

Ademmer, Martin et al.

**Article**

## German Economy Autumn 2019 - Germany at the brink of recession

Kiel Institute Economic Outlook, No. 59

**Provided in Cooperation with:**

Kiel Institute for the World Economy – Leibniz Center for Research on Global Economic Challenges

*Suggested Citation:* Ademmer, Martin et al. (2019) : German Economy Autumn 2019 - Germany at the brink of recession, Kiel Institute Economic Outlook, No. 59, Kiel Institute for the World Economy (IfW), Kiel

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# KIEL INSTITUTE **ECONOMIC OUTLOOK**

## **German Economy** Autumn 2019

Finalized September 10, 2019



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**No. 59 (2019 | Q3)**

*Martin Ademmer, Jens Boysen-Hogrefe, Salomon Fiedler,  
Dominik Groll, Nils Jannsen, Stefan Kooths, Saskia Möhle,  
Galina Potjagailo, and Maik Wolters*

## GERMANY AT THE BRINK OF RECESSION

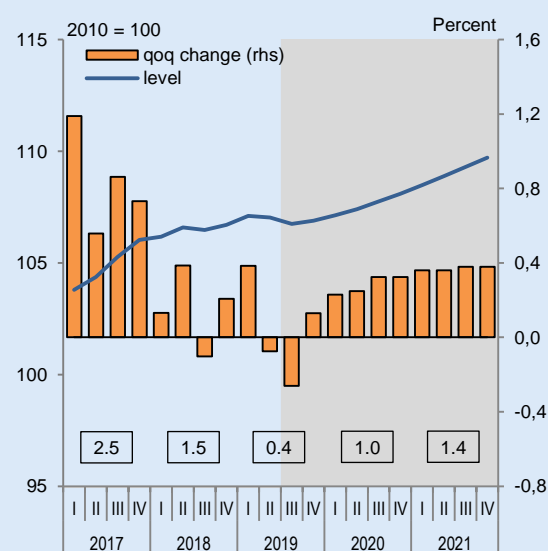
*Martin Ademmer, Jens Boysen-Hogrefe, Salomon Fiedler, Dominik Groll, Nils Jannsen, Stefan Kooths, Galina Potjagailo, and Maik Wolters*

The German economy is at the brink of a recession. Gross domestic product is likely to decline again in the third quarter. Germany would thus formally be in a technical recession. However, the slowdown that began in 2018 has so far been a normalization of the previous boom period. At present, capacity utilization of firms is roughly in line with their long-term average. A pronounced recession would occur if capacity utilization were to fall noticeably further. Risks for such a recession have increased, especially as the weakness in the manufacturing sector is increasingly having an impact on the service sector. At present, however, it seems more likely that the German economy will pick up slightly in the coming year. Overall, we now expect lower growth rates for gross domestic product of 0.4 percent for the current year and 1 percent for 2020 compared to our summer forecast (0.6 and 1.6 percent, respectively). So far, the downturn has been characterized by the fact that economic momentum in Germany has cooled off more than in many other countries. To some extent, this is due to the fact that the German economy had previously been in a pronounced boom, and thus the height of fall was higher than elsewhere. In addition, the high level of political uncertainty worldwide, resulting primarily from the ongoing trade conflicts, is likely to weigh particularly on production in Germany. Against this backdrop, exports are likely to pick up only gradually. Private consumer spending will continue to expand at robust rates. Though the weaker economy is having a noticeable effect on the labor market—the number of unemployed will probably continue to rise for the time being and employment will fall in the coming year for the first time since the Great Recession—, disposable household income is set to rise with robust rates, not least because labor shortages will continue to contribute to quite strong wage increases and because several fiscal measures will support incomes. Business investment, on the other hand, is likely to be clearly on the downside temporarily due to the pessimistic sales outlook. Government surpluses will decline noticeably in the forecast period, as expenditure will continue to expand strongly, while revenues will be burdened by the economic slowdown. In 2021, the public budget balance will thus probably be negative for the first time since 2011.

**German economy is set to enter a technical recession.** Leading indicators point to another decline of GDP in third quarter. Business confidence has further deteriorated. While confidence in the manufacturing industry has been trending downward since the beginning of 2018, confidence in several service sectors has recently worsened considerably as well. Moreover, industrial production in July has further declined and was more than 1 percent below the level of the second quarter. Overall, we expect GDP to decline by 0.3 percent in the third quarter (Figure 1). Thus, after the decline in GDP in the second quarter the German economy will formally enter a technical recession, which is defined as a period of two consecutive quarters with negative GDP growth.

**An interest rate reversal recedes into the far future.** The European Central Bank (ECB) continues its use of extraordinary monetary policy measures. Furthermore, the ECB will keep its policy

**Figure 1:**  
Gross domestic product, 2017–2021



Quarterly data, price, seasonally and calendar adjusted, qoq change. Annual data: price adjusted, annual rate (boxes).

Source: Federal Statistical Office, *Fachserie 18, Series 1.3*, shaded: Ifw forecast.

rates low for a long time to come. We do not expect any rate hikes within the forecasting period. The recent decline in German government bond yields suggests that markets had already priced in some easing measures by the central bank. Yields on 10-year bunds fell to around -0.5 percent and we predict them to remain close to that level for the whole forecasting period. Against this backdrop, we expect the current favourable financing conditions on credit and capital markets to persist throughout the forecasting period.

**German foreign trade remains sluggish.** After the weak development in 2018, which was also triggered by temporary factors, German exports saw a pronounced, but short-lived increase at the start of this year, before declining significantly in the second quarter. The drop was particularly strong for goods sold to the United Kingdom, but also to China. Nominal exports of intermediate goods and capital goods fell noticeably in line with increased global uncertainty and the associated weaker investment activity in key sales markets, while consumer goods exports increased robustly. In the current quarter exports are set to remain weak. Even though goods exports in July increased markedly, soft indicators have continued to deteriorate and are now well below their long-run averages. Over the forecast horizon, exports will initially remain on a sluggish path and gain momentum only slowly, in line with the decelerated expansion in German export markets and high levels of policy uncertainty weighing particularly on the exports of capital goods. Moreover, while an improvement in price competitiveness supported exports at the start of this year, this positive stimulus will fade over the forecast horizon. After having lost momentum since mid-2018, German imports fell in the second quarter consistently with weak exports and business investment. For the current quarter, monthly data on goods imports and the rather weak domestic economy suggest that imports will remain largely unchanged. Over the forecast horizon, we expect imports to grow at a more vivid pace than exports. However, due to the rather weak dynamics of business investment, private consumption and exports, import growth will remain subdued for the time being.

**Private consumption remains robust despite smaller increases in wages in salaries.** Due to the weaker labor market, we expect gross wages and salaries to expand in the next two years with 2.6 percent (2020) and 2.8 percent (2021) by considerably lower rates than in the current year (4.2 percent). However, disposable income of private households will be stabilized by a much more favorable development of property and entrepreneurial income of private households. Incoming data point to a strong decline in the current year by 1.7 percent. One reason behind are lower sales and earnings of firms due to the weak economic environment. For the next two years, we expect property and entrepreneurial income to increase again due to the stabilizing economy. Disposable income of private households will be stimulated by several measures of the government. For the year 2021, we expect the partial abolition of the "Solidaritätszuschlag", which will increase disposable income by about 0.5 percent. Overall, we expect disposable income to increase by 2.4 percent in 2020 and by 2.9 percent in 2021 after an increase by 3 percent in the current year. Against this backdrop, growth in private consumption will remain robust with rates between 1.2 and 1.4 percent per year.

**Business investment is set to decline in the second half of the year.** In the face of deteriorated sales and earnings expectations as well as of the worldwide high political uncertainty, investment activity of firms will be weak in the next quarters. Already in the second quarter private investment in machinery and equipment declined considerably. The increase in overall investment in machinery and equipment was only due to an erratic increase in public investment by more than 40 percent, which is likely to be partly reversed in the next quarters.<sup>1</sup> Leading indicators, such as survey indicators and domestic turnover in capital goods, point to another strong decline of private investment in machinery and equipment in the third quarter. Overall, we expect investment in machinery and equipment to decline by 3 percent. In the next year, with stabilizing exports business investment will moderately increase.

**Consumer prices continue to rise moderately.** After a rate of 1.6 percent in July, consumer prices rose by 1.4 percent year-on-year in August. Energy prices were particularly weak in August, falling 1 percent vis-à-vis the previous month. Food prices, however, rose markedly by 0.7 percent. While currently inflation is dampened by feeble energy prices, over the course of the forecasting period the lower utilisation of production capacities should also become noticeable. We expect consumer prices to rise by 1.4 percent in 2019 and 1.6 percent both in 2020 and 2021.

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<sup>1</sup> In 2018, the share of public investment in total investment in machinery and equipment was about 7 percent.

**Labor costs are no longer fostering employment growth.** Wage growth is expected to weaken slightly over the next two years. Current collective agreements indicate a deceleration of negotiated wages and salaries. We expect rates of 2.5 percent and 2.4 percent in 2020 and 2021, after an increase of 2.7 percent this year. Gross wages and salaries per employee are expected to rise a bit more, although the difference (wage drift) is set to decline, as labor market tightness is likely to ease due to the economic downturn. We forecast wage increases of 2.7 percent and 2.5 percent in 2020 and 2021, after 3.0 percent this year. Despite the slight deceleration, labor costs are no longer stimulating labor demand. According to the most recent general revision of the national accounts by the Federal Statistical Office, real unit labor costs—i.e. the level of labor costs relative to labor productivity and prices (as measured by the GDP deflator)—are significantly higher now than previously reported. They are now back at their historical average, which can be interpreted as the wage level that neither dampens nor stimulates labor demand. This is the first time since 2003. Since then, with one exception, real unit labor costs have been continuously below this level, most clearly before the outbreak of the Great Recession. As a result, labor demand was stimulated significantly, which is likely to have been a major factor in the robust development of the labor market during the Great Recession and the subsequent strong increase in employment. These positive impulses have recently expired. This in itself suggests that the labor market in Germany will react more strongly to periods of economic slack than in the past ten years.

