Global and European setting

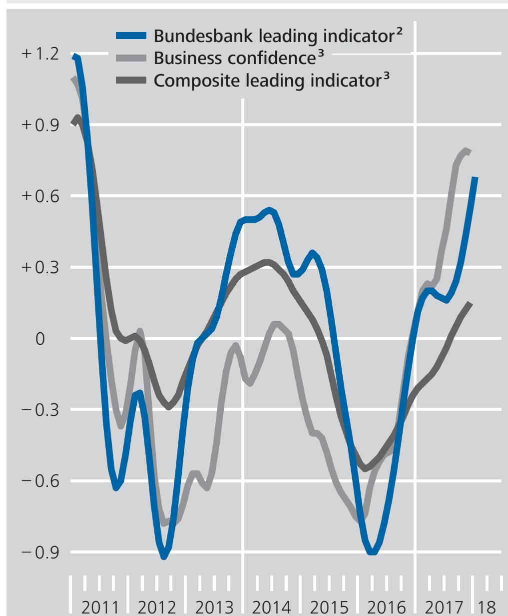
World economic activity

Clear and broad-based global economic growth

The global economy remained buoyant at the end of 2017. Having surged in the second and third quarters, economic growth in industrial countries eased only slightly in the final quarter of last year. In the United States, the rise in real gross domestic product (GDP) was dampened by a very sharp increase in imports and a weaker build-up of inventories. Domestic final demand, on the other hand, saw its strongest growth in a little more than three years. The euro area likewise registered another strong upturn in GDP in the fourth quarter, while the United Kingdom's lacklustre activity in the first half of the year strengthened again slightly. The Japanese economy was able to marginally outstrip its earlier, strongly increased level of activity. Steady growth in the emerging market economies as a group – especially China – completes the picture of a largely synchronised upswing in the global economy. According to the figures provided by the Dutch Centraal Planbureau (CPB), global industrial production grew almost just as briskly on average in the October-November 2017 period compared with the previous three months, as it had in the third quarter. The steep expansion of global trade in the summer gained a little more traction in the first months of the fourth quarter. Overall, global GDP and international trade are likely to have accelerated at a far quicker pace in 2017 than in the previous year, recording their largest gains since 2011.

Selected short-term indicators of international economic activity

Monthly, standardised[1]



Sources: OECD, Haver Analytics and Bundesbank calculations based on data from IHS Markit, sentix GmbH, and Standard and Poor's; these data are provided by IHS Markit. **1** Based on the mean value and the standard deviation since January 2003. **2** For the global economy. **3** OECD indicators (amplitude adjusted) for the OECD area and six other major economies.

Deutsche Bundesbank

Current indicators remain favourable

Current indicators suggest that global economic activity also made a buoyant start to 2018, with sentiment among businesses and consumers remaining upbeat at the turn of the year. This is consistent with the fact that the Bundesbank leading indicator for the global economy improved well into January, signalling continued consolidated growth in global industrial production.[1] Recent price declines in financial markets, though, highlight the potential risk of a sharp correction in asset prices, which could hamper global economic growth.

Global growth outlook brighter still

The persistently favourable global activity prompted the International Monetary Fund (IMF) staff in January to raise their growth pro-

1 The Bundesbank leading indicator was designed to predict cyclical turning points in global industrial production (according to the CPB). It is based on a principal component analysis with six indicator inputs: the Global Manufacturing Purchasing Managers' Index (PMI) produced by JP Morgan and IHS Markit, the PMI sub-index for new export orders, the corresponding global PMI for the services sector, the sentix economic index on the current situation, the sentix economic index on the expectations for the next six months, and the S&P Global 1200 equity index. The data from IHS Markit and sentix GmbH, and those from Standard and Poor's (which are provided by IHS Markit), are used as sources. A rising indicator above the long-term mean signals a cyclical period of expansion. The Bundesbank leading indicator's time series is available at: https://www.bundesbank.de/Navigation/EN/Statistics/Time_series_databases/Euro_area_and_euro_area_countries/euro_area_aggregates_list_node.html?https=1&listId=www_s3wa_imac_bbli

jections for the world economy again in 2018 and 2019. Prospects not least for the euro area, especially Germany, and for Japan were now seen in a distinctly more favourable light than as recently as last autumn. Projections for global trade growth were even increased considerably. The improved global growth outlook also mirrors the IMF staff's expectation that the tax reform recently passed in the United States will provide significant, albeit temporary, stimulus above all for the economies in North America.

