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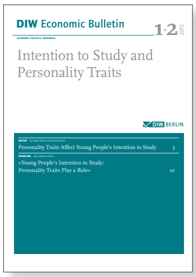

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German economy booming but not to the point of overheating

By Ferdinand Fichtner, Dawud Ansari, Guido Baldi, Karl Brenke, Martin Bruns, Marius Clemens, Kristina van Deuverden, Christian Dreger, Hella Engerer, Marcel Fratzscher, Stefan Gebauer, Simon Junker, Claus Michelsen, Malte Rieth, Thore Schlaak, and Aleksandar Zaklan

The German economy continues to boom and the upswing has recently gained breadth. In addition to continuing strong consumer demand on the domestic front, the flourishing global economy is making itself felt in a growing Germany economy. In view of strong exports and abating global risks companies in capital-intensive manufacturing and processing industries are currently investing more. This activity is adding momentum to the upswing.

The German Institute for Economic Research (DIW Berlin) is raising its forecast compared to the fall, partly because the first half of 2017 was more robust than currently documented in the official statistics. The German economy is expected to grow by 2.2 percent this year and next. The growth rate will likely be somewhat lower again in 2019: around 1.6 percent. In September, the growth forecast for this year and next was 1.9 percent; for 2019 the forecast remains unchanged.

The German economy is booming right now. Production is running at high capacity and wages and prices should gradually begin to rise more substantially than recently discernable. But there is no sign of overheating. This year the unemployment rate was 5.7 percent, and it should drop to 5.2 percent by 2019. Despite the exceptionally favorable situation in the labor market wage hikes are only moderate right now. Cost pressure on companies and the prices of manufactured goods and services have virtually remained the same. At 1.7 percent, this year's inflation rate is significantly higher than it was last year. This is due almost entirely to the fact that energy prices are no longer falling and hence, cost relief from this side has ceased. But even in 2019, the inflation rate is not expected to top the two-percent mark. Thus, there is no wage-price spiral typical of an overheating economy on the horizon.

The persistently high unemployment rate in many European Union member states is partially responsible for this, as migration from other EU countries feeds the increase in employment in Germany. For this reason, the employee negotiating position in collective bargaining rounds has improved only gradually. And energy prices have held down the inflation rates of past years, which probably also contributed to the moderation in wage agreements. Most of them have terms that will not expire until next year and will therefore leave their marks on the wage trend for a longer period.

In the European Union and the euro area the economy is also on an upswing, and production is rising more sharply than potential output. As a result, the euro area is approaching normal capacity utilization as measured by conventional estimation methods. However, unemployment remains high in many countries. Both private and public debt levels are declining in relation to GDP in many places, but they are still at rather high levels. And many bank balance sheets—particularly those in Italy—still harbor risks because a significant volume of loans is at risk of default.

Under these circumstances, the European Central Bank (ECB) would be well advised to tighten monetary policy in a very gradual manner only. It would be premature to commit to a long-term phase out of unconventional monetary policy or future interest rate increases at this time because aside from fluctuations caused by energy prices, the inflation rate should remain lower than the ECB's inflation target of below, but close to two percent during the forecast horizon. By following a rapid phase out policy, the ECB would risk exposing the euro area economy prematurely to a significant loss of momentum. And both banks and the public budget would face risks from changing interest rates; in the worst case, rising financing costs could destabilize the financial system again.

For this forecast, we assumed cutbacks in the ECB asset purchase program as of January 2018 and the first interest rate increase in mid-2019. But even this gradual tightening of monetary policy should slow down the current strong upswing in the euro area toward the end of the forecast horizon. Other central banks will also rein in their monetary policy during the forecast horizon, slowing down the global economy's very strong momentum at present.

Toward the end of the forecast horizon, this will also dampen German exports and its expanding GDP as well. The momentum in the labor market will slow down in turn: 650,000 jobs will have been created in 2017, but in 2019 the number of new jobs will not hit the 300,000 mark. Because of this, household income will not expand as strongly as it did this year and in the two previous years and private consumption will gradually weaken over the forecast horizon. The German economy is expected to return to a flatter growth curve. Capacity utilization will decline slightly again and the boom will have passed its peak.

However, growth could be higher than forecast here, particularly later in the forecast horizon, for financial policy could very well sustain more momentum than assumed. Regardless of the outcome of the government formation process, even if a new German election is held, any new government will most likely take advantage of the considerable margin for fiscal maneuver and either reduce taxes and social security contributions significantly or increase transfer payments. Since at this time we do not know how measures with very different effects will be designed, the present forecast is, as usual, based on the fiscal status quo. Were the state to implement supplementary measures instead, the German economy could grow at a much higher level. In view of the pace of political decision-making processes, this is more likely to kick in 2019. For example, measures worth the frequently debated volume of 15 billion euros could result in an increase in the growth rate of up to half a percentage point.

The fiscal margin for maneuver should not be overestimated. Germany's financing surplus will be 47 billion euros this year and should rise to 54 billion euros by 2019. However, a major portion of the surplus in the public budget is a result of the favorable economic situation—it is not permanent and should not be used for long-term planning. And the public sector is currently benefiting from unusually low interest rates. As monetary policy is normalized, the savings associated with low interest rates will gradually decrease.

Measures targeted at supporting short-term economic growth are not appropriate in the current environment. In view of the current boom, financial policy measures should focus on positively influencing the German economy's longer-term growth trend. The looming demographic shift is an unfavorable factor that challenges policy makers to make the general conditions for investment in Germany more attractive. As the working age population declines, the remaining labor pool must be able to work more productively. And when there are fewer and fewer working age people in Germany, relatively more people must want to enter the labor market and be as productive as possible. One way to achieve this is reducing the tax and transfer burden on labor. Another appropriate measure could be based on targeted public expenditure with the character of investment—in education-related or infrastructure projects. Companies also need more incentives to invest in Germany's capital stock.

