GERMAN COUNCIL
of Economic Experts

ECONOMIC FORECAST 2019 AND 2020

19 March 2019

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ECONOMIC FORECAST FOR 2019 AND 2020

The pace of expansion of the German economy has decelerated considerably. This is due, in part, to temporary production problems in the automotive and chemical industries. At the same time, the underlying momentum of the German economy has slowed. On the demand side, this is primarily the result of significantly weaker demand for exports from key sales markets, while the capacity constraints and labour shortages experienced in many sectors play a role on the supply side.

Against this backdrop, the German Council of Economic Experts (GCEE) is revising its growth forecast for 2019 downwards and now expects annual average growth of real gross domestic product (GDP) of 0.8 % and 1.7 %, respectively, for 2019 and 2020. The low growth forecast for 2019 is significantly influenced by the weak last quarter of 2018 and the resulting small carry-over effect. Adjusted for the positive calendar effect owing to an exceptionally high number of working days, the rate of growth in 2020 is only expected to be 1.3 %.

For the forecast period, real GDP growth rates are therefore expected to be slightly below potential growth. Capacity overutilisation in the German economy is therefore declining and production is approaching its potential level from above. The number of persons in employment is likely to continue to rise, however, and growth in wages will remain high. In particular, construction investment, private consumption and the public sector are expected to make positive contributions to economic growth in 2019. In light of the robust domestic economy, a recession is not expected.

There are also signs of weaker economic activity in the other member states of the euro area. The GCEE is cutting its forecast for real GDP growth in the euro area to 1.2 % for 2019. Growth of 1.4 % is expected for 2020.

Currently, the risks to future economic development are very high. In addition to the uncertainty surrounding the outcome of the Brexit negotiations, the unresolved trade conflicts between the United States, Europe and China, as well as the danger of a sharper-than-expected slowdown in China, are major reasons for this high level of risk. Given that global economic momentum is already slowing, a spiral of protectionist measures would have the potential to tip the German economy into a recession.

I. GLOBAL ECONOMY

1. Pace of expansion of the global economy slows

1. The pace of expansion of the **global economy** experienced an unexpectedly sharp decline in 2018. Real global economic output only grew by 2.9 % in annualised terms in the second half of 2018, instead of 3.2 % as anticipated by the GCEE its Annual Report 2018/19. Following the very fast pace of growth in 2017, growth rates dropped again to an average level in the course of 2018. ↘ CHART 1 TOP LEFT At the same time, while confidence indicators were at historically high levels at the start of 2018, the sentiment among businesses and consumers deteriorated considerably and global trade lost momentum. ↘ CHART 1 TOP RIGHT AND BOTTOM LEFT Political conflicts, such as the ongoing **trade conflicts** and the possibility of a disorderly **Brexit**, are likely to have dampened the confidence of the economic actors. In addition, **cyclical factors** also play a role. In many economies, the upturn is already well advanced and real gross domestic product (GDP) has outstripped potential output.

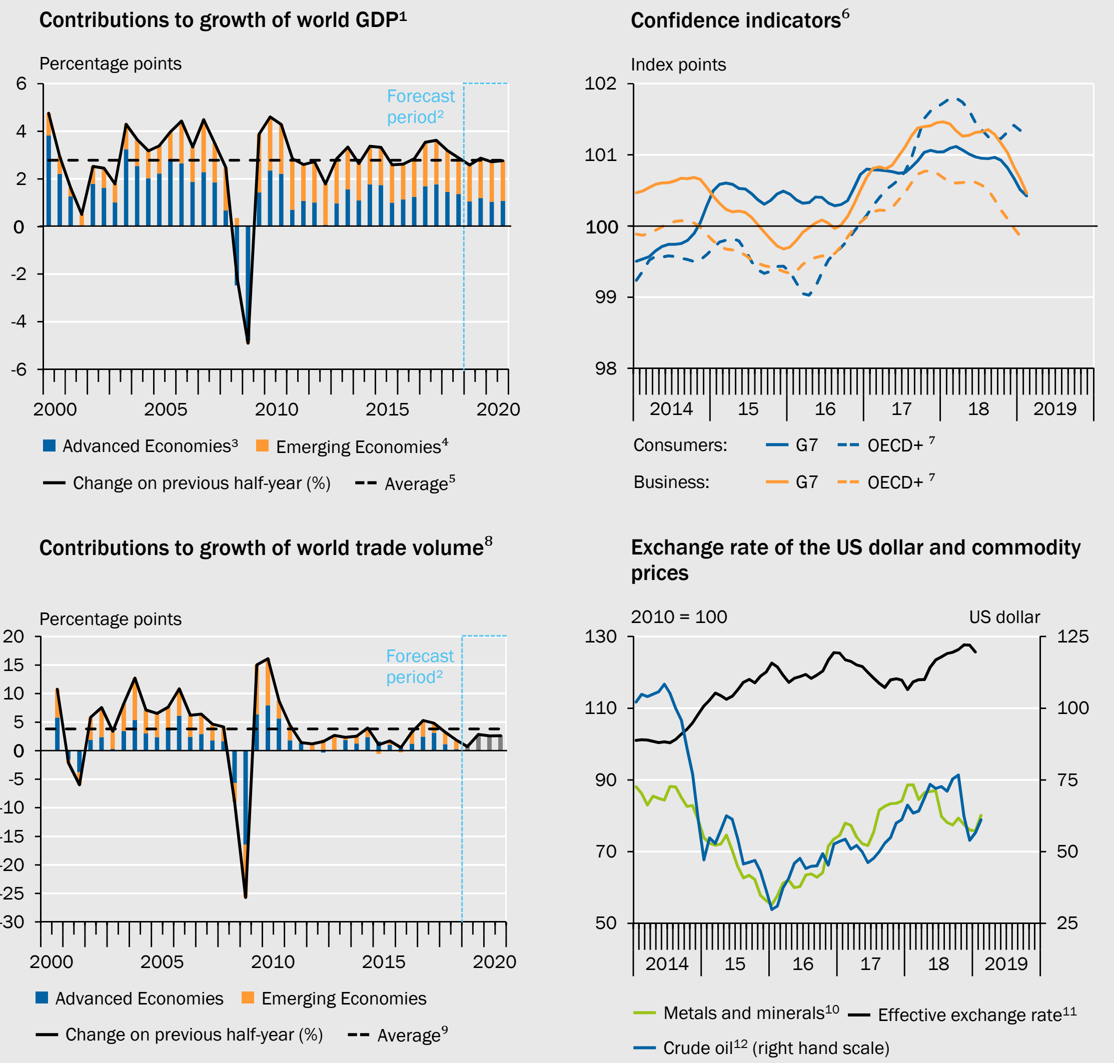
2. Signs of an economic slowdown appeared quite synchronously across most **advanced economies** in the second half of 2018. In the United States, however, the decline was not unexpected, given that growth was exceptionally high in the second quarter. The drop in growth rates likely constitutes a normalisation of economic activity. ↘ ITEM 6 By contrast, the slowdown in growth in Japan and the euro area was sharper than anticipated. **Temporary one-off factors** played a role here. For example, natural disasters are likely to have contributed to the decline in real GDP in Japan in the third quarter of 2018. In the euro area, problems particularly in the German automotive industry negatively impacted growth. ↘ ITEM 25 In addition, the persistently high risk premiums in Italy driven by uncertainty surrounding the fiscal policy of the Italian government were also a contributing factor. However, the weak counter-movement in the fourth quarter and the latest economic indicators suggest that **economic growth** in Japan and in the euro area is generally **weaker** than forecast in the GCEE Annual Report. For example, the Italian economy most recently slipped into a technical recession.

3. In **emerging economies,** growth also slowed in the second half of the year. In price-adjusted terms, China's GDP in the fourth quarter of 2018 was just 6.4 % higher than in the corresponding quarter of the previous year. The tariff increases and the uncertainty stemming from the trade conflict with the United States are taking a particularly heavy toll on the Chinese economy and are likely contributing to the **slowdown**. In addition, the critical developments in the economies of Turkey and Argentina made a negative contribution to the economic growth of emerging economies in the second half of the year (GCEE Annual Report 2018 items 201 ff.).

4. Against this backdrop, it appears appropriate to **revise the outlook** for the global economy **downwards**. The GCEE now expects global economic growth of 2.7 % and 2.8 % in real terms for 2019 and 2020, respectively. ↘ TABLE 1 In keeping with this, the volume of world trade is expected to increase by 1.5 % and 2.7 % respectively. The downward revisions of the growth rates for real global GDP and world trade – at –0.3 and –1.4 percentage points, respectively – for 2019 are quite substantial. When calculating the annual average rates of change, the particular **importance of the carry-over effect** must be factored in, however. This carry-over effect, which is either positive or negative, captures the extent to which the level of production at the end of the year is above or below

↘ CHART 1

Development of the world economy



1 – Change on previous half-year (annualised), half-year averages of seasonally and price-adjusted quarterly figures. World economy corresponds to the sum of the countries in Table 1 (Total). 2 – Forecast of the GCEE. 3 – Definitions as in footnote 10 in Table 1. 4 – Definitions as in footnote 11 in Table 1. 5 – Average annual change in world GDP from the first half of 2000 to the second half of 2018. 6 – Standardized OECD confidence indicators. The business confidence index represents the manufacturing sector. 7 – The aggregate “OECD+” includes the member states of the OECD as well as the non-member states Brazil, China, India, Indonesia, Russia and South Africa (Major Six NME). 8 – Change on previous half-year (annualised), half-year averages of seasonally adjusted monthly figures. Data and country definitions of the Netherlands Bureau for Economic Policy Analysis (CPB). 9 – Average annual change in world trade from the second half of 2000 to the second half of 2018. 10 – World Bank price indices on the basis of nominal US dollars. 11 – Nominal effective exchange rate (broad index, BIS). 12 – World Bank data. Average of Brent, Dubai and WTI.

Sources: BIS, CPB, Eurostat, IMF, National Statistical Offices, OECD, World Bank, own calculations the annual average. Due to the economic slowdown in the second half of 2018, the carry-over effect at the end of 2018 is unusually small in many economies. This alone makes it necessary to significantly downgrade the annual average growth forecast for 2019. In the case of real global GDP, this effect explains more than half of the downward revision for 2019.

5. The economic slowdown also coincided with a significant fall in the **price of crude oil** in the last quarter of 2018. ↘ CHART 1 BOTTOM RIGHT The volatile development of the price of crude oil in recent years is reflected in the development of **consumer price inflation**. The price of oil remained significantly below the values that could have been expected last autumn based on the futures prices at the time. This is one of the reasons why the rate of inflation in many economies in 2019 is likely to be lower than anticipated in the GCEE Annual Report 2018/19. ↘ TABLE 1

6. The **United States** is one of the few large economies in which real GDP growth in 2018 was higher than in 2017. Fiscal stimuli, particularly as a result of the comprehensive **tax reform** implemented at the start of the year, are likely to have played a significant role in this development (GCEE Annual Report 2018 item 221). This tax reform produces positive short-term growth effects, as it allows, for example, for the immediate write-off of the full cost of investments. At the same time, the reform is likely to have increased potential output and have had a positive impact on the medium-term growth path (GCEE Annual Report 2018 items 575 ff.). With short-term effects phasing out now, real GDP growth is expected to decline again and move towards the potential growth rate.

   Following the sustained economic upturn, the **low unemployment rate**, for example, suggests that the level of capacity utilisation in the economy is already high. In addition, the negative impacts of the 35-day government shutdown around the turn of the year, which resulted, inter alia, in federal workers temporarily going without pay, may manifest themselves temporarily in the first quarter of 2019. According to an estimate of the Congressional Budget Office (CBO, 2019), however, these effects are only likely to dampen real GDP growth by around 0.1 percentage points in the first quarter of 2019 and are expected to be largely offset in the coming quarters. The GCEE expects significantly lower real GDP growth rates for the United States for 2019 and 2020 – at 2.4 % and 1.9 %, respectively – than for 2018.

7. Having raised the key interest rate in December 2018, the US Federal Reserve (**Fed**) kept its interest rate corridor unchanged at 2.25 % to 2.5 % in January 2019. In addition, in light of global economic and financial developments and muted inflation pressures, the Fed **announced** it would be **patient** in determining **future rate hikes** (Fed, 2019). A slower increase in US interest rates is likely to reduce the financial pressure on businesses and households in the United States and on emerging economies with debt denominated in US dollars (GCEE Annual Report 2018 items 201 ff.).

