# Economic conditions in Germany

## Underlying trends

*Lull in growth overcome*

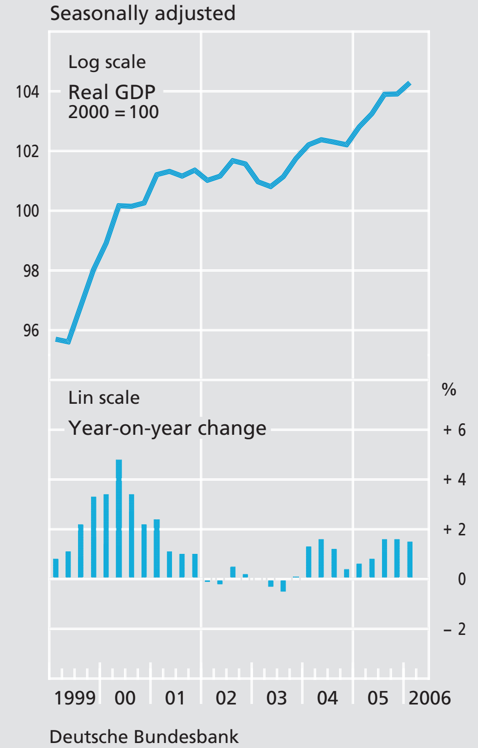
The overall output of the German economy was stepped up significantly again in the first three months of this year. There was a brief interruption in the upturn at the end of the year. However, according to the initial calculations of the Federal Statistical Office, which do not yet contain any detailed information, real gross domestic product (GDP) in the first quarter of 2006 was almost ½% higher than in the preceding three-month period after adjustment for seasonal and working-day variations. Working-day-adjusted real GDP was 1½% up on the year, as it was in the fourth quarter of 2005.

*Demand profile*

Sharply increasing investment spending on machinery and equipment made a substantial contribution to the positive overall result. In view of the continuing rise in output, which, according to the Ifo Institute, has now led to a noticeable increase in industrial capacity utilisation, capacity extension is currently becoming more and more a key motive in enterprises' investment plans, especially since the business outlook is also rated favourably. By contrast, construction investment in the first quarter of 2006 did not continue its positive development of the second half of 2005. The main reason for this was the persistently cold weather, which had a negative impact on the production process. The external component, which did not generate any additional stimuli in the final quarter of 2005, strengthened again in the first quarter of 2006. Thus, exports picked up again in this period. This was due mainly to a rise in exports of goods to EMU partner countries, whereas exports to regions outside of the euro area did not increase as much. However imports, which were already at a high level, also showed an increase. The external sector nevertheless made a positive contribution to growth.

As far as it is possible to tell at present, household consumption picked up quite noticeably in the first few months of the year. For one thing, seasonally adjusted classical retail purchases in the first quarter of 2006 were slightly up on their admittedly low level of the fourth quarter of 2005. For another, purchases of heating oil increased because a significant number of households had to buy more heating oil than expected owing to the cold weather. By contrast, there were perceptibly fewer registrations of new motor vehicles in the first quarter, and there was also a cutback in petrol consumption. The propensity to save is unlikely to have changed much.

