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DIW Economic Outlook

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DIW Berlin — Deutsches Institut für Wirtschaftsforschung e. V.
Mohrenstraße 58, 10117 Berlin
T +49 30 897 89 -0
F +49 30 897 89 -200

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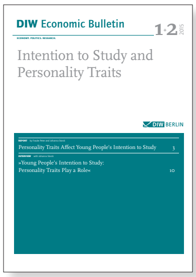

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German economy continues steady upswing with no sign of overheating

By Ferdinand Fichtner, Guido Baldi, Karl Brenke, Marius Clemens, Christian Dreger, Hella Engerer, Marcel Fratzscher, Stefan Gebauer, Simon Junker, Claus Michelsen, Malte Rieth, and Thore Schlaak

The German economy's upswing is holding steady. The fine state of the world economy and robust domestic economic development are driving Germany's GDP growth. After an unexpectedly strong first half of 2017, the German Institute for Economic Research (DIW Berlin) forecasts 1.9 percent growth for Germany's GDP this year and next. In June, DIW Berlin anticipated 1.5 percent growth for 2017 and 1.7 percent for 2018. In 2019, the German economy is likely to lose a bit of steam and only grow by 1.6 percent.

The country's production capacity will still be well utilized at that growth rate. The past five years have seen the output gap more or less closed, that is, actual output has been approximately equal to potential output. In the course of the stable upswing, the economy will be producing in the upper range of normal capacity utilization during the forecast horizon.

An overheating of the German economy is not to be expected for the forecast horizon, however. Other than fluctuations due to energy prices, the inflation rate should rise only gradually and will not permanently climb past the two-percent mark until 2019. That is: strong economic growth will not endanger price stability in Germany. An overheating economy, i.e. an overutilization of capacities in combination with strongly increasing prices, is out of sight.

However, there are signs of bottlenecks—primarily in the job market. Employment will surge, by roughly 640,000 persons in 2017 and 370,000 persons in 2018; 2019 will see another increase by 250,000 persons. Therefore, unemployment will decrease further, despite the unemployment rate (ILO standard) only falling slightly below its current value, to 3.6 percent in 2019. Instead, migration is fueling the rising number of persons in employment; the domestic population is decreasing. Though the number of women and older people participating in the labor market is rising, they are too few to cover the increasing demand for labor.

In this environment, wages should also gain momentum during the forecast horizon. However, when measured against the booming job market, wage increases will be moderate. This is partly due to the fact that some unions have priorities above and beyond tariff hikes—such as early retirement and flexible working hours. Owing primarily to rising energy prices, the inflation rate will probably be significantly higher than it has been in the recent past. In turn, employees' purchasing power should also experience only mild growth. Instead, companies are likely to continue to make substantial profits—the bottom line is that, during the forecast horizon, the wage ratio will decline.

In individual sectors of the economy only, such as the construction industry, high capacity utilization is likely to lead to sharply rising prices. Because of a lack of serious competition from abroad construction companies will have more room to drive prices upward than those in other sectors. However, this should not hamper the strong growth forecast for investment in construction. The environment for financing real estate should remain favorable due to low interest rates.

The European Central Bank is expected to be steering its policy in a somewhat less expansionary direction during the next few quarters, which will cause interest rates to gradually rise as well. The recently robust euro area economy appears to be poised for broad-based growth. In all member states of the currency union, economic growth is on an upswing, and even countries of concern such as Italy and Portugal are following an upward trend.

Many member states continue to have very high unemployment rates, so a sharp rise in wages and inflation is hardly to be expected. However, prices will gradually rise in the currency union anyway. For this reason, the European Central Bank should start preparing the markets for a normalization of its monetary policy, and it should do it now. It would be well advised to kick off such an effort by reducing bond purchase programs as of the beginning of 2018; this forecast also assumes an initial interest rate increase at the beginning of 2019. Other central banks are also expected to tighten their monetary policy during the forecast horizon.

This will, to some extent, slow down the world economy's currently strong pace of growth and cause German exports, which have recently risen, to lose some momentum during the forecast horizon. And in the short term, the economy will reflect the appreciation of the euro perceptible since the first half of 2017, leading to a rise in the price of German products in markets outside of Europe. This will not make much of a dent in the excessively high current account surplus forecast for the period until 2019, however. The surplus should remain at a level of around eight percent in relation to GDP, considerably higher than the threshold value of six percent the European Union set as part of its Macroeconomic Imbalance Procedure.

The capital drain that comes with high current account surplus indicates that German firms still find it more appealing to invest abroad than in Germany. This is supported by the fact that, although the German economy is experiencing an upswing, firms are only cautiously investing in new machinery and equipment. That is, however, also due to the upswing being mostly based on sectors of the economy, which tend to produce less capital-intensive. In the short run, the weakness of investment contributes to the expectation that the economy does not, as in earlier upswings, gain additional momentum and runs into an overheating. In the medium run, the investment weakness will adversely affect the growth of the country's capital stock and with it, the German economy's potential output.

The impending demographic shift is an unfavorable factor that will put an additional damper on potential output. Policy makers must therefore make the general conditions for investment in Germany more attractive. This can happen via targeted public investment spending (e.g., on education or infrastructure). The fiscal room for maneuver to do so exists to a limited extent. However, it is not large enough to accommodate the drastic tax cuts invoked in the heat of the current Bundestag election campaign. A large portion of the surplus in the public budget is due to the economic upswing, making it ephemeral and a poor basis for long-term planning. We can only hope that after the Bundestag election policy makers set the right priorities.

In that sense, the present forecast's accuracy depends on the results of the election. For example, the direction fiscal policy takes with regard to setting priorities for short-term and long-term measures depends to a great extent on which parties have the majority in the new Bundestag. The outcome of the election is thus indispensable when determining Germany's economic outlook. The present forecast is based on the status quo of fiscal policy. It only considers fiscal policy measures that are already part of the legislative process. Given this situation, this forecast must be read with due caution.

The external trading environment also poses uncertainty for economic development in Germany. The course that economic policy will take in the US is virtually impossible to forecast; the government seems to have lost its assertiveness, and central elements of the government's projects are proving impossible to implement. The extent to which the economic policy measures announced—such as tax cuts, investment programs, and reneging on trade agreements—will be implemented in reality remains to be seen. For the present forecast, the authors assume that there will be no measures with a significant effect on the economy in the coming years.

