Economic conditions in Germany

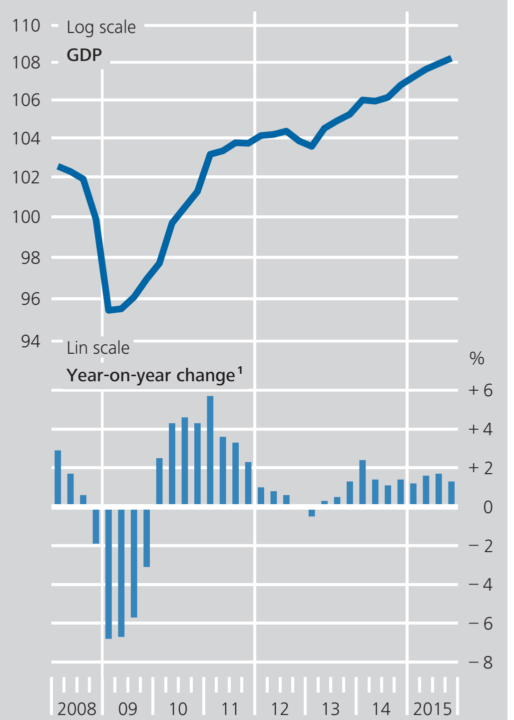
Macroeconomic situation

Sound economic growth also in 2015 Q4 …

The upturn in the German economy continued at a sound pace in the final quarter of 2015. According to the Federal Statistical Office's flash estimate, real GDP again saw quarter-on-quarter growth of 0.3% in the fourth quarter of 2015 after seasonal and calendar adjustment. Economic growth in the second half of the year was therefore somewhat weaker than in the first six months and matched the rise in potential output. Aggregate capacity utilisation in the reporting period thus remained in the upper range of normal capacity utilisation. Impetus for economic growth in the fourth quarter came from buoyant consumption activity and housing construction, whereas external demand had a marked dampening effect.

Overall output

2010 = 100, price- and seasonally adjusted



Source of unadjusted figures: Federal Statistical Office. **1** Only calendar-adjusted.

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… sustained by domestic components, …

Domestic demand continued to be driven by consumption activity in the fourth quarter as well, which was chiefly due to sharp increases in employment and significant rises in wages. Added to this was fresh impetus from transfer payments and other government expenditure related to the influx of refugees. This was further boosted by sharp growth in housing investment. However, there was only a slight increase in enterprises' willingness to invest in machinery and equipment and in new buildings. At the end of the year, the German economy was feeling the effects of a lack of demand stimuli not only from China and commodity-producing emerging economies, but also from some major industrial countries outside the euro area. This was not offset by demand from the euro area and the euro's ongoing favourable exchange rate.

… whereas external demand had a marked dampening effect

German enterprises' export business suffered a further setback in the final quarter of 2015, with exports of goods showing a marked decline on the quarter in price and seasonally adjusted terms. According to the regionally and sectorally disaggregated figures available up until November, almost the entire range of German export products was affected by weaker external demand. Trade in consumer and capital goods suffered perceptible losses. Furthermore, intermediate goods were only in marginally stronger demand. Whereas exports to other euro-area countries probably showed a slight increase and exports to other EU countries are likely to have expanded quite substantially, sales to countries outside the EU saw clearer losses than in the third quarter. Exports to the United States contracted again following exceptionally strong growth in the first half of the year, but it was, above all, trade with the emerging market economies that was performing much less favourably. The marked decline in exports to China that has been apparent since the beginning of the year showed no signs of abating. In October and November, exports to China were down by more than one-tenth on the year, with sales of motor vehicles and motor vehicle parts contracting by just over one-quarter. Moreover, the upturn in exports to OPEC countries, which are suffering from the slump in crude oil prices, went into reverse resulting in a considerable decline.

Probably only small growth in investment in machinery and equipment

There is likely to have been no more than limited growth in investment in machinery and equipment in the fourth quarter of 2015. Given the uncertainties surrounding future developments in demand, especially on the major international sales markets, enterprises held back on any expansion or upgrading of their machinery. The number of new vehicle registrations does, however, suggest that there was an increase in purchases of commercial vehicles.

Steep growth in housing construction investment

By contrast, construction investment saw a significant increase. This is indicated by the fact that output in the main construction sector recorded a sharp seasonally adjusted increase on the quarter. This is likely to have been due, in particular, to a strong pick-up in demand for housing construction in the third quarter. Investment in commercial and public buildings probably made only little headway, however, since there had been a lack of stimuli from these segments in the second and third quarters of 2015.

Continued upward movement in consumption

Private consumption was still pointing upwards and also proved to be a mainstay of growth in the final quarter of the year. Even so, the impetus was probably not as strong as in the third quarter. Households' real income was still benefiting, in particular, from the positive developments on the labour market and in earnings. The additional demand effects resulting from the further crude oil price-related gains in purchasing power at the end of the year are likely to have still been comparatively weak, however. Business in the hotel and restaurant sector and in the retail sector continued to be exceptionally good. The mild weather probably had a dampening effect on the demand for winter clothing. Purchases of heating oil were deferred for the time being, seeing as inventories had already been heavily stocked up at the end of the summer, although the mild autumn weather along with the expectation of further price reductions may also have played a part in this. In point of fact, demand was focused more on consumer durables. The greater number of new motor vehicle registrations by households indicates a rise in passenger car sales. There were also more purchases of furniture and furnishings, although this is likely to have been in connection with the pick-up in demand for apartments and houses.