**The labor market has reached a turning point.** In the second quarter, employment has risen only by 50,000 persons quarter-on-quarter (seasonally adjusted). This slowdown was driven primarily by the number of employees subject to social security contributions, whose increase was the smallest in over six years. Employment in manufacturing has even been declining since February. Moreover, leading indicators have been deteriorating with a pace not seen in years. We expect total employment to decline temporarily, thereby revising our forecast downward significantly. First, employment growth has slowed down more strongly than expected, although GDP evolved according to our expectations. Second, we expect the downturn in the coming quarters to be more pronounced than in our forecast three months ago. Third, real unit labor costs are no longer stimulating labor demand. An even stronger reaction of the labor market to the economic downturn is prevented by the fact that labor market tightness has been higher than at comparable points in time during previous business cycles. All else equal, this induces firms to hold on to their staff for a longer period of time during economic downturns. All in all, after having already increased slightly in recent months, unemployment is expected to increase throughout 2021.

**The fiscal surplus will decline in 2019 due to the expansionary stance of fiscal policy and slowing revenues.** A shift in income tax rates that shall counteract the fiscal drag dampens the expansion of tax revenues. More importantly, the economic downturn puts corporate tax revenues under pressure. However, the still high wage growth leads to substantially higher social security contributions. In sum, revenues increase at a smaller pace than in the record year 2018. On the expenditure side, public investment and consumption are likely to increase strongly driven by policy measures of the federal government and past surpluses at the level of municipalities and federal states. Further, payments in the pension system increase rapidly due to the good labor market conditions of the previous years and due to the extended consideration of times in parental leave. In sum, the surplus will shrink, but will remain at relative high level.

**In 2020 and 2021, fiscal policy will remain mildly expansionary and the budget surplus vanishes.** Expenditures will expand at a similar rate as in the previous year. Several policy measures, taken in 2019, have their full impact in 2020 and additional measures are likely to be taken, e.g. introduction of a basic pension. Since the economic downturn affects wages, revenues from social security contributions will expand with lower rates, and the growth of tax revenues will stay subdued. Further, in 2021 the solidarity surcharge on income taxes will be cut leading to lower revenues of about 10 bn. Euros. The fiscal consequences of the economic downturn and the impact of fiscal policy measures lead to a further deterioration of the budget balance. For 2021, we expect a more or less balanced budget and a slightly negative structural balance.

**Table 1:**  
**Key indicators, 2018–2021**

	2018	2019	2020	2021
Gross domestic product (GDP), price-adjusted	1.5	0.4	1.0	1.4
Gross domestic product, deflator	1.5	2.2	2.1	1.7
Consumer prices	1.7	1.5	1.6	1.6
Labor productivity (per hour worked)	0.3	-0.2	1.0	1.7
Employment (1,000 persons)	44,854	45,215	45,120	45,168
Unemployment rate (percent)	5.2	5.0	5.2	5.3
in relation to nominal GDP				
Public sector net lending	1.9	1.3	0.4	-0.2
Gross public debt	61.7	59.0	56.7	55.4
Current account balance	7.5	7.5	7.6	7.4

GDP, consumer prices, labor productivity: percentage change on previous year; unemployment rate: as defined by the Federal Employment Agency.

Source: Federal Statistical Office, *Fachserie 18, Series 1.2*; Federal Employment Agency, *Monthly Bulletin*; Federal Employment Agency, *Employment Statistics*; shaded: IfW forecast.

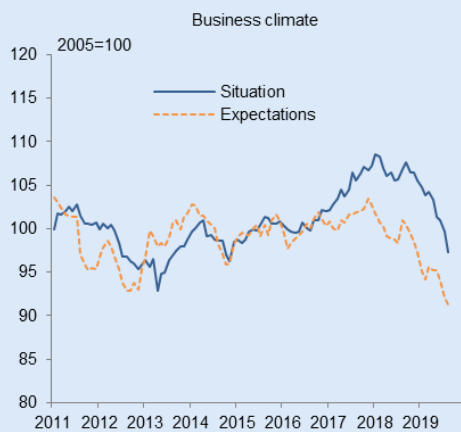
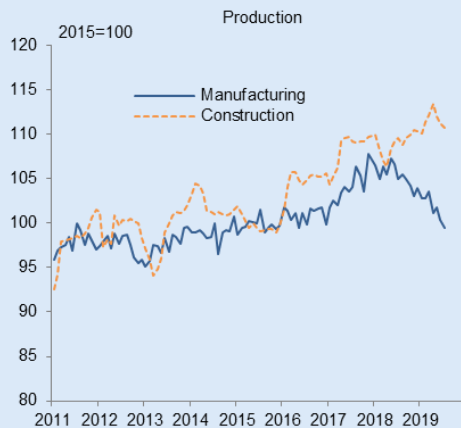
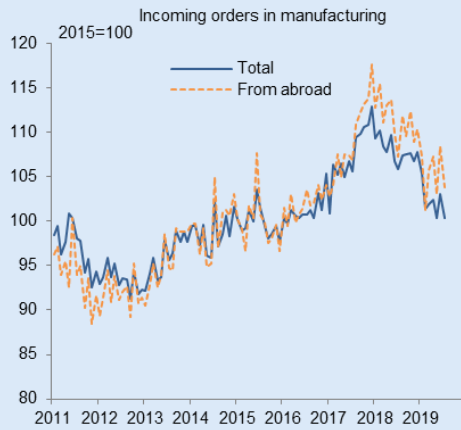
**Data annex**

# Contents

1. Leading indicators .....	7
2. Monetary conditions and prices .....	8
3. External trade.....	10
4. Domestic expenditure.....	12
5. Industries.....	14
6. Wages.....	15
7. Employment.....	16
8. Public finances.....	17
9. GDP and its components .....	18
10. The German economy, 2015–2018 .....	20
11. National accounts .....	21

## 1. Leading indicators

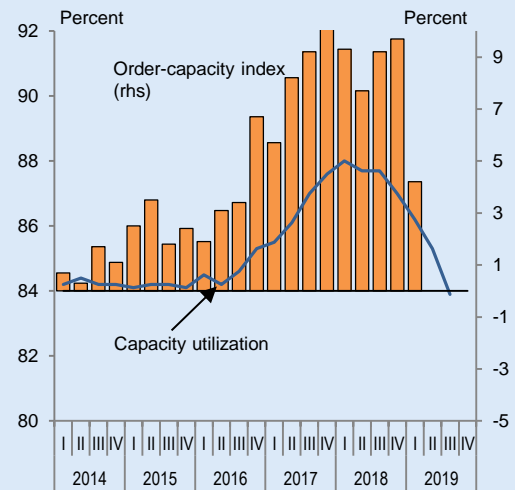
**Figure 1.1:**  
Leading indicators, 2011–2019



Monthly data, seasonally adjusted.

Source: Deutsche Bundesbank, *Saisonbereinigte Wirtschaftszahlen*; ifo, *Konjunkturperspektiven*, own calculations.

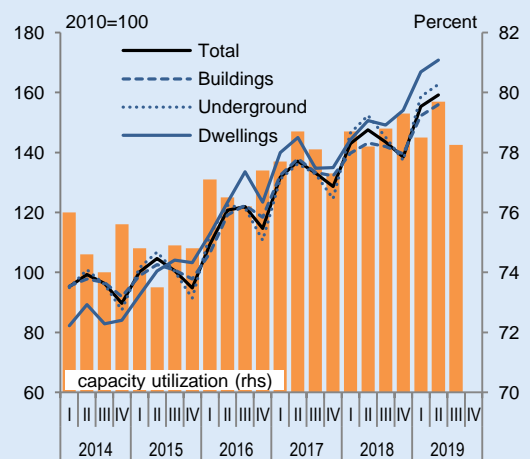
**Figure 1.2:**  
Capacity utilization, 2014–2019



Quarterly data, seasonally adjusted; capacity utilization in manufacturing (axes cross at normal capacity utilization).

Source: EU Commission, *Business Survey*; Deutsche Bundesbank, *Monthly Report*.

**Figure 1.3:**  
Order stocks and capacity utilization in construction industry, 2014–2019



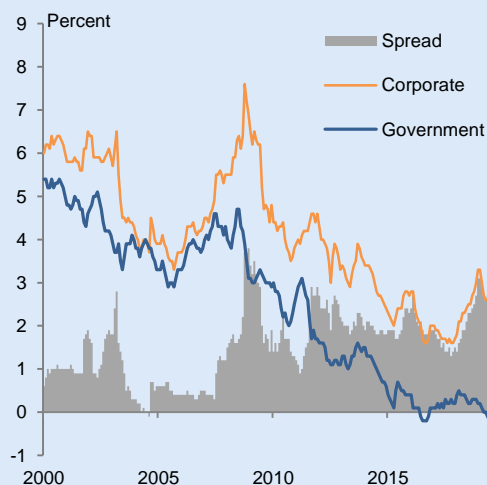
Quarterly data. Capacity utilization: seasonally adjusted (last observation: two-months average order stocks: price, seasonally and working-day adjusted).

Source: Federal Statistical Office, *GENESIS database*; ifo, *Konjunkturperspektiven*.



## 2. Monetary conditions and prices

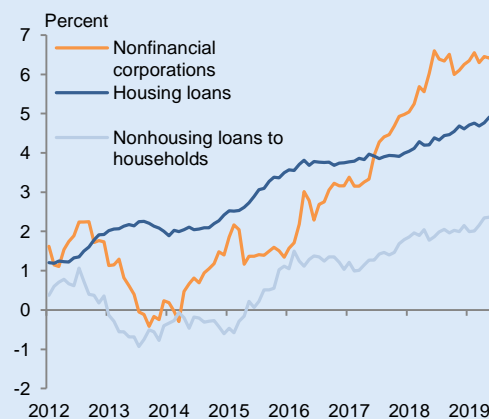
**Figure 2.1:**  
Bond yields, 2000–2019



Monthly data, average maturities above three years.

Source: Deutsche Bundesbank, *Monthly Reports*; own calculations.

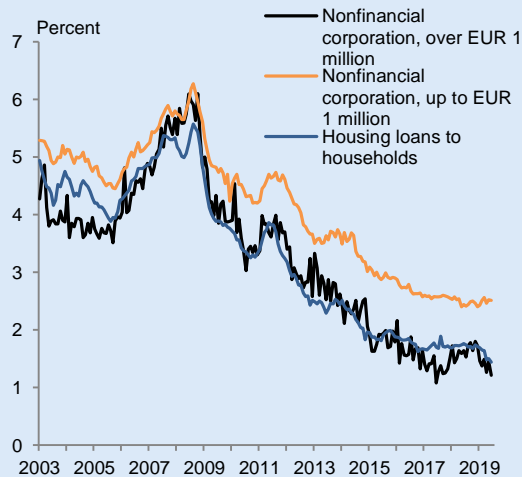
**Figure 2.3:**  
Credit growth, 2012–2019



Change compared to one year ago; Monthly data.