Temporary stimulus for US economy

Bundesbank calculations using NiGEM, the global economic model of the National Institute of Economic and Social Research, likewise suggest that the tax cuts will deliver considerable growth stimulus in the United States in 2018 and 2019, but will probably act as a drag in later years (see the box on pages 14 to 16). These calculations furthermore point to a considerably stronger rate of inflation in the medium term. While the ripple effects on real GDP or consumer prices beyond America's direct neighbours, which have close foreign trade ties to the US economy, would be small, the simulations suggest that the fiscal costs in the United States would be high. What is more, both the deficit in the US current account and the German surplus would be pushed up distinctly.

Risks to the global economy

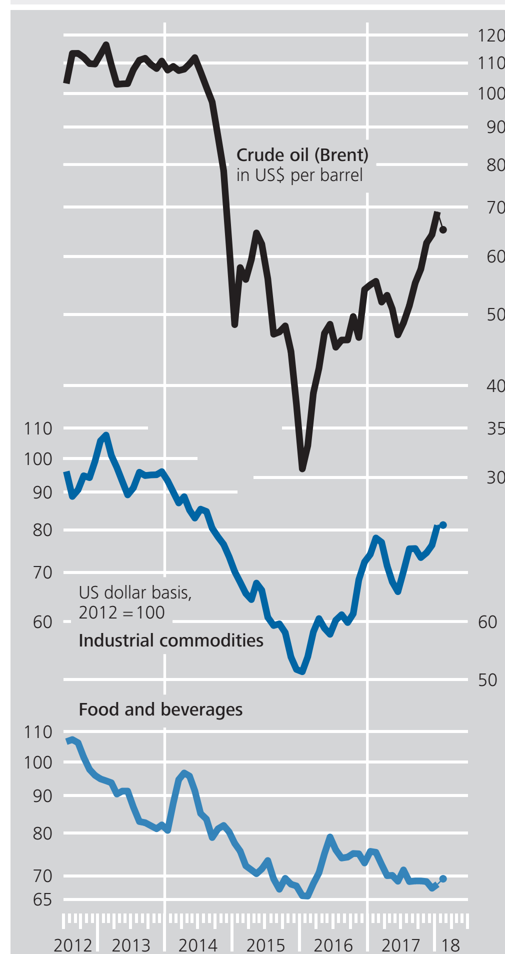
It would be misguided to see such a widening of global imbalances as evidence of a lack of "fairness" in the architecture of international trade, or to consequently even call for greater restrictions to be placed on international trade. Protectionist measures would particularly do harm to the country that applies them – and the repercussions for current account balances would be unclear.[2] A push in this direction ranks alongside sharp corrections in financial markets and an escalation of geopolitical conflicts as one of the major risks to what is generally an upbeat global growth outlook.

Crude oil price at three-year high

With economic activity vibrant, the prices of industrial raw materials, measured on a US dollar basis using a suitable index produced by the Hamburg Institute of International Economics (HWWI), rose significantly during the period under review, while the price of crude oil posted further robust gains. According to figures from Bloomberg, the spot price for a barrel of Brent came to just under US$70 in January 2018; this is a little more than US$11 higher than three months before and the highest level since November 2014. The simultaneous marked rise in discounts for forward deliveries might indicate that supply is tightening, prob-

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 9 February 2018, or 1 to 15 February 2018 for crude oil.
Deutsche Bundesbank

2 See Deutsche Bundesbank, The danger posed to the global economy by protectionist tendencies, Monthly Report, July 2017, pp 77-91.

ably as a result of a number of temporary production outages. What is more, major oil-producing countries agreed to extend their output cuts through to the end of 2018. Besides the ongoing conflicts in the Middle East, the political situation in Venezuela is also increasingly a cause of concern; oil production there contracted significantly in recent months. That said, the oil price did fall back considerably at the beginning of February following surprisingly strong growth in US output. As this report went to press, the spot price for a barrel of Brent was US$64.

Consumer prices sharply higher on the quarter

After adjustment for seasonal factors, consumer prices in industrial countries surged in the final quarter of 2017 compared to the previous quarter, not least owing to higher energy prices. The last time prices increased at a faster pace than this was back in winter 2011. Annual price inflation barely changed because of the similarly robust increase registered one year earlier. Headline inflation in December 2017 came to 1.9%, as it had done in September. Core inflation, which is based on the basket of consumer goods excluding energy and food products, was still somewhat lower at 1.5%.

Selected emerging market economies

China maintains pace of growth in fourth quarter

According to the official estimate, China's economic output in the last quarter rose by 6.8% on the year, which matched the pace of growth recorded one quarter earlier. Average annual real GDP growth in 2017 even slightly outpaced the 2016 figure, coming in at 6.9%, which means that the aggregate slowdown observed since 2011 has come to a halt. The pick-up in Chinese goods exports in response to firmer global activity was instrumental in this regard. Their value climbed by 8% in US dollar terms compared to 2016, when it had receded by almost the same magnitude. Growth in investment activity last year appears to have weakened again significantly, however.[3] The cooling of the residential property market is likely to have played a key role here. By contrast, consumption activity was very robust, with survey data indicating that household sentiment stayed extremely upbeat up until this report went to press. One likely factor is that consumer price inflation remained rather lacklustre again in the final quarter of 2017, coming in at a rate of 1.8%.