Finally, the economic situation in the euro area continues to pose risks for the German economy. There has recently been an upswing, but the banks in many countries, in particular Italy, are still encumbered by non-performing loans. A faster rise in the interest rate as a consequence of tightening monetary policy could push those banks to the breaking point and rekindle the financial crisis in the euro area—with possibly substantial consequences for the economy.

The world economy and the euro area: broad-based upswing

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

This year and next, global GDP will grow more strongly than expected. The growth rate should be just under four percent. In developed economies, the continuing improvement in the job market situation will drive consumption. Corporate investment activity will also gain momentum. Over the forecast horizon, a slowly rising inflation rate and somewhat tighter monetary policy will gradually slow private consumption down. Emerging countries are able to maintain somewhat more robust growth. Production is expanding again in China. In Brazil and Russia, stabilizing prices of raw materials and decreasing inflation rates are supporting economic momentum. Uncertainty about the US government's economic policy and the geopolitical conflict involving North Korea are current risks for the world economy.

The global economy has recently gained momentum. Compared to the beginning of the year, in both developed and emerging economies, the rate of expansion increased once again in the second quarter of 2017. Japan and the euro area experienced strong growth in output, and also in the US growth accelerated. In the group of emerging countries, the Chinese economy in particular returned to higher growth rates after having a weak first quarter. And the signs indicate that the Russian and Brazilian economies are gaining momentum after a long phase of weakness.

This puts the global upswing on a broader base, a situation that should remain stable during the forecast horizon (see Figure). Due to the continuous improvement in the job market situation and currently only weak price increases, private consumption is most likely to be driving growth in developed economies. In this environment, corporate investment is expected to expand. However, the rise in employment in both the US and the euro area should lead to gradually rising wages and inflation rates. The current halt of decreases in the prices of raw materials should also lead to higher inflation rates. Rising inflation rates will dampen the purchasing power of private households and also gradually cause monetary policy to contract, in turn causing investment activity to decelerate. In the later part of the forecast horizon, the global economy will shift to a somewhat flatter growth path, although the economies in the emerging countries—in particular, Russia and Brazil—will benefit from non-decreasing raw materials prices. Central and Eastern European countries should also continue to show robust, consumption-driven growth rates. In the near future, a gradual slowdown of expansion in China will be noticeable.

The global economy should grow by just under four percent within the forecast horizon. This slightly improves the forecast in comparison to the DIW *Economic Outlook* from June 2017 (see Table).

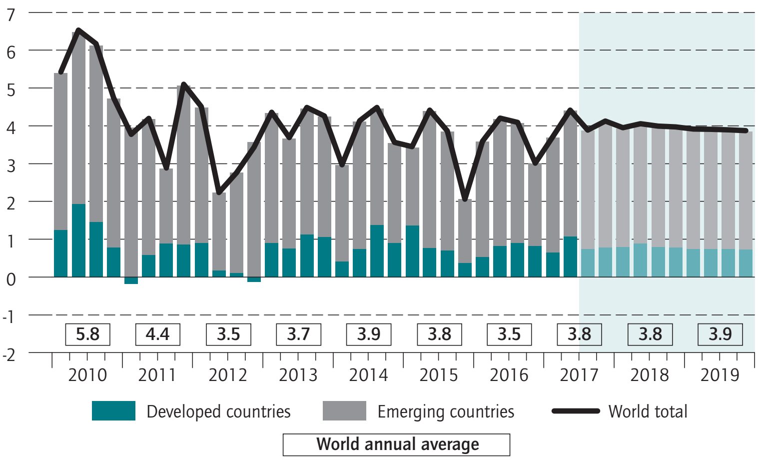
Monetary policy will be less expansive. In the US, the central bank will begin to reduce its balance sheet while sticking to its path of moderate increases in the interest rate. In the euro area, the European Central Bank's asset purchase program should end in the first half of 2018 due to gradual reduction in asset purchases. The bank will presumably raise the key interest rate by ten basis points in the second quarter of 2019. The Japanese central bank, on the contrary, apparently senses no imminent pressure to reduce its high level of accommodation. Globally, fiscal policy should be less restrictive overall.

However, the global economy may face a series of risks. In the US in particular, general conditions involving economic policy are marked by a high level of uncertainty at this time. And geopolitical risks surrounding North Korea are also at issue. An unexpected rise in the level of uncertainty could afflict global investment activity. The political uncertainty in the euro area has somewhat lessened. But in Italy in particular, the fragile situation in the banking sector is a source of problems. Brexit negotiations and the political tension within the European Union are likely to generate waves of uncertainty, dampening both foreign trade and investment activity.

Figure

World real GDP

In percent, percentage points



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

The global economic upswing is continuing.

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	2.1	1.9	1.6	0.4	1.3	1.4	1.6	10.0	9.1	8.8	8.7
without Germany	1.7	2.0	1.9	1.5	0.3	1.1	1.4	1.6	12.7	11.6	11.2	11.1
France	1.1	1.7	1.8	1.5	0.2	1.1	1.4	1.5	10.1	9.6	9.4	9.3
Italy	1.0	1.3	1.2	1.0	0.0	1.3	1.2	1.2	11.7	11.4	11.3	11.3
Spain	3.2	3.1	2.5	2.1	−0.2	2.8	2.3	2.3	19.7	17.2	16.0	15.7
Netherlands	2.1	3.3	2.6	1.9	0.1	1.5	1.2	1.3	6.0	4.9	4.8	4.7
United Kingdom	1.8	1.4	1.4	1.7	0.7	2.7	2.6	2.3	5.0	4.8	4.9	5.0
USA	1.5	2.1	2.4	2.3	1.3	1.8	1.6	2.1	4.9	4.4	4.2	4.1
Japan	1.0	1.9	1.3	1.4	−0.1	0.3	0.5	1.1	3.1	3.1	3.1	3.0
South Korea	2.8	2.7	2.6	2.5	1.0	2.2	2.5	2.7	3.7	3.4	3.0	3.0
Middle Eastern Europe	3.0	4.2	3.3	3.4	−0.2	2.0	2.3	2.4	5.7	4.7	4.3	4.1
Turkey	3.0	4.2	3.3	3.5	7.8	10.9	7.7	7.7	10.9	11.1	11.4	11.5
Russia	−0.2	0.9	1.5	1.7	7.1	4.2	4.1	4.0	5.5	5.2	5.1	4.8
China	6.9	6.6	6.5	6.2	1.6	1.7	2.5	3.3	4.1	4.1	4.0	3.9
India	7.5	5.8	7.1	7.0	3.3	5.5	6.1	6.1				
Brazil	−3.6	0.6	1.2	1.7	8.7	4.1	5.5	6.0	11.3	12.8	10.6	8.4
Mexico	2.0	2.6	2.3	2.2	2.8	5.7	3.2	3.2	3.9	4.5	4.4	4.3
Developed Economies	1.6	2.0	2.1	1.9	0.8	1.6	1.5	1.9	5.9	5.4	5.2	5.1
Emerging Markets	4.9	5.1	5.4	5.3	3.3	3.5	3.9	4.4	5.4	5.5	5.3	5.0
World	3.5	3.8	4.0	3.9	2.2	2.7	2.9	3.4	5.6	5.4	5.2	5.1

