KIEL INSTITUTE FOR THE WORLD ECONOMY

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ECONOMIC OUTLOOK

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Forecasting Center

EXPANSION REMAINS ON TRACK

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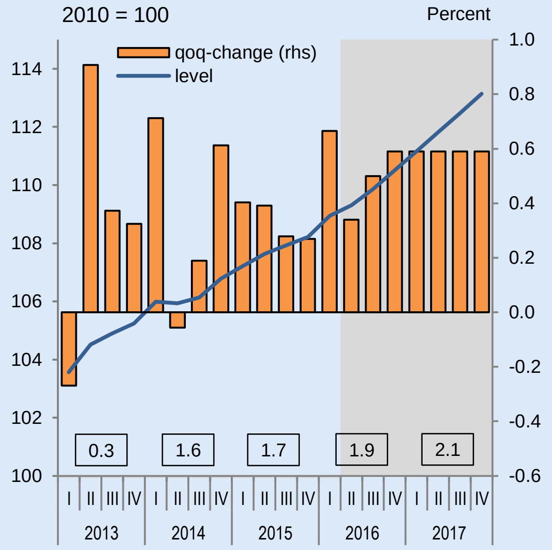
The economic upswing in Germany is set to continue. GDP is likely to grow 1.9 percent this year and 2.1 percent next year. Strong domestic drivers remain the dominant factors. The significantly lower number of refugees arriving since the start of the year will be mainly reflected in a somewhat lower fiscal impulse during the forecast period. The labor market situation will improve further against the backdrop of a buoyant economy and an ongoing employment-friendly trend in wages. Consumers will see their purchasing power supported this year by the downward pressure of oil prices on inflation. Although public sector budgets are likely to close both years in positive territory, the surpluses are due to economic conditions rather than fiscal consolidation efforts.

Economic growth is robust and driven by the domestic economy. The German economy is set to continue its upward course this year and next, driven largely by domestic activity. The high rate of expansion in the first quarter, with GDP up 0.7 percent, was exaggerated by exceptional factors, such as the mild weather and expenditures related to the support of refugees. Accordingly, a somewhat slower pace is expected in the second and third quarter (Figure 1). The basic economic trend is nonetheless upward, with the business outlook having improved again after the slump in February. Domestic order intake has also increased steadily since the start of the year. Overall, this year and next look likely to see GDP grow by

Figure 1:
Gross domestic product, 2013–2017



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.

Table 1:
Key indicators, 2014–2017

	2014	2015	2016	2017
Gross domestic product (GDP), price-adjusted	1.6	1.7	1.9	2.1
Gross domestic product, deflator	1.7	2.1	1.7	1.8
Consumer prices	0.9	0.2	0.5	1.6
Labor productivity (per hour worked)	0.4	0.5	0.6	1.2
Employment (1,000 persons)	42,703	43,056	43,589	44,082
Unemployment rate (percent)	6.7	6.4	6.2	6.1
In relation to nominal GDP				
Public sector net lending	0.3	0.6	0.2	0.3
Gross public debt	74.7	71.2	68.0	64.7
Current account balance	7.4	8.6	8.7	8.6

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.

1.9 percent and 2.1 percent, respectively (Table 1). The small downward revision of our spring forecast is primarily due to a smaller fiscal impulse as a result of the substantial drop in the influx of refugees. Starting from more or less normal levels of capacity utilization, GDP in the forecast period will expand each year by around half a percent more than growth in production potential. Domestic production capacity will thus become increasingly tight.

Domestic absorption will rise noticeably faster than production this year. Private and public consumption will likely expand as strongly this year as in the previous year. In contrast, investment is expected to accelerate. The upturn in capital spending on plant and equipment is likely to become entrenched, while the indications are that investment in residential construction will increase markedly. In addition, we are not apt to see any further significant reduction in the change of inventories. All in all, we expect a rise in domestic absorption of 2.4 percent this year (following 1.6 percent in the prior year). Next year, the domestic economy is likely to expand at a similar pace. Even if exports are liable to rise during the forecast period on the back of a gradually recovering global economy, export growth in the current year will significantly lag behind last year's level (3.2 percent compared to 5.6 percent), while imports will again expand relatively strongly as the domestic economy picks up steam (4.8 percent following 5.8 percent). Arithmetically, net exports will provide a negative contribution to GDP growth of 0.4 percentage points in this year, while its impact should be practically neutral in the following year.

