic Indicators[1]

		Unemployment		Vacancies		Orders in manufacturing (volume)[2]													
						Manufacturing						Intermediate goods industry		Capital goods industry		Durable consumer goods industry		Non-durable consumer goods industry (incl. semi-durable goods industry)	
						Total		Domestic		Abroad									
		in 000s				2000 = 100													
		month	quarter	month	quarter	month	quarter	month	quarter	month	quarter	month	quarter	month	quarter	month	quarter	month	quarter
2003	J	4 316		391		98.1		93.3		104.2		97.6		99.4		89.0		98.5	
	F	4 363	4 333	379	385	98.4	97.1	94.7	92.9	103.0	102.3	96.8	96.5	100.3	98.3	88.0	87.6	100.0	97.6
	M	4 388		371		94.6		90.7		99.6		95.0		95.2		85.7		94.4	
	A	4 406		365		96.9		92.7		102.1		96.1		98.4		86.8		96.6	
	M	4 400	4 398	353	359	93.1	95.8	91.7	92.4	94.8	99.9	93.6	95.2	93.2	97.0	83.8	84.6	95.6	96.7
	J	4 386		345		97.3		93.0		102.7		96.0		99.5		83.1		97.8	
	J	4 392		346		97.4		93.0		102.8		97.6		98.1		88.3		96.6	
	A	4 398	4 394	341	343	97.4	97.8	92.3	93.2	103.7	103.6	97.2	97.8	98.5	99.0	85.7	87.4	97.7	96.8
	S	4 399		337		98.8		94.3		104.4		98.7		100.3		88.1		96.0	
	O	4 401		332		99.8		94.8		106.0		100.2		100.6		89.2		98.5	
	N	4 397	4 396	330	331	100.3	100.1	95.8	94.8	105.9	106.9	100.9	100.9	101.7	101.0	87.4	88.3	95.8	97.5
	D	4 380		324		100.4		93.8		108.7		101.7		100.7		88.3		98.3	
2004	J	4 300		313		99.6		94.9		105.6		100.6		100.7		87.6		95.0	
	F	4 276	4 303	302	307	100.4	100.8	95.0	95.7	107.2	107.2	102.2	102.0	101.2	101.9	87.5	87.7	94.3	95.3
	M	4 285		287		102.3		97.1		108.8		103.2		103.8		88.1		96.6	
	A	4 324		276		103.2		97.0		111.0		104.3		104.4		87.7		98.7	
	M	4 346	4 334	280	280	106.6	104.1	98.2	97.1	117.0	112.8	106.6	105.0	109.0	105.6	90.2	88.9	100.2	98.5
	J	4 380		279		102.4		96.1		110.4		104.2		103.3		88.8		96.6	
	J	4 397		275		103.4		96.4		112.2		103.3		105.7		87.2		98.6	
	A	4 422	4 410	274	275	103.5	103.4	97.2	96.3	111.3	112.3	104.6	103.7	105.1	105.6	87.7	86.6	97.1	97.8
	S	4 444		275		103.3		95.3		113.3		103.3		105.9		85.1		97.7	
	O	4 462		279		102.9		95.7		112.0		102.0		106.3		83.8		97.0	
	N	4 486	4 481	282	281	102.2	103.7	94.6	96.3	111.6	113.0	101.6	101.5	104.4	108.0	85.5	84.4	100.3	98.6
	D	4 549		290		106.0		98.5		115.4		100.7		113.4		84.0		98.7	
2005	J	4 732		306		104.8		96.1		115.7		103.5		107.8		85.5		103.0	
	F	4 828	4 758	327	319	103.3	104.2	94.1	95.2	114.8	115.5	100.9	102.0	106.8	107.8	85.6	85.6	103.4	103.4
	M	4 881		355		104.6		95.4		116.1		101.7		108.7		85.7		103.7	
	A	4 845		382		102.5		94.7		112.3		100.3		105.8		87.2		101.6	
	M	4 867	4 864	397	387	102.1		93.9		112.2		100.9		104.6		83.6		102.5	
	J	4 879		409															
	J																		
	A																		
	S																		
	O																		
	N																		
	D																		

1 Seasonally adjusted by the Berlin Method (BV4). With this method, the addition of new data can change previous seasonal adjustment patterns even if the original, unadjusted, figures remained unchanged. Quarterly figures are calculated from seasonally adjusted monthly figures. — 2 Also adjusted for working days.

Sources: Federal Labour Office; Federal Statistical Office; DIW Berlin calculations.

