

## Economic conditions in Germany

### Underlying trends

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The cyclical upturn in the German economy continued at a rapid pace in the final quarter of 2006. According to initial calculations by the Federal Statistical Office, overall economic output went up by 0.9% in seasonally and calendar-adjusted terms in the fourth quarter. There was a 3.7% rise on the year after adjustment for working-day variations. After taking account of the upward revision for the two preceding quarters, the annual growth rate for 2006 was 2.9% in working-day adjusted terms, compared with 1.1% in 2005. In unadjusted terms, the increase amounted to 2.7%. Thus, on a longer-term comparison, the German economy performed better than at any time since 2000.

*Strong growth  
in Q4 2006*

Towards the end of the year, economic growth was, in fact, even somewhat higher than in the third quarter. Anticipatory effects in connection with the VAT increase that was to come into effect on 1 January 2007 played a greater role here than in the preceding months. Furthermore, the exceptionally mild weather conditions in November and December supported construction activity. Even if these influences on domestic output are virtually excluded, however, there is still a strong underlying cyclical trend which is having an increasingly positive effect, not least in the labour market. Although detailed figures for the fourth quarter are not yet available, it can be assumed that the economic growth process was broadly based. There are also some indications that the current upswing still has a lot of potential (see also the explanatory notes on pages 40-41).

## Upturn with a bright outlook

The German economy is currently in a positive cyclical phase. Towards the end of the period under review, in fact, macroeconomic growth clearly exceeded general expectations. This could be an indication of the German economy's own stronger inherent momentum; nevertheless, a number of positive special factors were also in play in 2006. As things look at present, what are the prospects of the upswing carrying on in the longer term and gradually leading to a steeper growth path?

The current cycle started in mid-2003, and has therefore been under way for nearly four years. In itself, however, this is still no reason to assume that the cyclical recovery will come to an end in the near future, nor does it display endogenous signs of fatigue or elements of tension. The three preceding upturns, too, lasted over seven years on average. Furthermore, it has to be borne in mind that growth was fairly weak in the initial phase of the current upswing, which was sustained solely by exports up to mid-2004. Although corporate investment subsequently turned positive, the rise in overall output remained subdued until 2005. It was not until 2006 that housing investment and private consumption also made a contribution to the accelerated increase in aggregate demand.

Even so, as early as mid-2006, there arose concerns that the upswing in Germany might soon come to an end. Such worries related, firstly, to the risk of quite strong retarding effects stemming from the international setting, on which the German economy has traditionally been heavily dependent, and, secondly, to the fear that the VAT increase in Germany and excessive wage increases in the current year might impair the cyclical upturn. These anxieties became evident in the – at times – more cautious assessments of business expectations in German industry as well as in the assessments of the economic outlook in the financial sector.

With regard to developments in the global economy, in the fourth quarter there was increasing expression of concern about the threat of a sharp slowdown in the global pace of growth if there were to be a hard landing in the USA – stemming from a slump in prices in the housing market and a collapse of US construction activity – which might even lead into a recession there. Such a development would produce contagion effects for the rest of the world, which would undoubtedly impact heavily on the German economy. However, the likelihood of such

a scenario occurring has now clearly diminished. Following the slowdown in the second and third quarters of 2006, the US economy picked up again towards the end of the year. This is illustrated by the fact that seasonally and calendar-adjusted real GDP, at just under 1%, expanded noticeably more sharply than in the previous two quarters. Added to this were initial signs of a stabilisation in the housing market. Furthermore, considerable increases in the value of financial assets have taken the place of the recent lack of positive wealth effects. US households' consumer demand was sustained, above all, by the gain in purchasing power resulting from the sharp fall in oil prices since August 2006. Furthermore, global growth has become more balanced regionally, with the result that the global economy is likely to have become less dependent on the US economy. Growth in Japan likewise accelerated in the final quarter, while the emerging market economies, primarily China and India, are still in full swing. Ultimately, the relief provided by the fall in energy prices has given new impetus to the economies of the oil-consuming countries worldwide. Moreover, for enterprises, financing conditions have remained favourable and their resilience has shown a further improvement owing to better profitability and capital adequacy.

Against this backdrop, in mid-January the IMF reaffirmed its September 2006 forecast that global growth of 5% is to be expected in 2007 – for the fourth time in succession. This means that the global economy is in one of its most dynamic periods of expansion since the 1950s. At the same time, upward pressure on prices has increased only marginally and oil-price-induced second-round effects have largely been avoided. Along with modified wage behaviour and increased confidence in stability, this points to a markedly higher global growth potential. Mainly on account of rapid growth in the emerging market economies, average GDP growth between 1998 and 2007, at just over 4%, was  $\frac{3}{4}$  percentage point higher than the figure for the period from 1988 to 1997.<sup>1</sup>

What also has to be taken into consideration is that global downside risks have diminished in recent months, even if they are still of greater moment than the prospects of even more positive global economic activity. Although there is still the risk of sudden oil price surges, this is to be rated significantly lower than a year ago. Moreover, owing to the trend decline in the oil bill, the pick-up in exports as a result of the depreciation of the

<sup>1</sup> The IMF assesses the GDP of the individual countries using purchasing power parities. This means that the total output of the emerging

market economies, which is expanding relatively sharply on average, is given a higher weighting than when measured at market prices.

US dollar and the slowdown in growth, a slight easing of the external imbalance is likely for the USA. In this connection, it should also be mentioned that the stability and profitability of the global financial system may be deemed to be favourable at present, not least because East Asia has now become significantly more resilient following the severe financial crisis of 1997-98.

Overall, German enterprises are well placed to participate fully in this positive development of the global economy. As a result of the marked cost discipline in recent years, the competitiveness of the German economy is now in a very good state. Moreover, in many countries, there is a large demand for high-quality capital goods, a market segment in which German enterprises have traditionally been strongly represented. Seen in this light, exports are likely to continue generating major stimuli for the upswing in Germany.

