Global and European setting

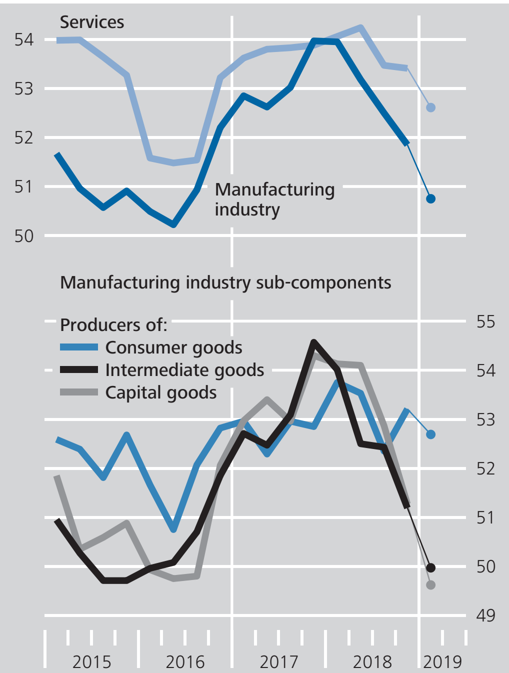
Global economic developments

Only moderate global economic growth in Q4

Global economic growth in the final quarter of 2018 is unlikely to have matched its pace of the first half of the year. This is true of both the advanced economies and the emerging market economies, although pronounced differences exist between the individual countries. While the previously strong macroeconomic growth seen in the United States was probably merely slightly weaker in the fourth quarter, real gross domestic product (GDP) in the euro area again increased by only a moderate amount. The upturn in the United Kingdom lost considerable momentum in the final quarter of the year. By contrast, the Japanese economy recovered from the weather-induced setback in the summer. China's gradual slowdown in growth continued. In Brazil, overall economic output is likely to have expanded at only moderate pace. Russian and Indian GDP, on the other hand, could have risen slightly more sharply again. On the whole, following a period of stronger growth from end-2016 to mid-2018, the global economy now appears to be returning to a more moderate expansionary path.

Sectoral Purchasing Managers' Indices for the global economy*

Seasonally adjusted, quarterly averages



Sources: IHS Markit and JP Morgan. * Values greater than 50 indicate growth in business activities compared with the previous period. • Latest figures: January 2019.

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IMF global growth projections down only slightly; risks tilted to downside

Against the backdrop of this slowdown, the International Monetary Fund (IMF) revised its global growth projection slightly downwards in its regular January update to the World Economic Outlook, deeming the short-term outlook for the euro area to be less favourable than in October. On account of the considerable drop in oil prices, it also lowered its projections for crude oil-exporting countries slightly. By contrast, the outlook for other economies – with the exception of Turkey, whose growth expectations have been revised substantially downwards – have not changed to any considerable degree. On this basis, the IMF is expecting just slightly slower overall global economic growth in the current and coming year than was seen in 2018. In its outlook, however, the risks are tilted to the downside. In addition, the recent continued deterioration of global sentiment indicators and leading indicators indicates that the IMF's latest projection may overstate global economic momentum.

Damper on global industrial activity; drivers of economic growth in services sector remain intact, however

So far, the deceleration of global economic growth has been apparent primarily in the industrial sector, which had already lost considerable upward momentum over the course of 2018 with the slowdown in global investment activity. As a result, on average in the months of October and November, output in the production sector slightly surpassed the monthly average of the third quarter, in which it had also risen just moderately. At the beginning of the year, sentiment amongst enterprises in the manufacturing sector deteriorated further. In January, the Bundesbank leading indicator for the global economy hovered close to its previous low of March 2016. The sectoral breakdown of the global Purchasing Managers' Index for the manufacturing sector shows that, during the course of 2018, sentiment among producers of intermediate and capital goods worsened in particular. By contrast, indicators for the consumer goods industry and the services sector held firm at elevated levels. This suggests that drivers of growth outside the capital goods production sector are likely to have remained intact.

Recent slight recovery in oil prices following sharp decline

Against the background of increased global production and recent weaker demand worldwide, crude oil prices fell considerably last quarter. In December, a barrel of Brent crude oil cost an average of US$56 on the spot market, representing a reduction of around 30% compared with October. In January, the price of crude oil rose slightly, supported by the production cutbacks amongst OPEC members and other countries that were adopted in December and have since been partially implemented. As this report went to press, a barrel of Brent crude oil cost US$64. Despite the recovery, crude oil prices were 14% down on the year in January. At present, the futures curve is indicative of marginal medium and long-term discounts. The prices of non-energy commodities, as measured by the HWWI price index, likewise declined in the final quarter of 2018, albeit to a considerably lesser extent than oil prices. The prices of industrial commodities and food and beverages rose somewhat in January. However, monthly average prices remained markedly below the previous year's levels.