The external environment continues to pose uncertainty for economic development in Germany. In many respects, the course of economic policy in the USA is still ambiguous, and the plans its government announces are being implemented hesitantly. Should the U.S. terminate trade agreements, German exporters would also feel a negative impact from the resulting constriction in the international flow of goods—a scenario the present forecast does not consider.

The European environment harbors other major risks, although Brexit has not yet seriously weakened the

German economy. In this forecast, we assumed that the economic relationship between the EU and the UK would not change within the forecast horizon: Either the exit process would be canceled, or a follow-up treaty would be concluded that creates a climate for trade and investment similar to that of the EU treaty. If such an agreement proves impossible, Brexit could impair the European and German economies more than assumed here.

And further risks may also arise from the economic situation in the euro area. In the wake of reining in expansionary monetary policy, a faster rise in the interest rate than assumed here could weigh on bank stability in many countries, and thus—in the worst case—reigniting a financial crisis in the euro area. This would noticeably weaken the European and German economies.

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The world economy and the euro area: global upswing remains intact for the time being

By Ferdinand Fichtner, Guido Baldi, Martin Bruns, Christian Dreger, Hella Engerer, Stefan Gebauer, and Malte Rieth

The global economy is expected to grow by four percent annually over the next two years. This is a slight increase in the German Institute for Economic Research forecast in comparison to that of the fall. The upswing will gain momentum in both developed and emerging economies. Private consumption will play a pivotal supporting role as investment continues to grow rapidly around the globe. Despite the high level of unemployment in some countries, the euro area is experiencing stable growth, though its investment could be more dynamic. In China, cutting back overcapacity in manufacturing should suitably curb expansion. And a somewhat less expansive monetary policy emanating from the USA and euro area could curb worldwide demand to the extent that global economic growth does not continue to accelerate. Political uncertainty in Europe and the USA, as well as potential trade restrictions, pose the primary risks to the world economy.

The strong upswing in the global economy has not abated. In the third quarter, the economic situation developed as positively in developed economies as it did in emerging economies. Consumption was again the main driver of growth. Investment also remained robust, currently resulting in tangible annual growth in world trade. The momentum should be maintained next year, as growth spreads even in emerging economies. In conjunction with the stable domestic economies of developed countries, this should also boost private investment activity. And the situation in the employment market will also continue to improve. In the euro area, unemployment will remain high and the upward trend in wages and prices will be moderate. China has considerable overcapacity in the manufacturing sector, and the sectoral shift there should lead to a slight flattening of world trade in the future. In the USA, on the contrary, shortages in the employment market may be observed by the end of the forecast horizon and inflation will probably increase. Overall, these factors should slow down the global economy's growth (Figure).

And monetary policy is also likely to reduce its level of expansion around the globe somewhat, which will also contribute to the slowdown. In the USA, the Federal Reserve Bank is expected to continue reducing its portfolio of assets and gradually raise the prime rate. Central banks in emerging countries should follow suit, which would slightly increase financing costs for companies and households around the world. The European Central Bank also announced that it planned to reduce the volume of its monthly asset purchases. It will presumably stop net purchases in the second half of 2018 and in the following year, after which the inflation rate will slowly approach its target from below–an initial moderate increase in the interest rate will follow. Global financial policy should take a slightly less restrictive approach. In the USA, tax breaks will set a moderately positive trend.

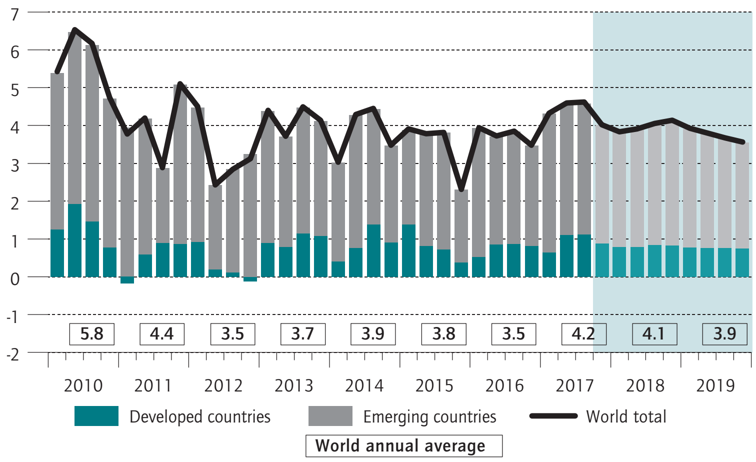
All in all, the world economy should grow by an annual rate of around four percent within the forecast horizon (Table). This slightly improves the forecast in comparison to the September 2017 *Economic Outlook*. The robust expansion will be supported by oil prices, which should rise only mildly.

Risks to the global economy continue to emanate from Europe, where key elections–in Italy, for one–will take place next year. If euroskeptical parties grow stronger or the problems of heavily indebted banks are exacerbated, uncertainty in the euro area could increase and adversely affect investment. The Brexit negotiations could also lead to a higher level of uncertainty and dampen the economic growth of the UK. Trade restrictions imposed by the U.S. are likely to hamper world trade and global investment activity.

Figure

World real GDP

In percent, percentage points



Sources: National statistical offices; DIW Economic Outlook Winter 2017.

The expansion is losing a bit of steam in 2019.

