Global and European setting

World economic activity

Global GDP growth probably down slightly, …

The global economy appears to have ended 2016 on a stable note. Growth in global economic activity is likely to have contracted slightly in the final quarter of 2016 in seasonally adjusted terms. This, however, was due chiefly to the fact that the strong dynamics in the United States in the third quarter were being fuelled by one-off factors, and were therefore unsustainable. No major change in pace was observed elsewhere. Aggregate output continued to grow considerably in the euro area, and fairly robustly in the United Kingdom; in Japan, it saw a renewed moderate increase. Key emerging market economies (EMEs) delivered varying performances, as before. In China, real gross domestic product (GDP) increased last quarter, too, at a high and remarkably stable rate by international standards. In India, on the other hand, government measures to reform the cash economy seem to have put a strain on economic activity.

… but underlying cyclical trend is likely to be sound …

Beyond the normal fluctuations in quarterly GDP figures, a host of indicators have recently been pointing to a brightening global economic outlook. In particular, industrial activity and international trade in goods looked set to pick up. According to data from the Dutch Centraal Planbureau, average global industrial production and international trade in October and November grew markedly compared with the average of the summer months; at +2¾% each, November saw the highest year-on-year increases since the fourth quarter of 2014 and first quarter of 2015. In addition, a distinct improvement in sentiment was observed. At the end of 2016 and start of 2017, the global Purchasing Managers' Index for the manufacturing sector was at its highest level since February 2014, and its counterpart for the services sector also rose markedly in the autumn months. Prices on key commodity markets also increased. Higher proceeds from exports of primary goods are set to boost the economy in a number of EMEs, in particular. On the whole, then, there is much to suggest that the gradual strengthening of the global economy, already anticipated for some time, is now underway.[1]

… in line with IMF projections

In keeping with this, the International Monetary Fund (IMF) in January stayed true to its projections for global economic growth in 2017 and 2018, which were contained in the October 2016 edition of its *World Economic Outlook* (+3.4% and +3.6% respectively at purchasing power parity exchange rates, compared with +3.1% in 2016). As before, the EMEs were perceived to be the main driving force behind this improvement. Nonetheless, IMF staff downgraded primarily the short-term outlook for individual EMEs, particularly for Saudi Arabia, India and a number of Latin American countries. By contrast, the growth forecast for the Chinese economy this year was revised upwards slightly. Among the industrial countries, IMF staff lifted their 2017 projection for the United Kingdom markedly, but reduced the forecast for 2018 – probably assuming that dampening effects stemming from the Brexit referendum would materialise later on. Under the assumption of a fiscal policy loosening, the US economy's growth prospects were assessed more favourably, chiefly for 2018.

Possible implications of a US policy shift

The expectation of a radical change in policy in the United States is seen by many as the reason for the brighter economic outlook recently. Comprehensive tax cuts could stoke growth in aggregate demand and thus also in exports to the United States in the short term. Given the largely normal aggregate capacity utilisation of the US economy, however, this is likely to perceptibly increase price pressures and therefore interest rates. Through the interest-exchange

1 See Deutsche Bundesbank, The slowdown in global economic growth and the decline in commodity prices, Monthly Report, November 2015, pp 16-17.

rate nexus, specifically a US dollar appreciation, these effects would probably also tend to be reflected in partner countries, where the dampening impact of higher interest rates and lower purchasing power might consequently offset the impact of an expansion of exports to the United States. The risk of a more restrictive US trade policy also has to be considered, especially with respect to those economies that have close ties with the United States. Seen in that light, it is not only the upside risks to the global economy that have become more significant. It is more likely that such a change in policy would increase the general upward pressure on prices.

Prices of industrial raw materials and crude oil up sharply

An expected fiscal stimulus in the United States and a strengthening of the economy, especially in the manufacturing sector, are consistent with a major increase in the prices of industrial raw materials. In January, a corresponding index compiled by the Hamburg Institute of International Economics, or HWWI (on a US dollar basis), was 20% higher than in October and exceeded its prior-year level by more than 40%. By comparison, the prices of food and beverages barely changed in the reporting period. The spot price for a barrel of Brent crude oil soared in late November and early December, and has hovered around the US$55 mark since then. This price surge was largely due to the agreement between key oil-producing countries both within and outside OPEC to cut output. This also flattened the forward curve. Owing to the latest price rise and a base effect caused by the price drop in early 2016, the year-on-year rate of increase in the spot price stood at over 70% in January 2017, although this would decline again considerably in the coming months in the absence of another price hike.