Firmer activity in India

In India, two sweeping reforms in the first half of 2017 – the exchange of much of the cash in circulation, and the introduction of a single Goods & Services Tax (GST) across the country – put a considerable damper on economic activity. The headwinds these measures caused appear to have eased in the second half of the year. In any case, GDP growth increased in the summer to 6.3% on the year. This recovery is likely to have continued into the fourth quarter, for which an official GDP estimate is not yet available. Consumer price inflation picked up sharply of late, the consumer price index (CPI) rate coming in at an average of 4.6% in the final quarter. The Reserve Bank of India, which is aiming for an inflation rate of 4% over the medium term, left its policy rate at 6.0%, where it has been since August 2017 following a series of reductions.

Dip in the Brazilian economy's rebound

Brazil's economic recovery stumbled at times in the second half of 2017. Seasonally adjusted third quarter GDP hovered close to the level of the previous period. Though private final domestic demand registered another strong rise, a sharp increase in imports and inventory dynamics depressed aggregate growth in arithmetical terms. In the fourth quarter, it is likely that real GDP returned to a growth path according to the indicators available. Industrial production, for example, grew by 2% compared to the third quarter. To keep the aggregate economy firmly on track for recovery, however, policymakers will need to put the ne-

3 China's National Bureau of Statistics does not report any real growth figures for the individual expenditure-side components of GDP, though it does publish a breakdown of economic growth into expenditure-side contributions, which can be used to derive the rates of change in each component.

cessary framework in place. Consumer price inflation is still rather feeble by Brazilian standards, with the annual growth rate standing at 2.8% on average in the fourth quarter. This prompted the Central Bank of Brazil to lower its policy rate on multiple occasions in recent months.

Recovery in Russia probably slowed recently

Last year saw the Russian economy recoup some of the output it had lost in the 2015-16 recession. According to the preliminary estimate by the Russian Federal State Statistics Office, real GDP climbed by an annual average of 1.5%. Imports of goods and services rose by as much as 17%, though these had contracted particularly severely during the economic crisis. Separate national accounts data are not yet available for the fourth quarter. There are signs that economic growth has slowed down considerably. For example, industrial production shrank by an unexpected 1.8% on the year in the fourth quarter. Yet higher oil prices, which ought to benefit Russia as an exporting economy, suggest that the economic recovery suffered no more than a short-lived lull. Consumer price inflation dwindled to 2.6% on average in the final quarter, prompting the Russian central bank to maintain its accommodative monetary policy stance.

United States

Strong growth in final domestic demand

According to an initial estimate, fourth quarter real GDP in the United States was up by a seasonally adjusted 0.6% on the third quarter, in which it had risen by 0.8%. On the one hand, a turnaround in inventory dynamics in arithmetical terms and a sharp increase in imports created headwinds for growth. On the other, final domestic demand expanded at a very brisk pace, the like of which was last seen in the third quarter of 2014. In addition to gross fixed capital formation, which has been following a rather steep upward trajectory since back in early 2017, residential construction investment and private consumption also posted considerable gains in the final quarter.[4] Disposable household income was unable to keep pace with this, crimping the saving ratio in December still further to its lowest level in over 12 years. Now that the tax cuts have come into force, consumers should have greater scope for expenditure in the new year. Moreover, the perceptible increase in employment continued into January 2018, while the unemployment rate remained at its cyclical low of 4.1%. CPI-based inflation clocked in at 2.1% in the same month. In light of the progress already made and the likely road ahead towards its monetary policy objectives, the US Federal Reserve maintained its stance of gradually normalising monetary policy and raised its policy rate last December by 25 basis points.

Japan

Private consumption recovers

Growth in the Japanese economy in the fourth quarter of 2017 fell short of the strong rate of expansion observed in earlier quarters. Preliminary estimates by the country's cabinet office indicate that seasonally adjusted real GDP was just marginally up on the third quarter. Private consumption bounced back distinctly from its lull in the previous period. However, private gross fixed capital formation registered no more than minimal gains, while public sector demand was crimped again slightly. Both exports and imports of goods and services experienced firm growth. The unemployment rate touched a new cyclical low in November, but domestic price increases nonetheless remained sluggish – the annual core rate of CPI inflation (excluding energy and food prices) coming in at 0.1% in December, which was only marginally higher than the figure three months earlier. Livelier energy and fresh food price inflation, however, was instrumental in pushing the December headline rate to 1.0%, the highest rate observed since March 2015. The Bank of Japan

4 The pick-up in residential construction may be partly a response to the trail of devastation left by hurricanes in August and September on the US Gulf Coast. This hypothesis is supported by the fact that similar natural disasters in the past have also prompted an increase in activity in the construction sector. See Deutsche Bundesbank, The impact of hurricanes on economic activity in the United States, Monthly Report, November 2017, pp 14-15.

