

■ Global and European setting

■ World economic activity

Pace of global economic growth remained moderate in autumn

The global economy looks to have expanded in the fourth quarter of 2014 at roughly the same moderate pace as in the third quarter. Growth in the industrial countries was broadly based in autumn. Real gross domestic product (GDP) growth in the United States was not as strong as in the third quarter, when one-off effects had played a role. However, the Japanese economy appears to have returned to growth following the significant contraction in economic activity in quarters two and three of the year triggered by the consumption tax hike, although GDP figures for the fourth quarter were not available as this report went to press. According to initial estimates, euro-area growth was somewhat stronger than before in the last quarter of the year. The major emerging market economies (EMEs) continued to show rather disparate underlying trends at the end of the year. Whereas economic growth in China and India was still moderate by their standards, activity in Russia and Brazil probably remained listless.

Annual economic performance once again below long-run average

Annual average global GDP growth for 2014, according to an estimate by the International Monetary Fund (IMF) in January 2015, remained unchanged from a year earlier, amounting to 3¼% based on purchasing power parities or 2½% at market exchange rates. The forces of growth have shifted inasmuch as GDP growth in the advanced economies accelerated, according to the IMF, by ½ percentage point to 1¾% (in terms of purchasing power parities), whereas that of the developing and emerging world accelerated more slowly, by ¼ percentage point to 4½%. The poorer performance of this group is mainly attributable to considerably slower growth in the Commonwealth of Independent States and in Latin America; by contrast, the Asian countries' strong GDP growth matched that of a year earlier. For each of the past three years, the global growth rate stood

at 3¼%, measured in purchasing power parities, compared with 4¾% on an average of the upswing years of 2010 and 2011 or the 2002 to 2007 period. Given that monetary policy remained exceptionally accommodative throughout and that fiscal policy placed much less of a brake on growth last year, there is much to suggest that this deceleration is due primarily to a weaker expansion of potential output in both the advanced economies and the emerging and developing countries.

The world economy appears to be maintaining its moderate path of expansion in the first quarter of 2015. One particular sign of this is that the global purchasing managers' indices (PMIs) for manufacturing and services went back up slightly in January after following a downward trajectory – albeit without falling below the expansion threshold – in the second half of 2014. The steep oil price slump which began in mid-2014 has probably tended to buoy global growth. According to an IMF calculation, the part of the price slump attributable to supply-side factors could increase real global GDP this year by between ¼% and ¾%.¹ Irrespective of such model calculations, however, it is virtually impossible to forecast the strength of the stimulus because of major uncertainty surrounding the causes, durability and potential impacts of a cheapening of crude oil (see the box on pages 12 to 14). This stimulus is likely to primarily benefit oil importing countries, whereas, above all, oil producing countries that lack appreciable financial reserves will probably have to make perceptible cuts to their absorption.

Continuation of global upward trend in winter 2015

Despite the expectation of positive growth stimulus from the fall in oil prices, in January the IMF lowered its global growth projections

¹ See R Arezki and O Blanchard, Seven Questions about the Recent Oil Price Slump, IMF Blog, posted on 22 December 2014 at <http://blog-imfdirect.imf.org/2014/12/22/seven-questions-about-the-recent-oil-price-slump/>.

IMF revises projections downward further despite fall in oil prices

for this year and the next by 0.3 percentage point each compared with the autumn forecast, reducing them to 3.5% and 3.7% (measured in terms of purchasing power parities) respectively. This is a continuation of the chain of downward revisions.² The reason given for the latest correction was that the retarding factors – particularly weak investment, which is connected with the more cautious assessment of medium-term global economic growth – had a more pronounced impact than previously predicted. However, it must be borne in mind that the IMF’s autumn projection for the euro area was already rather optimistic to begin with given the set of data available at the time. Specifically, the outlook for 2015 and 2016 is now being assessed more cautiously for the euro area, Japan and several large EMEs, in particular. The reductions were particularly large in the case of Russia, where a recession is now expected for this year and next. By contrast, the IMF upped its projections for the United States markedly (by 0.5 and 0.3 percentage point to 3.6% and 3.3% respectively), noting that the upswing there was stronger than previously expected. This is certainly true of the past quarters; as regards the current year, however, one of the factors to bear in mind is that the drastic drop in oil prices could put a perceptible damper on investment by the US oil and gas industry. In terms of the correction of the global GDP growth projection, the global trade projection was revised downward particularly sharply, by 1.1 percentage points to 3.8% for 2015. The downward revision is mainly associated with the expectation that the growth of EMEs’ import demand will fall behind that of the industrial countries for the first time in a long while.

Sharp decline in crude oil prices

The price of crude oil once again fell sharply during the period under review. For a barrel of Brent, it averaged just under US\$50 in January, compared with US\$112 in June 2014. In the

How IMF projections of global real GDP growth* for each given year have evolved



Sources: Various issues of the IMF World Economic Outlook (WEO) and updates, January 2010 to January 2015. * Based on market exchange rates.
 Deutsche Bundesbank

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

US dollar basis, 2010 = 100, monthly averages, log scale



Sources: Thomson Reuters and HWWI. • Latest figures: average of 1 to 6 February, or 1 to 9 February 2015 for crude oil.
 Deutsche Bundesbank

² See Deutsche Bundesbank, The global growth forecast revisions in recent years, Monthly Report, November 2014, pp 12-15.