World market prices for crude oil, industrial commodities and food and beverages

US dollar basis, 2011 = 100, monthly averages, log scale

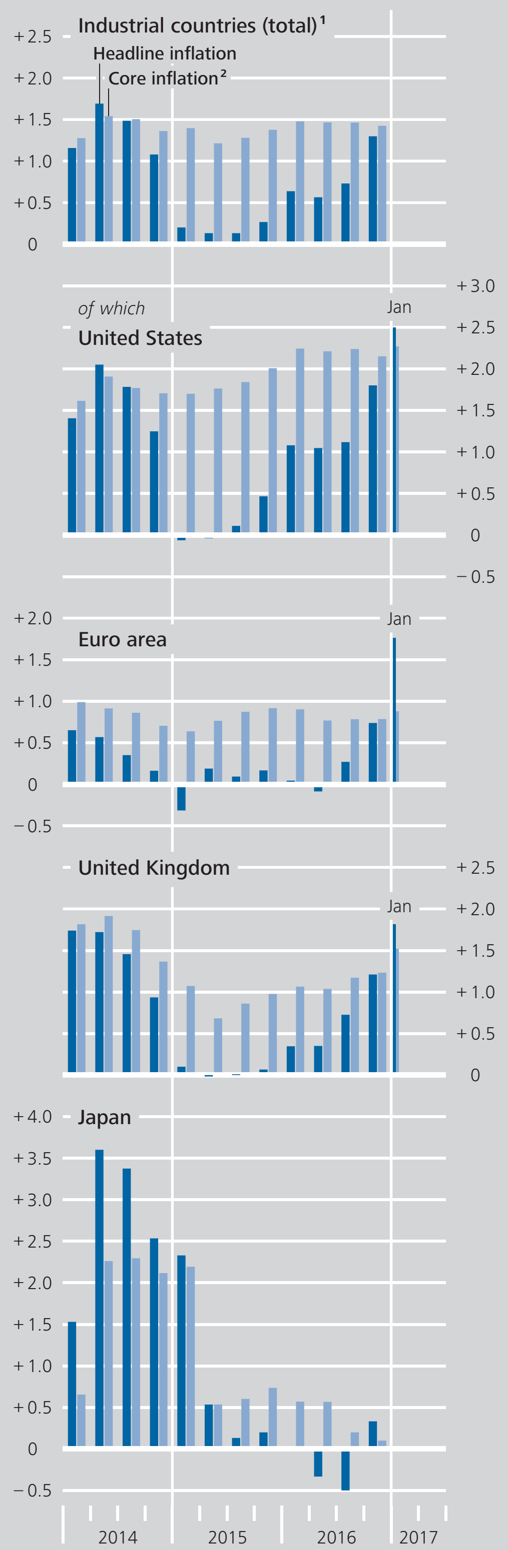
Sources: Thomson Reuters and HWWI. • Latest figures: average of 1 to 10 February 2017, or 1 to 14 February 2017 for crude oil.
Deutsche Bundesbank

Consumer price inflation in industrial countries up substantially

Movements in the price of energy were a key factor in the consumer inflation rate in the industrial countries climbing from 0.9% in September 2016 to 1.6% in December. Excluding energy and food prices, inflation remained subdued (+1.5%). In January 2017, headline inflation probably rose again markedly, according to the available data for individual countries. Without the base effect in the year-on-year comparison, it is likely to contract again in the coming months. Nonetheless, fears of deflation, which had at times been directly associated with the preceding slump in prices on the oil market, have become less significant, whereas upside inflation risks have more clearly come to the fore recently. For consumers in the industrial countries, the turnaround in the energy price trend means that real income potentially will not increase on the same scale as in the past two years, resulting in the loss of a factor that has perceptibly boosted consump-

Consumer prices
in the industrial countries

Year-on-year percentage change, quarterly



Sources: National statistics, Eurostat and Bundesbank calculations. **1** The United States, EU-28, Japan, Canada, Norway and Switzerland. **2** Excluding energy and food; EU-28: HICP excluding energy and unprocessed food; Japan: including alcoholic beverages.

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tion and aggregate growth (see the box on pages 13 to 15).

Selected emerging market economies

Official estimate reports stable economic growth in China

Economic growth in China remained remarkably stable in the final quarter of 2016, too. According to the official estimate, real GDP rose by 6.8% year-on-year, and thus more or less exactly as strongly as in the three preceding quarters (+6.7% each). However, other indicators are signalling that initially weak activity strengthened as the year progressed. For example, imports of goods improved noticeably, and sentiment in industry and the services sector brightened markedly. The considerable acceleration in nominal GDP growth – from +6.4% in the fourth quarter of 2015 to +9.6% at last report – also gives rise to certain doubts about the reported real GDP growth rates, according to which domestic price pressures would have risen distinctly in 2016. However, the picture could be distorted by problems with the deflation of domestic value added.[2] The rather slow pace of consumer price inflation also suggests that this is the case. In the fourth quarter of 2016, the consumer price index (CPI) surpassed its prior-year level by 2.3%.