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

German economy still running at high capacity

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

The German economy is on track for continued growth. Due to the unexpectedly robust first six months of 2017, the German Institute for Economic Research is raising its forecast for GDP growth to 1.9 percent for the current year. This year and arguably for the coming two years, the country's output will exceed potential output; nonetheless, there is no risk of overheating. Economic growth will slow down somewhat, not only because demand from abroad will be expanding at a slower rate. Additionally, both private consumer and public spending will experience only moderate increases, while companies will continue their reluctance to invest in new machines and facilities. Inflation should rise only slightly, even given modest wage increases, which further reflects the continued growth of the potential labor pool. The economy is also beset with numerous risks. For example, exports could be adversely affected if the external value of the euro were to rise—for instance as a result of a more restrictive monetary policy than assumed here. And it is entirely possible that increasing protectionism could hinder world trade.

The German economy will continue to flourish, although growth will slow down somewhat in comparison to recent quarters. The country's productive capacity will continue to be utilized well but not excessively, and, taking into account that wages and prices will grow moderately, overheating will not be an issue during the forecast horizon. The inflation rate should rise slightly during the forecast horizon and will not endanger price stability.

In the past two years, private consumer and public spending have played a major role in Germany's economic development due to the influx of refugees and the decline in oil prices (see Figure), but these effects are losing their importance. Deceleration in consumption momentum will primarily affect the service sector but consumer goods will also falter. As a result, the overall economy will lose a bit of momentum.

Export-oriented industrial companies will still benefit from dynamic demand from abroad for a while. However, the perceptible appreciation of the euro against the dollar should have a dampening effect in upcoming quarters and starting at the middle of next year. Key markets, in particular the euro area, where the economy recently improved, will lose some momentum. Demand from emerging countries has also been strong recently but will probably weaken in the wake of the gradual structural slowdown in China.[1]

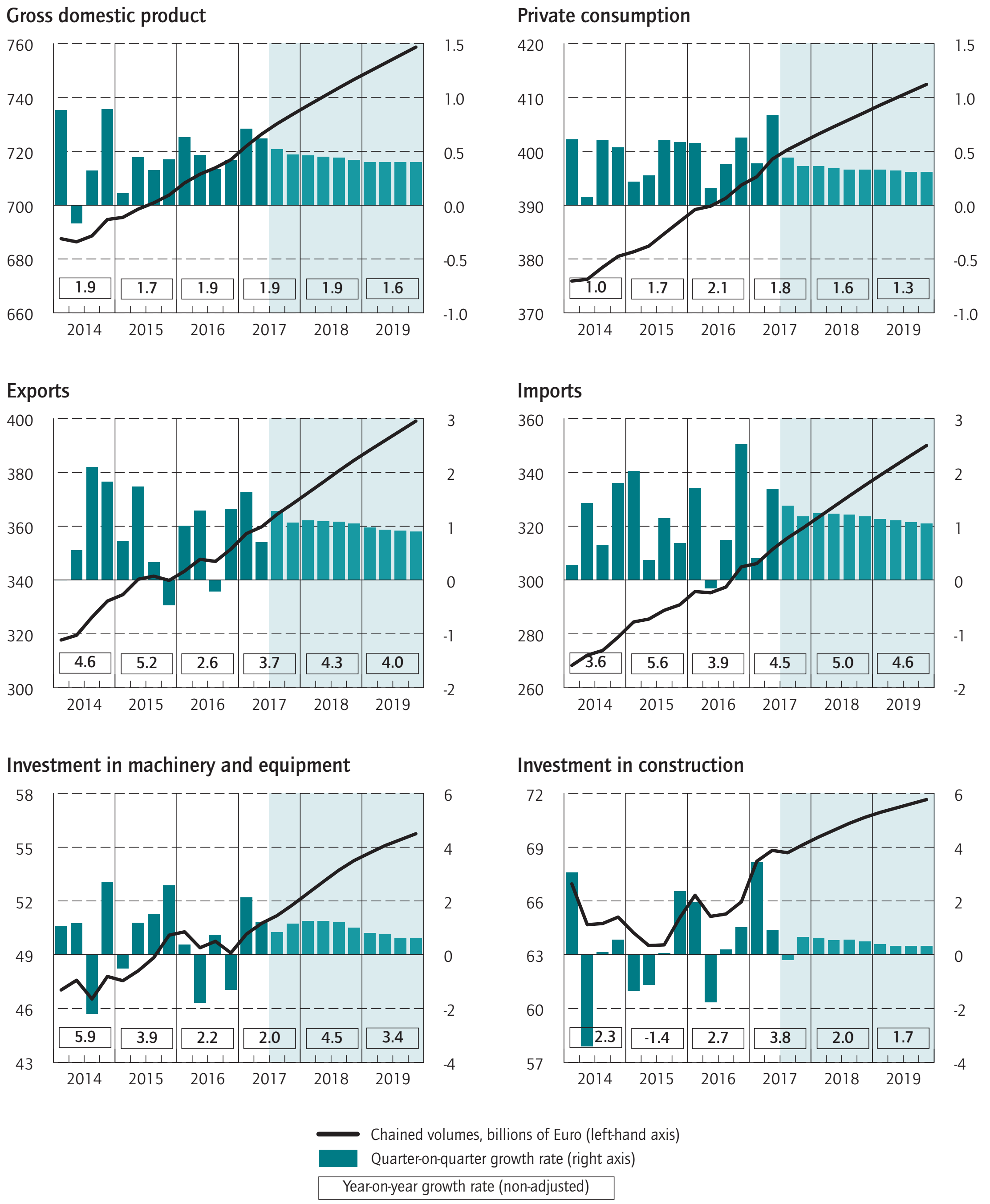
This will not only reduce the growth rate of the domestic economy. Exports will also experience a slowdown in expansion (see Table 1). Companies will continue to hire more labor but not at the same rate of expansion as previously. As a result, total earned income will grow more slowly, although somewhat sharper wage increases are anticipated for the later part of the forecast horizon. Due to the demographic shift, the expansion rate of the labor

1 For more information, see Ferdinand Fichtner et al., "The world economy and the euro area: broad-based upswing," *DIW Economic Bulletin* 36 (2017): 352–353.