But with regard to the domestic economy, too, the prospects of the upswing continuing are bright. The course of consolidation pursued by enterprises over the past few years has led to a falling level of debt and a marked decline in the corporate sector's net interest burden. Owing to their stronger capital base, enterprises have also become broadly more resistant to setbacks. The fact that stability in the German financial system has continued to improve of late is consistent with this. The German banks are in a robust state, and there has been a further increase in their ability to bear risk. Households, too, have become more optimistic. This was reflected, not least, by the fact that, for the first time since 2000, there was no further rise in the household saving ratio.

Business investment is also likely to remain a major factor underpinning the upswing. The current high level of utilisation of industrial plant capacity and a considerable need for replacement investment suggest that investment is still clearly on the up, especially as the external financing conditions are still favourable in Germany, too, and enterprises are, to a particular extent, displaying an improved capital adequacy. Firms' underlying sentiment is also very optimistic, which means that the "psychological factor" also argues for stronger capital formation; there is, in any case, still a lot of room for manoeuvre in terms of domestic saving.

In addition, the marked brightening of the labour market situation means that a crucial condition for strengthening private consumption is in place. This means that there is potential for a self-sustaining upswing in Germany. This year, however, consumers are faced with strains deriving from fiscal policy in connection with the fundamentally necessary consolidation of government budgets. These strains are economically manageable when taken in isolation, but still signify a considerable loss of income.

There is definitely the necessary room for more prolonged, largely tension-free economic growth. Although the utilisation of the production factors labour and capital increased markedly in 2006, the normal level of cyclical capacity utilisation – given the uncertainty of output gap estimates at the current end – is unlikely to have been reached yet. Furthermore, the "ignition" of investment activity and the shifting of investment motives in favour of extensions suggest that capacity effects will increasingly set in. Not least, the reforms in the labour market are beginning to bear fruit. If the greater variability of possible working hour arrangements is taken into consideration along with what is now a broad range of employment forms, a wide variety of options is now available at the firm level, which permits a considerable increase in the flexibility of labour deployment and more effective factor input combinations.

However, there is still no clear empirical evidence of stronger potential growth and, therefore, a steeper growth path in Germany. From a national perspective, it will now be important to persevere along the route that has been taken. Not least given the fierce competition for investment and the continuing high level of baseline employment, the key wage policy task is not to fully exploit the existing greater cyclical scope for income distribution, to maintain its existing predictability, and to achieve a sustained increase in the employment content of growth by means of flexible agreements. Moreover, it is crucial that fiscal policy remains on a consolidation path, and that the economic policy framework provides scope to strengthen technological competitiveness and to build up human capital. To do this, it will be imperative to keep the reform process going, also against the backdrop of the looming demographic strains.



*Strong external stimuli*

Real foreign trade is likely to have again made a significant contribution to the expansion in economic output in the final quarter of 2006. According to the available indicators, real growth in exports of goods and services, which had already been quite buoyant in the third quarter, picked up even greater momentum.<sup>1</sup> Moreover, imports went up only slightly in the fourth quarter in real terms after rising almost as sharply as exports in the third quarter. On balance, the external sector generated considerable expansionary impulses for overall growth in the fourth quarter. This reflects both the ongoing favourable international setting as well as the continued positive competitive position of the German economy.

Domestic investment activity was on an upward path again. Boosted by the growth in

capacity utilisation throughout the period under review, the incentive to expand is likely to have gained further importance in the case of expenditure on machinery and equipment. This is also shown by the latest Ifo Investment Test and the most recent survey on investment by the German Chamber of Industry and Commerce (DIHK). These reveal that replacement purchases are still the most significant investment motive. However, more enterprises, especially in industry and the construction sector, are stating that they want to expand their capacity. The positive business climate in trade and industry is also an indication of the positive trend in investment. The exceptionally favourable weather conditions generated an additional stimulus to construction investment. The fact that stocks of orders were completed before the VAT increase came into effect is also likely to have played a role here.

*Domestic demand somewhat more subdued*

Private consumption is still not showing a clearly recognisable picture. As in the third quarter, traditional retail sales (excluding cars) remained rather subdued towards the end of the year. Although there were obvious anticipatory effects in connection with the VAT increase for certain categories of goods during the reporting period, this contrasted with lower spending in other areas. There was, however, an exceptionally sharp rise in new passenger car registrations by private owners in November and December. In some cases, the higher unit car sales were taken from stock, which means that the increased con-

<sup>1</sup> In this context, it should be noted that exports of goods between September and November were positively influenced by late reports.

sumer demand was accompanied by a dampening contribution to growth in terms of changes in inventories.

## Output and sales

*Industrial output in full swing, ...*

Industrial activity continued at a rapid pace in the fourth quarter as well. It was ¼% up on the third quarter after adjustment for seasonal and working-day variations. However, output failed to match the rapid growth rate of the previous two quarters. At the same time, according to the Ifo surveys, there was a further sharp rise in capacity utilisation. In December 2006, it exceeded the average level of medium-term capacity utilisation by 3½ percentage points. This signifies a further increase in the propensity or necessity for investment in capacity extensions.

*... somewhat slower pace of growth recently*

The fact that industrial output was growing at a somewhat slower pace since mid-year probably also has to do with the fact that a number of sectors, especially the motor vehicle industry, had been stepping up their output for quite some time prior to the VAT increase in order to satisfy the expected increased demand later on in the second half of the year stemming from anticipatory effects. The motor vehicle manufacturing industry, for example, reached peak production as early as the third quarter. In the fourth quarter, output was 2¼% down on the third quarter in seasonally adjusted terms. If this sector is excluded, industry increased its production by ¾%. The seasonally adjusted increase was very pronounced in the manufacture of machinery and equipment. Capital



goods as a whole grew by around ¾% after adjustment for seasonal variations, while the manufacture of consumer goods fell by some 1¾%. Output of intermediate goods rose by 1%.