Cash reform likely to have impaired India's economy

The robust upswing in the Indian economy is likely to have been abruptly interrupted by the government's surprise move in November 2016 to declare a large portion of its cash no longer legal tender. The measure was aimed at neutralising illegal cash holdings, which the government believe had been accumulated by means of corruption and tax evasion. However, production and distribution of the new bank-

2 China's National Bureau of Statistics uses output price indices to deflate domestic value added. In this simplified procedure, the impact of the prices of imported intermediate goods is not deducted. This means that commodity prices, which experienced significant volatility in the past few months, could have distorted the real economic picture. See Deutsche Bundesbank, Global and European setting, Monthly Report, November 2015, pp 14-15; and IMF (2017), Measure up: A better way to calculate GDP, Staff Discussion Note 17/02.

Energy prices and private consumption

Observers had very mixed expectations regarding the impact on the real economy of the halving of crude oil prices in the second half of 2014. Optimists hypothesised that consumers would respond to the easing of pressure on their pocketbooks caused by lower fuel prices by spending more on (other) goods and services. This stimulus would counteract any dampening effects since those economies which themselves produce oil could be expected, at least in the directly affected commodity sector, to see a drop in investment.[1]

On the other hand, pessimists had their doubts about the positive effects on private consumption. Their assumption was that consumers would boost their savings for purposes such as paying down debt as their spending on fuels declined. This kind of behaviour is what is expected of, in particular, those agents who see rising real incomes as only a temporary phenomenon because, for instance, they expect energy prices to rebound quickly. There were additionally fears that a temporary dampening of inflation expectations – following on from the reduction in the prices of oil products – would, given a binding interest rate floor, increase real interest rates and thus dampen current consumption.

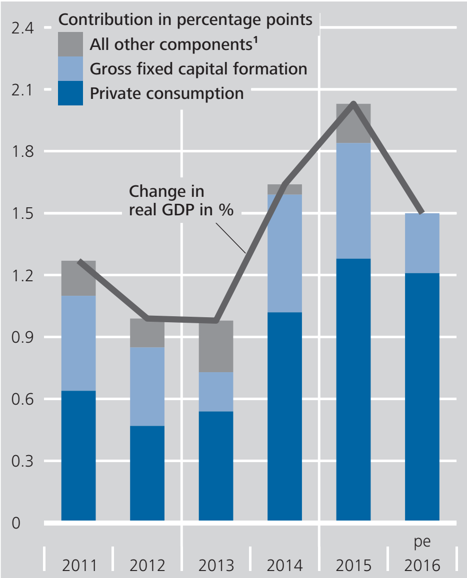
A look at the past two years vindicates the optimists. An important factor in this connection is that the reduction in oil prices has proved largely persistent. Looking at the United States, the euro area, Japan and the United Kingdom together, households increased their consumer spending in each of 2015 and 2016 by around 2% after price adjustment.[2] This represented the highest growth rates since 2006. This meant that private consumption, in purely arithmetical terms, was the key driver in the acceleration of real GDP growth in this group of countries from just under 1¾% in 2014 to 2% in the subsequent year. Although the pace of aggregate growth diminished again in 2016, this was caused mainly, however, by sluggish growth in fixed investment, specifically in the United States and the United Kingdom.[3] The considerable slowdown in investment growth in those countries was directly attributable in part to adjustments in the domestic oil industry (see also the box on page 17).[4] By contrast, euro-area investment expenditure in 2016 was even up from the previous year, provided investment in Ireland, which had jumped owing to the relocation of multinational enterprises' activities in 2015, is excluded from the calculation.[5]

Private consumption goes up if, with given real incomes, households increase their propensity to consume, ie they reduce their saving ratio, or if, with saving behaviour unchanged, nominal disposable incomes rise

1 See here, and further on, Deutsche Bundesbank, Potential impacts of the fall in oil prices on the real economy, Monthly Report, February 2015, pp 12-14.
2 The data were taken from the OECD's Economic Outlook of November 2016 via Haver Analytics. Projections were inserted there for the fourth quarter of 2016. The aggregation across individual countries is based on nominal weights (and market exchange rates) for 2010.
3 In addition, there was a marked dampening impact of inventory dynamics on real GDP growth, which could have been associated with the weakness in the global industrial sector – especially in the commodities sector. See also Deutsche Bundesbank, Recent trends in world trade in goods, Monthly Report, March 2016, pp 23-24.
4 See, in particular, Deutsche Bundesbank, The effect of one-off factors on real GDP growth in the USA in the first quarter of 2015, Monthly Report, May 2015, p 17; and Deutsche Bundesbank, Global and European setting, Monthly Report, August 2016, pp 19-20.
5 See Deutsche Bundesbank, The revision of the euro-area national accounts for 2015, Monthly Report, November 2016, pp 16-17.

Real GDP in key advanced economies*

Year-on-year change



Sources: Bundesbank calculations based on OECD data (Economic Outlook, November 2016) and Haver Analytics. * United States, euro area (15 member states), Japan and the United Kingdom; data for 2016 projected by the OECD. Aggregated using nominal weights (based on market exchange rates) for 2010. **1** Public consumption, net exports and changes in inventories.