Foreign trade

Seasonally adjusted, quarterly

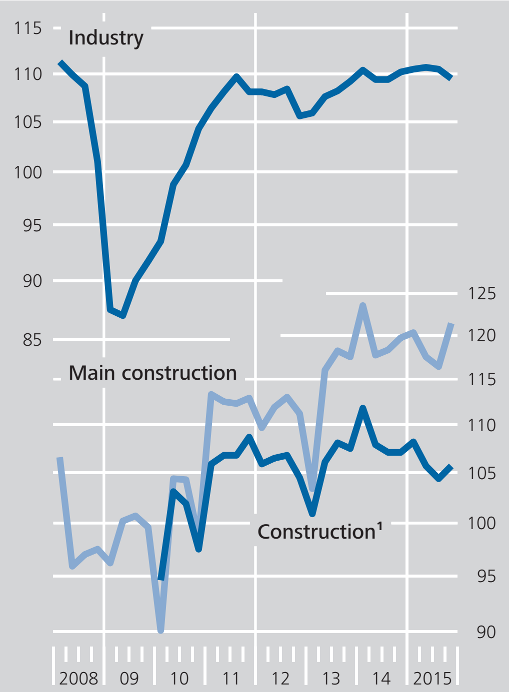
Source of unadjusted figures: Federal Statistical Office. **1** Adjusted using the price indices for foreign trade.
Deutsche Bundesbank

Little overall change in imports

Imports of goods continued their upward trend in the reporting period, albeit at a much slower pace, and were up only slightly on the level of

Output in industry and in construction

2010 = 100, seasonally adjusted, quarterly, log scale



Source of unadjusted figures: Federal Statistical Office. **1** Main construction sector and finishing trades.
Deutsche Bundesbank

the previous quarter after adjustment for price and seasonal variations. This is likely to have been due essentially to the strong decline in energy imports, however. By contrast, demand for foreign capital goods was still on a clear upward course. There was little additional demand for foreign-manufactured intermediate and consumer goods.

Sectoral trends

Marked cutback in industrial output

Industrial output failed to gain any momentum in the final quarter of 2015 either and was, on balance, down perceptibly on the quarter in seasonally adjusted terms. The production of intermediate goods remained sluggish. A substantial decline was also recorded in the capital goods sector. Output in the automotive industry, in particular, was cut back sharply owing to a considerable drop in demand in the previous quarter. The scandal surrounding the manipulation of exhaust emissions at Volkswagen is unlikely to have had a significant negative impact on output in the automotive industry as a whole; this is suggested by the fact that the intake of new orders recovered from its earlier decline, even after the scandal had become known to the general public. Manufacturers of machinery and equipment made a further sharp cutback in production. Output in a number of consumer goods branches also declined, while there was a further increase in the production of food and clothing.

Construction activity expanded sharply, energy production contracted

Seasonally adjusted construction output showed a substantial increase on the third quarter. This was due to considerably higher output in the main construction sector. This contrasted with a decline in the finishing trades, the data for which are, however, highly susceptible to revision. Energy production contracted strongly during the reporting period.

Continued clear upward trend in services sector activity

In the wake of buoyant consumption activity, service providers were clearly expanding their business activity in the final three months of the year, too. The industry-related services sectors are likely to have felt the slower pace of industrial output, however. A further drop in sales was recorded in wholesale trade, for instance. According to the Ifo Institute, the still very positive assessments of the business situation by business-related service providers do, however, point to a continuing high level of activity in this economic sector. Furthermore, some sectors, such as transport, are likely to have especially benefited from the recent fall in fuel prices. Retail sales and the hotel and restaurant sector were still performing exceptionally well. Turnover remained at roughly the same level as in the previous quarter, and motor vehicle sales posted a strong increase.

Employment and labour market

Labour market in very good shape

The labour market in the final quarter of 2015 was characterised by a continuing strong rise in employment and – following a sideways movement in the second and third quarters – a further significant decline in unemployment. The high demand for labour was still being met to a considerable extent by immigrants, particularly those from other EU countries. Even so, the number of reported job vacancies saw a further rise. The considerably stronger influx of refugees since the late summer of 2015 along with the necessary care, assistance and administration is likely to have induced additional demand for labour. So far, however, it will have hardly been possible for the new arrivals themselves to have taken up employment.

Steep rise in employment continued in Q4

The seasonally adjusted number of persons in work in Germany rose by 123,000, or 0.3%, in the fourth quarter of 2015. Employment subject to social security contributions grew at an even faster pace. According to the initial figures of the Federal Employment Agency, in October and November alone the number of such workers was up by an estimated 149,000 persons (or 0.5%) compared with the average of the third quarter. The strongest gains in employment were recorded in a number of services sectors (business-related services, the health and welfare sector, transportation and storage and in the hotel and restaurant sector). The public sector also witnessed its first significant increase in staffing levels for a long time, most likely to deal with the surge in the numbers of refugees. Employment growth in the manufacturing sector was below average. A slight acceleration was discernible in the construction sector again at the end of the period under review following the relatively cautious recruitment policy adopted in the second and third quarters of last year. The number of persons in work in other major forms of employment, such as those working exclusively in low-paid part-time jobs as well as the self-employed, continued to decline.

Additional demand for labour still being met to a considerable extent by strong immigration from the EU

Although detailed immigration figures are available only with a relatively large time lag, the data available so far emphasise the fact that a considerable part of the additional demand for labour is still being met by immigrants, especially nationals of other EU member states: the number of employees in November 2015 was up by a total of 520,000 on the same month last year. According to an initial estimate, during this same period, there was an increase of 223,000 in the number of non-German EU workers alone who are registered with the Federal Employment Agency as being in employment subject to social security contributions or working in low-paid part-time jobs,[1] and the data published by the Federal Statistical Office so far for the first six months of 2015 point to a further slight increase in the net inflow of EU nationals compared with 2014. The unemployment rate among non-EU citizens residing in Germany has fallen slightly in the past 12 months.

