

GLOBAL ECONOMY PICKS UP SPEED

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This is a translated version of the original German-language chapter "Internationale Konjunktur: Weltwirtschaft im Aufwind", which is the sole authoritative text. Please cite the original German-language chapter if any reference is made to this text.

Summary

The global economy is experiencing an economic upturn. Investment and trade have seen more dynamic growth again since the second half of 2016, and unemployment is falling. At the same time, expectations have brightened, not least because **risks** in the global economy **have subsided**. So far, fears of growing protectionism have not materialised. For the most part, pro-Europe parties secured the vote in European elections this year, and worries about the future of the European Union abated as a result. The Chinese economy did not experience a slowdown. **Improved sentiment** of businesses and households indicates growing confidence in further economic growth, which is additionally driven by expansionary monetary policy.

Growth in the euro area, in particular, is much stronger than anticipated last year, and growth in Japan has also picked up pace. The solid upswing in the United States continues. So far, however, the US government has not yet implemented fiscal measures which may have provided additional stimulus for the US economy. Growth in the United Kingdom has slowed appreciably, a development which is probably due in no small part to the political uncertainty in the wake of the Brexit vote. With energy and commodity prices now stabilised, this most probably helped many commodity-exporting emerging economies overcome their periods of weak economic growth. China is the biggest driver of global growth and its economy continues to grow strongly.

The **economic upturn in the euro area has picked up pace** considerably. Economic growth is significantly ahead of its potential rate. While this is due in part to the still very expansionary monetary policy, the structural adjustments in many member states since the financial crisis are likely to have made a major contribution to this upswing. There is also a strong increase in investment. In light of this, sustained positive developments in the euro area seem possible. It is also particularly encouraging that member states whose growth was less dynamic in the past are now also experiencing stronger growth. Nevertheless, structural problems still persist. Unemployment and public debt are still worryingly high in some countries. In addition, there has only been slight growth in productivity in the euro area for some time, which has probably played a role in the relatively subdued wage developments.

While **risks** are **more balanced** in autumn 2017 than one year ago, the global economy still faces several risks, including growing geopolitical tensions, protectionism, recurrent doubts about the political stability of the euro area and a slowdown in growth in the Chinese economy. On top of this, the possibility of a higher-than-expected increase in inflation in the United States or the euro area is another risk factor. This could put pressure on central banks to raise interest rates, which would make it more difficult to effect an orderly exit from loose monetary policy and could potentially cause turbulences in the financial markets.

Overall, the German Council of Economic Experts expects the **upturn to continue**. It forecasts global GDP growth of 3.2 % for both 2017 and 2018. The United States, China and the United Kingdom are expected to grow at a similar pace in 2018 as in 2017. The same is anticipated for Japan and the euro area. Given the increasing utilisation of production capacities, growth rates will probably decline somewhat in the course of the forecast period and core inflation is likely to increase moderately.

I. GLOBAL ECONOMY: GROWTH STRENGTHENED

1. Economic situation

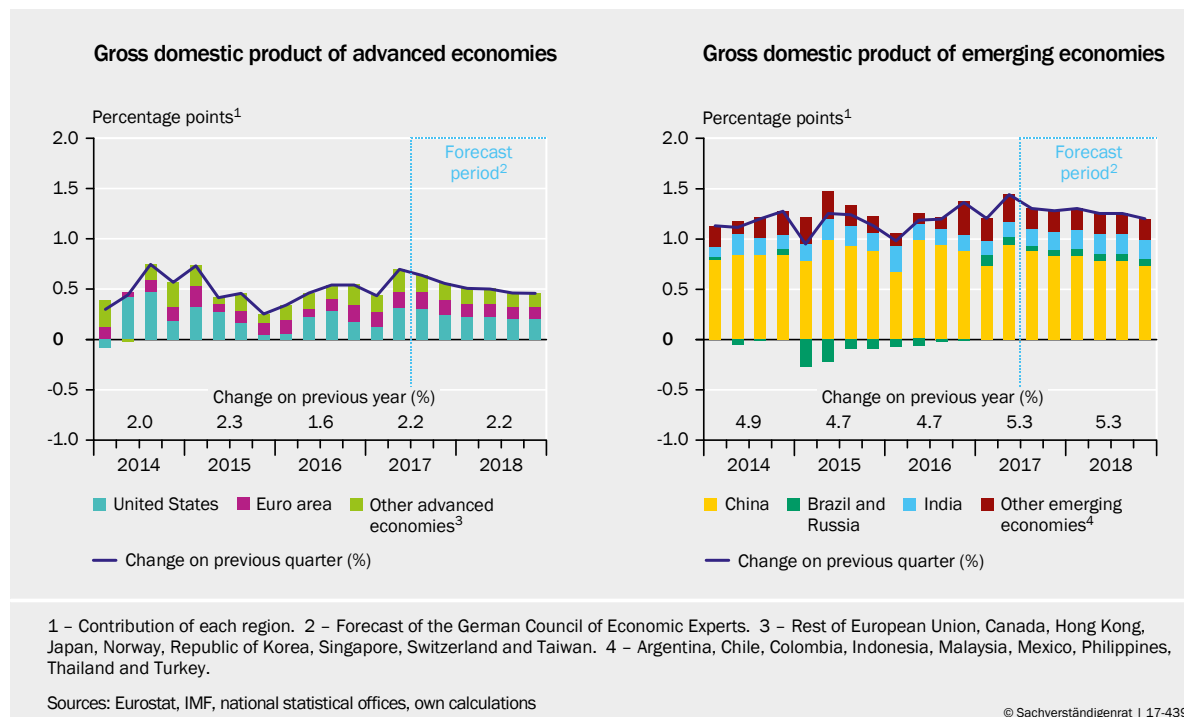
- 183. Growth in the global economy** has picked up appreciably since the end of 2016. At the same, investment and world trade have increased considerably. More and more economies are experiencing an **upswing**. The unexpectedly strong revival of the global economy probably stems from the gradual **improvement in expectations** since autumn 2016. This is likely due in large part to the fact that many significant risks have subsided from the perspective of market participants.

For example, the Chinese government has managed to prevent a collapse in growth. The Chinese economy continues to grow at a strong pace and the outflow of capital has been contained for now. In the United States, the comprehensive protectionist measures announced by Donald Trump have yet to materialise. While the Brexit vote and the subsequent exit negotiations were accompanied by a slowdown of growth in the United Kingdom, the economy did not enter a recession. Furthermore, pro-European parties managed to win the vote in the national elections held in central member states of the Economic and Monetary Union (EMU).

- 184.** While the conditions for an upturn had existed for some time, these developments are likely to have **boosted the confidence of businesses and households**. Indicators of market sentiment signal that economic agents have revised their outlooks upwards worldwide since autumn 2016 in accordance with these events. The increased confidence in the upturn coupled with the already high level of capacity utilisation seen in many countries are likely to have contributed to the **dynamic development of investment** and the accompanying **revival of world trade**. At the same time, expansionary monetary and fiscal policy are strengthening global demand. In this context, the pick-up in growth in individual regions was probably mutually reinforcing. At this stage, global economic growth appears solid enough to expect a continuation of the upturn in the forecast period.
- 185. Advanced economies** are making a particularly strong contribution to the accelerated growth of the global economy. [↘ CHART 7 LEFT](#) The upswing has gained considerable momentum in the euro area and in Japan. In the United States, the upswing is continuing despite the relatively weak growth in price-adjusted GDP (gross domestic product) in the first quarter of 2017. Only the United Kingdom shows a marked slowdown in economic growth in the first half of the year.
- 186. In emerging economies**, the picture is more mixed, albeit more countries are now showing positive growth than last year. [↘ CHART 7 RIGHT](#) While the Chinese economy has experienced strong growth so far this year, the pace of expansion in India slowed somewhat. In Latin America, on the other hand, there are signs

↘ CHART 7

Expected development of the world economy



that the recession in Brazil and Argentina is over and that the economy has begun to recover. The stabilisation of oil prices is likely to have been a significant factor in the economic recovery now being experienced by many commodity-exporting economies, such as Russia.

187. The somewhat stronger growth of the world economy coincides with a sharper **increase in world trade** ↘ CHART 8 TOP LEFT with signs of an increase in the trade elasticity, which had declined considerably in recent years. This is probably linked to the more dynamic development in investment, which is a trade-intensive expenditure component of GDP (GCEE Annual Report 2016, Box 5).

Advanced economies experiencing a joint upswing

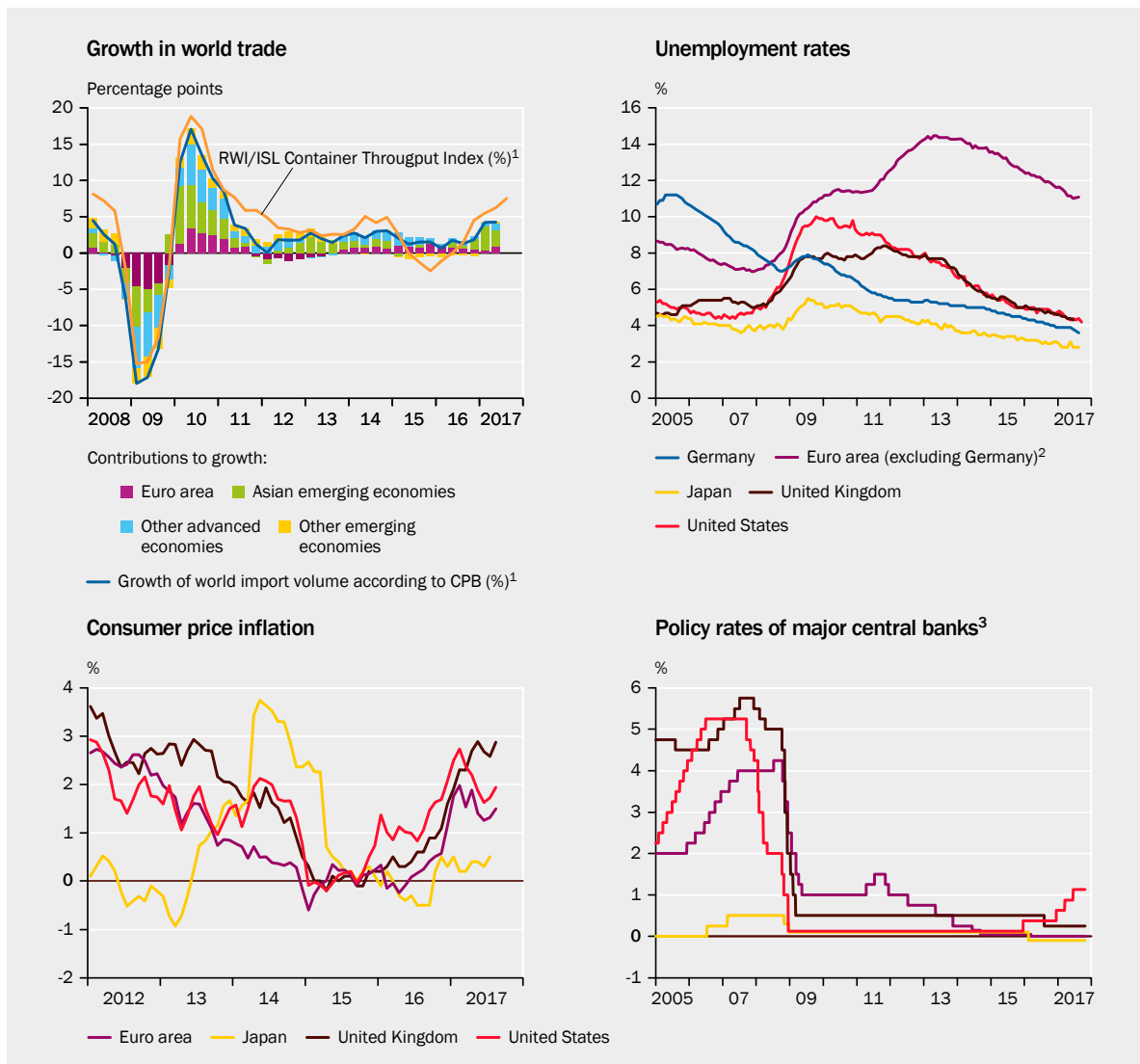
188. In advanced economies, the picture is of a **more balanced upswing** for the first half of 2017. Overall, developments are much more positive than anticipated at the start of the year. The previously significant differences in the economic situation in various advanced economies have diminished. At this stage, the vast majority of economies are experiencing an upswing. Another positive development is that investment activity has picked up in many advanced economies. The upturn is therefore more balanced both in geographical terms and with regard to the contributions of demand aggregates to growth.
189. Of the advanced economies, the **euro area** has been a particularly strong driver of the more positive developments. ↘ ITEMS 231 FF. In the first half of the year, many member states of the monetary union experienced an **upward trend in the pace of growth** that exceeded previous expectations. The brighter economic situation in the euro area probably contributed to the very strong growth experienced by the economies of the **eastern European countries** that are

not members of the monetary union, particularly since the fourth quarter of 2016. Compared with the previous year, the upturn in the euro area is far more solid. While the economic recovery is still not as advanced as in the United States, for example, the gap appears to be narrowing somewhat.

190. This is also due to the fact that the **US economy** experienced somewhat weaker expansion in 2016. However, this appears to have only been a temporary development, with the upturn in the United States now seemingly back on track. [↪ ITEMS 205 FF](#). This is also true of Japan where reported growth numbers look considerably more positive following the change in the GDP calculation method to the new international standard for national accounts. [↪ ITEMS 219 FF](#). The British economy is the only exception among the large advanced economies. While it continued to grow at a strong pace in the second half of 2016 following the Brexit vote, growth slowed in the first half of 2017. [↪ ITEMS 224 FF](#).

↪ CHART 8

Indicators for the global economic situation



1 – Change on previous year, quarterly averages of seasonally adjusted monthly data. 2 – Calculated using the share in employed persons of the previous year as weights. 3 – United States: Federal funds rate. Since 16 December 2008 mean of the target range. United Kingdom: Bank rate. Japan: Call rate. Euro area: Interest rate of main refinancing operations.

Sources: BIS, BoE, BoJ, CPB, ECB, Eurostat, Fed, OECD, RWI, own calculations

191. As the economy picks up, there have also been marked improvements in the labour market situation in most advanced economies. Many countries now display **very low rates of unemployment**. ↘ [CHART 8 TOP RIGHT](#) This is particularly true of the United States, Japan, the United Kingdom and Germany. In the rest of the euro area, unemployment is still comparatively high but has also fallen significantly. While the drop in unemployment is probably due to structural factors to a certain extent, it is also a reflection of a tightening labour market.

Other indicators such as employment trends or broader measures of underutilisation also point to a more positive situation. Despite the ongoing upturn and the good development of the labour market, wages have only seen a moderate increase so far. The reasons for this include the remaining slack, lower productivity growth by historical standards and the very low rates of inflation in the past few years (IMF, 2017a).