Figure

Gross domestic product and use of GDP

Seasonally and working day adjusted



Sources: Federal Statistical Office; DIW Economic Outlook autumn 2017, forecasts as of 2017 Q3.

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	0.4	0.8	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Public consumption	0.2	0.6	0.7	0.2	0.5	0.6	0.4	0.5	0.5	0.5	0.5	0.5
Gross fixed capital formation	2.7	1.0	0.3	0.8	0.8	0.8	0.8	0.7	0.5	0.5	0.5	0.5
Investment in machinery and equipment	2.1	1.2	0.8	1.2	1.3	1.3	1.2	1.0	0.8	0.8	0.6	0.6
Construction investment	3.4	0.9	−0.2	0.7	0.6	0.5	0.5	0.5	0.4	0.3	0.3	0.3
Other investment	2.0	0.9	0.7	0.8	0.8	0.9	0.8	0.7	0.6	0.6	0.6	0.6
Change in inventories[1]	−0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Domestic uses	0.1	1.0	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4
Net Exports[1]	0.6	−0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exports	1.6	0.7	1.3	1.1	1.1	1.1	1.1	1.1	1.0	0.9	0.9	0.9
Imports	0.4	1.7	1.4	1.2	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1
Gross Domestic Product	**0.7**	**0.6**	**0.5**	**0.5**	**0.5**	**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; DIW Economic Outlook Autumn 2017, forecast as of 2017 Q3.

force will slow down because fewer and fewer people will migrate to Germany from other EU member states as a result of the recovery there.

All things considered the German economy should grow by 1.9 percent this year (see Table 2). In comparison to June, DIW Berlin is raising its forecast by 0.4 percentage points.[2] This year there will be three workdays fewer than in 2016. Without taking this effect into account, the economy would grow by 2.2 percent. In 2018, Germany's GDP should grow by 1.9 percent and the following year by 1.6 percent. The forecast for GDP growth is subject to uncertainty. Based on earlier forecast errors, we can state there is a 68 percent probability that growth in 2017 will be between 1.7 and 2.1 percent and in 2018 between 1.5 and 2.3 percent.[3]

Even though the current account balance will decline to just below eight percent at the end of the forecast horizon, it continues to be excessively high levels.

Actual output is somewhat higher than potential output. This (positive) gap in output will slightly widen this year and next but remain at the same magnitude in 2019. Part of the reason the gap will not close is that as of 2019, the demographic shift will trigger a sharp drop in economic growth. On the other hand, it will not expand appreciably—primarily due to the fact that company investment in new machinery and facilities will continue to be moderate. During earlier upswings, the increase in company investment was much stronger than anticipated now, providing fuel for productive capacity overload.

The reasons for weak investment are many. The general conditions for entrepreneurial activity in Germany, for example, appear to have worsened in recent years. The companies surveyed by the Association of German Chambers of Commerce and Industry (DIHK) give key business factors significantly lower ratings than they did three years ago, in particular: broadband transmission, commercial space availability, and transport infrastructure.[4] With an eye to the demographic shift and its deceleration of potential growth, companies currently tend to plan their expansion of domestic capital stock conservatively. The anticipated slowdown in the world economy—in part due to burgeoning protectionism—is an added factor. Ongoing political uncertainty in many nations around the world is likely to affirm German companies' instinctive conservatism when it comes to investment spending. And in the later part of the forecast horizon, a more restrictive monetary policy will likely put a damper on investment as well.

2 See Ferdinand Fichtner et al., "German Economy in Good Shape: DIW Economic Outlook," *DIW Economic Bulletin* no. 24 (2017): 235–238 (available online, accessed Monday, September 4, 2017). The forecast was adjusted following a revision of GDP by the German Federal Statistical Office (*Statistische Bundesamt*).

3 We were unable to calculate a corresponding interval for 2019 since there are no forecasts for the two-year horizon.

4 See Association of German Chambers of Commerce and Industry, "DIHK-Standortumfrage Industrie 2017," (Press release, DIHK, Berlin, 2017).

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	1.9	1.9	1.6
Domestic employment (1000 persons)	42,672	43,069	43,638	44,276	44,643	44,896
Unemployed (ILO concept)	2,092	1,949	1,775	1,618	1,619	1,589
Unemployed (BA concept)	2,898	2,795	2,691	2,543	2,556	2,526
Unemployment rate[2] (ILO concept)	5.0	4.6	4.1	3.8	3.7	3.6
Unemployment rate[2] (BA concept)	6.7	6.4	6.1	5.7	5.7	5.6
Consumer prices	0.9	0.2	0.5	1.7	1.5	1.8
Unit labor costs[3]	1.4	1.8	1.6	1.8	1.4	1.9
Government budget balance[4]						
in billion EUR	9.5	19.4	25.7	29.2	33.4	36.4
in percent of GDP	0.3	0.6	0.8	0.9	1.0	1.0
Current account balance, in percent of GDP	7.4	8.5	8.3	8.1	7.9	7.8

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 autumn 2017, forecast as of 2017.

Widespread geopolitical instability engenders risks for the forecast. It could prove more damaging to investment in general—not only in Germany—than assumed in the calculations, which would have an additional negative effect on German exports as they are primarily investment goods. And the decisions on economic policy made after the Bundestag election could change conditions generally. Some euro area banks are still carrying risks on their balance sheets. If the relevant loans are defaulted on, the resulting distortions in the financial markets would spill over into the real economy. The accuracy of the present forecast could also be adversely affected if the European Central Bank takes longer to pull out of the bond purchase program than assumed here. This scenario could have a positive effect on exports due to an ensuing depreciation of the euro, but the higher rise in prices would have a negative effect on private consumption.