Influx of refugees has barely impacted on the labour market to date

Only a small number of the refugees that have been coming to Germany since the late summer are likely to have been able to gain a foothold in the labour market so far. According to the Federal Employment Agency, the number of employees (excluding self-employed persons) holding a nationality of the main countries of origin[2] increased by no more than 20,000 on the year in November. Besides other barriers, such as a lack of language skills and other qualifications in the case of many refugees, as well as legal hurdles, the long processing times for asylum applications and the current backlog are an obstacle to taking up employment.[3]

Fall in unemployment in Q4

Unemployment went down during the fourth quarter of 2015 after remaining virtually unchanged in the second and third quarters. The

1 See IAB, Zuwanderungsmonitor Januar 2016, Aktuelle Berichte des Instituts für Arbeitsmarkt- und Berufsforschung, Nuremberg.
2 According to the IAB's definition, these are the Middle Eastern countries of Syria, Iraq, Iran, Afghanistan and Pakistan and the African countries of Eritrea, Nigeria and Somalia. See IAB (2016), op cit.
3 Having made around 283,000 asylum decisions (first and repeat applications) in 2015, the number of applications recorded by the German Federal Office for Migration and Refugees (Bundesamt für Migration und Flüchtlinge, BAMF) was more than twice as high as in 2014. At year-end 2015, however, there were still over 364,000 asylum applications waiting to be processed. In addition, according to rough estimates by the BAMF, there are still around 300,000 refugees who have already arrived in Germany, but who have not yet been able to submit an asylum application.

Labour market

Seasonally adjusted, quarterly

Source of unadjusted figures: Federal Statistical Office and Federal Employment Agency. **1** Not seasonally adjusted. **2** Excluding seasonal jobs and jobs located abroad. **3** From May 2009, unemployed excluding persons newly registered on the books of private employment agencies.

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seasonally adjusted unemployment rate fell by 0.1 percentage point to 6.3%, with a decline both in the number of more short-term unemployed persons drawing unemployment benefits and in – to a lesser extent – the number of persons registered as out of work receiving basic social security payments. Registered unemployment showed a further significant fall in January 2016 and the seasonally adjusted unemployment rate went down to 6.2%.

Outlook for employment remains positive

According to the leading labour market indicators, it is possible that the positive development in employment will continue in the coming months. The Ifo employment barometer, which surveys the employment plans of trade and industry over the coming three months, fell slightly in January. It should be borne in mind, however, that the index had previously reached its highest level in four years. The Federal Employment Agency's BA-X job index, which contains information on both the existing number of reported vacancies and their dynamics, stood at its highest level since its introduction. Growth in vacancies for unsubsidised positions subject to social security contributions was reported, above all, in sectors in which employment had been especially marked of late. The IAB labour market barometer declined, however, and is now broadly in neutral territory. This indicates that registered unemployment is unlikely to change significantly over the next three months.

Wages and prices

Increase in negotiated pay rates somewhat higher in second half of 2015

Negotiated rates of pay, including additional benefits, rose by 2.3% on the year in the fourth quarter of 2015, which was somewhat weaker than in the third quarter. Even so, the increase was somewhat larger than in the first half of the year, when months with a pay freeze in some sectors and a special factor in retail trade were still having a dampening impact.[4] Actual earnings are also likely to have grown more

4 In January 2015, collective back payments in the retail sector caused a negative base effect on the year.

strongly than negotiated wages in the final quarter of 2015.

Rates of pay and wage drift

Year-on-year percentage change, on monthly basis

Deutsche Bundesbank

Significantly stronger growth in actual earnings in 2015 than in negotiated wages

In 2015 as a whole, the 2.3% year-on-year rise in negotiated rates of pay, including additional benefits, was markedly smaller than that recorded in 2014 (2.9%). In addition to the low incremental pay increases agreed by the social partners in previous years, this was due chiefly to the moderate new agreements, principally in the services sector, during the past year. According to provisional data of the Federal Statistical Office, the increase in actual earnings, at 2.8%, was somewhat stronger than in the previous year, however, and significantly steeper than the rise in negotiated wages. The reason for the wage drift moving back into positive territory (0.5 percentage point) was the introduction of the general statutory minimum wage. The slightly higher bonus payments outside the agreed pay scales at large industrial firms probably also had the effect of increasing wages. Last year, increases in actual earnings and negotiated wages were both significantly above the average rates of increase for the past ten years. In fact, real wage growth, as measured by the increase in actual earnings adjusted for the rise in the consumer price index, reached its highest level since 1992. The trade unions' wage demands in the 2016 pay round so far, which average 5%, are slightly lower than last year.

Prices declining at the upstream stages in Q4 2015, even if energy is excluded, but consumer price inflation rising

It was, above all, the slump in crude oil prices towards the end of 2015 that led to the negative price trend at the upstream stages of the economy in the third quarter continuing into the final quarter of the year. The prices of the non-energy components were also pointing downwards overall, however, even though significant inflationary pressure was discernible for some categories of goods. Consumer prices were unchanged on the whole in seasonally adjusted terms, but showed a further increase if energy is excluded.

