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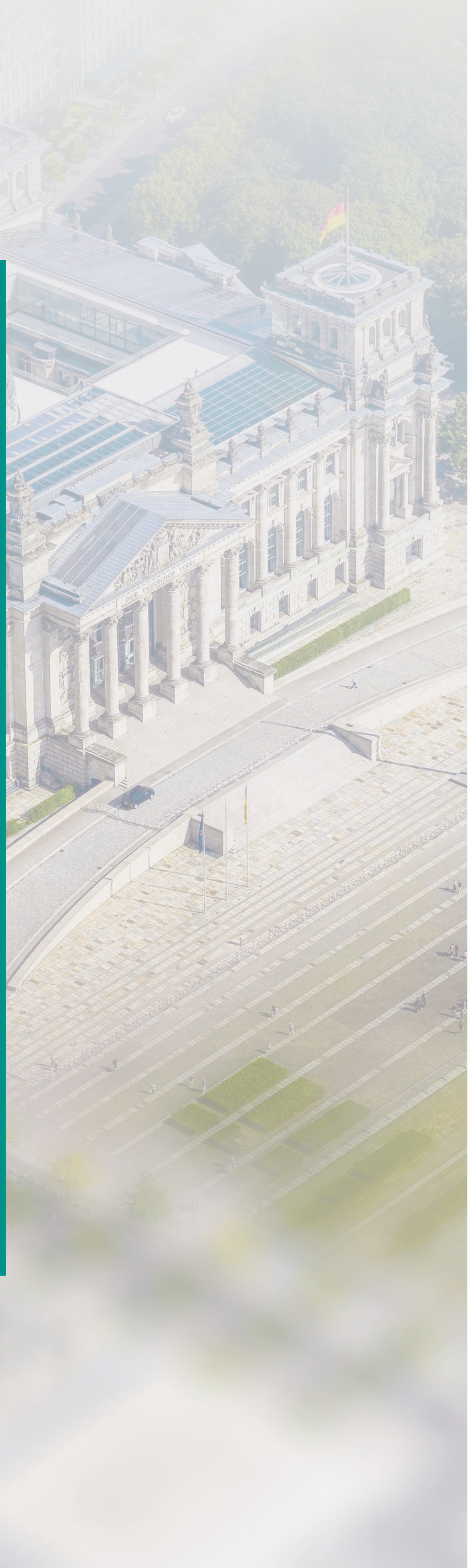

DIW Economic Outlook

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DIW Weekly Report 50-52 2018

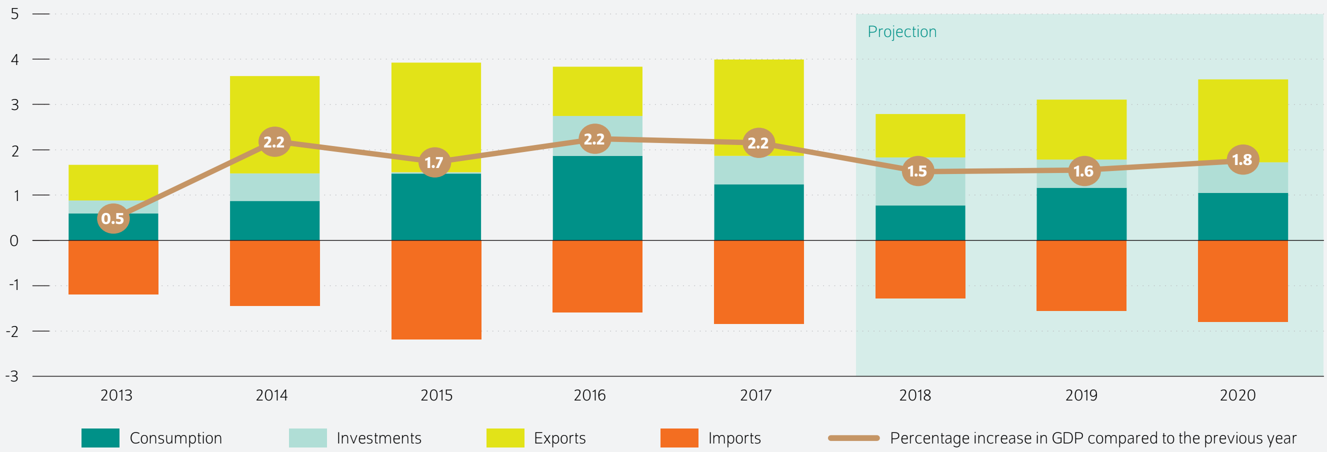
AT A GLANCE

Growth rate of German economy normalizing after prolonged economic boom

By Claus Michelsen et al.

- DIW Berlin is adjusting the growth forecast for the German economy to 1.5 percent for 2018 and 1.6 percent for 2019
- Economic boom ending after years of above-average growth; German economy still performing well
- Temporary problems in the automotive industry have hampered development—but a good situation on the labor market and strong private consumption are supporting economic performance
- Foreign trade continues to perform well although the global economy has passed its peak
- A hard Brexit would hit the export-oriented German economy hard
- Public budgets still have significant (2018: 56 billion euros) but declining surpluses (2020: 38 billion euros)

Stable foreign demand and strong private consumption are supporting the German economy
Contributions to growth of the individual GDP components in percentage points



Source: DIW Economic Outlook Winter 2018

FROM THE AUTHORS

"The danger of a recession is rather low, as the German economy is keeping a steady pace. Foreign trade is still doing relatively well. Above all, private consumption is being boosted by the measures agreed upon in the coalition agreement, which will take effect in the beginning of 2019—reduced social security contributions being a significant part."
— Claus Michelsen, Head of Forecasting —

MEDIA

Audio Interview with Claus Michelsen (in German)
www.diw.de/mediathek

Germany's economic boom is cooling off

By Claus Michelsen, Guido Baldi, Christian Breuer, Martin Bruns, Geraldine Dany-Knedlik, Hella Engerer, Marcel Fratzscher, Stefan Gebauer, Max Hanisch, Simon Junker, Malte Rieth, and Thore Schlaak

According to DIW Berlin estimations, the German economy will continue to grow noticeably over the next two years. However, the economic boom is over as economic momentum is likely to cool off. DIW Berlin thus confirms its estimations from the late summer that the growth rate of the German economy is gradually returning to normal, overlaid by non-recurring effects. However, DIW Berlin is lowering its forecast for 2018 to 1.5 percent.