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faster than consumer prices. An arithmetic decomposition enables the quantification of the contribution to private consumption growth by each individual factor.[6] In the long run, consumption growth ends up largely being dictated by income expansion. Inflation generally dampens real growth considerably relative to nominal growth. By contrast, only in isolated years does saving behaviour change distinctly enough to have a perceptible impact on the dynamics of private consumption.

In 2015 and 2016 the saving ratio in the key advanced economies rose only little, bucking some forecasts, thus depressing consumption growth by, on average, merely 0.2 percentage point – virtually the same margin as in 2014. Although nominal disposable income picked up moderately in the past two years, its growth was perceptibly slower than in 2014. Its contribution to consumption growth was 0.4 percentage point lower than in that reference year. Consequently, the marked acceleration of price-adjusted expenditure (by 0.4 percentage point) is due solely to the fact that inflationary pressures eased quite considerably and dampened consumption growth only minimally (-0.5 percentage point on average for 2015-16 following -1.3 percentage points in 2014).

Falling energy prices in the aftermath of the slide in crude oil prices were the main driving force tempering consumer price inflation; this effect is likely to have been felt throughout the aforementioned group of countries.[7] Furthermore, in the individual economies, in some cases very different factors were at play. For instance, the moderate increase in the aggregate saving ratio over the past two years is attributable to Japan and the United States; in these countries, the propensity to consume rose sharply, particularly in 2013 in connection with fiscal measures, which means that the subsequent adjustments should be interpreted more as a normalisation.[8] By contrast, in the last two years, the saving ratio in the euro area remained broadly stable, even declining in the United Kingdom.

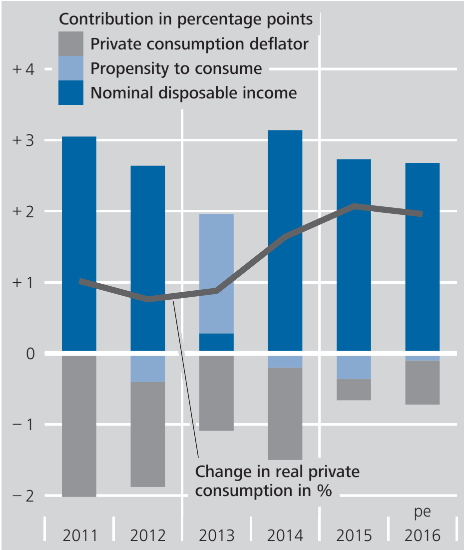
In the euro area as a whole – but also in the largest member states – the marked increase in disposable income, which in 2012

6 The Shapley-Siegel decomposition is performed for three determinants. See also T Knetsch and A Nagengast, On the dynamics of the investment income balance, Deutsche Bundesbank Discussion Paper No 21/2016.
7 Baumeister and Kilian (2017) likewise present empirical evidence that the decline in oil prices stimulated real private consumption in the United States. See C Baumeister and L Kilian (2017), Lower oil prices and the U.S. economy: Is this time different?, Brookings Papers on Economic Activity, forthcoming.
8 In the United States, extensive tax cuts and reductions in social security contribution payments expired in 2013, resulting in a temporarily severe strain on disposable income growth. In Japan, the consumption tax was hiked considerably in early 2014, which impacted significantly on saving and inflation dynamics.

had virtually ground to a halt, was a key factor behind the rebound in private consumption. In addition, even before oil prices began to fall, the slowdown in headline inflation had, in and of itself, boosted private consumption as, in the aftermath of the recession and adjustment processes in some member states, domestic cost pressures subsided and excise duty hikes to consolidate public budgets were no longer a major factor. Absent the relief afforded by the consumer-friendly price trends, notably through real income transfers by way of lower energy prices, private consumption in the euro area would not have risen so considerably.

Real private consumption in key advanced economies*

Year-on-year change



Sources: Bundesbank calculations based on OECD data (Economic Outlook, November 2016) and Haver Analytics. * United States, euro area (15 member states), Japan and the United Kingdom; data for 2016 projected by the OECD. Aggregated using nominal weights (based on market exchange rates) for 2010. Arithmetically decomposed using the Shapley-Siegel decomposition.

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The arithmetical decomposition presented here masks important interdependencies between the determinants of consumption. Thus, for instance, the weak inflation over the past few years could also have restrained nominal income growth.[9] Moreover, other macroeconomic interactions are neglected. Simulations using traditional structural models, such as the NiGEM model of the global economy developed by the National Institute of Economic and Social Research, however, likewise suggest that low energy prices have stimulated oil-importing economies, especially also those in the euro area.