Prices at the upstream stages still being shaped by falling commodity prices

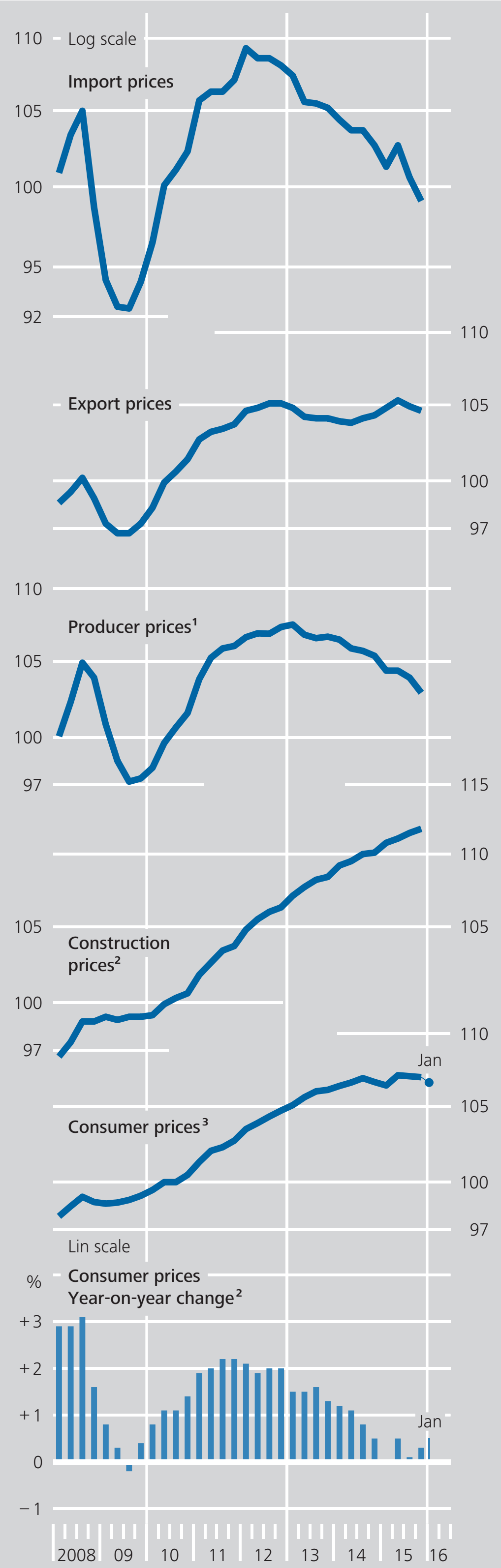
Seasonally adjusted import prices showed a noticeable decline in the final quarter of last year, which was mainly due to the steep decrease in energy prices. There was a decrease even if energy is excluded, however. In this instance, price reductions for intermediate goods on the back of falling industrial commodity prices outweighed price increases for some consumer goods segments, which were probably connected with ongoing depreciation of the euro. A very similar pattern emerged for domestic sales of industrial goods. Export sales prices also declined somewhat, but far less strongly than import prices, which led to a further improvement in the terms of trade.

Moderate rise in construction prices

There was a further moderate increase in construction prices. As in the previous four quarters, the year-on-year change amounted to +1.6%. Upward price pressure persisted in the real estate market in the final quarter. According to the Association of German Pfandbrief Banks (Verband deutscher Pfandbriefbanken – vdp), prices of owner-occupied housing rose by 4.4% on the year. More detailed comments on

Import, export, producer, construction and consumer prices

2010 = 100, seasonally adjusted, quarterly



Source of unadjusted figures: Federal Statistical Office. **1** Producer price index for industrial products in domestic sales. **2** Not seasonally adjusted. **3** National consumer price index.

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housing price developments last year may be found on pages 53 to 56.

Consumer prices, excluding energy, continue to edge up slightly

Seasonally adjusted consumer prices in the final quarter of 2015 remained at their prior-quarter level. Consumers paid significantly less for energy, especially refined petroleum products, than they did in the third quarter. If energy is excluded, prices continued to rise, however. Food prices went up again after showing no movement in the third quarter. The rise in the prices of other goods was extremely modest on average. However, this masks the fact that it was, above all, consumer durables, such as furniture, which showed sharp price increases, which probably had to do with the continued depreciation of the euro. The annual rate of change in prices of these goods, which is negative on a multi-year average, rose to more than 1%. The services sector saw significant price increases across all major subsectors. By contrast, rents continued to go up only moderately. The annual rate of consumer inflation rose to +0.3% according to the national Consumer Price Index (CPI) and to +0.2% as measured by the Harmonised Index of Consumer Prices (HICP), since prices had fallen sharply at the end of 2014. Excluding energy, the rates for both the CPI and the HICP went up from +1.1% to +1.3%.

On an average of 2015, consumer price inflation barely moved, mainly due to declining energy prices

On an average of 2015, consumer prices barely increased due to the effect of falling energy prices. The annual rate of inflation as measured by the CPI stood at +0.2% (HICP +0.1%), while prices excluding energy rose by +1.2% (HICP +1.1%). One factor behind the relatively small increase in the indices excluding energy was weak food price inflation, probably due in part to an excess supply of some products. By contrast, the 1.2% rate of increase in the prices of industrial goods excluding energy – also due to the euro's depreciation – was clearly above the long-term average. The increase in the costs of services (excluding rents), at 1.3%, was weaker than in the previous year. In this instance, the impact of the introduction of the minimum wage was offset by price reductions for travel

Housing prices in Germany in 2015

Last year saw a further sharp increase in residential property prices with housing price inflation being regionally more broadly based than in earlier years. The price effect of the continuing strong demand for housing, which was given an additional stimulus by the further improvement in financing conditions, again outweighed the price-dampening impact of the increasing expansion of the housing stock last year. Measured in terms of the economic and demographic fundamentals that determine prices, housing is probably still being valued exceptionally highly in urban regions.

According to calculations based on data from bulwiengesa AG, housing prices in German towns and cities went up by 6% on average in 2015, following a marked fall in the rate of increase from 7½% to 5½% in 2014.[1] This means that price dynamics in 2015 were approximately as strong as on an average of the five preceding years. In the past year, the increase in the prices of freehold apartments, at 6½%, was stronger than for semi-detached and single-family houses. As in 2014, prices for the latter two types of housing went up at a rate of 5%, which was faster than on an average of the years since the onset of the upswing on the housing market. This was due to the acceleration in inflation from 4¾% to 5% in the case of semi-detached houses. The degree of inflation for apartments increased particularly in towns and cities where apartments were previously judged to be relatively unattractive, while the pace of price rises in the case of semi-detached housing picked up chiefly in regions already showing above-average price inflation. Bulwiengesa data also show prices of multiple-family dwellings in towns and cities in 2015 again increasing at a rate higher than the annual average since the onset of the housing market boom.