Source: Deutsche Bundesbank, *Seasonally Adjusted Business Statistics*; own calculations.

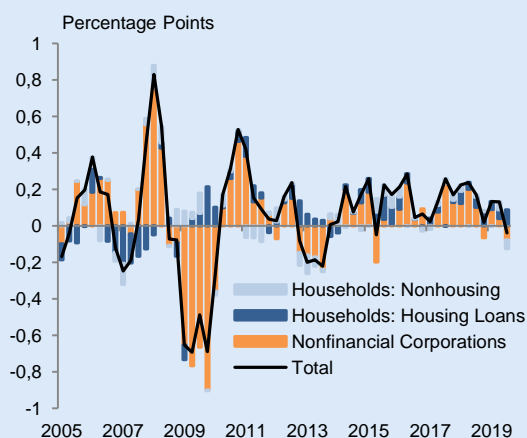
**Figure 2.2:**  
Loan interest, 2003–2019



Monthly data; new business, 1–5 years, fixed.

Source: Deutsche Bundesbank, *MFI interest rate statistics*.

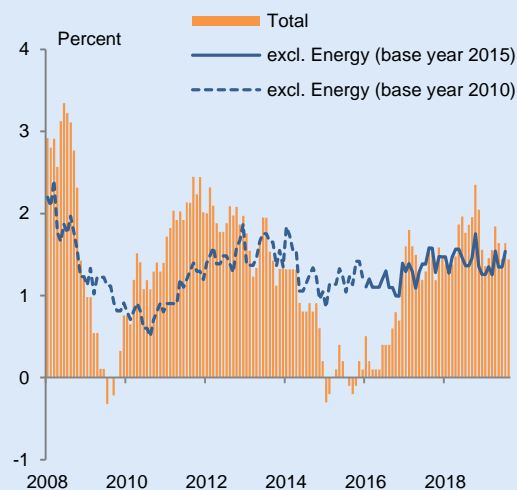
**Figure 2.4:**  
Credit impulse, 2005–2019



Quarterly data, most recent quarter based on first month; calculations follow Biggs et al. (2009), *Credit and economic recovery*, DNB Working Paper 218, De Nederlandsche Bank, Amsterdam. The credit impulse is the change of the credit growth relative to the growth in GDP.

Source: Deutsche Bundesbank, *Seasonally Adjusted Business Statistics*; own calculations.

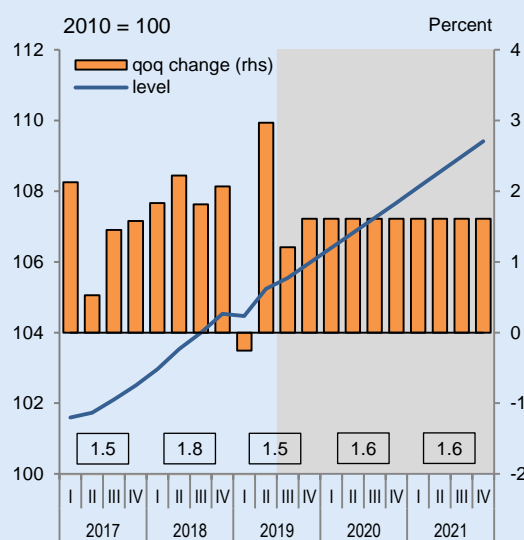
**Figure 2.5:**  
Consumer prices, 2008–2019



Monthly data; year-on-year change.  
After the introduction of the new base year 2015, the Statistisches Bundesamt has not yet published all new time series for the period before 2015. We therefore fall back on the old data for that period of time.

Source: Deutsche Bundesbank, *Time series databases*; own calculations.

**Figure 2.6:**  
Consumer price index, 2017–2021



Quarterly data, seasonally adjusted, qoq change, annualized. Annual data: price adjusted, annual rate (boxes).

Source: Federal Statistical Office, *Fachserie 18, Series 1.3*; shaded: IFW forecast.

**Table 2.1:**  
Projections and assumptions on the international environment, 2018–2021

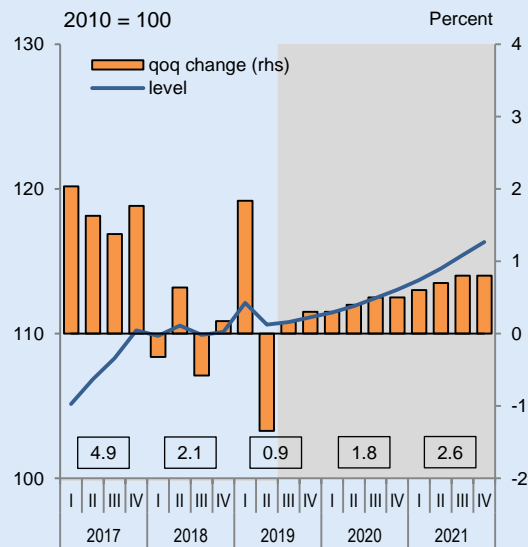
	2018				2019				2020				2021			
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
ECB key interest rate	0.00	0.00	0.00	0.00	0.00	0.00	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30
Long-term interest rate	0.60	0.50	0.40	0.40	0.10	-0.10	-0.50	-0.50	-0.60	-0.60	-0.60	-0.60	-0.60	-0.50	-0.50	-0.50
US-dollar/euro exchange rate	1.23	1.19	1.16	1.14	1.14	1.12	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Price competitiveness	90.10	90.20	90.80	90.50	89.30	89.50	89.59	89.46	89.32	89.19	89.01	88.83	88.65	88.48	88.30	88.12
Export markets	0.71	0.66	0.54	0.46	0.63	0.52	0.47	0.47	0.50	0.51	0.52	0.55	0.56	0.56	0.57	0.57
Oil price	66.90	74.50	75.10	68.80	63.20	68.90	60.80	60.20	60.50	60.80	61.10	61.40	61.70	62.00	62.30	62.60

ECB key interest rate: main refinancing operations; long-term interest rate on 9–10 year bonds; price competitiveness: against 36 trading partners, based on the deflators of total sales, index: 1991:I = 100, increasing values indicate deterioration of price competitiveness; export markets: GDP growth in 41 countries, weighted with shares in German exports, change over previous quarter. Oil Price: US-Dollar per barrel North Sea Brent.

Source: ECB, *Monthly Bulletin*; Deutsche Bundesbank, *Monthly Bulletin*; IMF, *International Financial Statistics*; own calculations; shaded: IFW forecast or assumption.

### 3. External trade

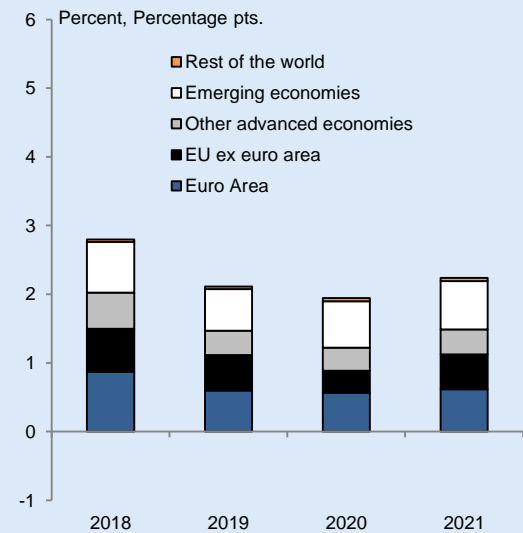
**Figure 3.1:**  
Exports, 2017–2021



Quarterly data, price, seasonally and calendar adjusted, qoq change. Annual data: price adjusted, annual rate (boxes).

Source: Federal Statistical Office, *Fachserie 18, Series 1.3*; shaded: IFW forecast.

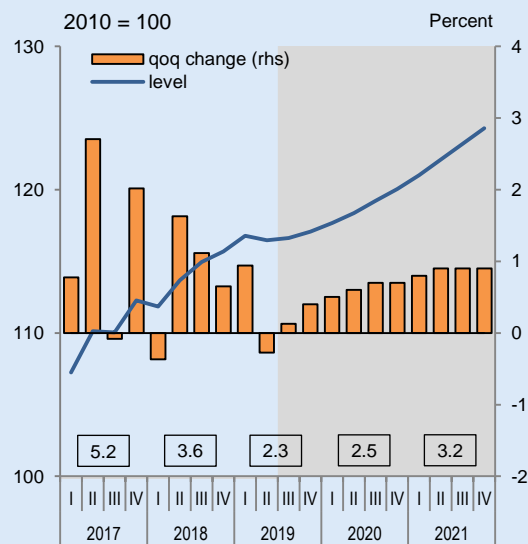
**Figure 3.3:**  
German export markets, 2018–2021



Annual data, volumes; GDP growth in 59 countries, weighted with shares in German exports.

Source: Federal Statistical Office, *Fachserie 7 Series 1*; national sources; own calculations; 2019–2020: IFW forecast.

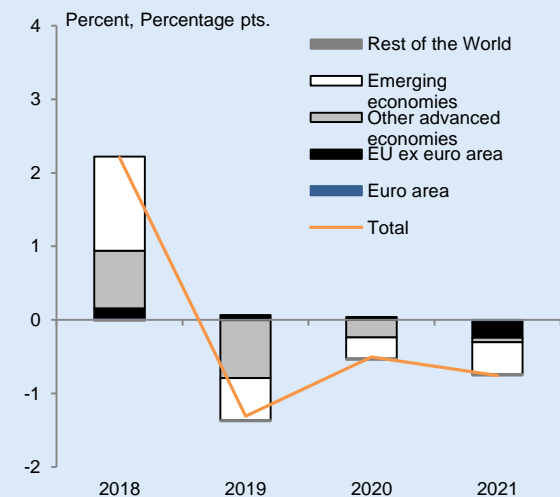
**Figure 3.2:**  
Imports, 2017–2021



Quarterly data, price, seasonally and calendar adjusted, qoq change. Annual data: price adjusted, annual rate (boxes).