Ferdinand Fichtner is Head of the Forecasting and Economic Policy Department at DIW Berlin | ffichtner@diw.de

Guido Baldi is Visiting Fellow at the Forecasting and Economic Policy Department at DIW Berlin | gbaldi@diw.de

Karl Brenke is an Advisor at the Executive Board at DIW Berlin | kbrenke@diw.de

Marius Clemens is a Research Associate at the Forecasting and Economic Policy Department at DIW Berlin | mclemens@diw.de

Christian Dreger is Research Director International Economics at DIW Berlin | cdreger@diw.de

Hella Engerer is Research Associate at the Forecasting and Economic Policy Department and the Energy, Transportation, Environment Department at DIW Berlin | hengerer@diw.de

Marcel Fratzscher is President at DIW Berlin.

Stefan Gebauer is Research Associate at the Forecasting and Economic Policy Department at DIW Berlin | sgebauer@diw.de

Simon Junker is Deputy Head of the Forecasting and Economic Policy Department at DIW Berlin | sjunker@diw.de

Claus Michelsen is a Research Associate at the Forecasting and Economic Policy Department at DIW Berlin | cmichelsen@diw.de

Malte Rieth is Research Associate at the Macroeconomics Department at DIW Berlin | mrieth@diw.de

Thore Schlaak is a Research Associate at the Forecasting and Economic Policy Department at DIW Berlin | tschlaak@diw.de

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Keywords: Business cycle forecast, economic outlook

Annual results 2018

Billion Euro

		specification	Total economy	Non financial and financial corporations	General government	Households and non-profit inst. serving households	Rest of the world
3		Gross value added	2,927.6	1,978.4	311.4	637.9	–
4	–	Consumption of fixed capital	571.7	328.4	71.1	172.1	–
5	=	Net value added[1]	2,355.9	1,649.9	240.2	465.7	−244.7
6	–	Compensation of employees, paid	1,664.0	1,192.1	244.2	227.7	14.8
7	–	Other taxes on production, paid	22.6	13.1	0.2	9.3	–
8	+	Other subsidies on production, received	26.4	24.8	0.2	1.3	–
9	=	Operating surplus, net/mixed income, net	695.7	469.5	−3.9	230.1	−259.6
10	+	Compensation of employees, received	1,665.9	–	–	1,665.9	12.9
11	–	Subsidies, paid	28.4	–	28.4	–	5.5
12	+	Taxes on production and imports, received	346.8	–	346.8	–	6.7
13	–	Property income, paid	696.0	630.3	39.9	25.9	173.0
14	+	Property income, received	753.9	345.0	16.1	392.8	115.2
15	=	Net national income/Balance of prim income, net	2,737.9	184.2	290.8	2,262.9	−303.3
16	–	Current taxes on income, wealth, etc, paid	407.5	87.7	–	319.8	9.8
17	+	Current taxes on income, wealth, etc, received	416.9	–	416.9	–	0.4
18	–	Net social contributions, paid	670.0	–	–	670.0	4.4
19	+	Net social contributions, received	671.3	123.9	546.6	0.8	3.1
20	–	Social benefits other than soc transf in kind, paid	574.2	65.8	507.5	0.8	0.5
21	+	Social benefits other than soc transf in kind, receiv	567.1	–	–	567.1	7.6
22	–	Other current transfers, paid	328.5	172.4	76.0	80.1	61.0
23	+	Other current transfers, received	289.3	158.5	21.2	109.6	100.3
24	=	Disposable income, net	2,702.2	140.5	691.9	1,869.7	−267.6
25	–	Final consumption expenditure	2,371.3	–	638.6	1,732.7	–
26	+	Adjustment for the change in net equity of households in pension funds	–	−49.5	–	49.5	–
27	=	Net saving	330.9	91.0	53.3	186.6	−267.6
28	–	Capital transfers, paid	62.1	12.7	39.4	10.0	5.2
29	+	Capital transfers, received	57.8	31.4	11.1	15.4	9.6
30	–	Gross capital formation	635.0	362.8	68.3	203.9	–
31	+	Consumption of fixed capital	571.7	328.4	71.1	172.1	–
32	–	Acquisitions less disposals of valuables	−3.0	−2.0	−1.4	0.4	3.0
33	=	Net lending (+)/ Net borrowing (−)	266.3	77.3	29.2	159.8	−266.3
		memorandum item:					
34		Disposable income, net	2,702.2	140.5	691.9	1,869.7	−267.6
35	–	Social transfers in kind, paid	418.6	–	418.6	–	–
36	+	Social transfers in kind, received	418.6	–	–	418.6	–
37	=	Adjusted disposable income, net	2,702.2	140.5	273.3	2,288.4	−267.6
38	–	Actual final consumption[2]	2,371.3	–	220.0	2,151.3	–
39	+	Adjustment for the change in net equity of households in pension funds	–	−49.5	–	49.5	–
40	=	Net saving	330.9	91.0	53.3	186.6	−267.6

1 Concerning Rest of the world: imports minus exports of goods and services to/from rest of the world.
2 The actual final consumption of general government corresponds only to collective final consumption. The actual final consumption of households and non profit institutions serving households includes individual goods and services provided as social transfer in kind to individual households by government units.