In the final quarter of 2006, German exports of goods, which account for an increasing share of industrial output, were a seasonally adjusted 6% up on the quarter. Against this

*Buoyant foreign trade*

### Foreign trade by category of goods

#### Percentage change

Item	Average of Oct–Nov 2006 <sup>1</sup> compared with			
	Q3 2006; seasonally adjusted		Oct–Nov 2005; unadjusted figures	
	Exports	Imports	Exports	Imports
Total	+ 6.7	– 0.1	+ 20.7	+ 15.4
<b>Main categories</b>				
Intermediate goods	+ 8.5	+ 2.3	+ 22.1	+ 18.5
Capital goods	+ 7.5	+ 3.0	+ 16.5	+ 11.3
Consumer goods	+ 5.2	+ 1.7	+ 14.6	+ 5.0
Energy	.	– 10.9	.	+ 1.3
<b>Selected categories</b>				
Chemicals	+ 5.5	+ 6.3	+ 18.9	+ 11.0
Machinery	+ 7.7	+ 3.8	+ 24.8	+ 15.9
Motor vehicles and motor vehicle parts	+ 0.1	+ 4.8	+ 8.1	+ 14.1
Information tech- nology	+ 6.8	– 1.6	+ 10.5	+ 5.3
Metals and metal products	+ 9.5	+ 6.9	+ 37.2	+ 41.8

<sup>1</sup> Exports positively influenced by late reports.

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backdrop, producers of intermediate and capital goods, in particular, were able to significantly increase their export sales in October and November (figures with a sectoral breakdown are available up to then). Exports of metals and metal products grew very dynamically. There was also a sharp rise in exports of chemical products. Furthermore, manufacturers of machinery, communication and IT products achieved substantial growth in sales abroad. In October and November, the German car industry's exports of motor vehicles held up at the level of the third quarter, in which foreign sales had grown considerably. The fact that preference was given to supplying the domestic market may have owed something to the impending increase in VAT on 1 January 2007. There was a sharp

rise in exports of consumer goods in October and November.

Seasonally adjusted nominal imports of goods in the fourth quarter were only slightly ( $\frac{3}{4}\%$ ) up on the preceding three-month period. Given the favourable domestic economic activity, significantly more capital goods were imported than in the third quarter. Imports of motor vehicles and vehicle parts grew very strongly as a result of anticipatory effects in connection with the VAT increase. However, this was largely offset by the fact that there was a considerable decline in the value and volume of energy imports.

After a relatively weak start to the quarter, construction output grew substantially as the quarter progressed. Overall growth in the fourth quarter was  $2\frac{1}{2}\%$  up on the summer months. The exceptionally mild weather conditions in November and December were a major contributory factor in this. Furthermore, a greater number of orders are likely to have been completed prior to the increase in VAT. Both civil engineering and general construction benefited from the rise in output.

Commercial service providers are likely to have continued to benefit from the general buoyancy of the economy. The Ifo business survey shows that there was a marked improvement in the assessment of the situation in the fourth quarter; following a temporary decline in the third quarter, it exceeded the already very high level of the second quarter. Although the assessment was perceptibly more cautious in January, this had been preceded by a sharp improvement in December.

*Construction output favoured by special effects*

*Positive situation for service providers*

According to the survey by the Centre for European Economic Research (ZEW), the current business situation was rated considerably more favourably in the fourth quarter. In line with the generally positive economic situation, the transport sector should also have shown a positive performance. In the fourth quarter, the hotel and catering industry failed to match the level of the previous quarter.

*Mixed picture  
in trade*

In the retail trade sector (excluding motor vehicles), real retail sales went up by a seasonally adjusted ¼% in the final quarter of the year. However, the growth in sales of electrical appliances, furniture and home improvement materials, where demand was boosted by the impending increase in VAT, was accompanied by a decline in demand for food products. The fact that traditional retail purchases failed to show any further growth as a whole in the fourth quarter, despite the anticipatory effects, should probably be seen in connection with the significantly increased number of purchases of new motor vehicles by households towards the end of the year. This may have restricted the scope for consumer spending in other areas. This is also consistent with the fact that new passenger car registrations showed a very sharp increase, especially in November and December. Wholesale trade expanded its real sales quite substantially towards the end of the period under review. As in the retail trade sector, electrical household appliances and consumer electronics recorded the largest increase in sales.

## Employment and unemployment

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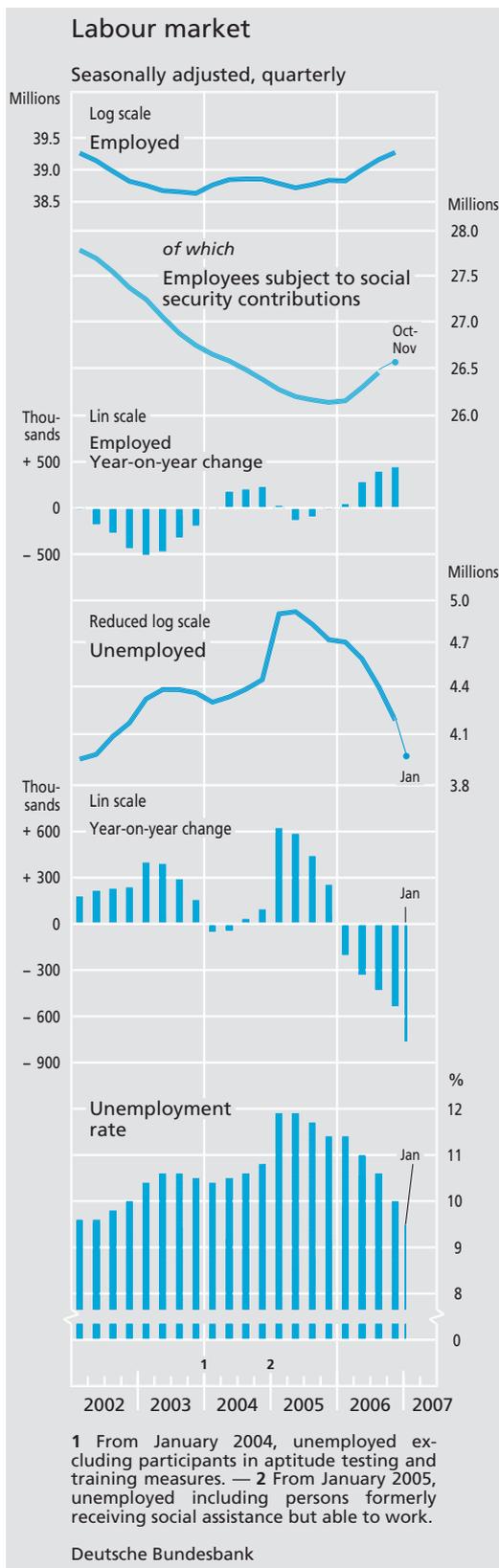
The underlying upward cyclical trend was reflected in a clear rise in employment and a marked decline in unemployment in the last few months of 2006. Although the delayed start to the winter and the anticipatory effects of the increase in VAT on 1 January 2007 are likely to have played a part in this positive outcome, enterprises make personnel-related decisions on a medium to long-term basis. For that reason, these special factors are likely, if anything, to have had a minor effect.