Table

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

In percent

	GDP				Consumer prices				Unemployment rate in percent			
	Change over previous year in percent											
	2016	2017	2018	2019	2016	2017	2018	2019	2016	2017	2018	2019
Euro area	1.7	2.4	2.1	1.7	0.4	1.4	1.6	1.7	10.0	9.0	8.6	8.3
without Germany	1.7	2.3	2.0	1.7	0.3	1.3	1.6	1.7	12.6	11.5	11.0	10.7
France	1.1	1.8	1.8	1.6	0.2	1.1	1.4	1.5	10.1	9.6	9.6	9.4
Italy	1.1	1.6	1.4	1.2	0.0	1.4	1.1	1.4	11.7	11.3	11.0	10.6
Spain	3.3	3.1	2.7	2.3	−0.2	2.0	1.9	2.3	19.7	17.2	15.8	15.3
Netherlands	2.1	3.2	2.6	2.2	0.1	1.3	1.4	1.7	6.0	4.9	4.6	4.4
United Kingdom	1.8	1.5	1.4	1.5	0.7	2.7	2.5	2.2	5.0	4.5	4.6	4.7
USA	1.5	2.3	2.5	2.4	1.3	1.8	1.6	2.1	4.9	4.4	4.1	4.0
Japan	1.0	1.5	1.2	1.2	−0.1	0.3	0.5	1.1	3.1	3.0	3.1	3.0
South Korea	2.8	3.2	3.1	2.6	1.0	2.2	2.5	2.7	3.7	3.6	3.0	3.0
Middle Eastern Europe	3.0	4.6	3.5	3.3	−0.2	1.6	2.4	2.5	5.7	4.6	4.2	3.9
Turkey	3.3	5.4	3.3	3.5	7.8	10.8	8.3	8.2	10.9	11.1	10.7	10.5
Russia	−0.2	1.9	1.6	1.7	7.1	4.2	4.1	4.0	5.5	5.2	5.1	4.8
China	6.7	6.8	6.5	6.5	1.6	1.7	2.5	3.3	4.1	4.1	4.1	4.1
India	7.9	6.7	7.3	6.6	2.9	5.6	6.1	6.1				
Brazil	−3.5	1.0	0.9	1.1	8.7	3.6	4.9	6.0	11.3	12.8	10.6	8.4
Mexico	2.7	2.6	2.2	2.0	2.8	5.7	3.2	3.2	3.9	4.1	4.8	4.8
Developed Economies	1.6	2.2	2.2	2.0	0.8	1.6	1.6	1.9	5.9	5.3	5.1	4.9
Emerging Markets	5.0	5.6	5.4	5.2	3.0	3.4	3.9	4.4	5.3	5.4	5.2	4.9
World	3.5	4.2	4.1	3.9	2.1	2.7	2.9	3.4	5.6	5.4	5.1	4.9

Sources: National statistical offices; DIW Economic Outlook Winter 2017.

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German economy: upswing has gained breadth but will not hold pace

By Ferdinand Fichtner, Karl Brenke, Marius Clemens, Simon Junker, Claus Michelsen, Thore Schlaak, and Kristina van Deuverden

The upswing of the German economy continues and since the beginning of 2017, even at a somewhat faster pace. Sharp gains in employment are still driving consumption. And companies are investing significantly more in machines and facilities. Many global risks that previously limited the propensity to invest—in Germany and many other countries—have vanished. And the euro area is also finally feeling the upswing. The German export industry in particular is enjoying the benefits. The German Institute for Economic Research (DIW Berlin) is thus raising its forecast for German GDP and now anticipates a plus of 2.2 percent for this year. Although the momentum will gradually slow down toward the end of the forecast horizon, Germany's annual growth for 2018 should be of the same magnitude. All in all, the economy is booming but not to the point of overheating—wage and price movement is restrained.

The German economy is in the fourth year of an upswing. The pace picked up at the beginning of the year and has held steady. Germany's GDP should therefore grow more rapidly than previously expected and hit the 2.2-percent mark this year. Although growth by quarter should decelerate somewhat toward the end of the forecast horizon (Table 1), the anticipated average growth rate for next year should be about the same (Figure 1).

The German economy is booming right now. The output gap roughly half a percent this year and should expand to one percent in 2018. The country's economic capacity will be well utilized over the forecasting horizon. According to surveys, the manufacturing industry—and above all, the construction industry—is currently producing at higher capacity than the long-term average. And across all sectors, sentiment indicators have reached historical highs.

However, the German Institute for Economic Research (DIW Berlin) sees no sign of overheating. Wage increases are keeping pace with inflation and productivity, and in the next two years inflation will probably hover at just below two percent (Table 2). Adjusted for the fluctuation in number of working days, GDP growth for 2017 will be 2.5 percent and next year somewhat lower at 2.3 percent. This mirrors the expectation that economic growth will slow down in 2018. The year after, the German economy will grow by a much lower rate of 1.6 percent and the output gap will shrink.

The upswing has broadened significantly. Until now it has been fueled by private and public consumption, but owing to higher exports, corporate investment has also picked up momentum since the beginning of the year.

Prices are increasing at a higher rate than previously; and nominal income is not keeping pace, so private consumption will not be able to maintain the rate of growth it had this year and last. Because employment is rising—this year by an expected 650,000 persons, in 2018 by 400,000 persons, and in the following year by 300,000—and wages should rise due to the growing

Table 1

Use of gross domestic product, quarter-on-quarter growth rates
Price, seasonally and working-day-adjusted, in percent

	2017				2018				2019			
	I	II	III	IV	I	II	III	IV	I	II	III	IV
Private consumption	0.8	0.9	−0.1	0.6	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Public consumption	0.2	0.2	0.0	0.3	0.5	0.5	0.3	0.3	−0.1	0.0	0.3	0.3
Gross fixed capital formation	2.9	1.5	0.4	0.9	1.1	1.0	0.8	0.8	0.7	0.7	0.7	0.7
Investment in machinery and equipment	2.3	3.3	1.5	1.6	1.8	1.4	1.0	1.0	0.8	0.8	0.8	0.8
Construction investment	3.5	0.5	−0.4	0.5	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6
Other investment	2.0	0.9	0.6	0.7	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7
Change in inventories[1]	−0.8	0.2	0.4	−0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Domestic uses	0.3	1.2	0.4	0.3	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4
Net Exports[1]	0.6	−0.4	0.4	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Exports	1.7	1.0	1.7	1.5	1.4	1.2	1.1	1.1	1.1	1.0	1.0	1.0
Imports	0.4	2.4	0.9	1.4	1.3	1.3	1.2	1.2	1.2	1.1	1.1	1.1
Gross Domestic Product	0.9	0.6	0.8	0.4	0.7	0.5	0.4	0.4	0.4	0.4	0.4	0.4

1 Contribution to gross domestic product growth in percentage points.

Sources: Federal Statistical Office; authors' own calculations, forecast from 2017 Q4 onward.

labor market shortage, private consumption will remain a driver of growth. The unemployment rate will fall from 5.7 percent this year to 5.2 percent in 2019.