Annual results 2018

Billion Euro

		specification	Total economy	Non financial and financial corporations	General government	Households and non-profit inst. serving households	Rest of the world
3		Gross value added	3,039.5	2,057.2	321.5	660.8	–
4	–	Consumption of fixed capital	594.4	341.1	74.8	178.6	–
5	=	Net value added[1]	2,445.0	1,716.1	246.7	482.2	−256.1
6	–	Compensation of employees, paid	1,721.9	1,232.8	252.3	236.8	15.4
7	–	Other taxes on production, paid	23.3	13.5	0.2	9.6	–
8	+	Other subsidies on production, received	26.5	24.9	0.2	1.4	–
9	=	Operating surplus, net/mixed income, net	726.3	494.7	−5.7	237.2	−271.5
10	+	Compensation of employees, received	1,723.8	–	–	1,723.8	13.5
11	–	Subsidies, paid	28.8	–	28.8	–	5.3
12	+	Taxes on production and imports, received	354.3	–	354.3	–	6.4
13	–	Property income, paid	693.4	629.0	39.5	24.9	171.3
14	+	Property income, received	750.1	331.7	16.2	402.2	114.6
15	=	Net national income/Balance of prim income, net	2,832.3	197.4	296.5	2,338.4	−313.5
16	–	Current taxes on income, wealth, etc, paid	431.2	95.0	–	336.1	10.2
17	+	Current taxes on income, wealth, etc, received	440.9	–	440.9	–	0.5
18	–	Net social contributions, paid	691.6	–	–	691.6	4.8
19	+	Net social contributions, received	692.9	127.3	564.8	0.8	3.5
20	–	Social benefits other than soc transf in kind, paid	590.7	67.2	522.7	0.8	0.5
21	+	Social benefits other than soc transf in kind, receiv	583.5	–	–	583.5	7.8
22	–	Other current transfers, paid	347.5	177.6	87.8	82.1	57.6
23	+	Other current transfers, received	300.3	165.6	21.4	113.3	104.8
24	=	Disposable income, net	2,788.8	150.5	713.1	1,925.2	−270.0
25	–	Final consumption expenditure	2,445.2	–	662.1	1,783.1	–
26	+	Adjustment for the change in net equity of households in pension funds	–	−50.0	–	50.0	–
27	=	Net saving	343.6	100.5	51.0	192.1	−270.0
28	–	Capital transfers, paid	57.2	13.4	33.4	10.5	5.4
29	+	Capital transfers, received	53.1	27.7	10.1	15.4	9.6
30	–	Gross capital formation	668.0	380.5	70.5	217.0	–
31	+	Consumption of fixed capital	594.4	341.1	74.8	178.6	–
32	–	Acquisitions less disposals of valuables	−2.3	−1.8	−1.4	0.8	2.3
33	=	Net lending (+)/ Net borrowing (−)	268.2	77.0	33.4	157.8	−268.2
		memorandum item:					
34		Disposable income, net	2,788.8	150.5	713.1	1,925.2	−270.0
35	–	Social transfers in kind, paid	435.0	–	435.0	–	–
36	+	Social transfers in kind, received	435.0	–	–	435.0	–
37	=	Adjusted disposable income, net	2,788.8	150.5	278.1	2,360.2	−270.0
38	–	Actual final consumption[2]	2,445.2	–	227.1	2,218.1	–
39	+	Adjustment for the change in net equity of households in pension funds	–	−50.0	–	50.0	–
40	=	Net saving	343.6	100.5	51.0	192.1	−270.0

1 Concerning Rest of the world: imports minus exports of goods and services to/from rest of the world.
2 The actual final consumption of general government corresponds only to collective final consumption. The actual final consumption of households and non profit institutions serving households includes individual goods and services provided as social transfer in kind to individual households by government units.

Annual results 2019

Billion Euro

		specification	Total economy	Non financial and financial corporations	General government	Households and non-profit inst. serving households	Rest of the world
3		Gross value added	3,146.0	2,131.1	331.0	683.9	–
4	–	Consumption of fixed capital	615.1	352.5	77.4	185.1	–
5	=	Net value added[1]	2,530.9	1,778.5	253.5	498.8	−262.9
6	–	Compensation of employees, paid	1,784.2	1,278.9	259.9	245.4	16.0
7	–	Other taxes on production, paid	23.7	13.9	0.2	9.6	–
8	+	Other subsidies on production, received	26.8	25.3	0.2	1.4	–
9	=	Operating surplus, net/mixed income, net	749.8	510.9	−6.3	245.2	−278.9
10	+	Compensation of employees, received	1,786.1	–	–	1,786.1	14.1
11	–	Subsidies, paid	29.3	–	29.3	–	5.3
12	+	Taxes on production and imports, received	363.3	–	363.3	–	6.2
13	–	Property income, paid	691.9	628.4	39.1	24.4	172.4
14	+	Property income, received	750.4	320.7	17.8	411.9	114.0
15	=	Net national income/Balance of prim income, net	2,928.5	203.3	306.4	2,418.8	−322.4
16	–	Current taxes on income, wealth, etc, paid	447.5	98.1	–	349.4	10.5
17	+	Current taxes on income, wealth, etc, received	457.5	–	457.5	–	0.5
18	–	Net social contributions, paid	718.8	–	–	718.8	5.3
19	+	Net social contributions, received	720.1	132.3	587.0	0.8	4.0
20	–	Social benefits other than soc transf in kind, paid	609.5	69.3	539.4	0.8	0.5
21	+	Social benefits other than soc transf in kind, receiv	601.9	–	–	601.9	8.1
22	–	Other current transfers, paid	357.8	182.9	90.9	84.0	60.8
23	+	Other current transfers, received	308.6	172.2	21.7	114.7	110.0
24	=	Disposable income, net	2,883.0	157.4	742.4	1,983.1	−276.9
25	–	Final consumption expenditure	2,523.2	–	687.2	1,836.0	–
26	+	Adjustment for the change in net equity of households in pension funds	–	−50.4	–	50.4	–
27	=	Net saving	359.8	106.9	55.3	197.6	−276.9
28	–	Capital transfers, paid	58.8	13.7	34.5	10.7	5.5
29	+	Capital transfers, received	54.8	29.3	10.2	15.4	9.6
30	–	Gross capital formation	698.0	396.0	73.3	228.7	–
31	+	Consumption of fixed capital	615.1	352.5	77.4	185.1	–
32	–	Acquisitions less disposals of valuables	−2.3	−1.8	−1.4	0.8	2.3
33	=	Net lending (+)/ Net borrowing (−)	275.1	80.8	36.4	157.9	−275.1
		memorandum item:					
34		Disposable income, net	2,883.0	157.4	742.4	1,983.1	−276.9
35	–	Social transfers in kind, paid	454.6	–	454.6	–	–
36	+	Social transfers in kind, received	454.6	–	–	454.6	–
37	=	Adjusted disposable income, net	2,883.0	157.4	287.8	2,437.8	−276.9
38	–	Actual final consumption[2]	2,523.2	–	232.5	2,290.6	–
39	+	Adjustment for the change in net equity of households in pension funds	–	−50.4	–	50.4	–
40	=	Net saving	359.8	106.9	55.3	197.6	−276.9

1 Concerning Rest of the world: imports minus exports of goods and services to/from rest of the world.
2 The actual final consumption of general government corresponds only to collective final consumption. The actual final consumption of households and non profit institutions serving households includes individual goods and services provided as social transfer in kind to individual households by government units.