*Labour market  
benefits from  
economic  
upturn*

However, with the large-scale lifting of restrictions on the hiring out of labour at the beginning of 2004, enterprises were given the option of recruiting additional employees through specialised recruitment agencies, rather than doing so directly themselves. Enterprises made extensive use of this option in 2006. Many new staff were recruited through commercial service providers, which also includes the hiring out of labour. According to Federal Employment Agency figures, in November 2006 (more recent figures are not available at present) almost 260,000 more persons were employed in this way than one year earlier, giving an aggregate gain of 430,000 jobs subject to social security contributions. Furthermore, around half of the increase in vacancies for positions subject to social security contributions was in this services sector.

*Growing  
importance of  
subcontracted  
work*

There are likely to be several factors motivating the indirect recruitment of staff by leasing labour. Firstly, in addition to enabling enter-



prises to make use of differing wage structures, subcontracted employment allows them to assess performance without undertaking direct contractual commitments. Secondly, enterprises can be more in control of their arrangements and therefore match production to the current order situation. Even though the substantial gains in employment in this area are partly due to the favourable economic setting, it is already possible to tell what employment gains could be associated with appropriate reforms of employee protection rights for conventional employment contracts.<sup>2</sup>

In the fourth quarter of 2006, the total number of persons in work rose by 115,000, or 0.3%, to a seasonally adjusted 39.32 million. The year-on-year increase stood at 450,000, or 1.1%. This was due, first and foremost, to a sharp increase in employment subject to social security contributions. Towards the middle of the year, however, the increase in the flat-rate contributions for mini-jobs seemed to have reduced the level of marginal employment. The number of self-employed persons continued to rise as the year progressed, despite the restructuring of the terms and conditions for financial support in August 2006. The Federal Employment Agency supported a somewhat larger number of workers in the fourth quarter than in the previous months. There was greater provision for reintegration grants and employment opportunities (one-euro jobs).

*Rising employment*

<sup>2</sup> See also Deutsche Bundesbank, The labour market in Germany: general developments seen in an international context, Monthly Report, January 2007, pp 31-51.

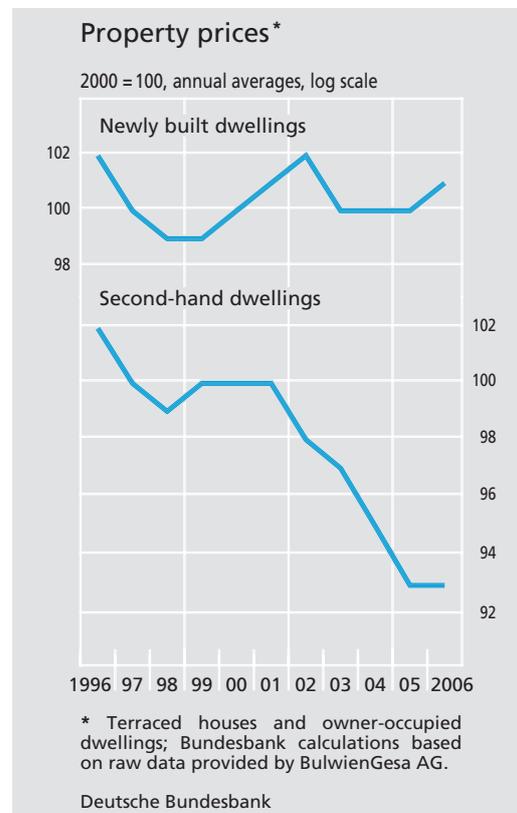
*Sharp decline in unemployment*

On an average of the fourth quarter, there were, at a seasonally adjusted 4.20 million, 220,000 fewer persons registered as unemployed than in the third quarter. The year-on-year decline widened to 535,000 persons. The unemployment rate decreased by 0.6 percentage point on the quarter to 10.0%. This was an increase of 1.4 percentage points in year-on-year terms. The positive development continued at the start of 2007. In January, a seasonally adjusted 3.98 million persons were out of work. This was 100,000 fewer than in December. The number of unemployed persons decreased by 765,000 on the year after declining by 595,000 in December. One reason for the sharp year-on-year increase was that, unlike in January 2006, the weather-related component of underemployment was very small this time. The seasonally adjusted unemployment rate went down from 9.8% in December 2006 to 9.5% in January, compared with a figure of 11.4% one year earlier.