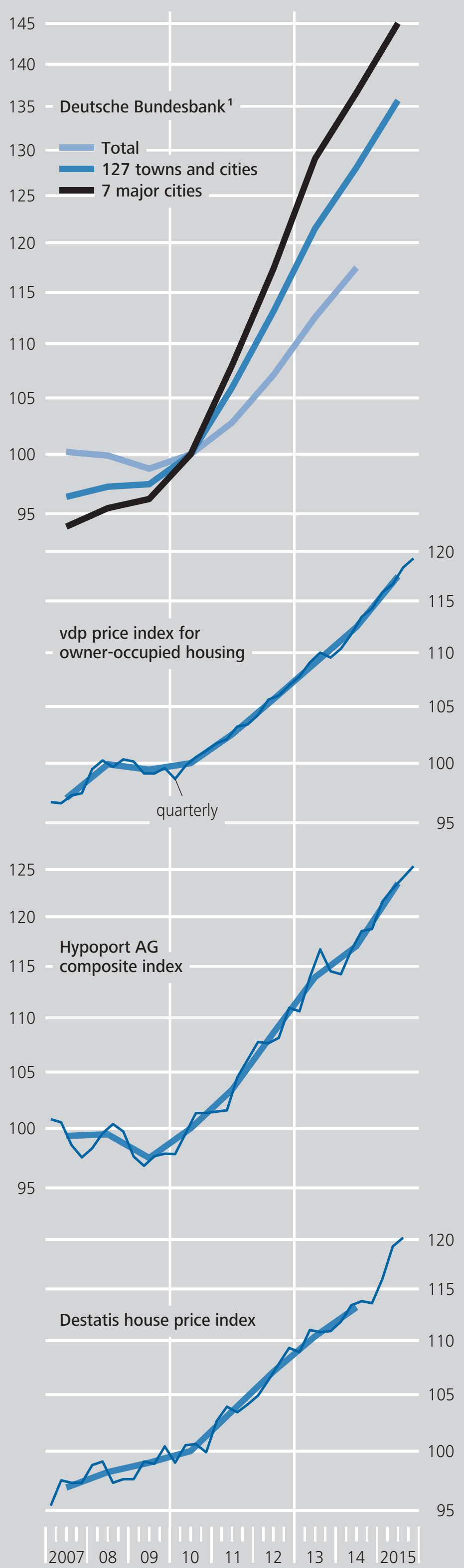
Price increases in the housing markets continued to converge between the towns and cities. Increases in the price of housing in large cities, at a rate of 6¼%, were noticeably weaker than on an average of the five preceding years and thus more or less as strong as for towns and cities overall.

The convergence of price dynamics between the urban housing markets and the comparatively sharp growth in the prices of semi-detached and multiple-family houses are reflected in the results of geographically more broadly defined indicators. According to data supplied by the Association of German Pfandbrief Banks (Verband deutscher Pfandbriefbanken, vdp), the price index for owner-occupied housing, which also covers rural areas, showed an increase of 4½% in 2015, compared with 3¼% in 2014. In Germany as a whole, there was a 4% increase in the cost of buying a freehold apartment, up from 3% the previous year, while house price inflation rose from 3% to 4¾%. The rate of inflation for multiple-family houses, at 7¼%, was considerably up on its average since 2010 of 5¼%. According to the composite index published by Hypoport AG, inflation for residential property went up from 2¾% in 2014 to 5½% in 2015. The house price index of the Federal Statistical Office shows that the annual rate of price increase on an average of the first three quarters of 2015 was 5% compared with 2½% in the year before.

1 Price data for housing in the 127 towns and cities in 2014 has been adjusted upwards by ¼ percentage point in line with the latest supplied data.

Price indices for housing

2010 = 100, annual values, log scale



1 Weighted by transaction. Bundesbank calculations based on price data provided by bulwiengesa AG.
Deutsche Bundesbank

The rise in rents for new lettings of existing apartments in towns and cities in 2015, at 3¼%, was more or less as sharp as in 2014, whereas there was a further marked decline in the rate of increase for rents for newly constructed apartments. In the major cities, rent adjustments in both categories of housing were significantly smaller than in the year before, which may also be due to the introduction of the new cap on rent increases, which had entered into force in some cities during the previous year.[2]

The ongoing positive outlook for incomes and employment was among the factors ensuring a continuing strong demand for housing. While the macroeconomic price-to-income ratio has shown a marked increase over the past three years, there is likely to have been a further improvement in the affordability of residential property owing to the low financing costs of acquiring it.[3] The average rate for mortgage loans declined during the past year by more than ½ percentage point to below 2%. Adjusted for the longer-term expected rate of inflation, the interest rate has gone down by 2½ percentage points since 2009 to an all-time low. Technically, roughly one-fifth of inflation in urban housing since 2009 could

2 The new cap on rent increases applies, in whole or in part, in Berlin, Cologne, Düsseldorf, Frankfurt am Main, Hamburg, Munich and Stuttgart as well as in many small and medium-sized towns and municipalities.
3 While the ratio of the vdp index for owner-occupied housing and disposable household income has increased by around 6% over the past three years, the annual cost of the interest rate service of a mortgage loan with an interest lock-in period of between five and ten years given a hypothetical maturity of 30 years has decreased by more than one-tenth as a percentage of households' income. Besides the price-to-income ratio, the Bundesbank publishes further indicators for the German housing market online at http://www.bundesbank.de/Navigation/EN/Statistics/Enterprises_and_households/System_of_indicators/system_of_indicators.html.

Regional population distribution and labour market situation in 2013

as a percentage of each population group

Population	in towns and cities[1]	outside towns and cities	in major cities[2]	outside major cities
	Population distribution			
Non-German nationals	50	50	23	77
German nationals	31	69	11	89
	Employment rate			
Non-German nationals	79	85	81	83
German nationals	90	93	90	92

Source: Regional database of the Federal Statistical Office. **1** Municipal districts. **2** More than 500,000 inhabitants.
Deutsche Bundesbank

be due to the exceptional decline in the interest rate level.[4]

The expansion of the supply, which showed a further increase last year, was probably insufficient to markedly dampen the price and rent effects of the considerable pressure exerted by the demand for housing. Overall, more dwellings are again likely to have been completed in 2015 than in the year before (245,000 units). Scheduled housing construction last year, with around 300,000 building permits granted, is likely to have been 6¾% up on the previous year's level. Permits for the construction of dwellings in new single-family and multiple-family housing increased at much the same pace as permits for apartments, which had shown substantially more dynamic growth in the preceding years.