The potential macroeconomic impact of US tax reform

As 2017 was drawing to a close, the US Congress passed the Tax Cuts and Jobs Act, which ushered in a sweeping reform of tax legislation. As from 2018, tax rates will be lower and the tax code will be simplified; this will benefit primarily firms but also households. In addition, the USA will move to a territorial system of taxing global earnings, subjecting deferred offshore income to a one-time tax at reduced rates.[1] According to estimates by the non-partisan Congressional Joint Committee on Taxation (JCT), the direct government revenue shortfalls caused by the reform over a ten-year period could amount to a net figure of nearly US$1.5 trillion.[2] Although the extent of the relief would fall short of earlier proposals,[3] the short-term fiscal stimulus would still be considerable, at roughly 1¼% of gross domestic product (GDP) per year for the years 2018 to 2020. The stimulus would subsequently be scaled back gradually, resulting even in a slightly positive impact on the budget as from the 2027 fiscal year.[4]

The NiGEM global economic model will be used below to study the macroeconomic implications of the reform for the United States and its trading partners.[5] The changes in tax legislation are approximated by adjusting the effective tax rates for firms and households.[6] The calibrations are based on the JCT's cost estimates, factoring out the new tax treatment of international earnings.[7] Initially, the effective corporate tax rate in NiGEM is reduced by 10 percentage points and that of natural persons by 1 percentage point. Over the long term, the assumed effective corporate tax rate will remain only 2 percentage points below the baseline, whereas the percentage tax burden on households will even rise somewhat. According to the assumptions underlying the simulations, real government demand does not deviate from the baseline. The considerable spending hikes adopted by the US Congress in February for the current and next fiscal years are not taken into account.

Consistent with the time paths of the tax rates, the calculations suggest that the reform could, in the short run, considerably

1 This would be augmented by, amongst other things, measures designed to prevent abuse and restrictions on the deductibility of interest rates, more favourable rules for intangible assets and immediate depreciation options.
2 See Joint Committee on Taxation, Estimated budget effects of the conference agreement for H.R. 1, the "Tax Cuts and Jobs Act", JCX-67-17, 18 December 2017.
3 Proposals being put forward by US government officials as late as April 2017 entailed estimated cumulative revenue losses of US$5.5 trillion over a decade. See Committee for a Responsible Federal Budget (2017), Fiscal FactCheck: How much will Trump's tax plan cost?, Blog post, 26 April 2017.
4 This projection is based mainly on the fact that major amendments to income tax legislation will expire in 2025 and that corporate deductions are likewise only temporary.
5 NiGEM is the macroeconometric model developed by the UK-based National Institute of Economic and Social Research (NIESR). It individually models the bulk of OECD countries as well as major emerging market economies and their economic interconnectedness via foreign trade and the interest-exchange rate nexus. The model has New Keynesian features and, in particular, forward-looking elements on financial and labour markets. For further information, see https://nimodel.niesr.ac.uk
6 For a model-based gauging of the macroeconomic impact of earlier blueprints for reform, see Deutsche Bundesbank, The macroeconomic impact of tax reform plans in the United States, Monthly Report, May 2017, pp 12-13.
7 The added revenue expected by the JCT for the coming years in connection with the international aspects of the reform largely reflects the one-time tax on deferred overseas earnings. The cost of capital, which is the decisive factor when considering future investment decisions, is not expected to be affected by this retroactive measure. Some analysts even assume that, in this context, funds from abroad will accrue to households and firms in the United States. Netting the increased fiscal revenue from this measure against the revenue shortfall from tax cuts, however, would reduce the fiscal stimulus to the US economy and therefore does not seem appropriate.

boost US GDP. This is due primarily to a strong rebound in investment activity which, in NiGEM, is an immediate response to the reduction in the after-tax user cost of capital. For households, an increase in disposable income is reflected in a more rapid rise in consumer spending. The growth-enhancing effects on domestic demand, however, are short-lived, and will fall into negative territory as early as from the year 2020. After ten years, GDP will not be significantly different from where it would have been in the absence of any tax reform.