At present, the economic situation is unusually unclear, partly due to developments in the automotive industry. Motor vehicle manufacturers are having major problems certifying their vehicles in accordance with the new exhaust and consumption standards. Certification is a prerequisite for selling their vehicles in Europe. As a result, fewer cars were sold both domestically and abroad in late summer, which led manufacturers to cut back production. This also curbed exports, investments in the vehicle fleet, and private consumption.

The production losses are expected to be made up at least in part in the winter half-year. However, this forecast is subject to unusually high uncertainty: it is quite possible that there will be no further recovery and that the growth momentum this year and next will be weaker than forecast. At present, GDP is expected to grow by 1.6 percent in 2019. Frequently voiced concerns that the German economy will overheat are thus likely finally over. In 2020, the growth rate is likely to be 1.8 percent—but it will be a good 0.4 percentage points stronger due to a higher number of working days.

Apart from the situation in the automotive industry, there are still many aspects indicating the upward trend will continue—after all, the pace of the German economy will only normalize after years in which production capacities were very well utilized. Robust foreign demand, a booming construction industry, and private consumption should continue to support the economy in the coming year. Employment continues to grow on the labor market and the unemployment rate continues to fall below the five percent mark. The favorable situation is increasingly benefitting workers: in the coming years, wages will probably rise by more than one percent per year after deducting inflation of a good two percent. In addition, the state has made generous decisions: at the turn of the year, citizens will experience relief in the amount of several billion euros. This is due to a reduction in their unemployment insurance contribution and the insurance period recognized for bringing up children (*Mütterrente*). Additionally, contributions to statutory health insurance will again be borne equally by employees and employers. Private households will thus have significantly more money left over.

The earnings situation of companies remains positive. They should continue to be able to finance their operations at extremely favorable rates, even though the European Central Bank has announced that it will tighten its monetary policy. Thus, while companies expanded their investment activity in the summer, the investment level is still comparatively low. Investment conditions in Germany continue to offer opportunities for improvement, which is also repeatedly documented in the World Bank's Ease of Doing Business Index. The trade conflicts between the United States and the rest of the world are causing many companies to be cautious and refrain from a major investment offensive. Developments within the European Union are also likely to cause companies to act cautiously.

Although foreign business is likely to develop much less briskly compared to a year ago, many important sales markets are still in good shape. The US economy will benefit

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from lower corporate taxes until the middle of 2019, China's economy has so far been largely unaffected by the trade policy conflicts with the US, and growth in the euro area remains strong despite political turbulence, such as in Italy.

There is great uncertainty about how Brexit will progress. After the vote on the Brexit referendum in the British House of Commons was postponed, a "hard Brexit" has not yet been ruled out. The export-heavy German economy would be strongly affected. However, it is still in the mutual interest of both the UK and the EU to avoid such a scenario. If the forthcoming renegotiations of the Brexit treaty and a new vote in the British Parliament do not take place in time, postponing the treaty or holding a new referendum is more likely than a hard Brexit—especially if new elections are held in the UK during the current political turbulence.

A lot also depends on how the conflict with the US develops. Recently, there have been signs that tension with China is decreasing. In the dispute over car imports from the European Union, on the other hand, the tone has once again intensified since the summer. An escalating trade conflict would have serious consequences for the European—and in particular for the German—economy, which would materialize above all in key sectors of the German economy. Joint simulations by economic research institutes show that automobile tariffs can lead to a motor vehicle production slump of a good seven percent. By contrast, the situation in Turkey and other emerging markets, which were still suffering from considerable exchange rate turbulence in the summer, has eased somewhat.

Public budgets are expected to close the year with a record surplus of 56 billion euros. On the one hand, these are cyclically-induced surpluses while on the other, they are based on the currently favorable interest rates for government bonds. The discussion about the use of surpluses should therefore not be aimed at permanently weakening the revenue side of the state through comprehensive tax cuts—rather, it should be invested in the future of the country. Over the next few years, the consequences of the demographic change will be clearly felt. The labor force potential is shrinking, thus putting pressure on growth potential. At the same time, although the participation of women and older workers in the labor market has increased, they often work part-time. Under more favorable conditions, many would like to work even more. Investments in childcare and education are likely to further increase labor market participation. A change in the tax system, such as abolishing joint taxation of married couples with full income splitting, could also increase incentives for labor market participation. In addition, productivity has been developing rather weakly for years. On the one hand, this may have to do with the fact that a considerable part of job creation is occurring in sectors with low productivity, such as the nursing and health care sector. However, investment activity is also too weak, which contributes to low productivity growth. To compensate for the consequences of demographic change on growth, investments in the digital future are also necessary. Not only is the private sector in demand here. The state can also support investments in the digital future both directly (with advance payments) and indirectly (by financing research and development).

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Global economy and the euro area: uncertainty weighs on trade and investment

By Claus Michelsen, Dawud Ansari, Guido Baldi, Geraldine Dany-Knedlik, Hella Engerer, Stefan Gebauer, Malte Rieth, and Aleksandar Zaklan

ABSTRACT

The global expansion weakened somewhat in the third quarter while the downside risks have increased. DIW Berlin's forecast—almost unchanged—indicates an expansion in global economic production of 4.3 percent for 2018 and 3.9 percent for 2019. In 2020, momentum will slow down further to 3.6 percent. In some countries, temporary factors contributed to the economic slowdown. In major advanced economies, private consumption remains the mainstay of the economy due to the good labor market situation. However, corporate investment and foreign trade are increasingly suffering from the current major political uncertainties. Brexit and the Italian crisis pose risks to investment and consumption and if the trade dispute escalates, there is also a risk of a global recession. Monetary policy should remain expansionary for the time being. No more significant fiscal policy stimuli are to be expected, especially since government measures in the US will expire in the forecast period.

The global economy weakened further in the third quarter of this year (Figure 1). The expansion slowed mildly in both developed and emerging market economies. However, temporary factors contributed to this. In the euro area, especially Germany, production was weak due to registration difficulties in the automotive sector, and in Japan, natural catastrophes caused the economy to shrink. In the US, the pace of growth began to return to normal after a very strong second quarter.

In some countries, there are likely to be temporary catch-up effects in the winter half-year. However, the gradual slowdown in the global economy is likely to continue in the further forecast period. Expansion rates continue to decline in the US. The effects of expiring fiscal policy impulses and tighter monetary policy will weigh on growth. In the US, as in many other major developed economies, private consumption is the mainstay of the economy. Private consumption is benefiting from the continued good situation on the labor market and significant income growth among the population.