In future, the strong influx of refugees is also likely to be reflected in both the demand for and the supply of housing, albeit with overall moderate effects on the rate of housing inflation. Provisional calculations indicate that rents and house prices could increase more strongly by a total of ½ to 1 percentage point over the next two years than in a hypothetical scenario without an inflow of refugees.[5] A factor in this context will also be where persons who are granted refugee status are going to settle in the medium to long term.[6] If a disproportionately large number of immigrants move to metropolitan areas where the housing markets are already tight, rent and price pressures might increase there. Clues as to the regional distribution of persons granted refugee status are provided by the place of residence chosen by earlier immigrants, although this shows that the number of non-German nationals living in German towns and cities is no larger than in other areas.[7]

4 Following a re-estimation of the econometric model used for analysing residential property prices, it is possible to find evidence of a statistically significant impact of mortgage rates. The contribution that the interest rate level makes to increases in the price of owner-occupied housing results from a comparison with a hypothetical scenario in which mortgage rates have remained unchanged since 2009. See F Kajuth, T A Knetsch and N Pinkwart, Assessing house prices in Germany: Evidence from an estimated stock-flow model using regional data. Deutsche Bundesbank, Discussion Paper No 46/2013.
5 The simulation results are based on updated estimates of the impact of socioeconomic and demographic variables on house prices as well as on estimates of the expected development of GDP per capita, the population figure, refugee migration and the supply of housing per inhabitant in line with the latest macroeconomic projections for the German economy. See F Kajuth, T A Knetsch and N Pinkwart (2013), loc cit, and Deutsche Bundesbank, Outlook for the German economy – macroeconomic projections for 2016 and 2017, Monthly Report, December 2015, pp 13-32.
6 At present, mandatory residence for asylum seekers is required only for a period of three months. Recognised asylum seekers are free to choose their place of residence.
7 The town-country distribution of resident non-German nationals has remained virtually unchanged on balance since 2010. The relative weight of the major cities in the choice of non-German nationals' place of residence has increased by 1 percentage point since then.

The regional population distribution of non-German nationals is also consistent with the fact that rural areas show, for example, a more favourable relationship between the employment rate of non-German nationals and housing rents than the towns and cities do.[8] The town-country ratio was nevertheless higher in the case of non-German nationals than for native inhabitants, although the labour market situation in the cities tended to appear poorer for immigrants than for the native population. Possible reasons why towns and cities are especially attractive for immigrants might be, for example, the available urban public infrastructure, personal networks of contacts, and lower linguistic and cultural barriers. For the current wave of immigrants, the significance of these factors could be greater than for the more labour-market-oriented immigrants of earlier years.

All things considered, the increase in the price of residential property during the reporting year is likely to be greater than is suggested by the dynamics of the demographic and economic fundamentals. According to the latest estimations, the relevant upward price deviations in towns and cities still amount to between 10% and 20%. In this context, freehold apartments in the major cities continue to show the steepest overvaluations.

8 According to the latest figures of the Federal Statistical Office, which relate to 2013, the employment rate of non-German nationals in rural districts was roughly 6 percentage points higher than in towns and cities, whereas bulwiengesa data show housing for rent in rural districts as 13% cheaper on average than in towns and cities.

services, with the indirect effects of the lower crude oil prices likely to have played a part in this. The substantial rise in rents for new lettings that has been evident for some time now was not reflected in the CPI's rent sub-index in 2015 either.

Price inflation, excluding energy, continues in January

The ongoing decline in crude oil prices led to a fall in consumer prices in January. By contrast, prices of other goods and services went up. Owing to the base effect in the energy component, annual inflation as measured by the CPI increased to +0.5% (HICP +0.4% according to the estimate). Inflation was thus markedly below the rate expected in the December projection, chiefly because of the decline in crude oil prices. See the box on pages 57 and 58 for an update of the inflation rate assumed at that time, taking into consideration the changes in crude oil prices. Given the trajectory of crude oil prices that is now assumed, negative inflation rates are thus possible in the coming months.

Orders received and outlook

Stronger domestic demand leads to somewhat sharper economic growth at beginning of 2016 , …

The German economy, sustained chiefly by a faster pace of domestic activity, might be expanding somewhat more strongly in the first quarter of 2016 than at the end of 2015. Consumption is likely to be providing greater momentum. Additional impetus may be expected primarily from households' substantial gains in purchasing power owing to the further decline in crude oil prices at the turn of 2015-16. The pick-up in construction activity looks set to continue in the early part of the year. This has been buoyed of late by a considerable surge in demand from enterprises and the public sector, while housing construction is being boosted by the fundamentals in conjunction with favourable financing conditions. Given that capacity utilisation levels are already higher than normal in many sectors of the economy, firms' propensity to invest in machinery and equipment should also increase.

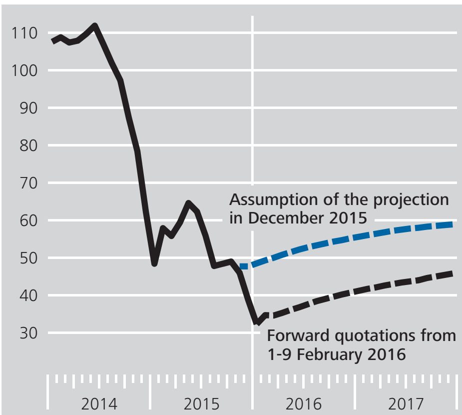
Effects of the fall in crude oil prices on the price projection