Inflation in industrial countries markedly below 2% at end of year due to falling energy prices

The considerable drop in crude oil prices was reflected in falling consumer prices for refined petroleum products in industrial countries. The year-on-year change in energy prices decreased by around 7 percentage points to just under 3% from October to December. Accordingly, headline consumer price inflation also fell from 2.3% in October to 1.6% in December. At the same time, core inflation (which excludes energy and food) persisted at 1.6% until December. The underlying inflationary pressures thus remained subdued.

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

Monthly averages, log scale

Sources: Bloomberg Finance LP and HWWI. • Latest figures: average of 1 to 8 February 2019, or 1 to 14 February 2019 for crude oil.
Deutsche Bundesbank

Selected emerging market economies

Chinese economic growth continuing to slow

In China, economic growth slowed further to 6.4% year-on-year in the final quarter of 2018.[1] However, private and government consumption appeared to be fairly brisk on the whole,

1 In 2018 as a whole, China's GDP grew by 6.6%. This means that the country's rate of economic growth has been in constant decline since 2010.

although sales of passenger cars fell sharply. Alongside the end of government purchasing incentives, tightened environmental restrictions are likely to have played a role in this. Investment again gained some additional momentum, but only saw moderate growth. Furthermore, foreign trade weakened considerably of late. In US dollar terms, both imports and exports rose by only around 4% year-on-year in the fourth quarter of 2018. This was chiefly due to sharp declines in December. Imports from the United States were reduced to an especially large extent, with the new tariffs in bilateral trade likely to have been a key factor.[2] Sentiment among purchasing managers in the manufacturing sector continued to deteriorate in the final quarter, worsening to a considerably greater degree in January 2019. On the year, headline consumer price inflation fell slightly in the fourth quarter to 2.2%; inflation excluding energy and food dropped to 1.8%.

Growth in India probably strong

In India, the underlying trend of economic growth remained strong. It appears that overall economic growth picked up pace again at the end of the year after the annual growth rate had fallen slightly in the third quarter to 7.1%. This is suggested by at least some short-term indicators. One of these, the Purchasing Managers' Index for the manufacturing sector, rose markedly in the fourth quarter, bucking the global trend. Industrial production likewise recorded distinct growth. Private consumption is likely to have been boosted by food prices, which fell last quarter, as well as decelerating growth in energy prices. For these reasons, year-on-year consumer price inflation abated to 2.6% in the fourth quarter despite a persistently high rate of core inflation. This meant that the rate of inflation was close to the lower boundary of the target corridor set by the Reserve Bank of India, which refrained from any further tightening of monetary policy. In fact, the central bank lowered its policy rate in February by 25 basis points to 6.25%.

Brazilian economy still lacking momentum

The recovery of the Brazilian economy is still proceeding at a sluggish pace. In the third quarter, real GDP admittedly rose by a seasonally adjusted 0.8% on the quarter. However, annual GDP growth was a paltry 1.3%. In addition, the pace of growth is likely to have declined again somewhat in the autumn. This is suggested by the low values of the Central Bank of Brazil's monthly activity indicators for October and November. At 12.4% in seasonally adjusted terms, the fourth-quarter unemployment rate was also somewhat higher again than in the preceding quarters. By contrast, positive signals came in the form of improved survey responses among consumers and purchasing managers. In the final quarter of 2018, consumer prices were 4.1% higher than one year previously. The Central Bank of Brazil kept its policy rate unchanged at 6.5%.

Russia saw moderate growth in 2018

Despite oil price movements that initially worked to Russia's favour, its economy only saw moderate growth last year. According to the initial estimate from the Russian Federal State Statistics Service, real GDP rose by 2.3% in 2018.[3] Specific data for the fourth quarter are not yet available. Significant increases in activity in the mining and quarrying industries as well as the recovery in the agricultural sector are indicative of a slightly higher pace of growth. However, this contrasted with listless growth in manufacturing output and the considerable drop in oil prices as of October. Consumer price inflation climbed to 3.9% in the fourth quarter. Inflation expectations were raised by the marked depreciation of the Russian rouble in the past year as well as the anticipated increase in the VAT rate from 18% to 20% at the beginning of 2019. As a result, the Russian central bank raised its policy rate by 25 basis points to 7.75% in December.

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2 Simulations using the NiGEM global economic model show that these measures may put somewhat of a brake on Chinese economic growth in the current year, too. See Deutsche Bundesbank, The potential global economic impact of the USA-China trade dispute, Monthly Report, November 2018, pp. 11-13.
3 This suggests an upward revision of the GDP data for the previous quarters.