Economic growth in Germany




## Output and sales

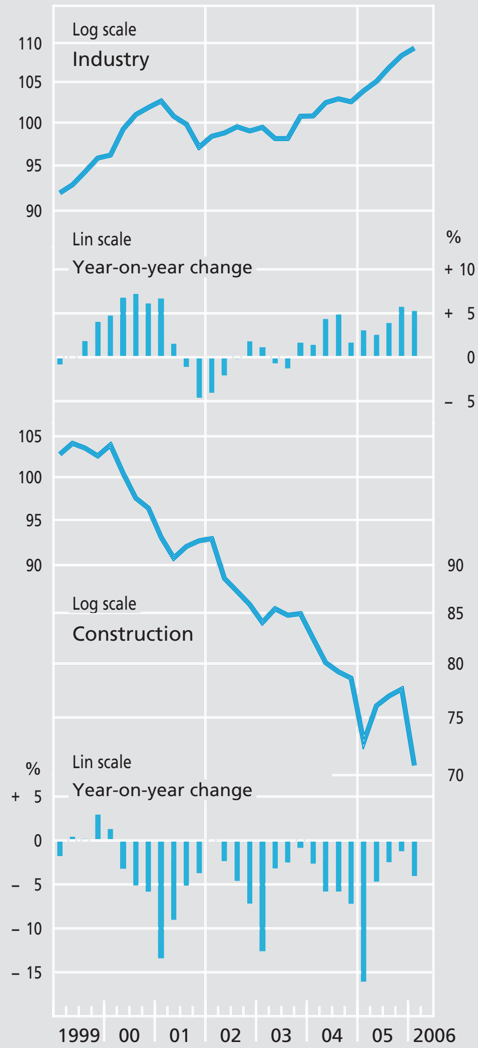
*Further increase in industrial output*

Industrial output showed a further increase in the first three months of the year. Compared with the fourth quarter of last year, there was an increase of ¾% after seasonal and working-day adjustment. In year-on-year terms, the 5¼% rate of expansion was only slightly lower than in the period from October to December 2005. According to Ifo surveys, there was a further rise in capacity utilisation. In March 2006, it exceeded the average level of medium-term capacity utilisation by roughly 1½ percentage points. This signifies a further improvement in the outlook for investment in capacity extension.

In line with this, it was capital goods which showed the largest increases in output. Mechanical engineering, in particular, was able to continue its good development of the previous months. By contrast, in the area of office machinery and information processing equipment, the rapid pace of growth in the second half of 2005 slackened considerably. Car manufacturers cut back their production. In the basic goods sector, it was especially manufacturers of electrical machinery and apparatus – whose output had stagnated in the final quarter of 2005 – that experienced a marked increase on an average of the period from January to March. In addition, there was an increase in output in the first quarter for manufacturers of basic metals, although this was not as great as in the second half of 2005. Manufacturers of chemicals and chem-

Output in industry
and in construction

2000 = 100, seasonally adjusted, quarterly

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ical products were not quite able to maintain the rapid pace of growth of the previous two quarters. In the case of consumer goods, there was a fairly sharp rise in the production of durable goods, while the production of non-durable goods declined a little.

*Buoyant foreign trade*

In the first quarter, German exports of goods expanded by just over 5% in nominal and seasonally adjusted terms compared with the preceding period, in which there had been only a small rise in exports. In January and February (figures with a sectoral breakdown are available up to then), there was especially strong growth in exports of capital goods, most noticeably of mechanical engineering products. Producers of intermediate and consumer goods nevertheless also achieved notable successes in foreign business. However, at 8% in nominal terms, seasonally adjusted imports increased even more sharply than exports in the first quarter. The cold winter, for example, made it necessary to import more energy goods, especially for heating systems in residential properties. Imports of intermediate goods were also noticeably higher owing to the increase in output. As a result of the enterprises' greater propensity to invest, there were also increased imports of capital goods. Moreover, the strong growth in import turnover was also due to the sharp increases in the prices of energy and industrial raw materials.

*Construction industry affected by cold weather*

The construction industry was particularly affected by severe weather conditions in the winter months. The level of output therefore went down by 8¾% after seasonal and working-day adjustment. The year-on-year decline widened again to somewhat over 4%. The individual construction industries were affected to a varying extent by the unfavourable weather conditions. While hours worked in public sector construction and road construction were even further down on the year, the shortfall in industrial construction narrowed a little. In housing construction, the year-on-year decline remained largely constant. In the finishing trades, for which statistical data are available only up to the fourth quarter of 2005, turnover was down slightly again in year-on-year terms, after having shown an increase on the year in the third quarter. In terms of hours worked, the decline on the year remained unchanged.

*Heterogeneous development for service providers*

According to the Ifo survey, the business climate among commercial service providers has shown a further improvement. The surveyed companies rated the current situation in the past few months just as favourably as the outlook. According to the services survey by the Centre for European Economic Research (ZEW), sentiment among tax consultants and auditors became increasingly brighter, while it remained buoyant among management consultants and in the advertising industry. This is consistent with the positive developments in the provision of commercial services, as may be seen in the services statistics of the Federal Statistical Office. By contrast, sales in data processing and communications presented a less favourable picture, with the information from the enterprises surveyed by the Centre for European Economic Research being correspondingly more cautious. In the case of architects, assessments have become more gloomy again after a temporary improvement, which is probably connected with the abolition of the grant to homebuyers. By contrast, turnover in the transport sector has increased in line with the general upturn in the economy.