192. As anticipated, **inflation rates** rose significantly in most advanced economies at the start of 2017. ↘ [CHART 8 BOTTOM LEFT](#) This was largely due to the development of the price of crude oil, however. With the fall in oil price coming to an end at the start of 2016, the impact of a **base effect** dissipated at the start of 2017, having slowed the rate of inflation considerably until then. In addition, commodity prices temporarily experienced a stronger increase. Given the renewed drop in oil prices in the first half year and the end of the base effect, inflation rates dropped again slightly in the further course of the year. However, they are still well above the levels seen in 2016. In addition, in some economies - such as the euro area for instance - the increasing utilisation of capacities is accompanied by a moderate upward trend in core inflation, which excludes energy and food prices.
193. The faster growth in advanced economies is taking place against the backdrop of still very **expansionary monetary policies** of the major central banks. ↘ [CHART 8 BOTTOM RIGHT](#) While the US Federal Reserve (Fed) has continued its very gradual path to normalisation, the Bank of England (BoE) has kept its key interest rate at the very low level it had reached the previous year. The European Central Bank (ECB) has announced that it will continue its bond purchases at least until September 2018, and the Bank of Japan (BoJ) continues to pursue its very expansionary policy of yield curve control. Given the much improved economic climate, it is remarkable that the central banks are still in "crisis mode". With inflation rates higher than in the previous year, real interest rates have fallen again in many countries.

Prospects brighten again for emerging economies

194. The situation in **emerging economies** has stabilised and improved somewhat. In 2017 to date, the **Chinese economy** has seen stronger expansion than expected. ↘ [ITEMS 213 FF](#). The still high rate of growth is more or less in line with the values set down in the government's plans. The other emerging economies in Asia continued to experience strong growth in the first half year. Only the **Indian economy** seems to be weakening somewhat. While growth had already slowed a little in 2016, in the second quarter it dropped to 5.7 % compared to the

same quarter of the previous year. At least some of this decline could be put down to economic policy actions, such as the move to abolish widely used rupee notes and the introduction of a large-scale tax reform, and could therefore be temporary in nature.

195. The situation in **Latin America** has also brightened. The **Brazilian economy** appears to have bottomed out. For the first time since 2014, positive GDP growth on the previous quarter was reported for the first quarter of 2017. At an annualised rate of roughly 4 %, this growth was even quite strong. Argentina's economy is also clearly rebounding and the Mexican economy has been growing more strongly again since the second half of 2016.
196. In light of the somewhat higher crude oil prices, **Russia's** recovery appears to be continuing according to figures available to date. While **Turkey's** GDP dipped in the third quarter of 2016, the figures for the fourth quarter show a strong rebound. In the first half of 2017 the Turkish economy experienced significant growth again, which is likely to have been supported by government measures, including tax cuts and lending programmes. The more positive global climate bolsters the demand for exports and the tourism sector appears to be recovering somewhat. While the substantial devaluation of the Turkish lira strengthens exports further, it also contributes to the sharp increase in inflation.

2. Outlook

197. The **upturn in advanced economies** is expected to continue in the forecast period. In most economies, annual GDP growth rates in 2017 will probably be higher than the levels achieved in 2016. [↘ TABLE 2](#) The growth seen in the **United States** in the first half of 2017 is likely to continue at more or less the same pace. [↘ ITEMS 205 FF](#). In **Japan**, relatively strong growth is expected for 2017. After that, however, growth is likely to slow again somewhat, not least because of the already tight conditions in the Japanese labour market. [↘ ITEMS 219 FF](#).

The **United Kingdom** is the only major advanced economy whose growth is likely to slow in 2017. The weak development seen in the first half of 2017 is expected to continue in the forecast period, not least in light of the ongoing uncertainty surrounding the terms of Brexit. [↘ ITEMS 224 FF](#). By contrast, the upturn in the **euro area**, which all member states are experiencing at this stage, is projected to continue in the forecast period. However, the currently very fast pace of growth is likely to slow again slightly as the recovery continues. [↘ ITEMS 256 FF](#). The positive economic trend is also set to continue in **other advanced economies**, with GDP growth in the group of eastern European countries or in Canada expected to remain strong.

198. In contrast with the very low levels in 2016, **consumer price inflation** in advanced economies is expected to rise noticeably in 2017, due in no small part to the increase in energy prices compared with the start of 2016. Provided there are no major changes in the crude oil price during the forecast period, the contribution of **energy prices** to the rates of inflation will decrease again, as the base

values will then be higher compared with the previous year. However, with the **increasing utilisation of production capacities**, other prices will probably increase again at a somewhat stronger rate, which runs counter to this effect.

199. A slight increase in the pace of growth can also be expected for the entire year 2017 for the group of **emerging economies**. The very strong growth in eco-

▾ TABLE 2

Gross domestic product and consumer prices of selected countries

Country/country group	Weight in % ¹	Gross domestic product			Consumer prices		
		change on previous year in %					
		2016	2017 ²	2018 ²	2016	2017 ²	2018 ²
Europe³	29.5	1.8	2.4	2.1	1.1	2.3	2.2
Euro area ³	17.9	1.8	2.3	2.1	0.2	1.5	1.5
United Kingdom	3.9	1.8	1.5	1.4	0.7	2.7	2.5
Russia	1.9	- 0.3	1.9	1.9	7.0	4.0	5.0
Middle- and Eastern Europe ⁴	1.6	3.0	4.5	3.5	- 0.2	1.6	1.8
Turkey	1.3	3.3	5.9	3.4	7.8	11.8	10.0
other countries ⁵	2.8	1.8	1.9	2.3	0.9	1.3	1.3
America	36.1	1.1	2.2	2.4	2.9	2.9	2.7
United States	27.9	1.5	2.2	2.4	1.3	2.1	2.1
Latin America ⁶	3.2	0.9	2.3	2.8	13.5	10.5	7.8
Brazil	2.7	- 3.6	0.7	1.7	8.7	3.4	4.2
Canada	2.3	1.5	3.1	2.3	1.4	1.5	1.8
Asia	34.4	4.9	5.0	4.9	1.8	1.6	2.1
China	16.9	6.7	6.8	6.5	2.0	1.6	2.0
Japan	7.4	1.0	1.6	1.3	- 0.1	0.3	0.5
Asian advanced economies ⁷	3.8	2.4	2.8	2.6	1.1	1.6	1.6
India	3.4	7.8	6.0	7.1	5.0	3.1	5.2
Southeast Asian emerging economies ⁸	2.9	4.8	5.1	5.0	2.3	3.1	3.3
Total	100	2.6	3.2	3.2	2.0	2.3	2.3
Advanced economies ⁹	67.7	1.6	2.2	2.2	0.8	1.7	1.7
Emerging economies ¹⁰	32.3	4.7	5.3	5.3	4.6	3.5	3.7
memorandum:							
weighted by exports ¹¹	100	2.2	3.0	2.7	.	.	.
following IMF concept ¹²	100	3.2	3.7	3.8	.	.	.
World trade ¹³		1.4	4.1	3.4	.	.	.

1 – Nominal GDP (US dollar) of the listed countries or country groups in 2016 as a percentage of total nominal GDP. 2 – Forecast of the German Council of Economic Experts. 3 – In contrast to Table 1 in Annual Report 2016 the GDP figures considered for Germany are calendar-adjusted. 4 – Bulgaria, Croatia, Czech Republic, Hungary, Poland, Romania. 5 – Denmark, Norway, Sweden, Switzerland. 6 – Argentina, Chile, Colombia Mexico. 7 – Hong Kong, Republic of Korea, Singapore, Taiwan. 8 – Indonesia, Malaysia, Philippines, Thailand. 9 – Asian advanced economies euro area, Middle- and Eastern Europe, Canada, Denmark, Japan, Norway, Sweden, Switzerland, United Kingdom, United States. 10 – Latin America, Southeast Asian emerging economies, Brazil, China, India, Russia, Turkey. 11 – Total of all listed countries. Weighted by the respective shares of German exports in 2016. 12 – Weights according to purchasing power parities and extrapolated to the countries covered by the IMF. 13 – As measured by the Netherlands Bureau for Economic Policy Analysis (CPB).

Sources: CPB, Eurostat, IMF, national statistical offices, OECD, own calculations

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conomic output seen again in **China** this year is expected to ease off only very slightly in the forecast period. [↪ ITEMS 213 FF](#). By contrast, an appreciable slow-down in growth is expected in **India** in the forecast period. However, the economy is expected to pick up again once the country has overcome some temporary problems, which are the result of policy actions of an extent. Both **Russia** and **Brazil** are thought to have overcome the recession in their economies and growth in both these countries is expected to increase in the forecast period.

200. Overall, the German Council of Economic Experts (GCEE) expects the **growth rate of global GDP to increase** from 2.6 % to 3.2 % in 2017, and to remain at 3.2 % in 2018. In keeping with this development, **world trade** is forecast to **increase** by 4.1 % and 3.4 % in 2017 and 2018, respectively, based on the system of measurement applied by the Dutch Centraal Planbureau (CPB).

201. Despite the favourable economic trends, problems persist that cloud the medium-term growth prospects of the global economy. The level of **global debt has risen further** since the financial crisis and is now at an all-time high. Debt developments differ among the individual country groups, however. In advanced economies, the increase in the level of indebtedness is primarily concentrated in the public sector. [↪ ITEM 520](#) In contrast, the volume of lending to private households and businesses in relation to GDP has decreased somewhat since 2009.

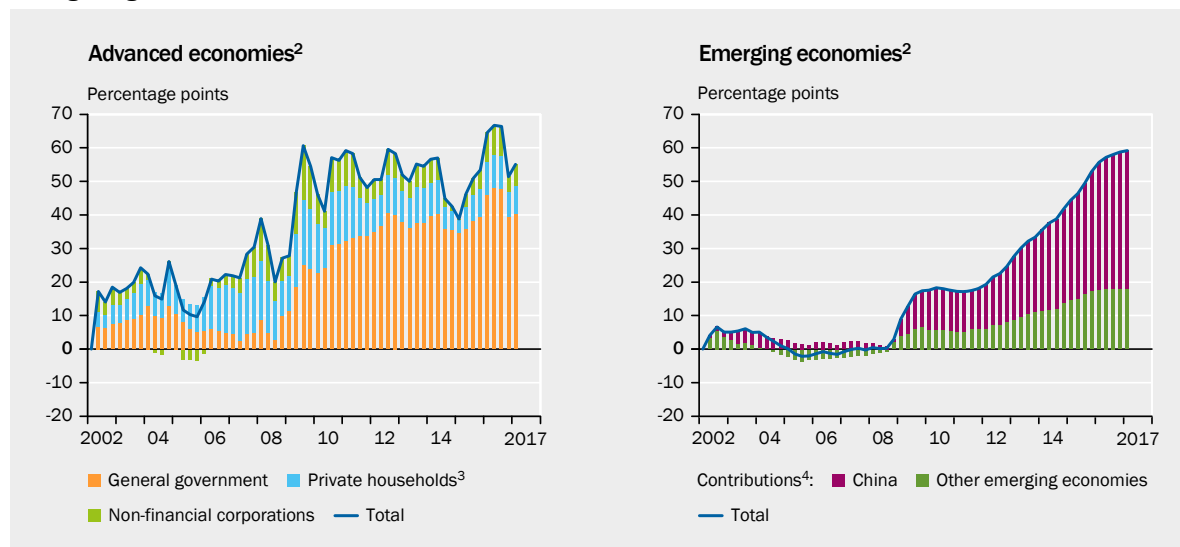
[↪ CHART 9 LEFT](#)

Emerging economies have seen a sharp rise in lending to the public and the private non-financial sector since 2009, driven, in particular, by the substantial increase in indebtedness in China. [↪ CHART 9 RIGHT](#) This development is attributable to the Chinese business sector to a large extent. However, the dividing line between private and state-owned businesses in China is hard to distinguish.

[↪ ITEMS 214 FF](#).

[↪ CHART 9](#)

Change in global credit volume since 2002¹



1 – Credit to non-financial sector relative to GDP. Deviation from the value of 2002Q1. 2 – Definitions of country groups according to BIS. 3 – Including non-profit institutions serving households. 4 – Calculated by weighting the change in the debt ratio of a country by its share of nominal GDP in US Dollars in the previous year.

Sources: BIS, IMF, own calculations

The high level of indebtedness can cause **instability in the financial system** or exacerbate the impact of such instability. Moreover, the high level of public debt weakens the **ability of countries to respond** to a future slowdown in economic activity with fiscal policy measures.

3. Opportunities and risks

202. **Risks and opportunities** are **more balanced** in autumn 2017 than in the previous years. The development of the global economy appears to be more solid than before. In particular, a number of political risks - such as those associated with the elections in France and the Netherlands - failed to materialise. Nevertheless, **risks** for the future development of the global economy **still persist**. These include geopolitical crises, the ongoing political uncertainty in the United States, a significant slowdown in China's credit-driven economic growth and turbulence in international financial markets. The threat of broad protectionist measures - on the part of the United States for instance - also still remains.

Besides the risks, there are also **opportunities** for stronger growth in the global economy. Unexpectedly strong investment activities, particularly in the euro area, could trigger a much stronger pace of growth than predicted in the forecast. Furthermore, more expansionary fiscal policy in the United States could provide additional stimuli that have not been considered thus far.

203. On the other hand, the still very expansionary monetary policy pursued particularly in the major advanced economies is a source of risk, including the risk of the misallocation of resources resulting from a distortion of market prices. So far, any steps towards an **exit from expansionary monetary policy** have been **very tentative**, if taken at all. While consumer price inflation is currently at a moderate level, this could change in light of the current monetary environment and an increasing level of capacity utilisation. This could then force central banks to introduce an unexpected, rapid rise in interest rates.

This poses a risk for private and public debtors, which currently have a relatively low debt servicing burden due to the low interest rates. In addition, **banks face interest rate risks**, having frequently provided very long-term loans at low interest rates. [↪ ITEMS 372 FF.](#) Furthermore, sudden changes in expectations concerning the future direction of monetary policy could trigger strong reactions on international capital and foreign exchange markets, such as a sharp drop in bond prices. All these points illustrate how important it is to ensure the imminent process of exiting from expansionary monetary policy is initiated in good time and clearly communicated. [↪ ITEMS 352 FF., 358 FF.](#)

204. In **Europe**, the political risks surrounding the continued existence of the monetary union abated following the results of the elections in 2017. At the same time, however, recent developments in Catalonia underline the fact that political tensions continue to exist. In addition, surveys indicate that support for euro-sceptic and anti-EU parties is very high. This poses a risk for the Italian parliamentary elections in 2018. A return of the euro crisis therefore cannot be fully

ruled out. **Risks** continue to exist **in the banking sector** of some member states, such as in Italy, and many countries still have very large stocks of non-performing loans. [↘ ITEMS 444 FF.](#)

The outcome of Brexit negotiations will also have implications for economic growth in Europe. Given the negotiation process so far, it is unclear whether an agreement can be reached by spring 2019. If negotiations fail and there is a "**hard Brexit**", this would have negative economic consequences for the United Kingdom in particular, and for European trading partners to a lesser extent. It is not likely to result in a serious negative situation for the global economy, however.