United States

Persistently brisk economic activity

In the United States, a government shutdown caused delays in the collection and provision of statistical data. As a result, a GDP estimate for the final quarter of 2018 was not yet available at the time of publication of this report. The available monthly indicators, however, suggest that the brisk overall economic upturn continued, driven not least by fiscal stimuli.[4] In this context, private consumption is likely to have proven to be a key pillar of economic activity once again. Higher wage growth and a moderate increase in the overall cost of living due to a rise in energy prices are likely to have boosted the prospectively strong expansion of real consumer spending. At the same time, also owing to the weak momentum in the oil industry, there are signs that expansion in business investment has been only moderate. It also appears that there was little stimulus from foreign business in the final quarter. On average for the months of October and November, goods exports only marginally surpassed their third-quarter level in price-adjusted terms. On the Chinese market, it seems that there has even been a substantial drop in the sales figures for US products. At the start of the year, the situation on the US labour market remained persistently good. Admittedly, in January, the unemployment rate rose slightly for the second month in a row. However, this was largely due to the temporary furloughing of public sector employees as a consequence of the US Federal Government shutdown, which is likely to have put a slight damper on GDP growth in the first quarter as well (see also the box on pp. 14 f.). While the rate of inflation, as measured by the consumer price index (CPI), fell to 1.6% in January, the core rate excluding energy and food held steady at 2.2%. Under these circumstances, the US Federal Reserve again raised its policy rate by 25 basis points in December and is now striving for a target corridor of 2¼% to 2½%. At the same time, the members of the Federal Open Market Committee signalled that they see only limited need for a further tightening of monetary policy at present.

Japan

Japanese economy growing again after setback in summer

At the end of 2018, the Japanese economy recovered from the weather-induced setback during the summer months. Preliminary estimates by the Japanese Cabinet Office indicate that seasonally adjusted real GDP was up by 0.3% from the third quarter. The countermovement arose from a considerable increase in domestic demand. Private consumption, in particular, recorded marked growth. Business investment also saw distinct expansion. A marked rise in exports was offset by strong growth in imports, meaning that, on balance, foreign trade had a downward impact again. In the fourth quarter, the unemployment rate continued to be exceedingly low. Despite increasing shortages on the labour market, domestic inflationary pressures remained subdued. In December, annual CPI inflation (excluding energy and food) remained unchanged at 0.1%. Against this backdrop, the Bank of Japan maintained its accommodative stance.

United Kingdom

Considerable slowdown in pace of growth

The pace of growth in the United Kingdom has slowed down considerably of late. After adjustment for the usual seasonal variations, the provisional estimate indicates that aggregate output increased by just 0.2% in the fourth quarter of 2018 compared with the previous period, in which it had gone up by 0.6%. On the one hand, this sluggish economic activity was due to a major decline in manufacturing output, which had still been on the rise in the summer quarter. On the other hand, the loss of momentum in the expansion of the significant services sector continued. Furthermore, construction output slowed down somewhat from its high level in the third quarter. The annual aver-

4 According to Bundesbank simulations using the NiGEM global economic model, real GDP growth is likely to have increased by 0.7 percentage point last year solely as a result of the US tax reform. See Deutsche Bundesbank, The potential macroeconomic impact of US tax reform, Monthly Report, February 2018, pp. 14-16.

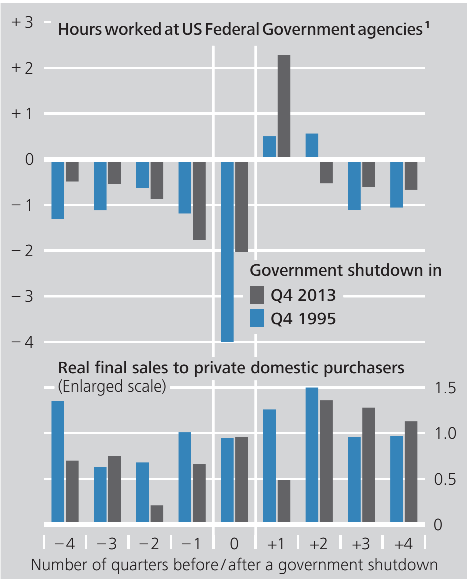
The macroeconomic effects of the government shutdown in the United States

From 22 December 2018 until 25 January of the current year, work was partially suspended at numerous federal authorities and agencies in the United States. Only five of a total of 12 appropriations bills were passed prior to the beginning of the new fiscal year on 1 October 2018. These bills ensure the continued operation of certain major departments, including the Departments of Defense, Labor and Education. Upon expiry of stopgap financing, all non-essential activities elsewhere were discontinued and 380,000 federal employees temporarily furloughed. Another 420,000 employees initially worked without pay.[1]