*Subdued trade and hotel and restaurant services*

In the retail trade sector, real first-quarter growth in sales after seasonal and working-day adjustment was 0.6% compared with the subdued fourth quarter of last year. However, there was a marked decline during the quarter. Turnover therefore remained at the level of the previous year. Developments were more favourable in the wholesale trade. The year-on-year fall, which had become smaller in the fourth quarter, was now 4½%. The hotel and restaurant sector showed a decline again at the beginning of the year. Most notably, the catering trade suffered losses again, which especially affected the month of January. By contrast, on an average of the three-month period from January to March, turnover in accommodation services held up at its prior-year level.

## Foreign trade by category of goods

Percentage change

| Item | Average of January and February 2006 compared with | | | |
|---|---|---|---|---|
| | Q4 2005; seasonally adjusted | | January and February 2005; unadjusted figures | |
| | Exports | Imports | Exports | Imports |
| Total | + 5.5 | + 7.7 | + 15.3 | + 21.2 |
| Selected main categories | | | | |
| Intermediate goods | + 5.5 | + 7.6 | + 12.2 | + 15.3 |
| Capital goods | + 7.5 | + 6.7 | + 16.6 | + 21.9 |
| Consumer goods | + 6.2 | + 2.5 | + 12.5 | + 14.6 |
| Energy | . | + 20.5 | . | + 62.0 |
| Selected categories | | | | |
| Chemicals | + 2.8 | + 7.2 | + 11.9 | + 17.9 |
| Machinery | + 9.9 | + 8.1 | + 10.2 | + 16.9 |
| Motor vehicles and motor vehicle parts | + 3.9 | + 4.9 | + 18.5 | + 13.0 |
| Information technology | + 3.9 | + 8.5 | + 12.8 | + 32.2 |
| Metals and metal products | + 8.4 | + 7.3 | + 18.1 | + 16.8 |

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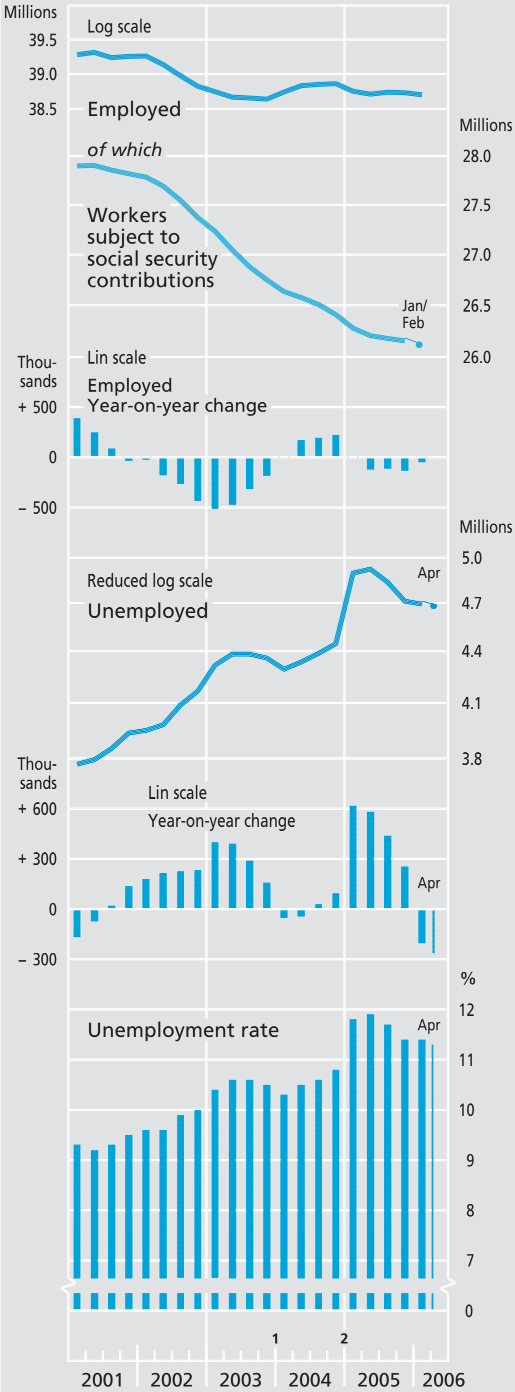
## Labour market

Seasonally adjusted, quarterly




**1** From January 2004, unemployed excluding participants in aptitude testing and training measures. — **2** From January 2005, including persons formerly receiving social assistance but able to work.

