

## Global and European setting

### World economic activity

*World economy off to sluggish start, ...*

The world economy's underlying dynamic is still sound, although the faster pace of growth seen in preceding quarters presumably could not be maintained at the start of the year. In a number of industrial countries, for instance, real gross domestic product (GDP) growth decelerated markedly in the first quarter after seasonal and price adjustment. Higher inflation dampened private consumption, as expected.<sup>1</sup> Yet the lacklustre start to the year is also a result of the dynamics of previous periods: consumers in the United States, for example, but presumably also in the United Kingdom, intensified their efforts to save, after having scaled back their saving in autumn. Real GDP in the euro area and Japan, meanwhile, showed a fairly sharp increase. It is likely that the Brazilian economy, which slid into deep recession just over two years ago, even returned to growth in the quarter just ended.

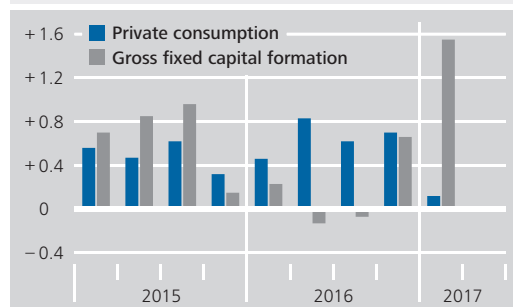
*... but probably remains on track*

In line with the stable underlying dynamic of the global economy, according to the World Economic Outlook published by the International Monetary Fund (IMF) in April, global economic activity, calculated at purchasing

power parity exchange rates, is expected to grow by 3.5% in 2017 and by 3.6% in 2018. This would be around ½ percentage point per year more than in 2016. This was slightly up on the IMF's projections for 2017 and 2018 compared to the World Economic Outlook published in October 2016. These were the first upward revisions in a spring forecast in comparison to the previous autumn's projections since 2011 and 2010 respectively. However, the subdued start to the year suggests that the IMF staff projections could prove to be slightly too optimistic in 2017, particularly for the United States. The outlook there hinges largely on the future thrust of economic and fiscal policy. At the end of April, the White House proposed extensive tax cuts for corporations and households. Simulations using the NiGEM global economic model developed by the National Institute of Economic and Social Research suggest that a package of measures such as these will probably initially give a considerable boost to the US economy. The economic impact on trading partners is less clear owing to counterbalancing effects. Even so, inflation would probably increase in the euro area as well. The fiscal costs would be high for the United States (see the box on pages 12 and 13).

#### Private consumption and investment in selected industrial countries\*

Quarter-on-quarter percentage change, quarterly data, seasonally adjusted



Source: National statistics, OECD, Haver Analytics and Bundesbank calculations. \* Data in real terms for the USA, Japan, France and the Netherlands. Aggregated using nominal weightings from the previous quarter based on market exchange rates.

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The easing of the burdens in the commodities sector through adjustments is a major factor in the fundamental strengthening of the global economy. Economic growth in regions that mainly export commodities<sup>2</sup> fell from 4% in 2012 to less than 1% in 2015.<sup>3</sup> The IMF is forecasting an increase in real GDP of almost 2% in these regions in 2017. However, the decline in

*Burdens in the commodities sector have eased*

<sup>1</sup> See Deutsche Bundesbank, Energy prices and private consumption, Monthly Report, February 2017, pp 13-15.

<sup>2</sup> These include – as defined by the IMF – the Commonwealth of Independent States, Latin America and the Caribbean, the Middle East and North Africa (including Pakistan and Afghanistan), and Sub-Saharan Africa.

<sup>3</sup> For more information, see Deutsche Bundesbank, The slowdown in global economic growth and the decline in commodity prices, Monthly Report, November 2015, pp 16-17.

commodity prices has also left its mark on some advanced economies – not least the United States – in recent years. It was one of the factors that contributed to the lacklustre performance of global industrial output, international trade and investment.<sup>4</sup> The recovery in the commodities markets thus played a part in the rebound in economic activity. According to data from the Dutch Centraal Planbureau, average global industrial output in January and February 2017 was up by 2.7% on the year. At the same time, the volume of global trade increased by 3.5%. By contrast, at the beginning of 2016, growth rates had stood at just 1.3% and 0.7%, respectively. Moreover, as inflationary pressures have risen, the forces of growth have tended to return from households to businesses. According to the data available for some industrial countries, while price-adjusted consumption expenditure showed weak growth in the first quarter, at the same time, gross fixed capital formation saw exceptionally strong growth. In the United States, a resurgence in investment in the oil industry also played a role.