Following the latest increase in crude oil prices and the base effect caused by oil prices temporarily having been particularly low a year earlier, inflation rates in the key industrial countries rose markedly at the turn of 2016-17. Given that wage dynamics are normally more on the sluggish side, the resurgent general inflationary pressures are likely to initially eat into real income growth and, through that channel, also weigh on private consumption. Further down the line, though, wage growth may be expected to accelerate, thereby contributing to a further move towards macroeconomic normality. With regard to the outlook for global growth, the stabilising effect of higher commodity prices on exporting economies could be more important than a possible moderation of the consumption dynamics in the importing countries.[10]

9 See also Deutsche Bundesbank, Wage dynamics amid high euro-area unemployment, Monthly Report, December 2016, pp 33-55.
10 See Deutsche Bundesbank, The slowdown in global economic growth and the decline in commodity prices, Monthly Report, November 2015, pp 16-17.

notes progressed only sluggishly, resulting in considerable disruptions in the cash cycle. The ultimate impact of this measure on GDP remains to be seen. The shortfall in demand stemming from the cash reform probably also dampened price inflation somewhat. Consumer price inflation declined from 5.2% in the third quarter to 3.7% in the fourth.

Recession in Brazil not yet over

In Brazil, the severe recession probably continued in the second half of 2016. After GDP declined by 0.8% in seasonally adjusted terms in the third quarter, the indicators available thus far suggest a further contraction in the final quarter. The economic crisis, which has now lasted three years, has left deep traces on the labour market, with 12% of the labour force now unemployed. What is more, the public finance situation tightened drastically. An ambitious fiscal consolidation programme seems to be inevitable. Nevertheless, inflation continued to subside in the past few months. An inflation rate of 5.4% was calculated for January 2017, compared with just under 9% in mid-2016. This has allowed the central bank to continue loosening monetary policy.

Slight recovery in economic activity in Russia

Economic activity virtually stabilised in Russia last year. According to an initial estimate by the Russian Federal State Statistics Service, real GDP fell by 0.2%, after having tumbled by nearly 3% in 2015. While no quarterly results are yet available, a variety of indicators suggest that the economy once again grew slightly in the second half of 2016. The recovery in crude oil prices is likely to have played an important part in strengthening the economy. Consumer sentiment also improved recently, probably due in large part to weaker consumer price inflation. Having stood at 14.5% in the final quarter of 2015, the inflation rate shrank to 5.7% in the quarter ended.

USA

Moderation of growth at end of year

As expected, in the fourth quarter the US economy was unable to build on the third quarter's high pace of growth. Seasonally-adjusted real GDP growth decelerated from 0.9% to 0.5% quarter-on-quarter, according to a first official estimate. This was largely because exports returned to normal levels after a surge that was concentrated on a small number of products.[3] This exceptional development masks the indications of a gradual economic stabilisation in the United States. For example, private final domestic demand, which is often used as a barometer, expanded at a somewhat more lively pace in the fourth quarter. For the first time in more than a year, both aggregate private gross fixed capital formation and spending on commercial equipment increased again markedly. These had previously been held back mainly by adjustments in industries whose earnings prospects were damaged by the low level of many commodity prices (see the box on page 17). Against the backdrop of less consumer-friendly price developments, the increase in real spending by consumers was no longer quite as substantial. In January, headline CPI inflation climbed to 2.5%; excluding energy and food, it was 0.2 percentage point lower. At the start of the year, the unemployment rate of 4.8% was within the bounds of natural unemployment by common estimates. At the same time, growth in hourly wages in the private sector remained moderate. After a hike in December, the Federal Open Market Committee of the US Federal Reserve left the target range for its federal funds rate unchanged at last report.

Japan

Moderate growth driven by foreign trade

The Japanese economy continued to expand at a moderate pace in the fourth quarter. According to a provisional estimate, real GDP increased by 0.2% on the quarter after adjust-

3 Exports of food products, animal feed and beverages experienced strong fluctuations recently. Excluding these products when calculating real GDP produces a quarterly increase of just over 0.6% for both the third and fourth quarters of 2016.

The weakness in equipment investment in the United States

In the debate on the state of the US economy, many observers regarded the weakness in commercial equipment investment as a particular cause for concern, as this was less impaired by capacity adjustments in the oil industry than investment in non-residential structures.[1] The decline in such expenditure in the previous calendar year (by 2.8% after price adjustment) was assessed to some extent as an indication of a more general reluctance to invest, which could be regarded as being the harbinger of a slowdown in the economic upturn.

One argument against this interpretation is that key components of equipment investment have recently displayed extremely uneven growth. What makes this heterogeneity even more striking is that it breaks with the pattern of the current economic cycle. After investment budgets were cut across the board in 2009, the subsequent and initially substantial upswing was broadly supported. In 2016, by contrast, expenditure on industrial equipment as well as information processing equipment was expanded markedly in real terms, whereas spending on transportation and other equipment was slashed severely.