Source: Federal Statistical Office, *Fachserie 18, Series 1.3*; shaded: IFW forecast.

**Figure 3.4:**  
Germany's price competitiveness, 2018–2021



Annual data; against 51 countries based on consumer prices; weights according to Germany's price competitiveness indicator against 56 trading partners based on consumer price indices from the Deutsche Bundesbank. Increase implies worsening of price competitiveness.

Source: Bundesbank, *Monthly Report 8.2017*; national sources; own calculations; 2019–2021: IFW forecast.

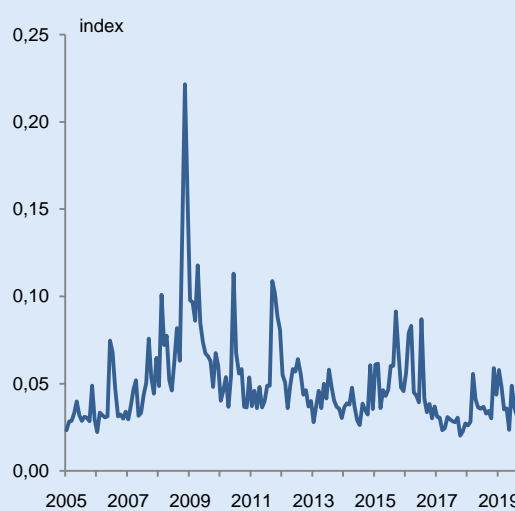
**Figure 3.5:**  
Export indicators, 2008–2019



Quarterly data; exports, industrial production, order inflow: volumes, change on previous year; export expectations, foreign orders on hand: volumes; business expectations, industrial production: based on 42 countries weighted by shares of German exports.

Source: Deutsche Bundesbank, *Saisonbereinigte Wirtschaftszahlen*; Thomson Financial Datastream; ifo, *Konjunkturperspektiven*; own calculations.

**Figure 3.6:**  
Uncertainty in German export markets, 2005–2019

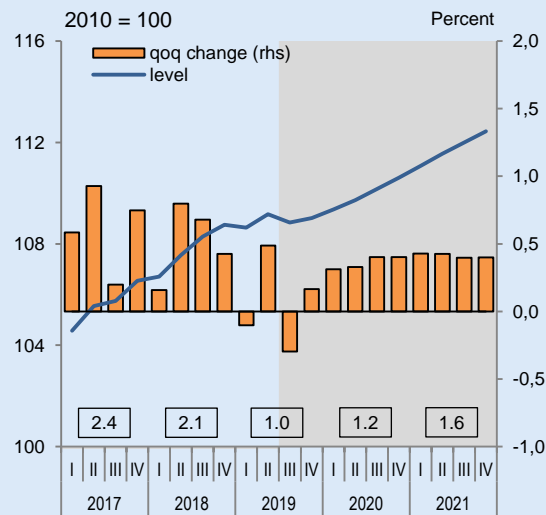


Monthly data; realized stock market volatilities based on daily stock price indices in 46 countries, weighted by shares of German exports.

Source: National sources; own calculations.

## 4. Domestic expenditure

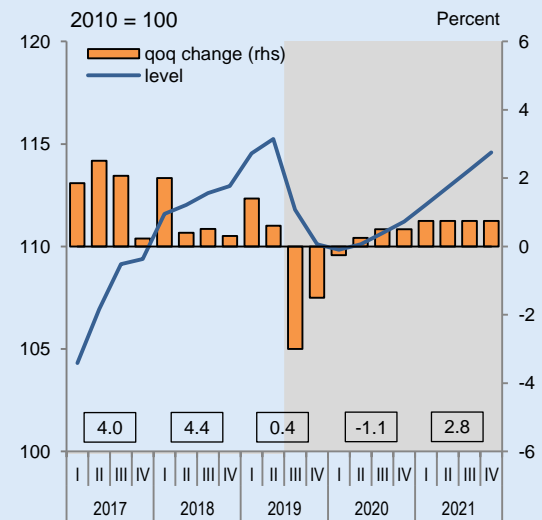
**Figure 4.1:**  
Domestic expenditure, 2017–2021



Quarterly data: price, seasonally and calendar adjusted, qoq change. Annual data: price adjusted, annual rate (boxes).

Source: Federal Statistical Office, *Fachserie 18, Series 1.3*; shaded: IfW forecast.

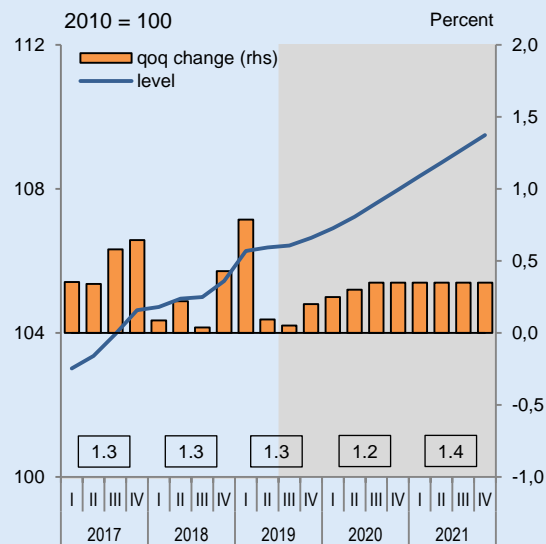
**Figure 4.3:**  
M&E investments, 2017–2021



Quarterly data: price, seasonally and calendar adjusted, qoq change. Annual data: price adjusted, annual rate (boxes).

Source: Federal Statistical Office, *Fachserie 18, Series 1.3*; shaded: IfW forecast.

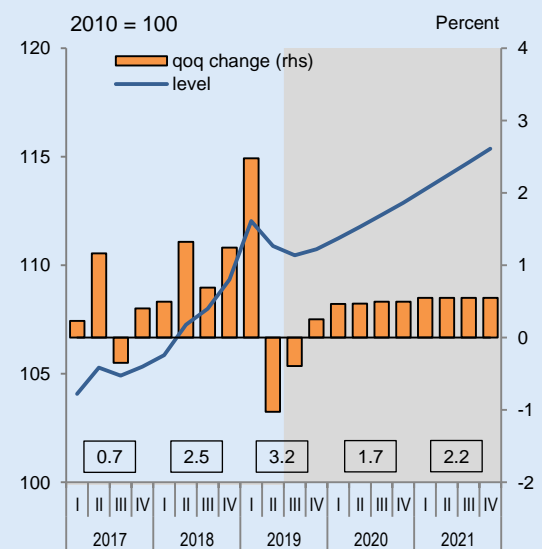
**Figure 4.2:**  
Private consumption, 2017–2021



Quarterly data: price, seasonally and calendar adjusted, qoq change. Annual data: price adjusted, annual rate (boxes).

Source: Federal Statistical Office, *Fachserie 18, Series 1.3*; shaded: IfW forecast.

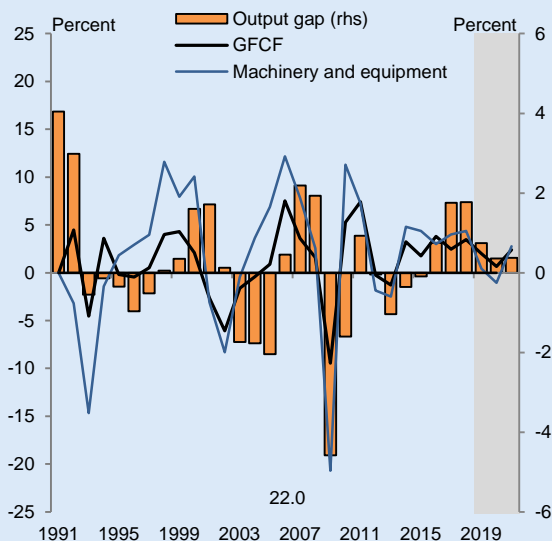
**Figure 4.4:**  
Construction, 2017–2021



Quarterly data: price, seasonally and calendar adjusted, qoq change. Annual data: price adjusted, annual rate (boxes).

Source: Federal Statistical Office, *Fachserie 18, Series 1.3*; shaded: IfW forecast.

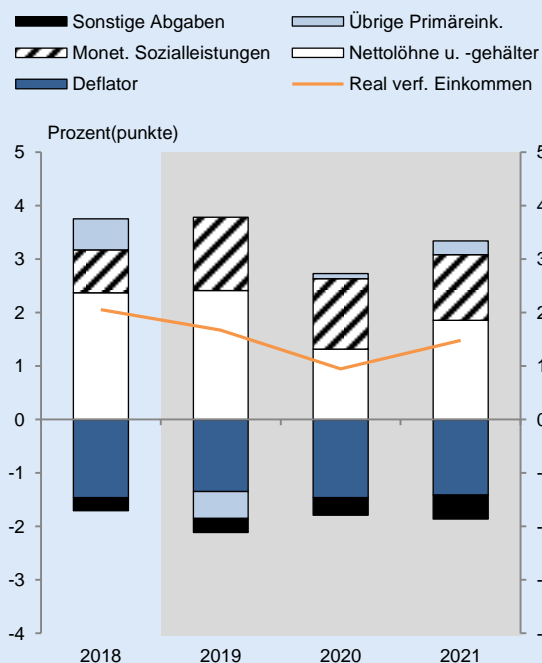
**Figure 4.5:**  
Investment cycles, 1991–2021



Annual data; GFCF, machinery and equipment: volumes, change on previous year; output gap: in percent of potential output, estimation taken from medium-run projection.

Source: Federal Statistical Office, *Fachserie 18, Series 1.2*; own calculations; shaded: IfW forecast.