II. THE ECONOMIC SITUATION OUTSIDE THE EURO AREA

1. United States: Growth maintains momentum despite political uncertainties

205. The US economy has **continued** to maintain a moderate **pace of growth**. In the first half of 2017, GDP grew at an annualised rate of 1.8 % on the previous half year, with relatively weak growth in the first quarter followed by far stronger growth in the second. The third quarter of 2017 also showed strong growth at an annualised rate of 3.0 %. Judging by developments so far, the situation in 2017 is much more favourable than in 2016, where a weak phase in the fourth quarter of 2015 and the first quarter of 2016 was followed by comparatively weak GDP growth of just 1.5 % for the entire year.

Private consumption was again the biggest driver of growth in the first half of 2017. At the same time, **gross fixed capital formation of businesses** also **picked up** and made a significant contribution to GDP growth. While net exports made a positive growth contribution, the contribution of public spending was slightly negative.

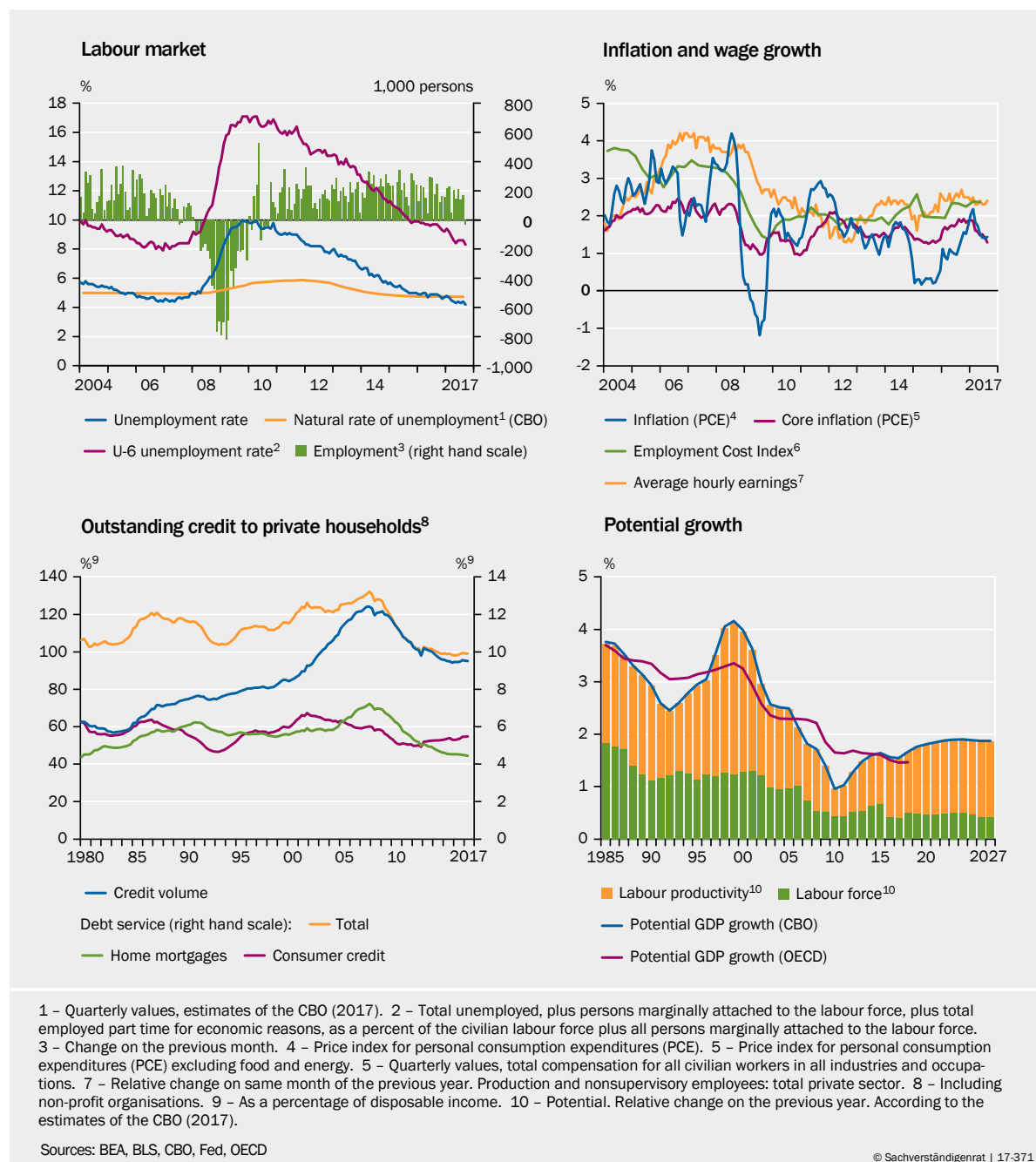
206. The **labour market continues to perform well**. [↘ CHART 10 TOP LEFT](#) However, employment did fall slightly in September, but this was probably due in large part to severe weather conditions. Up until August, employment had increased by an average of around 171,000 persons per month in seasonally adjusted terms. This growth is only slightly below the previous year's monthly average of 187,000 persons. The unemployment rate dropped to 4.2 % in September 2017, the lowest level since 2001. The U-6 rate of unemployment, a broader measure of **underemployment** that additionally includes those who are involuntarily working part-time, for instance, also decreased, falling to 8.3 % in September 2017. This is equivalent to the **pre-crisis level** of 2007. Unemployment is now below the natural rate of unemployment of 4.7 % estimated by the Congressional Budget Office (CBO).

The **labour force participation rate** is close to its potential (CBO, 2017). Despite a tightening labour market, the increase in nominal wages is rather moderate by historical standards. [↪ CHART 10 TOP RIGHT](#) In addition to relatively weak productivity growth, this is probably also due in large part to composition effects in the labour market (Daly et al., 2016).

207. The positive developments in the labour market in addition to the development of inflation were factors that prompted the US **Federal Reserve** (the Fed) to raise the key interest rate further. The **Fed** increased the target range for the **Federal Funds Rate** by 0.25 percentage points in December 2016, March 2017 and June 2017. [↪ CHART 8 BOTTOM RIGHT](#) and also adopted additional measures to normalise monetary policy. [↪ BOX 11 PAGE 177](#) The rate of inflation measured by the

[↪ CHART 10](#)

Economic indicators for the United States



price index for personal consumption expenditures (PCE) has been at just 1.4 % since June, after rising to over 2 % at the start of the year due to the hike in oil prices. [↘ CHART 10 TOP RIGHT](#) Having peaked at 2.7 % in February 2017, the consumer price index (CPI) inflation rate did drop slightly but rose again to 2.2 % in September. Core inflation, which excludes energy and food prices, dropped from 1.9 % in January to 1.3 % in August.

208. The larger **additional fiscal stimuli** that Donald Trump announced during the election campaign have **yet to materialise**. So far, the administration has also failed to deliver on other central election pledges, such as health care reform (repeal of "Obamacare"). This casts doubt on the swift introduction of comprehensive tax reform or the implementation of large-scale infrastructure projects. **Contradictory government plans** and **conflict** within the Republican party are contributing factors in this respect. For example, the tax cuts currently planned would result in a significant revenue shortfall that would need to be offset by other measures if the government deficit is not to be unduly increased.

Another potential source of conflict with regard to fiscal policy is the **U.S. debt ceiling**, which was suspended in September until December this year. If an agreement to raise the debt ceiling is not reached in time, the government risks defaulting on its obligations.

209. In this political environment, it seems less likely that the protectionist measures previously announced will be implemented in the near term. However, if the **North American Free Trade Agreement** (NAFTA) were suspended, this would probably cause considerable distortions, not least given that the participating economies are deeply interconnected through international value chains.

[↘ BOX 19 PAGE 328](#)

210. While **household indebtedness** in relation to disposable income has not changed much in the past few years, it is well below the level in 2007 before the crisis. [↘ CHART 10 BOTTOM LEFT](#) Combined with low interest rates, this means that the ratio of **debt service** to disposable income is currently comparatively low. While debt service for mortgage loans continues to decrease, outstanding payments for consumer credit have been increasing since 2012. At around 40 % and over 50 %, respectively, the increases in **student loans** and **car loans** during this period were very pronounced. Their shares in the volume of total outstanding loans of private households have thus increased significantly, and now stand at over 10 % and over 9 %, respectively (Federal Reserve Bank of New York, 2017).

As interest rates increase, the payments due to service the debt will probably also increase again in the future. If income growth is not sufficient to compensate for this increase, some **households could find themselves in financial distress** and consumption growth could slow. With regard to the macroeconomic impact of payment defaults, however, it is probably significant that the volume of car loans is currently far lower than the pre-crisis volume of mortgage loans. Furthermore, in contrast to the financing of real estate, when extending loans for the purchase of automobiles there is no speculation that the loan collateral may increase in value.

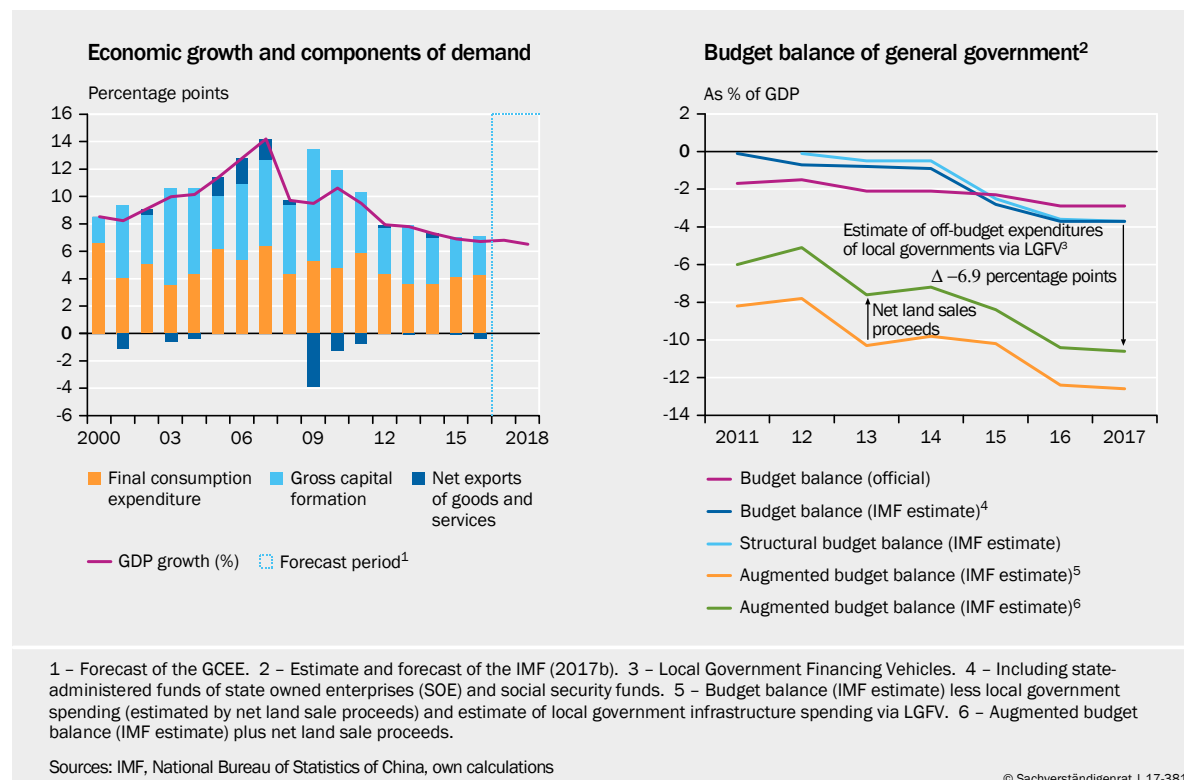
211. The outstanding **loans to private non-financial business** have also increased appreciably in relation to GDP since 2012 and, at around 73 % in the second quarter of 2017, are now slightly higher than the previous peak recorded in 2008.
212. CBO estimates current **potential growth** for the US economy at well **below two percent**. ↘ [CHART 10 BOTTOM RIGHT](#) Demographic trends - particularly the baby boomer retirement wave - and relatively weak growth in labour productivity are contributing factors here. This makes a lasting return to the significantly higher growth rates of previous decades unlikely. In addition, the economic upturn has advanced in recent years and there is significantly less slack in the labour market. Given a monetary policy that can still be considered expansionary and the good performance of the labour market, **GDP growth rates** in the forecast period will probably still **be ahead of potential growth**. The GCEE expects GDP growth of 2.2 % and 2.4 %, respectively, for 2017 and 2018.

2. China: Steady growth with risks

213. The Chinese **economy has continued to expand** so far this year. GDP showed strong growth in the first three quarters of 2017, with growth rates more or less on a par with those of last year. With GDP growth having fallen to 6.7 % in 2016, the government has so far managed to ensure that the trend towards a **slowdown in growth is gradual**. ↘ [CHART 11 LEFT](#) In this context, the contribution of consumption to growth is increasing in relation to the contribution of investment. The Chinese economy is therefore **continuing its transformation** into a more consumption based economy (GCEE Annual Report 2016, Items 925 ff.).
214. **Monetary and fiscal policy** are now less expansionary. In the past, the Chinese government helped stabilise growth by significantly widening the budget deficit. According to IMF estimates, however, the deficit will remain largely unchanged in 2017. ↘ [CHART 11 RIGHT](#) The estimated augmented deficit, which includes off-budget spending by local governments, in particular, is up slightly by 0.2 percentage points. At the same time, **budget deficits remain high** and will continue to drive up the **overall level of indebtedness**, which is high given the level of development of the economy (GCEE Annual Report 2016, Item 930). This is mainly accounted for by the business sector, where it is often difficult to distinguish between private and state-owned enterprises. According to estimates of the IMF, total debt of the domestic non-financial sector in 2017 is likely to increase by around 15 percentage points to 251 % of GDP (IMF, 2017b). The shadow banking system plays an important role in the financing of debt (GCEE Annual Report 2016, Items 930 f.).
215. Since the start of the year, the Chinese **central bank** has opted for a moderate **tightening of its monetary policy**. This move could help curb the increase in the level of debt and is also likely to stabilise the exchange rate and counter existing **risks in the finance sector**. The renminbi has appreciated against the dollar this year. This, coupled with stricter capital controls, an interest rate in-

↘ CHART 11

Economic indicators for China



crease in China and less worry about a sharp decline in growth, helped stem the significant outflow of China's foreign exchange reserve.

216. Due to the complexity, interconnectedness and disproportionate growth of China's financial system, **medium-term macroeconomic stability is still at risk** (GCEE Annual Report 2016, Items 950 ff.). The OECD and the IMF also consider the high level of debt to be a **risk to financial stability** (IMF, 2017b; OECD, 2017a). According to figures of the Bank for International Settlements (BIS), growth in loans to the non-financial sector slowed somewhat in the first quarter of 2017 (BIS, 2017). However, with a 12 % increase on the same quarter of the previous year, growth was still very strong. The credit-to-GDP gap calculated by the BIS also narrowed compared with mid-2016 figures. At 22.1 % it is, however, still well above the 10 % threshold which serves as an early warning indicator for financial crises.