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### Employment and unemployment

*Underlying trend*

In spite of overall positive sentiment and a favourable outlook, the cyclical expansionary forces have not yet prevailed in the labour market. Even though the willingness to recruit new staff has improved in some instances and there has been a marked decline in pressure to make redundancies, there has not yet been a net increase in employment. In addition, the cold and prolonged winter weather affected weather-dependent outdoor occupations to a greater degree and for a longer period of time than is usual at this time of year. Moreover, redundancies were sometimes accelerated owing to the shortening of the period of entitlement to unemployment benefit I for older employees, which came into effect as of 1 February.

*Employment*

The number of persons in work declined slightly to 38.75 million in the first three months of the year, after showing a sideways movement in the second half of 2005. The statistics available so far indicate that employed persons subject to social security contributions were most affected by the decline. Furthermore, there was a lower take-up of job opportunities with a remuneration of one or two euros per hour. By contrast, there was an increase in the number of part-time low-income workers. When broken down by sectors, the sharp, partly weather-induced decline in the construction sector is especially noticeable, while employment in the services sectors showed a further increase. In industry, there was another net shedding of jobs.

*Unemployment*

At a seasonally adjusted 4.71 million, the number of persons registered as unemployed on an average of the first quarter of 2006 was barely lower than in the last three months of 2005. This was, however, 200,000 persons fewer than in the same period last year; owing to recipients of social assistance who are able to work being included in the first quarter of 2005, the figures are fully comparable again only from April of this year. This decline primarily reflects the greater efforts made by employment agencies to get registered unemployed persons into work. These include the expanded supply of employment opportunities. In the first quarter of 2006, the unemployment rate remained unchanged at a seasonally adjusted 11.4%. First signs of a spring upturn were not noticeable until April, when the weather conditions returned to normal. In seasonally adjusted terms, the number of unemployed persons fell by 40,000 to 4.69 million. The unemployment rate went down slightly to 11.3%.

## Wages and prices

*Pay settlements*

The 2006 pay round was marked initially by a number of moderate settlements. In the paper and plastics industries, management and trade unions agreed an annual average pay rise of 1.7% over a time period of 24 months. In the retail trade sector, there were settlements of around 1% in various regions. In the civil service pay dispute, where the employers are aiming for an extension of regular weekly working hours, an agreement has been reached so far only at local government level in some federal states. The pay agreements for Hamburg and Lower Saxony made provision for a scale of working hours in accordance with a number of different criteria, while a uniform arrangement on the basis of a 39-hour working week was agreed in Baden-Württemberg. An agreement at state government level is still outstanding, as negotiations on holiday allowances, Christmas bonuses and a new compensation package are still ongoing.

The pay settlement in the metal-working and electrical engineering industry was comparatively high with an increase in wage rates of 3% and a one-off payment of €310 for the period from March to May 2006. This one-off payment can be lowered or raised at plant level by agreement between senior management and the workers' council. As a result, the remuneration increment for this year is likely to be between 2¼% and 4¼%. However, the 3% increase ultimately applies to scheduled pay rates for all firms. The duration of the new pay agreement is only 13 months.

By contrast, the new remuneration agreements for the textile industry and Deutsche Post AG make provision for durations of 24 months and 22 months respectively. In addition to one-off payments this year, remuneration is to be raised in two phases in these industries. Employees in the west German textile and clothing industry are to receive a 2.5% pay increase as of 1 November 2006 and a 2.0% increase as of 1 May 2007. Post office employees will receive an increase of 3.0% as of 1 November this year and a further increase of 2.5% one year later.

On an average of the first quarter, the level of negotiated wages and salaries in the economy as a whole, when calculated on a monthly basis, was 1.0% above the previous year's level. Unit labour costs are likely to have declined again. However, this was accompanied in the corporate sector by rising energy costs and higher expenditure on primary products.