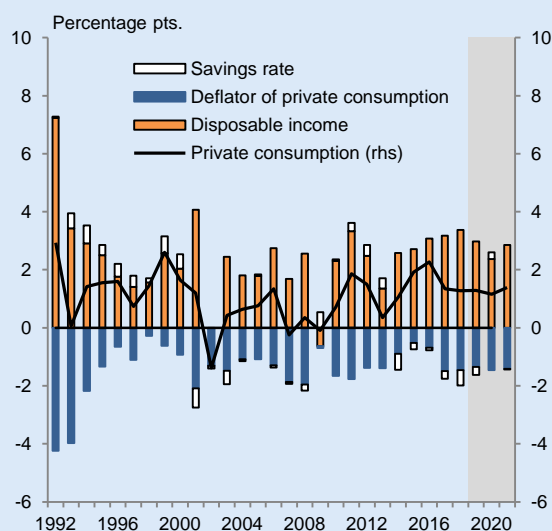
**Figure 4.7:**  
Contributions to changes in real disposable income, 2018–2021



Jahresdaten, Expansionsbeiträge (real verfügbare Einkommen: Veränderung gegenüber dem Vorjahr, rechte Skala); sonstige Abgaben: Abgaben auf soz. Leistungen, verbrauchsnahen Steuern und sonst. Transfers; Deflator: private Konsumausgaben.

Quelle: Statistisches Bundesamt, *Fachserie 18, Reihe 1.2*; eigene Berechnungen; grau hinterlegt: Prognose des IfW.

**Figure 4.6:**  
Contributions to change in private consumption, 1992–2021



Annual data; disposable income including adjustment for the change in pension entitlements.

Source: Federal Statistical Office, *Fachserie 18, Series 1.2*; own calculations; shaded: IfW forecast.

**Table 4.1:**  
Gross fixed capital formation, 2018–2021

	2018	2019	2020	2021
Total	3.5	2.0	0.7	2.4
Corporate investment	3.6	1.4	-0.2	2.3
Machinery and equipment	4.4	0.4	-1.1	2.8
Construction (non-dwellings)	0.6	3.8	0.7	1.6
Other	4.3	1.6	0.8	2.2
Dwellings	3.0	3.3	2.3	2.6
Public (non-dwellings)	4.3	1.0	1.1	2.3
<i>Memorandum item:</i>				
Construction	2.5	3.2	1.7	2.2

Volumes; change over previous year in percent.

Source: Federal Statistical Office, *Fachserie 18, Series 1.2*; shaded: IfW forecast.

## 5. Industries

**Table 5.1:**  
**Gross value added for industries, 2019–2020**

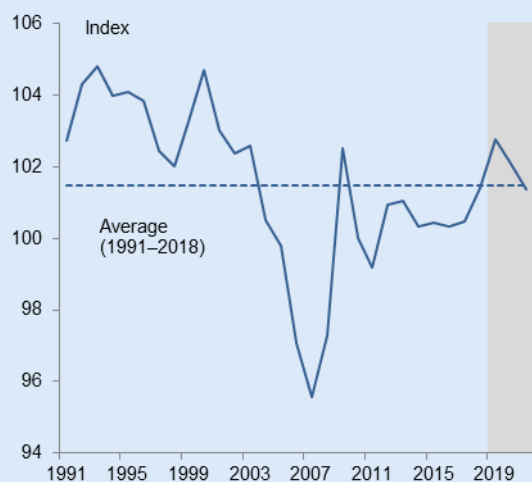
	2019				2020	
	I	II	III	IV	I	II
	<i>Seasonally and calendar adjusted, quarter-on-quarter change in percent</i>					
Gross domestic product	0.4	-0.1	-0.3	0.1	0.2	0.2
Gross value added	0.4	-0.3	-0.3	0.1	0.2	0.2
Industry excluding construction	-1.0	-1.5	-1.5	-0.3	0.1	0.2
Manufacturing	-1.0	-1.4	-1.5	-0.3	0.1	0.2
Construction	1.1	-0.5	0.0	0.3	0.4	0.4
Trade, transport, accommodation, and food services	2.3	-0.6	0.2	0.2	0.3	0.3
Information and communication	0.9	0.7	0.6	0.7	0.7	0.7
Financial and insurance services	0.7	1.4	0.2	0.2	0.2	0.2
Real estate activities	0.9	0.3	0.7	0.6	0.5	0.5
Business services	0.7	0.0	-0.4	0.1	0.2	0.3
Public services, education, health	-0.2	0.4	0.1	0.2	0.2	0.2
Other services	0.6	0.2	-0.2	-0.2	0.0	0.1

Quarterly data, volumes.

Source: Federal Statistical Office, *Fachserie 18, Series 1.2 and 1.3*; shaded: IfW forecast.

## 6. Wages

**Figure 6.1:**  
Real unit labor costs, 1991–2021



Yearly data; compensation of employees per hour (nominal) in relation to gross value added per hour (nominal).

Source: Federal Statistical Office, *Fachserie 18, Series 1.2*; shaded: IfW forecast.

**Table 6.1:**  
Wages and productivity, 2018–2021

	2018	2019	2020	2021
<i>Per hour</i>				
Negotiated wages	2.9	2.7	2.5	2.4
Gross wages and salaries	3.0	3.2	2.4	2.8
Wage drift	0.1	0.5	-0.1	0.4
Compensation of employees	2.7	3.3	2.4	2.8
Labor productivity	0.3	-0.2	1.0	1.7
Unit labor costs	2.4	3.5	1.4	1.1
Unit labor costs (real)	0.9	1.3	-0.7	-0.6
<i>Per capita</i>				
Negotiated wages	2.9	2.7	2.5	2.4
Gross wages and salaries	3.2	3.0	2.7	2.5
Wage drift	0.3	0.3	0.2	0.1
Compensation of employees	2.9	3.3	2.7	2.4
Labor productivity	0.2	-0.4	1.2	1.3
Unit labor costs	2.7	3.7	1.4	1.1
Unit labor costs (real)	1.2	1.5	-0.6	-0.6

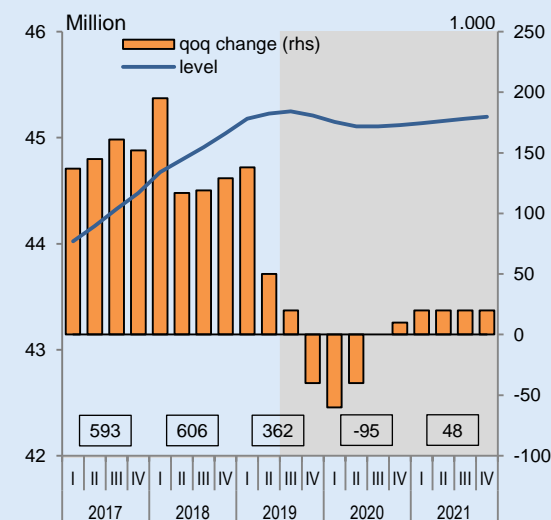
Change over previous year in percent; wage drift: difference between change of negotiated wages and change of gross wages and salaries in percentage points; labor productivity: real GDP per hour or per capita; unit labor costs: compensation of employees (per hour or per capita) in relation to labor productivity; unit labor costs (real): unit labor costs deflated by GDP deflator.

Source: Federal Statistical Office, *Fachserie 18, Series 1.2*; Deutsche Bundesbank, *Negotiated Pay Rate Statistics*; shaded: IfW forecast.



## 7. Employment

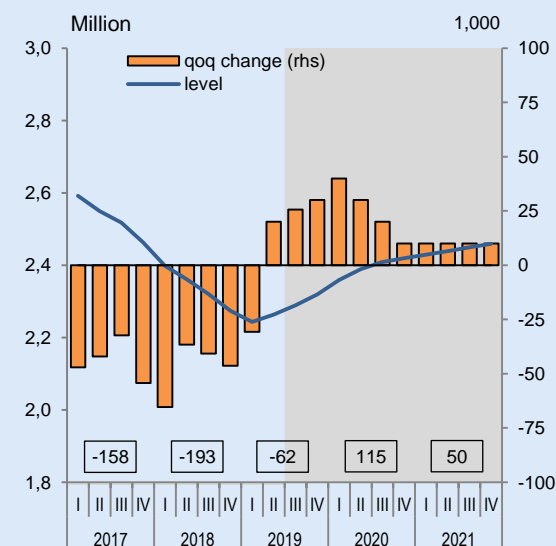
**Figure 7.1:**  
Employment, 2017–2021



Quarterly data, seasonally adjusted, qoq change. Annual data: annual rate (boxes).

Source: Federal Statistical Office, *Fachserie 18, Series 1.3*; shaded: IfW forecast.

**Figure 7.2:**  
Unemployment, 2017–2021



Quarterly data, seasonally adjusted, qoq change. Annual data: annual rate (boxes).

Source: Federal Employment Agency, *Monthly Bulletin*; shaded: IfW forecast.

**Table 7.1:**  
Employment, 2017–2021 (1,000 persons)

	2017	2018	2019	2020	2021
Hours worked (domestic concept, mn. hours)	61,564	62,344	62,716	62,689	62,541
Persons in employment (domestic concept)	44,248	44,854	45,215	45,120	45,168
Self-employed	4,273	4,224	4,162	4,102	4,054
Employees (domestic concept)	39,976	40,631	41,053	41,019	41,114
Employees subject to social security contributions	32,266	32,992	33,467	33,490	33,645
Minijobs	4,739	4,668	4,593	4,532	4,472
Net commuting	121	144	157	158	158
Persons in employment (national concept)	44,127	44,710	45,059	44,963	45,010
Employees (national concept)	39,855	40,486	40,897	40,861	40,956
Unemployed persons (registered)	2,533	2,340	2,278	2,393	2,443
Unemployment rate (registered; percent)	5.7	5.2	5.0	5.2	5.3
Unemployment rate (ILO; percent)	3.5	3.2	2.9	3.1	3.2

Self-employed: including family workers; unemployed persons (registered): definition of the Federal Employment Agency (BA).

Source: Federal Statistical Office, *Fachserie 18, Series 1.2*; Federal Employment Agency, *Monthly Bulletin*; Federal Employment Agency, *Employment Statistics*; shaded: IfW forecast.