8. The future economic development of the **Chinese economy** hinges primarily on whether the trade conflict with the United States continues and to what extent measures introduced by the government support growth. After real GDP growth had slowed to 6.6 % in 2018, the Chinese government announced a **growth target of 6 % to 6.5 %** for 2019. Among other measures, tax cuts and an increase in lending are aimed to strengthen growth. The risk here is that ac-

↘ TABLE 1
Gross domestic product and consumer prices of selected countries

Country/country group	Weight in %[1]	Gross domestic product[2]				Consumer price index			
		Change on previous year in %							
		2018	2019[3]		2020[3]	2018	2019[3]		2020[3]
			Update	Diff. to AR 2018/19[4]			Update	Diff. to AR 2018/19[4]	
Europe	**29.4**	**2.0**	**1.3**	**(– 0.5)**	**1.6**	**2.5**	**2.3**	**(– 0.9)**	**2.2**
Euro area	17.9	1.8	1.2	(– 0.5)	1.4	1.8	1.3	(– 0.6)	1.6
United Kingdom	3.7	1.4	1.1	(– 0.3)	1.2	2.5	2.1	(– 0.2)	2.0
Russia	2.2	2.4	2.1	(0.3)	1.6	2.9	5.4	(0.1)	5.0
Middle- and Eastern Europe[5]	1.7	4.3	3.5	(0.0)	3.3	2.1	2.0	(– 0.6)	2.2
Turkey	1.2	2.7	– 1.9	(– 3.3)	3.5	16.4	15.1	(– 10.5)	9.3
Other countries[6]	2.7	2.1	1.7	(– 0.5)	1.8	1.6	1.3	(– 0.3)	1.3
America	**36.1**	**2.5**	**2.2**	**(– 0.2)**	**2.0**	**3.5**	**3.0**	**(– 0.3)**	**3.0**
United States	27.5	2.9	2.4	(– 0.2)	1.9	2.4	1.7	(– 0.3)	2.0
Latin America[7]	3.4	1.3	1.3	(0.0)	2.6	12.3	14.8	(1.1)	11.2
Brazil	2.9	1.1	1.6	(– 0.2)	2.0	3.7	3.5	(– 1.6)	3.6
Canada	2.3	1.8	1.2	(– 0.9)	1.6	2.3	1.4	(– 0.8)	2.0
Asia	**34.5**	**5.0**	**4.5**	**(– 0.3)**	**4.6**	**2.1**	**1.8**	**(– 0.4)**	**2.1**
China	17.0	6.6	6.2	(0.0)	6.2	2.1	2.1	(0.2)	2.0
Japan	6.9	0.8	0.5	(– 0.6)	0.4	1.0	0.9	(– 0.6)	1.5
Asian advanced economies[8]	3.9	2.8	2.0	(– 0.6)	2.4	1.4	0.8	(– 0.9)	1.5
India	3.7	7.4	6.8	(– 0.6)	7.2	3.9	3.1	(– 1.6)	4.1
Southeast Asian emerging economies[9]	3.0	5.0	4.8	(– 0.1)	4.9	2.7	2.0	(– 1.4)	2.7
Total	**100**	**3.2**	**2.7**	**(– 0.3)**	**2.8**	**2.7**	**2.4**	**(– 0.5)**	**2.5**
Advanced economies[10]	66.7	2.3	1.8	(– 0.3)	1.6	2.0	1.5	(– 0.4)	1.8
Emerging economies[11]	33.3	5.1	4.7	(– 0.2)	5.0	4.1	4.3	(– 0.6)	3.8
memorandum:									
weighted by exports[12]	100	2.8	2.2	(– 0.3)	2.3	.	.	.	.
following IMF concept[13]	100	3.6	3.4	(– 0.4)	3.6	.	.	.	.
World trade[14]		3.3	1.5	(– 1.4)	2.7	.	.	.	.

1 – GDP (US dollar) of the named countries or country groups in 2017 as a percentage of total GDP of the named countries or country groups. 2 – Price-adjusted. 3 – Forecast of the GCEE. 4 – Difference in percentage points. 5 – Bulgaria, Croatia, Czech Republic, Hungary, Poland, Romania. 6 – Denmark, Norway, Sweden, Switzerland. 7 – Argentina, Chile, Colombia, Mexico. 8 – Hong Kong, Republic of Korea, Singapore, Taiwan. 9 – Indonesia, Malaysia, Philippines, Thailand. 10 – Asian advanced economies, euro area, Middle- and Eastern Europe, Canada, Denmark, Japan, Norway, Sweden, Switzerland, United Kingdom, United States. 11 – Latin America, Southeast Asian emerging economies, Brazil, China, India, Russia, Turkey. 12 – Total of all named countries, weighted by the respective shares of german exports in 2017. 13 – Weights according to purchasing power parities and extrapolated to the countries covered by the IMF. 14 – As measured by the Netherlands Bureau for Economic Policy Analysis (CPB).

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

tions to deliver short-term growth stimuli could dominate over efforts to limit the high level of debt and safeguard financial stability on the medium term (GCEE Annual Report 2018 items 229 f.). For the forecast period, the GCEE expects the Chinese economy will reach the planned target and that real GDP will increase by 6.2 % in both 2019 and 2020. Overall, the group of emerging economies is also likely to register lower real growth in 2019 than in the previous year. If the economies hit by recession stabilise, as expected, in the forecast period, a higher rate of growth can be expected again for 2020.

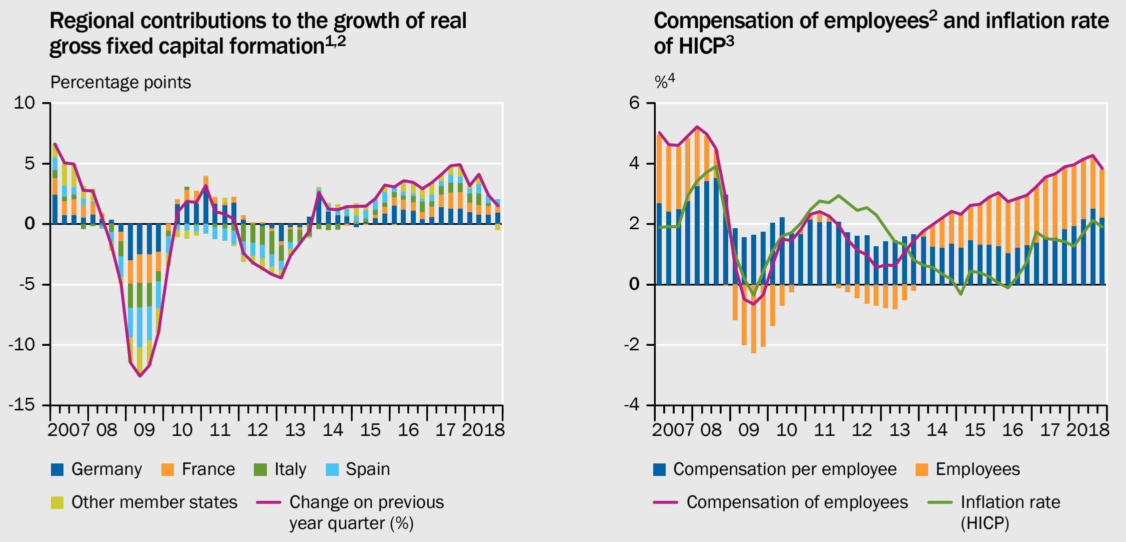
9. Developments in the **United Kingdom** continue to be dictated by **Brexit**. When and how the United Kingdom will leave the EU remains unclear. The GCEE is basing its forecast on the technical assumption that a solution will be found in time which will maintain the status quo regarding trade relations with the European Union (EU) for the forecast period. Moderately positive growth rates can still be assumed in this optimistic scenario. Far more negative developments cannot be ruled out in the event of a hard, disorderly Brexit. ↘ BOX 1

2. Euro area: appreciable slowdown

10. **Economic growth** in the euro area was considerably **weaker** in the second half of 2018 than anticipated in the GCEE Annual Report 2018/19. This was particularly true for the three largest member states: The growth slowdown in Germany lasted longer than expected. ↘ ITEMS 24 FF. While real GDP quarterly growth rates in France were slightly higher again in the second half of the year than in the first half, the increase was somewhat weaker than assumed in the forecast in November. And in Italy, the economy even entered a technical recession in the second half of the year, as economic output fell in two consecutive quarters. In addition to internal factors, such as production problems particularly in the German automotive industry or the ongoing increase in yields in Italy following the Italian government's budgetary policy, the **weaker demand for exports** is placing a particular burden on the economy in the euro area. Despite the unfavourable economic developments in other countries in the euro area, the Spanish economy continued to see strong growth and was the only economy among the large member states to exceed expectations.

11. With regard to GDP **expenditure components**, in particular exports, growth in 2017 seems to have been exceptionally strong in retrospect (GCEE Annual Report 2018 items 247 ff.). Having increased by 5.2 % in real terms in 2017, exports only grew by 3.0 % in 2018. At the same time, growth of real private consumption – at 1.3 % – was also more subdued than in the previous years. By contrast, price-adjusted gross fixed capital formation continued to see strong growth in 2018, at 3.0 %. With quarterly growth rates of 0.6 % in both the third and the fourth quarter, positive investment activity continued in the second half of the year. In terms of year-on-year change, however, there has been a slowdown in investment compared with the very strong growth registered in 2017 across countries. ↘ CHART 2 LEFT In Italy, investment even almost stagnated in the course of 2018 against the backdrop of the political uncertainty and higher borrowing costs.

↘ CHART 2
Development of investment and wages in the euro area



1 – Excluding Ireland and the Netherlands. 2 – Seasonally and calendar-adjusted. 3 – Harmonised Index of Consumer Prices. 4 – Change on previous year.

Sources: Eurostat, own calculations

12. Despite the weaker economic growth, **the labour market continued to perform well**. Unemployment in the euro area decreased further. In the aggregate, the seasonally adjusted rate of unemployment stood at 7.8 % in January 2019, after an annual average of 8.2 % in 2018. **Employment** continues to rise and **wages** are increasing substantially. ↘ CHART 2 RIGHT The strong labour market is likely to boost private consumption, and the somewhat lower price increases registered recently as a result of the fall in the price of oil will relieve the burden on private households.

13. The development of **consumer price inflation remained subdued**. The inflation rate of the harmonised index of consumer prices (HICP) declined again, not least owing to the development in energy prices. Having risen to 2.3 % in October 2018, it dropped to just 1.5 % in February 2019. The rate of core inflation, which does not factor in energy and food prices, remains constant at around 1 %. By contrast, the annual rate of change of the GDP deflator for the aggregate euro area rose slightly and stood at 1.5 % in the fourth quarter of 2018.

14. The **European Central Bank** (ECB) has – as announced – ended its net purchases of additional assets within its asset purchasing programme at the start of 2019. At its meeting in March the Governing Council, however, already responded to the moderation in the pace of growth with a further relaxation of monetary policy. It extended its forward guidance on central bank interest rates and now expects them to remain at their present levels at least beyond the end of 2019. The period in which the ECB will reinvest principal payments from purchased bond portfolios is extended accordingly. New targeted longer-term refinancing operations (TLTRO) have also been announced. These are to help preserve favourable bank lending conditions and therefore again will contain a subsidy element. At the same time, they help banks meet liquidity requirements.

15. In the past, the **German Council of Economic Experts** has called repeatedly for a monetary policy response to economic growth or capacity utilisation. This is in line with common monetary policy rules (GCEE Annual Report 2018 items 362 ff.). However, the GCEE advocated a symmetric policy. By following such a policy the ECB could have responded in the last two years to the increased economic growth and the narrowing output gap with a cautious tightening of monetary policy without jeopardising the economic recovery. With this approach it would now have greater leeway for monetary easing, as the Fed in the United States currently enjoys.

Monetary policy is likely to **remain very expansionary** in the forecast period. Combined with a fiscal policy that is expected to be slightly expansionary, it will continue to provide very favourable conditions for short-term economic development. However, the long period of low interest rates and the continued high level of national debt pose risks for economic development. ↘ ITEMS 20 FF.