Developments in the housing market could also be another risk factor. Prices have increased considerably in recent years, particularly in major urban areas. While investment in residential construction did pick up again recently, growth in housing prices has been less dynamic than last year. New regulatory measures, such as purchasing and lending restrictions, as well as property price controls could be a reason for this development.

217. The **Chinese financial system is heavily controlled by the government** (GCEE Annual Report 2016, Item 932). A crisis cannot be ruled out, however. The direct impact of a crisis on the rest of the world is likely to be limited, particularly as Chinese banks are barely integrated into the global financial system.

Because of **trade**, however, a slowdown in economic growth triggered by a financial crisis would probably have more serious consequences, especially for Germany (GCEE Annual Report 2016, Items 955 ff.). In terms of the country's future development, it can be assumed that the Chinese government will continue to use **active economic policy** in order to make the process of transformation as gradual as possible. However, as the state exerts a strong influence on the economic system, policy mistakes could have serious consequences. In particular, the dynamic development of indebtedness and the Chinese property market may prove very difficult to control.

218. In its projection, the GCEE assumes that there will be no major distortions and that economic growth will remain largely stable in 2017 and 2018 with growth rates of 6.8 % and 6.5 % respectively.

3. Japan: Economic upswing and tight labour market

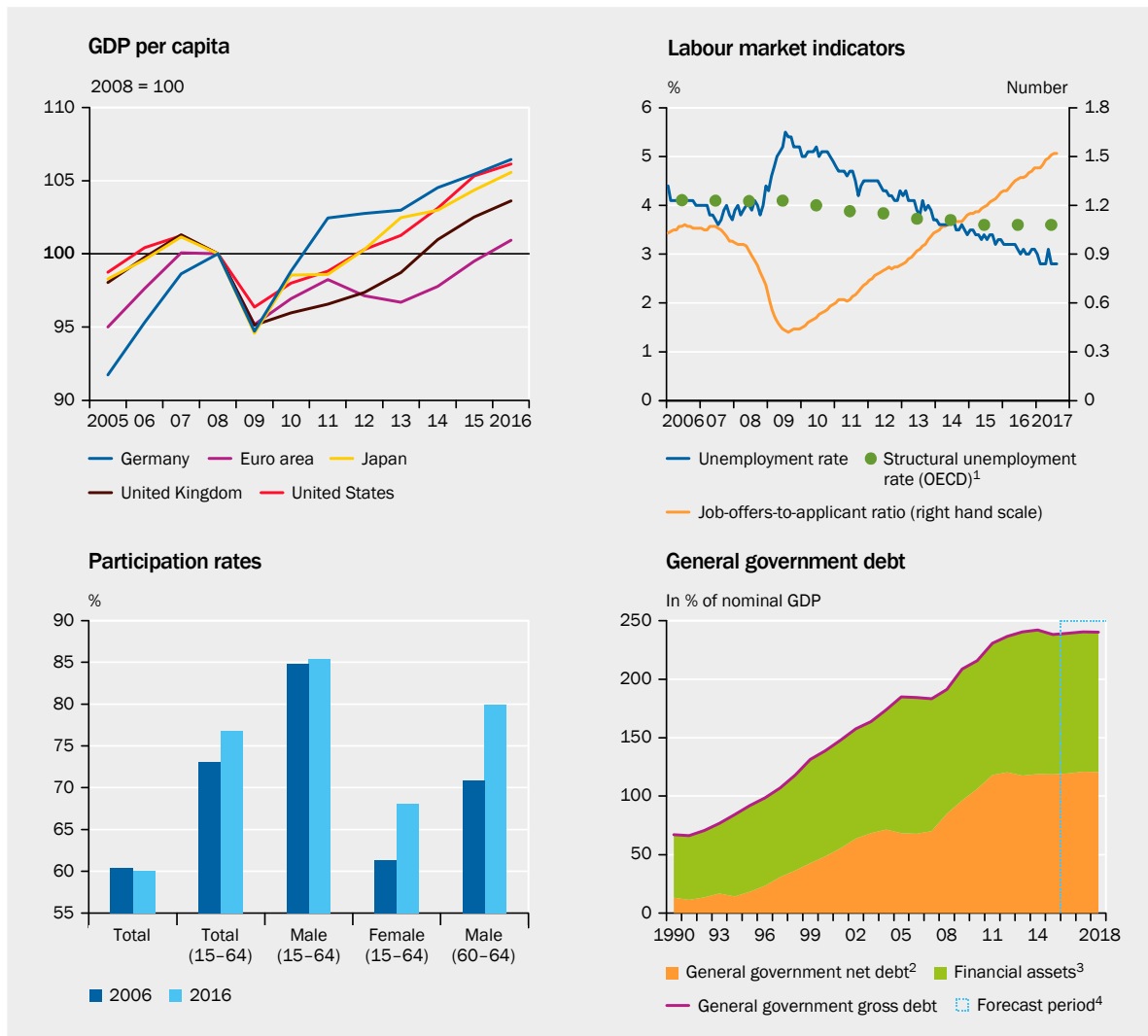
219. The **upturn** in the Japanese economy **continues**. With annualised growth of 1.6 % on the previous half year, the expansion even picked up pace appreciably in the first half of 2017. The annual average growth rate of GDP was 1.0 % in 2016. The succession of positive quarterly growth rates that has been observed since the start of 2016 is the longest continuous period of growth since the financial crisis. The population in Japan is shrinking due to pronounced demographic change. For this reason, **growth in GDP per capita** is a particularly useful indicator for comparing the pace of growth with that of other countries. [↘ CHART 12 TOP LEFT](#) In 2016, GDP per capita grew at 1.1 % in Japan, which was roughly on a par with the growth in the United Kingdom and even somewhat stronger than the growth reported for Germany or the United States. Growth contributions of private consumption were particularly large in the first half of 2017, and in the second quarter of 2017 the level of private consumption was already 1.5 % above the 2016 average. This seems to be mainly a reflection of the sustained healthy labour market.
220. **Employment continues to increase steadily**, and the unemployment rate is at its lowest level in 23 years, standing at 2.8 % in August 2017. [↘ CHART 12 TOP RIGHT](#) It is thus well below the structural rate of unemployment (NAIRU), for which the OECD (2017b) currently estimates a level of 3.6 % for Japan. Other indicators, such as the Tankan Index obtained by surveying businesses, or the estimation of the output gap by the Bank of Japan also point to an **increasing overutilisation of capacities**. The number of job vacancies per applicant is currently at a long-term high. [↘ CHART 12 TOP RIGHT](#)

One of the main reasons for the tight situation in the labour market is the **demographic change**. Employment is currently still rising, particularly due to the marked increase in the labour market participation of women and older workers in recent years. [↘ CHART 12 BOTTOM LEFT](#) However, this will probably only grant temporary relief considering that the working-age population is forecast to decline sharply.

221. Given the tight conditions in the labour market, wage developments are very moderate. **Inflation** is also **not yet showing a clear upward trend**. While consumer price inflation did rise to 0.7 % in August it is still well **below** the Bank of Japan's **target** of 2 %. Core inflation, which does not factor in energy and food prices, stood at 0.0 % in August, and was even negative in the six months prior to that. Against this background, the Bank of Japan will continue to pursue its **expansionary monetary policy**. It announced its intention to continue its policy of yield curve control through bond purchases until the rate of inflation exceeds the 2 % target on a lasting basis (BoJ, 2017).

The expansion of monetary policy easing since the end of 2012 has coincided with a significant depreciation of the yen. In the period from 2012 to 2015, the nominal trade-weighted **exchange rate** dropped by around 30 %, and in 2017 is still around 20 % below the level in 2012. At the same time, there was a shift in the rate of inflation from deflationary negative values to low-positive values.

▸ CHART 12
Economic indicators for Japan



1 – Annual values, estimates of the OECD (Economic Outlook, June 2017). 2 – Net debt defined according to the IMF World Economic Outlook as gross debt minus monetary gold and SDRs, currency and deposits, debt securities, loans, insurance, pension, and standardized guarantee schemes, and other accounts receivable. 3 – Calculated as difference between gross debt and net debt. 4 – Forecast of the IMF.

Sources: IMF, Ministry of Health, Labour and Welfare, Ministry of Internal Affairs and Communications, OECD, own calculations

Given the extent of monetary policy measures, however, the development in inflation is rather subdued.

222. In the early elections called in October 2017, Prime Minister Abe's coalition managed to secure the majority of the vote once again. Prior to the election, Abe had announced plans to implement **new fiscal spending programs**. For example, the additional revenue from the increase in consumption tax which was postponed from 2017 until 2019 is due to be channelled into the areas of education and care, rather than into the reduction of the national debt as previously planned (Abe, 2017). Further to this, by implementing additional structural reforms the country aims to increase productivity and tap labour force potential more effectively.

Japan's public debt has hovered at around 240 % of nominal GDP since 2013. [↘ CHART 12 BOTTOM RIGHT](#) This high debt level raises the question whether **Japanese public debt** is sustainable. However, as the Bank of Japan has bought up a substantial share of government bonds, which are mainly denominated in local currency, the high level of debt stands in contrast to considerable financial assets of the general government. After deducting the financial assets from gross government debt, the net debt of the Japanese government stands at roughly 120 % of GDP and is therefore only around half the size of the gross debt.

223. In autumn last year, Japan switched its **GDP calculation method** to the new international standards. Under this revision, **growth** for the past few years is significantly **more positive** than before, and the rates of growth in recent years were somewhat higher than originally reported (IMF, 2017c). According to the new statistics, the growth of potential output is also somewhat higher, with the Bank of Japan currently estimating a potential growth rate of 0.8 %. The upturn in the Japanese economy is expected to continue in the **forecast period**. Due to the already high level of capacity utilisation, growth rates will probably slow somewhat. The GCEE expects GDP growth rates of 1.6 % and 1.3 %, respectively, for 2017 and 2018.

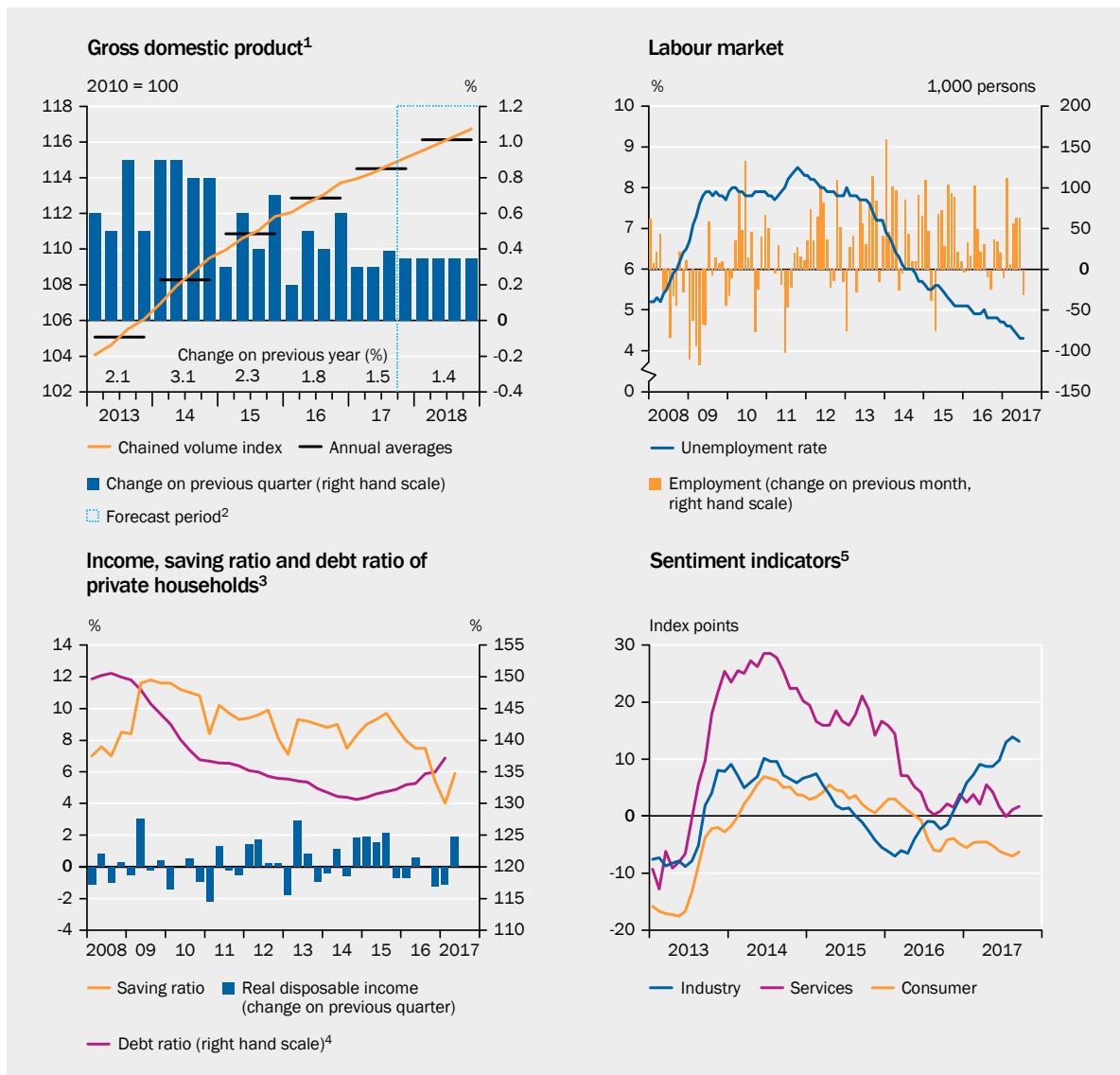
4. United Kingdom: Countdown to Brexit

224. There has been a **marked slowdown of growth** in the United Kingdom. Following an annualized growth of GDP of 1.9 % in the second half of 2016 compared to the previous half year, the corresponding growth rate in the first half-year of 2017 dropped to just 1.4 %. [↘ CHART 13 TOP LEFT](#) This was the lowest value measured in five years. In the third quarter of 2017, growth also remained subdued at an annualised rate of 1.6 % over the previous quarter. Despite this slowdown, labour market conditions remain robust. In June 2017, the unemployment rate fell to 4.3 %. [↘ CHART 13 TOP RIGHT](#) At the same time, the rate of employment reached a new high of just over 75 %.
225. One of the main reasons for the economic slowdown is **weak growth in private consumption**. The strong devaluation in the pound sterling following the Brexit vote is likely to have played a significant role here. Consumer price inflation also increased noticeably as a result, climbing to 3 % in September 2017.

Meanwhile households experienced a significant squeeze on real disposable incomes. They **reduced** their **saving ratio** to compensate for some of the fall in real disposable income. In the first quarter, it fell to 4 % of disposable income, partly due to changes in taxation. [↘ CHART 13 BOTTOM LEFT](#) The saving ratio recovered somewhat in the second quarter. By international standards, it is now considerably lower than the savings ratios of other large European countries, and corresponds more closely to the low level recorded in the United States. A further fall is unlikely, since there is probably not much margin left. At the same time, the level of **household debt** continued to mount.