**Wages and prices**

*Moderate wage developments in 2006*

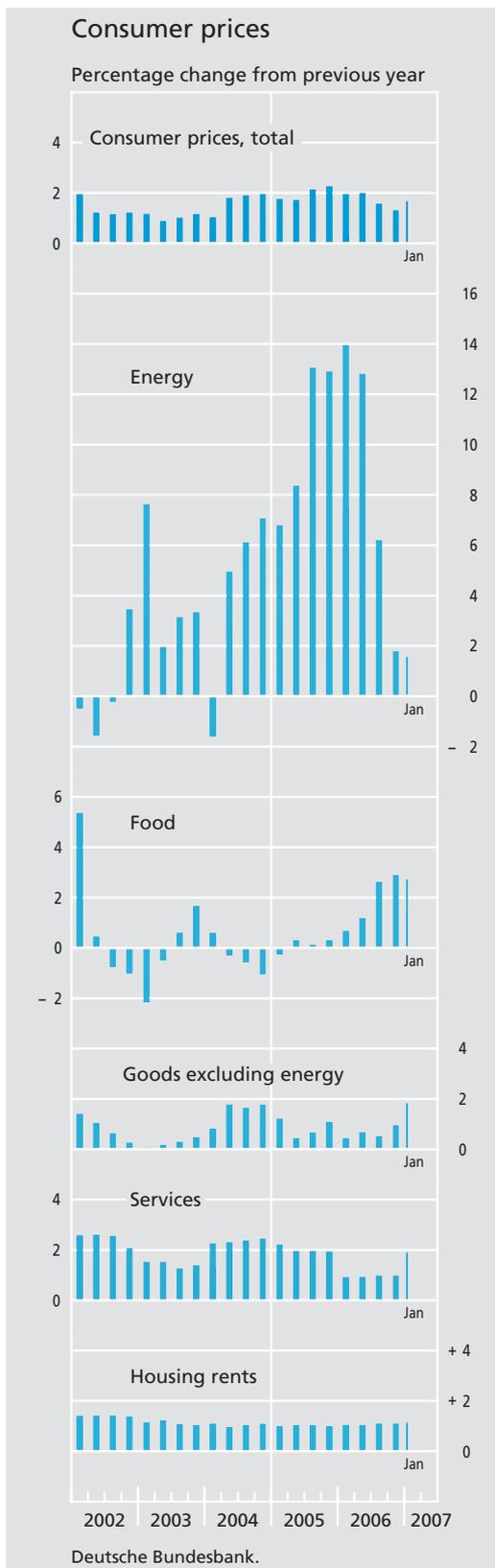
Negotiated pay rates continued to rise at a moderate rate in 2006. According to Bundesbank calculations, the increase was 1.1% on an hourly basis, compared with 1.0% in the previous year. On a monthly basis, the figure was 1.3%, compared with 1.1% in 2005. The wide fluctuation band of the rates of change within the year of between -0.2% and +2.8% was due to the abolition and/or deferment of special payments (such as flat-rate overtime payments, holiday and Christmas bonuses) as well as to one-off payments in-



cluded in new collective wage agreements. The above-average rise in negotiated wages and salaries in the fourth quarter, at +1.8%, also reflects, first and foremost, an increase in annual bonus payments for public sector banks and a one-off flat-rate payment in December for Volkswagen employees to compensate for the increase in weekly working hours.

No new wage agreements of significance to the economy as a whole were concluded in the last few months of 2006. There will, however, be a large wage round during the first half of 2007. A significant number of pay agreements, particularly in the major industrial sectors, may be terminated. Given the favourable economic conditions, especially in the export-related sectors, it will be a matter

*Large wage round in 2007*



of ensuring that employees are rewarded adequately for good business performance, while adjusting wage schedules in a way that takes due account of the interests of the economy as a whole.

Owing to the more relaxed situation in the international crude oil markets, there was a seasonally adjusted 1% decline in import prices in the fourth quarter of 2006 following an increase of 0.7% in the previous quarter. At the domestic industrial producer level, the rate of price increase fell from 0.9% to 0.1% for this same reason. However, the prices of both imported and domestic intermediate goods showed a further rise. By contrast, there were relatively moderate price increases for consumer and capital goods, which even became cheaper in some cases.

*Pressure on import and producer prices eases*

The increase in construction prices eased only slightly in the last few months of 2006. In the fourth quarter of 2006, construction prices went up by an average of 4% on the year. Almost all subsectors and individual construction services were affected by this increase. Besides the higher prices for some intermediate goods, such as petroleum products and steel products, the upturn in construction activity and the capacity reductions over the past few years are likely to have played a part in this. The rise in prices for newly built dwellings recorded by BulwienGesa AG is closely linked to the price increase in the cost of residential construction (2.2% on average in 2006). According to Bundesbank calculations based on city data provided by BulwienGesa AG, the prices of newly constructed owner-occupied apartments went up by 1%, where-

*Increase in construction prices reflected in housing prices*

as, in contrast to previous years, the price of terraced housing showed no further decline. Similarly, the declining price of second-hand dwellings, which had persisted for several years, now seems to have come to a standstill, at least in the case of terraced housing. Prices for owner-occupied dwellings have now weakened.<sup>3</sup>

*Decline in  
consumer price  
inflation*

Consumer prices showed hardly any increase in the final quarter of 2006. As in the case of industrial import and producer prices, this was due to cheaper crude oil, which was reflected in falling fuel and heating oil prices (-8.3% and -9.3% respectively). Excluding energy, however, price pressure increased: the seasonally adjusted cost of goods and services (including food products and housing rents) went up by 0.6%, compared with 0.5% in the third quarter and 0.3% in the second quarter. Price adjustments that were brought forward in connection with the VAT increase on 1 January 2007 contributed to this. Tobacco prices had already been increased by almost 5% as of 1 October 2006. There were also indications of accelerated price adjustments in the case of clothing and some other goods. Overall, the cost of industrial goods (excluding food products and energy, but including tobacco) was 1.0% up on the quarter, compared with 0.2% in the two preceding quarters. By contrast, the increases in the prices of services and housing rents were quite moderate (0.4% and 0.2% respectively).

The relatively sharp rise in food prices (3.0%) was the most pronounced year-on-year movement in the fourth quarter. By contrast,

### Prices of selected goods and services

Percentage change on the month in January

Item	2006	2007
Clothing and footwear	- 2.7	- 1.8
Household appliances	- 0.2	0.3
Information-processing equipment	- 0.3	0.9
Motor vehicles	0.2	2.2
Medical products	0.1	1.3
Furniture and furnishings	- 0.3	0.2
Accommodation services	- 17.9	- 15.5
Dry cleaning	0.4	1.3
Hairdressing	0.1	1.5
Telecommunications services	- 0.3	1.6
Catering services	0.0	0.8
Insurance	0.2	2.2
Maintenance and repair of private vehicles	0.2	1.6

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the cost of both goods and services went up by just 1.0% and housing rents by 1.1%. Including the 1.8% increase in the cost of energy, the annualised rate for the fourth quarter in both the national consumer price index and the Harmonised Index of Consumer Prices (HICP) amounted to 1.3%. On an annual average of 2006, inflation rates were 1.7% (national index) and 1.8% (HICP).