*Year-on-year rate of change in price of crude oil declining ...*

The price of Brent crude oil hovered at around US\$50 per barrel in the period under review, rising to just over US\$53 at last count. The continued recovery in production in the United States was probably the factor weighing most heavily on prices. On the other hand, Saudi Arabia and Russia have come out in favour of extending the cuts in output until 2018. Owing to the base effect, the annual rate of change in oil prices contracted from 72% in January to 25% in April. Assuming that prices remain steady, it will continue to narrow over the next few months and quarters. Prices for other commodities have fallen, in some cases significantly, since the beginning of the year. In April, the HWWI price index for food and beverages (on a US dollar basis) was, on average, 7% lower than its January level, while the index for industrial commodities declined by around 4%. Iron ore, which is needed to produce steel, recorded the sharpest price drop. Expectations of a dip in construction activity in China and a high level

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

US dollar basis, monthly averages, log scale



Sources: Thomson Reuters and HWWI. • Latest figures: average of 1 to 12 May 2017, or 1 to 16 May 2017 for crude oil. Deutsche Bundesbank

of global production are likely to have played a part in this.

In the industrial countries, headline consumer price inflation rose to 2.1% in February, its highest level in almost five years. By April, the rate had gone back down to 1.8%. The fluctuations were primarily caused by the year-on-year rate of change in the energy component. Core inflation, which is based on the basket of goods excluding energy and food, was less volatile and stood at 1.5% at the end of the period.

*... and of consumer prices*

<sup>4</sup> See Deutsche Bundesbank, Recent trends in world trade in goods, Monthly Report, March 2016, pp 23-24.

## The macroeconomic impact of tax reform plans in the United States

Nearly 100 days after the Trump Administration took office, some details on its ideas for a comprehensive tax reform have been made public. In keeping with promises made before the elections, these plans envisage not only a simplification of the tax code but also comprehensive relief for corporations and households.<sup>1</sup> Proponents of these proposals believe they will give the US economy a strong and sustained boost and therefore see the consequences for public finances as minimal.<sup>2</sup> In addition, some analyses and projections by international organisations indicate that this type of fiscal stimulus could jump-start economic activity in other countries as well.

Simulations performed using the NiGEM global economic model may serve to critically examine the plausibility of these ideas.<sup>3</sup> The core element of the corporation tax reform presented by the US government was modelled by reducing the effective tax rate on enterprises to 15%.<sup>4</sup> The numerous planned modifications to individual income tax law – including the transition to a model with just three tax brackets with low rates of 10%, 25% and 35%, a doubling of the standard deduction and the elimination of most other deductions – were approximated by reducing the effective income tax rate by 1.4 percentage points.<sup>5</sup> In keeping with the current budgetary rules, which require non-deficit-neutral, non-temporary draft legislation to carry a qualified Senate majority and thus bipartisan support, both changes were assumed to be limited to 10 years beginning with the first quarter of 2018.

Overall, the NiGEM simulations show that the economic impacts of the planned tax reform will differ considerably over the short and medium term and that, in the long term, a positive impact on the US real economy is by no means certain. In the

short run, a lower after-tax user cost of capital in the model will lend a considerable boost to investment, and household consumption will likewise improve perceptibly, causing the economy to pick up significantly at first. However, despite the relatively persistent character of the fiscal stimulus, the growth effects will quickly expire. The assumed repeal of the tax relief after ten years will, in the end, throw such a severe damper on economic activity that real GDP will even drop below the baseline.

<sup>1</sup> According to initial estimates, the overall package could come with a direct price tag of US\$5.5 trillion in lost public income over a ten-year period. The annual average cost would thus run to roughly 3% of gross domestic product (GDP) for the year 2016. See Committee for a Responsible Federal Budget (2017), Fiscal FactCheck: How much will Trump's tax plan cost?, Blog post, 26 April 2017.

<sup>2</sup> According to US Treasury Secretary Steven Mnuchin, the interaction between the tax reform and other envisaged measures means that sustained real GDP growth of at least 3% is achievable. The plan would thus help to reduce the public debt to GDP ratio. See White House (2017), Transcript of a briefing by Secretary of the Treasury Steven Mnuchin and Director of the National Economic Council Gary Cohn held on 26 April 2017.

<sup>3</sup> 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. Visit <https://nimodel.niesr.ac.uk> for further information.