In the December 2015 macroeconomic projections it had been expected that the rate of consumer price inflation in Germany – as measured by the Harmonised Index of Consumer Prices (HICP) – would rise to 1.1% in 2016 and to 2.0% in 2017, compared with an actual outcome of 0.1% in 2015.[1] In mathematical terms, the projected development of energy prices accounted for one-half of this increase. This was due chiefly to the assumed future development of crude oil prices derived from the forward quotations at the projection's cut-off date, with the price of crude oil being an important determinant of consumer prices for energy.[2] Crude oil prices have, however, fallen by almost 30% since then, latterly standing at around US$35 per barrel of Brent crude oil (see chart below). This was due to the abundant supply of crude oil, together with subdued demand (see the box on pages 13 to 15). The forward quotations for crude oil were also significantly lower of late than assumed in the December projection round. It had originally been anticipated that crude oil prices in the current year, at just over US$52, would largely remain at the 2015 level on average (roughly US$50). Judging by the current price path for crude oil, however, it is likely to be around 30% lower. Based on forward quotations, which are currently just shy of US$45 (instead of US$57½), it is now expected that crude oil prices in 2017 will also be significantly lower than had been assumed in the December projection. Exchange rate influences do not materially alter this picture, as the US dollar-euro exchange rate currently corresponds, by and large, to the level assumed in the projection.

Fluctuations in crude oil prices generally have a rather swift and clearly noticeable impact on consumer prices for energy products (direct effects). This is especially true of heating oil and fuel, which together account for almost one-half of the HICP's energy component. The effect of such fluctuations on the prices of the other forms of energy (gas, electricity, and district heating) is less direct and weaker, not least because other cost factors, such as the renewable energy (EEG) levy, also play a role. Overall, it is likely that a 30% drop in the price of oil would lead to a decline of just over 6% in energy prices in the first year and a further 1½% in the second year.[3] After three years, however, the effect on the year-on-year rate of increase would be virtually zero. Owing to the rather high weighting of

Price of oil

Per barrel of Brent in US dollar



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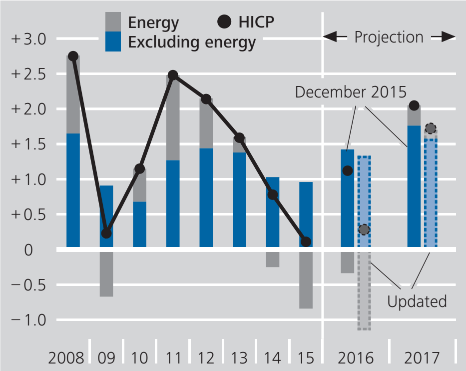
1 See Deutsche Bundesbank, Outlook for the German economy – macroeconomic projections for 2016 and 2017, Monthly Report, December 2015, pp 13-32. These results were fed into the macroeconomic projections for the euro area published by the ECB in December. For more information, see ECB, December 2015 Eurosystem staff macroeconomic projections for the euro area.
2 The cut-off date for the technical assumptions for oil prices and exchange rates, among other things, was 12 November 2015; the projection was completed on 19 November 2015.
3 The impact of a change in crude oil prices starting at a higher price level is greater than an equivalent percentage change starting at a lower price level. The described results are based on an oil price level of €55 per barrel, which is slightly higher than the starting level of the crude oil price assumptions in the December projection.

Updated HICP projection for Germany*

Year-on-year change in %
and contributions in percentage points



* In line with the crude oil price path in euro from 1-9 February 2016.
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energy in the HICP's basket of goods, at 12%, this would therefore result in the annual HICP inflation rate declining by 0.8 percentage point in the first year and by 0.3 percentage point in the second year.

In addition to the direct effects, oil price fluctuations can also give rise to indirect effects. The latter have an impact on the price changes of all the goods and services in the HICP basket of goods which are not directly attributed to the energy component and which are consolidated in the HICP excluding energy. As energy is used – in some form or other – in almost all production processes and in the provision of many services, fluctuations in the price of crude oil also have an effect on pricing in these sectors. However, as the components of the HICP excluding energy are affected to a lesser (albeit to a very different) extent by crude oil price fluctuations than the energy component and sometimes with a considerable time lag, the values for the indirect effects are significantly lower than those of direct effects and their impact sets in slightly later.

Indirect effects – like direct effects – are a temporary phenomenon for the rate of inflation. If the temporarily lower inflation rate resulting from the fall in crude oil prices leads to an adjustment in inflation expectations or wages, one speaks of second-round effects. It is empirically difficult to disentangle these second-round effects from indirect effects, as both would be captured by changes in the HICP excluding energy. That said, second-round effects would lower the core rate for a longer period of time and would be coupled with a marked decline in inflation expectations and thus significantly dampened wage growth. There are no indications of this in Germany at the present time.

All in all, based on mechanical simulation calculations using the Bundesbank's macroeconomic model, a negative oil price shock of 30% could, all other things being equal, lead to a fall in annual HICP inflation excluding energy in Germany of 0.1 percentage point in the first year and a further 0.2 percentage point in the second year.[4] The effect would then tail off in the third year.

If one were to update the December 2015 projections accordingly, using the significantly lower oil price path from 1 to 9 February 2016, the rate of inflation for the HICP in 2016 would be ¾ percentage point lower, at around just ¼% (see chart above). This is due primarily to the clearly stronger negative effect of the energy component compared with the December projection, which is likely to have an even stronger dampening effect than in 2015 and 2009. The impact of these direct effects in 2017 will probably be only minor. Together with the indirect effects, however, it is to be expected that the HICP growth rate would be ¼ percentage point lower than in the December projection, thus standing at 1¾%.

4 The macroeconometric model is a key instrument for generating the projection baseline and for accompanying simulation calculations. It is a traditional macro model with Keynesian properties in the short term and neoclassical properties in the long term. The model calculations assume an isolated oil price shock.

… but heightened risks for the external setting …

German industry's exports are likely to benefit from the ongoing economic recovery in major industrial countries, but the outlook for exports to emerging market economies has deteriorated. The purchasing power gains made by crude oil importers are being offset by corresponding losses in revenue in the crude oil-producing countries. These losses are likely to dampen private and public sector spending in the crude oil-exporting emerging market economies. Investment budgets, in particular, are likely to be cut. Furthermore, the individual sectors of German industry are being affected to a varying extent by the fall in the price of oil and the shift in demand impulses from countries producing commodities to those importing them. There are also doubts with regard to the effects of the ongoing macroeconomic restructuring process taking place in China.