16. For the **forecast period,** the GCEE expects real GDP growth to stabilise and for the year-on-year fourth quarter rates to approach the level of potential growth again, which the European Commission estimates at around 1.6 % for both 2019 and 2020. At 1.2 %, annual average growth in 2019 is likely to be ap-

↘ TABLE 2

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

Country/ country group	Weight in %[1]	Gross domestic product[2] (Change on previous year in %) 2018	GDP 2019[5] Update	GDP 2019[5] Diff. to AR 2018/19[6]	GDP 2020[5]	Consumer prices (HICP)[3] (Change on previous year in %) 2018	HICP 2019[5] Update	HICP 2019[5] Diff. to AR 2018/19[6]	HICP 2020[5]	Unemployment rate[4] (%) 2018	Unemployment 2019[5] Update	Unemployment 2019[5] Diff. to AR 2018/19[6]	Unemployment 2020[5]
Euro area[7]	**100**	**1.8**	**1.2**	**(– 0.5)**	**1.4**	**1.8**	**1.3**	**(– 0.6)**	**1.6**	**8.2**	**7.7**	**(0.0)**	**7.4**
including:													
Germany	29.3	1.4	0.8	(– 0.7)	1.3	1.9	1.4	(– 0.6)	1.6	3.4	3.2	(0.0)	3.1
France	20.5	1.5	1.1	(– 0.5)	1.2	2.1	1.3	(– 0.7)	1.6	9.1	8.9	(0.1)	8.6
Italy	15.3	0.9	– 0.2	(– 1.1)	0.5	1.2	1.0	(– 0.7)	1.3	10.6	10.6	(1.0)	10.5
Spain	10.4	2.5	2.3	(0.3)	1.7	1.7	1.0	(– 0.9)	1.6	15.3	13.7	(– 0.7)	12.8
Netherlands	6.6	2.5	1.6	(– 0.6)	1.6	1.6	2.1	(0.1)	1.6	3.8	3.6	(0.0)	3.6
Belgium	3.9	1.4	1.2	(– 0.4)	1.2	2.3	2.1	(– 0.2)	1.8	5.9	5.8	(– 0.5)	5.8
Austria	3.3	2.7	1.5	(– 0.5)	1.6	2.1	1.8	(– 0.2)	1.8	4.9	4.8	(0.2)	4.8
Ireland	2.6	6.7	4.0	(– 0.2)	3.6	0.7	1.0	(– 0.5)	1.2	5.8	5.5	(0.3)	5.1
Finland	2.0	2.2	2.0	(0.0)	1.8	1.2	1.2	(– 0.3)	1.4	7.4	6.7	(– 0.7)	6.3
Portugal	1.7	2.1	1.6	(– 0.3)	1.6	1.2	0.6	(– 1.2)	1.4	7.0	6.5	(0.3)	6.1
Greece	1.6	1.9	1.5	(– 0.5)	2.0	0.8	0.6	(– 0.5)	1.2	19.3	17.2	(– 0.7)	15.8
memorandum:													
Euro area without Germany	**70.7**	**2.0**	**1.3**	**(– 0.5)**	**1.4**	**1.7**	**1.3**	**(– 0.6)**	**1.5**	**9.9**	**9.4**	**(0.1)**	**9.0**

1 – GDP in the year 2017 as a percentage of the GDP of the euro area. 2 – Price-adjusted. Actual data according to Eurostat. Forecast values for 2019 and 2020 are based on seasonal and calendar-adjusted quarterly figures. 3 – Harmonised index of consumer prices. 4 – Standardised according to the ILO concept, weighted for the total euro area and euro area without Germany by the labour force of 2017. 5 – Forecast of the GCEE. 6 – Difference in percentage points. 7 – Weighted average of the 19 euro area member states.

Sources: Eurostat, own calculations

preciably lower than anticipated in the GCEE Annual Report 2018/19. ↘ TABLE 2 The smaller carry-over from 2018 is contributing –0.3 percentage points to the downward revision. The annual average real GDP growth rate is expected to increase again in 2020 to 1.4 %. Given the lower price of oil, consumer price inflation is likely to be lower than anticipated in the GCEE Annual Report 2018/19. In light of wage increases and the continued good performance of the labour market, core inflation is expected to rise gradually in the forecast period, however. The GCEE expects an increase to 1.2 % and 1.4 %, respectively, for 2019 and 2020.

3. Opportunities and risks

17. The future development of the global economy faces both **opportunities and risks**. Above all, an unexpectedly fast resolution to the trade conflict is one of the main chances for global economic development. A return to multilateralism, combined with the **removal of existing barriers to trade**, would reduce the level of uncertainty, which has increased sharply in recent times, and provide impetus for growth. Stronger growth is also a possibility if it turns out that **one-off effects** contributed more to the latest economic slowdown than anticipated. In this case, a stronger economic counter-movement and temporarily higher growth rates in the first half of 2019 would be conceivable. Given the difficulties of estimating the potential growth of an economy in real time, the **medium-term growth path** could be **higher** than assumed in the forecast. For example, it would be conceivable that the US tax reform has boosted potential growth in the United States more than assumed.

18. Conversely, the further intensification of the **trade conflicts** presents a major risk for global economic development. If the United States carry out their threat to introduce extensive additional tariff increases on Chinese products and the conflict escalates, this could place a considerable strain on the **Chinese economy** and put pressure on debt-financed growth and financial stability in China.

With regard to the conflict with the EU, there is also the risk of the United States imposing additional **tariffs on automobile imports** on the grounds that they pose a threat to national security. The US Department of Commerce has drawn up a report on the national security implications, which it submitted to President Trump mid-February. If the report confirms that automobile imports impair national security, within a period of 90 days President Trump can implement measures, such as additional tariffs, to limit imports. Such measures are likely to initially hit the European automotive industry, but could trigger a spiral of tit-for-tat protectionist measures. While the import duties would give US suppliers of the products concerned advantages in the domestic market, the United States would risk weaker development of the US economy as a result of counter-measures expected to be taken in retaliation by the trade partners and the **burden for importers** in the United States.

19. With respect to economic development in **Europe**, Brexit poses a considerable threat. ↘ BOX 1 A **disorderly exit of the United Kingdom** from the EU re-

mains a possibility and will likely have a severe impact on the UK economy and, to a lesser extent, on the economies of the other EU member states. Furthermore, disruptions on the financial markets cannot be fully ruled out in such an event.

20. **Financial market stability** is also at **risk** from the ongoing **low interest rate policy**. The low interest rates have contributed to an increase in asset prices, particularly real estate prices, in the euro area. In addition, part of the impact of the asset purchases likely came via an increase in asset prices and a decline in risk premiums. The higher asset prices harbour the risk of price corrections, particularly in a more challenging economic climate.

21. This would have **repercussions for the banking sector** through the valuation of collateral for mortgage loans. In addition, the low interest environment puts a strain on the interest margin for banks and presents a major challenge for life insurance companies to generate the guarantees they committed to in the past (GCEE Annual Report 2017 items 372 ff.).

This situation is aggravated by the fact that **banks** have **reduced** their **risk provisions** in recent years, not least on account of the favourable economic development (GCEE Annual Report 2018 item 478). A sharper economic slowdown could require adjustments to be made, such that risk provisions would need to be increased. This could impact the profitability of banks, weigh down equity and restrict banks' capacity to lend. In this context, the fact that macroprudential supervision in Germany did not bring itself to demand higher capital buffers, such as in the form of a countercyclical buffer, could prove costly.

Further to this, Europe still has a **large stock of non-performing loans** (NPLs). While the economic upswing has facilitated the reduction of NPLs stocks in recent years, a deterioration of economic conditions could just as easily increase the number of NPLs on the balance sheet. For one, it will be more difficult to reduce the existing stock of NPLs owing to the deteriorated ability to dispose those loans; on top of that, there is the risk that additional loans may not perform.

22. Finally, the **high indebtedness of governments and businesses** continues to present a risk. Developments in Italy last year demonstrated that fears about the sustainability of public finances can trigger a sudden **increase in risk premiums**, making disruptions on the financial markets a distinct possibility (GCEE Annual Report 2018 box 10). The otherwise positive effects of an expansionary fiscal policy on short-term growth could be cancelled out by such an increase in yields (Blanchard et al., 2018).

Alongside this, debt ratios in the corporate sector have increased considerably compared to the level prior to the global financial crisis (Çelik et al., 2019). The volume of loans to already highly indebted businesses with low creditworthiness ratings (known as leveraged loans) has increased (GCEE Annual Report 2018 item 224). At the same time, the volume of outstanding corporate bonds, in particular, has grown. A deteriorating economic climate could result in the downgrading of the **creditworthiness of businesses** by rating agencies. Investors bound by rating requirements regarding the assets they hold may then be forced to adjust their portfolios, which could result in a glut of bonds with low credit ratings (BIS, 2019). Frictions on the financial markets cannot be ruled out in such a scenario.

↘ BOX 1

Potential impact of Brexit

The two-year time limit on **withdrawal negotiations** between the United Kingdom and the European Union (EU) expires on 29 March, 2019. Currently there is no telling what will happen on this date. The withdrawal agreement negotiated between the EU and the United Kingdom has been rejected by the British Parliament. The backstop agreement, which is designed to prevent border checks between Ireland and Northern Ireland on a permanent basis, met with particular opposition. This clause would have kept the United Kingdom permanently in the customs union with the EU until superseded by a subsequent agreement that would guarantee an open border between Ireland and Northern Ireland. The United Kingdom would not have been able to exit the backstop unilaterally. While in subsequent rounds of negotiations with the EU, a legally binding "instrument" was agreed which supplements the agreement and in which both parties confirmed that the backstop clause is not to be regarded as a permanent solution, Prime Minister May **again did not manage to secure majority backing for the deal** in a vote on 12 March.

In another vote held on 13 March, a majority of MPs voted against a disorderly exit. On 14 March Parliament then voted to seek a **delay of the 29 March deadline to leave the EU**. Irrespective of whether the EU agrees to this extension, it still remains unclear whether a solution can be found that would command majority backing in the British Parliament and what form such a solution could take. The EU has repeatedly rejected any reopening of negotiations over the terms of the agreed deal and the introduction of border checks on the island of Ireland. At this stage, therefore, neither a disorderly exit, nor a delay, nor even a second referendum can be ruled out. On 21 and 22 March, the European Council will meet for the last time before the negotiation period expires.

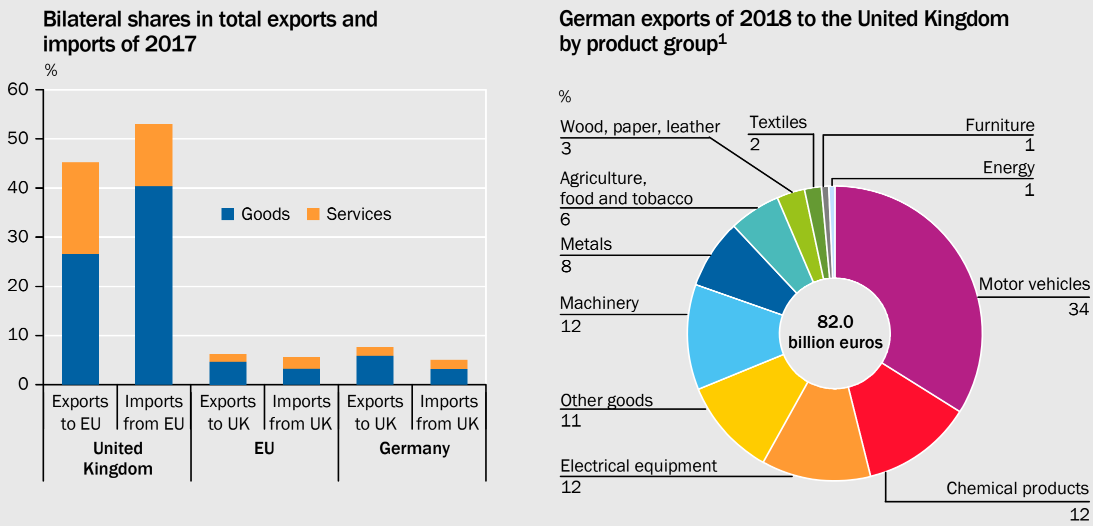
The unpredictable outcome of negotiations on future relations between the United Kingdom and the rest of the EU has led to heightened **uncertainty** in the United Kingdom since the referendum was held in June 2016 (Bloom et al., 2018). This, coupled with the **risk of a significant deterioration of the legal framework** for bilateral trade, are likely to already have had a negative impact on economic developments in the United Kingdom, such as in the form of weaker investment (GCEE Annual Report 2018 item 241; Breinlich et al., 2019). At the same time, German exports to the United Kingdom have dropped by 4.6 % since 2016.

Currently, it is next to impossible to foresee what additional economic effects will unfold in the future. That said, some light can be shed on individual aspects and risk. The fact remains that the economy of the United Kingdom **is closely interlinked with the economy of the other countries of the EU** (GCEE Annual Report 2016 items 293 ff.). Over 40 % of UK exports are destined for the other member states, while more than half of the UK's imports come from these countries. ↘ CHART 3 LEFT From the perspective of the rest of the EU, the proportions are significantly smaller, not least due to the differences in size. Nevertheless, the United Kingdom is an important trading partner for the other EU member states, accounting for over 5 % of both exports and imports. This is particularly true for Germany, having exported €82 billion in goods to the United Kingdom in 2018. ↘ CHART 3 RIGHT

If the United Kingdom does exit the EU, trade barriers are likely to increase, thereby impairing existing trade linkages and value chains. The overwhelming majority of scientific studies therefore find **negative long-term effects** that would hit the United Kingdom much harder and whose impact would be stronger the more restrictions future rules will place on economic exchange compared with membership of the EU (GCEE Annual Report 2018 items 38 ff.; GCEE Annual Report 2016 items 306 ff.). According to these studies, the overall effect for Germany is also clearly negative. The negative impact on trade could, however, be cushioned to some extent if enterprises move their business activities from the United Kingdom to Germany or skilled workers emigrate to Germany.

↘ CHART 3

Economic linkages between the United Kingdom, the EU and Germany



1 – Differences due to rounding.