<sup>3</sup> The house price index that was recently published by the Federal Statistical Office only goes up to 2005 and, unlike the Bundesbank indicator which is based on data provided by BulwienGesa AG, contains data on new properties only. The ground component is also excluded and the data on premises which are ready for occupancy cover only part of the country. For further information on the house price index of the Federal Statistical Office, see also J Dechent, Entwicklungsstand und aktualisierte Ergebnisse, Wirtschaft und Statistik, December 2006, pp 1285-1294; for further information on the Bundesbank indicator, see Deutsche Bundesbank, Price indicators for the housing market, Monthly Report, September 2003, pp 45-58.

*Significant price effects of VAT at start of year*

At the beginning of 2007, seasonally adjusted consumer prices in Germany rose quite sharply at 0.5%. According to the national consumer price index, the year-on-year increase went up from 1.4% to 1.6%. The reason why the upward pressure on prices was not more pronounced, despite the rise in VAT (and insurance tax) from 16% to 19% on 1 January 2007, was also due to the easing of heating oil prices in the wake of much lower oil prices. Nevertheless, the cost of energy was 1.4% up on the December 2006 level. Furthermore, as expected, the price effect of the VAT increase was not concentrated solely on the start of the year. Owing to the earlier accelerated price adjustments in 2006, lagged effects are likely to come into operation as 2007 goes on. However, the prices of goods (excluding energy and food products) increased rather than fell, which had been the usual case since restrictions on the end-of-season sales were lifted. In the case of services, the decline in prices was smaller than on average in previous years. The seasonally adjusted cost of goods and services increased by 0.5% and 0.4% respectively. The year-on-year figures widened from 1.1% to 1.8% and from 1.0% to 1.9% respectively. Owing to its non-inclusion of owner-occupied housing, the HICP was more strongly affected by the increase in VAT than the national index; the year-on-year increase went up from 1.4% to 1.8%. According to Bundesbank estimations, the VAT increase could have contributed just under 1 percentage point to the annual rate of increase in the HICP in January 2007, of which approximately two-thirds could have been accounted for by January itself and just

under one-third by anticipatory effects during 2006.

## Orders received and outlook

The level of industrial orders received remained very high in the fourth quarter and was 6½% up on the year. In comparison with the third quarter, however, there was a slight decrease of ½% after adjustment for seasonal and calendar effects. By contrast, new orders in the July to September period were 3¾% up on the second quarter. The more subdued trend in the final quarter was not so much a reflection of the current underlying pace of cyclical growth. Rather, it should be remembered that the third quarter outturn was influenced by a number of large orders, especially from abroad.

*Industrial activity still favourable*

This is also confirmed by a detailed look at the new orders statistics. For example, export orders declined by 1¼%, albeit only in the case of orders from non-euro-area countries (from where the majority of large orders came in the third quarter), whereas orders from euro-area countries showed an increase. In a sectoral breakdown, the decline was concentrated on the capital goods sector where the majority of large orders are statistically recorded. By contrast, producers of intermediate and consumer goods concluded more orders than in the third quarter. The reason why domestic growth, at ¼%, was not higher was due mainly to manufacturers of motor vehicles, trailers and semi-trailers. The dampening impact of the VAT increase that was already noticeable in the fourth quarter of

2006 and in the first two months of the current year is likely to continue to play a role here. Most of the other sectors, however, recorded larger volumes of orders.

*New order capacity index*

The fact that the stocks of orders are quite large and that the resultant workload, as measured in terms of production months in the fourth quarter, showed a further increase also suggests that this favourable economic performance will continue. Moreover, according to new calculations, the ratio of orders received to production capacity (order capacity index) has reached a cyclically high value (see the explanatory notes on pages 52-53). Sentiment also remained decidedly positive in January, despite the slight downturn in the Ifo business climate, especially as business expectations showed a further improvement at the end of the period under review. At the end of the year, firms also assessed their export activity for the coming three months more favourably than in the previous quarter.

*Construction demand still moving sideways*

In the two-month period of October and November – more recent official data are unavailable – construction orders were 2¾% down on the third quarter. In calendar-adjusted terms, construction demand therefore remained at virtually the same level as in the previous year. The decline reveals the dampening effects of the VAT increase, whereas economically stimulating anticipatory effects had been observed up to the middle of the year. This was particularly apparent in the case of housing demand, which recorded a sharp overall decline in October and November. The declining number of construction permits for dwellings during this period is



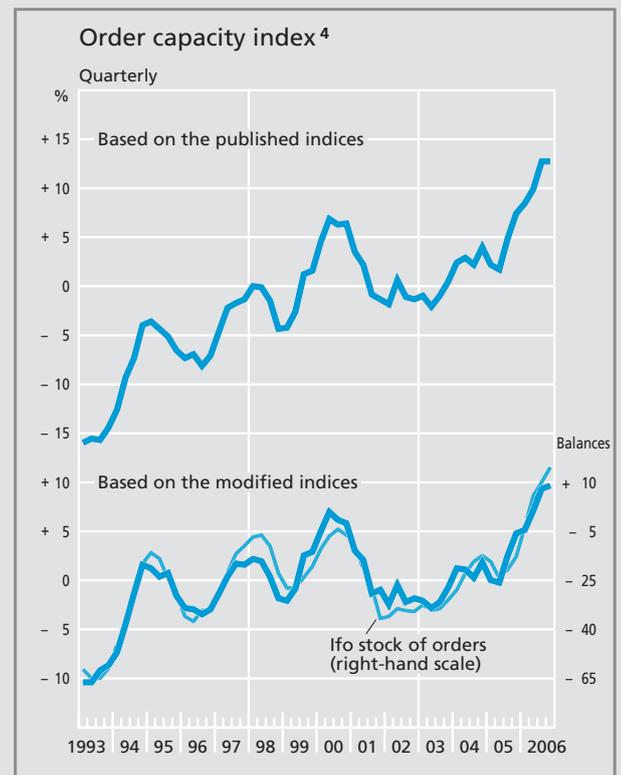
## Industrial orders and production: how informative is the order capacity index?