The furloughs in the government sector are set to have weighed directly on first-quarter gross domestic product (GDP) in the United States. This is because the US Bureau of Economic Analysis (BEA) also relies on hours worked at government agencies when estimating government consumption.[2] If the latest government shutdown is compared with similar shutdowns in the past, the associated direct dampening effect should remain manageable. Although the hours worked by federal employees declined considerably, both during the 26-day government shutdown in the half-year period from Q4 1995 to Q1 1996 and in the aftermath of the last relatively lengthy shutdown in October 2013,[3,4] the BEA quantified the negative effect on the annualised quarterly GDP growth rate at only around 0.3 percentage point for each event.[5] This winter, the direct hit to growth will probably have

Indicators of US economic activity before, during, and after government shutdowns

Seasonally adjusted, quarter-on-quarter percentage change



Sources: Bureau of Economic Analysis, Haver Analytics and Bundesbank calculations. **1** Approximated by real compensation of US federal employees as defined in the national accounts.

Deutsche Bundesbank

1 Employee figures are based on trade union estimates published in the first few days of the government shutdown.
2 See BEA, How will the federal government shutdown be reflected in the methodologies used for estimating GDP for the fourth quarter of 2013?, FAQ entry of 23 January 2014, available at http://www.bea.gov/help/faq/1032
3 In order to assess the economic impact, the two government shutdowns that occurred in 1995 (from 13 to 19 November 1995 and from 15 December 1995 to 6 January 1996) will be looked at collectively below. Two further brief shutdowns occurred in 2018; however, as one lasted only a long weekend and the other just a few hours, they are unlikely to have had any meaningful economic impact. See Congressional Research Service, Shutdown of the Federal Government: Causes, Processes, and Effects, updated 10 December 2018.
4 It should be noted that both shutdowns occurred while the US Federal Government was in the process of slashing its real consumption expenditure.
5 The data for 1995 derive implicitly from the contribution to the quarterly change in price-adjusted official data with comments. See R. Moran, R.W. Morris and D.Y. Sieff (1996), Business Situation, BEA Survey of Current Business, Vol. 76, March, pp. 1-6, and L.S. Mataloni (2014), GDP and the Economy – Advance Estimates for the Fourth Quarter of 2013, BEA Survey of Current Business, Vol. 94, February, pp. 1-6.

been only marginally more severe.[6] Even in the event that a renewed budget freeze should occur in the current quarter, the significance of lost hours worked in the government sector, all other things being equal, would likely be insufficient to cause GDP growth in the United States to sputter.[7]

However, concerns are being expressed that the government shutdown could have hit overall economic activity in the United States relatively hard.[8] A slowdown in household consumption growth, for example, appears plausible owing to temporary income losses among government employees. In addition, owing to the absence of government contracts and heightened uncertainty about the future, private sector companies could have slashed their budgets for investment and laid off staff. Lastly, various sovereign functions were temporarily performed on only a limited scale, potentially resulting in additional frictions.[9]

As things now stand, it is not possible to conclusively assess the impact of these additional drags on growth. Judging by experience of the recent past, however, temporary budget freezes do not appear to have had any notable impact on real final sales to private domestic purchasers. Even in this latest dispute, the prospect of retrospective payment of all federal employees' wages could have cushioned the drag on private consumption.[10] Strong employment growth in January likewise appears to indicate that the hit taken by the private sector was initially only marginal. Lastly, it remains to be noted that the direct and indirect impacts of the government shutdown are likely to have temporarily dampened GDP. As in the past, normalisation and – to a limited extent – catching-up effects are to be expected following the resumption of activity. A potential damper to growth in the first quarter should therefore not be equated to a cooling-down of what had recently been lively economic activity. At the same time, however, the current discord in the US Congress once again highlights the importance of political risks for future economic developments in the United States.[11]

6 Although the latest government shutdown, at 35 days, was the longest in US history, the relatively small number of furloughed federal employees is likely to keep the immediate economic costs within historical parameters.
7 Interim funding for the agencies affected by the recent government shutdown was set to expire at midnight on 16 February 2019. As this report went to press, no new appropriations bills had been passed.
8 The chairman of the Council of Economic Advisers, Kevin Hassett, is on the record as assuming that the government shutdown could have reduced annualised economic growth in the first quarter by 0.13 percentage point for every week that it lasted. This means that the economy could have lost a total of 0.5 percentage point of growth. See, for instance, J. Tankersley, Strain of Shutdown Is Spreading As Hot Economy Loses Its Steam, in The New York Times, 16 January 2019. The Congressional Budget Office thinks that similar losses are probable. See Congressional Budget Office, The Effects of the Partial Shutdown Ending in January 2019, report published on 28 January 2019.
9 The US Chamber of Commerce has complained, for instance, of small and medium-sized businesses being unable to receive assistance, regulatory delays in firms' ability to raise additional capital or in the review of mergers and acquisitions, inability to receive approvals to sell new products, hindrances to the processing of imports and delays of mortgage approvals. During the 2013 government shutdown, the US Office of Management and Budget (OMB) reported similar constraints. See N. L. Bradley, Ending the Shutdown and Reopening the Federal Government, letter to the members of the United States Congress, 8 January 2019, available at https://www.uschamber.com/letter/us-chamber-of-commerce-ending-the-shutdown-and-reopening-the-federal-government and OMB, Impacts and Costs of the October 2013 Federal Government Shutdown, November 2013.
10 Consistent with procedure during earlier government shutdowns, the Government Employee Fair Treatment Act of 2019, adopted in mid-January 2019, ensured that all US federal employees' salaries would be paid retrospectively. Had this act not been passed, furloughed employees would have had to forgo compensation for this period.
11 Thus, a decision on whether to raise, suspend or rescind the debt ceiling, which under current legislation will take effect as from 2 March, must be made during the current year. If a bipartisan compromise is not reached, the US Federal Government is in danger of partially defaulting on its obligations once extraordinary measures are exhausted.