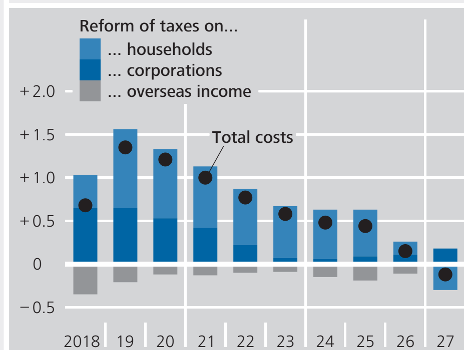
Price developments show a similar pattern, albeit with a time lag. Consumer price inflation in the United States would only be temporarily dampened by an appreciating US dollar, but would later be spurred considerably by higher domestic demand. In NiGEM, the US central bank responds to the inflation surge, which peaks after three years, by perceptibly lifting its policy rate; this move, in concert with an economic downturn, puts the brakes on inflation.[8] Higher interest rates impact on financial markets immediately. In the model, the US stock market takes a considerable hit even though after-tax corporate profits rise.

Despite the considerable swings in US economic activity indicators, the simulations indicate that the ripple effect to other regions will be limited,[9] with the rest of the world as a whole only seeing a slight, temporary rise in GDP. The model even yields slightly negative effects on output for the euro area, although the region will benefit from an initial considerable spike in US demand for imports.[10] Higher inflation and interest rates, however, will have a dampening effect on GDP, since US inflationary trends will spill over to other economic areas.[11]

The aspects of the tax reform modelled here would cause the US current account deficit to rise considerably according to the simulation results. Conversely, most other economies would see their current account balances increase, including Germany, which is already running a surplus. The growing US fiscal deficit would thus clash with the aim of improving the US external trade position and reducing global

Fiscal costs of the Tax Cuts and Jobs Act

As a percentage of GDP,[1] data relate to fiscal years



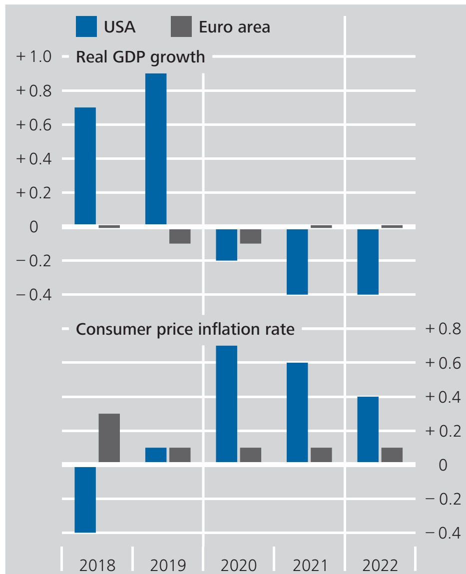
Sources: Joint Committee on Taxation, Congressional Budget Office (CBO) and Bundesbank calculations. **1** According to the CBO's baseline projection; the macroeconomic impact of the tax reforms is not taken into account.

Deutsche Bundesbank

8 It is not only revenue shortfalls but also higher interest rates which weigh on the US government budget. According to the results of the simulation, the government debt ratio could rise by just over 9 percentage points compared to the baseline in the space of a decade.
9 Moreover, the reform could also affect the rest of the world through feedback effects of the various changes to tax legislation, such as the treatment of intangible assets or the closing of loopholes. These are not modelled here.
10 According to the simulation output, accelerated economic growth in the United States will be associated with an increase in imports by a total of 4% up to 2019. This even disregards the fact that the salient feature of investment demand, which rises strongly, is a relatively high import content. In modified versions of the model which take this fact into account, the additional increase in imports over the same period will be larger than one percentage point. This is reflected in slightly more favourable spillover effects to the real economy of other countries.
11 These factors and their countervailing impacts on euro area economic activity also show up in the European Commission's QUEST model. See M Buti (2018), Cross-Atlantic implications of the new United States policy mix, remarks delivered at the AEA Annual Meeting, New York, 26 January 2018; and European Commission, US macroeconomic policies and spillovers to the euro area, Spring 2017 European Economic Forecast, Institutional Paper 053, pp 45-48.

Macroeconomic impact of the Tax Cuts and Jobs Act according to NiGEM simulations*

Deviation from the baseline expressed in percentage points



Source: Bundesbank calculations using NiGEM (Version 4.17) based on cost estimates by the Joint Committee on Taxation. * Assuming permanent tax changes and rules-based monetary policy responses.