In contrast, corporate investments and foreign trade are increasingly suffering from the current major political uncertainties. The trade conflict between the US and China is already affecting foreign trade in Asia, and large international US corporations are increasingly reacting with a wait-and-see approach. Political tensions in Italy and the United Kingdom are putting pressure on private sector sentiment. This seems to influence consumers and businesses in other parts of Europe as well (Figure 2). All in all, global production will decelerate from 4.3 percent this year to 3.9 percent in the coming year and is likely to further lose momentum in 2020 to 3.7 percent (Table 1). DIW Berlin has thus largely left its growth forecast for the global economy unchanged, although the downside risks have increased.

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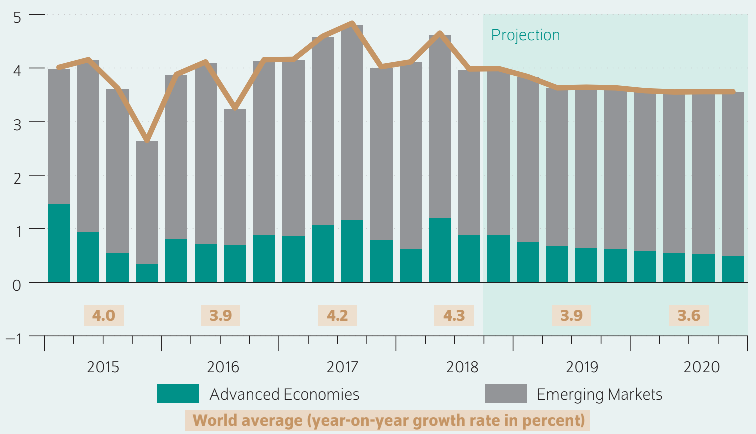
The doves have recently been dominating the direction of monetary policy: in the US, the monetary authorities signaled a somewhat slower tightening of key interest rates. In the euro area, the recent weakening of the economy has also made it more likely that interest rates will not be raised until after late summer 2019. In contrast, fiscal policy is likely to be broadly neutral globally. Additional government measures in China and Europe, for example, are likely to slightly boost growth. In the US, however, the economic effects of tax reforms and expenditure increases are more and more coming to an end.

The risks for global expansion have increased. The standstill agreement in the trade dispute between the US and China is likely to provide an initial respite. This only postpones the risks to world trade, however, and by no means eliminates them. If the current level of tariffs is maintained, the economic effects will remain moderate. However, a global escalation of the trade dispute could lead to a global recession.[1] In addition, Europe is still experiencing politically turbulent times. Both Brexit and Italy's budget dispute with the EU Commission pose considerable risks to private investment and consumer confidence. In contrast, the currency turbulence and thus the risks for emerging markets, which still existed in the summer, have been reduced. In Turkey, the drastic increase in key interest rates stabilized the currency.

Figure 1

World real gross domestic product growth
In percent

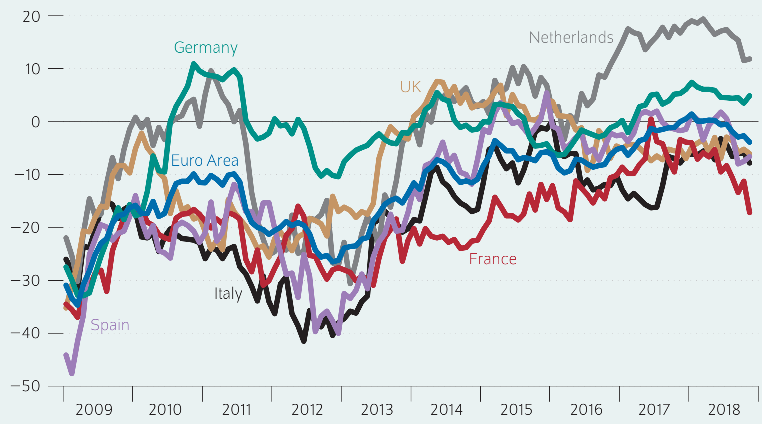


Source: National statistical offices; DIW autumn projections 2018.

The pace of expansion is slowing somewhat worldwide.

Figure 2

Consumer sentiment in Europe
Index, deviation from long term average



Source: Eurostat.

Last observation: November 2018.

Consumer sentiment has softened across Europe.

1 Projektgruppe Gemeinschaftsdiagnose, "Aufschwung verliert an Fahrt – Weltwirtschaftliches Klima wird rauer," *Gemeinschaftsdiagnose Herbst 2018* (2018) (in German; available online; accessed December 7, 2018).

Table

Real Gross Domestic Product, Consumer Price Inflation, and Unemployment Rate in the World Economy

In percent

	Gross domestic product				Consumer prices				Unemployment rate in percent			
	Change over previous year in percent											
	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020
Euro area	2.5	1.8	1.7	1.5	1.4	1.9	1.8	1.7	9.0	8.3	7.8	7.5
without Germany	2.6	2.0	1.7	1.6	1.3	1.8	1.7	1.6	11.4	10.6	10.1	9.9
France	2.3	1.6	1.7	1.6	1.1	2.0	1.6	1.7	9.4	9.2	8.6	8.3
Italy	1.6	1.1	1.2	1.1	1.3	1.3	1.3	1.4	11.3	10.7	10.4	10.3
Spain	3.0	2.5	2.3	2.0	2.0	1.8	1.8	1.7	17.2	15.3	14.2	13.9
Netherlands	3.0	2.5	2.0	1.9	1.3	1.6	2.2	2.0	4.8	3.9	3.8	3.7
United Kingdom	1.7	1.3	1.3	1.4	2.7	2.5	2.1	2.0	4.5	4.2	4.4	4.4
USA	2.2	2.9	2.4	1.6	2.1	2.5	2.2	2.1	4.4	3.9	3.6	3.5
Japan	1.7	0.9	1.1	0.8	0.5	1.0	1.1	1.2	2.8	2.4	2.4	2.4
South Korea	3.1	2.7	2.6	2.5	2.0	1.7	2.6	2.7	3.7	3.6	3.0	3.0
Middle Eastern Europe	4.9	4.4	3.7	3.3	1.7	2.2	2.7	2.8	4.6	3.7	3.5	3.4
Turkey	7.4	4.9	2.6	3.2	11.1	16.6	15.6	8.2	10.9	10.9	10.6	10.1
Russia	1.6	1.5	1.7	2.0	3.5	3.0	4.3	3.7	5.1	4.7	4.6	4.5
China	6.8	6.6	6.3	6.0	1.4	1.7	2.3	2.4	4.0	4.0	4.0	4.0
India	6.2	7.7	6.0	5.7	3.5	4.1	6.0	6.1				
Brazil	1.0	0.8	0.8	1.2	3.4	3.9	5.9	6.5	12.8	11.3	8.4	6.2
Mexico	2.3	2.0	1.8	1.6	6.0	4.4	3.0	3.2	3.4	4.0	4.8	4.8
Developed economies	2.2	2.3	2.0	1.5	1.8	2.1	2.0	1.9	5.3	4.8	4.5	4.4
Emerging markets	5.6	5.7	5.1	4.9	2.8	3.3	4.2	4.0	5.2	5.0	4.8	4.5
World	4.2	4.3	3.9	3.6	2.4	2.8	3.3	3.2	5.3	4.9	4.7	4.5

Source: National statistical offices; DIW autumn projections 2018.