The production, orders inflow and turnover statistics of the industrial sector constitute a detailed information system which provides timely data on this core economic area on a monthly basis. The volume of orders received is of key importance for the short-term analysis of industrial activity because it is a well-established leading indicator of industrial production. However, developments in industrial output in the near future are not dependent solely on the pace of ordering at the current end. The relationship between the levels of the orders inflow and production is also informative in this respect. For example, a substantial backlog of orders indicates that, all things being equal, increased production is to be expected in the following few months.<sup>1</sup>

However, the order capacity index, which establishes the ratio of the orders received to production capacity, is an indicator to which scant regard is paid in applied economic analysis. Conceptually, this index is based on the ideas described above. A special feature of the index is that it relates the current volume of orders to output at the normal level of capacity utilisation instead of relating it to actual production. The selection of a benchmark that is adjusted for cyclical fluctuations is necessary if the index is to be interpreted as a leading indicator of industrial activity. For example, an order volume that significantly exceeds production capacity indicates foreseeable bottlenecks in order processing. Conversely, a low order capacity index is a sign of an unsatisfactory demand situation, which indicates that industrial activity may be below average subsequently.

If, however, the order capacity index is calculated on the basis of the published total aggregates of production and orders received as well as the (mean-adjusted) Ifo capacity utilisation rate for manufacturing,<sup>2</sup> the time series for Germany as a whole starting at the end of 1992 shows a positive trend (see the upper part of the chart). The informative value of this variant<sup>3</sup> is restricted by the fact that, in the absence of a constant mean, there is no empirical reference value with which the realised index levels can be compared. The trend behaviour can be attributed to the fact that the published indices of industrial production and orders received differ with respect to their definition and weighting. Whereas the production index takes account solely of industrial produc-

<sup>1</sup> Such a situation is due not only to capacity bottlenecks but also to large orders which are recorded in full in the new order statistics at the time the orders are placed but which are entered in the production statistics in accordance with their stage of completion. — <sup>2</sup> As the following line of reasoning shows, an obvious step to take is to use the capacity utilisation of the manufacturing sector excluding food, beverages and tobacco. — <sup>3</sup> The order capacity index was used in



tion (even if that is only part of the overall output delivered by firms belonging to the industrial sector), the reported order volume also contains services if these are part of the agreed order. The published production index also contains components which are not order-induced and which are likewise distorting in this respect. Another difference consists in the fact that the production figures of the individual sectors are aggregated with the base-year shares of value added in order to form the overall index whereas the new orders index is weighted on the basis of the sectoral order volumes.

The sometimes considerable differences in weighting and definition have resulted in the aggregate indices of industrial production and orders received being subject to distinct trend profiles because developments in the individual industrial sectors diverge from each other owing, for example, to

this form in the annual reports of the German Council of Economic Experts until 2003. — <sup>4</sup> Backlog of orders as a percentage of production capacity. — <sup>5</sup> The estimates are based on seasonally and working-day-adjusted monthly data in the period between January 1991 and December 2006. — <sup>6</sup> The contemporaneous correlation exceeds the value 0.9. — <sup>7</sup> With respect to the Ifo indicator, this outcome is valid only as long as the survey findings are representative of the industry.

structural change (see the adjacent table). To eliminate such effects (which are undesirable for the issue at hand) the version of the order capacity index presented here is based on new order and production indices which are as consistent as possible in their weighting and definition. First, a modified new order index is constructed which, like the production index, weights the order volumes of the industrial sectors by the percentages of value added. Second, industrial production is corrected for components which are not order-induced. An order capacity index whose baseline statistics are reconciled with each other in this way appears to fulfil the stationarity property that is helpful for interpretational purposes (see the lower part of the chart on page 52).

The need to use modified series in order to calculate the order capacity index can be verified by means of a time series analysis. Formally defined as  $OCI = (OR/PR) \cdot CAP$ , the order capacity index – given stable capacity utilisation  $CAP$  – has a time-constant mean only if the ratio of orders received to production  $OR/PR$  is stationary. As the components of this ratio are trending over time (or, to be more precise, are integrated), the condition is met only if there is a cointegration relationship in the form  $\ln OR - \ln PR$  between the index series of orders received and production. Regardless of whether modifications are made or not, cointegration can be established between orders received and production. In the case of the published series, however, the estimated long-term relationship expressed as  $\ln OR - 1.5 \ln PR$  diverges substantially from the required result. If, instead, the modifications are undertaken, the estimate is  $\ln OR - 1.1 \ln PR$ , representing a much more favourable result from a theoretical point of view.<sup>5</sup>

A comparison of the order capacity index with the assessments of order backlogs in the Ifo Institute's survey of the manufacturing sector reveals maximum synchronisation.<sup>6</sup> This is impressive, primarily because the information on which both indicators are based derives from different sources. One possible explanation is that the enterprises surveyed base their assessment of their order backlogs (implicitly) on the current ratio of orders received to production capacity. At all events, the information on industrial activity supplied by either indicator seems to be essentially interchangeable so far.<sup>7</sup>

By contrast, the order capacity index could have limited informative value at the current end of the sample because the production and new order indices are subject to revision. See T A Knetsch and H-E Reimers, How to Treat Benchmark Revisions? The Case of German Production and Orders Statistics, Deutsche Bundesbank, Discussion Paper, Series 1, No 38/2006. — **8** During this period, the contemporaneous correlation