Sources: Eurostat, Federal Statistical Office, own calculations

The **short-term effects** also depend on how smoothly the United Kingdom exits the EU. A Brexit on the basis of the negotiated withdrawal agreement would have guaranteed current **market access conditions** for an interim period through to the end of 2020. By contrast, in the event of a disorderly Brexit, the United Kingdom would become a non-member country over night from the EU's perspective. Until a free trade agreement is signed, duties would then be levied on exports to the EU, and in some sectors access to the European Single Market would be limited, if allowed at all, owing to regulatory requirements. Regulatory constraints and the border checks which would then be necessary could appreciably impair internationally integrated supply chains and production processes. In addition, the United Kingdom would no longer be part of free trade agreements that it currently has with non-EU countries through membership of the EU, with the result that trade with these countries would also be a source of friction.

Scenario analyses in models that attempt to depict the various transmission channels and effects can provide an indication of the potential impact on GDP growth. For this, however, a number of assumptions must be made, which themselves involve a great degree of uncertainty and significantly influence the outcome. According to an analysis conducted by the Bank of England (BoE, 2018), a disorderly Brexit could – in the worst-case scenario – cause real GDP in the United Kingdom to contract by more than 7 % over the short term. In this scenario, there would be considerable restrictions on trade, not least reflected in lower productivity, and a sharp increase in the risk premium demanded by investors. Under this analysis, the impacts of an orderly exit would be clearly less pronounced. According to calculations by Brautzsch and Holtemöller (2019), under the assumption that imports from the EU to the United Kingdom would fall by 25 % in the event of a disorderly Brexit, employment in Germany would decline by 100,000 persons.

Surveys suggest that businesses and institutions have undertaken efforts in recent months to prepare for the risks associated with Brexit. For example, the BoE (2019) reports that numerous companies have built up inventories to avoid disruptions in the production chain. The Association of German Chambers of Commerce and Industry (DIHK, 2019) reports similar action being taken by German businesses. These stocks would subsequently have to be used up, which could then result in lower production even if a disorderly Brexit did not occur. If a disorderly Brexit does happen, the EU and the member states have agreed **transitional arrangements** that are designed to temporarily guarantee market access in key sectors.

This applies in particular to the financial markets in which players domiciled in the United Kingdom have played a central role up to now. With Brexit, these financial market participants are set to lose their **passporting rights** which have so far enabled them to provide financial services throughout the EU (GCEE Annual Report 2018, Box 14). After Brexit, a third-country equivalence regime may allow them to continue to provide selected services in the EU. Under such a regime, however, the United Kingdom would only have limited access to European markets compared with the market access it currently enjoys. Another approach is to **move affected businesses** to existing or new subsidiaries in the EU and use their passporting rights to provide financial services across Europe. At this stage, numerous financial institutions have set up subsidiaries in the EU and some have already obtained a licence. Rather than concentrating relocated business in a single location, business has been relocated to a number of different cities, including Frankfurt, Paris and Dublin.

In the event of a disorderly Brexit, the recently adopted Tax Act relating to Brexit (*Brexit-Steuerbegleitgesetz*) in Germany gives the Federal Financial Supervisory Authority (BaFin) the power to allow firms from the United Kingdom to continue their business activity through to the end of 2020 in order to avoid adverse effects for the **functioning** or **stability of the financial markets**. Corresponding legislation has also been adopted in the United Kingdom with regard to European financial services providers. This allows EEA companies to continue their activities in the United Kingdom for a period of three years after Brexit. Furthermore, the European Commission has given the European Securities and Markets Authority (ESMA) the right, for a limited period of twelve months, to temporarily admit UK-based central counterparties (CCP) in derivative trading so that they can continue to offer their clearing services in the EU. Two delegated regulations of the European Commission aim to secure the continuity of over-the-counter derivative contracts. Exemptions are granted for a period of 12 months so that contracts with counterparties in the United Kingdom can be replaced by contracts with counterparties in the EU without triggering clearing and margin requirements. In addition, an equivalence decision, limited for a two-year period, allows the Central Securities Depository to continue to provide services (European Commission, 2018).

Overall it is clear that numerous provisions have been made to minimise the short-term transitional risks of a disorderly Brexit. Given the lack of experience with comparable situations and the high degree of economic integration it is, however, highly unlikely that the negative impacts of a no-deal Brexit on the economy can be avoided entirely. Not least considering the scale and complexity of the business relationships and regulations that are relevant for the economy, one should expect to encounter **unforeseen problems** in the event of a disorderly Brexit.

A hard, disorderly Brexit therefore poses a **considerable risk** for economic development. Furthermore, a hard Brexit could trigger strong reactions from the financial markets. Despite preparatory actions, disruptions cannot be entirely ruled out.

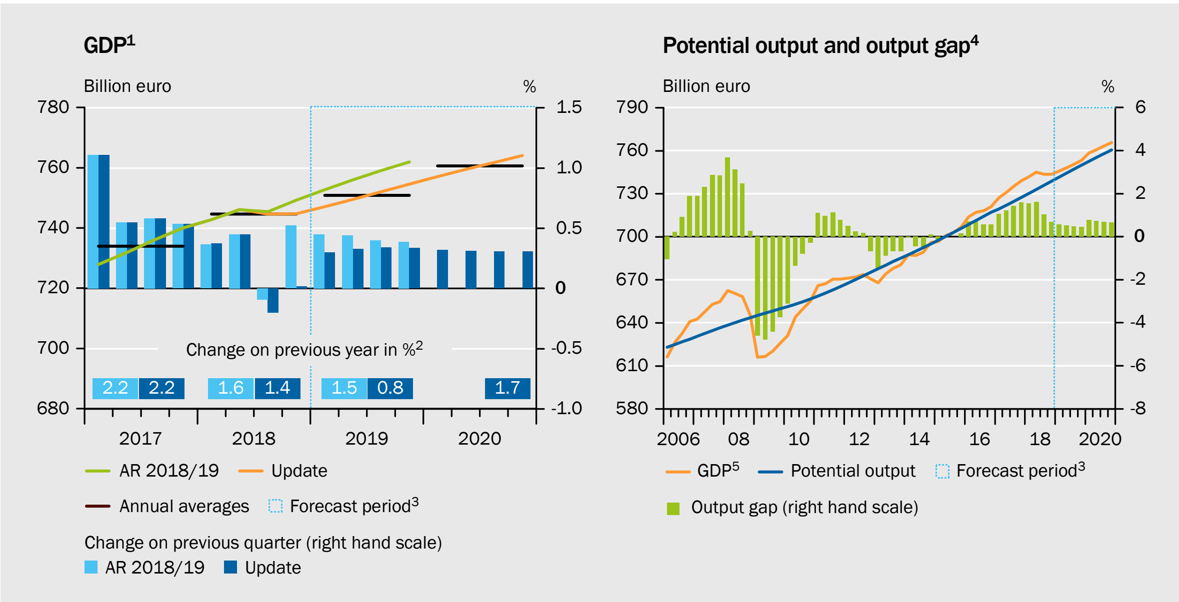
II. GERMAN ECONOMY

23. The period of **economic boom** in Germany with real growth rates of over 2 % **came to a preliminary end** in the second half of 2018. Temporary one-off factors played a role here. Production problems in the automotive industry and the negative effects of low water levels in the river Rhine were particularly significant for the economy overall. In addition, however, a slowdown in the underlying economic momentum can be observed. On the demand side, this is primarily attributable to a noticeable **weakening** of the **external economic environment**. In particular, demand from the rest of Europe – which receives over 60 % of German exports – slowed in the course of 2018. On the supply side, the **capacity constraints** and labour shortages in many industries play a role.

1. Overview: unexpectedly sharp slowdown

24. Price-adjusted GDP fell by 0.2 % in the third quarter of 2018 and was all but stagnant in the fourth quarter. The economic development, particularly in the final quarter, significantly lagged behind projections made in the GCEE Annual Report 2018/19. In the full year 2018, the annual average growth rate was 0.2 percentage points lower than expected, amounting to only 1.4 %. ↘ CHART 4 LEFT The fact that the **forecast was too positive** is particularly evident in the year-on-year fourth quarter rate, which is calculated as the rate of change of GDP in the fourth quarter of one year relative to the fourth quarter of the previous year. This rate is not affected by the statistical carry-over from the previous year and is therefore more suitable for depicting economic growth in a year. At

↘ CHART 4
Economic forecast for Germany



1 – Reference year 2010, price-, seasonally and calender adjusted. 2 – Not calendar adjusted. 3 – Forecast of the GCEE. 4 – Estimate of the GCEE. 5 – Reference year 2010, seasonally adjusted; the calender effect is taken into account, however.

Sources: Federal Statistical Office, own calculations

0.6 %, the year-on-year fourth quarter rate of real GDP in 2018 was less than half the level expected.

25. Some of the forecasting error for 2018 can be explained by negative one-off effects in the manufacturing sector. For example, problems in the **automotive industry** associated with the changeover to the new **WLTP emissions testing system** lasted longer than expected. Instead of the recovery projected in the GCEE Annual Report, automotive production stagnated in the fourth quarter and fell again in January 2019. ↘ CHART 5 TOP LEFT The number of new registrations only returned to the level of spring 2018 in January 2019. ↘ CHART 5 BOTTOM RIGHT

26. In addition, the manufacturing industry unexpectedly experienced considerable problems in the second half of 2018 due to the **low water level of the Rhine**. ↘ CHART 5 BOTTOM RIGHT This limited inland water transport, delayed the delivery of raw materials and intermediate products and significantly impeded production, particularly in the chemical industry. The effects of the low water level are likely to have been significant for the economy on the whole. Ademmer et al. (2019) estimates that the low level of the Rhine dampened production growth in the manufacturing sector by 0.8 percentage points in the third quarter and by 0.4 percentage points in the fourth quarter. In total, the changeover to the new emissions testing system and the low level of the Rhine may have reduced GDP by around a half a percentage point in the second half of the year according to estimates by Ademmer et al. (2018).

27. The economic slowdown in the second half of 2018 is not solely attributable to one-off factors, however. Rather, the **underlying economic momentum** appears to have **slowed considerably**. The now prolonged and marked deterioration of most economic indicators supports this view. In retrospect, this deterioration already began at the start of 2018, and therefore well before the occurrence of the one-off factors. ↘ CHART 5 TOP, ↘ CHART 7 Furthermore, the fact that the business sectors that were most affected by the one-off factors have so far only seen a normalisation of the situation – **rather than** a **pronounced countermovement** – is also indicative of a general cooling of the economy. The one-off factors should have already ran their course. The water level in the Rhine has returned to normal, and in the automotive industry a large percentage of the models on the German market now have the necessary certification (Jannsen and Kallweit, 2018).

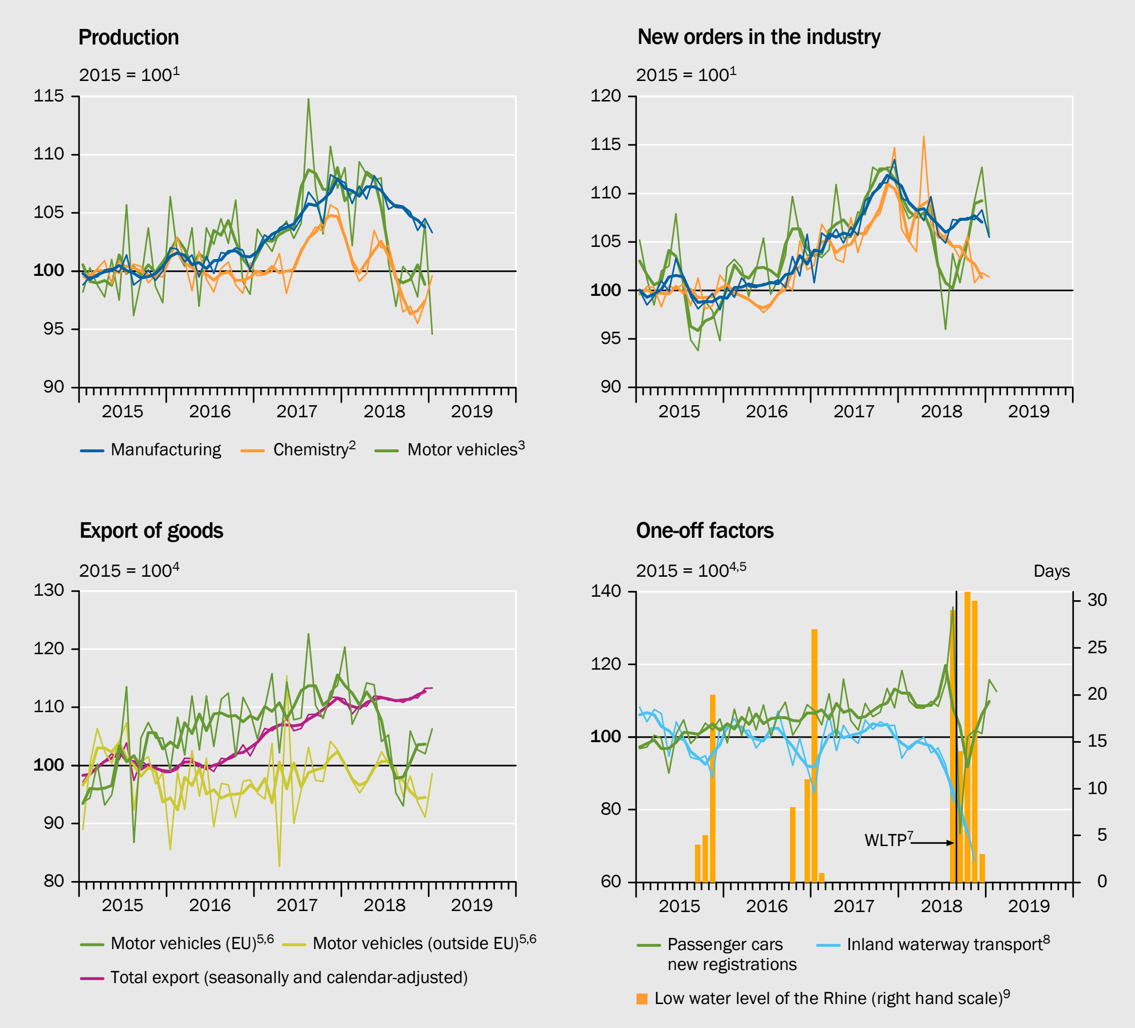
28. On the expenditure side, the weak production figures for the manufacturing sector in the second half of 2018 were accompanied by a **decline in exports**. Real exports in the third quarter were down 0.9 % on the previous quarter. A more pronounced decline was last seen in 2012. A disproportionately sharp drop in vehicle exports to the EU contributed significantly to this development. ↘ CHART 5 BOTTOM LEFT This is a strong indication of a connection with the introduction of the WLTP in the EU (Deutsche Bundesbank, 2019). However, the declining growth in world trade and the significant decline in businesses' export expectations suggest that demand for exports slowed overall in the second half of 2018. This is consistent with the fact that growth in total exports in 2018 was not as strong as in previous years. ↘ CHART 5 BOTTOM LEFT Overall, **growth in exports** in the full