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Growth rate of German economy normalizing after prolonged economic boom

By Claus Michelsen, Christian Breuer, Martin Bruns, Max Hanisch, Simon Junker, and Thore Schlaak

ABSTRACT

The German economy continues to perform well although the boom has ended. However, at 1.5 percent, German GDP will increase this year at a lower rate than expected at the beginning of the year. Nevertheless, concerns about an imminent recession should give way to the assessment that the pace of the German economy is normalizing after years of above-average growth due to robust foreign demand and increasing employment levels. A gradual reduction in high capacity utilization will be accompanied by lower GDP growth; in the short term, however, this will be overshadowed by catch-up effects in the automotive industry following production and delivery problems and by the fiscal income boosts at the beginning of 2019, the most important being reduced social security contributions.

To what extent is the German economy weakening? New orders in the industrial sector have been declining all year and ifo Institute's Business Climate Outlook fell for the third time in a row in November. A technical recession—defined as two consecutive quarters of declining economic output—is possible at the end of the year under such conditions. After all, GDP shrank in the third quarter already (Figure). However, this was mainly due to temporary problems in the automotive industry: bottlenecks in the new model certification process negatively affected vehicle production over the summer.

However, the production and sale losses are likely to be partially made up for, probably around the turn of the year. This will boost economic output in the winter half-year and be reflected in stronger growth in consumption, exports, and corporate investment. Above all, however, the two pillars of the previous, pronounced upswing remain intact: exports and private consumption. Therefore, the economy is not facing a recession; rather, its growth is normalizing after years at an above-average pace.

The global economic boom already passed its peak this past spring.[1] Despite increasing trade barriers, foreign demand is still on the upswing: although export growth rates are no longer as high as last year, they are only gradually declining (Table 1).

Employment growth is slowing down: an important, cyclically sensitive factor is the number of temporary workers. After years of a clear upward trend since peaking last November, growth has fallen. Since temporary employment is mainly used in the industrial sector to bridge cyclical peaks, this indicates a slowdown in employment growth, as temporary agency work is reduced first and foremost during a downturn. However, this does not necessarily indicate a recession in this case. On the contrary, companies appear to be increasingly seeking to expand their core workforce. In contrast to the winter of 2012/13, when Germany actually did slide into a mild recession, the industrial sector has

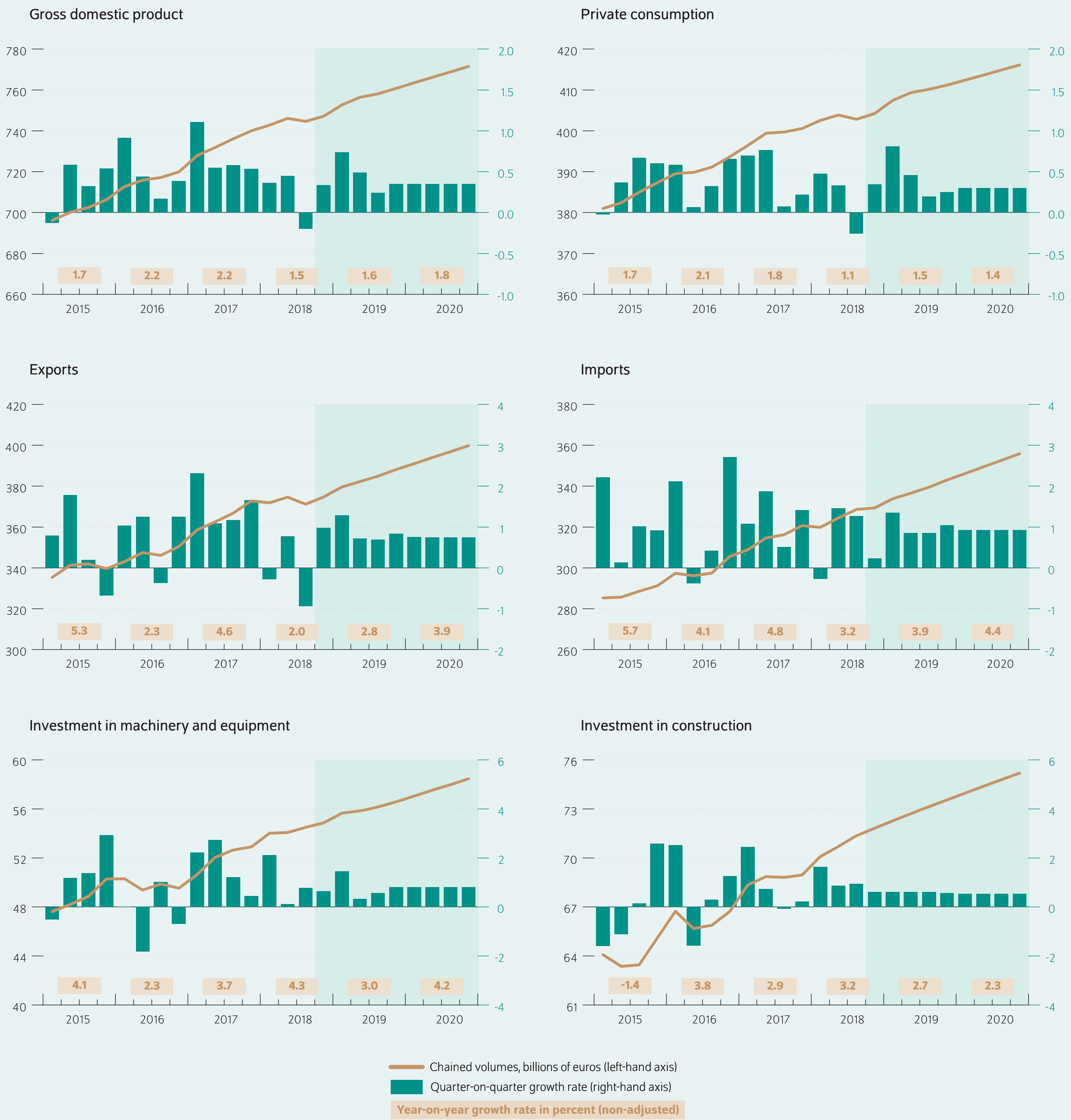
1 Cf. the report in this issue by Claus Michelsen et al., "Global economy and the euro area: uncertainty weighs on trade and investment," *DIW Weekly Report* no. 50/51/52 (2018): 506–508.