Potential impacts of the fall in oil prices on the real economy

Since the end of the Second World War, almost every recession in the US economy has been preceded by a steep rise in the price of crude oil.¹ This observation has seen the emergence of a broad literature on the connection between changes in the price of oil and growth in macroeconomic activity. However, the focus of this literature is generally on sudden increases in the price of crude oil, and less commonly on an abrupt price drop.²

A fundamental problem with these analyses is the endogeneity of the oil price. Not only can oil prices influence aggregate output, but conversely, they also reflect the dynamics of aggregate demand. Thus, a slump in the price of crude oil could indicate a global recession, as was the case in 2008-09. Any stimulating effects resulting from the fall in prices would then be of minor significance compared with the weakened aggregate demand.

A key challenge for empirical research is thus to adequately identify oil supply shocks that are not impacted by aggregate demand themselves.³ In most cases, supply-side factors are seen as the driving force behind the recent slump in prices (see box on pages 16 and 17). At least for this part of the price reduction, the isolated effects of a change in the oil price are therefore significant, as will be discussed below. Along with the root cause, the price drop's persistence is also a key determinant of the magnitude of the real economic effects. The longer it lasts, the greater the impact ought to be on the consumption and investment decisions of economic agents.

A fall in prices evidently shifts the terms of trade in favour of oil-importing economies and away from oil exporters. This is equivalent to an international redistribution of in-

come; in terms of global income, it is a zero-sum game. Whether global aggregate output changes through this channel in the short term depends on the extent to which the marginal propensity to spend differs between the oil-importing and oil-exporting economies. Since the number of oil-exporting countries is relatively small, the income losses, on the one hand, are highly concentrated in individual economies. On the other hand, some oil-producing countries have built up large financial reserves, enabling sustainable absorption over an extended period by way of dissaving.

In many cases, oil (or energy) is seen as a necessary factor for the production of aggregate output. Thus, from this perspective, a factor of production is falling in price, causing the quantity of that factor used, and therefore potential output, to increase. Global economic activity also increases as a result, although this is more of a longer-term mechanism.

Oil intensity, ie the relationship between real oil consumption and economic output (also in real terms), is often cited as the key determinant of the magnitude of real economic effects. Since this link has weakened considerably over time, the influence of changes in oil prices on economic activity should, in effect, also have decreased accordingly. However, the "oil burden", ie the value expressed as a percentage of

¹ See J D Hamilton (2011), Nonlinearities and the Macroeconomic Effects of Oil Prices, *Macroeconomic Dynamics*, Vol 15, pp 364-378.

² See also Deutsche Bundesbank, The price of crude oil and its impact on economic activity in the industrial countries, *Monthly Report*, June 2012, pp 27-49.

³ See L Kilian (2009), Not All Oil Price Shocks Are Alike: Disentangling Demand and Supply Shocks in the Crude Oil Market, *American Economic Review*, Vol 99, pp 1053-1069.

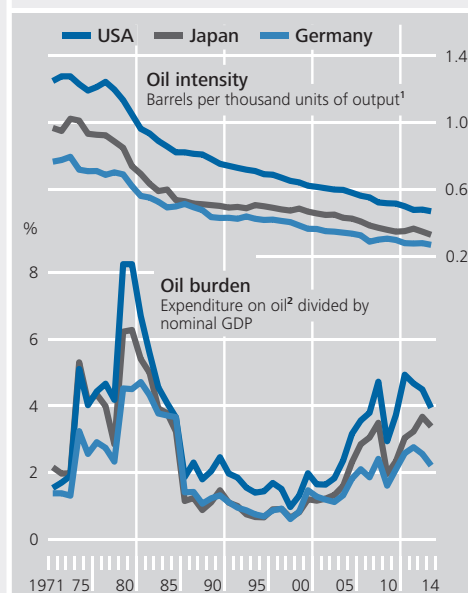
costs or expenditure, is more decisive for major impacts.

Thus, the extent of households' expenditure cuts following a drop in the price of petroleum products, for example, corresponds to the product of the share of spending on these commodities and the percentage change in their (relative) price. Assuming no change in quantity and a fall in price of 50%, expenditure on petroleum products is cut in half. In this scenario, an original 5% share of total expenditure, for example, corresponds to a saving of 2½%, now available for additional consumption of goods or services. The share of spending therefore specifies the upper limit for the elasticity (in this case 0.05) of consumers' aggregate demand to relative price shifts. The cost share is also an important factor for enterprises when considering their use of oil in production.

In recent years, the ratio of oil expenditure to nominal gross domestic product in the United States was almost twice as high as in Germany and also markedly higher than in Japan. US consumers and enterprises could therefore stand to benefit greatly from the fall in oil prices. It must be kept in mind, however, that the United States does not have the same degree of dependence on oil imports as other industrial countries. Part of this price relief therefore constitutes a mere redistribution of income within the US economy. Although investment in the oil and gas industries is being cut back, US household consumption could be stimulated by the lower oil prices, though that is also uncertain. US motor vehicle and retail sales figures both proved disappointing at the turn of 2014-15.

Various other effects of oil price changes are also discussed in the literature. In particular, some studies look into a dampening impact of oil price volatility on economic activity.⁴ It could lead to increased uncer-

Adverse impact of crude oil prices on major economies



Sources: Bundesbank calculations based on data from the US Energy Information Administration, the International Energy Agency, the OECD and the IMF. Figures for 2014 are projections. ¹ Levels according to 2005 market exchange rates. ² Oil consumption measured using the price of Brent crude. Deutsche Bundesbank

tainty, for instance, prompting enterprises to defer investment. An effect of this kind would be one reason why a decline in the price of oil may not stimulate economic growth to the same extent that a rise in oil prices weighs on it. Another strand of the literature addresses these sorts of asymmetric effects.⁵ This research is based on the experience of 1986, when a substantial slump in crude oil prices was unable to increase the US economy's growth rate.