Financing conditions in Germany are highly favorable and have recently improved further. Yields on corporate bonds with maturities of more than three years fell to 2.1 percent in May. Even though they are now somewhat higher than a year ago, they have reversed the small rise posted in the past three quarters. The spread to German government bonds, which continue to yield around 0.1 percent, also fell (but is nevertheless still quite high in historical terms). Loan rates likewise moved in favor of borrowers: interest rates on home loans and small business loans fell to new nominal lows in April. The rather more volatile interest rates on larger corporate loans also tracked lower. The "ifo-Kredithürde" paints a similar picture. In May, 14.2 percent of companies reported restrictive lending by banks, as compared to 15.7 percent in the same month of the prior year. In manufacturing industry, the figure was 12.2 percent—the lowest level since the survey was launched in 2003. It were mainly large companies that enjoyed easier access to credit.

The expansion of total credit is continuing and gaining pace. Favorable financing terms are reflected in the rise in the total amount of credit, which recently accelerated further. In April, loans to the private non-financial sector rose by 2.8 percent year-over-year. The 3.8 percent increase in home loans made a disproportionate contribution, while growth among non-financial businesses rose to 2.7 percent. Consumer credit and other loans increased somewhat more slowly, at 0.8 percent. The overall picture is of a clear expansion of credit in the first quarter, reaching the highest level since 2008. The figures for April suggest that the positive momentum will continue in the second quarter. The buoyant economy is thus also reflected in lending.

Monetary policy of the European Central Bank is becoming even more expansionary. In March, the ECB cut the main refinancing, marginal lending, and deposit facility rates to 0.00, 0.25, and −0.4 percent, respectively. At the same time, it announced an expansion of its bond purchasing program. Starting in April, monthly asset purchases of EUR 80 billion will now be made (for a discussion of the monetary easing program and its risks, see also Boysen-Hogrefe et al. 2016a). From June onward, it will also buy bonds issued by non-financial companies, subject to a minimum credit rating. Although the ECB has yet to publish details of the scope of these proposed purchases, it is to be expected that they will account for only a relatively small proportion of the overall program, at EUR 5 to 10 billion per month. The eligible bond universe is also limited, amounting to EUR 500 to 1,000 billion. This range is consistent with purchases up until now. Having said that, the program is likely to trigger a significant expansion of new issuance in this segment (see also Petersen 2016; *Financial Times* 2016). The first of four scheduled long-term refinancing operations is also scheduled for June. These are intended to provide funding for a term of four years. The interest rates applicable to these operations depend on whether the financial institution meets certain lending targets, with the deposit rate being the lower limit. Lastly, following a successful review of the Greek bailout program by the institutions, the ECB raised the prospect of re-introducing the waiver required for purchasing Greek government bonds due to their low credit ratings.

Consumer price inflation remains subdued for now, despite rising oil prices. Following a sharp decline in oil prices around the New Year, with a barrel of Brent costing less than USD 30 at times in January, prices subsequently rose again and hit around USD 50 recently. Core inflation, which excludes volatile components (food and energy), has not moved much of late, however. It was running at an average of 1.1 percent in April and May, having reached 1.3 percent in the first quarter. Consumer prices have remained largely unchanged recently, as was the case in the first quarter. Having been 0.1 percent lower in April than in the prior year, initial data for May indicates a rise of 0.1 percent. The GDP deflator, which represents domestic price developments, has decelerated somewhat and was up 1.8 percent in the first quarter. We expect subdued inflation in the less volatile price categories to remain the dominant factor for inflation dynamics in the time being despite the recent rally in oil prices. On that basis, we expect consumer prices to rise by 0.5 percent this year. Next year, they should increase by 1.6 percent.