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imbalances.[12] From this perspective, and also looking towards the long-term sustainability of public finances, fiscal consolidation in the United States, rather than fiscal stimulus, would appear to be more appropriate.[13]

Given uncertainty about the suitability of the model framework and the scope for implementing individual policy measures, macroeconomic simulations of complex reform packages should always be interpreted with caution. The incentives associated with the US tax reform are multilayered and modelled in a highly simplifying form.[14] Studies by other institutions, however, yield results similar to those presented here. For instance, in its latest growth projections from January, the staff of the International Monetary Fund (IMF) assumes that tax reform will initially perceptibly boost GDP growth but then dampen it in later years.[15] Analyses by the JCT and the non-partisan Tax Policy Center suggest a similar time path.[16] Because the recently adopted government spending hikes are disregarded, the actual fiscal stimulus is even underestimated by all studies. In the current situation, however, the question to ask is to what extent conventional models adequately reflect the effectiveness of stimulus in times of rather high macroeconomic capacity utilisation. Inflation, in particular, could turn out to be higher than calculated using conventional simulations.

12 Consequently, the possibility of calls for protectionist measures increasingly finding sway with US government officials cannot be ruled out. However, such policies would not only jeopardise the global upswing but would especially also impair economic growth in the United States itself. See Deutsche Bundesbank, The danger posed to the global economy by protectionist tendencies, Monthly Report, July 2017, pp 77-91.
13 See Deutsche Bundesbank, Possibilities for adjusting the US current account deficit, Monthly Report, July 2017, pp 83-85.
14 The distributional impact of the reform, for instance, cannot be taken into account in NiGEM.
15 According to IMF estimations, the dampening effects on economic growth are likely to gain the upper hand from 2022. In the two preceding years, however, GDP could be 1.2% higher than in a scenario without tax reform. The effects would thus also be quantitatively similar to those contained in the simulation calculations presented here. See IWF, Brighter prospects, optimistic markets, challenges ahead, World Economic Outlook Update, January 2018, pp 3-4.
16 See JCT, Macroeconomic analysis of the conference agreement for H.R. 1, the "Tax Cuts and Jobs Act", JCX-69-17, study published on 22 December 2017, or also B R Page, J Rosenberg, J R Nunns, J Rohaly and D Berger, Macroeconomic analysis of the tax cuts and jobs act, Tax Policy Center letter, 20 December 2017.

kept its monetary policy stance exceptionally accommodative.

United Kingdom

Economy firms up again slightly

Activity in the United Kingdom continued to gradually pick up pace. After adjustment for the usual seasonal variations, real GDP in the fourth quarter of 2017 was 0.5% up on the previous quarter according to the first official estimate, having expanded at rates of just 0.3% in the first two quarters. One factor driving the faster pace of expansion was the distinct upturn in the UK's important services sector; the other was another solid upturn in manufacturing output. Overall value added in the production sector, however, increased at a more subdued pace, largely on account of a temporary cutback in oil and gas production. Furthermore, aggregate growth was dampened by what remains a steep downward correction in construction activity from its high level at the beginning of the year. With GDP growth averaging 1.8% in 2017, the UK economy remained in robust shape in spite of the stronger rate of inflation. After peaking at 3.1% in November last year, inflation as measured by the rate of change in the Harmonised Index of Consumer Prices (HICP) eased only marginally up until January. Unemployment as an average for the September to November 2017 period remained at its lowest level since spring 1975. The Bank of England left its monetary policy unchanged during the period under review.

New EU member states

Upswing still robust in central and eastern Europe

Activity in the new EU member states (EU-6)[5] remained vibrant in the fourth quarter of 2017. Domestic demand is projected to have increased again substantially – private consumption especially. Many of these countries saw industrial capacity utilisation increase from their already high levels. At the same time, the unemployment rate fell to fresh lows in the Czech Republic, Poland, Hungary and Romania. This raises the question of whether this group of countries will be able to maintain the brisk pace of economic growth for much longer. HICP inflation was sharply higher in the fourth quarter of the year, touching 2.0% for the first time since early 2013. Inflation rates among EU-6 countries ranged from 1.5% in Croatia to 1.8% in Poland, and to 2.5% in the Czech Republic. But this pick-up in inflation was driven primarily by energy and food prices – adjusting the headline rate for these components leaves a core rate of inflation that is unchanged at 0.9%.