In some macroeconomic models, such as NiGEM, the global econometric model developed by the National Institute of Eco-

⁴ See, for example, J P Ferderer (1996), Oil Price Volatility and the Macroeconomy, *Journal of Macroeconomics*, Vol 18, pp 1-26, as well as S Jo (2014), The Effects of Oil Price Uncertainty on Global Real Economic Activity, *Journal of Money, Credit and Banking*, Vol 46, pp 1113-1135.

⁵ See, in particular, K A Mork (1989), Oil and the Macroeconomy When Prices Go Up and Down: An Extension of Hamilton's Results, *Journal of Political Economy*, Vol 97, pp 740-744, as well as J D Hamilton (2011), op cit.

conomic and Social Research (NIESR), for example, a decline in the price of oil depresses the general level of prices and wages as well as, temporarily, inflation expectations. Assuming a rule-based monetary policy, the difference between the inflation rate and its target triggers an interest rate move by the central bank. Because of the rule's simple formulation, the reason for missing the target is inconsequential. As a result, further macroeconomic effects arise, which cannot be separated within the model from the "short-run" effects of the change in oil price. These effects depend, however, on the specific design of the policy rule.⁶

In New Keynesian models, which are commonly used as a macroeconomic analytical instrument, an additional effect can result from the lowering of inflation expectations. In combination with a zero lower bound for nominal interest rates, monetary policymakers would no longer be able to prevent a real interest rate rise, causing consumption to shift into the future. As a result, an increased supply of oil or other shocks that raise potential output, such as a positive productivity shock, would lead to the paradox of a slowdown in current economic activity.⁷ Admittedly, the relevance of this real interest channel is dubious since its impact is significantly influenced by the model's fixed specification.⁸ For liquidity-constrained households who are rarely able to shift their consumption intertemporally and who, especially in times of high unemployment, should be numerous, it is surely more important that a supply-induced decline in the price of oil leads to purchasing power gains. Including these factors causes the stimulating effect to dominate even within a New Keynesian model framework.⁹ In addition, recently published empirical evidence for the United States seems to call into question the impact of inflation expectations on consumption behaviour derived from the New Keynesian model.¹⁰

According to a December 2014 estimate by the International Monetary Fund, the part of the fall in oil prices attributable to supply-side factors, if it lasts, could boost global economic activity by $\frac{3}{4}\%$ this year. However, should the price reduction taper off, the positive impact would be reduced to $\frac{1}{4}\%$.¹¹ Simulations with NiGEM confirm effects of this magnitude. Then again, as explained above, this type of model-based analysis relies on a series of functional assumptions, not least a symmetrical effect of price increases and decreases. Furthermore, knowledge of a particular future path of oil prices is required. With this in mind, any simulation results are to be interpreted with caution. Based on trend, the fall in oil prices should indeed stimulate global economic growth; however, the magnitude of this effect is difficult to quantify, given the high degree of uncertainty surrounding causes, persistence and manner of action. The stimulating effect is clearer for those economies which have no considerable oil production of their own, such as the euro area, for example.

⁶ See R Barrell and O Pomerantz, Oil Prices and the World Economy, Oesterreichische Nationalbank, Focus on European Economic Integration, Q1/04, pp 152-177, as well as Deutsche Bundesbank (2012), op cit.

⁷ See also G B Eggertsson (2010), The Paradox of Toil, Federal Reserve Bank of New York Staff Reports, No 433.

⁸ See B Maćkowiak and M Wiederholt (2011), Business Cycle Dynamics under Rational Inattention, ECB Working Paper Series, No 1331, as well as X Gabaix (2012), Boundedly Rational Dynamic Programming: Some Preliminary Results, NBER Working Paper, No 17783.

⁹ See J F Wieland (2014), Are Negative Supply Shocks Expansionary at the Zero Lower Bound?, University of California, San Diego, Working Paper.

¹⁰ See R Bachmann, T O Berg and E R Sims (2015), Inflation Expectations and Readiness to Spend: Cross-Sectional Evidence, American Economic Journal: Economic Policy, Vol 7, pp 1-35.

¹¹ See R Arezki and O Blanchard, Seven Questions about the Recent Oil Price Slump, IMF Blog, posted on 22 December 2014 at <http://blog-imfdirect.imf.org/2014/12/22/seven-questions-about-the-recent-oil-price-slump/>.

first weeks of February, it stabilised above the US\$50 mark, yet was still only just over half the level reported a year earlier. Oil futures are currently trading at considerable premiums. In the past few months, other commodity prices likewise continued to trend downwards. This was more true of industrial commodities than of food and beverages. The main reason was generally ample supply in the individual markets, though the failure of global economic activity to pick up steam probably played a part, too. However, the OPEC decision to maintain its production quotas irrespective of the current market situation was probably also an important factor behind the slide in crude oil prices (see box on pages 16 and 17).

Consumer price inflation considerably subdued

The sharp fall in the prices of refined petroleum products put a considerable damper on aggregate headline consumer price inflation in the industrial countries. The entire basket of consumer goods was only 0.6% more expensive in December 2014 than a year earlier, compared with +1.4% three months previously. Annual core inflation (which excludes energy and food) decreased over the same period just a little, to +1.3%. Core inflation has therefore remained unchanged since the end of 2013. Although the fall in the prices of refined petroleum products is likely to have indirect effects, there are still, on the whole, no signs of a broadly-based decline in consumer prices in the industrial countries.