DOI: https://doi.org/10.18723/diw_dwr:2018-50-3

Figure

Gross domestic product and use of gross domestic product

Seasonally and working-day adjusted



Sources: Federal Statistical Office; DIW Economic Outlook Winter 2018, forecasts from fourth quarter 2018 onward.

Table 1

Use of gross domestic product, quarter-on-quarter growth rates

Price, seasonally, and working-day adjusted, in percent

	2018				2019				2020			
	I	II	III	IV	I	II	III	IV	I	II	III	IV
Private consumption	0.5	0.3	−0.3	0.3	0.8	0.5	0.2	0.2	0.3	0.3	0.3	0.3
Public consumption	−0.5	0.8	0.2	0.5	0.6	0.5	0.3	0.5	0.5	0.5	0.3	0.3
Gross fixed capital formation	1.4	0.5	0.8	0.6	0.9	0.6	0.6	0.7	0.7	0.7	0.7	0.7
Investment in machinery and equipment	2.1	0.1	0.8	0.6	1.5	0.3	0.6	0.8	0.8	0.8	0.8	0.8
Construction investment	1.6	0.9	0.9	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5
Other investment	−0.5	0.3	0.2	0.7	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7
Change in inventories[1]	−0.1	0.2	0.7	−0.4	−0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Domestic uses	0.4	0.7	0.8	0.0	0.7	0.5	0.3	0.4	0.4	0.4	0.4	0.4
Net exports[1]	0.0	−0.2	−1.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exports	−0.3	0.8	−0.9	1.0	1.3	0.7	0.7	0.8	0.8	0.7	0.7	0.7
Imports	−0.3	1.5	1.3	0.2	1.4	0.8	0.8	1.0	0.9	0.9	0.9	0.9
Gross Domestic Product	0.4	0.5	−0.2	0.3	0.7	0.5	0.2	0.4	0.4	0.4	0.4	0.4

1 Contribution to gross domestic product growth in percentage points.

Sources: Federal Statistical Office; DIW Economic Outlook Winter 2018, forecasts from fourth quarter 2018 onward.

Table 2

Key economic indicators for the German economy

	2015	2016	2017	2018	2019	2020
Real GDP[1] (percent change over previous year)	1.7	2.2	2.2	1.5	1.6	1.8
Domestic employment (1,000 persons)	43,071	43,642	44,269	44,844	45,194	45,448
Unemployed (ILO concept)	1,949	1,775	1,621	1,468	1,298	1,158
Unemployed (BA concept)	2,795	2,691	2,533	2,341	2,170	2,049
Unemployment rate[2] (ILO concept)	4.6	4.1	3.8	3.4	3.0	2.7
Unemployment rate[2] (BA concept)	6.4	6.1	5.7	5.2	4.8	4.5
Consumer prices	0.3	0.5	1.8	1.9	2.0	2.0
Unit labor costs[3]	1.8	1.2	1.5	2.5	2.6	1.8
Government budget balance[4]						
in billion EUR	23.9	28.7	34.0	56.1	45.9	38.4
in percent of GDP	0.8	0.9	1.0	1.7	1.3	1.1
Current account balance, in percent of GDP	8.9	8.5	8.0	7.3	7.1	6.9

1 Price-adjusted, chain-linked.
2 As a share of domestic labor force (ILO), resp. civilian labor force (BA).
3 Compensation of employees (national concept) per hour worked over real GDP.
4 According to ESA 2010.

Sources: National and international institutions; DIW Economic Outlook Winter 2018, forecasts from 2019 onward.

accelerated its employment growth since the turn of the year 2017/18. Companies' confident employment expectations also indicate a sustained, albeit slightly declining, increase in employment.[2] The unemployment rate is slightly over five percent on average this year and will continue to decrease significantly until 2020 (Table 2).

Workers continue to benefit from noticeable wage increases while the labor market situation is favorable. For this reason alone, consumption remains a pillar of growth. In addition, changes in the social security scheme decided on by the German Federal Government will come into effect at the beginning of 2019. This will result in a noticeable increase in the income of private households, which they are likely to spend on both domestic and foreign goods and services.

In the wake of these developments, corporate investment is still trending upward; however, in view of the enormous

2 The ifo Institute's expectations index for employment in the manufacturing sector is currently only slightly below its historical high, although it is trending slightly downwards.

geopolitical risks, for example with regard to future trade relations, it will be difficult for them to break away from a low level. Only residential construction investments by private households are continuing an upward trend unhindered.

Altogether, the German economy will grow by 1.5 percent[3] this year—despite the third quarter setback—almost as strongly as the long-term supply-side trend, and the high degree of overall capacity utilization will only gradually fade. In the autumn forecast, the drastic production cuts in the automotive industry were not anticipated to this extent; the forecast was therefore higher by three-tenths. Despite temporarily higher inflation due to the price of oil, inflation will average 1.9 percent for this year.

In 2019, fiscal stimuli will boost the economy. This overshadows the fundamental tendency of the growth rate to normalize, and, therefore, the slight over-utilization of capacity is hardly diminishing, with growth of 1.6 percent. The catch-up effects in the automotive industry are also likely to boost growth. However, the forecast for 2019 is lowered by one-tenth since it is assumed that only part of the production shortfalls will be compensated for and the overall trend is slightly weaker than had been expected in the autumn. In view of the persistently high level of capacity utilization, inflation will pick up somewhat over the course of the year, reaching an annual average of two percent.

In 2020, the German economy will grow by 1.8 percent, which is partly due to a higher number of working days. Without these (three and a half) additional days, the increase would be only 1.4 percent, lower than in the preceding years. Foreign demand continues to weaken slightly, employment growth is slowing somewhat, fiscal stimuli are running out, and monetary policy is less expansionary. Although over-utilization is declining somewhat in the face of this slowdown, inflation remains at two percent.

Fiscal policy will be expansionary, especially in the coming year, but the public sector will still generate high surpluses; these will fall from 56 billion euros this year to 38 billion euros in 2020.

The present economic forecast is subject to a high degree of uncertainty. The extent and timing of possible catch-up effects in the automotive industry can hardly be quantified using the available data and are therefore based on assumptions; if there were no catch-up effects, the growth rate in the coming year in particular would be lower. Possible effects connected to the diesel problem and the associated driving bans are not assumed, but could dampen the economy. In addition, the open German economy would be particularly affected if trade links become more severely restricted than previously, for example as a result of the conflicts between the United States and China or Brexit.