year 2018 – at 2.0 % in real terms – was around 0.3 percentage points weaker than forecast in the GCEE Annual Report 2018/19.

29. Apart from exports, the development of **private consumption** was also a central reason why the GDP forecast in the Annual Report was too positive. According to current figures, price-adjusted private consumption dropped by roughly 0.1 % in the second half of 2018 compared with the previous half year. Consequently, the contribution of private consumption to growth for the full year was 0.3 percentage points lower than anticipated. This is surprising considering the persistently strong growth in wages and employment ↘ ITEMS 44 FF. and the fact that consumer confidence – according to surveys – remains high.

30. One explanation for this subdued development is likely to have been that the higher level of inflation had a dampening effect on households' real disposable income. Due to rising energy and food prices, inflation intermittently increased

↘ CHART 5
Selected indicators for the economic forecast



1 – Volume index. Thin line: monthly values; thick line: 3-month moving averages; seasonally- and calendar-adjusted. 2 – Manufacturing of chemicals and chemical products (WZ 2008). 3 – Manufacturing of motor vehicles, trailers and semi-trailers (WZ 2008). 4 – Thin line: monthly values; thick line: 3-month moving averages. 5 – Seasonally adjusted. 6 – Road vehicles (SITC). 7 – Worldwide harmonized Light vehicles Test procedure. 8 – Total transported goods in tonnes. 9 – Days in a month with water level at the gauging station Kaub lower than the equal water level (GIW) of 78 cm.

Sources: Bundesanstalt für Gewässerkunde (BfG), Deutsche Bundesbank, Federal Statistical Office, German Association of Automotive Industry (VDA), own calculations to over 2 %. However, the unusually sharp increase in the savings rate in the second half of the year indicates that the stronger increase in prices can only partly explain the drop in consumption. Standing at 10.9 % in the fourth quarter of 2018, the savings rate was 0.7 percentage points higher than in the second quarter. It seems unlikely that the production problems in the automotive sector and the low number of vehicle registrations had a significant influence on this development, as the share of vehicle purchases in total private consumption – at just 5 % – is too low for this to be the case. Compared against private consumption, **public sector consumption** continued to see strong growth in the second half of 2018. In price-adjusted terms, it was up 0.9 % on the previous half year and therefore contributed 0.2 percentage points to GDP growth in the full year 2018, as expected. ↘ TABLE 3

31. **Investment** registered a quite positive **development** in the second half of 2018. Growth in construction investment and investment in machinery and equipment in the second half year was higher than forecast in the GCEE Annual Report 2018/19. While, in real terms, growth in construction investment in the full year 2018 was 0.5 percentage points less than the anticipated rate of 2.9 %, this was solely attributable to a substantial downward revision of the figures for the first half of 2018. With regard to investment in machinery and equipment, real growth in the full year 2018 – at 4.2 % – even exceeded the growth rates of the previous boom years. ↘ TABLE 4 PAGE 21 Even though the pace of investment waned in the course of the year, the expansion of production capacities through to the final quarter and the ongoing construction boom suggest that the upswing

↘ TABLE 3
Contributions to growth of gross domestic product by expenditure components[1]
Percentage points

	2014	2015	2016	2017	2018	Forecast[2]		
						2019		2020
						Update	Difference to AR 2018/19	
Domestic demand	**1.5**	**1.5**	**2.7**	**1.9**	**1.8**	**1.5**	**(– 0.3)**	**1.6**
Final consumption expenditure	0.9	1.5	1.9	1.2	**0.7**	0.9	(– 0.4)	1.1
Private consumption[3]	0.6	0.9	1.1	0.9	**0.5**	0.5	(– 0.4)	0.7
Government consumption	0.3	0.6	0.8	0.3	**0.2**	0.4	(– 0.0)	0.4
Gross fixed capital formation	0.8	0.3	0.7	0.6	**0.5**	0.5	(0.0)	0.6
Investment in machinery & equipment[4]	0.4	0.3	0.2	0.2	**0.3**	0.1	(– 0.1)	0.2
Construction investment	0.2	– 0.1	0.4	0.3	**0.2**	0.3	(0.0)	0.3
Other products	0.2	0.2	0.2	0.1	**0.0**	0.1	(– 0.0)	0.1
Changes in inventories	– 0.2	– 0.3	0.2	0.1	**0.6**	0.1	(0.1)	– 0.0
Net exports	**0.7**	**0.2**	**– 0.5**	**0.3**	**– 0.4**	**– 0.7**	**(– 0.4)**	**0.1**
Exports of goods and services	2.1	2.4	1.1	2.1	**0.9**	0.9	(– 0.5)	1.8
Imports of goods and services	– 1.4	– 2.2	– 1.6	– 1.8	**– 1.3**	– 1.6	(0.1)	– 1.8
Gross domestic product (%)	**2.2**	**1.7**	**2.2**	**2.2**	**1.4**	**0.8**	**(– 0.7)**	**1.7**

1 – Contributions to growth of price-adjusted GDP. Deviations in sums due to rounding. 2 – Forecast of the GCEE. 3 – Including non-profit institutions serving households. 4 – Including military weapon systems.

Sources: Federal Statistical Office, own calculations

is not likely to end soon, as experience with earlier cycles shows that investment usually declines at the start of a recession.

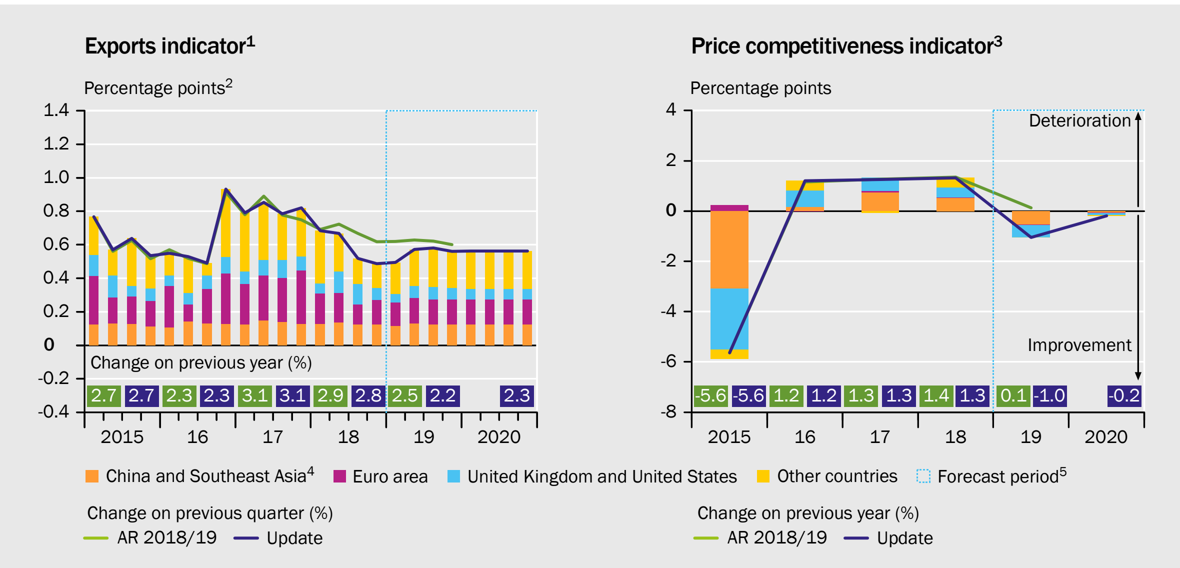
2. Less favourable conditions

32. Conditions have worsened compared with the GCEE Annual Report 2018/19. This is due, in particular, to the deterioration of the external environment. The **exports indicator** derived from the updated international forecast ↘ ITEM 4 suggests that weaker growth in sales markets can be expected for 2019 and 2020 than forecast in the GCEE Annual Report 2018/19. ↘ CHART 6 LEFT This applies, in particular, for the euro area whose growth prospects have clouded considerably. No major impetus is likely to come from **price competitiveness**, however. Having recently deteriorated for three years in a row due to the higher rates of inflation in Germany and an appreciation of the euro, price competitiveness is expected to improve slightly for 2019. ↘ CHART 6 RIGHT

33. **Monetary conditions** continue to have a positive impact on economic activity. Given the very expansionary monetary policy of the ECB, lending rates for new loans remain stable at a very low level. In addition, surveys on the development of credit standards for businesses indicate that they were eased again slightly in Germany in the fourth quarter of 2018 (ECB, 2018). In contrast, it has become somewhat more expensive for businesses to raise funds through capital markets. For example, the current yield on bonds issued by non-financial corporations increased by around 0.8 percentage points in the second half of 2018.

34. With regard to the development of private consumption, the drop of approximately 25 % in the **price of oil** since October 2018 is likely to have a positive ef-

↘ CHART 6
Expected development of the external environment



1 – The indicator comprises the developments of GDP of 49 trading partners. The weight of a single country corresponds to the respective country's share in German exports. 2 – Growth contributions of the respective regions. 3 – Against 37 selected countries; an increase shows a deterioration in price competitiveness. Calculation based on the approach of the Deutsche Bundesbank. 4 – Hong Kong, Japan, Republic of Korea and Singapore. 5 – Forecast of the GCEE.

Sources: Deutsche Bundesbank, national statistical offices, own calculations fect in the forecast period. **Fiscal policy**, which remains expansionary, will provide additional stimulus. In total, discretionary measures amounting to 0.7 % of GDP are expected to be implemented in 2019. ↘ ITEM 52 Furthermore, the return to the policy of equal financing by employers and employees in the statutory health insurance system is likely to have already resulted in a stronger increase in the disposable income of private households at the start of the year. Measures amounting to 0.4 % of GDP are likely for the coming year. The further increase in the child benefit amount and an easing of the tax burden on wages and income provide stimulus on the demand side. Furthermore, the federal government plans to significantly increase public-sector investment.