Selected emerging market economies

Weakening of housing market weighing on Chinese economic activity

The pace of China's economic growth slackened towards the end of 2014, according to data issued by the National Bureau of Statistics. In the fourth quarter, seasonally adjusted real GDP was up by 1½% on the period, following a 2% rise a quarter earlier. GDP was up by 7½% on the year, likewise somewhat less than in 2012 and 2013. One particular reason for last year's slowdown appears to be the perceptible cooling of the housing market, which has

been weighing on activity in construction and some manufacturing sub-sectors, particularly the steel industry. The housing market remained weak throughout the reporting period, and this could well persist in 2015 amidst signs of structural overcapacity.³ Aggregate investment growth tailed off in 2014, which is consistent with a moderation of growth originating in the real estate market. On the other hand, consumption seems to have continued its growth unabated. Persistently strong wage growth and lower inflation have been boosting households' purchasing power. For the year as a whole, consumer price inflation stood at 2.0%.

According to its early estimate, the Indian Ministry of Statistics is expecting real GDP growth of 7½% for the 2014-15 fiscal year, which still runs until the end of March. A year earlier, revised results put the same figure at 7%.⁴ The slight acceleration at the current end appears to be due primarily to faster expansion in the industrial sector. Consumer price inflation has continued to abate in the past few months; it stood at 5.1% in January 2015, compared with 8.8% 12 months earlier. The significant easing of the situation in the food markets is one reason, but not the only one, for subsiding inflation. The Reserve Bank of India therefore recently loosened its tight monetary policy stance somewhat.

India growing at slightly accelerated pace in current fiscal year

Economic activity in Brazil remained anaemic. In the third quarter, the latest quarter for which national accounts data are available, seasonally adjusted real GDP virtually stagnated following two consecutive quarters of contraction. No meaningful recovery is likely to have occurred in the fourth quarter, either. In the meantime,

Anaemic aggregate growth in Brazil

³ 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.

⁴ In January 2015 the Indian Ministry of Statistics, as part of a comprehensive revision, upped the growth rates for the 2012-13 and 2013-14 fiscal years perceptibly. Since then, in addition, GDP at market prices has been used as the preferred indicator of aggregate economic output, in line with standard international practice. The indicator was previously GDP at factor cost, ie gross value added.

Causes of the fall in oil prices

If the price of oil in US dollar terms is adjusted for the general price level as shown in the US consumer price index (excluding energy), it becomes clear that the resulting real price of oil, by historical standards, has been exceptionally high over the past few years. It was only in 1979-80 and 2008 that oil prices hit a similarly high level or were even higher for a short time. Moreover, oil prices were repeatedly characterised by sudden surges, or by marked slumps. One key reason for this is likely to have been the fact that supply and demand in the oil market scarcely react to price changes in the short term. Even small shifts in terms of volume can sometimes require sharp price movements in order to ensure an equilibrium in the market.¹

In the past, oil prices slumped, as a rule, in periods of recession in the US economy, with the cyclical downturn itself being preceded by a steep rise in the price of crude oil. This was especially true of the sharply falling prices in 1974, 1991 and 2008-09. Given that growth in the global economy and oil prices have been quite steady over the past few quarters, this pattern does not seem to fit the recent fall in prices. Indeed, the price slide of 1986, which occurred in the middle of a period of expansion in the US economy, might be seen as a precedent. After the crises of the 1970s, recovery in global demand for oil was no more than sluggish in the 1980s. At the same time, oil from new production regions, such as Alaska and the North Sea, was flowing onto the market. Saudi Arabia, in particular, attempted to counter an incipient erosion of prices by cutting production, but had, in turn, to accept massive losses of revenue. After Saudi Arabia abandoned this tactic, by July 1986 the (nominal) price of oil had slumped to only one-third of its level in November 1985.² Leaving aside the brief period during the Iraqi occupation of Kuwait, it was not until 2005 that the price of oil attained the same level again in real terms.

Demand from the rapidly growing emerging market economies is likely to be one key reason for oil prices being high over the past few years. At the same time, unconventional methods of extracting oil and gas reserves in North America have opened up the possibility of a further fundamental shift of power on the crude oil market.³ The fact that the International Energy Agency (IEA) made repeated downward revisions of its forecasts of global oil demand in the second half of 2014 is seen, in part, as a trigger for the recent slump in oil prices. The background to this was persistently moderate global activity, which disappointed hopes of a stronger pick-up in the world economy.⁴ An additional factor is thought to be the surprisingly clear recovery in the oil production of some members of the Organization of the Petroleum Exporting Countries (OPEC) along with a continuing expansion of output in the United States. Finally, the plunge in prices is likely to have been further intensified by the decision of OPEC – above all, Saudi Arabia – at the end of November 2014 to maintain existing production quotas and, thus, no longer play a stabilising role in the oil market.⁵

¹ See Deutsche Bundesbank, Price elasticity of crude oil in the short term, Monthly Report, June 2012, pp 34-36. Alternatively, reference is often made to the role played by speculation in the oil market. See also Deutsche Bundesbank, The impact of speculation on the price of oil, Monthly Report, June 2012, pp 32-33; as well as S Reitz and U Slopek (2009), Non-Linear Oil Price Dynamics: A Tale of Heterogeneous Speculators?, German Economic Review, Vol 10, pp 270-283.

² See Deutsche Bundesbank, Oil crises of the 1970s, Monthly Report, June 2012, pp 29-30.

³ See Deutsche Bundesbank, The price of crude oil and its impact on economic activity in the industrial countries, Monthly Report, June 2012, p 47.