German exports bounce back. Following a weak second half last year, exports picked up strongly in the spring. Nominal goods exports to China grew again for the second consecutive quarter. In contrast, exports to the US were relatively weak. Exports to oil-exporting countries also stagnated, having fallen in the previous quarter. In the second quarter, exports are likely to expand at an even faster pace than at the start of the year. The ifo Institute's measure of export expectations recovered in May after a sharp decline at the start of the quarter, but the general trend has been downward since the beginning of 2015. Business confidence in importing countries is notably positive, however, having recently risen above the long-term average. The export data available for June likewise indicates a strong start to the quarter. Export momentum is apt to edge up further somewhat in the course of the forecast period. Importing countries will probably post higher growth rates again, after a modest first quarter. We expect the US economy will pick up again following a weak start to the year, with the emerging markets also poised for recovery (Boysen-Hogrefe et al. 2016b). Price competitiveness is likely to weaken rather more in the current year than we anticipated back in the spring, due to the recent rise in the effective exchange rate. Overall, we expect exports to grow 3.2 percent in the current year and 5.6

percent in the following year. Imports expanded strongly at the start of the year. The import figures available for June indicate that momentum slowed in the current quarter, although this decline is expected to be only temporary. Supported by the vigorous domestic economy, imports will probably rise at a higher rate than exports in the course of the period. Overall, we expect imports to grow 4.8 percent in the current year and 6.8 percent in the following year.

Terms of trade set to improve significantly in the current year. The main factor in this respect is the decline in import prices associated with the slump in oil prices at the start of the year. Despite the resurgence in oil prices, we still expect import and export prices to fall slightly in the current quarter. The drop in the price of energy imports seen in the first quarter continues to have an effect and is being passed on by exporters to their customers, while import prices for other commodities have fallen recently. Import prices should rise appreciably in the second half of the year, but then increase only marginally thereafter. Export prices will probably rise more strongly over the period as German exporters gain more pricing power. Accordingly, the terms of trade will improve slightly in the coming year.

Domestic growth drivers remain intact. Domestic consumption is likely to remain strong over the period covered by the forecast. We expect growth of 2.6 percent in the current year, followed by a 2.3 percent increase in 2017. The high rate of expansion will continue to be underpinned by brisk growth in consumer spending. Having said that, investment will increasingly become a second pillar of the upswing. The influx of refugees is having a visible impact on domestic absorption, especially in the current year. It is not, however, shaping economic developments. Given the changes in the political situation, we have significantly downgraded our assumptions around migration compared with our spring forecast. As a consequence, we have also slightly scaled back our assumptions regarding the associated fiscal expenditure, which mainly determines the short-term impact of the refugee influx on the economy. In the current year, we expect a fiscal impetus of somewhat less than 0.5 percentage points in relation to GDP. In 2017, the fiscal effect is expected to be slightly negative. The economic impact of refugee migration is, in fact, liable to be lower, since other government expenditure and other consumption will suffer, making the overall effect relatively minor.[1]

Consumer spending continues to expand briskly. Consumer spending will continue to expand very strongly, supported by the sharp rise in disposable incomes. Disposable incomes are being boosted both by the sustained strength of the labor market and by relatively high increases in monetary welfare benefits. Monetary welfare benefits are likely to rise by almost 5 percent in the current year, the highest increase since the financial crisis. This is partly due to a sharp rise in pensions mid-year and the additional benefits paid to refugees, which will mostly become evident in this year's figures. Despite the recent rise in oil prices, real disposable incomes will also be supported in the current year by low inflation of consumer goods. Overall, the current year should see consumer spending going up 2.1 percent, followed by slightly lower growth of 1.9 percent in 2017. This means we have reduced our forecast somewhat compared to the spring (in each case by around 0.2 percentage points), primarily because we now expect a rather slower pace of expansion of monetary welfare benefits and, in the coming year, of total wage and salary growth. The fluctuation in growth of real disposable incomes is likely to be partly cushioned by changes in the savings ratio. We expect to see the savings ratio increase to 9.9 percent in the current year (from 9.7 percent in 2015). In the following year, it is likely to fall back to 9.6 percent. Our assumption is that private households will initially save part of the real growth in purchasing power delivered this year by factors such as low inflation and additional state transfer payments. They will not spend it on consumer items until next year, when real disposable incomes will rise less rapidly.