During the winter half-year, industry should visibly expand. Order books are full, partially because the global economy in general, and in the euro area in particular, have relatively high growth rates. They go hand in hand with higher levels of investment in many countries, in turn stimulating Germany's export economy, which is specialized in this class of goods. Foreign trade is making a positive contribution to the growth of the German economy, although it is expected to gradually decrease; import growth is just as dynamic. The current account

Table 2

Key economic indicators for the German economy

	2014	2015	2016	2017	2018	2019
Real GDP[1] (percent change over previous year)	1.9	1.7	1.9	2.2	2.2	1.6
Domestic employment (1000 persons)	42 672	43 069	43 638	44 289	44 702	44 989
Unemployed (ILO concept)	2 092	1 949	1 775	1 616	1 517	1 402
Unemployed (BA concept)	2 898	2 795	2 691	2 535	2 453	2 338
Unemployment rate[2] (ILO concept)	5.0	4.6	4.1	3.8	3.5	3.2
Unemployment rate[2] (BA concept)	6.7	6.4	6.1	5.7	5.5	5.2
Consumer prices	0.9	0.2	0.5	1.7	1.7	1.7
Unit labor costs[3]	1.4	1.8	1.6	1.7	1.5	2.1
Government budget balance[4]						
in billion EUR	9.5	19.4	25.7	47.4	46.0	54.1
in percent of GDP	0.3	0.6	0.8	1.5	1.4	1.5
Current account balance, in percent of GDP	7.4	8.5	8.2	7.9	8.1	8.1

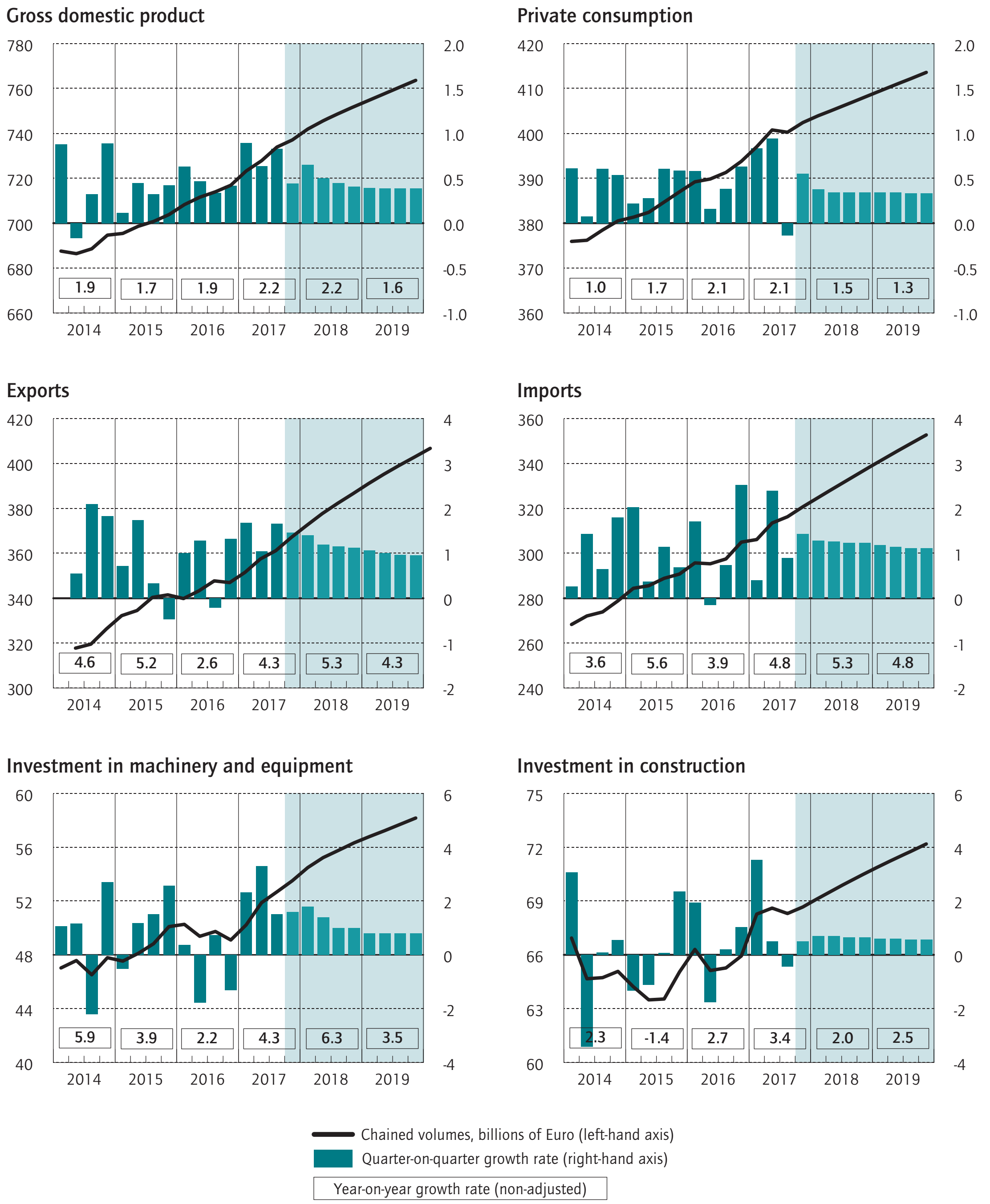
1 Price-adjusted, chain-linked.
2 As a share of domestic labor force (ILO), resp. Civilian labor force (BA).
3 Compensation of employees (national concept) per hour worked over real GDP.
4 According to ESA 2010.