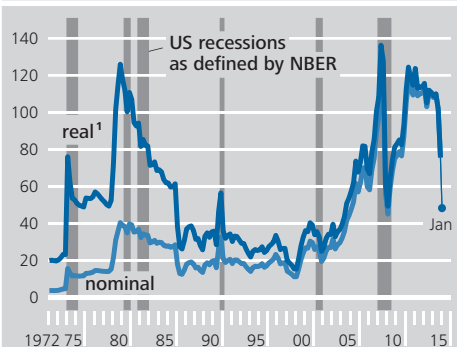
⁴ See Deutsche Bundesbank, The global growth forecast revisions in recent years, Monthly Report, November 2014, pp 12-15.

⁵ By contrast, Baumeister and Kilian (2015) ascribe the very sharp decline in crude oil prices – in comparison with the prices of other commodities – since June 2014 to the cumulative effect of past developments which are specific to the oil market. See C Baumeister and L Kilian (2015), Understanding the Decline in the Price of Oil since June 2014, Center for Financial Studies, Working paper No 501.

Overall, the supply side is predominantly seen as the driving force behind the perceived oil glut and the slump in prices.⁶ Nevertheless, the causes cannot be pinpointed with certainty. How long the decline in prices will last is no less uncertain. The crucial question is how quickly and at what price level supply and demand for oil will reach a new equilibrium under the changed circumstances. Given the “wait-and-see” attitude adopted by OPEC, enterprises involved in unconventional oil production in the United States, which are flexible in their operations, could have a key role to play in this.⁷ In any event, reports of a steep decline in the number of drilling installations in North America caused the price of oil to recover somewhat in late January-early February.

Price of Brent Crude oil

US dollars per barrel, quarterly averages



Sources: IMF, Bureau of Labor Statistics, Haver Analytics and Bundesbank calculations. ¹ Crude oil price relative to US CPI excluding energy (seasonally adjusted, 2014 = 100, index for January 2015 extrapolated).

Deutsche Bundesbank

⁶ See R Arezki and O Blanchard, Seven Questions about the Recent Oil Price Slump, IMF, published on 22 December 2014 at <http://blog-imfdirect.imf.org/>; and World Bank, Understanding the Plunge in Oil Prices: Sources and Implications, Global Economic Prospects, January 2015, pp 155-168.

⁷ See International Energy Agency, Medium-Term Oil Market Report 2015.

the Banco Central do Brasil maintained the monetary tightening cycle it introduced nearly two years ago to fight inflation. At the end of the year, consumer price inflation was only slightly below the central bank’s upper limit of 6.5%.

Russian economy hit by severe macro-economic shocks

Already in difficulty owing to the fallout from the Ukraine conflict, the Russian economy was forced to contend with plummeting crude oil prices in autumn. This was followed by a crisis on the Russian financial markets in December. In order to prop up the currency and protect financial stability, the Russian monetary authorities intervened in the foreign exchange market, raised the policy rate sharply and initiated various measures to assist ailing banks. The impact of the collapse in oil prices on the real sector, by contrast, is unlikely to be fully felt until sometime this year. Barring a strong recovery in the price of this important export good, Russia will probably be unable to avoid a severe recession. In 2014, Russian GDP merely

managed growth of ½% according to an initial estimate by the Russian Federal State Statistics Service; no separate results for the fourth quarter are available yet. The drastic depreciation of the rouble has already caused inflation to accelerate significantly. However, the associated negative purchasing power effect in terms of aggregate demand was overshadowed in the last quarter of 2014 by the fact that households, expecting prices to rise sharply, dissolved their savings and increasingly purchased durable goods. Inflation stood at 15.0% in January, having been as low as 6.1% at the beginning of 2014.

United States

After adjustment for the usual seasonal effects, the quarterly increase in US real GDP stood at ¾% in the final quarter of 2014, according to an initial estimate, following growth of 1¼% in the preceding quarter. This meant that aggre-

More moderate increase in real GDP

gate economic growth remained moderate both on average and over the course of 2014 (+2½%). The very fast pace of growth in the second and third quarters of 2014 should be seen against the background of the contraction at the beginning of 2014.⁵ In addition, growth in the third quarter was also fuelled by an unusually strong expansion in public sector demand; the subsequent return to normal weighed on GDP growth in the autumn. Furthermore, the favourable stimulus from foreign trade from the summer months was never likely to last; a surge in imports, in arithmetical terms, perceptibly dampened GDP growth in the last quarter of the year. On the other hand, increased inventory building had a positive impact. Lastly, the rapid pace of private gross fixed capital formation growth could not be sustained. The slump in oil prices did not yet have a noticeable retarding effect; commercial construction investment growth in the mining sector was significant, as it had been in the previous quarter. By contrast, private consumption growth accelerated further. This rested on the solid foundation of a sharp rise in real disposable income fuelled by employment growth which was, at times, strong, as well as by falling energy prices. The unemployment rate dropped from 5.9% in September 2014 to 5.7% in January, leaving it not very far from the range regarded by the majority of the US Federal Open Market Committee as the long-run normal rate of unemployment (5.2% to 5.5%). The inflation rate as measured by the consumer price index shrank to 0.8% towards year's end. Excluding energy and food, by contrast, it only went down to 1.6%. Looking at 2015, it remains to be seen to what extent purchasing power gains and the continuing improvement in the labour market can maintain the fast growth of private consumption. However, considerable cutbacks to investment in the oil and gas industries would have the potential to perceptibly curb GDP growth.