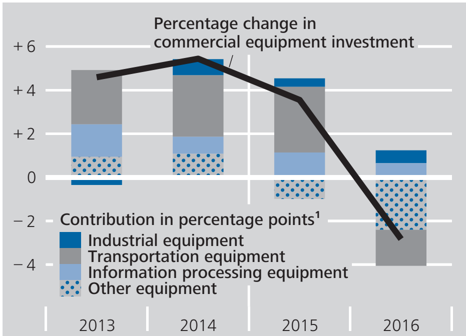
The diagnosis of a broadly based investment slump also appears questionable because setbacks in the segments mentioned above are probably, to a considerable degree, a reflection of corrections in industries whose profit outlook was dented by the preceding slide in commodity prices. Such a relationship would appear to make sense especially for investment in equipment for mining and the extraction of crude oil as well as in farming machinery, which was already down drastically for the second consecutive year. Moreover, there are probably key indirect effects at play since production cutbacks in resource-extraction sectors of the economy also impact on downstream sectors. For example, the halving of expenditure for rolling stock and components in 2016 might not least have been a reaction to declining railroad freight volumes caused in the main by shrinking coal production in the United States.

Given the recent recovery in commodity prices, the outlook for equipment investment has also brightened markedly. Indeed, the slump already seems to have bottomed out. In the last quarter of 2016, price-adjusted expenditure in all key categories was up from the previous quarter.

1 Expenditure in connection with the drilling of shafts and wells is reported in the US GDP statistics as investment in non-residential structures. In 2016, expenditure in this area by the oil and gas industry alone was more than four times higher than the value of total equipment investment for mining and crude oil extraction.

Real commercial equipment investment in the United States

Year-on-year change



Sources: Bureau of Economic Analysis and Bundesbank calculations. **1** Approximated decomposition based on real growth rates and nominal expenditure shares from the previous year.

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ment for seasonal factors. As in the preceding period, growth was almost exclusively attributable to foreign trade; price-adjusted exports were again up sharply on the quarter, whereas domestic demand stagnated. Private consumption, in particular, did not gain any momentum; real consumption is still noticeably lower than in the quarters prior to the increase in the consumption tax rate in the spring of 2014. The upturn in gross fixed capital formation was restrained by another reduction in public expenditure. While the unemployment rate remained at an extremely low 3.1% in December, domestic inflationary pressures stayed weak. The CPI inflation rate excluding energy and food fell to zero in December, while the headline inflation rate was only slightly higher, at +0.3%. The year-on-year change in the GDP deflator was still slightly negative in the fourth quarter. Against this backdrop, the Japanese central bank kept its monetary policy on an exceptionally expansionary track.

United Kingdom

Sustained robust economic upswing

In the United Kingdom, the widely feared economic slowdown in the second half of 2016 failed to materialise. According to a provisional estimate, real GDP increased in the fourth quarter by 0.6% on the quarter after adjustment for the usual seasonal factors, therefore maintaining the growth pace of the preceding period. A key factor in this was the continued robust expansion of the services sector, which is particularly important to the UK economy. There was also a marked rise in manufacturing output after it had fallen considerably in the previous quarter. Real gross value added in the construction sector was somewhat higher recently. Aggregate output grew by 2.0% on average for the year, which was the strongest growth among the major industrial countries. Consistent with its robust economy, the unemployment rate remained at its cyclical low point of 4.8% in the autumn, while inflation continued to increase at the same time. The inflation rate, as measured by the year-on-year change in the Harmonised Index of Consumer Prices (HICP), stood at +1.8% in January. The Bank of England left its monetary policy unchanged.

New EU member states

Autumn upturn picked up speed again

In the new EU member states (EU-6),[4] the upswing picked up speed again towards the end of the year. The main reason for this cyclical improvement in the final quarter of 2016 was the industrial sector's rapid recovery from its summer slowdown. Construction output also stabilised. It had fallen sharply in the previous three quarters because the flow of EU funds to finance infrastructure projects had ground to a halt on account of the transition to a new multiannual financial framework. The decline in consumer prices in the EU-6, caused by energy prices, came to a stop at the end of the year. Average HICP inflation for the quarter rose by 0.4% on the year; in the summer it had fallen by 0.3%.

Macroeconomic trends in the euro area

Signs that the economic recovery is stabilising

In the euro area, the robust economic growth continued as 2016 approached its end. According to Eurostat's flash estimate, real GDP in the fourth quarter of 2016 was up by 0.4% on the quarter and by 1.7% on the year after seasonal adjustment.[5] Thus, the output gap in the euro area is likely to have narrowed further. The steady pace and improved sentiment among households and firms suggest that economic recovery is stabilising. On an annual average for 2016, real GDP growth at 1.7% looks set to have increased somewhat less strongly than in the previous year. Nevertheless, just under

4 This group comprises the non-euro-area countries that have joined the EU since 2004, ie Poland, the Czech Republic, Hungary, Bulgaria, Romania and Croatia.
5 A quarterly growth rate of 0.3% was originally calculated for the third quarter. After Ireland's quarterly results were ascertained (+4%), this rate was then increased to 0.4%. Relocations by multinationals were the cause of Ireland's high growth rate.

0.4 percentage point of the relatively high growth rate of 1.9% recorded for 2015 was attributable to the increase in the level of Irish GDP as a result of multinationals relocating their activities.[6] Excluding this effect, the picture for the year as a whole shows economic growth in the euro area to be strengthening.