The Main National Accounts Data for the Federal Republic of Germany

Forecast for 2017 and 2018[1]

	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	0.8	0.6	1.5	1.4	1.0	0.7	0.6	0.5
Hours worked, per working day	0.9	0.3	0.1	−0.1	1.8	0.4	0.3	0.6	−0.4
Working days	−1.2	−0.3	0.0	0.0	−2.3	−0.5	−0.1	−0.8	0.8
Labour volume, calendar-monthly	1.2	0.9	0.7	1.4	0.9	0.9	0.9	0.4	0.9
Labour productivity[1]	0.7	1.0	1.0	0.6	0.9	0.9	1.0	1.1	0.9
Gross domestic product, price adjusted	**1.9**	**1.9**	**1.6**	**2.0**	**1.8**	**1.8**	**1.9**	**1.5**	**1.8**
2. Disposition of GDP in Current Prices a) Billion Euro									
Final consumption expenditure	2,371.3	2,445.2	2,523.2	1,156.5	1,214.7	1,193.1	1,252.2	1,228.5	1,294.6
Private consumption expenditure[2]	1,732.7	1,783.1	1,836.0	846.2	886.5	870.8	912.4	894.6	941.4
Government consumption expenditure	638.6	662.1	687.2	310.4	328.2	322.3	339.8	334.0	353.2
Gross fixed capital formation (GFCF)	662.1	695.3	725.3	319.7	342.3	334.8	360.4	349.9	375.4
Machinery and equipment	210.4	220.7	229.1	100.5	109.9	104.9	115.8	108.8	120.3
Construction	326.1	343.2	359.7	157.9	168.1	165.8	177.4	174.3	185.4
GFCF in other products	125.6	131.4	136.5	61.3	64.3	64.2	67.2	66.8	69.7
Change in Stocks[3]	−27.1	−27.3	−27.3	−5.4	−21.6	−4.8	−22.4	−6.1	−21.3
Domestic uses	3,006.3	3,113.2	3,221.2	1,470.9	1,535.4	1,523.1	1,590.1	1,572.4	1,648.7
Balance of exports and imports	244.7	256.1	262.9	128.1	116.6	135.8	120.3	139.0	123.9
Exports	1,527.8	1,597.9	1,673.5	759.6	768.1	791.8	806.1	827.2	846.4
Imports	1,283.0	1,341.9	1,410.6	631.6	651.5	656.1	685.8	688.2	722.4
Gross domestic product	**3,251.0**	**3,369.3**	**3,484.1**	**1,599.0**	**1,652.0**	**1,658.9**	**1,710.4**	**1,711.4**	**1,772.7**
b) Percentage change over previous year									
Final consumption expenditure	3.6	3.1	3.2	3.5	3.6	3.2	3.1	3.0	3.4
Private consumption expenditure[2]	3.5	2.9	3.0	3.5	3.5	2.9	2.9	2.7	3.2
Government consumption expenditure	3.8	3.7	3.8	3.6	3.9	3.8	3.5	3.6	3.9
Gross fixed capital formation (GFCF)	5.1	5.0	4.3	4.8	5.3	4.7	5.3	4.5	4.2
Machinery and equipment	2.2	4.9	3.8	1.5	2.8	4.4	5.4	3.8	3.8
Construction	7.1	5.2	4.8	7.1	7.1	5.0	5.5	5.1	4.5
GFCF in other products	5.0	4.6	3.9	4.9	5.1	4.6	4.5	4.2	3.7
Domestic uses	3.9	3.6	3.5	4.0	3.8	3.6	3.6	3.2	3.7
Exports	5.4	4.6	4.7	5.8	4.9	4.2	4.9	4.5	5.0
Imports	7.0	4.6	5.1	8.4	5.6	3.9	5.3	4.9	5.3
Gross domestic product	**3.4**	**3.6**	**3.4**	**3.2**	**3.6**	**3.7**	**3.5**	**3.2**	**3.6**
3. Disposition of GDP, adjusted for prices a) Chain-linked estimated in Billion Euro									
Final consumption expenditure	2,157.2	2,194.2	2,226.4	1,058.3	1,098.8	1,077.5	1,116.8	1,092.1	1,134.2
Private consumption expenditure[2]	1,595.1	1,620.6	1,641.0	780.9	814.2	794.2	826.4	803.0	838.0
Government consumption expenditure	561.7	573.2	584.8	277.2	284.5	283.0	290.2	288.8	296.0
Gross fixed capital formation (GFCF)	590.5	608.4	622.8	285.9	304.6	293.7	314.7	301.3	321.6
Machinery and equipment	203.5	212.7	219.9	96.7	106.8	100.6	112.1	104.0	115.9
Construction	273.9	279.5	284.2	133.7	140.3	136.0	143.5	138.6	145.5
GFCF in other products	113.5	117.0	119.9	55.6	57.9	57.3	59.7	58.9	61.0
Domestic uses	2,712.0	2,767.0	2,813.7	1,337.4	1,374.6	1,365.0	1,402.0	1,386.0	1,427.7
Exports	1,446.6	1,508.2	1,568.7	718.9	727.6	748.5	759.7	776.6	792.1
Imports	1,250.3	1,313.3	1,374.0	611.1	639.2	642.4	670.9	670.6	703.4
Gross domestic product	**2,908.9**	**2,963.9**	**3,012.0**	**1,444.8**	**1,464.2**	**1,471.3**	**1,492.6**	**1,492.9**	**1,519.1**
b) Percentage change over previous year									
Final consumption expenditure	1.8	1.7	1.5	1.7	1.9	1.8	1.6	1.4	1.6
Private consumption expenditure[2]	1.8	1.6	1.3	1.7	1.9	1.7	1.5	1.1	1.4
Government consumption expenditure	1.7	2.0	2.0	1.6	1.8	2.1	2.0	2.0	2.0
Gross fixed capital formation (GFCF)	3.2	3.0	2.4	3.1	3.3	2.7	3.3	2.6	2.2
Machinery and equipment	2.0	4.5	3.4	1.2	2.7	4.1	5.0	3.4	3.4
Construction	3.8	2.0	1.7	4.1	3.5	1.7	2.3	2.0	1.4
GFCF in other products	3.7	3.1	2.5	3.7	3.8	3.1	3.0	2.7	2.2
Domestic uses	2.1	2.0	1.7	2.1	2.0	2.1	2.0	1.5	1.8
Exports	3.7	4.3	4.0	3.9	3.5	4.1	4.4	3.8	4.3
Imports	4.5	5.0	4.6	4.6	4.4	5.1	4.9	4.4	4.8
Gross domestic product	**1.9**	**1.9**	**1.6**	**2.0**	**1.8**	**1.8**	**1.9**	**1.5**	**1.8**

1 Due to a correction of the official employment figures by the Federal Employment Agency (Bundesagentur für Arbeit), selected variables of the system of national accounts (SNA) have been adjusted for this forecast. These figures are highlighted in italics and shaded background. For details (in German) please refer to Box 1 in Ferdinand Fichtner et al. (2017): Deutsche Wirtschaft: Beschäftigungsaufbau stark, Investitionstätigkeit schwach. DIW Wochenbericht 11, 188 f.