3 The 68-percent confidence interval resulting from the forecast errors of the previous five years is between 1.3 and 1.8 percent for this year and between 1.0 and 2.1 percent for next year.

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The main national accounts data for the Federal Republic of Germany
Forecast for 2018 to 2020

	2018	2019	2020	2018		2019		2020	
				1st half year	2nd half year	1st half year	2nd half year	1st half year	2nd half year
1. Origin of GDP									
Percentage change over previous year									
Domestic employment	1.3	0.8	0.6	1.4	1.2	0.9	0.7	0.6	0.5
Hours worked, per working day	0.5	0.5	−1.1	0.4	0.6	1.3	−0.3	−0.5	−1.8
Working days	−0.3	0.0	1.5	−0.5	−0.1	−0.8	0.8	0.5	2.4
Labor volume, calendar-monthly	1.5	1.3	0.9	1.3	1.7	1.4	1.2	0.6	1.2
Labor productivity[1]	0.0	0.3	0.8	0.5	−0.5	−0.2	0.8	1.0	0.7
Gross domestic product, price adjusted	**1.5**	**1.6**	**1.8**	**1.9**	**1.2**	**1.1**	**2.0**	**1.6**	**2.0**
2. Disposition of GDP in current prices									
a) Billion EUR									
Final consumption expenditure	2,441.4	2,527.8	2,615.2	1,193.2	1,248.2	1,232.1	1,295.7	1,274.6	1,340.6
Private consumption expenditure[2]	1,779.6	1,836.5	1,894.2	872.8	906.7	897.3	939.2	925.3	968.9
Government consumption expenditure	661.8	691.4	720.9	320.4	341.5	334.9	356.5	349.3	371.7
Gross fixed capital formation (GFCF)	706.2	744.9	783.9	339.4	366.8	358.6	386.3	376.9	407.0
Machinery and equipment	225.8	233.4	244.1	107.9	117.8	110.9	122.4	115.1	129.1
Construction	353.2	378.9	401.5	169.5	183.7	183.3	195.7	194.7	206.8
GFCF in other products	127.2	132.6	138.3	62.0	65.2	64.4	68.2	67.2	71.1
Change in stocks[3]	12.6	14.4	16.5	8.6	4.0	17.2	−2.9	16.6	−0.2
Domestic uses	3,160.2	3,287.1	3,415.6	1,541.2	1,619.0	1,608.0	1,679.1	1,668.1	1,747.5
Balance of exports and imports	231.0	232.2	237.0	130.7	100.3	121.6	110.6	123.5	113.4
Exports	1,590.9	1,657.5	1,730.6	791.5	799.3	818.1	839.5	850.3	880.2
Imports	1,359.9	1,425.3	1,493.6	660.8	699.1	696.5	728.9	726.8	766.8
Gross domestic product	**3,391.2**	**3,519.3**	**3,652.5**	**1,671.8**	**1,719.3**	**1,729.6**	**1,789.7**	**1,791.6**	**1,860.9**
b) Percentage change over previous year									
Final consumption expenditure	3.0	3.5	3.5	3.0	3.0	3.3	3.8	3.4	3.5
Private consumption expenditure[2]	2.7	3.2	3.1	2.8	2.7	2.8	3.6	3.1	3.2
Government consumption expenditure	3.6	4.5	4.3	3.4	3.7	4.5	4.4	4.3	4.3
Gross fixed capital formation (GFCF)	6.1	5.5	5.2	5.7	6.4	5.7	5.3	5.1	5.4
Machinery and equipment	4.9	3.4	4.6	5.6	4.3	2.8	3.9	3.7	5.4
Construction	8.1	7.3	6.0	7.0	9.2	8.1	6.5	6.2	5.7
GFCF in other products	2.7	4.3	4.3	2.6	2.7	4.0	4.5	4.3	4.3
Domestic uses	4.3	4.0	3.9	3.7	4.9	4.3	3.7	3.7	4.1
Exports	3.2	4.2	4.4	3.8	2.6	3.4	5.0	3.9	4.9
Imports	5.1	4.8	4.8	3.9	6.3	5.4	4.3	4.4	5.2
Gross domestic product	**3.5**	**3.8**	**3.8**	**3.7**	**3.2**	**3.5**	**4.1**	**3.6**	**4.0**
3. Disposition of GDP, adjusted for prices									
a) Chain-linked estimated in billion EUR									
Final consumption expenditure	2,181.0	2,216.2	2,248.6	1,074.5	1,106.5	1,088.8	1,127.4	1,104.7	1,143.9
Private consumption expenditure[2]	1,612.5	1,636.5	1,658.9	794.0	818.5	802.6	833.9	813.5	845.4
Government consumption expenditure	568.2	579.2	589.1	280.3	287.8	285.9	293.3	290.7	298.3
Gross fixed capital formation (GFCF)	610.8	627.9	646.6	295.2	315.6	303.4	324.6	311.8	334.8
Machinery and equipment	216.4	222.9	232.3	103.1	113.3	105.6	117.3	109.1	123.1
Construction	282.9	290.6	297.3	137.4	145.5	141.7	148.9	145.1	152.1
GFCF in other products	112.2	115.2	118.5	54.9	57.3	56.1	59.1	57.7	60.8
Domestic uses	2,786.5	2,839.9	2,892.4	1,375.1	1,411.4	1,402.7	1,437.2	1,426.6	1,465.8
Exports	1,487.3	1,529.3	1,588.6	744.2	743.2	755.9	773.4	781.1	807.5
Imports	1,298.9	1,349.3	1,409.1	635.4	663.5	659.1	690.2	685.4	723.7
Gross domestic product	**2,976.8**	**3,023.0**	**3,076.2**	**1,483.8**	**1,493.0**	**1,500.3**	**1,522.7**	**1,523.8**	**1,552.4**
b) Percentage change over previous year									
Final consumption expenditure	1.1	1.6	1.5	1.2	1.0	1.3	1.9	1.5	1.5
Private consumption expenditure[2]	1.1	1.5	1.4	1.3	1.0	1.1	1.9	1.4	1.4
Government consumption expenditure	0.9	1.9	1.7	0.8	1.0	2.0	1.9	1.7	1.7
Gross fixed capital formation (GFCF)	3.0	2.8	3.0	2.8	3.2	2.8	2.8	2.8	3.2
Machinery and equipment	4.3	3.0	4.2	4.8	3.8	2.5	3.5	3.3	5.0
Construction	3.2	2.7	2.3	2.5	3.8	3.1	2.4	2.4	2.1
GFCF in other products	0.5	2.7	2.9	0.4	0.6	2.3	3.1	2.9	2.8
Domestic uses	2.0	1.9	1.8	1.7	2.2	2.0	1.8	1.7	2.0
Exports	2.0	2.8	3.9	3.2	0.9	1.6	4.1	3.3	4.4
Imports	3.2	3.9	4.4	3.2	3.3	3.7	4.0	4.0	4.9
Gross domestic product	**1.5**	**1.6**	**1.8**	**1.9**	**1.2**	**1.1**	**2.0**	**1.6**	**2.0**