## 8. Public finances

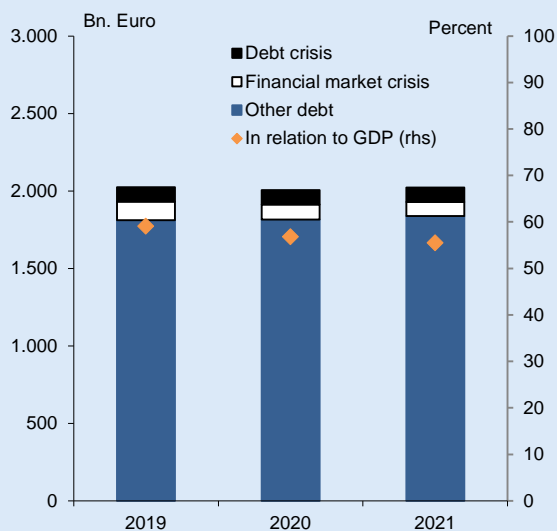
**Table 8.1:**  
Revenues and expenditures of the general government, 2017–2021 (bn. euro)

	2017	2018	2019	2020	2021
<b>Revenues</b>	<b>1,481.7</b>	<b>1,552.9</b>	<b>1,598.1</b>	<b>1,638.9</b>	<b>1,678.9</b>
→relative to GDP	45.7	46.4	46.6	46.4	46.0
Taxes	766.6	800.9	820.1	839.5	855.6
→relative to GDP	23.6	23.9	23.9	23.8	23.5
Social contributions	549.5	572.5	596.3	613.5	632.5
→relative to GDP	16.9	17.1	17.4	17.4	17.3
Other revenues	165.7	179.5	181.7	185.9	190.8
→relative to GDP	5.1	5.4	5.3	5.3	5.2
<b>Expenditures</b>	<b>1,441.4</b>	<b>1,490.5</b>	<b>1,555.1</b>	<b>1,625.2</b>	<b>1,685.8</b>
→relative to GDP	44.4	44.6	45.4	46.0	46.2
Compensation of employees	250.0	259.3	268.5	277.6	285.7
Intermediate consumption	162.9	169.4	178.5	186.4	192.7
Social transfers in kind	278.3	285.9	298.3	311.9	322.9
Gross capital formation	71.9	78.4	85.7	91.4	97.4
Capital transfers	34.3	31.7	29.3	28.1	27.3
Social benefits	506.6	520.2	545.5	570.8	595.0
Subsidies	27.9	29.6	31.2	32.3	33.3
Other current transfers	67.0	74.9	81.2	87.8	91.8
Other capital transfers and investment grants	44.0	42.2	38.1	40.0	41.0
Other expenditures	-1.6	-1.3	-1.4	-1.4	-1.4
<b>Net lending/ net borrowing</b>	<b>40.3</b>	<b>62.4</b>	<b>43.0</b>	<b>13.7</b>	<b>-6.9</b>
→relative to GDP	1.2	1.9	1.3	0.4	-0.2
<b>Revenues of central, state, and local governments</b>	<b>961.2</b>	<b>1,010.5</b>	<b>1,033.0</b>	<b>1,057.5</b>	<b>1,079.4</b>
Net of transfers from social security funds	960.1	1,009.3	1,031.8	1,056.3	1,078.3
Transfers from social security funds	1.1	1.1	1.1	1.1	1.1
<b>Expenditures of central, state, and local governments</b>	<b>931.9</b>	<b>963.9</b>	<b>1,000.3</b>	<b>1,042.6</b>	<b>1,079.8</b>
Net of transfers to social security funds	816.7	845.6	877.7	916.0	948.8
Transfers to social security funds	115.2	118.3	122.6	126.6	131.0
<b>Net lending/ net borrowing central, state, and local governments</b>	<b>29.3</b>	<b>46.6</b>	<b>32.7</b>	<b>14.9</b>	<b>-0.3</b>
<b>Revenues of social security funds</b>	<b>636.9</b>	<b>661.9</b>	<b>688.9</b>	<b>709.2</b>	<b>731.6</b>
Net of transfers from central, state, and local governments	521.6	543.6	566.3	582.6	600.6
<b>Expenditures of social security funds</b>	<b>625.9</b>	<b>646.1</b>	<b>678.5</b>	<b>710.4</b>	<b>738.2</b>
Net of transfers to central, state, and local governments	624.8	644.9	677.4	709.2	737.0
<b>Net lending/ net borrowing social security funds</b>	<b>11.0</b>	<b>15.9</b>	<b>10.3</b>	<b>-1.2</b>	<b>-6.5</b>

Sums may deviate due to rounding. Relative to GDP in per cent.

Source: Federal Statistical Office, *internal worksheet*; shaded: IfW forecast.

**Figure 8.1:**  
**Government gross debt, 2019–2021**

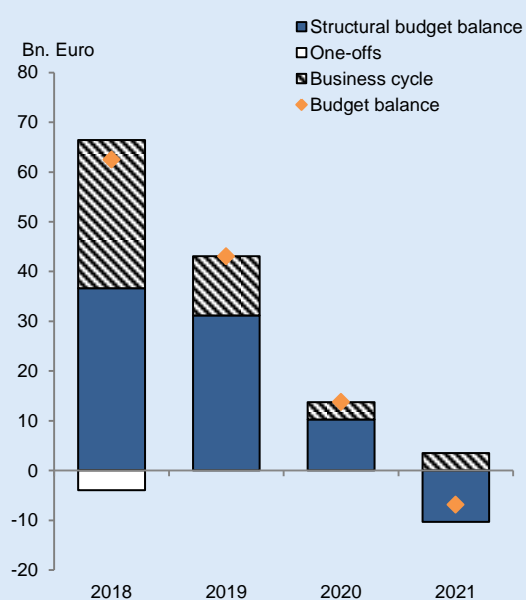


Debt crisis: Liabilities due to first Greece adjustment programme, deposits at the ESM, guarantees for EFSF credits.

Financial market crisis: Liabilities due to bank rescue packages.

Source: Deutsche Bundesbank, *Monatsbericht*; BMF, *Monatsbericht*; own calculations and forecasts.

**Figure 8.2:**  
**Structural budget balance, 2018–2021**



Source: Europäische Kommission, *AMECO*; own calculations.

## 9. GDP and its components

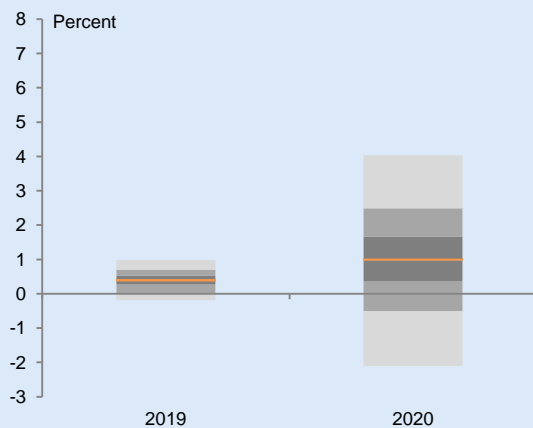
**Table 9.1:**  
Quarterly data, 2019–2021

	2019				2020				2021			
	I	II	III	IV	I	II	III	IV	I	II	III	IV
Gross domestic product	0.4	-0.1	-0.3	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.4
Private consumption	0.8	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Government consumption	0.8	0.5	0.4	0.8	0.6	0.5	0.5	0.4	0.3	0.3	0.4	0.4
Machinery and equipment	1.4	0.6	-3.0	-1.5	-0.3	0.3	0.5	0.5	0.8	0.8	0.7	0.8
Constructions	2.5	-1.0	-0.4	0.3	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Other investment	-0.6	1.0	-0.5	0.0	0.2	0.2	0.5	0.5	0.6	0.6	0.6	0.6
Change in inventories	-1.0	0.3	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Domestic expenditure	-0.1	0.5	-0.3	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4
Exports	1.8	-1.3	0.2	0.3	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.8
Imports	0.9	-0.3	0.1	0.4	0.5	0.6	0.7	0.7	0.8	0.9	0.9	0.9
Net exports	0.5	-0.5	0.0	0.0	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0
Employment (domestic)	45,178	45,228	45,248	45,208	45,148	45,108	45,108	45,118	45,138	45,158	45,178	45,198
Unemployment (registered)	2,243	2,263	2,289	2,319	2,359	2,389	2,409	2,419	2,429	2,439	2,449	2,459

Volumes, seasonally and working-day adjusted. Change on previous quarter in percent; change in inventories, net exports: Lundberg component (contribution to GDP growth); employment, unemployment: seasonally adjusted, 1,000 persons; unemployment: as defined by the Federal Employment Agency (BA).

Source: Federal Statistical Office, *Fachserie 18, Series 1.3*; Federal Employment Agency, *Monthly Bulletin*; shaded: IfW forecast.

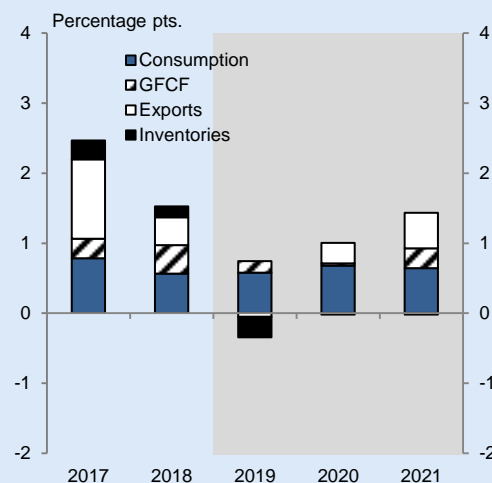
**Figure 9.1:**  
Forecast intervals for GDP growth, 2019–2020



GDP: volumes, change over previous year. Point forecasts: orange lines. Forecast intervals gray shaded areas with confidence levels of 33, 66, and 95 percent. Confidence levels calculated based on historical forecast errors of the Kiel Institute in the third quarter 1994–2018.

Source: Own calculations.

**Figure 9.2:**  
Import adjusted expenditure-side contributions to GDP growth, 2017–2021



Annual data; price-adjusted, growth contribution of each expenditure component adjusted by import content; import content is estimated based on input/output tables; see Kooths and Stolzenburg (2018).

Source: OECD, Input Output Database; Federal Statistical Office, *Fachserie 18, Series 1.2*; shaded: IfW forecast.