Consumer sentiment, on the wane after a temporary high in the second half-year of 2016, probably reflects the weak growth in incomes. [↘ CHART 13 BOTTOM RIGHT](#) All in all, private consumption is likely to grow only modestly over the forecast period.

[↘ CHART 13](#)
Economic indicators for the United Kingdom



1 – Real values, seasonally and calendar adjusted. 2 – Forecast of the German Council of Economic Experts. 3 – Including non-profit institutions serving households. 4 – As a percentage of gross disposable income. 5 – Economic Sentiment Indicator of the European Commission. Three-month moving average.

Sources: BoE, European Commission, ONS, own calculations

226. Economic growth in the United Kingdom is further constrained by the **weak development of labour productivity**. In the first half of 2017, labour productivity was at roughly the same level as in 2007. It therefore lagged appreciably behind the productivity increases recorded in most other large advanced economies, even though those economies also saw lower growth in labour productivity than in the years before the financial crisis (OECD, 2017c).
227. In the first half year, the growth in **gross fixed capital formation** was somewhat weaker than in the previous year. There was even a slight reduction in production in the construction industry since the start of the year. The rise in house prices compared to the previous year slipped by three percentage points in the second half-year of 2016. In 2017 so far it has remained at the lower level of approximately 5%. **Indicators of market sentiment** in the manufacturing sector are relatively positive, in contrast to those in the service industry, which dominates the United Kingdom's economy. [↘ CHART 13 BOTTOM RIGHT](#) This corresponds to international trends and could be related to improved market opportunities abroad, due not least to the fall in the value of the pound. In the first half-year however, the trade deficit initially widened slightly.
228. Within this macroeconomic environment, **monetary policy** faces a trade-off. On the one hand, the rising inflation rate would call for a policy of monetary tightening. However, such a policy would conflict with the downturn in economic activity and pessimistic confidence surveys. Until now, the Bank of England (BoE) has kept interest rates low after a cut following the Brexit referendum. No stimulus for growth is expected from **fiscal policy** over the forecast period since the government intends to continue reducing the public budget deficit.
229. Further developments will undoubtedly be determined by progress and outcome of the **negotiations on the departure** of the United Kingdom **from the EU**. The agreed form of access to the European internal market will be vital for exporting companies and also for the financial sector, which plays a particularly important role in the economy of the United Kingdom (GCEE Annual Report 2016 Items 292 ff.). If market access is severely constrained, this could result in more companies and financial institutions leaving the United Kingdom. Currently, it is difficult to predict how the negotiations will unfold. [↘ ITEMS 147 FF.](#)

The positions presented by the British government leave many questions unanswered. According to the EU treaty, the time limit for leaving the European Union expires in March 2019, two years after withdrawal was triggered. This does not leave much time to negotiate an exit agreement or define future relations with the EU. The **risk** of Brexit without agreement still looms, along with sudden reactions of market participants. On the other hand, even an agreement whereby the United Kingdom remains in the EU cannot be fully ruled out.

230. For the **forecast**, it is assumed that Brexit negotiations will have a negative economic impact, for example, on the investment climate. However, there is no assumption that the talks will ultimately fail or cause major disruption. The GCEE forecasts a rise in GDP of 1.5 % for 2017. Approximately 0.8 percentage points of this rise is accounted for by the statistical overhang, due primarily to

strong growth in the second half of 2016. The rate of GDP growth in 2018 is expected to measure 1.4 %.

III. EURO AREA: RECOVERY EXCEEDS EXPECTATIONS

231. The **recovery** in the euro area **is gaining momentum**. It is now entering its fifth year and has recently been more dynamic than had been expected. In the first six months of 2017, GDP increased with an annualised rate of 2.4 % on the previous half year. The growth rate accelerated by 0.6 percentage points compared with the average annual growth rate in 2016. The largest contribution to growth came from consumer spending. In addition, investment dynamics remain strong and, following weak growth in 2016, exports are also on the rise. Another positive trend is that the recovery in the euro area includes an increasing number of member states.
232. Three factors are likely to have contributed significantly to the recovery: the **structural adjustments** made during the crisis, **reduced** political **risk** and the upturn in the **global economy**. Monetary and fiscal policy are also continuing to have an expansionary impact. Irrespective of the recent positive developments, medium-term growth prospects remain moderate, primarily due to weak productivity growth.

1. Economic situation

233. The **pace of growth** in the euro area is remarkably fast. [↘ CHART 14 TOP LEFT](#) In this year and in the coming year, GDP will grow approximately one percentage point faster than potential output, which the European Commission expects to increase at a rate of 1.2 %. Consequently, the estimated output gap in the euro area is likely to be positive again in 2018, for the first time since the onset of the financial crisis. [↘ ITEM 345](#) Current growth is exceeding expectations, as reflected in the **upward revisions of the forecasts** since the autumn of 2016. [↘ CHART 14 TOP RIGHT](#)
234. A positive trend is also evident in the labour markets. In the euro area the number of **persons employed** has now returned to the pre-crisis level. [↘ CHART 14 BOTTOM LEFT](#) Growth is particularly strong in Spain, where employment is expected to return to its 2005 level in the coming year. Nevertheless, the number of persons employed in Spain in 2016 was still 11 % lower than in 2008, and, as in other member states in Southern Europe, the unemployment rate remains high. Moreover, when viewed in a longer-term context, the advancement of prosperity in some national economies is far less positive than the most recent growth figures would suggest. For example, **GDP per capita** in Italy and Greece last year

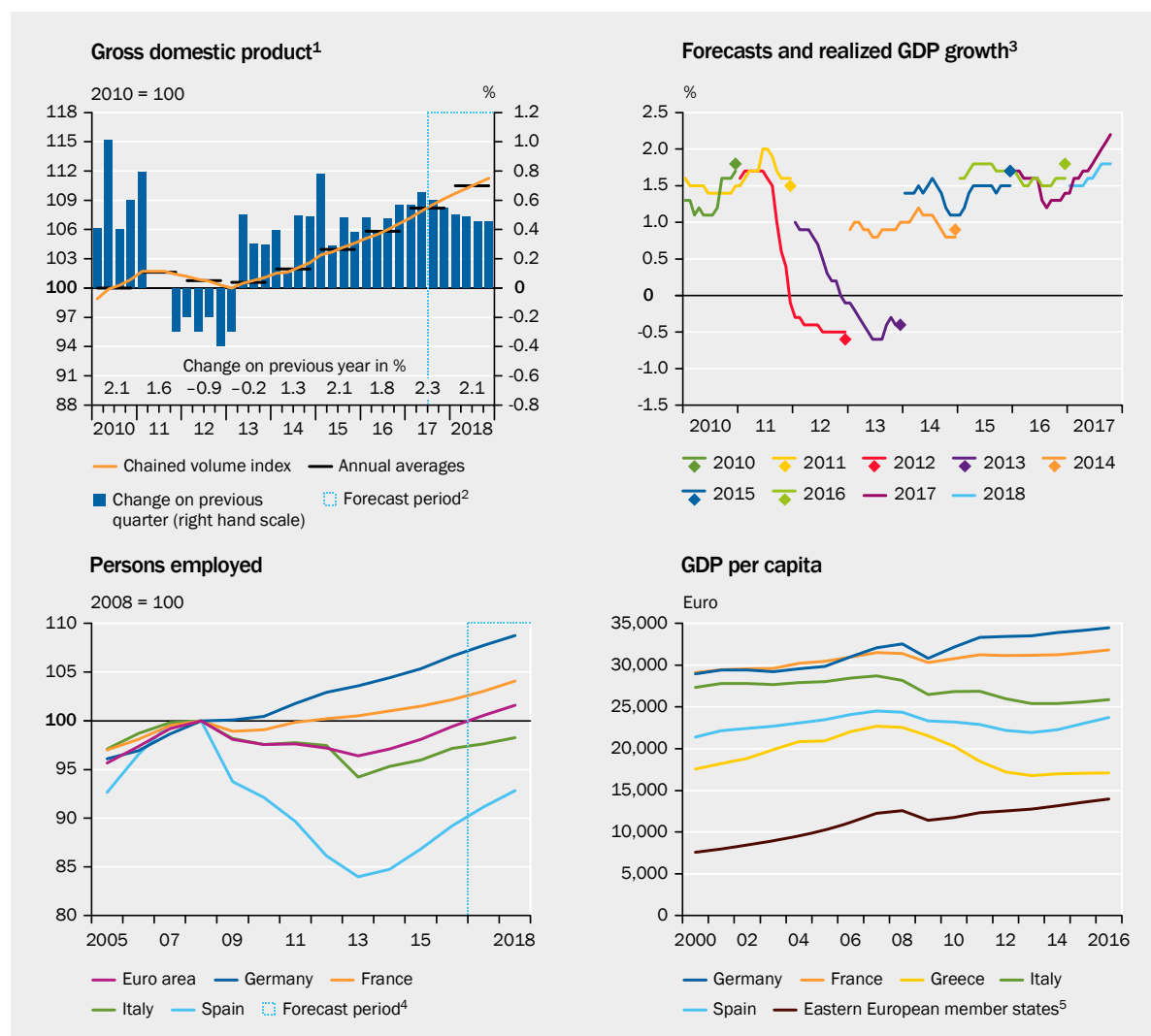
was still below the level achieved in 2000. [↘ CHART 14 BOTTOM RIGHT](#) This highlights the structural problems that still exist in those countries.

235. The **upturn** is being primarily **driven by consumption**. [↘ CHART 15 LEFT](#) The sustained growth in employment and moderate inflation rates are contributing to a rise in real incomes. Moreover, the extraordinarily high levels of many indicators of market sentiment point towards solid **optimism** regarding economic development in the euro area. The reduced political uncertainty since last spring's elections in the Netherlands and France may have played a role in this regard. For example, the interest rate spread between ten-year French government bonds and German bunds fell by approximately 40 basis points between February and September.

Growing fixed capital formation is also providing positive stimuli. [↘ CHART 15 RIGHT](#) This may, in turn, reflect increased capacity utilisation and the greater confi-

↘ CHART 14

Macroeconomic situation in the euro area



1 – Seasonally and calendar adjusted. 2 – Forecast of the German Council of Economic Experts. 3 – Consensus Economics. Monthly GDP forecasts for the years 2010 to 2018. Realizations according to European Commission's spring forecast of the following year are depicted as diamonds. 4 – Forecast of the European Commission. 5 – Estonia, Latvia, Lithuania, Slovakia and Slovenia.

Sources: Consensus Economics, European Commission, Eurostat, own calculations

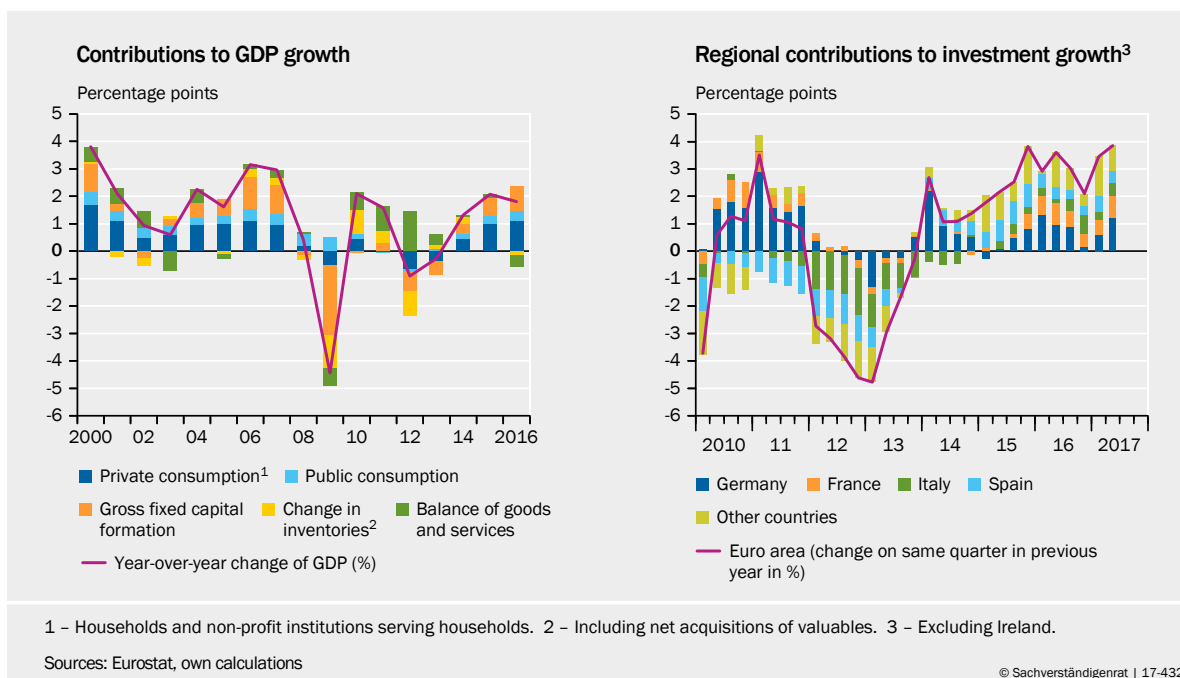
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dence that companies now have in the economic recovery. It should be noted that the current **investment dynamics** in the euro area are less dependent on Germany than during the previous upturn in the period 2009 to 2011.

- 236. Since the beginning of 2017, the continuing recovery in the euro area has been accompanied by a **return to higher consumer price inflation**, which temporarily rose to 2.0 % early in the year. [↘ ITEM 346](#) This development was partly due to the petering out of the base effect of falling energy prices and had therefore been predicted (GCEE Annual Report 2016, item 193). Accordingly, the rate of price increase then fell slightly and, most recently (September), was 1.5 %. Without taking account of the volatile energy and food prices, the price dynamics in the euro area are moderately positive overall. Core inflation, which measures the rate of change in the consumer price index excluding energy, food, alcohol and tobacco, has risen slightly since last spring. After remaining below 1 % for a sustained period, the core inflation rate measured 1.1 % in September.
- 237. While the employment trend in the euro area remains positive, **wage growth** has **fallen short of expectations** in recent years (ECB, 2016). One possible explanation is a flattening of the wage Phillips Curve, in other words, a weakening of the link between the utilisation of aggregate capacities and wage growth. However, Ciccarelli and Osbat (2017) do not detect any evidence of a flattening of the Phillips curve in the euro area.

Low productivity growth, the increase in part-time employment and continuing high unemployment rates, in particular in certain member states of the euro area, are likely to have made a significant contribution to the modest wage growth within the euro area and in other advanced economies (IMF, 2017a). If employment continues to grow as dynamically as it has done of late and if the global factors that dampened wage growth, especially in the period from 2014 to 2016

↘ CHART 15
Contributions to growth and investment dynamics in the euro area



(IMF, 2017a), become less important, the euro area can expect to see wage growth begin to pick up again.