Continued: The main national accounts data for the Federal Republic of Germany
Forecast for 2018 to 2020

	2018	2019	2020	2018		2019		2020	
				1st half year	2nd half year	1st half year	2nd half year	1st half year	2nd half year
4. Price level of national expenditure (2010 = 100) Percentage change over previous year									
Private consumption expenditure[2]	1.6	1.7	1.7	1.5	1.7	1.7	1.7	1.7	1.8
Government consumption expenditure	2.6	2.5	2.5	2.6	2.7	2.5	2.5	2.6	2.5
Gross fixed capital formation (GFCF)	2.9	2.6	2.2	2.8	3.1	2.8	2.4	2.2	2.1
Machinery and equipment	0.6	0.4	0.4	0.7	0.5	0.3	0.4	0.4	0.4
Construction	4.8	4.4	3.6	4.4	5.2	4.9	4.0	3.7	3.5
Exports	1.1	1.3	0.5	0.5	1.7	1.8	0.9	0.6	0.4
Imports	1.8	0.9	0.3	0.7	2.9	1.6	0.2	0.4	0.3
Gross domestic product	**1.9**	**2.2**	**2.0**	**1.8**	**2.0**	**2.3**	**2.1**	**2.0**	**2.0**
5. Distribution of Income a) Billion EUR									
Primary income of private households[2]	2,362.4	2,448.2	2,531.4	1,165.5	1,196.9	1,209.8	1,238.4	1,250.0	1,281.4
Employers' social contributions	312.2	327.4	339.3	151.6	160.6	158.7	168.7	164.6	174.8
Gross wages and salaries	1,432.6	1,496.3	1,554.0	682.6	750.0	715.5	780.8	743.3	810.7
Other primary income of private households[4]	617.6	624.5	638.1	331.4	286.3	335.5	288.9	342.2	296.0
Primary income of other institutional sectors	500.3	522.1	551.9	234.8	265.5	237.4	284.7	249.2	302.7
Net national income (primary income)	**2,862.7**	**2,970.3**	**3,083.3**	**1,400.3**	**1,462.4**	**1,447.2**	**1,523.1**	**1,499.2**	**1,584.1**
Consumption of fixed capital	599.5	623.0	645.7	296.8	302.7	309.2	313.8	320.5	325.2
Gross national income	**3,462.2**	**3,593.2**	**3,729.0**	**1,697.1**	**1,765.1**	**1,756.4**	**1,836.8**	**1,819.7**	**1,909.3**
Memorandum item:									
Net national income (factor costs)	2,536.6	2,634.1	2,737.1	1,236.6	1,299.9	1,279.0	1,355.1	1,326.0	1,411.1
Property and entrepreneurial income	791.8	810.4	843.8	402.5	389.3	404.7	405.7	418.2	425.6
Compensation of employees	1,744.7	1,823.8	1,893.3	834.1	910.6	874.3	949.5	907.9	985.5
b) Percentage change over previous year									
Primary income of private households[2]	4.1	3.6	3.4	4.2	4.0	3.8	3.5	3.3	3.5
Employers' social contributions	3.3	4.9	3.6	3.6	3.0	4.7	5.1	3.7	3.6
Gross wages and salaries	4.8	4.4	3.9	4.7	4.9	4.8	4.1	3.9	3.8
Other primary income of private households[4]	2.7	1.1	2.2	3.3	2.1	1.3	0.9	2.0	2.4
Primary income of other institutional sectors	−0.6	4.3	5.7	0.3	−1.3	1.1	7.2	5.0	6.3
Net national income (primary income)	**3.2**	**3.8**	**3.8**	**3.5**	**3.0**	**3.3**	**4.2**	**3.6**	**4.0**
Consumption of fixed capital	4.6	3.9	3.6	4.5	4.7	4.2	3.6	3.6	3.6
Gross national income	**3.5**	**3.8**	**3.8**	**3.7**	**3.3**	**3.5**	**4.1**	**3.6**	**3.9**
Memorandum item:									
Net national income (factor costs)	3.3	3.8	3.9	3.5	3.0	3.4	4.2	3.7	4.1
Property and entrepreneurial income	0.5	2.3	4.1	1.6	−0.5	0.5	4.2	3.3	4.9
Compensation of employees	4.5	4.5	3.8	4.5	4.6	4.8	4.3	3.8	3.8
6. Income and expenditure of private households a) billion EUR									
Mass income	1,401.5	1,472.0	1,524.9	673.2	728.3	708.1	763.8	734.1	790.8
Net wages and salaries	946.4	993.4	1,030.3	445.6	500.7	469.5	523.9	487.0	543.2
Social benefits	579.8	608.4	629.8	289.3	290.6	302.8	305.6	313.9	315.9
Less levies on social benefits	124.7	129.8	135.1	61.7	63.1	64.2	65.7	66.8	68.3
Other primary income[4]	617.6	624.5	638.1	331.4	286.3	335.5	288.9	342.2	296.0
Other transfers received (net)[5]	−86.8	−93.0	−96.5	−42.2	−44.6	−45.9	−47.0	−47.7	−48.8
Disposible income	**1,932.3**	**2,003.5**	**2,066.6**	**962.3**	**970.0**	**997.8**	**1,005.7**	**1,028.6**	**1,038.0**
Memorandum item:									
Adjustment for the change in net equity of households in pension funds reserves	52.9	53.8	54.7	26.1	26.8	26.5	27.2	27.0	27.7
Private consumption expenditure	1,779.6	1,836.5	1,894.2	872.8	906.7	897.3	939.2	925.3	968.9
Savings	205.6	220.8	227.0	115.6	90.0	127.0	93.8	130.2	96.7
Savings ratio in percent[6]	10.4	10.7	10.7	11.7	9.0	12.4	9.1	12.3	9.1
b) Percentage change over previous year									
Mass income	4.0	5.0	3.6	3.8	4.2	5.2	4.9	3.7	3.5
Net wages and salaries	4.8	5.0	3.7	4.6	5.0	5.4	4.6	3.7	3.7
Social benefits	2.6	4.9	3.5	2.3	2.9	4.7	5.2	3.7	3.4
Less levies on social benefits	3.6	4.1	4.1	3.0	4.2	4.1	4.1	4.1	4.1
Other primary income[4]	2.7	1.1	2.2	3.3	2.1	1.3	0.9	2.0	2.4
Disposible income	**3.3**	**3.7**	**3.2**	**3.3**	**3.3**	**3.7**	**3.7**	**3.1**	**3.2**
Private consumption expenditure	2.7	3.2	3.1	2.8	2.7	2.8	3.6	3.1	3.2
Savings	8.3	7.4	2.8	7.1	9.9	9.9	4.1	2.6	3.2