<sup>4</sup> The implications of the envisaged restructuring of the tax code towards a territorial system and the levying of a one-off tax for the repatriation of profits amassed abroad, which is a relief from current legislation, were not explicitly factored into the mix. The border adjustment of corporate taxes proposed by the Republican majority in the House of Representatives did not make it into the Trump Administration's draft reform and is therefore not taken into account in the simulation.

<sup>5</sup> The calibration was based on estimates of direct income losses prepared by the non-partisan Committee for a Responsible Federal Budget. It takes into account not only the items mentioned above but also the costs involved in repealing the alternative minimum tax (AMT) and the investment income surtax as well as the new pass-through business tax rate. See Committee for a Responsible Federal Budget (2017), op cit.

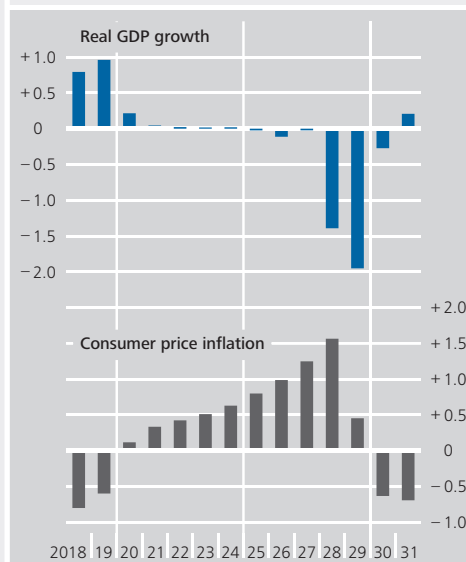
Up until this time, the rise in consumer price inflation will prove considerably more persistent. Compared with the baseline, it will gradually climb by up to 1.5 percentage points despite the fact that, in the simulation, the central bank responds to accelerating inflation by tightening monetary policy, in conformity with standard policy rules.<sup>6</sup> It is not only an increase in primary deficits but therefore also growing interest expenditure which will place a strain on US public finances. According to the simulations, the public debt ratio, which is already high by historical standards, is likely to rise within the space of a decade by around 30 percentage points compared with current projections.

Inflationary tendencies in the United States will spill over to other economies through an effective appreciation of the US dollar caused by shifts in international interest rate patterns. This means that positive effects of growing US import demand will contrast with dampening influences of lower purchasing power and a likewise tighter monetary policy. The relative importance of these forces for economic activity is different for each country and is determined by factors such as the intensity of trade links with the United States and the interest rate sensitivity of domestic demand. The resultant rise in crude oil prices in the simulation will lead to a further divergence of real economic spillover effects. In some countries, the overall impact on GDP could even be negative. According to the model calculations, this holds true for Germany and most of the other economies in the euro area.<sup>7</sup> By contrast, inflation is likely to increase globally.

Given the usual model uncertainty and the lack of specifics to date surrounding the planned measures, with the resultant discretionary scope for calibration, the simulation results should be interpreted with caution. It must also be borne in mind that the implementation of the reform measures modelled here is by no means a “done

### Domestic economic implications of a potential tax reform in the United States according to NiGEM simulations\*

Deviation from the baseline in percentage points



Source: Bundesbank calculations using NiGEM. \* These simulations model a reduction in the effective tax rate on corporations to 15% alongside US\$310bn in annual tax relief to households over a ten-year period given rules-based monetary policy reactions.

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deal”. As regards the funding of potential tax relief, in particular, the Trump Administration’s proposals are quite at odds with the views of numerous lawmakers. Difficulties in securing majorities could cause controversial policy plans to be amended or to fail altogether. Lastly, the simulations omit changes in other areas of economic policy. A possible shift towards a more restrictive US trade policy could perceptibly impair economic activity in the United States and its partner countries.

<sup>6</sup> This will cause an immediate and considerable appreciation of the US dollar, which in 2018 and 2019 will initially dampen import and consumer prices. In subsequent years, growing domestic cost pressures will become an increasingly significant factor in consumer price movements.

<sup>7</sup> The European Commission reaches similar conclusions based on simulations performed using the QUEST model. Whereas, in the model, real euro-area GDP falls slightly in response to the assumption of somewhat smaller fiscal stimulus in the United States, there are, overall, no meaningful effects for other economies. See European Commission, US macroeconomic policies and spillovers to the euro area, Spring 2017 European Economic Forecast, Institutional Paper 053, pp 45-48.