age GDP growth rate declined from 1.8% in 2017 to 1.4% in 2018. Nevertheless, the labour market situation remained favourable. The average unemployment rate for the September to November 2018 period remained unchanged at its cyclical low of 4%. Annual Harmonised Index of Consumer Prices (HICP) inflation went down once again in January to 1.8%. Against the backdrop of continued uncertainty surrounding the outcome of the withdrawal negotiations with the EU, sentiment among households and enterprises has recently deteriorated noticeably. One indicator, the Purchasing Managers' Index for the whole economy, was only just above the expansion threshold in January. The Bank of England maintained its monetary policy stance at the beginning of February and warned of the risks of a "no deal" withdrawal from the EU.

Poland

Weaker economic growth, moderate consumer price inflation

The strong economic growth in Poland weakened in the final quarter of 2018. Real GDP grew by 0.5% on the quarter after seasonal adjustment. For 2018 as a whole, GDP growth of 5.1% was achieved, following 4.8% in 2017. Short-term indicators suggest that the economic expansion in the fourth quarter of 2018 was driven particularly by buoyant investment activity and strong growth in private consumption. The latter continues to be bolstered by the extremely favourable labour market. The unemployment rate reached a new cyclical low of 3.5% after seasonal adjustment in the fourth quarter, and average gross wages and salaries were up by almost 8%. Consumer price inflation decreased markedly on the year to 1.1%, which was mainly attributable to the significant decline in energy prices. Core inflation (excluding energy and food) increased slightly to 0.5%. Given the significant simultaneous rise in productivity, the strong wage growth had hardly any impact on prices. In light of Poland's moderate consumer price inflation, the National Bank of Poland left its policy rate unchanged.

Macroeconomic trends in the euro area

Euro area economic growth still only moderate

The euro area still only saw moderate economic growth in the final quarter of 2018, and leading indicators do not augur an improvement in the first quarter of 2019, either. Eurostat's flash estimate indicates that real GDP in the fourth quarter of 2018, as in the third quarter, grew by just 0.2% from the previous quarter after seasonal adjustment. As a result, the annual growth rate dropped to 1.2% and was thus below the estimated growth rate of potential output. Moreover, sentiment amongst enterprises and consumers became even gloomier in the final months of 2018. This was likely a reflection of specific problems in the euro area, such as domestic tensions in certain Member States. The ongoing uncertainty surrounding the outcome of the withdrawal negotiations between the EU and the United Kingdom, as well as other external economic factors, probably put a strain on business confidence, too. Nevertheless, the underlying conditions for continuing economic expansion within the euro area are still in place. Financing conditions are still favourable, the labour market situation has improved, and a number of Member States have rather expansionary fiscal policy stances. With the external environment providing moderate stimuli, the euro area's economic output will likely continue to pick up, though probably without much momentum for the time being.

Private consumption up again

Private consumption is likely to have shown somewhat stronger growth in the fourth quarter than in the previous period. In any case, the seasonally and price-adjusted volume of retail sales increased distinctly following a slight decline in the third quarter. New car registrations also firmed again during the final quarter of 2018 following the dislocations associated with the introduction of a new standard for measuring exhaust emissions. That said, they still remained clearly below the level of the third quarter. Households' propensity to purchase continued to benefit from the favourable income outlook on account of the improved labour market situation. Furthermore, the easing of inflationary pressures and the prospect of higher minimum wages in a number of countries at the start of 2019 are also likely to have brought additional impetus.