Continued: The main national accounts data for the Federal Republic of Germany
Forecast for 2018 to 2020

	2018	2019	2020	2018		2019		2020	
				1st half year	2nd half year	1st half year	2nd half year	1st half year	2nd half year
7. Government revenues and expenditures									
a) billion EUR									
Revenues									
Taxes	800.5	826.9	853.0	404.3	396.1	417.1	409.9	430.0	423.1
direct taxes	446.4	462.7	478.7	227.3	219.1	235.4	227.3	243.3	235.3
indirect taxes	354.1	364.2	374.4	177.1	177.0	181.7	182.5	186.6	187.7
Net social contributions	570.7	594.2	616.7	276.7	294.0	288.6	305.6	299.7	317.0
Property income	18.5	18.7	18.2	11.4	7.1	11.9	6.8	11.6	6.6
Other transfers	23.6	22.8	23.2	11.6	12.0	10.7	12.2	10.8	12.3
Capital transfers	12.0	11.4	11.8	5.5	6.5	5.6	5.7	5.9	5.9
Sales	114.2	117.1	119.1	54.2	60.0	55.6	61.5	56.5	62.6
Other subsidies	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Total revenues	**1,539.7**	**1,591.4**	**1,642.2**	**763.9**	**775.9**	**789.5**	**801.8**	**814.5**	**827.6**
Expenditures									
Intermediate consumption	162.7	170.1	177.3	74.0	88.7	77.4	92.7	80.7	96.6
Compensation of employees	255.2	265.0	275.7	122.8	132.4	127.5	137.5	132.5	143.2
Social benefits in kind	286.8	299.0	309.9	142.0	144.8	148.2	150.8	153.8	156.0
Property income (interests)	31.2	29.9	28.8	15.9	15.3	15.2	14.8	14.6	14.2
Subsidies	27.9	28.0	28.2	13.4	14.5	13.4	14.6	13.5	14.7
Social benefits	519.7	544.9	564.2	259.6	260.1	271.3	273.6	281.3	282.9
Other transfers	81.9	88.6	91.5	40.6	41.2	44.0	44.7	45.4	46.1
Gross capital formation	80.0	86.2	92.2	34.8	45.2	37.6	48.6	40.3	51.9
Capital transfers	39.6	35.1	37.4	13.2	26.4	13.2	21.9	14.2	23.2
Acquisitions less disposals of non-financial non-produced assets	−1.6	−1.6	−1.6	−0.6	−1.0	−0.6	−1.0	−0.6	−1.0
Other taxes on production	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Total expenditures	**1,483.6**	**1,545.5**	**1,603.8**	**715.8**	**767.9**	**747.3**	**798.2**	**775.9**	**827.9**
Balance	56.1	45.9	38.4	48.1	8.0	42.2	3.7	38.7	−0.3
b) Percentage change over previous year									
Revenues									
Taxes	4.4	3.3	3.2	5.4	3.5	3.2	3.5	3.1	3.2
direct taxes	6.0	3.7	3.4	7.6	4.3	3.6	3.7	3.4	3.5
indirect taxes	2.6	2.9	2.8	2.7	2.5	2.6	3.1	2.7	2.8
Net social contributions	4.0	4.1	3.8	4.1	4.0	4.3	3.9	3.8	3.7
Property income	16.3	1.1	−2.7	31.7	−2.0	4.0	−3.6	−2.2	−3.7
Other transfers	8.4	−3.4	1.5	18.6	0.1	−8.4	1.4	1.5	1.5
Capital transfers	17.8	−5.2	3.8	13.8	21.3	3.3	−12.3	3.9	3.6
Sales	3.1	2.5	1.7	3.3	2.9	2.5	2.5	1.7	1.7
Other subsidies	0.5	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0
Total revenues	**4.5**	**3.4**	**3.2**	**5.3**	**3.7**	**3.4**	**3.3**	**3.2**	**3.2**
Expenditures									
Intermediate consumption	4.1	4.5	4.3	3.2	4.9	4.7	4.4	4.3	4.2
Compensation of employees	3.4	3.8	4.0	3.8	3.1	3.8	3.9	3.9	4.1
Social benefits in kind	3.0	4.2	3.6	2.8	3.2	4.4	4.1	3.8	3.5
Property income (interests)	−7.6	−4.2	−3.8	−10.1	−4.8	−4.5	−3.8	−3.8	−3.8
Subsidies	−1.6	0.4	0.4	−3.6	0.4	0.4	0.4	0.4	0.4
Social benefits	2.7	4.8	3.5	2.5	2.9	4.5	5.2	3.7	3.4
Other transfers[7]	6.7	6.8	2.9	0.8	5.8	3.3	3.4	1.4	1.5
Gross capital formation	10.4	7.8	6.9	11.8	9.4	8.2	7.5	7.1	6.8
Capital transfers[7]	−4.3	−4.5	2.3	−40.6	21.6	−0.1	−17.1	7.9	5.8
Acquisitions less disposals of non-financialnon-produced assets[7]	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Other taxes on production[7]	0.0	0.0	0.0	−3.5	0.0	0.0	0.0	0.0	0.0
Total expenditures	**3.0**	**4.2**	**3.8**	**1.5**	**4.6**	**4.4**	**3.9**	**3.8**	**3.7**

1 Gross domestic product (price-adjusted) per man-hour.
2 Including private organizations without pecuniary reward.
3 Including net increase in valuables.
4 Entrepreneurial income/operating surplus and received minus paid asset income.
5 Transfers, received minus paid.
6 Current saving as percentage of disposable income.
7 Absolute change over previous year in billions of euros.
8 All administrative units including Social Security.

Sources: Federal Statistical Office (Fachserie 18: Volkswirtschaftliche Gesamtrechnungen); Forecast by DIW Berlin.