## Selected emerging market economies

*Stable economic growth in China and significant pick-up in foreign trade*

According to the official estimate, real GDP in China was up by 6.9% on the year in the first quarter of 2017. While aggregate growth thus remained more or less stable, the industrial sector saw its growth accelerate. The turnaround in exports is likely to have helped in this regard. Export revenues (on a US dollar basis) increased by 8% on the year, after an extended period in which they had followed a clear downward trajectory. Growth in expenditure on imports of goods was much more pronounced, at 24%. However, this also reflected significant price effects stemming from the recovery in commodity prices. By contrast, consumer inflation remained very subdued, with the relevant price index rising by just 1.4% on the year. The weather-related decrease in the price of food played a part here. Moreover, housing costs increased only marginally, although the strong upturn in the housing market continued. The Chinese authorities have been trying for some months to curb speculative elements of the demand for property by placing restrictions on the purchase of second homes and through other regulatory measures. A marked downward revision in the Chinese real estate market could significantly slow the pace of aggregate growth owing to the importance of the construction sector.<sup>5</sup>

*Economic activity in India largely back to normal following currency exchange initiative*

In India, the currency exchange initiative of November 2016, in which many of the country's currency notes in circulation were suddenly stripped of their legal tender status, caused major cash shortages and payment disruptions. This appears to have noticeably dampened consumer demand for a while.<sup>6</sup> In the meantime, many of the demonetised currency notes in circulation have been replaced by newly issued banknotes, following which economic activity appears to have largely returned to normal. The IMF is forecasting GDP growth of just over 7% for the current financial year. India would thus remain the fastest-growing economy among the G20 countries. By India's

standards, consumer price inflation remained very low over the last few months, standing at 3.9% in March.

The seasonally adjusted data available so far indicate that Brazil's economy returned to growth in the quarter just ended for the first time in two years. Goods exports were up extremely strongly, mainly as a result of a very fruitful harvest. Furthermore, consumer demand is likely to have increased. The extent to which this economic growth might kick-start a sustained recovery process is currently still uncertain. No change for the better is yet discernible in the labour market. Moreover, progress in implementing key items on the government's reform agenda is slow. The central bank responded to a further fall in inflation rates in recent months by cutting its policy rates significantly. In March, consumer prices were up by 4.6% on the year, the weakest rise since mid-2010.

*Signs of growth in Brazil*

According to a preliminary estimate by the Russian Federal State Statistics Service, year-on-year growth in economic output in Russia came to 0.5% in the first quarter. The pace of the recovery thus remained rather slow. Although private consumption appears to have picked up slightly, probably owing to a one-time payment to pensioners at the beginning of the year, investment is likely to have remained sluggish. In addition, Russia's oil production was limited according to the terms of an agreement with OPEC. Consumer price inflation continued to dwindle in recent months, falling to 4.2% in March. Against this background, the central bank maintained its accommodative monetary policy.

*Weak recovery in Russia*

<sup>5</sup> See Deutsche Bundesbank, The potential effects of a downturn in the Chinese housing market on the real economy, Monthly Report, August 2014, pp 17-19.

<sup>6</sup> The dip in consumer demand, as shown by a number of indicators (such as vehicle sales figures), is not reflected in the latest national accounts data. However, these should be regarded as provisional estimates.



## United States

*Focus of growth shifted from consumption to investment*

After adjustment for price effects and the usual seasonal fluctuations, first-quarter economic output in the United States grew by just 0.2% on the previous quarter, in which it had increased by 0.5%. The main reasons for the slowdown were a marked turnaround in inventories and a sudden deceleration of private consumption growth. Nominal household income rose at similar rates to the previous quarters, bolstered by moderate increases in wages and employment. In April, the unemployment rate dropped to a new cyclical low of 4.4%. Owing to a surge in inflation, however, the rise in disposable income in real terms was weaker than it had been in more than three years. Annual consumer price index (CPI) inflation expanded to 2.7% by February before recently narrowing to just 2.2%. Households also intensified their efforts to save somewhat, after having reduced their saving noticeably in the previous quarter. In particular, they acquired fewer new motor vehicles, following a final quarter of 2016 in which such purchases had climbed to a new all-time high. Car manufacturers are finding it increasingly difficult to further increase their high sales figures. In the quarter ended, the decrease in the production of motor vehicles dampened GDP growth by 0.1 percentage point in arithmetical terms. By contrast, private gross fixed capital formation, particularly in construction activity, expanded strongly. Investment in structures used for petroleum and natural gas exploration increased by more than one-half. Nevertheless, it was still considerably lower than its level in the final quarter of 2015. A full recovery in this line of business would noticeably boost GDP growth, just as the slump had dampened it.<sup>7</sup> In keeping with its monetary policy objectives, the US Federal Reserve raised its key policy rate by ¼ percentage point in March.