Private consumption significantly more buoyant

Private consumption appears to have bounced back towards the end of the year after experiencing weaker growth in the second and third quarters. In any case, seasonally adjusted real retail sales rose sharply by 0.9% after only modest growth in the previous quarter. In addition, new registrations of motor vehicles were up. Improvements in consumption were also driven by noticeable advances in consumer confidence, especially with regard to the outlook for labour markets and economic activity.

Increased investment

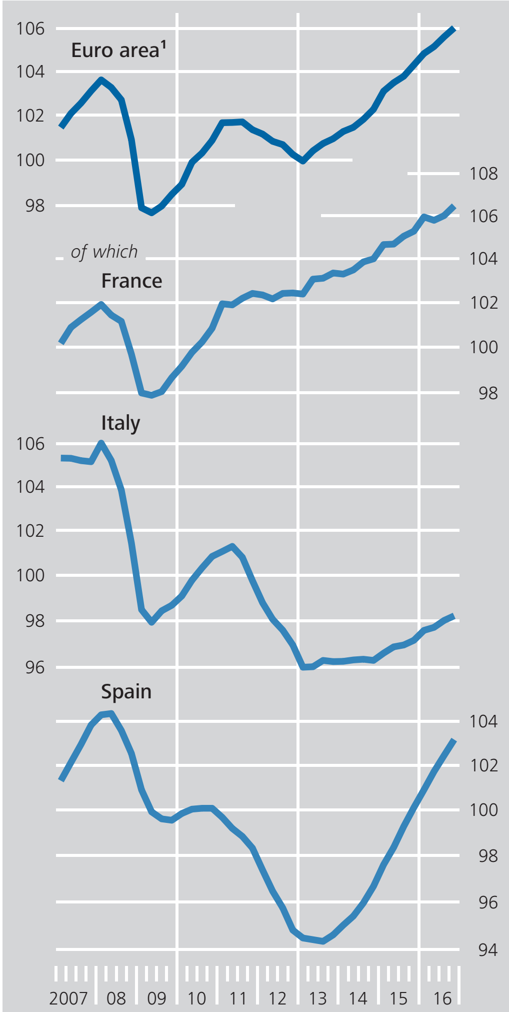
Investment budgets are likely to have received more funding in the period under review. Investment in equipment may have seen a rise following a decrease in the preceding quarter after price adjustment. At the very least, seasonally adjusted capital goods production increased by 0.3%. Construction investment appears to have lost momentum; after seasonal adjustment, construction rose in autumn by 0.8% from the preceding quarter, in which it had increased by 1.8%.

Marked pick-up in foreign trade

Following a period of stagnation in the third quarter, there was a notable increase in the momentum of exports. Revenue from the exports of goods to non-euro-area countries increased much more sharply in recent months compared to export prices, meaning that a significant volume effect can be expected to have arisen. This is likely to have been aided and abetted by strengthened global industrial activity. Imports also experienced a marked increase in line with the overall economic growth in the euro area. Trade between member states in the final months of last year also recorded strong growth.

Aggregate output in the euro area

Real GDP, 2010 = 100, seasonally adjusted, quarterly data, log scale



Source: Eurostat. **1** Affected by jump in Irish GDP since 2015 Q1.
Deutsche Bundesbank

Industrial activity on growth path

Industrial activity in the euro area remained on a path of growth in the final quarter of 2016. Seasonally adjusted output rose by 0.8% from the previous quarter, with a 1.9% increase on the year. Output growth was broadly based, and only the production of consumer goods fell slightly.

Upturn regionally broadly based

The economic situation improved in most euro-area member states. The French economy noticeably increased its rate of growth in the

6 See: Deutsche Bundesbank, The revision of the euro-area national accounts for 2015, Monthly Report, November 2016, pp 16-17.

Sentiment indicators for the euro area

Percentage balances, seasonally adjusted, monthly data

Source: European Commission.
Deutsche Bundesbank

fourth quarter, while real GDP rose by 0.4% on the quarter after seasonal adjustment. Private consumption was up quite steeply by 0.6% and there was a marked increase in government consumption. Gross fixed capital formation grew strongly once again, which is likely to be associated with an extension of the rules for depreciating extraordinary items. Exports also increased perceptibly. In Italy, the sluggish economic recovery continued, with real GDP rising by just 0.2%. Growth was probably driven by both private consumption and exports. Although industrial activity has continued to strengthen, so far there is no indication of an upturn in construction. Increasing unemployment also suggests that the macroeconomic upswing is lacking in strength. In Spain, the strong economic upswing continued at a stable pace, with economic output increasing by 0.7% from the previous quarter after seasonal adjustment. Driven by buoyant foreign demand, its industrial output rose considerably, while its consumption activity appears to have slowed down somewhat. Developments were largely positive across other euro-area member states as well. There was fairly strong economic growth in the Baltic States, Slovakia, Austria and Portugal, and the Netherlands, Cyprus and Belgium recorded considerable increases. Only Finland and Greece saw a quarter-on-quarter contraction in economic output.