238. The **favourable global economic situation**, in particular rising global investment demand and the positive development of global trade in recent months, has provided additional stimulus to growth in the euro area. Following a negative growth contribution from foreign trade amounting to -0.4 percentage points in 2016, export growth picked up pace again in 2017. In the first six months of 2017, annualised growth in exports and imports amounted to 5.2 % and 4.3 % respectively compared with the second half of 2016.

Given the recent euro appreciation, the question arises as to how significantly export performance will deteriorate due to the decline in price competitiveness. Since the beginning of the year, the euro has appreciated in effective terms by around 5 %, and is currently close to 1999 levels. The effects of appreciation depend, in particular, on the price elasticity of export demand, which differs considerably across member states (Breuer and Klose, 2015). It should be noted, however, that besides these price effects there are currently very strong demand effects. When considered in a long-term context, the recent **appreciation** can be viewed as a normalisation, which reflects not least the improved economic situation in the euro area. Overall, there is consequently no reason to expect a fall-off in export growth. Furthermore, one can assume that the dampening effect on inflation in the euro area will be of a moderate nature only (ECB, 2017a).

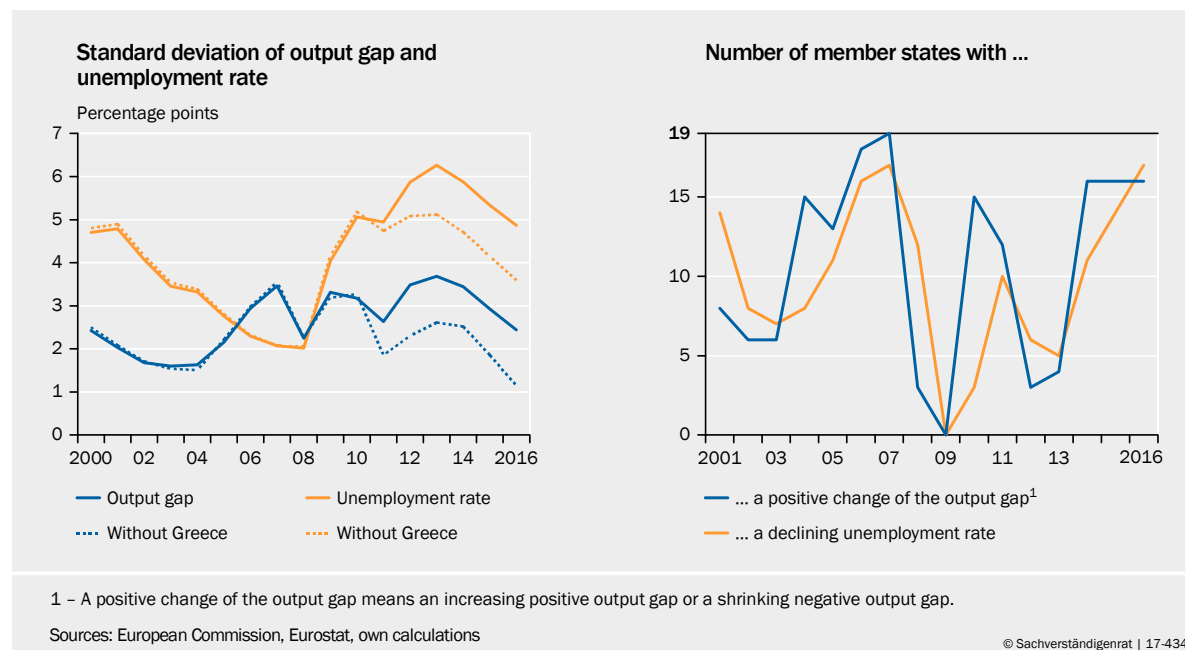
Positions in the business cycle

239. The economic recovery has, by now, spread to the entire euro area. Recently, GDP has outstripped potential output in almost all member states. The **differences in the size of the output gap** have also been significantly **reduced**.
 ↘ [CHART 16](#) Only Greece displays a consistently high degree of underutilisation. The European Commission estimates an output gap of -7.6 % for Greece in 2017.
240. While the international organisations agree that growth in the euro area as a whole is exceeding its potential rate, there are **significant differences in relation to the estimated levels of output gaps**. According to the European Commission, for example, Germany and Spain experienced normal capacity utilisation levels in 2017. In contrast, the OECD estimates a significant overutilisation for Germany in the current year and is still predicting a high degree of underutilisation for Spain. However, estimates of the output gap in real time are fraught with substantial uncertainty (GCEE Annual Report 2016, box 6) and therefore must be interpreted with caution. ↘ [BOX 3](#)

It should be noted, that international organisations have frequently been too negative in their past assessments of the output gap in some countries (Deutsche Bundesbank, 2014). As these estimates are used to evaluate monetary and fiscal policy, it follows, conversely, that the expansionary nature of these policies has tended to be underestimated in real time.

▸ CHART 16

Synchronous recovery in the euro area



241. Due to the large degree of uncertainty associated with estimating the output gap, **additional indicators** must be taken into account **when determining the capacity utilisation rate** of the economy. A heterogeneous picture then emerges. ▸ TABLE 4 While some indicators still point to underutilisation in France, Italy and Spain, **Germany may have already reached the point of overutilisation of production capacities.** ▸ ITEMS 264 FF.

It is striking that price indicators in particular continue to point to an underutilisation, while sentiment indicators and estimates of capacity utilisation are at historically high levels. Indicators have an advantage over estimates of the output gap or the NAIRU in that they can be measured directly in real time. However, some indicators, such as the unemployment rate, contain structural components and are therefore of limited suitability in assessing the current position in the business cycle. From a broad perspective, the indicators suggest that the recovery in Germany is more advanced than in the other large economies of the euro area. However, the overall picture that emerges is one of a **normalisation of the economic situation** in the euro area.

▸ BOX 3

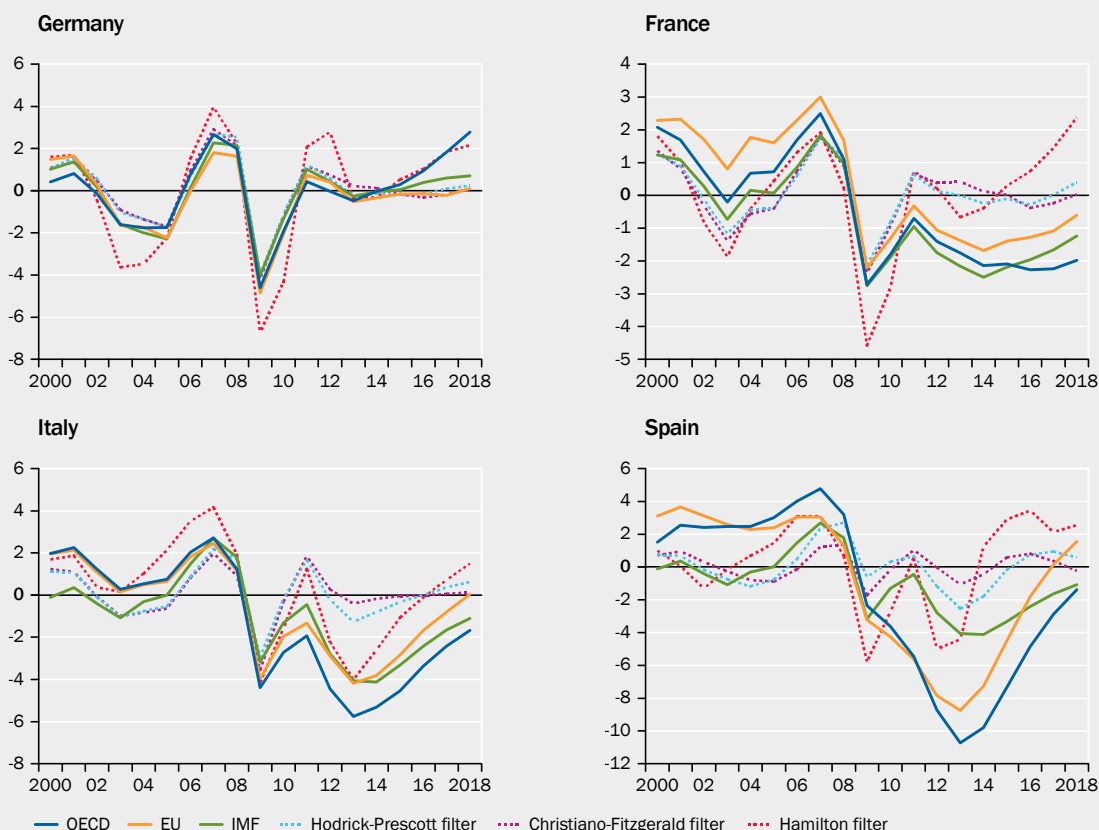
On the reliability of output gap estimates in the euro area

One of the greatest challenges associated with business cycle analysis and policy is the estimation of the cyclical position in real time. The end-of-sample **uncertainty regarding data and estimates** is always particularly acute. As a result, end-of-sample estimates of the output gap by international organisations often vary considerably. ▸ CHART 17 This difference may be up to 3 percentage points for the large economies in the euro area.

CHART 17

Estimated output gaps in selected euro area member states¹

%



1 – OECD: Global Economic Outlook (June 2017). EU: European Economic Forecast (May 2017), IMF: World Economic Outlook (April 2017). Filter methods include forecasts of the German Council of Economic Experts for 2018. 2 – Percentage deviation from potential.

Sources: European Commission, IMF, OECD, own calculations

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It is virtually impossible to produce a reliable estimate of the output gap in real time using statistical filter methods (Hodrick and Prescott, 1997; Christiano and Fitzgerald, 2003; Hamilton, 2017), in particular due to the **end-of-sample problem**. This arises because, at the end of the sample, future values are unknown and so the most recently published values disproportionately affect the calculation of the output gap (GCEE Annual Report 2016, box 6). This leads to significant **revisions of the output gap in subsequent years**. As a result, growth potential is gradually adjusted downwards over successive years during a recession. Accordingly, the output gap that was estimated originally must be revised upwards. In other words, low growth is not only contingent on the economic situation, but also reflects in part the low growth potential. The dynamics are reversed during an economic upturn, in which growth potential is increased. Over the entire business cycle, output gap revisions should therefore balance out, which is largely the case with the Hodrick-Prescott filter.

In the case of estimates by the IMF or OECD, on the other hand, revisions have not balanced out in the past (Deutsche Bundesbank, 2014). [TABLE 3](#) A **systematic distortion** can similarly be detected in estimates by the European Commission. In the 2000s, the output gap was regularly estimated at too low a level compared with current estimates, in particular for France, Italy and Spain. It is striking in this context that the OECD never estimated a positive output gap in real time for Italy in the period 2000 to 2014. The EU only determined an overutilisation for the year 2008 in its subsequent spring forecast. In contrast, the Hodrick-Prescott filter implied a positive output gap for Italy in 6 out of the 15 years under review.

TABLE 3

Revisions of real-time estimates in selected euro area member states¹

Country	Revision	OECD	EU	HP filter ²
		percentage points		
Germany	average revision	0.9	0.2	0.1
	average absolute revision	0.9	1.0	0.9
	years with positive output gap ³	3	3	8
France	average revision	1.7	1.8	0.3
	average absolute revision	1.7	1.8	0.5
	years with positive output gap ³	4	4	6
Italy	average revision	2.0	1.5	0.4
	average absolute revision	2.0	1.5	0.7
	years with positive output gap ³	0	1	6
Spain	average revision	2.1	1.6	0.6
	average absolute revision	3.0	2.3	1.2
	years with positive output gap ³	2	5	7

1 – Difference between the estimates from the Global Economic Outlook (June 2017) / European Economic Forecasts (May 2017) and the real-time estimates of the output gap from the OECD/EU spring publications between 2000 and 2014 for the preceding year. 2 – Hodrick-Prescott filter with smoothing parameter 1.600 for logarithmized quarterly GDP data. Difference between the current estimate and the estimate using real-time data from the OECD. 3 – Number of years in the period from 2000 to 2014 with a positive real-time estimate of the output gap for the preceding year.

Sources: European Commission, OECD, own calculations

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The low reliability of output gap estimates restricts the possibilities of active business cycle stabilization by the government because of the difficulty to accurately determine in real time which fiscal measures are necessary to bolster the economy (Elstner et al., 2016). The **structural deficit in the public finances** also depends on the position in the business cycle. A systematic miscalculation of the capacity utilisation rate for the economy as a whole in real time may lead to an accumulation of structural deficits if these are mistakenly assumed to be cyclical (Deutsche Bundesbank, 2014). Moreover, it is only possible to accurately determine which countries are in an overutilisation or underutilisation phase after a period of many years. This problem limits the possibilities of business cycle smoothing over time and across countries.

Monetary and fiscal policy

242. Due to the ECB's expansionary monetary policy, the **financing conditions in the euro area** continue to be extremely **favourable**. The average interest rate for new loans (the ECB's Composite Cost of Borrowing indicator) is currently less than 2 %. Thus far, loans to private households have only increased moderately, despite the favourable economic situation and, in September, were up 3.1 % on the previous year. Growth in loans to non-financial companies remains very low at 1.5 %. In view of the improved economic situation in the euro area, the ECB's continuing **zero-interest policy is becoming even more expansionary**. [▶ ITEM 327](#) Interest reaction functions such as the Taylor rule have been suggesting for quite some time now that a tighter monetary policy is required. [▶ ITEM 356](#) Finally, the loose monetary policy increases the **risks in the financial system**. [▶ ITEMS 472 FF.](#)
243. **Consolidation** of public budgets has **largely ceased** in recent years, as reflected in the falling structural primary balances of the member states. [▶ ITEMS 13,](#)

▶ TABLE 4

Indicators for the overall economic utilisation of capacities in selected euro area member states

	Unit	Germany	France	Italy	Spain
Current output gap estimates for 2017¹					
EU	%	-0.2	-1.1	-0.8	0.2
IWF	%	0.8	-1.8	-1.6	-0.7
OECD	%	1.8	-2.2	-2.4	-2.9
Hodrick-Prescott filter ²	%	0.1	0.0	0.4	0.9
Additional indicators³					
Capacity utilisation ⁴	%	86	84	76	79
	frequency ⁵	75	68	70	56
Sentiment indicators ⁶	index	110	107	106	108
	frequency ⁵	88	71	74	80
Unemployment rate ⁷	%	4.0	9.8	11.6	18.4
	frequency ⁵	100	42	14	46
Core inflation ⁸	%	1.4	0.5	0.8	1.1
	frequency ⁵	66	3	12	29
Unit labour costs ⁹	%	1.8	0.9	0.7	-0.5
	frequency ⁵	74	35	30	22

1 – Relative deviation of GDP from its potential. The threshold values for the colours are 2.5 % ■, 1 % ■, -1 % ■ and -2.5 % ■. 2 – Including forecasts of the German Council of Economic Experts for 2017 and 2018. 3 – Averages of the last four quarters / last twelve months. 4 – Current level of capacity utilisation in manufacturing. Data from 1991Q1 to 2017Q3. 5 – Relative frequency of periods in which the indicator had a lower value than the average value of the last four quarters / last twelve months. For the unemployment rate: relative frequency of periods in which the indicator had a higher value than the average value of the last four quarters. The threshold values for the colours are 15 ■, 30 ■, 70 ■ and 85 ■. 6 – Economic Sentiment Indicator (ESI). Average 1990 - 2016 = 100. Data from January 1990 to September 2017. 7 – Unemployed persons as a share of the labour force. Data from 1991Q1 to 2017Q2. 8 – HICP excluding energy, food, alcohol and tobacco. Change on the same month of the previous year. Data from January 2002 to September 2017. 9 – Nominal labour costs. Change on the same quarter of the previous year. Data from 1996Q1 to 2017Q2.