### Gross fixed capital formation\* in the US oil industry

2009 = 100, after seasonal and price adjustment, quarterly data, log scale



Sources: Bureau of Economic Analysis, National Bureau of Economic Research and Bundesbank calculations. \* Approximated aggregate of real commercial investment in structures used for petroleum and natural gas exploration and of real commercial investment in mining and oilfield machinery.

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## Japan

The Japanese economy continued on the path of recovery during the winter. A provisional estimate shows real GDP increasing by a seasonally adjusted 0.5% on the fourth quarter of 2016, in which it had grown by 0.3%. The heightened pace of economic growth occurred mainly on account of the perceptible pick-up in private consumption, while business investment was unable to maintain the preceding period's high growth rate. Foreign trade has remained dynamic, although it contributed considerably less to growth than in previous quarters. Although the unemployment rate fell to its lowest level since 1994 (2.8%), there were no signs that domestic inflationary pressures

*Recent growth boosted primarily by private consumption*

<sup>7</sup> See 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, pp 15-18; and Deutsche Bundesbank, The weakness in equipment investment in the United States, Monthly Report, February 2017, p 17.

would strengthen soon. The interim result of the spring pay round suggests that wage dynamics are still muted. The percentage change in the consumer price index excluding energy and food slipped even further into negative territory in March. This is in keeping with a significant drop in the GDP deflator on the year. Against this backdrop, the Japanese central bank kept its monetary policy on an expansionary track.

## United Kingdom

*Marked economic slowdown*

The cyclical upswing in the United Kingdom recently lost some steam. According to an initial estimate, real GDP, after adjustment for the usual seasonal variations, was up in the first quarter by 0.3% compared with the fourth quarter of 2016, in which, however, it had increased by 0.7%. Growth in the services sector slowed down in particular. In some consumption-driven service sectors, the gross value added even decreased on the previous quarter. There are therefore mounting signs that the momentum in private consumption is flagging, including the fact that real retail sales have fallen sharply. One of the main reasons for the slowdown in consumer spending is likely to be losses in purchasing power, with inflation calculated based on the Harmonised Index of Consumer Prices (HICP) up to 2.7% in April; it had stood at only 0.3% one year earlier. The labour market remained robust throughout the period. At 4.6%, the unemployment rate over the winter months was at its lowest since the spring of 1975. The Bank of England kept loose reins on its monetary policy.

## New EU member states

*Continuing upswing*

In the new EU member states (EU-6),<sup>8</sup> the economic upswing persisted at the start of the year. Most countries recorded strong growth in the first quarter. This favourable economic activity could also be seen in the labour markets. In Poland, Hungary and the Czech Republic,

unemployment rates are now at their lowest levels since the start of the transformation process. Wage growth has also correspondingly accelerated in these countries. In the final quarter of 2016, wages and salaries outstripped their previous year's level by 3.7% in Poland, 4.2% in the Czech Republic and as much as 6.4% in Hungary. HICP inflation rose to 1.5% in the EU-6 in the first quarter. Though this was primarily attributable to higher energy prices, core inflation was also up to nearly 1%. In April, the Czech National Bank discontinued the floor for the euro-koruna exchange rate, thus ushering in a gradual tightening of its monetary policy.

## Macroeconomic trends in the euro area

The euro-area economy remained robust at the start of the year. According to data from Eurostat, real GDP in the first quarter rose by 0.5% on the previous quarter, after seasonal adjustment, and by 1.7% on the year. For the last quarter of 2016, the GDP growth rate was also raised to 0.5% from 0.4% following the publication of data from Ireland.<sup>9</sup> Economic growth in the first quarter of 2017 is likely to have been primarily driven by the domestic economy. Though the dynamics of private consumption probably decreased, seasonally adjusted investment was also expanded considerably. By con-

*Continued robust economic growth*

<sup>8</sup> 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.

<sup>9</sup> According to Ireland's official national accounts data, its GDP in the fourth quarter of 2016 rose by 2.5% on the previous quarter after seasonal adjustment. The activities of multinationals are the cause of this extraordinarily high growth rate. This makes it more difficult to interpret the cyclical importance of the economic data for Ireland and also for the euro area, albeit to a lesser extent. Thus, gross fixed capital formation grew by just over 85% in the fourth quarter of 2016 according to data from the Irish statistics office. At the same time, Irish imports increased by over 35%. This results in arithmetical contributions to each of the percentage rates of change in the euro area of 2.6 percentage points in terms of investment and 2 percentage points in terms of imports. For more information on similar processes, see also Deutsche Bundesbank, The revision of the euro-area national accounts for 2015, Monthly Report, November 2016, pp 16-17.

trast, exports were unable to maintain their fairly robust growth rate from the previous quarter.