Japan

As this report went to press, the Japanese cabinet office had not yet published its provisional national accounts figures for the final quarter of 2014. In the past, the official GDP figures have often proven to be volatile and prone to revision, and experience has shown that projections based on standard monthly indicators are not always reliable, either. Contrary to what was widely expected by observers, the official statistics (published in December) indicate that aggregate output was down significantly on the period in summer 2014. Although further surprises cannot be ruled out, the available data point to a rise in real GDP in the fourth quarter, which fits with the assessment that the consumption tax hike last April deferred aggregate demand without fundamentally disrupting the underlying growth path. In the fourth quarter, industrial output in particular gathered pace following a subdued third quarter. On the expenditure side, more buoyant exports are likely to have been a driving force behind the pick-up. The fall in the unemployment rate to 3.4% in December – its lowest level since September 1997 – also points to an economic upturn. At the same time, consumer price inflation, though boosted by April's consumption tax increase, continued to fall and thus weighed less heavily on household budgets than it had previously. The annual rate for the consumer price index declined from 3.2% in September 2014 to 2.4% in December. Core inflation (excluding energy and food) fell by only 0.2 percentage point to 2.1%; excluding the effect of the consumption tax hike, it stood at 0.4% in November.⁶

Aggregate output probably increased

⁵ See Deutsche Bundesbank, Weather effects on real GDP growth in the USA in the first six months of 2014, Monthly Report, August 2014, pp 22-24.

⁶ See Bank of Japan, Monthly Report of Recent Economic and Financial Developments, January 2015, p 16.

United Kingdom

*Sustained
upswing in
services sector*

The first official estimate indicates that, after seasonal adjustment, final-quarter aggregate output in the United Kingdom was up by ½% compared with the third quarter, when it rose by ¾%. The official figures for GDP growth in previous quarters had already been revised downwards somewhat in an earlier estimate. Nonetheless, on an annual average for 2014 the UK economy recorded its strongest growth since 2007 (+2½%). Falling real gross value added in the construction sector was a key factor in the final-quarter deceleration. There was no further growth in the rest of the production sector, either. Aggregate growth was thus driven almost entirely by the services sector, where output continued to expand robustly. The upturn on the expenditure side, for which no official figures are yet available, was thus probably fuelled mainly by private consumption – as is also indicated by the very strong growth in the volume of goods transacted in the retail sector. The rise in consumption was probably shored up by improved real income prospects. Plummeting crude oil prices drove down HICP inflation to only 0.5% in December, leaving it significantly below the core rate of 1.2% (excluding prices for energy and unprocessed food). Further progress was also made in reducing unemployment. National figures indicate that, between the June-August period and the September-November period, the standardised unemployment rate fell by 0.2 percentage point to 5.8%.

New EU member states

*Continuing
economic
recovery*

In most of the new EU member states (the EU-7),⁷ economic output again showed a perceptible quarter-on-quarter increase in the last quarter of 2014. On an annual average, the region's real GDP rose by 2¾%. The last time the EU-7 recorded such favourable growth figures was in 2011. Growth was driven by buoyant domestic demand, which proved fairly robust to potentially disruptive external influ-

ences, particularly in connection with the conflict in Ukraine. Annual HICP inflation continued to decline in the fourth quarter, primarily because of the falling oil prices, and slipped into negative territory (-0.1%) for the first time since the time series began in 1998. Excluding energy and unprocessed food, prices were 0.7% up on the year, meaning that core inflation was only marginally down on the period.

Macroeconomic trends in the euro area

Economic growth in the euro area picked up somewhat in the final quarter of 2014. Owing to rounding, however, quarter-on-quarter real GDP growth remained at ¼% after seasonal adjustment. The picture across the euro area was mixed. Of the major economies, Germany and Spain recorded the strongest growth (+¾% each). By contrast, the French economy expanded only marginally. Having plummeted since the beginning of 2013, Italian real GDP stagnated in the fourth quarter of 2014. Greece recorded slightly negative growth for the first time in three quarters. Nonetheless, the Greek economy expanded by no less than 1¾% over the course of 2014, although growth was considerably lower (1%) on an annual average because of a negative carry-over effect at the end of 2013. Survey-based indicators suggest that the cyclical weakness in Greece may have continued at the beginning of the year. This is probably mainly because the outcome of the parliamentary election shook confidence among consumers and enterprises.