## 10. The German economy, 2018–2021

	2018	2018	2019	2020	2021
	Bn. Euro	Change over previous year in percent			
<b>Use of gross domestic product, price-adjusted</b>					
GDP		1.5	0.4	1.0	1.4
Private consumption expenditure		1.3	1.3	1.2	1.4
Public consumption expenditure		1.4	2.1	2.3	1.6
Total fixed investment		3.5	2.0	0.7	2.4
Machinery and equipment		4.4	0.4	-1.1	2.8
Construction		2.5	3.2	1.7	2.2
Other equipment		4.3	1.6	0.8	2.2
Changes in stocks		0.3	-0.6	0.0	0.0
Domestic Demand		2.1	1.0	1.2	1.6
Exports		2.1	0.9	1.8	2.6
Imports		3.6	2.3	2.5	3.2
Net exports		-0.4	-0.5	-0.2	-0.1
<b>Use of gross domestic product at current prices</b>					
GDP	3,344.4	3.1	2.6	3.1	3.2
Private consumption expenditure	1,743.7	2.8	2.7	2.6	2.8
Public consumption expenditure	665.6	3.3	4.3	4.4	3.3
Total fixed investment	707.7	6.3	4.7	3.0	4.9
Machinery and equipment	235.3	4.9	1.0	-0.9	3.2
Construction	344.3	7.3	7.9	5.8	6.3
Other equipment	128.1	5.9	3.2	2.3	3.8
Changes in stocks (€ bn.)		21.3	2.1	0.7	-0.5
Domestic Demand	3,138.3	4.1	2.8	3.1	3.4
Exports	1,585.8	3.1	1.4	2.0	3.4
Imports	1,379.7	5.5	1.9	1.8	3.9
Net exports (€ bn.)		206.1	203.0	209.2	209.3
Gross national income	3,437.9	3.3	2.7	3.1	3.2
<b>Deflators</b>					
GDP		1.5	2.2	2.1	1.7
Private consumption expenditure		1.5	1.3	1.5	1.4
Public consumption expenditure		1.8	2.2	2.1	1.7
Investment in machinery and equipment		0.5	0.6	0.2	0.4
Investment in construction		4.7	4.5	4.1	3.9
Investment in other equipment		1.6	1.6	1.4	1.5
Exports		0.9	0.5	0.2	0.8
Imports		1.8	-0.5	-0.6	0.7
Addendum: Consumer prices		1.8	1.5	1.6	1.6
<b>Income distribution</b>					
Net national income (factor costs)	2,503.1	3.0	2.6	3.0	3.3
Compensation of employees	1,771.3	4.5	4.3	2.6	2.7
in percent of national income		70.8	71.9	71.6	71.2
Property and entrepreneurial income	731.8	-0.5	-1.4	4.0	4.8
Disposable income	1,898.5	3.5	3.0	2.4	2.9
Savings rate		11.0	11.2	11.0	11.0
Wages and salaries	1,460.9	4.8	4.2	2.6	2.8
Wage per hour		3.0	3.2	2.4	2.8
Unit labor costs		2.4	3.5	1.4	1.1
Productivity per hour		0.3	-0.2	1.0	1.7
Unemployment (1,000)		2,340.1	2,277.8	2,393.1	2,443.1
Rate of unemployment (percent)		5.2	5.0	5.2	5.3
Total employment (1,000)		44,853.9	45,215.4	45,120.4	45,167.9
Public sector budget balance					
Public sector budget balance (€ bn.)		62.4	43.0	13.7	-6.9
Public sector budget balance (in percent of GDP)		1.9	1.3	0.4	-0.2
Public debts (in percent)		61.7	59.0	56.7	55.4

Change in stocks, net exports: Lundberg-component (contribution to GDP growth); employment, unemployment: as defined by the Federal Employment Agency (BA); public debts: in relation to GDP.

Source: Federal Statistical Office, *Fachserie 18, Series 1.2*; shaded: IfW forecast.

## 11. National accounts

### National Accounts

Forecast period: 2019 to 2021

	2019	2020	2021	2019		2020	
				H1	H2	H1	H2

#### 1. Production

Change over the same period of the preceding year in %

Persons in employment	0.8	- 0.2	0.1	1.1	0.6	- 0.2	- 0.3
Hours worked	0.6	0.0	- 0.2	0.7	0.4	- 0.4	0.3
Hours worked by person in employment	- 0.2	0.2	- 0.3	- 0.3	- 0.1	- 0.3	0.6
Labor productivity <sup>1</sup>	- 0.2	1.0	1.7	- 0.3	- 0.1	0.8	1.2
<b>Gross domestic product, price-adjusted</b>	<b>0.4</b>	<b>1.0</b>	<b>1.4</b>	<b>0.4</b>	<b>0.4</b>	<b>0.4</b>	<b>1.6</b>

#### 2. Use of gross domestic product at current prices

a) EUR bn.

Consumption expenditure	2 484.1	2 561.5	2 637.4	1 212.7	1 271.3	1 249.9	1 311.6
Private households <sup>2</sup>	1 789.9	1 837.0	1 888.8	876.1	913.8	897.6	939.4
Government	694.2	724.5	748.6	336.7	357.5	352.3	372.2
Gross fixed capital formation	741.3	763.9	801.1	359.1	382.2	363.6	400.2
Machinery and equipment	237.6	235.5	243.0	115.7	121.9	111.3	124.2
Construction	371.3	393.1	417.7	180.1	191.3	187.9	205.2
Other products	132.3	135.3	140.4	63.3	69.0	64.5	70.8
Changes in inventories <sup>3</sup>	2.1	0.7	- 0.5	4.9	- 2.7	2.9	- 2.1
Domestic expenditure	3 227.5	3 326.1	3 438.0	1 576.7	1 650.8	1 616.5	1 709.7
Net exports	203.0	209.2	209.3	110.1	92.9	115.3	93.9
Exports	1 608.6	1 640.8	1 696.7	807.0	801.6	811.6	829.2
Imports	1 405.6	1 431.6	1 487.4	696.9	708.7	696.3	735.3
<b>Gross domestic product</b>	<b>3 430.5</b>	<b>3 535.3</b>	<b>3 647.3</b>	<b>1 686.8</b>	<b>1 743.7</b>	<b>1 731.7</b>	<b>1 803.6</b>

b) Change over the same period of the preceding year in %

Consumption expenditure	3.1	3.1	3.0	3.0	3.2	3.1	3.2
Private households <sup>2</sup>	2.7	2.6	2.8	2.6	2.7	2.5	2.8
Government	4.3	4.4	3.3	4.0	4.5	4.7	4.1
Gross fixed capital formation	4.7	3.0	4.9	6.4	3.3	1.3	4.7
Machinery and equipment	1.0	- 0.9	3.2	3.0	- 0.8	- 3.8	1.9
Construction	7.9	5.8	6.3	9.3	6.5	4.3	7.3
Other products	3.2	2.3	3.8	4.5	2.1	1.8	2.7
Domestic expenditure	2.8	3.1	3.4	3.4	2.3	2.5	3.6
Exports	1.4	2.0	3.4	1.8	1.1	0.6	3.4
Imports	1.9	1.8	3.9	4.0	- 0.1	- 0.1	3.8
<b>Gross domestic product</b>	<b>2.6</b>	<b>3.1</b>	<b>3.2</b>	<b>2.4</b>	<b>2.7</b>	<b>2.7</b>	<b>3.4</b>

#### 3. Use of gross domestic product, price-adjusted (chain-linked, 2010=100)

a) EUR bn.

Consumption expenditure	2 357.7	2 392.3	2 426.9	1 162.3	1 195.3	1 177.9	1 214.4
Private households <sup>2</sup>	1 703.5	1 723.2	1 747.2	838.2	865.3	846.1	877.1
Government	654.1	669.0	679.5	324.1	330.0	331.7	337.3
Gross fixed capital formation	679.8	684.4	700.8	330.6	349.2	327.4	357.0
Machinery and equipment	232.4	229.9	236.3	112.7	119.6	108.4	121.4
Construction	322.1	327.7	335.0	157.5	164.6	158.0	169.6
Other products	125.2	126.3	129.0	60.2	65.0	60.5	65.8
Domestic expenditure	3 047.5	3 085.3	3 135.3	1 499.5	1 548.0	1 510.0	1 575.3
Exports	1 571.8	1 599.5	1 640.6	788.6	783.3	793.3	806.2
Imports	1 385.4	1 419.6	1 465.4	683.0	702.4	692.4	727.2
<b>Gross domestic product</b>	<b>3 235.2</b>	<b>3 266.9</b>	<b>3 313.0</b>	<b>1 605.4</b>	<b>1 629.8</b>	<b>1 611.3</b>	<b>1 655.6</b>

b) Change over the same period of the preceding year in %

Consumption expenditure	1.5	1.5	1.4	1.4	1.6	1.3	1.6
Private households <sup>2</sup>	1.3	1.2	1.4	1.2	1.3	0.9	1.4
Government	2.1	2.3	1.6	1.9	2.3	2.3	2.2
Gross fixed capital formation	2.0	0.7	2.4	3.3	0.8	- 1.0	2.2
Machinery and equipment	0.4	- 1.1	2.8	2.1	- 1.1	- 3.8	1.5
Construction	3.2	1.7	2.2	4.2	2.2	0.3	3.0
Other products	1.6	0.8	2.2	2.9	0.5	0.3	1.3
Domestic expenditure	1.0	1.2	1.6	1.5	0.5	0.7	1.8
Exports	0.9	1.8	2.6	0.6	1.2	0.6	2.9
Imports	2.3	2.5	3.2	3.0	1.7	1.4	3.5
<b>Gross domestic product</b>	<b>0.4</b>	<b>1.0</b>	<b>1.4</b>	<b>0.4</b>	<b>0.4</b>	<b>0.4</b>	<b>1.6</b>

**National Accounts (cont.)**

Forecast period: 2019 to 2021

	2019	2020	2021	2019		2020	
				H1	H2	H1	H2

**4. Deflators (2010=100)**

Change on the same period of the preceding year in %

Private consumption <sup>2</sup>	1.3	1.5	1.4	1.4	1.3	1.5	1.4
Government consumption	2.2	2.1	1.7	2.1	2.2	2.3	1.8
Gross fixed capital formation	2.7	2.4	2.4	3.0	2.5	2.3	2.4
Machinery and equipment	0.6	0.2	0.4	0.9	0.3	0.0	0.3
Construction	4.5	4.1	3.9	4.9	4.2	4.0	4.1
Exports	0.5	0.2	0.8	1.1	-0.1	0.0	0.5
Imports	-0.5	-0.6	0.7	0.9	-1.8	-1.4	0.2
<b>Gross domestic product</b>	<b>2.2</b>	<b>2.1</b>	<b>1.7</b>	<b>2.0</b>	<b>2.3</b>	<b>2.3</b>	<b>1.8</b>

**5. National income**

a) EUR bn.