*Private consumption losing steam*

Private consumption presumably grew less strongly in the first quarter of 2017 than in the previous quarter. In any case, retail sales rose by just 0.3% after seasonal and price adjustment. This was probably not offset by the strong growth in new motor vehicle registrations. The noticeable increase in consumer prices is expected to have had a negative effect on private consumption despite the additional, primarily labour market-induced improvement in consumer confidence.

*Construction investment especially buoyant*

Indicators are painting a more positive picture of investment, with construction investment likely to have increased significantly. Construction output accordingly rose by 0.8% on the quarter after adjustment for seasonal variations. However, the growth has probably been biased upwards by the statistical break in the German reporting population.<sup>10</sup> Investment in machinery and equipment is likely to have increased moderately. Though capital goods production was only up by 0.3% on the quarter, imports of capital goods appear to have risen.

*Exports weaker, imports still strong*

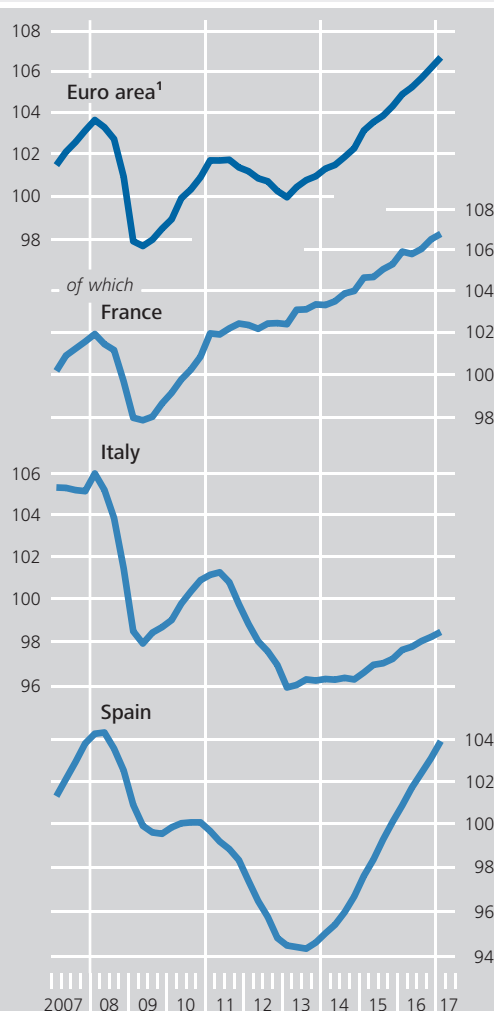
Revenue from the exports of goods continued to go up in the first quarter, albeit with slightly reduced momentum, and trade between euro-area member states was once again quite lively. Meanwhile, business with non-euro-area countries was less dynamic than before. After adjustment for price variations, the overall increase was presumably marginal. Real imports of goods again rose sharply, consistent with the robust economic growth at the beginning of the year.

*Slowdown in industrial activity*

Industrial activity in the euro area lost significant momentum at the start of the year after having sped up noticeably in the final quarter of 2016. Seasonally adjusted industrial output remained at the previous quarter's level. It should be noted that energy production was down by just over 2%, probably due to wea-

### Aggregate output in the euro area

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



Source: Eurostat. <sup>1</sup> Affected by jump in Irish GDP since 2015 Q1.  
 Deutsche Bundesbank

ther conditions. Flagging consumption growth may have also played a role. In any case, the production of consumer goods fell by almost 1%.

Most of the euro-area member states recorded positive GDP growth rates at the start of the year. French economic output was up 0.3% on the fourth quarter following seasonal adjustments, though private consumption virtually stagnated. The growth of business investment accelerated further. There is also likely to have

*Positive economic development in most euro-area countries*

<sup>10</sup> For more information, see Deutsche Bundesbank, Commentaries, Monthly Report, April 2017, pp 6-7.