Germany – Selected Seasonally Adjusted Economic Indicators[1] (continued)

		Employment in mining and manufacturing		Manufacturing output[2]										Retail trade turnover		Foreign trade (Special trade)[2]			
				Manufacturing		Capital goods industry		Durable consumer goods industry		Non-durable consumer goods industry (incl. semi-durable goods industry)		Construction industries				Exports		Imports	
		in 000s		2000 = 100										2003 = 100		Euro billion			
		month	quarter	month	quarter	month	quarter	month	quarter	month	quarter	month	quarter	month	quarter	month	quarter	month	quarter
2003	J	6 190		99.6		102.4		88.1		97.5		85.6		100.6		55.5		45.7	
	F	6 182	6 177	100.1	99.2	104.1	102.3	89.0	87.7	97.5	97.0	81.1	83.8	100.4	99.8	55.5	165.1	44.8	135.6
	M	6 172		98.0		100.4		85.8		96.1		84.8		98.5		54.0		45.1	
	A	6 161		99.8		101.6		87.6		98.9		86.7		100.4		54.3		44.5	
	M	6 152	6 157	97.7	98.5	100.2	100.2	85.6	85.6	95.8	97.6	84.9	85.7	102.0	100.4	54.1	163.3	44.1	133.2
	J	6 141		98.0		98.7		83.8		97.9		85.5		98.7		54.9		44.6	
	J	6 130		99.7		102.2		88.7		97.8		86.5		99.7		55.7		44.0	
	A	6 116	6 123	98.3	98.8	99.9	100.9	85.6	87.0	97.4	97.2	83.6	84.9	99.0	99.8	55.7	168.3	44.2	132.2
	S	6 106		98.6		100.7		86.8		96.4		84.5		100.7		56.8		43.9	
	O	6 095		100.4		102.4		88.1		97.8		84.5		101.1		55.7		44.3	
	N	6 088	6 092	101.2	101.1	104.6	104.0	88.1	88.3	97.1	97.7	83.8	84.4	98.8	100.2	57.0	170.9	45.7	135.4
	D	6 080		101.7		105.0		88.8		98.2		84.9		100.6		58.3		45.4	
2004	J	6 047		100.6		103.0		88.0		97.4		81.4		100.6		58.1		45.1	
	F	6 041	6 048	101.1	101.2	102.8	103.6	87.3	88.2	97.2	97.2	86.0	83.6	100.4	101.0	58.4	175.9	46.1	136.9
	M	6 034		102.0		105.1		89.3		97.1		83.4		101.9		59.3		45.6	
	A	6 031		102.4		105.3		88.7		97.7		80.4		101.1		61.3		47.0	
	M	6 023	6 027	105.3	103.8	108.9	107.4	92.2	90.4	99.9	98.3	82.0	81.1	98.0	100.7	62.7	184.2	48.4	141.9
	J	6 018		103.6		108.0		90.2		97.2		81.0		102.9		60.2		46.5	
	J	6 010		102.9		106.0		87.5		97.9		78.9		101.4		61.0		48.9	
	A	6 010	6 011	104.2	103.8	108.1	107.5	88.6	87.8	98.2	98.3	80.9	79.6	101.0	101.2	60.6	181.9	48.3	146.4
	S	6 008		104.4		108.4		87.1		98.9		79.0		101.0		60.3		49.3	
	O	6 002		103.6		108.0		85.8		98.0		77.8		99.7		62.7		49.4	
	N	5 993	5 997	102.3	102.5	104.3	105.3	85.2	85.4	98.7	98.1	77.5	77.6	102.9	101.7	61.9	185.1	48.9	146.5
	D	5 986		101.7		103.6		85.2		97.7		77.5		102.5		60.5		48.1	
2005	J	5 969		105.2		107.8		88.0		100.5		80.1		100.9		63.1		49.6	
	F	5 958	5 965	104.1	104.7	106.9	107.7	88.0	87.8	100.8	100.9	72.2	73.6	101.7	101.6	62.4	188.6	48.7	147.9
	M	5 948		104.8		108.4		87.3		101.3		68.6		102.1		63.1		49.6	
	A	5 941		104.9		109.2		88.4		99.6		74.3		101.1		61.8		49.8	
	M			102.9		105.0		83.8		99.9		73.0		102.1		62.3		50.9	
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	J																		
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1 Seasonally adjusted by the Berlin Method (BV4). With this method, the addition of new data can change previous seasonal adjustment patterns even if the original, unadjusted, figures remained unchanged. Quarterly figures are calculated from seasonally adjusted monthly figures. — 2 Also adjusted for working days.

Sources: Federal Statistical Office; DIW Berlin calculations.