*Import prices*

The sharp rise in international crude oil prices, which was offset only slightly by the euro having a higher external value, drove up import prices further at the beginning of 2006. At 6.2% in the first quarter, they went up even more sharply in year-on-year terms than they had done in the second half of 2005, when the increase was 5.2%. After energy (+41.2%), the largest increase in cost was for imported metal ores (+40.8%). Apart from this, external price developments were subdued, although they were less favourable than last year. The prices of imported capital goods fell 1.2% year on year in the first quarter, and the prices of consumer goods increased by only 1.8%. Nevertheless, in the first half of 2005 the corresponding figures were -3.4% and -0.7% respectively. The terms of trade, given moderately increasing export prices, deteriorated by ¾% compared with the fourth quarter of 2005.

*Producer prices*

At a year-on-year rate of 5.7%, industrial producer prices for domestic sale rose more sharply in the first three months of 2006 than in any other three-month period during the past two decades. The main reason for this was the sharp increase in the cost of energy sources, which amounted to no less than 23%. The prices of other industial goods were increased by only 1.1% on average. This also includes the effects of the latest increase in tobacco tax in September 2005. In the first quarter of 2006, the cost of construction work was 1.2% up on the year. The largest price increases were for steel construction and tarmacking, where there was a sharp rise in the costs of materials. The producer prices of agricultural products also continued their upward movement; at the end of the period under review, they were 4.4% higher than in the corresponding period last year.

*Consumer prices*

At the consumer level, upward pressure on prices halted initially at the beginning of the year. After adjustment for seasonal variations, the consumer price index remained at the level of the final quarter of 2005, and the year-on-year increase went down from 2.2% to 2.0%. For one thing, this was due to a favourable price development in services, where there were price reductions, in particular, for insurance policies. For another, the winter clearance sale had a stronger effect on the prices of clothing and shoes than in previous years. Food products, on the other hand, became a little more expensive owing to the weather. The moderate rise in housing rents continued. The increase in energy prices at 1.7% was quite sharp compared with the previous quarter. While the cost of electricity and gas showed a further rise, petrol and heating oil were available at somewhat lower prices. If energy is excluded, consumer prices went down by 0.2% in seasonally adjusted terms in the first quarter of 2006; the year-on-year increase declined to 0.8%.

In April, however, there was a further marked increase of consumer prices in seasonally adjusted terms. This was essentially due to significantly higher fuel and heating oil prices. Prices of seasonal food products also increased more sharply than is usual at this time of year. These may have been after-effects of the prolonged period of winter weather. The year-on-year increase in the national consumer price index widened from 1.8% to 2.0%. The Harmonised Index of Consumer Prices (HICP) went up 2.3% in April, compared with 1.9% in March.

### Consumer prices

Year-on-year percentage change

| Item | 2005 Q3 | 2005 Q4 | 2006 Q1 | 2006 April |
|---|---|---|---|---|
| Industrial products | 0.7 | 0.3 | 0.4 | 0.9 |
| *of which* Tobacco | 13.0 | 13.4 | 6.0 | 6.0 |
| Energy | 13.0 | 12.9 | 14.0 | 12.9 |
| *of which* Refined petroleum products | 16.5 | 14.3 | 15.4 | 13.7 |
| Gas | 10.9 | 15.3 | 19.1 | 19.6 |
| Electricity | 4.4 | 4.2 | 4.0 | 3.8 |
| Central heating, district heating | 17.8 | 21.2 | 21.9 | 19.6 |
| Services | 2.0 | 1.9 | 0.9 | 1.4 |
| Rentals | 1.0 | 1.0 | 1.0 | 1.0 |
| Food | 0.1 | 0.3 | 0.7 | 0.9 |
| Total | 2.2 | 2.2 | 2.0 | 2.0 |
| Total excluding seasonal products, energy, tobacco products | 0.9 | 0.9 | 0.7 | 0.8 |
| *Memo item* Harmonised Index of Consumer Prices | 2.1 | 2.2 | 2.1 | 2.3 |

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## Orders received and outlook

*Probably positive development for industrial orders*

The situation in industrial orders is likely to have been positive in the first three months of this year. However, there is still no statistical evidence for this as the official statistics have not been supplying data for Germany as a whole since February owing to strike action. Makeshift calculations excluding North Rhine-Westphalia, for which data is lacking, show a year-on-year increase of about one-tenth in orders received, ie more or less as much as in the fourth quarter of 2005. According to Ifo Institute surveys, industrial enterprises have been rating their orders situation more and more positively in the past few months.