Sources: National and international institutions; authors' own calculations, forecast from 2017 onward.

Figure 1

Gross domestic product and use of GDP

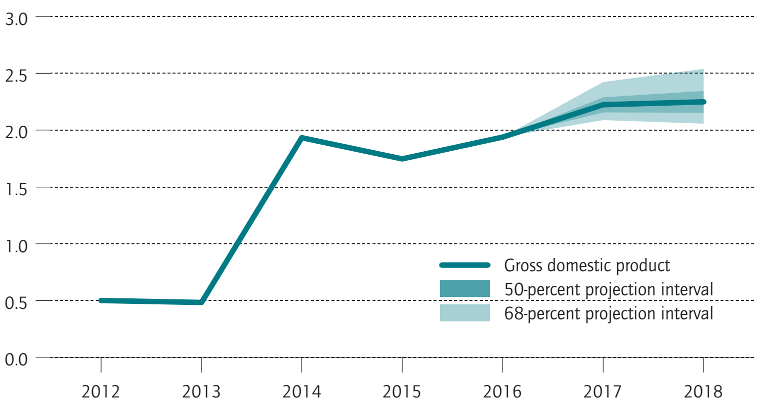
Seasonally and working day adjusted



Sources: Federal Statistical Office; authors' own calculations, forecasts as of 2017 Q4.

Figure 2

Forecast for the rate of change of real gross domestic product
In percent



Note: For 2019, corresponding intervals cannot be calculated because there are insufficient predictions for this horizon.

Source: Authors' own calculations.

surplus will plateau at around eight percent during the forecast horizon.

The high level of global investment since the beginning of 2017 may also be due to the dissolution of many risks that previously reduced companies' willingness to invest. For example, euroskeptical parties did not gain traction in the elections in France and the Netherlands as feared, and the Chinese economy is experiencing unexpectedly robust development. Additionally, the euro area's fragile growth has taken root. These brighter general conditions must have also contributed to the upturn in corporate investment in Germany. In line with continued robust demand from outside Germany, investment should follow an upward trend until the end of the forecast horizon.

The economic growth forecast is currently subject to unusual uncertainty: Germany has not yet formed a new government, which is expected to realign its policies after concluding a new coalition agreement. And in the present forecast, the development of the public budget is based on the assumption that the status quo, the applicable legal framework, will not change. Under these circumstances, public budgets will close their reporting periods with high surpluses. In relation to nominal GDP, the surplus this year will be 1.5 percent. In 2018 it will be 1.4 percent, and in 2019 it should be 1.5 percent or 54.1 billion euros.[1] The subsequent budgetary leeway will not remain on the sidelines in the coalition negotiations. Budgetary balances will be discernibly lower and the effects of new measures on the economy could be significant.

Euroskeptical parties gaining traction in the Italian elections next year, the course of the Brexit negotiations, and the tension between the U.S. and North Korea could harbor further risks for the present forecast. All of these factors could increase political uncertainty, burdening investment in particular.

DIW Berlin has raised its forecast for the current year by one-quarter of a percentage point. Half of this upward revision resulted from an adjustment of the official statistics on the one hand and on the other, unexpectedly robust growth in the third quarter plus more momentum than estimated in the final quarter. The 68-percent confidence interval resulting from forecasting errors in the past five years is between 2.1 and 2.5 this year and for 2018, between 2.1 and 2.6 percent (Figure 2).

1 See Kristina van Deuverden, "Hohe Haushaltsüberschüsse nutzen, um Wachstumschancen in der Zukunft zu erhöhen," *DIW Wochenbericht*, no. 50 (2017): 1183–1192 (available online, accessed December 13, 2017).

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The main national accounts data for the Federal Republic of Germany