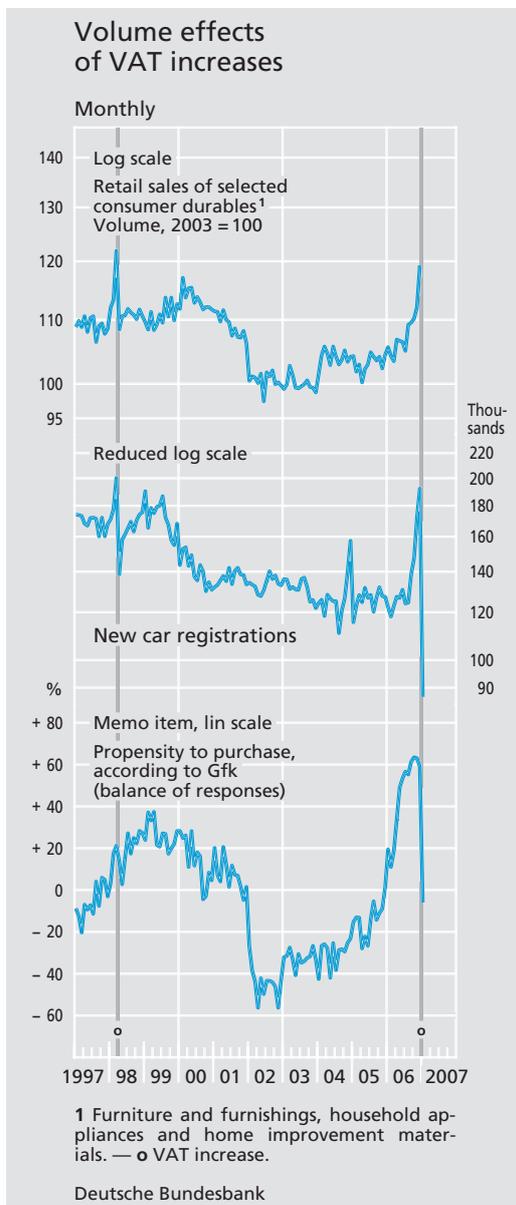
## Weights of selected industrial sectors in the production and new orders indices

Industrial sector	Index weights		Memo item Change in real gross value added between 1991 and 2004
	New orders	Production	
Manufacture of motor vehicles, trailers and semi-trailers	20.1	12.1	12.1
Manufacture of machinery and equipment	15.8	14.9	- 9.9
Manufacture of basic metals and fabricated metal products	13.1	13.2	5.9
Manufacture of chemicals and chemical products	11.5	9.8	38.4
Manufacture of electrical machinery and apparatus	7.1	8.0	- 1.9
Manufacture of radio, television and communication equipment and apparatus	5.4	2.8	67.4
Manufacture of other non-metallic mineral products	1.7	3.8	1.9
Manufacture of food products, beverages and tobacco	0	8.8	- 12.0

The order capacity index appears to lead overall economic activity about one quarter in advance. Unlike the Ifo business climate indicator, it may therefore possess a genuine leading indicator property. At just under 0.7, however, the correlation with the previous year's calendar-adjusted gross domestic product (GDP) is, in comparison, somewhat less pronounced.<sup>8</sup>

If the order capacity index proposed here is taken as a basis, the order volume in the fourth quarter of 2006 was some 10% above the production capacity of order-based industry. According to the Ifo Institute, moreover, manufacturing enterprises assess their order position to be better than at any time since the unification boom. The order situation in the industrial sector is therefore extremely favourable at present. Even if the orders received evolve at a slower pace for a while, full order books are a good basis for stable industrial production.

between the Ifo business climate indicator and the year-on-year change in GDP is just over  $\frac{1}{10}$  point above this. See Deutsche Bundesbank, How robust is the empirical relationship between the Ifo business climate indicator and overall economic activity? Monthly Report, November 2006, pp 40-41.



also consistent with this picture. The effects are likely to be less pronounced in the finishing trades.

Commercial construction orders, which had already been benefiting from the generally favourable cyclical situation for some time, continued to show a positive development. They rose by a seasonally adjusted 2½% on an average of October and November. By con-

trast, public sector orders, which were quite volatile towards the end of the period under review, went down by 5¾% during the same period.

The outlook for service providers and in the retail trade sector was assessed more cautiously in the third quarter. According to the Ifo business survey, the subindicator for business expectations in the services sector declined in the fourth quarter. It did, however, go up sharply again in January. The ZEW indicator for business expectations in the services sector declined in the fourth quarter. The more modest expectations possibly reflect enterprises' uncertainties regarding the implications of the VAT increase.

*Service providers and trade more subdued*

Business prospects in the trade sector in the coming months are also likely to be influenced by the effects of the increase in VAT. This could especially be the case for sales of motor vehicles, which benefited strongly from anticipatory effects in November and December. Other consumer durables, such as furniture, household appliances and consumer electronics, are also likely to be affected in the coming months by the dampening effects of the VAT increase. One indication of this was the development of the GfK consumer climate. The subindicator, in particular, which reflects consumers' propensity to purchase, declined very substantially in January and is now at the level recorded in the third quarter of 2005. The deterioration in the consumption climate owing to the VAT increase is clearly overshadowing the continuing positive underlying trend at present. The retail trade sector itself was assessing its future pro-

*Quantitative effects of the VAT increase*

spects more favourably again towards the end of the period under review. The relief for consumers from lower oil prices also suggests that this trend will continue. This is currently providing a distinct counterweight to the VAT increase. More important still is the ongoing improvement in the labour market situation as a basis for a gradual and sustained recovery of consumer demand.

Although the fiscal measures of the Federal Government are likely to have a temporary

negative impact on the growth process overall, the German economy is on a solid footing, which means that the dampening effect *per se* is likely to be manageable. Following a temporary slight interruption, the economy could soon be gaining momentum again. If Germany's fiscal and economic policymakers persist with their course of consolidation and reform and if the wage policy remains employment-oriented, there are favourable prospects at present of an extended upswing and a gradually higher growth path.

*Positive underlying trend overshadowed for a short time*