[1] It is, in any case, questionable whether one can talk about an economic boost due to the influx of refugees, since this migration is associated with developments, such as armed conflict in the Middle East and political tensions within the European Union, which themselves suppress economic activity (not least through greater uncertainty).

Investment is increasingly becoming the second pillar of the upswing. Gross fixed asset investment is likely to continue to expand relatively strongly in the forecast period, with only the current quarter seeing a brief interruption of the investment upswing. Since construction spending increased particularly sharply in the first quarter due to favorable weather conditions, there are signs of a correction in the second quarter. Going forward, the extremely accommodative market conditions—in particular the favorable financing terms—should have an effect. Other factors include the highly encouraging situation in the labor market (investment in residential construction), the improving outlook for sales and earnings, combined with increasing capacity utilization (commercial construction), strong tax revenues, and a backlog of infrastructure projects (public investment). The level of new orders and building permits, both of which have accelerated appreciably of late, also indicates strong construction investment. At just under 2 percent, investment in plant and equipment picked up markedly at the start of the year. Although leading indicators suggest that expansion will not be maintained at the same high rate going forward, investment in plant and equipment is nonetheless likely to grow strongly, supported by improving prospects for domestic sales and global exports and backed by favorable finance terms. Additionally, as production increases, pressure on capacity will grow. All in all, gross fixed asset investment is expected to increase by around 3.5 percent both in the current year and the year after.

Wage trends remain employment-friendly. Apart from the chemical industry and the private transport sector, wage increases have already been agreed for this year in all the main areas covered by collective bargaining agreements. Negotiated wages will rise by 2.2 percent this year, which is once again slower than in the previous year; the rate of increase is the lowest since 2011. The main factor behind these modest wage agreements is likely to be low consumer price inflation, in conjunction with limited productivity increases. The trade unions in the metalworking and electrical industry and in the construction sector emphasized the importance of meaningful increases in real wages. Real negotiated wages actually rose exceptionally strongly in the past two years, in each case by around 2 percent. Wage increases have already been agreed for the coming year for the main areas, such as the metalworking and electrical industry, the public sector (federal government and municipalities), and construction. We expect negotiated wages to accelerate slightly to 2.4 percent. Overall, gross wages and salaries per employee are likely to rise by 2.2 percent (2016) and 2.6 percent (2017), respectively. Several factors favor a positive wage drift in the coming year: the ending of exemptions from the statutory minimum wage with regard to sector-specific minimum wages and negotiated wages, the probable increase in the minimum wage from January 1, 2017 (we forecast an increase to EUR 8.80[2]), and increasing tightness in the labor market as the economic upswing continues. All in all, however, unit labor costs should continue to lag behind domestic prices (as measured by the GDP deflator), with the result that wage costs will continue to have a positive effect on the demand for labor.

Employment is rising appreciably, accompanied by a much lower influx of refugees. Between the fourth quarter of 2015 and the first quarter of 2016, employment rose exceptionally strongly (in particular between November and January), with 181,000 more people employed compared to the previous quarter. It appears that this was in large part due to the increased need for labor to assist with the influx of refugees and their immediate needs.[3] The number of refugees arriving in Germany has fallen sharply in the meantime, with the creation of jobs thus returning to normal since February

[2] The index of agreed hourly earnings compiled by the Federal Statistical Office, excluding extra-payments, which constitutes the basis for adjusting the minimum wage, has risen by a total of 3.1 percent up to May 2016 (latest figure available) since the introduction of the minimum wage; in June, the increase is likely to be around 3.4 percent. This would correspond to an increase in the minimum wage to EUR 8.79. We expect that the figure would then be rounded up to EUR 8.80.