Weaker investment activity

Investment activity probably weakened towards the end of 2018. Spending on new machinery and equipment likely rose only marginally after price adjustment. While the production of capital goods saw a steep decline in the fourth quarter, imports of capital goods were probably higher. Capacity utilisation in manufacturing still significantly exceeded its longer-term average in January. Given the deteriorating economic outlook, no major capacity expansion was undertaken. Construction investment also lost steam in the fourth quarter, at least going by the stagnation in construction output in October and November. Moreover, sentiment surveys by the European Commission for the construction sector also point to a certain slowdown in business activity in the fourth quarter.

Sentiment indicators for the euro area

Percentage balances of positive and negative responses, seasonally adjusted, monthly data

Source: European Commission.
Deutsche Bundesbank

Exports to non-euro area countries up again noticeably

Like in the third quarter, exports to non-euro area countries rose markedly in value terms in the final quarter of 2018 according to foreign trade statistics. Besides deliveries to the United States and China, exports to the United Kingdom have now also shown strong increases. By contrast, exports to Turkey continued to shrink considerably. Since export prices decreased noticeably, the volume of exports is likely to have gone up significantly. Imports from non-euro area countries saw moderate growth after price adjustment. A sharp increase had been recorded in the previous quarter, primarily on the back of a steep rise in imports of capital goods. Foreign trade between euro area countries remained lacklustre in the fourth quarter.

Industrial production squeezing economic growth

Industrial production fell considerably in the final quarter of 2018 after moving sideways in the previous two quarters. This was also a clear decrease compared with the previous year, and this sluggishness was broadly based across all industrial sectors. The production of capital goods saw a steep decline in the fourth quarter, even though motor vehicle production, which had been heavily scaled back in the third quarter in connection with the introduction of the new standard for measuring exhaust emissions, had picked up again somewhat. The downward trend in the production of intermediate and consumer goods continued.

Mixed developments across Member States

While several Member States recorded a slowdown in growth in the second half of 2018, some countries largely maintained their previous pace of expansion. In France, Q4 economic growth, at 0.3%, remained unchanged on the quarter and higher than in the first half of the year. Growth in domestic demand has nonetheless waned considerably of late, with the protests of the “yellow vest” movement having potentially contributed to this decline. Private consumption spending remained unchanged at the level of the preceding quarter despite disposable income rising markedly, and there was

Unemployment and labour shortages in the euro area

Labour shortages[1] in the euro area have increased significantly over the past two years, reaching a level at mid-year that was unprecedented in the history of monetary union. The unemployment rate contracted noticeably as the economy recovered, but at around 8%, it was still rather high, particularly when compared with other economic areas. A situation where labour shortages are unusually high while a very large number of people are out of work raises the question of the structural state of the euro area labour market.

Mounting labour shortages are evident not only in the European Commission's business surveys but also in the job vacancy rate published by Eurostat. The relation between the job vacancy rate and the unemployment rate is usually negative, and it is traced using the Beveridge curve. Shifts along a Beveridge curve are an indication of cyclical changes.[2] Thus, an upswing will tend to push up job vacancy numbers and depress unemployment, while a downturn has the opposite effect, lowering the number of vacant positions and driving up joblessness.

Another thing which the Beveridge curve can reveal is structural changes in the labour market. For instance, if the Beveridge curve shifts over time, this can point to changes in the geographical, sectoral and skill mismatch of labour supply and demand or a change in reallocation efficiency. If the curve shifts to the left, it shows that labour market matching has improved; a shift to the right shows that it has deteriorated.

This box presents the Beveridge curve based not on the job vacancy rate but the European Commission's indicator of labour shortages in manufacturing.[3] This is an appropriate indicator for the euro area, given that it has a far longer time series than the job vacancy rate. What is more, the job vacancy rate is not calculated using a harmonised method by all Member States. However, both sets of statistics present quite a similar picture in most countries.

A euro area unemployment rate at the level recorded for the fourth quarter of 2018 would, ten years ago, have been accompanied by labour shortages of a much smaller magnitude. This would suggest that the process of matching labour market supply and demand has become increasingly difficult over time, and is shown by a right shift in the Beveridge curve. The decline in the unemployment rate on the back of an economy that has been in recovery since the middle of 2013 has been reflected by movements along the shifted Beveridge curve. Over the past two quarters, the magnitude of labour shortages diminished somewhat, and the unemployment rate continued its gentle decline.