Macroeconomic trends in the euro area

Strong underlying pace of economic growth

Activity in the euro area, too, continued to move at a lively pace as the year drew to a close. Eurostat's flash estimate indicates that real GDP in the fourth quarter of 2017 rose by a seasonally adjusted 0.6% on the quarter and by 2.7% on the year.[6] Economic growth was again broadly based, both across member states and in terms of components of origin and use of GDP. On average, real GDP growth in 2017 is likely to have come to 2.5%, which is a significant improvement on the already rather strong expansion rate of 1.8% recorded in 2016. This brisker pace of activity was mainly down to the improved external environment, and the noticeable upturn in exports. Domestic activity was again a key source of impetus – private consumption remained on an upward trajectory, while the acceleration in investment

5 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.
6 This flash estimate contains no figures for Ireland as yet. Growth rates for the third quarter of 2017 and the fourth quarter of 2016 were each revised from 0.6% to 0.7% following publication of Ireland's GDP numbers. This is because real GDP in Ireland rose by 4.2% in the third quarter of 2017, according to an initial estimate by the country's Central Statistics Office, and increased at a revised rate of 6.8% (previously 5.8%) in the fourth quarter of 2016. Ireland's GDP growth rates have been very high and susceptible to revision for some time now, mainly on account of the activities of multinational enterprises. See also Deutsche Bundesbank, The revision of the euro-area national accounts for 2015, Monthly Report, November 2016, pp 16-17.

Aggregate output in the euro area

2010 = 100, price and seasonally adjusted, quarterly data

Source: Eurostat. **1** Affected by a level shift in Irish GDP from 2015 Q1 onwards.
Deutsche Bundesbank

activity was palpable.[7] With business and consumer sentiment persistently upbeat, the broadly based economic upswing in the euro area looks set to continue.

Private consumption heading higher

Private consumption is likely to have risen slightly in the fourth quarter. Price and seasonally adjusted retail sales saw just marginal growth, unlike new motor vehicle registrations, which were sharply higher. Private consumption was propelled by another uptick in consumer confidence, largely on the back of increased optimism about the economy. The steady improvement in the labour market will also have shored up households' propensity to purchase, though the stronger inflation is likely to have had a dampening effect.

Investment up again

Investment activity probably continued to accelerate in the fourth quarter of the year. Investment in machinery and equipment is likely to have registered respectable gains if the strong rise in capital goods output observed in the fourth quarter is anything to go by. Construction investment, on the other hand, probably did not improve by much, seeing as construction activity only moved sideways in the last three months of the year.

Lively foreign trade

The fourth quarter of 2017 saw another significant increase in foreign business. Revenue from goods exports to non-euro area countries far outpaced export prices, producing a significant volume effect. Price-adjusted imports likewise increased again in the fourth quarter, having already picked up strongly previous to that. Intra-euro area trade was similarly upbeat.

Industrial production buoyant

Industrial activity in the euro area remained buoyant, with industrial production in the last three months of 2017 expanding by a seasonally adjusted 1.5% on the quarter and by 4.3% on the year. Output growth was evident across a broad range of sectors.

Upturn in GDP widespread across all regions

Economic conditions improved for the majority of euro area member states. In France, real fourth quarter GDP was a seasonally adjusted 0.6% up on the quarter, following on from a 0.5% rise in the summer. Domestic growth was mainly spurred by investment activity, while private consumption posted just modest gains. France also saw a sharp rise in exports. Combined with a moderate upturn in imports, this depleted the country's inventory levels significantly. Italy's recovery continued, albeit at no more than a meagre pace, as the country's real GDP rose by 0.3%. Growth is likely to have been bolstered by exports – at least the foreign trade figures for the October-December period suggest that export activity was buoyant. On a

7 While it is true that the official Eurostat data point to a slowdown in euro area capital formation, this is solely the result of recording certain activities by multinationals in Ireland's GDP. For instance, Ireland saw substantial investment in intangible assets during the course of 2016, and this was reflected by steep increases in gross fixed capital formation and imports in the national accounts data on the expenditure side. These developments continued into last year, albeit to a lesser degree, which is why Irish investment and imports contracted significantly in some instances and in turn impacted perceptibly on the euro area aggregates. Investment would have risen strongly if Ireland were excluded.

wider scale, however, the Italian economy probably lacked stamina, as the quite considerable pace of investment growth registered earlier is likely to have run out of steam and private consumption likewise put in a very lacklustre showing at best. Spain's rather brisk upswing continued at a slightly gentler pace, boosting GDP in the last three months of the year by 0.7% on the quarter. Growth will probably have been shored up by both domestic and external factors. Broad underlying demand benefited industry, which boosted output levels significantly. Aggregate economic developments remained on an upward path in the other member states of the euro area as well, with Lithuania, Finland and Cyprus registering very strong GDP growth.

Labour market continues to improve

Labour market conditions continued to brighten up in the fourth quarter as seasonally adjusted unemployment contracted by almost 360,000 on the third quarter and by 1.5 million on the year. The standardised unemployment rate in December was down at 8.7%, after 8.9% in September and 9.7% one year earlier. Employment data showed that job numbers rose sharply in the third quarter, climbing by 2.7 million, or 1.7%, on the year. Wage growth remained lacklustre, however. The rise in gross hourly earnings eased slightly to a year-on-year rate of 1.6% in the third quarter, while there was a simultaneous increase in the average number of hours worked per employee. Hourly employee compensation rose by 1.5% over the same period.