*Construction demand weak again at beginning of year*

In February – the most recent month for which figures are available – new construction orders picked up again a little after a marked decline in January. The decline at the beginning of the year probably also has something to do with the cold weather as well, since experience has shown that this has an influence not only on construction output but also on the placing of construction orders. In the two-month period of January and February as a whole, the overall level of orders received, after adjustment for seasonal and calendar effects, was 5% lower than on an average of the fourth quarter of 2005. This corresponds to a year-on-year fall of 9½%. The sharpest increase in construction demand in February was among industrial customers, which had shown a very sharp decline in January. However, industrial construction was unable to sustain the ongoing positive trend since the second quarter of last year. The housebuilding sector experienced losses in January and February. The abolition of the grant to homebuyers at the beginning of the year was probably a major reason for

## Increase in VAT and possible anticipatory effects

According to the Draft Act Accompanying the 2006 Budget (*Entwurf eines Haushaltsbegleitgesetzes 2006*), the standard rate of VAT is scheduled to be increased from 16% to 19% as of 1 January 2007. Assuming a full pass-through, this corresponds to a price effect of 2.6%, which will affect approximately three-fifths of goods and services. Even with a full pass-through, however, the rise in consumer prices (CPI), at 1.4%, will be markedly lower owing to the fairly large percentage of goods that will remain free of tax or to which the unchanged reduced rate of VAT will apply. Nevertheless, a price increase on such a scale will considerably change the consumer real wage relevant to the individual supply of labour and will therefore also tend to affect consumption potential in all the ensuing periods. Furthermore, the additional taxation encourages households to review the optimal distribution of consumer activity over time, since – as in this case – future consumption becomes more expensive than current consumption. Experience of earlier VAT increases shows that the intertemporal effect is relevant mainly in the short term. However, this does not apply just to the private consumption of higher-value durable consumer goods. There could also be shifts to 2006 in housebuilding, too, as the increase in VAT will also make building more expensive from 2007 onwards.

In order to obtain some indications of the quantitative significance of possible time-shifts in consumer spending, the obvious thing is to examine the behavioural pattern of households in the context of earlier VAT increases. For example, the standard rate of VAT has been raised three times in the past 25 years – from 13% to 14% as of 1 July 1983, from 14% to 15% as of 1 January 1993, and from 15% to 16% as of 1 April 1998. There are, however, two reasons why the quantitative effects derived from these increases cannot be applied directly to the present situation. First, in this instance, the VAT increase has been known to households for a comparatively long time – more than one year – in advance. Second, the size of the increase, by 3 percentage points, is unprecedented. Moreover, it should be noted that the responses of consumers may differ depending on the prevailing economic situation. Nevertheless, the historical context should make it possible at least to estimate a lower limit for the anticipatory volume this year.

Looking, for example, at the pattern of households' purchases of new cars – which accounts for around 5% of total private consumption – in the context of earlier increases in the rate of VAT, it is noticeable that such purchases shot up in the two months prior to the increase and then fell markedly in the month of the increase itself. In the following months, car purchases also remained at a relatively low level. Taking an average of the three VAT increases, there was an anticipatory effect – relative to a 1 percentage point increase – of around one-quarter of monthly car purchases. There were also more purchases of furniture and furnishings in the run-up to earlier increases in VAT. Overall, there were accelerated purchases of consumer durables – which include, besides the two categories mentioned, audiovisual and IT equipment in particular – in each case amounting to just under 0.2% of total annual consumption.