All four large euro area countries have seen the cyclical labour market recovery lead to a decline in the rate of unemployment, and

1 "Shortage of labour force" is one possible response in the European Commission's business survey to the question "What main factors are currently limiting your production?". The shortage of labour in manufacturing is surveyed in the first month of every quarter and expressed as the percentage of enterprises that consider this factor to be a limit to production. The quarterly value is computed as the average of the labour shortage in the first month of the respective quarter and in the first month of the following quarter.
2 One model which can help interpret movements in the relation between job vacancies and the unemployment rate can be found in O. J. Blanchard, P. Diamond, R. E. Hall and J. Yellen (1989), The Beveridge Curve, Brookings Papers on Economic Activity 1, pp. 1-76.
3 See B. Bonthuis, V. Jarvis and J. Vanhala (2016), Shifts in euro area Beveridge curves and their determinants, IZA Journal of Labor Policy 5:20.

since spring 2017, at least, this has coincided with mounting labour shortages. However, differences of a greater magnitude come to light over the question of whether there has been a structural change in the matching efficiency of the labour market, i.e. the direction of a shift in the Beveridge curve. In Germany, there are clear signs of an improvement in labour market matching efficiency since 2008 – the Beveridge curve can be seen to have shifted to the left. Labour shortages have risen dramatically since the beginning of 2017, but the unemployment rate was at a very low level compared not just with other countries but also over time. In France, by contrast, there are signs of a right-shift in the Beveridge curve compared to where it stood immediately prior to the onset of the financial and economic crisis.[4] Italy's Beveridge curve appears to have barely changed, while shifts in Spain's labour shortage indicator are difficult to interpret on account of strong fluctuations in the time series. For Spain, a Beveridge curve based on the job vacancy rate indicates a tendency towards improved labour market matching efficiency as the economy improved in recent years.[5] Labour shortages in all four large euro area countries have been easing over the last two to three quarters. In Italy, this coincided with an increase in the unemployment rate in the fourth quarter. France, meanwhile, saw its unemployment rate rise in the third quarter of 2018 and remain unchanged in the last three months of the year. Developments in these two countries can be seen as evidence of a deterioration in cyclical labour market conditions.

Euro area Beveridge curve

Seasonally adjusted quarterly data

Sources: European Commission, Eurostat and Bundesbank calculations. **1** Quarterly value computed as the average of the labour shortage in the first month of the respective quarter and in the first month of the following quarter.

Deutsche Bundesbank

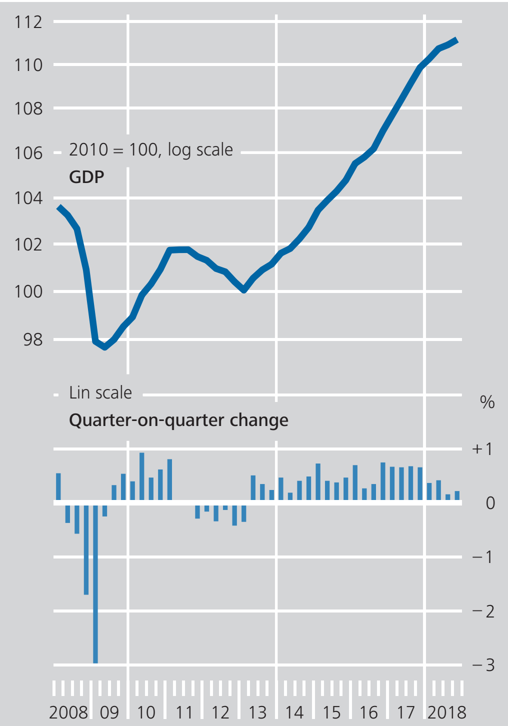
All in all, there are indications that the labour market in the euro area is still experiencing pronounced structural problems. While it is true that euro area unemployment diminished over the course of the economic recovery, the process of matching labour market supply and demand appears to be more difficult than it was at the time the financial and economic crisis erupted. This presents a challenge for economic and labour market policymakers.

4 This is consistent with the estimates made by Bonthuis et al., whose analysis uses data up to the first quarter of 2014. They find that, since the crisis, the Beveridge curve has shifted to the right in the euro area, France and Spain, and to the left in Germany. Their findings for Italy are inconclusive. See B. Bonthuis, V. Jarvis and J. Vanhala (2016), op. cit.

5 Boscá et al. (2017) combine the job vacancy data which Eurostat has been publishing for Spain since 2010 with older time series taken from other sources. They demonstrate that the Beveridge curve shifted to the right between 2008 and the middle of 2009 and that this shift contributed to the increase in the unemployment rate. Between 2014 and 2016, the Beveridge curve shifted to the left towards its pre-crisis position. See J.E. Boscá, R. Doménech, J. Ferri and J.R. García (2017), Shifts in the Beveridge curve in Spain and their macroeconomic effects, Revista de Economía Aplicada 75 (Vol. XXV), pp. 5-27.