*Growth
somewhat
more dynamic
towards the
end of 2014*

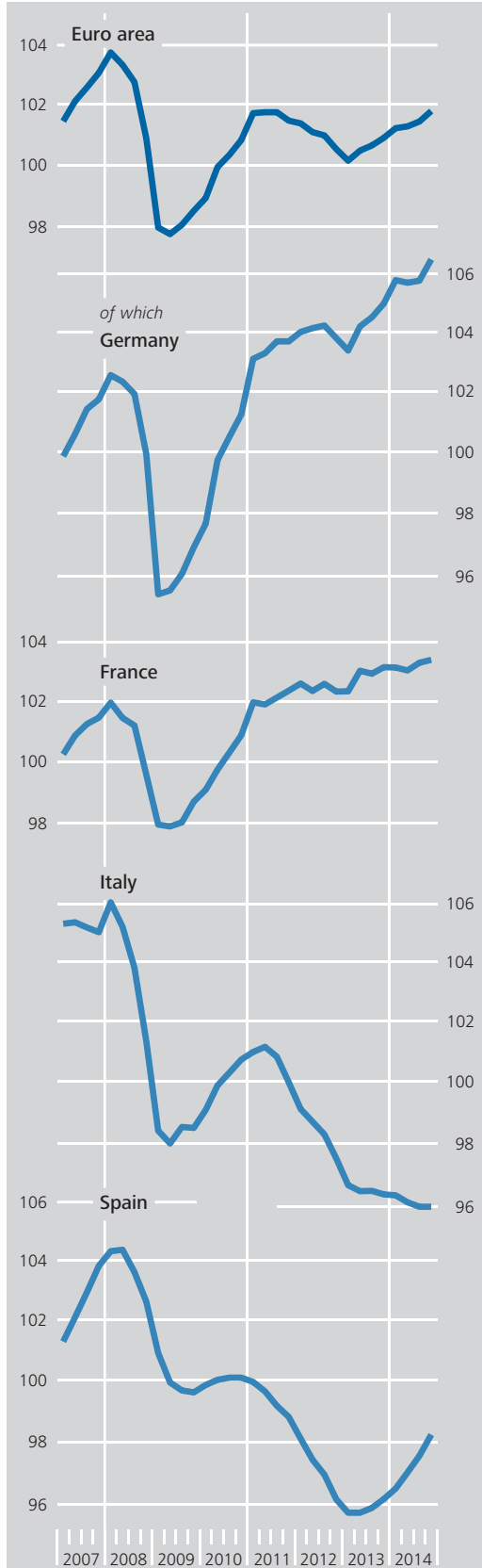
In the euro area as a whole, real GDP expanded by 1% last year, after shrinking by ½% in 2013. However, the level of growth was still 1¼% below the figure recorded for 2008. Current estimates by the European Commission point

*Return to
growth in 2014
as a whole,
albeit with large
differences
between
member states*

⁷ This group comprises the countries that have acceded to the EU since 2004 and which, in the fourth quarter of 2014 (the reporting period), were not yet members of European monetary union (thus including Lithuania, which did not join the euro area until 1 January 2015).

Aggregate output in the euro area

2010 = 100, seasonally adjusted, quarterly, log scale



Source: Eurostat.
 Deutsche Bundesbank

to a continuing underutilisation of capacity in the euro area, amounting to 2¾% of potential output. The growth rate for the euro area as a whole still masks large differences between member states. Using the forecast figures from the Commission's February projection for the member states whose annual figures cannot yet be determined, growth rates range from -2¾% in Cyprus to +4¾% in Ireland. On a positive note, only three of the 18 member states are likely to have seen a decline in 2014, compared with ten in 2012 and eight in 2013.

After a disappointing second and third quarter, industrial activity rebounded in the final quarter of 2014. Quarter-on-quarter output was up by ¼% after seasonal adjustment. On an annual average for 2014, growth still reached ½% because of the buoyant start to the year. The fourth-quarter rise in industrial output was driven by the manufacture of consumer goods, which expanded by a seasonally adjusted 1%. Capital goods output rose slightly, whereas that of intermediate goods stagnated and energy production was reduced. The moderate growth in industrial output is in keeping with the rise in capacity utilisation, which was ¾ percentage point higher in January than in October and continued to catch up with its long-term average. Euro-area construction output rose by ½% in the October-November period compared with the summer months and was thus 1¼% up on the year.

Pick-up in industrial activity in 2014 Q4

Above all, private consumption is likely to have fuelled demand perceptibly in the fourth quarter of 2014. Real retail sales (excluding motor vehicles and fuel) rose by a seasonally adjusted ¾% on the quarter. In addition, new car registrations were up by 2%. Investment demand may also have been something of a driving factor – at least that is what is suggested by the higher output of machinery and equipment and the increase in construction services rendered. By contrast, external demand probably continued to make a negative contribution to GDP growth in the final quarter. At all events, after seasonal and working-day adjustment,

Private consumption fuelled growth at year-end

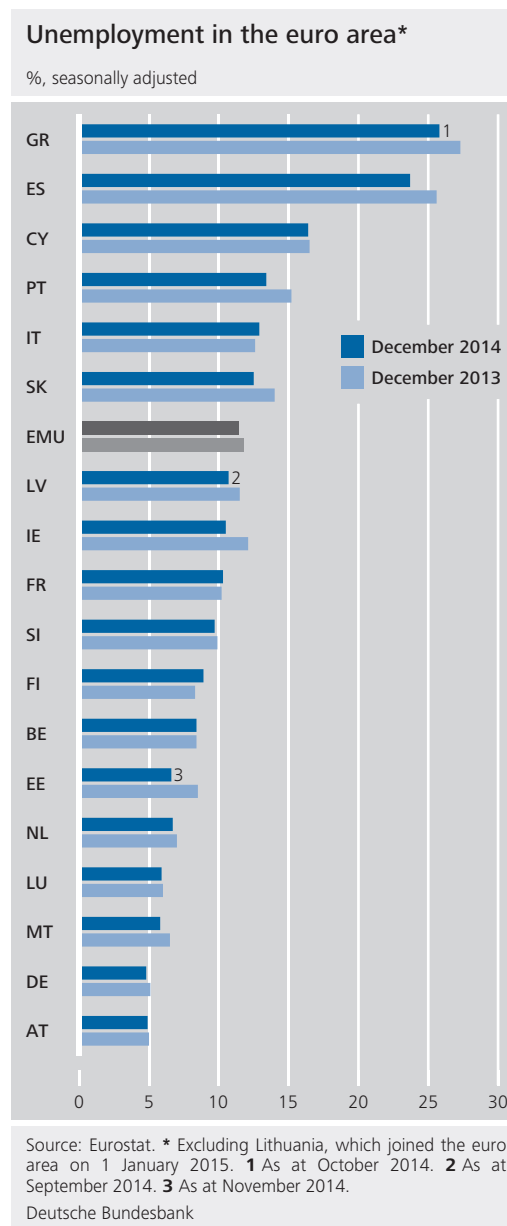
nominal exports to non-euro-area countries fell by 1¼% in October-November compared with the summer months, while, in value terms, goods imports increased by ½% despite the considerable fall in oil prices.