Forecast for 2017 to 2019

	2017	2018	2019	2017		2018		2019	
				1. half year	2. half year	1. half year	2. half year	1. half year	2. half year
1. Origin of GDP Percentage change over previous year									
Domestic employment	1.5	0.9	0.6	1.5	1.5	1.1	0.8	0.7	0.6
Hours worked, per working day	0.9	0.3	0.0	0.0	1.9	0.4	0.3	0.6	−0.5
Working days	−1.2	−0.3	0.0	0.0	−2.3	−0.5	−0.1	−0.8	0.8
Labor volume, calendar-monthly	1.3	1.0	0.6	1.5	1.0	1.0	1.0	0.4	0.8
Labor productivity[1]	1.0	1.2	1.0	0.7	1.3	1.3	1.2	1.0	0.9
Gross domestic product, price adjusted	**2.2**	**2.2**	**1.6**	**2.2**	**2.3**	**2.3**	**2.2**	**1.5**	**1.7**
2. Disposition of GDP in Current Prices a) Billion EUR									
Final consumption expenditure	2 374.4	2 447.5	2 520.6	1 160.5	1 213.8	1 193.8	1 253.8	1 227.6	1 293.0
Private consumption expenditure[2]	1 738.3	1 790.0	1 843.3	850.5	887.7	873.9	916.1	898.4	945.0
Government consumption expenditure	636.1	657.5	677.2	310.0	326.1	319.8	337.7	329.2	348.0
Gross fixed capital formation (GFCF)	665.5	702.7	736.9	320.8	344.7	338.2	364.5	354.7	382.2
Machinery and equipment	215.1	229.4	238.5	101.7	113.3	109.1	120.3	113.1	125.4
Construction	324.8	342.0	361.4	157.8	167.0	165.0	177.0	174.7	186.8
GFCF in other products	125.7	131.4	137.0	61.3	64.3	64.2	67.2	67.0	70.1
Change in Stocks[3]	−23.7	−22.7	−21.8	−6.4	−17.3	−2.6	−20.1	−3.1	−18.7
Domestic uses	3 016.2	3 127.6	3 235.6	1 475.0	1 541.2	1 529.4	1 598.2	1 579.2	1 656.4
Balance of exports and imports	247.0	264.7	272.4	127.5	119.5	140.0	124.7	144.0	128.4
Exports	1 537.2	1 632.1	1 715.1	761.2	776.0	808.0	824.1	847.4	867.7
Imports	1 290.2	1 367.5	1 442.7	633.7	656.5	668.0	699.5	703.4	739.3
Gross domestic product	**3 263.2**	**3 392.3**	**3 508.0**	**1 602.5**	**1 660.7**	**1 669.4**	**1 722.8**	**1 723.2**	**1 784.8**
b) Percentage change over previous year									
Final consumption expenditure	3.7	3.1	3.0	3.9	3.5	2.9	3.3	2.8	3.1
Private consumption expenditure[2]	3.8	3.0	3.0	4.0	3.6	2.8	3.2	2.8	3.2
Government consumption expenditure	3.4	3.4	3.0	3.5	3.2	3.2	3.5	2.9	3.1
Gross fixed capital formation (GFCF)	5.6	5.6	4.9	5.2	6.1	5.4	5.7	4.9	4.9
Machinery and equipment	4.5	6.7	4.0	2.7	6.1	7.2	6.1	3.7	4.2
Construction	6.7	5.3	5.7	7.0	6.4	4.6	6.0	5.9	5.5
GFCF in other products	5.0	4.5	4.3	4.9	5.1	4.6	4.5	4.4	4.2
Domestic uses	4.2	3.7	3.5	4.3	4.2	3.7	3.7	3.3	3.6
Exports	6.0	6.2	5.1	6.0	6.0	6.1	6.2	4.9	5.3
Imports	7.6	6.0	5.5	8.8	6.4	5.4	6.5	5.3	5.7
Gross domestic product	**3.8**	**4.0**	**3.4**	**3.4**	**4.1**	**4.2**	**3.7**	**3.2**	**3.6**
3. Disposition of GDP, adjusted for prices a) Chain-linked estimated in Billion EUR									
Final consumption expenditure	2 158.1	2 189.5	2 214.0	1 061.7	1 096.4	1 075.6	1 113.9	1 086.7	1 127.4
Private consumption expenditure[2]	1 599.6	1 623.7	1 645.0	784.8	814.8	795.6	828.0	804.8	840.2
Government consumption expenditure	558.3	565.6	569.0	276.7	281.5	279.8	285.8	281.7	287.3
Gross fixed capital formation (GFCF)	593.7	614.9	632.8	286.9	306.8	296.7	318.2	305.4	327.4
Machinery and equipment	208.1	221.1	229.0	97.9	110.2	104.7	116.4	108.1	120.8
Construction	272.9	278.4	285.3	133.5	139.4	135.2	143.1	138.8	146.4
GFCF in other products	113.4	116.9	120.2	55.6	57.9	57.3	59.6	58.9	61.3
Domestic uses	2 717.8	2 771.7	2 815.5	1 340.6	1 377.1	1 367.4	1 404.4	1 387.0	1 428.4
Exports	1 455.0	1 531.9	1 598.1	720.5	734.5	759.8	772.1	790.8	807.3
Imports	1 254.6	1 320.4	1 383.9	613.2	641.3	645.7	674.7	675.2	708.6
Gross domestic product	**2 918.8**	**2 984.5**	**3 032.1**	**1 447.5**	**1 471.3**	**1 481.4**	**1 503.1**	**1 503.0**	**1 529.1**
b) Percentage change over previous year									
Final consumption expenditure	1.8	1.5	1.1	2.0	1.7	1.3	1.6	1.0	1.2
Private consumption expenditure[2]	2.1	1.5	1.3	2.2	2.0	1.4	1.6	1.1	1.5
Government consumption expenditure	1.1	1.3	0.6	1.4	0.8	1.1	1.5	0.7	0.5
Gross fixed capital formation (GFCF)	3.7	3.6	2.9	3.4	4.0	3.4	3.7	2.9	2.9
Machinery and equipment	4.3	6.3	3.5	2.5	5.9	6.9	5.7	3.3	3.8
Construction	3.4	2.0	2.5	4.0	2.9	1.3	2.7	2.7	2.3
GFCF in other products	3.7	3.0	2.9	3.7	3.7	3.0	3.0	2.9	2.8
Domestic uses	2.3	2.0	1.6	2.4	2.2	2.0	2.0	1.4	1.7
Exports	4.3	5.3	4.3	4.1	4.5	5.5	5.1	4.1	4.6
Imports	4.8	5.3	4.8	5.0	4.7	5.3	5.2	4.6	5.0
Gross domestic product	**2.2**	**2.2**	**1.6**	**2.2**	**2.3**	**2.3**	**2.2**	**1.5**	**1.7**

continued: The main national accounts data for the Federal Republic of Germany
Forecast for 2017 to 2019