### Sentiment indicators for the euro area

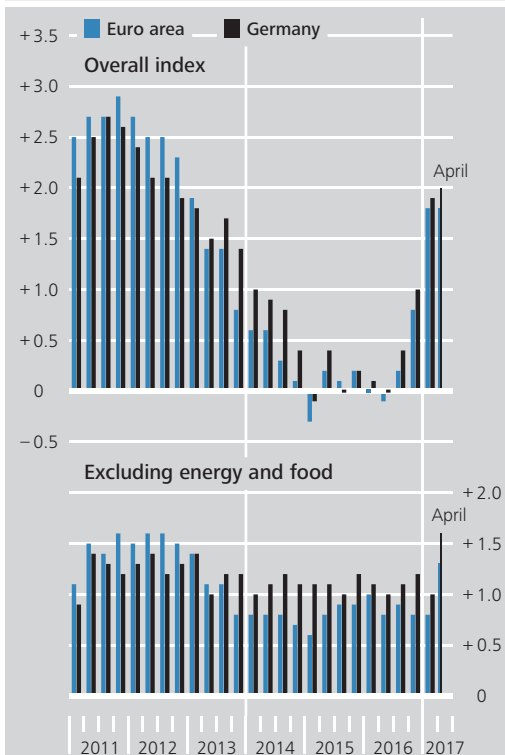
Percentage balances, seasonally adjusted, monthly data



Source: European Commission.  
 Deutsche Bundesbank

### HICP in the euro area and in Germany

Quarterly data, year-on-year percentage change



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been a noticeable build-up of inventories, which is probably linked to the significant increase in imports. By contrast, exports slowed down distinctly. Aggregate output in Italy continued to expand only moderately. In the first quarter, real economic output grew by only 0.2% after seasonal adjustment, which broadly matches the average quarterly GDP growth of the last two years. Exports probably had a propping-up effect, yet on the whole the Italian economy is likely to have remained weak. Spain continued its rather strong recovery at a slightly faster pace. Economic activity in the first quarter rose by 0.8% on the quarter after adjustment for seasonal variations. While private consumption there also lost momentum on the back of a considerable increase in consumer prices, continuing buoyant foreign demand is likely to have given the economy a noticeable boost. Investment is also expected to have made a notable contribution to economic growth. The other euro-area countries also broadly experienced growth in their economic output at the beginning of the year. Finland, Latvia, Lithuania and Portugal recorded relatively high GDP growth rates, while Slovakia and Cyprus once again showed robust expansion. A clear upward movement could still be seen in Belgium, Austria and the Netherlands. Real GDP in Greece fell again on the quarter, though only slightly.

In the second quarter, the aggregate economic upturn in the euro area could continue at a similar pace. In any case, this is augured by the results from surveys of businesses and consumers, who for the most part are hopeful for the future. Domestic demand, which is also still being supported by highly expansionary monetary policy, should benefit from this. It is also expected that foreign trade will prove to be a mainstay of growth as the global economy gradually recovers strength. This, in turn, could stimulate investment.

*Economic growth also presumably robust in the second quarter*

Following the broad-based recovery on the labour markets in the past year, the labour market situation continued to improve in the first quar-

*Decline in unemployment*

## Labour market slack in the euro area

Despite picking up at the end of the year, euro-area wage growth has remained weak. A key factor cited as a reason is the persistence of considerable underutilisation of capacity in the labour market, also known as labour market slack.<sup>1</sup> Recently, reference has also been made to measures of labour market slack which are defined more broadly than the traditional unemployment rate, based on the ILO definition.<sup>2,3</sup>

A wider definition includes, alongside those defined by the ILO as unemployed, the following groups: those who are not currently seeking work but are available to work, those who are actively seeking work but are not (yet) available, and those who are currently employed but want to work more hours.<sup>4</sup> In terms of figures, the former group comprised 6.7 million persons in the euro area in 2016, the second group 1.6 million and the third 7.0 million, compared with a figure of 16.2 million unemployed persons. In relation to the accordingly extended active labour force, this would yield a labour market slack of 18.5% for last year, considerably higher than the official unemployment rate of 10%.

It cannot be surprising that the extent of reported underemployment will increase if

a broader definition is applied. After all, potentially useful additional information about the situation in the labour markets is taken into account. However, if this is merely a level shift, the implications for the degree of cyclical labour market slack are likely to be similar. If, on the other hand, the broader measure has risen much more sharply in the course of the recent recessions or has dropped considerably more weakly in the aftermath of the current recovery, this could be a sign of additional cyclical labour mar-

### Labour underutilisation in the euro area

%, seasonally adjusted



Sources: Eurostat and Bundesbank calculations. **1** Includes not only unemployed persons as defined by Eurostat but also underemployed part-time workers, persons not actively seeking work but who are available to work, and persons actively seeking work but not (yet) available. The numerator is composed of the extended labour force (persons in the active labour force plus persons in the potential additional labour force). **2** Number of unemployed persons over the active labour force (employed persons and unemployed persons). Unemployed persons are persons between the ages of 15 and 74 who are without work, available to take up work within the next two weeks and were actively seeking work in the four weeks prior to the survey.