Signs of successful start to 2015

According to the monthly indicators already available for January, the euro area made a successful start to 2015. The composite PMI rose fairly sharply and moved further away from the expansion threshold thanks to improvements in the PMIs for manufacturing and services. Industrial confidence, which had deteriorated in December, also strengthened in January, albeit only slightly. This improvement was attributable to more favourable production expectations and a more optimistic assessment of order books. Orders received in order-based industry also developed fairly positively in the October-November period, and some of these orders are likely to be processed only in 2015. Excluding large orders, orders were up by a seasonally adjusted 1¼% in the October-November period compared with the third quarter. Orders both from within the euro area and from non-euro-area countries increased.

Slight progress on the labour market continued

The situation on the labour market continued to improve slightly in the second half of 2014. Employment in the euro area rose by a seasonally adjusted ¼% in the third quarter, and by ½% on the year, thus continuing the moderate upward trend seen since the beginning of 2014. One striking development is the strong employment growth in some periphery countries, reaching 1½% on the year in Ireland, Spain and Greece and 2% in Portugal. Like in the other euro-area countries, new jobs were mainly created in the services sector. In December 2014, the number of unemployed persons was down by 863,000 on the year. This was primarily because of the favourable developments in Germany, Spain and some smaller member states, while unemployment continued its upward trend in Italy in particular but also in France. The standardised unemployment rate for the euro area stood at a seasonally adjusted 11.4% at the end of 2014, and



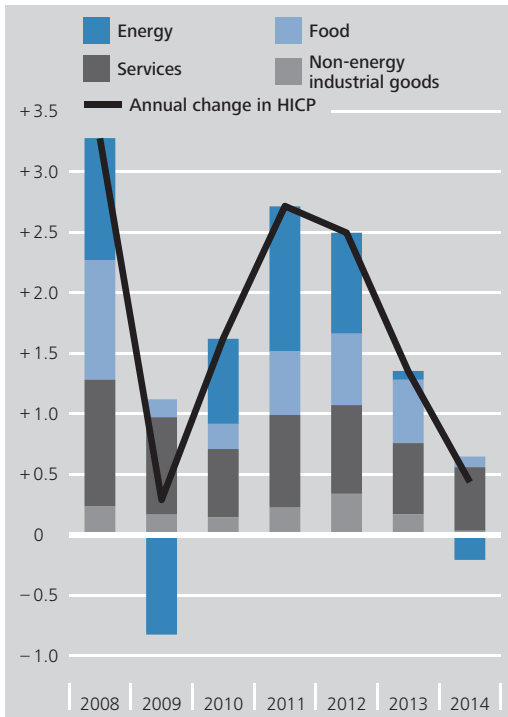
was thus 0.4 percentage point down on the year.

In the final quarter of 2014, consumer prices in the euro area were 0.2% down on the period after seasonal adjustment, having risen slightly in the summer. Most of this decline can be explained by the more rapid fall in crude oil prices, whose impact on domestic energy prices was dampened only slightly by the depreciation of the euro. Consequently, consumer energy prices declined perceptibly. Excluding this component, HICP inflation continued to rise slightly after seasonal adjustment. This was mainly due to higher prices for food and ser-

Falling prices mainly due to plummeting crude oil quotations

Breakdown of euro-area consumer price inflation by type of product

% or percentage points



Source: ECB.
 Deutsche Bundesbank

vices, while industrial goods prices remained stagnant. Annual headline HICP inflation continued to fall in the final quarter of 2014, reaching 0.2%. Excluding energy, it remained at 0.6%.

Unusually low HICP rate in 2014

For 2014 as a whole, the euro area posted a very low inflation rate of 0.4%. Only in the crisis year of 2009 was the inflation rate even lower, at 0.3%. Excluding energy, the 2014 rate was a mere 0.7%, marking a new low. This was

primarily because, after rising very sharply in the preceding years, food prices virtually levelled off, which should be regarded as a return to normal. The appreciation of the euro, which began in spring 2013 and did not ease off until spring 2014, had a discernible impact on industrial goods prices. Services price inflation continued to lose steam as a result of the ongoing wage moderation in a number of euro-area countries. At the same time, inflation in 2014 as a whole was almost entirely attributable to the services component, which accounts for around 40% of the basket of goods and experienced average annual inflation of 1.2%.

There are signs that headline HICP inflation will continue to decline in 2015 as a result of developments in crude oil prices. A negative annual rate (-0.2%) was already recorded in December 2014 for the first time since November 2009. According to the Eurostat flash estimate, this negative annual rate increased to -0.6% in January 2015 owing to the continuing fall in crude oil prices. In the coming months, the HICP rate is likely to remain negative because of the lower crude oil prices. Excluding energy, annual consumer price inflation amounted to 0.4% in January. Over the remainder of 2015, this rise should be boosted by the now quite significant depreciation of the euro. On an annual average, however, there could be a further fall in headline HICP inflation given the dominant influence of energy. From a macroeconomic point of view, however, this is not a disadvantage inasmuch as the decline is due to an improvement in the terms of trade.

Signs that HICP inflation will continue to decline in 2015