Sources: European Commission, Eurostat, IMF, OECD, own calculations

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403 According to forecasts by the European Commission, the structural primary balance will deteriorate next year for the fourth year in a row. Not least in view of the persistently high levels of public debt in many member states, the question arises as to which fiscal buffers will remain in the event of a potential future downturn. [↪ ITEMS 520 FF.](#)

2. Structural adjustments and problems

Competitiveness

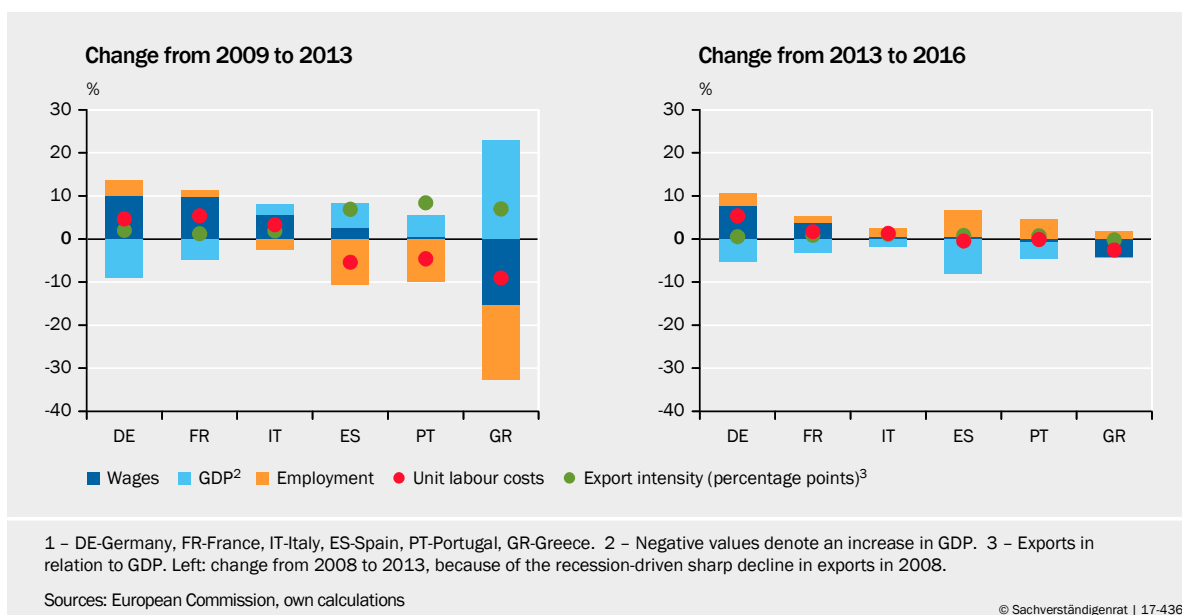
244. Economic competitiveness of the member states is of major significance to their economic prospects, as it influences growth in exports. Many member states of the euro area experienced very strong growth in their **unit labour costs** in the period 1999 to 2009. As a result, they lost out to Germany in particular in terms of price competitiveness because German unit labour costs remained largely unchanged in the same period.

This trend has since reversed. In the period 2009 to 2013, unit labour costs in Germany climbed by almost 5 %, while they dropped in all crisis countries in southern Europe, with the exception of Italy. [↪ CHART 18 LEFT](#) The reduction in unit labour costs was achieved by means of declining nominal wages as in Greece and, in the case of Portugal and Spain, by means of a phenomenon known as “dismissal productivity”, that is a certain added value is produced with considerably fewer workers. Since 2014, unit labour costs have barely changed in crisis countries, while they have risen further in Germany. [↪ CHART 18 RIGHT](#)

245. In the programme countries, improved price competitiveness was accompanied by a reduction in current account deficits and growth in exports relative to GDP (export intensity). In Greece, increased export intensity is primarily attributable to the slump in economic performance. From 2008 to 2013, the Greek GDP

[↪ CHART 18](#)

Unit labour costs and export intensity in selected euro area member states¹



dropped by 25 %, while exports fell by 3 %. In contrast, France and Italy have experienced continued weak **growth in exports** since the introduction of monetary union (GCEE Annual Report 2014, item 139). Since 2013, exports and GDP have grown at a similar pace, and therefore export intensity has remained virtually unchanged.

246. Weak productivity growth in crisis countries hampers gains in competitiveness, while simultaneously reducing the scope for wage bargaining. Real unit labour costs and the labour share serve as a benchmark for possible real wage increases. [↘ BOX 4](#) The labour share measures labour income as a share of the total income in a national economy. As in most advanced economies, the **labour share** has fallen in the euro area during the last decades. Since the mid-2000s this **decline has come to a halt** in the euro area.

[↘ BOX 4](#)

An international comparison of labour shares

Unit labour costs and the labour share are closely related. Unit labour costs express the ratio of employee compensation per employee to real labour productivity per person employed. In combination with the effective exchange rate, unit labour costs thus serve as a measure of price competitiveness of an economy. If unit labour costs are adjusted for inflation, this results in the **real unit labour costs**, the development of which corresponds to that of the **labour share** (Burda and Wyplosz, 2009). The adjusted labour share includes self-employed persons in the aggregate wage bill and is calculated as follows:

$$\text{Adjusted labour share} = \frac{\text{compensation per employee} \times \text{persons employed}}{\text{Gross Domestic Product at factor cost}}$$

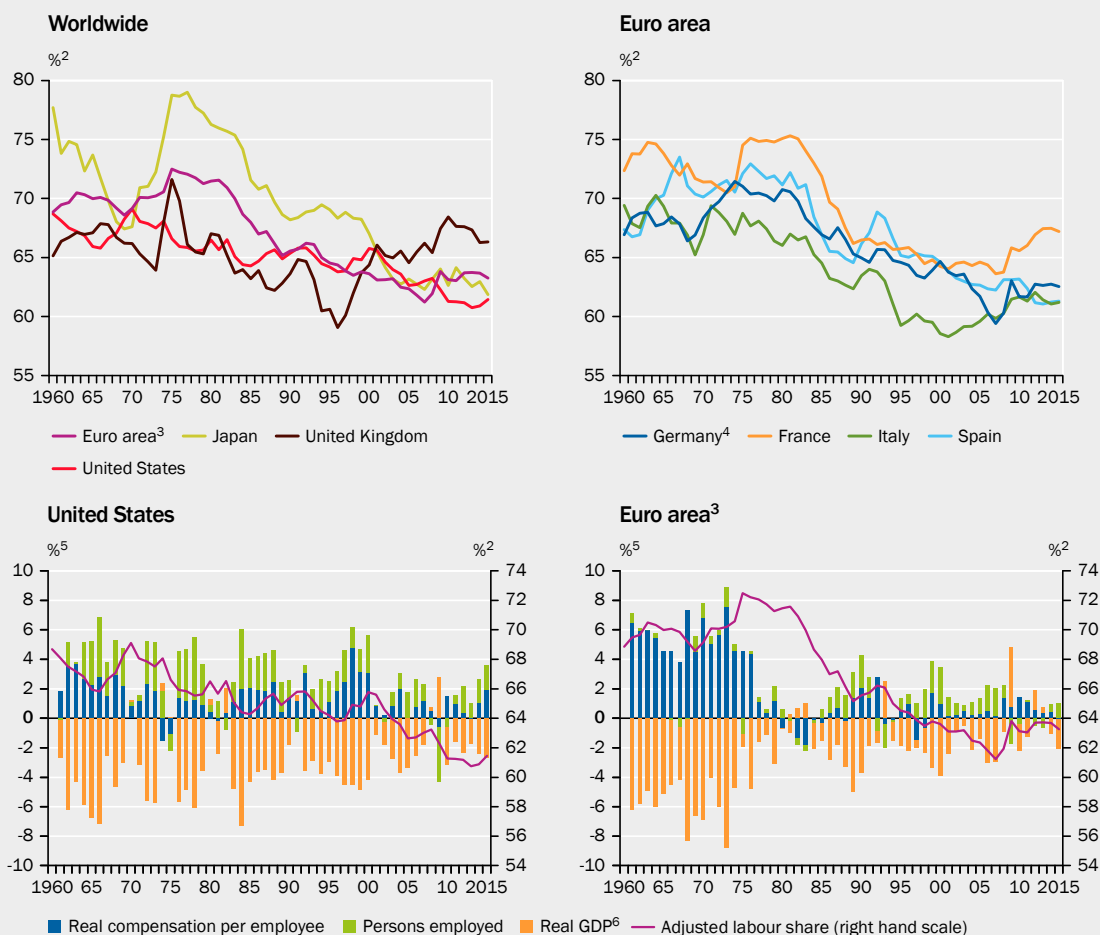
This is based on the assumption that self-employed persons earn, on average, the same labour income as employees. The labour share measures the proportion of GDP that goes to labour as a production factor. The labour share does not include the capital income of employees and does not take account of the distribution of labour income. Therefore, the labour share plays only a **limited role as a distribution measure** (GCEE Annual Report 2016, item 795).

The falling labour share in most advanced economies has been frequently discussed in recent times (Elsby et al., 2013; Neiman and Karabarbounis, 2014; OECD, IMF, World Bank Group, 2015; Autor et al., 2017; IMF, 2017d). There was a clear **global trend of falling labour shares in the period from 1980 to 2005**. [↘ CHART 19 TOP LEFT](#) Possible reasons for the drop in labour shares during the 1980s and 1990s include easier relocation of production due to global value chains, investment-specific technological change, the growing importance of the services and information sector, as well as reduced bargaining power of employees.

Since the 2000s, however, the drop in the labour share has largely come to a halt. In some countries, the labour share has even begun to rise again. The United Kingdom, for example, has seen a rise of more than five percentage points in the labour share over the past 20 years. Currently, it is at the same level as in the 1970s. The large member states of the euro area have experienced **similar but not entirely synchronous developments in the labour share**. [↘ CHART 19 TOP RIGHT](#) While there was a very significant drop in the labour share in France, in particular during the 1980s, the decline experienced by Germany, Italy and Spain was much more gradual until the 2000s. However, at about ten percentage points, the scale of the decrease has been very similar in these four countries since the 1980s.

CHART 19

Developments of the adjusted labour share¹



1 – The adjusted labour share is calculated as real compensation per employee divided by real GDP at factor cost per person employed.
 2 – As a percentage of GDP. 3 – Euro area (12 countries, including West Germany until 1991). 4 – West Germany until 1991. 5 – Change on previous year. 6 – Negative values denote an increase in GDP.

Sources: European Commission, own calculations

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Changes in the labour share over time are determined by **real wage growth** per employee, employment growth and changes in real GDP. If growth of the **wage bill** remains below the growth of GDP, the labour share will drop. Differences emerge in the contribution to growth in the real wage bill over time and between regions. In the United States, employment growth has accounted for a large share of the growth in the total wage bill since the 1960s, not least because of the comparatively high population growth there. [CHART 19 BOTTOM LEFT](#)

By comparison, the euro area experienced only minor changes in employment up to the end of the 1980s, while real wage growth was considerably higher than in the United States, in particular during the 1960s and 1970s. [CHART 19 BOTTOM RIGHT](#) A substantial **rise in employment** has been recorded in the euro area since the 1990s. This is explained by increased immigration (for example, in Spain during the 2000s), higher labour force participation by women and older people and falling unemployment rates (for example, in Germany since the middle of the 2000s).

One feature of the labour share is its **anti-cyclical behaviour over the business cycle**. Thus, short-term increases in the labour share have mostly occurred in parallel with weak or even negative economic growth, in particular during the major oil crises and in the wake of the financial crisis. This is explained by price and wage rigidities, as well as labour market frictions which ensure that, in a recession, the wage bill does not fall as much as GDP. Capital income therefore carries a disproportionately large share of the risk of an economic downturn.

247. Structural reforms represent another possibility to increase competitiveness. During the crisis years, states with high rates of unemployment and heavily regulated markets in particular availed of this option. [↪ ITEM 415](#) **Labour and product market reforms** boost growth potential and increase the non-price competitiveness of an economy. The currently positive development in the euro area could therefore be consolidated and the medium-term growth perspectives improved by implementing further reforms. [↪ ITEMS 88 FF.](#)

Structural adjustment

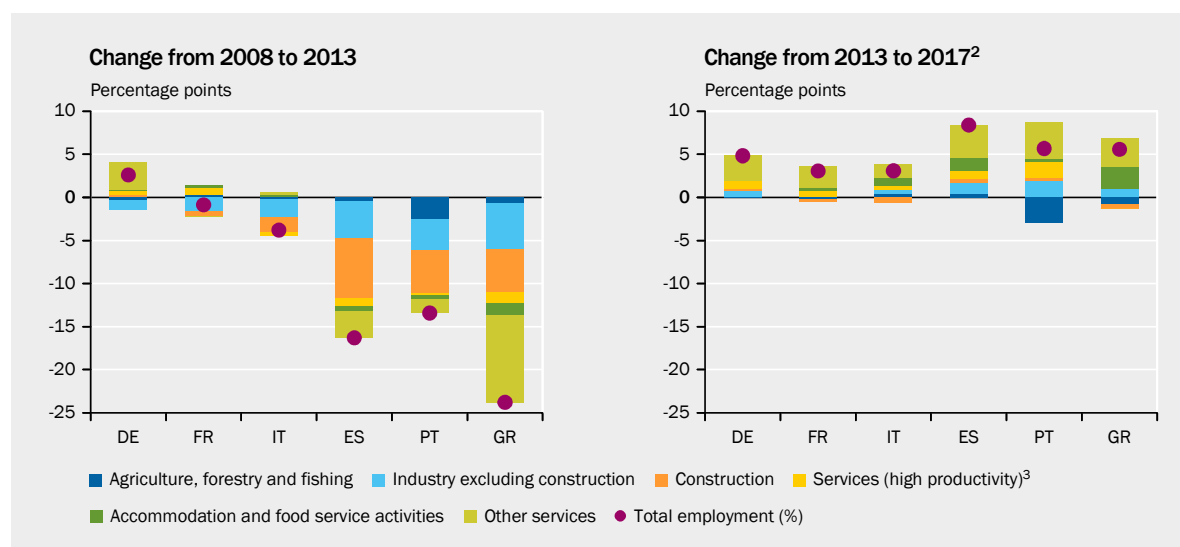
248. The economic development of the member states is shaped not only by the improvement of price competitiveness, but also by **structural adjustment**, that is, the reallocation of production factors within and between economic sectors. Before the financial crisis, Spain, Greece and Ireland experienced a boom in the construction sector. According to Eurostat, investment in housing construction accounted for 12.1 % of GDP in Spain in 2006. Ten years on, the ratio of investments in housing construction to GDP has dropped to 4.6 %, which is lower than the German and French level of approximately 6 %.