The anticipatory effects are also clearly identifiable in the pattern of overall private consumption. There are, nevertheless, certain differences between the three periods. In 1983, there was a noticeable shift from the second quarter into the first quarter. Although consumption expenditure was likewise stepped up markedly at the end of 1992 prior to the increase in VAT, following the slump at the start of 1993 it remained depressed in the second quarter as well – something which should be seen in the light of the economic slowdown at that time. By contrast, in early 1998, there were only minor shifts from the second quarter into the first quarter at the

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aggregate level. At the time, households evidently smoothed their overall consumption somewhat through compensatory expenditure in the case of other consumer goods. Estimates using macroeconomic consumption functions show that, given a VAT increase of 1 percentage point in each case, the net anticipatory effects on an average of the three periods under consideration here, at 0.1% of annual private consumption, were roughly only half as large as the gross effects ascertained from the detailed information.

As mentioned above, quantitative effects derived from the past cannot be applied directly to 2006. As the VAT increase will be noticeably larger this time and was announced well in advance, it cannot be ruled out that the effects will be perceptibly greater this year. Generally, a household will bring forward the purchase of a consumer durable if the saving resulting from the lower rate of VAT exceeds a certain threshold, which varies from household to household. Generally, the anticipatory volume of all households is therefore likely to be greater for a 3 percentage point increase than for an increase of 1 percentage point. Nevertheless, the relationship between the size of the VAT increase and the volume of the anticipatory effects is not necessarily linear. The early announcement of the measure could suggest a disproportionately large effect since, as a result, households have enough time to decide on how to allocate their spending. A disproportionately smaller effect is suggested by the, in some cases, very generous discounts granted recently by traders on products that come into consideration for an accelerated purchase. If demand for certain durable consumer goods increases noticeably over the course of 2006, it cannot be ruled out that such discounts will be granted less generously. Seen in that light, it might not always be an advantage to bring purchases forward to 2006, especially as the negotiating position of the buyer might be better next year if demand were to fall.

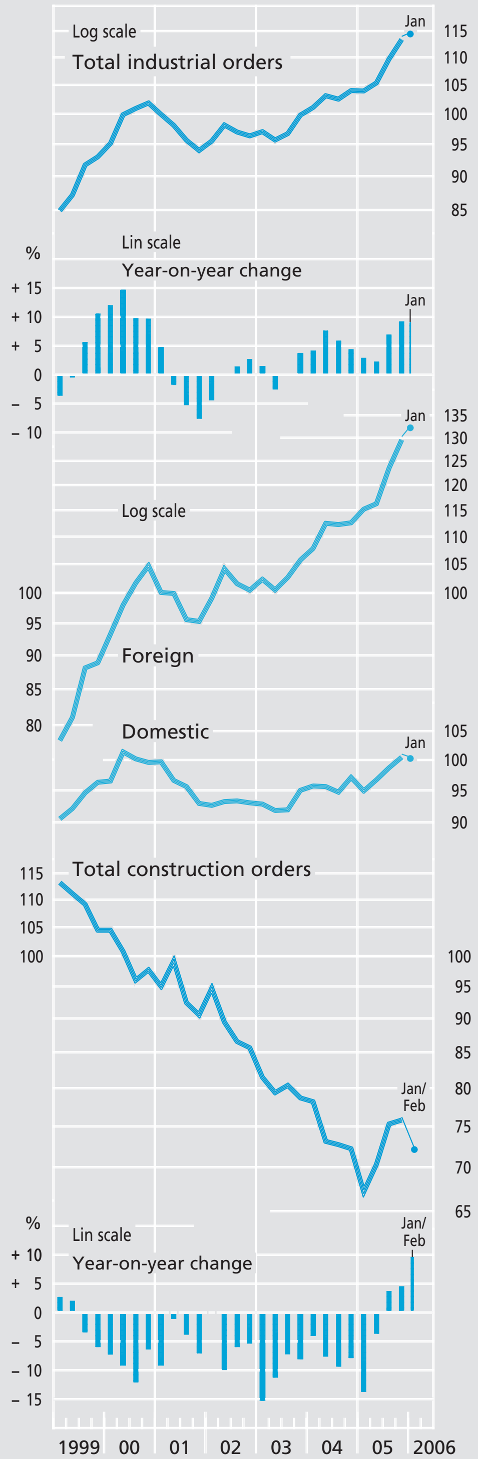
The information on retail sales and new car registrations by employees and those outside the labour force, which extends to March, does not show – as far as it is possible to tell – any anticipatory effects yet owing to the planned increase in VAT.