3. Outlook: return to potential

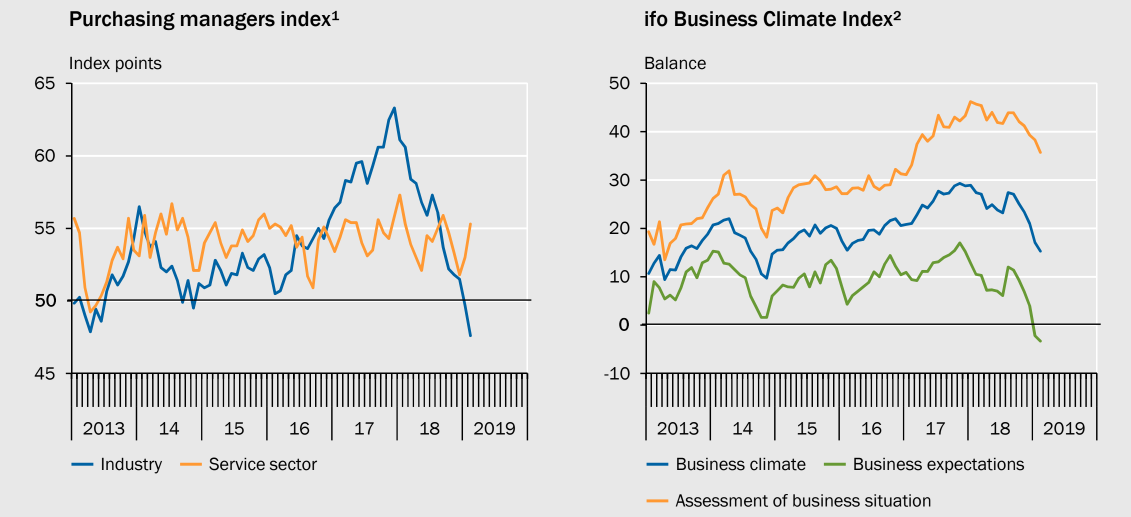
35. On the basis of the available economic indicators, a **strong economic upturn** is **not expected** for the first half of 2019. Following the continued deterioration in the course of 2018, business expectations are at their lowest in over six years ↘ CHART 7, production in the manufacturing sector lacked momentum through to January ↘ CHART 5 TOP LEFT, and new orders fell recently. ↘ CHART 5 TOP RIGHT In the automotive industry, in particular, latest figures for production and new orders suggest that only a normalisation can be expected, rather than overly dynamic growth. In keeping with this, the Association of the German Automotive Industry recently revised its forecast significantly downward and now expects a drop in the number of vehicles produced in Germany for the full year 2019.

36. **Weaker foreign demand** is likely to have played a significant role in the slower economic development. Following the slight recovery at the end of 2018, exports stagnated in January 2019. Most export-intensive companies are found in the manufacturing sector (GCEE Annual Report 2017 item 668). This may, in part, explain why this industry sector is much more affected by the deteriorating sentiment than the service sectors that are more geared towards the domestic economy. ↘ CHART 7 LEFT

Given the strength of the German domestic economy, a **recession** is **not to be expected** in 2019. This view is supported by the fact that companies continue to assess their business situation as well above average ↘ CHART 7 RIGHT and capacity utilisation in the construction industry, in particular, is at a very high level. The order backlog among businesses also remains high. Furthermore, the labour market continues to show robust performance. The strong seasonally adjusted increases in employment at the start of 2019 indicate that businesses expect positive growth rates and will continue to have a high demand for labour despite the stagnation of real GDP in the second half of 2018. ↘ ITEM 46

37. If the available early indicators are used for a **short-term forecast** of price-adjusted GDP growth rates in the first quarters of 2019, they suggest that quarterly rates of around 0.3 % can currently be expected. There are unusually large differences between the indicators, however. While revenues, in particular, point to higher growth rates, production and business sentiment indicators suggest that even a stagnation in the first quarter is possible. The exceptionally high level

↘ CHART 7
Selected sentiment indicators



1 – The purchasing managers' index is based on a monthly survey in manufacturing with about 500 participating purchasing managers and managing directors. 2 – Manufacturing, service sector, trade and construction.

Sources: ifo, IHS Markit

of uncertainty is also reflected in business surveys, with a strong increase in the variation of individual business expectations seen recently in the ifo Business Survey (ifo Institute, 2019).

38. For the remainder of the year and for 2020, the GCEE expects moderately positive growth rates which are likely to be slightly below the estimated potential growth of around 1.5 %. This picture is consistent with the **normalisation of economic activity** and with overall economic output approaching the medium-term potential output level from above. ↘ CHART 4 RIGHT The slight increase in the output gap at the start of 2020 is due to the statistical effect of a high number of working days in 2020.

39. With an anticipated annual average rate of change of real GDP of just 0.8 % in 2019, the GCEE is adjusting its forecast downwards by 0.7 percentage points compared with the GCEE Annual Report 2018/19. The **unusually large downward revision** of the forecast for 2019 is due, in part, to the weaker outlook for the world economy. The German economy continues to be very dependent on global economic activity (GCEE Annual Report 2018 items 297 ff.).

In addition, the one-off effects in 2018 also contributed to the downward revision. While these effects are likely to have run their course by the start of 2019, on account of the **statistical carry-over** they have a pronounced dampening effect on the annual average rate of growth for 2019. Instead of the carry-over of 0.5 % expected in the GCEE Annual Report, the carry-over is 0.0 %. As a result, the annual average growth rate of 0.8 % suggests weaker growth in 2019 than is actually the case. The year-on-year fourth quarter rate is more suitable for assessing the rate of growth. Anticipated at 1.3 %, this rate will probably be even higher for 2019 than for 2018.

40. An annual average real GDP growth rate of 1.7 % is forecast for 2020. In this context it is important to note, however, that there are an **unusually high number of working days** in **2020**. Following adjustments for this effect, the annual average growth rate is merely 1.3 %. ↘ TABLE 9 APPENDIX Therefore, while the annual average GDP growth rate alone could suggest an acceleration of growth, this is not the assumption in the forecast period. Rather, the rate of growth in the German economy is likely to be just slightly below the potential level in the coming years, which would be in accordance with the advanced position in the business cycle.

41. With regard to the expenditure components, it is expected that **private consumption spending** will make positive contributions to growth in the forecast period. Above all, this assumption is supported by the strong performance of the

↘ TABLE 4

Key economic indicators for Germany

	Unit	2017	2018	Forecast[1]		
				2019		2020
				Update	Difference to AR 2018 / 19[2]	
Gross domestic product[3]	%	**2.2**	**1.4**	**0.8**	**(– 0.7)**	**1.7**
Final consumption expenditure	%	1.7	1.0	1.2	(– 0.6)	1.5
Private consumption[4]	%	1.8	1.0	1.0	(– 0.8)	1.4
Government consumption	%	1.6	1.0	2.0	(– 0.0)	1.8
Gross fixed capital formation	%	2.9	2.6	2.5	(– 0.1)	2.6
Investment in machinery & equipment[5]	%	3.7	4.2	1.6	(– 0.9)	2.5
Buildings	%	2.9	2.4	3.3	(0.8)	3.0
Other products	%	1.3	0.4	1.8	(– 0.8)	1.9
Domestic uses	%	2.0	1.9	1.6	(– 0.4)	1.7
Net exports (growth contribution in percentage points)		0.3	– 0.4	– 0.7	(– 0.3)	0.1
Exports of goods and services	%	4.6	2.0	1.9	(– 1.1)	3.9
Imports of goods and services	%	4.8	3.3	3.9	(– 0.4)	4.3
Current account balance[6]	%	**8.0**	**7.4**	**6.8**	**(0.1)**	**6.5**
Persons employed (domestic)	**1,000**	**44,269**	**44,838**	**45,303**	**(41)**	**45,666**
Employees subject to social security contributions	**1,000**	**32,234**	**32,967**	**33,493**	**(8)**	**33,941**
Registered unemployment, stocks	**1,000**	**2,533**	**2,340**	**2,181**	**(– 3)**	**2,055**
Unemployment rate[7]	%	**5.7**	**5.2**	**4.8**	**(– 0.0)**	**4.6**
Consumer prices[8]	%	**1.5**	**1.8**	**1.5**	**(– 0.6)**	**1.6**
General government balance[9]	%	**1.0**	**1.7**	**1.2**	**(0.0)**	**1.0**
Gross domestic product per capita[10, 11]	%	**1.8**	**1.1**	**0.5**	**(– 0.7)**	**1.5**
Annual rate of change of GDP, calendar-adjusted[11]	%	**2.5**	**1.5**	**0.8**	**(– 0.8)**	**1.3**

1 – Forecast of the GCEE. 2 – Difference in percentage points except for unit 1,000. 3 – Price-adjusted. Change on previous year. Also applies to all listed components of GDP. 4 – Including non-profit institutions serving households. 5 – Including military weapon systems. 6 – In relation to GDP. 7 – Registered unemployed in relation to civil labour force. 8 – Change on previous year. 9 – In relation to GDP; Regional authorities and social security in according to national accounts. 10 – Population development according to medium-term projection of the GCEE. 11 – Price-Adjusted. Change on previous year.

Sources: Federal Employment Agency, Federal Statistical Office, own calculations labour market. In the forecast period, wages are expected to rise substantially and employment will increase further. Furthermore, consumer confidence continues to be quite positive, and expansionary fiscal measures and the lower price of oil provide an additional boost for real available income. All things considered, the GCEE expects price-adjusted private consumption to grow by 1.0 % and 1.4 %, respectively, in 2019 and 2020.

The lower price of oil is the main reason why the increase in **consumer prices** in 2019 and 2020 – anticipated at 1.5 % and 1.6 %, respectfully – is expected to be less pronounced than in the previous year. Core inflation is likely to continue its moderate upward trend in the forecast period.

42. **Investment** is also expected to make a positive contribution to growth in the forecast period. Given that the level of capacity utilisation is still above average, businesses are likely to continue to invest in new equipment and machinery. However, in light of the weaker outlook for exports and the more pessimistic business expectations, growth in investment in equipment and machinery is set to be more subdued than forecast in the GCEE Annual Report 2018/19. The current sharp rise in unit labour costs also suggests that private investment activity will be more moderate than in the previous years. ↘ TABLE 8 APPENDIX By contrast, the strong development in the construction industry is likely to continue. The wide gap between building permits and building completions and the pronounced labour shortage in the construction sector indicate that supply-side shortages are currently the limiting factor in this sector and that demand remains high. The very dynamic growth in construction prices also supports this view. The construction deflator rose by 4.8 % in the course of 2018.

43. **External trade** is likely to make a negative contribution to growth, particularly this year. Due to the weaker global economy, global demand for capital goods will probably remain subdued. For this reason, the GCEE is revising its forecast for export growth in 2019 by around one third, and now expects growth rates of 1.9 % and 3.9 %, respectively, for price-adjusted exports this year and next year. In keeping with this development, the current account balance is expected to fall to 6.8 % and 6.5 % of GDP in 2019 and 2020, respectively.

4. Labour market: employment growth continues

44. The labour market did not appear to be affected by the economic slowdown in the second half of 2018 and largely developed as anticipated. The number of persons in **employment reached** a **new record high** of 44.8 million people. ↘ TABLE 5 This means that there were around 570,000 more people in employment on an annual average in 2018 than in the previous year. The increase in employment subject to compulsory social insurance contributions was central to this positive growth, rising by roughly 730,000 to almost 33 million people. At the same time, marginal employment fell by around 67,000 persons and therefore continued to decline in importance.

45. **Unemployment** also continued to improve, with around 190,000 fewer people registered as unemployed in the full year 2018 than in the previous year. The annual average rate of unemployment stood at 5.2 % and was therefore half a percentage point below the rate for the previous year.

46. The positive development of the labour market seen for several years is expected to continue in the forecast period. The pace of growth is likely to ease, however. Early labour market indicators of the ifo Institute and the Institute for Employment Research suggest that while **demand for labour** is still **very high**, hiring intentions have slowed. The same is true for the number of registered vacancies: while they remain at a very high level, since mid-2018 they do not appear to have continued their upward trend.

47. Supply-side factors also point to a slowdown in momentum. It is becoming increasingly challenging to fill vacancies. The **average time open positions remain vacant** has steadily increased in the past number of years to reach a **record high** at the start of 2019. Labour shortages are likely to drive this trend and curb employment growth. In the past, this development has been countered by the increasing employment of European nationals and nationals of non-European countries of origin of asylum seekers (GCEE Annual Report 2018 items 285 ff.). Such employment has grown steadily in recent years and is likely

↘ TABLE 5

Labour market in Germany

1,000 persons

	2017	2018	Forecast[1] 2019 Update	Forecast[1] 2019 Diff. to AR 2018/19	Forecast[1] 2020	Forecast[1] 2019 Update	Forecast[1] 2019 Diff. to AR 2018/19	Forecast[1] 2020
	Annual averages					Change on previous year in %; diff. in percentage points		
Labour force[2]	45,776	46,185	46,569	(5)	46,903	0.8	(0.1)	0.7
Unemployed persons[3]	1,621	1,471	1,396	(– 15)	1,350	– 5.1	(– 0.7)	– 3.3
Commuter balance[4]	114	124	130	(20)	113	4.8	(12.3)	– 13.5
Employed persons[5]	44,269	44,838	45,303	(41)	45,666	1.0	(0.1)	0.8
Employees subject to social security contributions	32,234	32,967	33,493	(8)	33,941	1.6	(– 0.1)	1.3
Exclusively marginally employed[6]	4,742	4,675	4,634	(21)	4,592	– 0.9	(0.5)	– 0.9
Registered unemployed persons	2,533	2,340	2,181	(– 3)	2,055	– 6.8	(0.1)	– 5.8
Underemployment excluding short-time work[7]	3,517	3,286	3,115	(– 16)	3,052	– 5.2	(– 0.1)	– 2.0
Unemployment rate (FEA)[8,9]	5.7	5.2	4.8	(0.0)	4.6	– 0.4	(0.0)	– 0.3
Unemployment rate (ILO)[9,10]	3.8	3.4	3.2	(– 0.0)	3.1	– 0.2	(– 0.0)	– 0.1

1 – Forecast of the GCEE. 2 – Persons in their working age with residence in Germany (national concept); as defined by the national accounts systems. 3 – ILO concept. 4 – Difference of employed workers commuting from foreign countries to Germany and those commuting from Germany to foreign countries. 5 – Employed persons in Germany independent of their residence (domestic concept). 6 – Employed workers with a wage up to 450 euro. 7 – According to the concept of underemployment by the Federal Employment Agency. 8 – Registered unemployed persons in relation to civilian labour force. 9 – Yearly averages in %; change on previous year in percentage points. 10 – Unemployed persons in relation to the labour force, in each case persons in private households aged from 15 to 74 years.