This structural change has clearly left its mark on labour markets. For example, a large portion of the decline in employment during the financial crisis was attributable to the **construction sector**. [↪ CHART 20 LEFT](#) In contrast, the jobs created during the recovery since 2013 have come predominantly from the **services sector**. [↪ CHART 20 RIGHT](#) Jobs have also been created in **industry**, although these have thus far failed to compensate for the major job losses suffered by the sector during the crisis.

249. In Spain and Greece in particular, the **accommodation and food services sector** has been making a substantial contribution to job creation since 2013.

[↪ CHART 20](#)

Employment by sector in selected euro area member states¹



1 – DE-Germany, FR-France, IT-Italy, ES-Spain, PT-Portugal, GR-Greece. 2 – Average of period 2016Q3 - 2017Q2. 3 – Information and communication, financial and insurance activities and professional, scientific and technical activities.

Sources: Eurostat, own calculations

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Employment growth there has been considerably higher in this economic sector than in others. Portugal has similarly experienced solid growth in employment in the accommodation and food services sector recently. This positive development reflects the extraordinary growth in **tourism** in southern Europe, and may have been encouraged in no small part by the comparatively low qualification requirements that prevail in that sector. This may have facilitated the reallocation of low-skilled unemployed into the service sector (Banco de España, 2017). It remains to be seen whether growth in tourism will continue at the same pace, especially if the political uncertainty in other countries were to decline.

250. The member states in southern Europe, which were particularly affected by the financial and the European debt crisis, have made huge **structural adjustments** over recent years. The employment structure in these economies has accordingly undergone substantial changes. In particular, the construction sector has lost importance. As part of the recovery that began in 2013, jobs have been created primarily in service industries with low productivity and wage levels. A similar development can be observed in the rest of the euro area. This composition effect has muted wage growth in recent years (ECB, 2015, 2016). Further efforts are essential to enabling increased job creation in more productive areas.

Persistent problems

251. Despite the structural adjustments since the onset of the crisis, problems remain in many member states. For some countries, the continued high level of **non-performing loans** has been an important obstacle to growth. [▶ ITEM 444](#) Non performing loans not only impair lending policy of the affected banks, but also slows down structural adjustment because of loan extensions granted to unproductive and in some cases non-viable companies (GCEE Annual Report 2016 Items 514 ff.).
252. In the past the euro area has seen a growing number of companies that managed to remain in business for more than ten years with a low ratio of operating profits to interest expenditure (interest coverage ratio). In the period from 2003 to 2013, the number of these **zombie firms** increased in various OECD countries, while the number of business start-ups declined at the same time (McGowan et al., 2017). According to the study cited, this phenomenon was particularly evident in Italy and Spain, where a higher share of industry capital was sunk into unproductive companies that were being artificially kept alive. Resources were increasingly misallocated as a result. It remains to be seen whether recent progress in reducing non-performing loans in these countries will shrink the number of zombie firms.
253. Another problem in the euro area and the EU is the **divergence in per capita income**. According to the neoclassical convergence hypothesis, countries with a lower level of income should grow faster than more advanced economies. Although the eastern European member states have indeed grown faster than the rest of the EU, the income gap between **southern Europe** on the one hand and central and northern Europe on the other has widened since 1995. [▶ CHART 21 LEFT](#) This reflects persistent structural differences that exist between the member

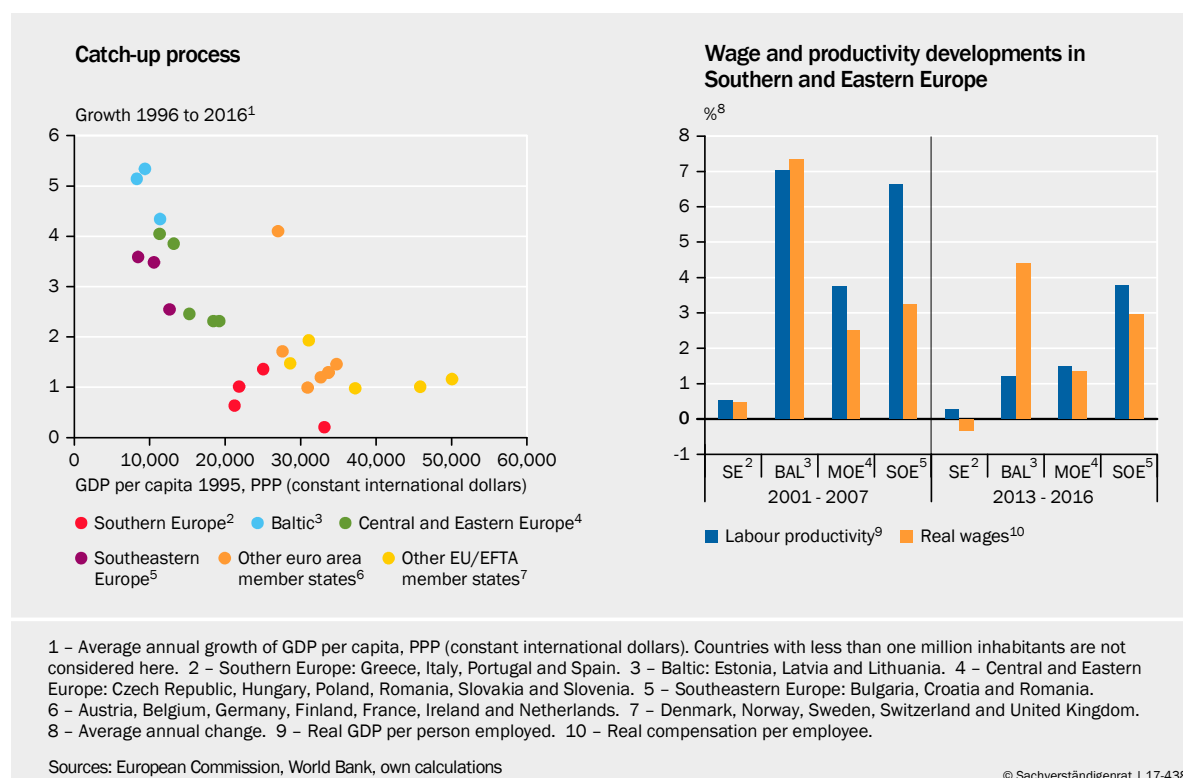
states and that prevent the convergence of per capita income across the EU. In this context, one of the problems is that Greece and Italy currently have the highest levels of public debt along with the lowest rates of growth in the EU.

254. One of the main culprits for the low growth of per capita income in southern Europe is weak **productivity growth**. [↪ CHART 21 RIGHT](#) Even before the financial crisis, labour productivity was stagnating. In eastern Europe, as in many other advanced economies, productivity growth has slowed down by comparison to the rate recorded between 2000 and 2007. However, it is still several times higher than in southern Europe. At the same time, **real wage growth** has not declined to the same extent as productivity growth. In Estonia, Latvia and Lithuania, real wages have actually risen substantially more than productivity in recent years. This trend is due in particular to the increasingly **tight labour markets in eastern Europe** (IMF, 2016).
255. The high level of outward migration from these countries in the last 25 years has been a significant factor in the reduced supply of labour. **Emigration** and low birth rates in the Baltic states, for example, have led to a decline of nearly 25 % in the population aged between 15 and 64 compared to 1990. A total of nearly 20 million people emigrated in the period from 1990 to 2012 from central, eastern and southeastern Europe (Atoyán et al., 2016).

Emigration not only reduces the supply of labour in the country of origin by depleting the labour pool. Remittances, by increasing the reservation wage of recipients, can further reduce labour supply in the home countries and thus bring about **higher wages** (Atoyán et al., 2016). This is likely to have an impact on

↪ CHART 21

Real convergence in Europe



inflation. **Consumer prices** in Estonia, Latvia and Lithuania have risen sharply following a moderate progression in recent years. In 2017, the inflation rate in these countries is expected to reach 3 % and higher.

3. Outlook

256. According to the GCEE's forecast, the **upturn is set to continue** in the euro area. GDP growth rates are expected to exceed the potential rate both this year and next year. [TABLE 5](#) Robust domestic demand is likely to remain the key driver of growth. Over the forecast period, this will be bolstered by the sustained rise in employment and the fall in unemployment rates, which currently are still high in some countries. However, due to the already relatively high utilisation of production capacities in some member states, especially Germany, it is expected that the vigorous pace of growth observed in the first half year of 2017 will slow down slightly over the forecast period.
257. Growth in the euro area could be adversely affected by the emergence of greater political **risks**, the continued high level of non-performing loans in some member states and an abrupt and unexpected increase in interest rates. On the other

TABLE 5

Gross domestic product, consumer prices and unemployment rate in the euro area

Country/ country group	Weight in % ¹	Gross domestic product ²			Consumer prices (HICP) ³			Unemployment rate ⁴		
		Change on previous year in %						%		
		2016	2017 ⁵	2018 ⁵	2016	2017 ⁵	2018 ⁵	2016	2017 ⁵	2018 ⁵
Euro area^{6,7}	100	1.8	2.3	2.1	0.2	1.5	1.5	10.0	9.2	8.6
including:										
Germany ⁷	29.2	1.9	2.3	2.2	0.4	1.7	1.7	4.1	3.8	3.7
France	20.7	1.2	1.8	1.9	0.3	1.1	1.3	10.1	9.6	9.1
Italy	15.5	0.9	1.5	1.4	- 0.1	1.4	1.2	11.7	11.3	10.8
Spain	10.3	3.3	3.1	2.3	- 0.3	2.0	1.6	19.6	17.3	16.1
Netherlands	6.5	2.2	3.4	2.7	0.1	1.3	1.6	6.0	4.8	4.3
Belgium	3.9	1.5	1.7	1.6	1.8	2.2	1.8	7.8	7.4	7.3
Austria	3.2	1.5	2.9	2.5	1.0	2.1	1.9	6.0	5.5	5.4
Ireland	2.6	5.1	3.9	3.7	- 0.2	0.3	1.2	7.9	6.3	5.4
Finland	2.0	1.9	2.9	2.1	0.4	0.9	1.2	8.8	8.7	8.4
Portugal	1.7	1.5	2.7	1.9	0.6	1.5	1.8	11.2	9.2	8.2
Greece	1.6	- 0.2	0.9	2.0	0.0	1.2	1.1	23.6	21.5	20.0
memorandum:										
Euro area without Germany	70.8	1.8	2.3	2.1	0.2	1.5	1.4	12.2	11.1	10.4

1 – Nominal GDP in the year 2016 as a percentage of the nominal GDP of the euro area. 2 – Actual data according to Eurostat. Forecast values for 2017 and 2018 are based on seasonal and calendar adjusted quarterly figures. 3 – Harmonised index of consumer prices. 4 – Standardised according to the ILO concept. For the total euro area and euro area without Germany weighted by the labour force of 2016. 5 – Forecast of the German Council of Economic Experts. 6 – Weighted average of the 19 euro area member states. 7 – In contrast to Table 2 in Annual Report 2016 the GDP figures considered for Germany are calendar-adjusted.

Sources: Eurostat, own calculations

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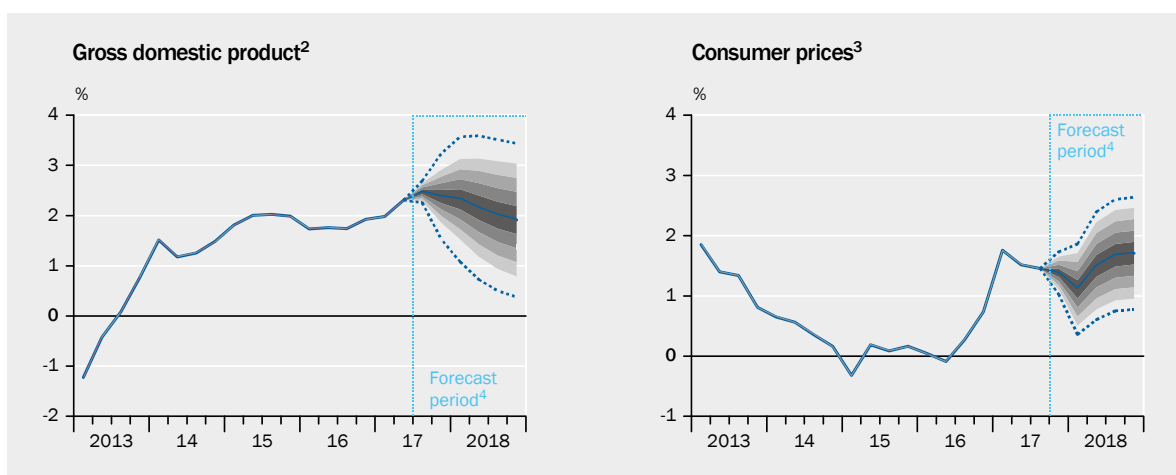
hand, stronger investment activity than expected could prompt an expansion in production capacities and thus maintain growth at a high level in the short and medium term. In the longer term however, persistent low productivity growth in the euro area will have a dampening influence (ECB, 2017b).

A current risk is posed by the push for independence from Catalan separatists in Spain. **Catalonia**, a region comparable to the region Madrid in terms of economic output and prosperity, accounts for roughly one quarter of Spanish industrial production and Spanish exports (Schrader and Laaser, 2017). The Catalanian economy is closely interconnected with the other Spanish regions. This is evident, for example, from the synchronous development of growth in Spain and Catalonia over the past 15 years (Schrader and Laaser, 2017). If the uncertainty persists, it will likely have a negative impact on economic growth in Spain, and especially in Catalonia, in 2018. For the time being, more widespread direct repercussions for the euro area are not expected.

258. For the **forecast** it is assumed that neither the above-mentioned opportunities nor the described risks will come to pass. The GCEE predicts that GDP in the euro area will rise by 2.3 % in 2017 and by 2.1 % in 2018. [↪ TABLE 5](#) Consumer price inflation is expected to reach 1.5 % this year and next year. [↪ CHART 22](#) The GCEE expects an increase in the core inflation rate to 1.1 % in 2017 and 1.4 % in 2018.

↪ CHART 22

Gross domestic product and consumer prices in the euro area¹



1 – Change on previous year's quarter (%); Confidence bands are calculated on the basis of the average absolute forecast error for the period from 1999 to 2015. The width of the symmetric confidence band is twice the average absolute forecast error; dashed line: 68 % confidence interval. 2 – Seasonally and calendar adjusted. 3 – Harmonised index of consumer prices. 4 – Forecast of the German Council of Economic Experts.

Sources: Eurostat, own calculations

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