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**1** For more on the relationship between the labour market situation and wage growth in the euro area, see also Deutsche Bundesbank, Wage dynamics amid high euro-area unemployment, Monthly Report, December 2016, pp 33-55.

**2** The International Labour Organization (ILO) defines as unemployed job-seekers without work who are available for work within two weeks and were actively seeking work in the last four weeks prior to the survey.

**3** See European Central Bank, Assessing labour market slack, Economic Bulletin 3/17, May 2017, pp 31-35.

**4** In the official statistics, the first two groups are listed according to the ILO definition as inactive and often referred to as the "potential additional labour force".

ket slack which is not being adequately reported by the traditional unemployment rate.

In actual fact, according to the broader definition, the rate of labour market slack in 2008, the last year up to which such a calculation can be retraced using the available data, was around 14.8%, as against an unemployment rate of 7.6%. Even prior to the massive job losses in 2009-10 and 2012-13, the gap between both rates has stood at 7.3 percentage points. In the past year, it was only around 1 percentage point larger than in 2008. If one looks at the period between 2008 and 2016, both rates moved more or less in sync.<sup>5</sup> Although the broader rate picked up a bit faster, particularly in the later phase of the crisis, before then initially receding a bit more slowly, the broadly defined ratio already fell more strongly in the past year than the narrowly defined ratio.

On the whole, therefore, there appear to be similar implications for the degree of cyclical labour market slack in the euro area and thus for wage dynamics, and the two definitions should be regarded as largely complementary.

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<sup>5</sup> On the other hand, the United States saw a similarly broad measure of labour market slack (U6) and the unemployment rate drift apart considerably during the 2008-09 recession. The resulting gap, however, receded considerably and, at last report, was only slightly above its pre-crisis level. In addition, precisely in view of the data for the euro area, the possibility of structural shifts and statistical breaks needs to be taken into account. These could be significant, specifically regarding the data for France and the Netherlands.

ter. The standardised unemployment rate fell to 9.5% in March; one year previously, 10.2% of the labour force were recorded as unemployed. Broader measures of underemployment are also showing signs of an improvement in the situation (see box on pages 19 and 20). While the number of unemployed people in the fourth quarter of 2016 fell by one million compared to the same quarter a year earlier, employment experienced considerable growth. Gross hourly wage growth accelerated to 1.9% on the year.

*Consumer price inflation up again in winter primarily due to volatile components*

Consumer prices in the euro area rose markedly on the quarter for the fourth time in a row in the first quarter of 2017, at a seasonally adjusted 0.6%. This was primarily due to energy, which became significantly more expensive on account of higher crude oil prices, and to unprocessed food, where the especially cold weather at the start of the year became noticeable. By contrast, prices for services again increased moderately by 0.3% and consumers, as before, had to pay very little more for industrial goods

excluding energy than in the preceding quarter. Overall, annual HICP inflation jumped very sharply by 1.1 percentage points to 1.8% on a quarterly average. The fact that consumer prices a year earlier had dropped significantly due to the lower crude oil prices at the time was also a contributing factor in this context. On the other hand, the shift in the date of Easter from March in 2016 to April in 2017 had a particularly dampening effect on the prices of services and resulted in a slight temporary decline on the year-on-year rate at the end of the quarter.

Inflation excluding energy and food averaged 0.8% for the first quarter, as in the three previous periods, with figures ranging from -0.1% in Cyprus to 1.8% in Austria. In Germany (1.0% at last report), core inflation has slightly exceeded the euro-area average since 2013, primarily due to a greater increase in the price of industrial goods excluding energy, while the price of services is displaying trends similar to the euro area. Core inflation was up on the quarter in

*By contrast, core inflation unchanged and slightly above euro-area average in Germany since 2013*

nine countries in the first quarter of 2017, while it was down in five other countries.

*Inflation up sharply in April, mainly due to Easter*

Euro-area HICP inflation rose considerably to 1.9% in April from 1.5% in March. This was predominantly due to services prices, which had increased significantly on the year primarily

due to the shift in the date of Easter on the calendar. By contrast, the prices of the other components in the basket of goods hardly changed. HICP excluding energy and food, in which services are given a weighting of two-thirds, therefore increased significantly by 0.5 percentage point to 1.2%.