Not only private consumption but also housebuilding might benefit temporarily this year from anticipatory effects, not all of which are connected with VAT. As the grant to homebuyers was abolished with effect from 1 January 2006, more building applications were submitted towards the end of 2005, since the applicable statutory regulations are those of the year in which the building application is received. However, owing to anticipatory effects at the turn of 2002-03 and 2003-04, demand is likely to be relatively subdued at present. The grant to homebuyers had been called into question several times under the previous Federal Government, which meant that many potential housebuilders felt prompted some time ago to accelerate the realisation of their building plans. To that extent, it is not surprising that the number of construction permits in the sector of one and two-family housing showed a marked rise at the turn of 2005-06 but fell considerably short of the peaks at the turn of 2002-03 and 2003-04.

Overall, the anticipatory effects could increase real GDP growth by up to ¼ percentage point this year and lead to a corresponding shortfall in demand in 2007. Added to this is the actual burden of the higher level of VAT next year. Overall, this will increase the volatility of the growth process. Moreover, as a result of its varying effects on domestic demand and export business, the increase in VAT will pose a strain on the necessary catching-up process of domestic economic activity.

**Demand for industrial goods and construction work**

Volume, 2000 = 100, seasonally adjusted, quarterly

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this. At all events, there was an exceptionally large increase in the volume of contracts awarded in December, which points to anticipatory effects. The building permits show that this was especially the case for the construction of single-family housing.

*Predominantly optimistic service providers*

According to the Ifo Institute survey, commercial service providers are rating their prospects optimistically. Thus, business expectations were noticeably on the up in April, after already showing a clear improvement in the first quarter of this year. According to the reports of the Centre for European Economic Research (ZEW), it was mainly technical consultants who were assessing their demand prospects more favourably than before, while tax consultants continued to state their positive expectations for business. By contrast, perceptions in the case of telecommunications service providers were noticeably more subdued. However, this sector had already achieved quite a high level in the preceding quarters.

*Subdued outlook in the trade sector*

In trade, the outlook will probably remain rather subdued in the immediate future. According to the Ifo Institute, there has recently been a clear improvement in the business expections of retailers and, in April, there was a sharp increase in consumers' propensity to purchase, which is probably related to anticipatory effects of the announced increase in value added tax. However, the strains resulting from the energy prices, which were beginning to accelerate again at the end of the period under review, are clearly still restricting the scope for other purchases. In addition, in the second quarter there will probably be considerable additional retrospective payments for the last heating period.

*Economic outlook positive overall*

;In view of the continuing positive industrial activity and the predominantly positive outlook for commercial service providers, there is, nevertheless, still much to suggest a continuation of the upward trend. The German economy possesses a good competitive position, not least in light of the euro's appreciation up to now. In the next few months, it can therefore still benefit greatly from the strength of the world economy.[1] This will have an impact on investment in machinery and equipment. Utilisation of production capacity is now at quite a high level. Further investment in capacity extensions could therefore be on the agenda in the next few months. In the construction sector, a "technical" reaction to the cold winter may be anticipated in the second quarter, once disrupted or deferred construction work is resumed. As a result, a strong positive contribution to growth may be expected for the current second quarter. A steady improvement in the labour market could help consumption gain momentum, even if this happens only gradually and slowly, although continuing high energy prices are placing a strain on this. The German economy will receive certain positive growth stimuli from the forthcoming FIFA World Cup. However, these are merely non-recurrent effects, some of which are simply anticipatory effects. Consequently, together with accelerated purchases owing to the planned increase of value added tax, they will probably lead to losses of production and turnover at a later stage (see also the explanatory notes on pp 48-49).

**1** First, the appreciation of the euro in real terms has been within very narrow bounds since the beginning of the year. At the end of the period under review, price competitiveness was still clearly above the long-term average. Second, new studies show that the responsiveness of German exports to changes in exchange rates has been tending to become weaker since the 1990s. For details, see K. Stahn, Has the impact of key determinants of German exports changed? Results from estimations of Germany's intra euro-area and extra euro-area exports, Deutsche Bundesbank Discussion Paper, Series 1, Economic Studies, No 07/2006.