Unemployment down, employment up

The euro area's labour market situation is continuing to improve gradually. The standardised unemployment rate fell to 9.6% by the end of the year from as high as 10.5% in December 2015. Employment rose only slightly in the third quarter of 2016, though there was still an increase of 1.2% from the previous year. Labour costs were up by 1.5% in the same period and hourly wages also increased more strongly year-on-year than in the second quarter.

Further marked rise in prices in autumn mainly due to energy

Consumer prices in the euro area rose in autumn 2016 by 0.4% after seasonal adjustment. This was thus the third consecutive period of marked growth. This was primarily due to energy, which became significantly more expensive in the wake of higher crude oil prices especially in December. In addition, prices of services rose by 0.2%. By contrast, consumers did not have to spend much more on food and industrial goods (excluding energy) than in the summer. Annual HICP inflation showed a fairly steep growth of 0.4 percentage point to +0.7% overall. This was partly due to the decline in energy prices in the autumn of 2015. Excluding energy and food, the annual growth rate stood at +0.8%, as in the previous two quarters.

Energy still muted, other components moderately more expensive on average in 2016

On average for 2016, energy still had a heavily dampening effect, however, meaning that overall consumer price inflation was only slightly higher than in 2015, at 0.2%. By contrast, consumer prices excluding energy continued to rise moderately by 0.9%, where the prices of services grew the most at 1.1%, followed by food at 0.9% and industrial goods (excluding energy) at 0.4%. Six countries still faced falling prices, and the inflation rate in all other countries stood between 0% and 1%, with the exception of Belgium, with a rate of over 1%. Germany was just above average in terms of both headline and core inflation rates.

Inflation up sharply in January, mainly due to energy

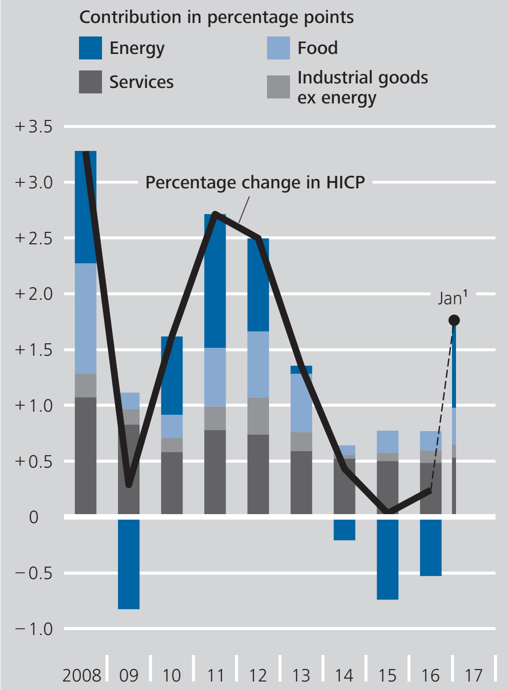
In January 2017, the inflation rate in the euro area increased sharply. Annual HICP inflation grew to +1.8% according to preliminary data from Eurostat. The main reason for this was the steep rise in energy prices once again as a result of higher crude oil prices. Moreover, there was also the base effect caused by the fact that energy prices had fallen considerably in January 2016. Furthermore, consumers also had to pay considerably more for unprocessed food on account of exceptionally poor weather conditions in some countries. Excluding energy and food, inflation remained moderate; the year-on-year rate increased only slightly to +0.9%.

Economic growth in the first quarter of 2017 probably fairly robust

The markedly improved sentiment among households and firms promises a good start to 2017. In both industry and services, sentiment indicators are well above their long-term averages, albeit short of past peaks. This is remarkable given the fact that at the same time, a considerable level of uncertainty has been recognised on account of enormous political changes and unknown factors. However, experience has shown that the connection between political uncertainty and aggregate economic dynamics is not necessarily that close in the short term.[7] The fact that domestic growth stimuli in the euro area and global industrial activity are becoming increasingly more stable is likely to be more important. The rather buoyant consumption is likely to lose some momentum this year because the extremely consumer-friendly price trends up to the middle of 2016 were an important driver of this momentum. Nevertheless, investment may pick up more strongly with an ever-narrowing output gap. A somewhat stronger impetus is also to be expected from foreign trade. However, the potential growth path, which is flat on account of structural problems, is likely to prevent sustainably high economic growth in the euro area.

Consumer prices in the euro area by category of goods

Year-on-year change



Source: ECB. **1** Bundesbank estimate according to Eurostat data.
Deutsche Bundesbank

7 For more information on this topic, see, for instance, P Meinen and O Röhe (2017), On measuring uncertainty and its impact on investment: Cross-country evidence from the euro area, European Economic Review 92, pp 161-179.