Aggregate output in the euro area*

Price and seasonally adjusted, quarterly data



Source: Eurostat. * Affected by a level shift in Irish GDP from Q1 2015 onwards.
Deutsche Bundesbank

hardly any growth in gross fixed capital formation. By contrast, exports increased sharply, boosted by aircraft deliveries. On the other hand, inventory stocks contracted. In Italy, overall economic output declined for the second quarter in succession, with economic activity being depressed by domestic demand. Private consumption spending had likely expanded somewhat in line with the price-adjusted moderate rise in retail sales, but investment probably fell again. Economic activity was bolstered by foreign business; Italian exports of goods climbed significantly in the fourth quarter, while goods imports were up only moderately. In Spain, the economic upturn even accelerated slightly again in the fourth quarter due to lively demand on the part of households and general government as well as the strong rise in exports. On the other hand, gross fixed capital formation was unable to fully maintain the high level reached in the previous quarter. In the Netherlands and Portugal, real GDP increased substantially, while Belgium and Austria achieved only moderate growth.

Further improvement in the labour market

Labour market conditions continued to improve in the euro area, albeit to a lesser extent than in previous periods. The number of unemployed people in the fourth quarter fell by 146,000 compared to the third quarter of 2018, after seasonal adjustment, and by 1.2 million on the year. As a result, the standardised unemployment rate came down slightly to 7.9% by December. Thus, the unemployment rate was only 0.6 percentage point higher than during the cyclical low prior to the onset of the financial and economic crisis. Since then, the rate has even reached 12.1%. According to Eurostat's flash estimate, the number of people in employment rose more slowly again in the fourth quarter than in the first half of 2018, at 0.3% on the quarter. The labour shortage in manufacturing and the services sectors also continued to drop slightly, although it still remained at a high level. The coexistence of sizeable unemployment and a significant labour shortage suggests there are problems relating to the functioning of the euro area labour markets (see the box on pp. 18 f. for more information). Year-on-year wage growth as measured by gross wages per employee continued its climb in the third quarter to 2.6%.

Q4 consumer price inflation a little weaker due to volatile components

Consumer prices in the euro area in the fourth quarter of 2018 rose by a seasonally adjusted 0.3% on the quarter, which was not as steep an increase as in the previous quarters. The growth in energy prices, in particular, initially decelerated on the back of the decline in crude oil prices, even moving into negative territory at the end of the quarter. Much the same was true for food, especially unprocessed food products, which had become significantly more expensive in the summer on account of the extremely dry weather. Service price inflation was also somewhat weaker, whilst, on the other hand, the prices for industrial goods excluding energy picked up moderately, as in the preceding quarters. Accordingly, annual headline HICP inflation contracted from 2.1% in the third quarter to 1.9%, while the rate excluding energy and food remained unchanged at 1.0%. According to the Eurostat flash estimate, annual headline HICP inflation in January 2019 likely fell to 1.4%, mainly on account of the ongoing deceleration in energy price inflation.

Average annual inflation in 2018 at 1.7%

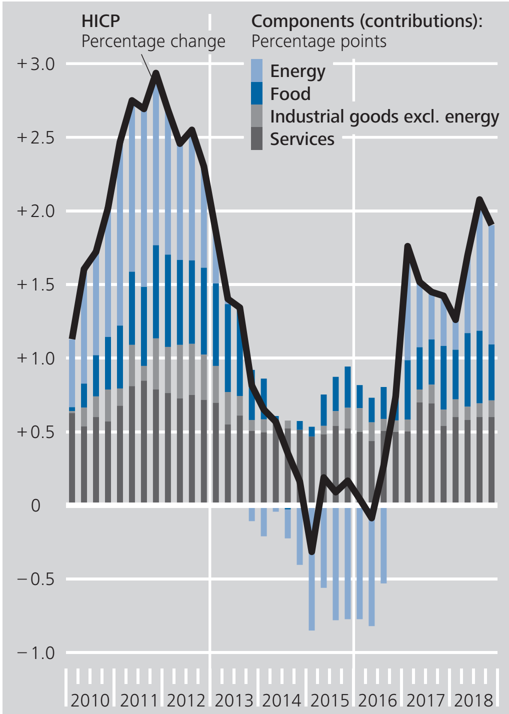
Average annual consumer price inflation in 2018 rose slightly to 1.7%, up from 1.5% in 2017. Like last year, consumer prices excluding energy and food were only up by 1.0%. However, this figure obscures considerable differences in how the prices of sub-components are developing. One such sub-component, non-durable goods price inflation, increased in particular, while the prices of travel services accelerated less strongly than one year earlier.

Deterioration in business and consumer sentiment

The trajectory of sentiment indicators in recent months suggests that economic growth in the euro area is likely to continue, though at a more subdued rate. The Purchasing Managers' Index for the whole economy dropped in January to its lowest level in over five years, remaining only just above the expansion threshold. The same is also true of the manufacturing and services sub-indices. The European Commission's indicators of business and consumer sentiment also declined considerably in most cases in January, except for the construction sector indicator. Nonetheless, industrial and consumer confidence remained above their long-term average.

Consumer prices in the euro area by component

Year-on-year change



Sources: Eurostat and the ECB.
Deutsche Bundesbank