Primary income of private households <sup>2</sup>	2 405.2	2 454.6	2 510.1	1 188.1	1 217.0	1 212.6	1 241.9
Employers social contributions	325.1	332.8	340.3	157.8	167.2	161.8	171.1
Gross wages and salaries	1 522.3	1 562.0	1 605.0	725.9	796.4	746.4	815.6
Other primary income <sup>4</sup>	557.8	559.7	564.8	304.4	253.4	304.4	255.3
Primary income of other sectors	498.9	534.8	574.1	229.1	269.9	239.6	295.3
<b>Net national income</b>	<b>2 904.1</b>	<b>2 989.4</b>	<b>3 084.2</b>	<b>1 417.2</b>	<b>1 486.9</b>	<b>1 452.2</b>	<b>1 537.2</b>
Consumption of fixed capital	626.6	651.6	674.5	306.6	319.9	318.9	332.7
<b>Gross national income</b>	<b>3 530.7</b>	<b>3 641.0</b>	<b>3 758.7</b>	<b>1 723.9</b>	<b>1 806.8</b>	<b>1 771.1</b>	<b>1 870.0</b>
memorandum item:							
Net national income (factor costs)	2 569.1	2 645.3	2 731.9	1 249.5	1 319.6	1 279.9	1 365.4
Property and entrepreneurial income	721.8	750.4	786.6	365.8	356.0	371.7	378.7
Compensation of employees	1 847.3	1 894.9	1 945.3	883.7	963.6	908.2	986.7

b) Change over the same period of the preceding year in %

Primary income of private households <sup>2</sup>	2.8	2.1	2.3	2.8	2.9	2.1	2.0
Employers social contributions	4.7	2.4	2.2	5.3	4.3	2.5	2.3
Gross wages and salaries	4.2	2.6	2.8	4.3	4.1	2.8	2.4
... per employee	3.0	2.7	2.5	3.0	3.0	2.8	2.6
Other primary income <sup>4</sup>	-1.7	0.3	0.9	-1.9	-1.5	0.0	0.7
Primary income of other sectors	1.7	7.2	7.3	2.9	0.7	4.6	9.4
<b>Net national income</b>	<b>2.6</b>	<b>2.9</b>	<b>3.2</b>	<b>2.8</b>	<b>2.5</b>	<b>2.5</b>	<b>3.4</b>
Consumption of fixed capital	2.9	4.0	3.5	1.3	4.5	4.0	4.0
<b>Gross national income</b>	<b>2.7</b>	<b>3.1</b>	<b>3.2</b>	<b>2.5</b>	<b>2.9</b>	<b>2.7</b>	<b>3.5</b>
memorandum item:							
Net national income (factor costs)	2.6	3.0	3.3	2.8	2.5	2.4	3.5
Property and entrepreneurial income	-1.4	4.0	4.8	-1.0	-1.7	1.6	6.4
Compensation of employees	4.3	2.6	2.7	4.5	4.1	2.8	2.4

**6. Disposable income of private households <sup>2</sup>**

a) EUR bn.

Mass income	1 492.9	1 538.8	1 595.2	716.6	776.4	739.3	799.6
Net wages and salaries	1 021.4	1 047.2	1 084.5	482.0	539.4	495.6	551.7
Social benefits other than social transfers in kind	605.3	631.1	655.7	300.8	304.6	312.5	318.6
less: Levies on social benefits, taxes on consumption	133.8	139.5	144.9	66.2	67.6	68.8	70.7
Other primary income <sup>4</sup>	557.8	559.7	564.8	304.4	253.4	304.4	255.3
Other transfers received (net) <sup>5</sup>	-94.9	-95.7	-99.3	-49.5	-45.4	-49.8	-45.9
<b>Disposable income</b>	<b>1 955.8</b>	<b>2 002.8</b>	<b>2 060.7</b>	<b>971.5</b>	<b>984.3</b>	<b>993.9</b>	<b>1 008.9</b>
Change in pension entitlements	60.5	61.3	62.2	29.4	31.1	29.8	31.5
Consumption expenditure	1 789.9	1 837.0	1 888.8	876.1	913.8	897.6	939.4
Saving	226.4	227.1	234.1	124.8	101.6	126.1	101.0
Saving ratio (%) <sup>6</sup>	11.2	11.0	11.0	12.5	10.0	12.3	9.7

b) Change over the same period of the preceding year in %

Mass income	4.6	3.1	3.7	4.5	4.6	3.2	3.0
Net wages and salaries	4.7	2.5	3.6	4.8	4.6	2.8	2.3
Social benefits other than social transfers in kind	4.5	4.3	3.9	4.2	4.8	3.9	4.6
less: Levies on social benefits, taxes on consumption	4.9	4.3	3.9	4.7	5.2	3.9	4.6
Other primary income <sup>4</sup>	-1.7	0.3	0.9	-1.9	-1.5	0.0	0.7
<b>Disposable income</b>	<b>3.0</b>	<b>2.4</b>	<b>2.9</b>	<b>2.7</b>	<b>3.3</b>	<b>2.3</b>	<b>2.5</b>
Consumption expenditure	2.7	2.6	2.8	2.6	2.7	2.5	2.8
Saving	5.5	0.3	3.1	3.2	8.7	1.1	-0.6

**National Accounts (cont.)**

Forecast period: 2019 to 2021

	2019	2020	2021	2019		2020	
				H1	H2	H1	H2

**7. Revenue and expenditure by general government <sup>1</sup>**

a) EUR bn.

Revenue							
Taxes	820.1	839.5	855.6	415.4	404.7	423.7	415.8
Social contributions	596.3	613.5	632.5	289.2	307.1	297.5	316.0
Property income	21.0	20.7	20.5	12.8	8.2	12.7	8.0
Other current transfers	23.2	23.0	23.4	10.6	12.6	10.2	12.8
Capital transfers	12.0	12.3	12.6	5.4	6.7	5.5	6.8
Sales	125.3	129.7	134.2	58.4	67.0	60.4	69.3
Other subsidies	0.2	0.2	0.2	0.1	0.1	0.1	0.1
<b>Total</b>	<b>1 598.1</b>	<b>1 638.9</b>	<b>1 678.9</b>	<b>791.8</b>	<b>806.3</b>	<b>810.1</b>	<b>828.8</b>
Expenditure							
Intermediate consumption <sup>2</sup>	477.0	498.6	515.8	229.8	247.2	240.8	257.8
Compensation of employees	268.5	277.6	285.7	128.7	139.8	133.1	144.5
Property income (interest)	29.3	28.1	27.3	14.5	14.8	13.9	14.2
Subsidies	31.2	32.3	33.3	14.9	16.3	15.5	16.8
Social benefits	545.5	570.8	595.0	270.9	274.6	282.4	288.4
Other current transfers	81.2	87.8	91.8	38.6	42.6	43.3	44.5
Capital transfers	38.1	40.0	41.0	13.0	25.1	13.9	26.0
Gross capital formation	85.7	91.4	97.4	36.9	48.8	38.9	52.5
Net acquisitions of non-produced non-financial assets	- 1.4	- 1.4	- 1.4	- 0.7	- 0.7	- 0.7	- 0.7
<b>Total</b>	<b>1 555.1</b>	<b>1 625.2</b>	<b>1 685.8</b>	<b>746.5</b>	<b>808.5</b>	<b>781.3</b>	<b>843.9</b>
<b>Net lending</b>	<b>43.0</b>	<b>13.7</b>	<b>- 6.9</b>	<b>45.3</b>	<b>- 2.3</b>	<b>28.8</b>	<b>- 15.1</b>

b) Change over the same period of the preceding year in %

Revenue							
Taxes	2.4	2.4	1.9	2.8	2.0	2.0	2.7
Social contributions	4.1	2.9	3.1	4.4	3.9	2.9	2.9
Property income	- 1.4	- 1.2	- 1.1	- 1.4	- 1.4	- 1.0	- 1.3
Other current transfers	- 6.3	- 0.7	1.6	- 8.5	- 4.4	- 3.4	1.6
Capital transfers	- 8.3	2.2	2.3	- 3.9	- 11.6	2.5	2.0
Sales	4.3	3.5	3.5	5.1	3.6	3.5	3.5
Other subsidies	- 9.5	0.0	0.0	- 20.7	0.0	0.0	0.0
<b>Total</b>	<b>2.9</b>	<b>2.6</b>	<b>2.4</b>	<b>3.2</b>	<b>2.6</b>	<b>2.3</b>	<b>2.8</b>
Expenditure							
Intermediate consumption <sup>2</sup>	4.7	4.5	3.5	4.7	4.7	4.8	4.2
Compensation of employees	3.6	3.4	2.9	3.5	3.6	3.4	3.3
Property income (interest)	- 7.7	- 4.1	- 2.9	- 10.8	- 4.5	- 4.1	- 4.1
Subsidies	5.4	3.8	3.1	7.0	3.9	4.5	3.1
Social benefits	4.9	4.6	4.2	4.5	5.2	4.2	5.0
Other current transfers	8.4	8.1	4.5	5.7	11.0	12.2	4.5
Capital transfers	- 9.8	4.9	2.5	0.3	- 14.3	7.3	3.7
Gross capital formation	9.3	6.7	6.5	10.6	8.4	5.6	7.5
Net acquisitions of non-produced non-financial assets	10.8	0.0	0.0	24.2	0.0	0.0	0.0
<b>Total</b>	<b>4.3</b>	<b>4.5</b>	<b>3.7</b>	<b>4.3</b>	<b>4.3</b>	<b>4.7</b>	<b>4.4</b>

<sup>1</sup> Price-adjusted gross domestic product per hour worked.

<sup>2</sup> Incl. nonprofit institutions serving households.

<sup>3</sup> Incl. acquisitions less disposals of valuables.

<sup>4</sup> Operating surplus/mixed income, net property income

<sup>5</sup> Received less payed other current transfers.

<sup>6</sup> Savings in percent of disposable income (incl. change in pension entitlements).

<sup>7</sup> Central, regional, local and social security funds.

<sup>8</sup> Incl. social transfers in kind and other production taxes.

Source: Federal Statistical Office, *Fachserie 18: National Accounts*; own calculations.