continued: The Main National Accounts Data for the Federal Republic of Germany

Forecast for 2017 and 2018[1]

	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]	1.6	1.3	1.7	1.7	1.5	1.2	1.4	1.6	1.8
Government consumption expenditure	2.0	1.6	1.7	2.0	2.0	1.7	1.5	1.6	1.9
Gross fixed capital formation (GFCF)	1.9	1.9	1.9	1.7	2.0	1.9	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	3.2	3.2	3.1	2.9	3.4	3.2	3.1	3.1	3.1
Exports	1.6	0.3	0.7	1.9	1.4	0.1	0.5	0.7	0.7
Imports	2.4	−0.4	0.5	3.7	1.2	−1.2	0.3	0.5	0.5
Gross domestic product	**1.5**	**1.7**	**1.8**	**1.2**	**1.8**	**1.9**	**1.6**	**1.7**	**1.8**
5. Distribution of Income									
a) Billion Euro									
Primary income of private household[2]	2,262.9	2,338.4	2,418.8	1,115.0	1,147.9	1,152.2	1,186.1	1,190.3	1,228.5
Employers' social contributions	300.1	310.5	322.4	144.9	155.2	150.0	160.5	156.1	166.3
Gross wages and salaries	1,365.8	1,413.3	1,463.7	652.5	713.3	675.7	737.6	699.4	764.3
Other primary income of private households[4]	597.0	614.5	632.6	317.6	279.4	326.5	288.0	334.8	297.9
Primary income of other institutional sectors	475.0	493.9	509.7	219.9	255.0	231.2	262.7	235.9	273.8
Net national income (primary income)	**2,737.9**	**2,832.3**	**2,928.5**	**1,334.9**	**1,402.9**	**1,383.4**	**1,448.8**	**1,426.2**	**1,502.3**
Consumption of fixed capital	571.7	594.4	615.1	283.4	288.3	294.7	299.7	305.5	309.6
Gross national income	**3,309.6**	**3,426.7**	**3,543.5**	**1,618.4**	**1,691.2**	**1,678.1**	**1,748.6**	**1,731.7**	**1,811.8**
Memorandum item:									
Net national income (factor costs)	2,419.4	2,506.8	2,594.4	1,177.0	1,242.4	1,222.1	1,284.7	1,260.6	1,333.9
Property and entrepreneurial income	753.5	783.0	808.3	379.6	373.9	396.4	386.6	405.0	403.3
Compensation of employees	1,665.9	1,723.8	1,786.1	797.4	868.5	825.7	898.1	855.5	930.6
b) Percentage change over previous year									
Primary income of private household[2]	3.9	3.3	3.4	4.1	3.8	3.3	3.3	3.3	3.6
Employers' social contributions	3.9	3.5	3.8	3.7	4.1	3.6	3.4	4.0	3.6
Gross wages and salaries	4.1	3.5	3.6	4.4	3.9	3.6	3.4	3.5	3.6
Other primary income of private households[4]	3.5	2.9	2.9	3.7	3.3	2.8	3.1	2.5	3.4
Primary income of other institutional sectors	1.5	4.0	3.2	−0.9	3.8	5.1	3.0	2.0	4.2
Net national income (primary income)	**3.5**	**3.4**	**3.4**	**3.2**	**3.8**	**3.6**	**3.3**	**3.1**	**3.7**
Consumption of fixed capital	3.5	4.0	3.5	3.3	3.7	4.0	4.0	3.6	3.3
Gross national income	**3.5**	**3.5**	**3.4**	**3.3**	**3.8**	**3.7**	**3.4**	**3.2**	**3.6**
Memorandum item:									
Net national income (factor costs)	3.5	3.6	3.5	3.2	3.8	3.8	3.4	3.1	3.8
Property and entrepreneurial income	*2.2*	3.9	3.2	0.9	3.4	4.4	3.4	2.2	4.3
Compensation of employees	4.1	3.5	3.6	4.3	3.9	3.6	3.4	3.6	3.6
6. Income and Expenditure of Private Households									
a) Billion Euro									
Mass income	1,348.9	1,390.8	1,434.5	649.8	699.1	670.5	720.4	690.7	743.8
Net wages and salaries	902.1	932.3	962.0	427.0	475.1	441.6	490.7	454.9	507.1
Social benefits	567.1	583.5	601.9	282.5	284.6	290.8	292.7	300.0	301.9
less levies on social benefits	120.3	124.9	129.4	59.7	60.6	61.9	63.0	64.2	65.2
Other primary income[4]	597.0	614.5	632.6	317.6	279.4	326.5	288.0	334.8	297.9
Other transfers received (net)[5]	−76.2	−80.1	−84.0	−38.6	−37.6	−40.6	−39.5	−42.6	−41.4
Disposible income	**1,869.7**	**1,925.2**	**1,983.1**	**928.9**	**940.8**	**956.4**	**968.8**	**982.9**	**1,000.2**
Memorandum item:									
Adjustment for the change in net equity of households in pension funds reserves	49.5	50.0	50.4	24.5	25.0	24.7	25.3	24.9	25.5
Private consumption expenditure	1,732.7	1,783.1	1,836.0	846.2	886.5	870.8	912.4	894.6	941.4
Saving	186.6	192.1	197.6	107.2	79.4	110.4	81.7	113.3	84.3
Saving ratio in %[6]	9.7	9.7	9.7	11.2	8.2	11.2	8.2	11.2	8.2
b) Percentage change over previous year									
Mass income	3.8	3.1	3.1	4.1	3.6	3.2	3.0	3.0	3.3
Net wages and salaries	3.8	3.4	3.2	4.1	3.5	3.4	3.3	3.0	3.3
Social benefits	4.1	2.9	3.2	4.3	3.8	2.9	2.8	3.2	3.2
less levies on social benefits	4.8	3.8	3.6	5.5	4.0	3.8	3.9	3.7	3.6
Other primary income[4]	3.5	2.9	2.9	3.7	3.3	2.8	3.1	2.5	3.4
Disposible income	**3.6**	**3.0**	**3.0**	**3.7**	**3.5**	**3.0**	**3.0**	**2.8**	**3.2**
Private consumption expenditure	3.5	2.9	3.0	3.5	3.5	2.9	2.9	2.7	3.2
Saving	*3.8*	2.9	2.9	5.0	2.3	3.0	2.9	2.6	3.2

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.