… dampening optimism for the time being, above all in industry

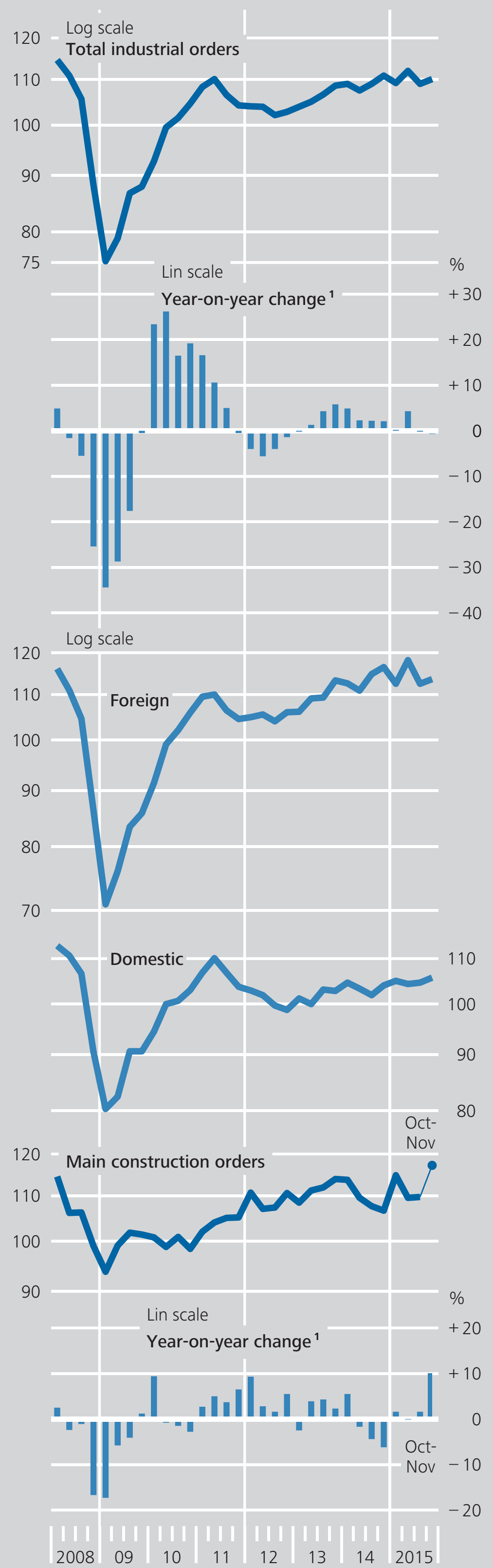
The ensuing uncertainty, which has also affected financial markets, is likely to have dampened primarily the business outlook in industry recently. The still quite positive expectations for exports and output as well as increased orders in the fourth quarter suggest that industrial activity will overcome the slowdown in the next few months and slowly pick up momentum on the back of moderate demand impulses at home and abroad. The more domestically oriented sectors of the economy were significantly less influenced. Optimism remained very pronounced in the services, construction and retail sectors, despite the recent gloom.

New demand stimuli from home and abroad

New industrial orders were showing a distinct improvement at the end of last year. Following the major contraction in the third quarter, industry posted a seasonally adjusted growth in orders of 1%. Excluding orders of other transport equipment, which were at a relatively low volume in the quarter under review, the increase was, in fact, almost twice as strong. Impetus did not come solely from domestic demand, which had been weak previously; inflows of export orders also recovered significantly following their marked decline in the third quarter.

Demand for industrial goods and construction work

Volume, 2010 = 100, seasonally adjusted, quarterly



Source of unadjusted figures: Federal Statistical Office. **1** Only calendar-adjusted.

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Consumer and intermediate goods benefit, but mixed picture for capital goods

The consumer goods sector saw a substantial increase in orders in the fourth quarter. Orders received by manufacturers of intermediate goods, including, not least, the chemicals industry, also increased considerably following a lengthy period of stagnation. By contrast, capital goods orders gained very little momentum. However, this was also due to the relatively low volume of major orders, particularly in the other transport equipment sector, and, excluding this more volatile component, there was a marked rise in the case of capital goods, too. In the automotive industry, orders from non-euro-area countries recovered to a large extent following their slump in the third quarter and were strengthened by domestic impulses; overall, however, they were still well down on their high level in the second quarter. By contrast, manufacturers of machinery and equipment not only saw a sharp fall in domestic orders; there is also a lack of demand from the euro area at present, which ultimately could not be offset by the surge in orders from non-euro-area countries.

Residential construction more buoyant, considerable stimuli from industrial and public sector construction

Construction activity is also likely to have gathered significant pace. There has been a distinct strengthening of the upward movement in demand for residential construction, which is being underpinned by the favourable outlook for incomes, very positive financing conditions and strong immigration. The figures available up until November show a strongly increased pace of growth in permits for residential construction in the second half of the year compared with the average of the previous six months. Orders in residential construction likewise picked up strongly. Following a period of stagnation lasting almost one and a half years, commercial construction saw a marked surge in orders in the fourth quarter. This is likely to ensure a high level of capacity utilisation in the short term and beyond. Demand for public sector construction also showed a clear increase.

Consumption still important provider of stimulus for economic growth

The underlying conditions for buoyant consumption activity are still in place. In line with this, consumer sentiment, as surveyed by market research institution *Gesellschaft für Konsumforschung* (GfK), has been stable and positive for several months. Furthermore, the assessment of the economic outlook showed a further improvement at the turn of 2015-16. According to the GfK, this is mainly related to the positive labour market situation and has also led to brighter income expectations. The recent crude oil price-related gains in purchasing power are likely to have played a part, too. This has also led to a further increase in consumers' existing high propensity to purchase.