	2017	2018	2019	2017		2018		2019	
				1. half year	2. half year	1. half year	2. half year	1. half year	2. half year
4. Price level of national expenditure (2010=100) Percentage change over previous year									
Private consumption expenditure[2]	1.7	1.5	1.6	1.7	1.6	1.3	1.6	1.6	1.7
Government consumption expenditure	2.2	2.0	2.4	2.1	2.4	2.0	2.0	2.2	2.5
Gross fixed capital formation (GFCF)	1.8	1.9	1.9	1.7	1.9	2.0	1.9	1.9	1.9
Machinery and equipment	0.2	0.4	0.4	0.3	0.2	0.3	0.4	0.4	0.4
Construction	3.1	3.2	3.1	2.9	3.4	3.3	3.2	3.1	3.1
Exports	1.6	0.9	0.7	1.9	1.4	0.7	1.0	0.8	0.7
Imports	2.6	0.7	0.7	3.7	1.6	0.1	1.3	0.7	0.6
Gross domestic product	**1.5**	**1.7**	**1.8**	**1.2**	**1.8**	**1.8**	**1.5**	**1.7**	**1.8**
5. Distribution of Income a) Billion Euro									
Primary income of private households[2]	2 277.2	2 358.9	2 440.5	1 120.0	1 157.2	1 159.9	1 199.0	1 199.1	1 241.4
Employers' social contributions	301.0	312.2	324.0	145.1	155.9	150.6	161.6	156.5	167.5
Gross wages and salaries	1 369.6	1 424.4	1 478.3	653.2	716.4	680.2	744.2	706.6	771.8
Other primary income of private households[4]	606.6	622.3	638.2	321.6	284.9	329.1	293.2	336.0	302.1
Primary income of other institutional sectors	474.0	499.8	517.7	219.0	255.0	235.6	264.2	241.3	276.5
Net national income (primary income)	**2 751.1**	**2 858.6**	**2 958.2**	**1 338.9**	**1 412.2**	**1 395.5**	**1 463.1**	**1 440.4**	**1 517.9**
Consumption of fixed capital	571.3	594.5	615.0	283.3	288.0	294.9	299.6	305.5	309.5
Gross national income	**3 322.5**	**3 453.2**	**3 573.2**	**1 622.2**	**1 700.2**	**1 690.4**	**1 762.7**	**1 745.9**	**1 827.4**
Memorandum item:									
Net national income (factor costs)	2 433.3	2 533.2	2 623.6	1 180.6	1 252.7	1 233.4	1 299.8	1 273.8	1 349.8
Property and entrepreneurial income	762.7	796.6	821.2	382.3	380.4	402.5	394.0	410.7	410.5
Compensation of employees	1 670.6	1 736.6	1 802.4	798.3	872.3	830.8	905.8	863.1	939.3
b) Percentage change over previous year									
Primary income of private households[2]	4.6	3.6	3.5	4.6	4.6	3.6	3.6	3.4	3.5
Employers' social contributions	4.2	3.7	3.8	3.8	4.6	3.8	3.6	3.9	3.7
Gross wages and salaries	4.4	4.0	3.8	4.5	4.4	4.1	3.9	3.9	3.7
Other primary income of private households[4]	5.1	2.6	2.6	5.0	5.3	2.3	2.9	2.1	3.1
Primary income of other institutional sectors	1.3	5.4	3.6	−1.4	3.8	7.6	3.6	2.4	4.6
Net national income (primary income)	**4.0**	**3.9**	**3.5**	**3.6**	**4.5**	**4.2**	**3.6**	**3.2**	**3.7**
Consumption of fixed capital	3.5	4.1	3.4	3.3	3.6	4.1	4.0	3.6	3.3
Gross national income	**3.9**	**3.9**	**3.5**	**3.5**	**4.3**	**4.2**	**3.7**	**3.3**	**3.7**
Memorandum item:									
Net national income (factor costs)	4.1	4.1	3.6	3.5	4.7	4.5	3.8	3.3	3.8
Property and entrepreneurial income	3.4	4.4	3.1	1.6	5.2	5.3	3.6	2.0	4.2
Compensation of employees	4.4	4.0	3.8	4.4	4.4	4.1	3.8	3.9	3.7
6. Income and Expenditure of Private Households a) Billion Euro									
Mass income	1 350.3	1 397.8	1 442.9	650.5	699.9	673.8	724.0	695.3	747.5
Net wages and salaries	905.3	940.8	972.3	427.7	477.7	445.1	495.7	460.3	511.9
Social benefits	565.8	581.8	599.4	282.5	283.3	290.4	291.4	298.6	300.8
less levies on social benefits	120.8	124.8	128.8	59.7	61.1	61.7	63.1	63.6	65.2
Other primary income[4]	606.6	622.3	638.2	321.6	284.9	329.1	293.2	336.0	302.1
Other transfers received (net)[5]	−79.4	−83.0	−85.4	−38.7	−40.7	−40.7	−42.3	−41.9	−43.5
Disposible income	**1 877.5**	**1 937.1**	**1 995.6**	**933.4**	**944.1**	**962.2**	**974.9**	**989.5**	**1 006.2**
Memorandum item:									
Adjustment for the change in net equity of households in pension funds reserves	49.5	50.0	50.4	24.5	25.1	24.7	25.3	24.9	25.5
Private consumption expenditure	1 738.3	1 790.0	1 843.3	850.5	887.7	873.9	916.1	898.4	945.0
Saving	188.8	197.0	202.7	107.3	81.4	113.0	84.0	116.0	86.7
Saving ratio in percent[6]	9.8	9.9	9.9	11.2	8.4	11.4	8.4	11.4	8.4
b) Percentage change over previous year									
Mass income	3.9	3.5	3.2	4.2	3.7	3.6	3.4	3.2	3.3
Net wages and salaries	4.2	3.9	3.4	4.3	4.0	4.1	3.8	3.4	3.3
Social benefits	3.8	2.8	3.0	4.3	3.4	2.8	2.9	2.8	3.2
less levies on social benefits	5.2	3.3	3.2	5.6	4.8	3.3	3.3	3.1	3.4
Other primary income[4]	5.1	2.6	2.6	5.0	5.3	2.3	2.9	2.1	3.1
Disposible income	**4.0**	**3.2**	**3.0**	**4.2**	**3.8**	**3.1**	**3.3**	**2.8**	**3.2**
Private consumption expenditure	3.8	3.0	3.0	4.0	3.6	2.8	3.2	2.8	3.2
Saving	5.0	4.4	2.9	5.1	4.9	5.2	3.2	2.7	3.1

continued: The main national accounts data for the Federal Republic of Germany
Forecast for 2017 to 2019