Sources: Eurostat, Federal Employment Agency , Federal Statistical Office, own calculations to continue to make a positive contribution to the supply of labour in the forecast period.

48. The increasing labour shortages are also reflected in the **strong growth in wages**. In 2018, real wages rose by 2.7 % on the previous year. ↘ TABLE 8 APPENDIX Current collective wage agreements also suggest that this development is likely to be sustained over the coming years. Therefore, the GCEE is expecting wage growth on a par with this level in 2019 and 2020.

Against the backdrop of a subdued economic outlook, the ongoing positive growth in wages could be reflected in another **sharp rise in nominal unit labour costs**: while compensation of employees per working hour is likely to continue trending upwards in the forecast period, labour productivity – having already stagnated in 2018 – may even decline slightly in 2019. This would then mean a pronounced increase in nominal labour unit costs in 2019, at 3.3 %. ↘ TABLE 8 APPENDIX

49. For the forecast period, the GCEE expects the number of people in gainful employment to increase by 470,000 and 360,000 persons, respectively. This means that **for the first time ever more than 45 million people** are expected to be **in employment** in Germany in 2019. Employment subject to compulsory social insurance contributions is likely to increase by 530,000 and 450,000 people, respectively, in 2019 and 2020.

50. As a result of the steady growth in employment, the number of people registered as unemployed is expected to fall by around 160,000 to under 2.2 million people in 2019. The **rate of unemployment** would then drop **below the 5 % mark** this year. As the momentum wanes, however, the decline in unemployment is expected to be slightly smaller in 2020, at around 130,000 persons. The unemployment rate could then drop to 4.6 %.

5. Public finances: large surpluses are not permanent

51. At €58.0 billion (1.7 % in relation to GDP), the **general government balance in 2018** was **slightly higher** than anticipated in the GCEE Annual Report 2018/19. While the development in expenditure largely matched the forecast, growth in revenues was somewhat more dynamic. The GCEE expects **lower surpluses** for **2019** and **2020**. A general government surplus amounting to 1.2 % of GDP is likely this year, and a surplus of 1.0 % of GDP is expected next year. ↘ TABLE 6 The **debt-to-GDP ratio** is likely to drop gradually to around 54 % by the end of 2020.

52. With **economic activity returning to normal** and given the extensive **expansionary fiscal policy measures,** the general government balance is likely to be lower in 2019 and 2020. Discretionary measures amounting to 0.7 % of GDP are expected to be implemented this year. In particular, these include the mothers' pension II and additional spending on defence, development aid and childcare, as well as investment measures. Tax relief is provided through the tax incentives for research and in the income tax system. Measures amounting to

0.4 % of GDP are likely for next year. Additional expenditure can be expected here as a result of the Act to Strengthen Long-Term Care (*Pflegestärkungsgesetz*) and the increase in the child benefit. With regard to income tax, the basic personal allowance will be increased further and the tax thresholds will be raised. This lowers the burden on tax-payers. In the forecast, the assumption is that the planned basic pension will only be introduced after the forecast period.

53. When estimating the **structural balance**, one-off effects are factored out. For example, various automotive manufacturers paid penalties in 2018, and a legal dispute with Toll Collect was resolved following compensatory payments to the

↘ TABLE 6

Public revenues and expenditures and fiscal indices[1]

	2018	Forecast[2] 2019 Update	Forecast[2] 2019 Diff. to AR 2018/19	Forecast[2] 2020	Forecast[2] 2019 Update	Forecast[2] 2019 Diff. to AR 2018/19	Forecast[2] 2020
	Billion euro				%[3]	Percentage points	%[3]
Total revenues	**1,543.6**	**1,590.6**	**(– 0.0)**	**1,648.8**	**3.1**	**(– 0.4)**	**3.7**
Taxes	801.0	824.4	(– 3.5)	854.6	2.9	(– 0.7)	3.7
Social contributions	571.7	595.7	(2.0)	620.2	4.2	(0.2)	4.1
Other revenues[4]	170.8	170.6	(1.5)	174.0	– 0.2	(– 0.8)	2.0
Total expenditures	**1,485.5**	**1,548.5**	**(– 0.9)**	**1,610.9**	**4.2**	**(– 0.1)**	**4.0**
Intermediate consumption	161.8	167.1	(2.0)	175.0	3.3	(– 0.1)	4.8
Compensation of employees	256.3	267.4	(0.7)	276.8	4.3	(0.3)	3.5
Property income (including interest) payable	31.0	29.2	(– 1.6)	28.1	– 5.7	(– 2.7)	– 3.7
Subsidies payable	28.9	29.7	(0.4)	30.4	2.6	(– 0.3)	2.4
Social benefits other than social transfers in kind	520.3	545.6	(0.8)	565.7	4.8	(0.1)	3.7
Social benefits in kind	286.1	298.9	(– 2.3)	308.9	4.5	(– 0.3)	3.3
Gross capital formation	78.1	84.5	(– 2.8)	90.8	8.1	(– 0.5)	7.6
Other expenditures[5]	123.0	126.1	(2.0)	135.2	2.5	(– 0.7)	7.2
General government budget balance	**58.0**	**42.2**	**(0.9)**	**37.9**	x	x	x
Fiscal indices (%)[6]							
Public spending ratio[7]	**43.9**	**44.5**	**(0.4)**	**44.6**	x	x	x
Tax ratio[8]	24.0	24.0	(0.2)	24.0	x	x	x
Tax and contribution ratio[9]	39.8	40.0	(0.3)	40.1	x	x	x
General governement budget balance	1.7	1.2	(0.0)	1.0	x	x	x
Structural balance[10]	1.2	0.7	(0.6)	0.4	x	x	x
Debt-to-GDP ratio[11]	59.9	56.9	(0.4)	54.1	x	x	x

1 – National accounts (nominal values). 2 – Forecast of the GCEE. 3 – Change on the previous year in %. 4 – Sales, other subsidies on production, property income, other current transfers, capital transfers. 5 – Other current transfers, capital transfers, other taxes on production, and net acquisition of non-financial non-produced assets. 6 – In relation to GDP. 7 - Total expenditures. 8 - Taxes including inheritance tax and taxes entitled to the EU. 9 - Taxes including inheritance tax and taxes entitled to the EU, and actual social contributions. 10 - Cyclically adjusted budget balance net of temporary measures. 11 - Forecast of the GCEE for the general government gross debt as defined in the Maastricht Treaty.

Sources: Federal Statistical Office, own calculations

federal government. These revenues will not apply in subsequent years. Individual *Länder* faced one-off expenses particularly as part of the sale of HSH Nordbank. Without these one-off effects, the balance would have been even higher last year. No one-off effects are assumed for 2019 and 2020. Furthermore, the estimations take into account that economic conditions continue to ease the pressure on the national budget. The structural balance adjusted for these effects is therefore less than the balance observed. The anticipated reduction to 0.7 % of GDP in 2019 and to 0.4 % of GDP in 2020 is a reflection of the expansionary fiscal policy.

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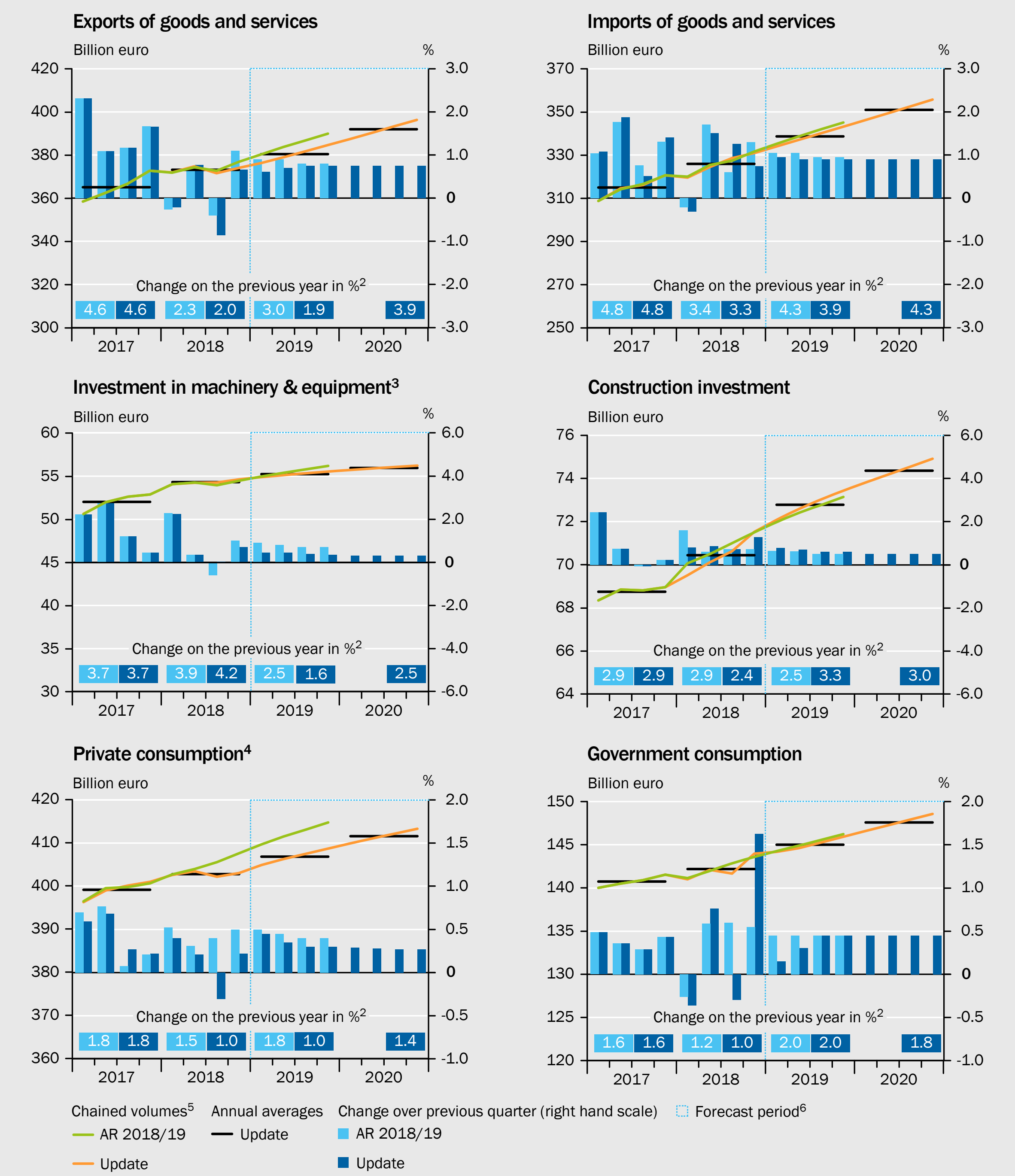
APPENDIX

↘ CHART 8

Components of the German GDP[1]



1 – All components of GDP reported price-adjusted. 2 – Not calendar adjusted. 3 – Including military weapon systems. 4 – Including non-profit institutions serving households. 5 – Reference year 2010, seasonally and calendar-adjusted. 6 – Forecast of the GCEE.