Autumn HICP inflation unchanged at 1.4%, while one-off factors, mainly, depress core rate to 0.9%

Fourth quarter HICP consumer prices in the euro area were a substantial 0.4% up on the quarter, after adjustment for seasonal factors. Noteworthy gains were registered above all by energy and food prices, but the prices of non-energy industrial goods, which are still not responding to any notable degree to the stronger euro, also rose moderately. Services prices, meanwhile, remained unchanged at the previous quarter's level due to the dampening impact of multiple one-off factors (including the cut in motor vehicle insurance premiums in Germany and the cut in tuition fees in Italy), which can be expected to fade over time. Annual headline consumer price inflation was static at 1.4%, while the core rate (net of energy and food prices) dropped quite substantially to 0.9% on the back of flatter growth in services prices at year-end 2017.

Sentiment indicators for the euro area

Percentage balances, seasonally adjusted, monthly data

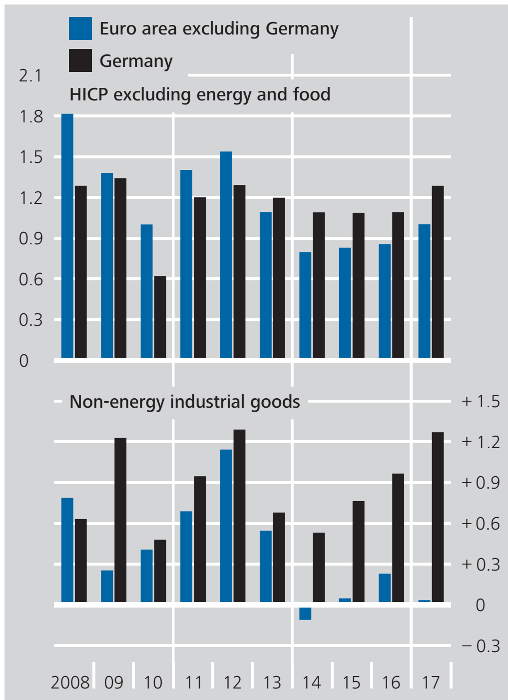
Source: European Commission.
Deutsche Bundesbank

2017 inflation rate strongly higher at 1.5%

Average annual HICP inflation in the euro area registered a steep increase last year, climbing from 0.2% to 1.5% mainly on account of the sharp rise in energy and food prices. Adjusting this headline rate for these components leaves a core rate of inflation of 1.0%, marginally up on the previous level of 0.9%. This came mainly as a result of brisker services inflation, which picked up from 1.1% to 1.4% on average on the year. Prices of (non-energy) industrial goods, meanwhile, grew at the previous year's rate of 0.4%, with growth being increasingly dispersed across the countries of the euro area. In this particular segment, Germany was the euro area country which experienced the

Consumer prices* in the euro area and in Germany

Year-on-year percentage change



Sources: Federal Statistical Office, Eurostat and Bundesbank calculations. * Harmonised Index of Consumer Prices.
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strongest rate of increase. This pattern has been in evidence since 2014 across a broad spectrum of durable and non-durable goods. Accordingly, core inflation in Germany, at 1.3% of late, far exceeded the average of the other euro area countries for the fourth year running, in a reflection of the different points of the economic cycle which each country occupies. Services inflation, meanwhile, ran at roughly the same pace over the past years in Germany as it did in the rest of the euro area.

One-off effects partly explain slightly lower January rate

Eurostat's flash estimate indicates that euro area inflation in January 2018 increased quite steeply on the month, rising by a seasonally adjusted 0.3%. As in the fourth quarter, this was mainly due to energy and food prices, though prices of non-energy industrial goods also grew markedly at the beginning of the year, while services prices rose only marginally. As energy and food price inflation had been slightly stronger still at the beginning of 2017, the annual HICP inflation rate eased slightly to 1.3%. HICP inflation adjusted for energy and food prices, on the other hand, bounced back slightly to 1.0%.

Signs of solid economic growth in the first quarter

Leading indicators point to a persistently strong rate of economic growth at the beginning of 2018, with the Composite Purchasing Managers' Index rising further in January, the European Commission's indicator of business and consumer sentiment holding out at a high level, and sentiment indicators in both industry and the services sector running well above their long-term averages, and some even eclipsing earlier peaks. Factors underpinning the economic upswing include the continued favourable funding conditions for businesses and households, the steadily improving labour market situation, high levels of industrial capacity utilisation, and robust global activity.