	2017	2018	2019	2017		2018		2019	
				1. half year	2. half year	1. half year	2. half year	1. half year	2. half year
7. Government Revenues and Expenditures									
a) Billion Euro									
Revenues									
Taxes	770.0	791.5	819.8	385.1	384.9	398.3	393.3	412.4	407.3
direct taxes	424.5	438.0	456.7	213.3	211.2	222.5	215.5	232.0	224.7
indirect taxes	345.6	353.6	363.1	171.8	173.8	175.8	177.8	180.4	182.7
Net social contributions	548.1	567.2	588.3	265.7	282.4	275.1	292.1	285.4	302.9
Property income	17.0	17.1	17.8	8.6	8.4	8.7	8.4	9.3	8.5
Other transfers	21.7	22.2	22.6	10.1	11.5	10.4	11.8	10.6	12.0
Capital transfers	11.8	10.6	10.7	5.4	6.3	4.8	5.8	4.8	5.8
Sales	109.4	114.4	120.3	52.2	57.2	54.2	60.1	57.5	62.8
Other subsidies	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Total revenues	**1 478.2**	**1 523.1**	**1 579.6**	**727.3**	**750.9**	**751.5**	**771.6**	**780.1**	**799.5**
Expenditures									
Intermediate consumption	153.7	159.7	165.9	71.7	82.0	74.2	85.6	77.4	88.6
Compensation of employees	246.3	256.1	262.8	118.4	127.8	122.6	133.5	125.7	137.1
Social benefits in kind	278.0	286.0	296.2	138.2	139.8	142.2	143.8	147.2	149.0
Property income (interests)	39.4	39.2	38.6	19.9	19.5	19.8	19.4	19.4	19.3
Subsidies	27.8	28.1	28.5	13.5	14.3	13.7	14.5	13.8	14.6
Social benefits	506.3	520.8	536.9	253.2	253.1	260.3	260.5	267.7	269.2
Other transfers	72.1	83.8	90.7	40.9	31.2	34.0	49.8	44.5	46.2
Gross capital formation	69.0	71.6	74.0	30.1	38.8	31.4	40.2	32.3	41.7
Capital transfers	39.4	32.8	33.1	20.7	18.7	13.8	19.0	13.7	19.4
Acquisitions less disposals of non-financial non-produced assets	−1.3	−1.3	−1.3	−0.7	−0.7	−0.7	−0.7	−0.7	−0.7
Other taxes on production	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Total expenditures	**1 430.8**	**1 477.1**	**1 525.6**	**706.1**	**724.7**	**711.3**	**765.8**	**741.1**	**784.4**
Balance	47.4	46.0	54.1	21.2	26.2	40.2	5.8	39.0	15.1
b) Percentage change over previous year									
Revenues									
Taxes	5.2	2.8	3.6	5.6	4.8	3.4	2.2	3.6	3.6
direct taxes	6.9	3.2	4.3	7.2	6.5	4.3	2.1	4.3	4.3
indirect taxes	3.2	2.3	2.7	3.7	2.8	2.3	2.3	2.6	2.8
Net social contributions	4.6	3.5	3.7	4.8	4.5	3.5	3.5	3.8	3.7
Property income	−5.6	0.3	3.9	−9.9	−0.7	0.9	−0.4	6.7	1.0
Other transfers	9.0	2.2	2.2	12.9	5.8	2.4	2.1	2.3	2.0
Capital transfers	−23.9	−10.3	1.1	−28.6	−19.4	−11.8	−8.9	1.2	0.9
Sales	4.3	4.5	5.2	4.8	3.8	3.9	5.1	6.0	4.5
Other subsidies	2.5	0.0	0.0	6.9	−0.9	0.0	0.0	0.0	0.0
Total revenues	**4.5**	**3.0**	**3.7**	**4.8**	**4.3**	**3.3**	**2.8**	**3.8**	**3.6**
Expenditures									
Intermediate consumption	2.5	3.9	3.9	3.0	2.0	3.5	4.3	4.3	3.5
Compensation of employees	4.1	4.0	2.6	4.4	3.9	3.5	4.4	2.5	2.7
Social benefits in kind	3.5	2.9	3.6	3.5	3.5	2.9	2.9	3.6	3.6
Property income (interests)	−5.2	−0.5	−1.5	−3.8	−6.6	−0.5	−0.5	−2.3	−0.7
Subsidies	−0.1	1.3	1.2	−0.6	0.3	1.3	1.2	1.1	1.2
Social benefits	4.1	2.9	3.1	4.8	3.5	2.8	2.9	2.8	3.3
Other transfers[7]	−3.6	11.7	6.9	0.9	−4.5	−6.9	18.6	10.5	−3.6
Gross capital formation	3.2	3.8	3.3	4.1	2.5	4.1	3.6	3.0	3.5
Capital transfers[7]	3.0	−6.6	0.4	31.9	−9.8	−33.2	1.5	−0.5	2.3
Acquisitions less disposals of non-financial non-produced assets[7]	0.0	0.0	0.0	−0.1	0.1	0.0	0.0	0.0	0.0
Other taxes on production[7]	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0
Total expenditures	**3.0**	**3.2**	**3.3**	**4.4**	**1.8**	**0.7**	**5.7**	**4.2**	**2.4**

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 Billion EUR.

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