Sources: Federal Statistical Office, own calculations

↘ TABLE 7

Key figures of the national accounts

Absolute values

	Unit	2018	2019[1]	2020[1]	2019[1] 1. half-year	2019[1] 2. half-year	2020[1] 1. half-year	2020[1] 2. half-year
Use of domestic product								
at current prices								
Final consumption expenditure	billion euro	2,438.9	2,510.1	2,592.0	1,225.4	1,284.7	1,265.5	1,326.5
Private consumption[2]	billion euro	1,776.7	1,818.3	1,872.2	889.9	928.4	916.5	955.8
Government consumption	billion euro	662.2	691.8	719.7	335.6	356.3	349.0	370.7
Gross fixed capital formation	billion euro	703.3	744.2	787.8	356.9	387.3	376.6	411.2
Investment in machinery & equipment[3]	billion euro	225.7	232.1	240.2	110.4	121.7	113.7	126.6
Construction investment	billion euro	350.5	380.2	410.8	182.3	197.9	196.4	214.4
Other products	billion euro	127.1	131.9	136.8	64.1	67.7	66.6	70.2
Domestic demand	billion euro	3,156.8	3,266.4	3,391.3	1,597.2	1,669.2	1,656.2	1,735.0
Exports of goods and services	billion euro	1,590.2	1,634.6	1,707.4	807.3	827.3	838.2	869.2
Imports of goods and services	billion euro	1,360.9	1,420.3	1,488.6	693.7	726.6	723.0	765.6
Gross domestic product	**billion euro**	**3,386.0**	**3,480.7**	**3,610.0**	**1,710.7**	**1,770.0**	**1,771.4**	**1,838.6**
Chained volumes								
Final consumption expenditure	billion euro	2,179.3	2,206.2	2,239.2	1,084.6	1,121.6	1,101.2	1,138.0
Private consumption[2]	billion euro	1,610.1	1,625.6	1,648.2	798.1	827.5	809.7	838.5
Government consumption	billion euro	568.7	580.0	590.2	286.1	293.8	291.1	299.2
Gross fixed capital formation	billion euro	608.3	623.3	639.8	300.6	322.7	307.7	332.1
Investment in machinery & equipment[3]	billion euro	216.4	219.7	225.2	104.3	115.4	106.4	118.8
Construction investment	billion euro	280.7	290.0	298.7	140.6	149.4	144.4	154.3
Other products	billion euro	112.1	114.1	116.3	55.7	58.4	56.8	59.5
Domestic demand	billion euro	2,785.2	2,828.8	2,878.0	1,396.6	1,432.2	1,419.7	1,458.2
Exports of goods and services	billion euro	1,486.9	1,515.5	1,574.2	749.2	766.3	774.0	800.2
Imports of goods and services	billion euro	1,299.8	1,350.5	1,409.0	659.3	691.2	684.9	724.1
Gross domestic product	**billion euro**	**2,974.3**	**2,997.9**	**3,048.4**	**1,487.9**	**1,510.1**	**1,510.6**	**1,537.8**
Price Development (deflators)								
Final consumption expenditure	2010=100	111.9	113.8	115.8	113.0	114.5	114.9	116.6
Private consumption[2]	2010=100	110.4	111.9	113.6	111.5	112.2	113.2	114.0
Government consumption	2010=100	116.4	119.3	121.9	117.3	121.3	119.9	123.9
Gross fixed capital formation	2010=100	115.6	119.4	123.1	118.7	120.0	122.4	123.8
Investment in machinery & equipment[3]	2010=100	104.3	105.6	106.7	105.8	105.5	106.8	106.5
Construction investment	2010=100	124.9	131.1	137.5	129.7	132.5	136.0	139.0
Other products	2010=100	113.4	115.5	117.6	115.1	115.9	117.2	118.0
Domestic demand	2010=100	113.3	115.5	117.8	114.4	116.6	116.7	119.0
Terms of Trade	2010=100	102.1	102.6	102.7	102.4	102.7	102.6	102.7
Exports of goods and services	2010=100	106.9	107.9	108.5	107.8	108.0	108.3	108.6
Imports of goods and services	2010=100	104.7	105.2	105.7	105.2	105.1	105.6	105.7
Gross domestic product	**2010=100**	**113.8**	**116.1**	**118.4**	**115.0**	**117.2**	**117.3**	**119.6**
Production of domestic product								
Employed persons (domestic)	1,000	44,838	45,303	45,666	45,040	45,566	45,422	45,909
Labour volume	million hours	61,095	61,758	62,343	30,296	31,462	30,507	31,836
Labour productivity (per hour)	2010=100	107.6	107.2	108.0	108.5	106.0	109.3	106.7
Distribution of net national income								
Net national income	billion euro	2,531.3	2,607.7	2,705.7	1,265.5	1,342.2	1,311.1	1,394.5
Compensation of employees	billion euro	1,746.0	1,821.9	1,899.1	871.8	950.2	909.2	989.9
Gross wages and salaries	billion euro	1,432.5	1,490.4	1,553.6	711.1	779.3	741.8	811.8
among them: net wages and salaries[4]	billion euro	945.2	984.2	1 022.7	464.9	519.3	483.5	539.2
property and entrepreneurial income	billion euro	785.3	785.8	806.5	393.8	392.0	401.9	404.6
Disposable income of private households[2]	billion euro	1,930.8	1,982.9	2,042.6	982.0	1,000.9	1,010.2	1,032.4
Savings rate of private households[2,5]	%	10.4	10.7	10.7	11.8	9.7	11.6	9.8
For information purposes:								
Nominal unit labour costs[6]	2010=100	114.2	118.0	120.4	113.9	122.0	116.6	124.3
Real unit labour costs[7]	2010=100	100.3	101.7	102.0	99.1	104.3	99.7	104.3
Consumer prices	2010=100	111.4	113.0	114.8	112.3	113.5	114.1	115.4

1 – Forecast of the GCEE. 2 – Including non-profit institutions serving households. 3 – Including military weapon systems. 4 – Compensation of employees minus social contributions of employers and employees and income tax of employees. 5 – Savings relative to disposable income. 6 – Compensation of employees per working hour (employee concept) in relation to real GDP per working hour (employed person concept). 7 – Compensation of employees per working hour (employee concept) in relation to GDP per working hour (employed person concept).

Sources: Federal Employment Agency, Federal Statistical Office, own calculations

Key figures of the national accounts

Change on the previous year in %

2018	2019[1]	2020[1]	2019[1]		2020[1]		
			1. half-year	2. half-year	1. half-year	2. half-year	
							Use of domestic product
							at current prices
2.9	2.9	3.3	2.6	3.2	3.3	3.3	Final consumption expenditure
2.6	2.3	3.0	1.9	2.8	3.0	2.9	Private consumption[2]
3.6	4.5	4.0	4.7	4.3	4.0	4.1	Government consumption
5.6	5.8	5.9	5.6	6.0	5.5	6.2	Gross fixed capital formation
4.9	2.8	3.5	2.3	3.3	3.0	4.0	Investment in machinery & equipment[3]
7.3	8.5	8.0	8.5	8.5	7.7	8.3	Construction investment
2.6	3.7	3.7	3.5	3.9	3.8	3.7	Other products
4.2	3.5	3.8	3.7	3.3	3.7	3.9	Domestic demand
3.1	2.8	4.4	2.0	3.6	3.8	5.1	Exports of goods and services
5.2	4.4	4.8	5.0	3.7	4.2	5.4	Imports of goods and services
3.3	**2.8**	**3.7**	**2.3**	**3.3**	**3.5**	**3.9**	**Gross domestic product**
							Chained volumes
1.0	1.2	1.5	0.9	1.6	1.5	1.5	Final consumption expenditure
1.0	1.0	1.4	0.5	1.5	1.5	1.3	Private consumption[2]
1.0	2.0	1.8	2.0	2.0	1.7	1.8	Government consumption
2.6	2.5	2.6	2.2	2.8	2.3	2.9	Gross fixed capital formation
4.2	1.6	2.5	0.9	2.2	2.0	3.0	Investment in machinery & equipment[3]
2.4	3.3	3.0	3.2	3.4	2.7	3.3	Construction investment
0.4	1.8	1.9	1.6	2.0	1.9	1.9	Other products
1.9	1.6	1.7	1.6	1.5	1.7	1.8	Domestic demand
2.0	1.9	3.9	0.6	3.2	3.3	4.4	Exports of goods and services
3.3	3.9	4.3	3.8	4.0	3.9	4.7	Imports of goods and services
1.4	**0.8**	**1.7**	**0.3**	**1.3**	**1.5**	**1.8**	**Gross domestic product**
							Price Development (deflators)
1.9	1.7	1.7	1.8	1.6	1.7	1.8	Final consumption expenditure
1.6	1.4	1.6	1.4	1.3	1.5	1.6	Private consumption[2]
2.6	2.4	2.2	2.6	2.3	2.2	2.2	Government consumption
2.9	3.3	3.1	3.3	3.2	3.1	3.2	Gross fixed capital formation
0.6	1.3	1.0	1.4	1.1	1.0	1.0	Investment in machinery & equipment[3]
4.8	5.0	4.9	5.2	4.9	4.9	4.9	Construction investment
2.2	1.9	1.8	1.9	1.8	1.8	1.8	Other products
2.2	1.9	2.0	2.0	1.7	2.0	2.1	Domestic demand
– 0.7	0.4	0.1	0.1	0.6	0.2	0.0	Terms of Trade
1.1	0.9	0.6	1.3	0.4	0.5	0.6	Exports of goods and services
1.8	0.4	0.5	1.2	– 0.2	0.3	0.6	Imports of goods and services
1.9	**2.0**	**2.0**	**2.0**	**1.9**	**2.0**	**2.0**	**Gross domestic product**
							Production of domestic product
1.3	1.0	0.8	1.0	1.0	0.8	0.8	Employed persons (domestic)
1.4	1.1	0.9	1.0	1.2	0.7	1.2	Labour volume
– 0.0	– 0.3	0.7	– 0.8	0.1	0.8	0.6	Labour productivity (per hour)
							Distribution of net national income
3.1	3.0	3.8	2.3	3.7	3.6	3.9	Net national income
4.6	4.3	4.2	4.5	4.2	4.3	4.2	Compensation of employees
4.8	4.0	4.2	4.1	4.0	4.3	4.2	Gross wages and salaries
4.7	4.1	3.9	4.2	4.0	4.0	3.8	among them: net wages and salaries[4]
– 0.3	0.1	2.6	– 2.2	2.4	2.1	3.2	property and entrepreneurial income
3.3	2.7	3.0	2.0	3.4	2.9	3.1	Disposable income of private households[2]
.	.	.	.	.	.	.	Savings rate of private households[2,5]
							For information purposes:
2.6	3.3	2.1	3.9	2.7	2.4	1.8	Nominal unit labour costs[6]
0.7	1.4	0.3	2.0	1.0	0.6	– 0.0	Real unit labour costs[7]
1.8	1.5	1.6	1.6	1.3	1.6	1.6	Consumer prices

1 – Forecast of the GCEE. 2 – Including non-profit institutions serving households. 3 – Including military weapon systems. 4 – Compensation of employees minus social contributions of employers and employees and income tax of employees. 5 – Savings relative to disposable income. 6 – Compensation of employees per working hour (employee concept) in relation to real GDP per working hour (employed person concept). 7 – Compensation of employees per working hour (employee concept) in relation to GDP per working hour (employed person concept).

↘ TABLE 8

Wage developments in Germany

Change on the previous year in %

	Collectively agreed wages (hourly concept)	Effective wages[1]	Wage drift[2]	Compensation of employees per working hour	Labour productivity[3]	Unit labour costs (nominal)[4]	Unit labour costs (real)[5]
2015	2.1	2.4	0.3	2.3	0.6	1.8	– 0.2
2016	2.1	2.9	0.8	2.6	1.4	1.2	– 0.2
2017	2.5	2.3	– 0.2	2.4	0.9	1.5	– 0.0
2018	2.9	2.7	– 0.1	2.6	0.0	2.6	0.7
2019[6]	2.5	2.6	0.1	2.9	-0.3	3.3	1.4
2020[6]	2.7	2.8	0.1	2.8	0.7	2.1	0.3

1 – Gross wages and salaries (domestic concept) per employees hour worked. 2 – Difference between the increase in effective wages and the increase in collectively agreed wages in percentage points. 3 – Real GDP per working hour (employed person concept). 4 – Compensation of employees per working hour (employee concept) in relation to real GDP per working hour (employed person concept). 5 – Compensation of employees per working hour (employee concept) in relation to GDP per working hour (employed person concept). 6 – Forecast of the GCEE.

Sources: Deutsche Bundesbank, Federal Statistical Office, own calculations

↘ TABLE 9

Components of the forecast for GDP[1] growth (in %)

	2014	2015	2016	2017	2018	2019[2]	2020[2]
Carry-over effect at the end of the year[3]	0.9	0.7	0.5	0.8	0.0	0.5	0.5
Year-on-year fourth quarter rate[4]	2.3	1.3	1.9	2.8	0.6	1.3	1.3
Annual rate of change of GDP, calendar adjusted	2.2	1.5	2.2	2.5	1.5	0.8	1.3
Calendar effect (in percentage points)	0.0	0.3	0.1	– 0.3	0.0	0.0	0.4
Annual rate of change of GDP[5]	2.2	1.7	2.2	2.2	1.4	0.8	1.7

1 – Price-adjusted. 2 – Forecast of the GCEE. 3 – Percentage difference between the level of real GDP in the last quarter of year t and the average level of quarterly real GDP in the total year t (Annual Report 2005 Box 5). 4 – Percentage change of the fourth quarter on the fourth quarter of the previous year. 5 – Deviations in sums due to rounding.

Sources: Federal Statistical Office, own calculations