[3] Higher employment levels and increased job vacancies were recorded in particular in the building trades, teaching jobs, in security roles, in public administration, and in social services (Weber 2016).

with regard to this effect. Leading indicators suggest that employment growth will remain somewhat slower in the months ahead. Labor demand nevertheless remains high and is likely to accelerate again in the second half of the year. Driven by the sustained economic upturn, by the continuing favorable relationship between real wage costs and productivity (real unit labor costs), and by the expansion of the labor supply caused by immigration, employment growth will remain strongly upward in the coming year. Overall, we expect the number of persons in employment to rise by an annual average of 530,000 (2016) and 490,000 (2017), respectively. Unemployment is likely to decline by 70,000 on average in the current year. This relatively small drop includes a slight increase in the course of the year. On the one hand, this is partly due to the temporarily slower pace of job creation. On the other hand, the refugees who entered the country last year will likely be arriving on the labor market in increasing numbers and appearing in the unemployment statistics. Although in all probability far fewer refugees will arrive in Germany this year and next than we assumed in our spring forecast, this requires relatively few adjustments with regard to the impact of refugees on the labor market in 2016 and 2017 because processing the application for asylum, attending integration courses, and completing programs designed to prepare refugees for the labor market can take up to two years from entering the country.[4]

Despite sharply rising expenditure, public sector budgets will remain in surplus in 2016. The influx of refugees has led to a substantial increase in government consumption and social benefits, although this is now not as high as we had previously assumed. We can also expect an appreciable increase in gross fixed capital formation, while there will be a sharp rise in pension payments mid-year. Furthermore, public sector employment will expand considerably. The steep rise in expenditure will be partly offset by a significant increase in tax revenue, which accelerated sharply in the first quarter in particular, despite adjustments to income tax rates. Tax revenue will in all probability continue to grow appreciably, although at a rather more moderate pace than in the first quarter. The ongoing favorable situation in the job market is also delivering a sustained rise in payroll contributions. Although the budget surplus is likely to fall significantly overall compared with the previous year, it will nonetheless still be strongly positive at EUR 7.1 billion (0.2 percent of GDP).

The budget surplus should rise slightly in 2017 as the economic upswing continues. Revenue will increase even more steeply than in 2016. We expect to see robust growth both in payroll contributions and in tax revenue. The increase in revenue from payroll contributions will be supported by a rise in contribution rates for long-term care insurance. In addition, some health insurance funds could raise their supplementary contributions again (Boysen-Hogrefe 2015). Across the statutory health insurance system as a whole, the rise in contribution rates should be lower than this year, though. Higher contribution rates for long-term care insurance should be seen in the context of sharply rising expenditure resulting from the Second Act to Strengthen Long-Term Care. Payments to the EU will probably also increase markedly. All in all, however, expenditure is expected to rise more slowly than in the previous year, since migration will be less of a factor. Accordingly, we anticipate a budget surplus of EUR 8.6 billion (0.3 percent of GDP). Gross debt will probably fall in both years, in absolute terms and also relative to GDP. By the end of 2017, it will be around 65 percent of GDP.

[4] In recent months, there has been an appreciable rise in the number of participants in integration courses offered by the German Federal Office for Migration and Refugees and in programs to help gain access to the labor market. Participants are not regarded as unemployed while taking part in these programs. For this reason, there has been a rise in underemployment, a category that includes people participating in labor market programs, despite the fact that unemployment has decreased further.

Risks and economic policy

The backdrop to the upswing in Germany remains one of exceptional monetary policy conditions. Although economic growth is primarily being driven by strong domestic activity, this is partly due to external factors. In particular, investment in residential real estate has probably already been hugely impacted by ultra-expansive monetary policy, which has pushed interest rates in Germany to historic lows. The low interest rate environment also has a distorting effect on decisions by economic actors in Germany through its impact on other price relationships (not least the foreign exchange rate). Since the ECB is still failing to achieve its inflation target (as measured by consumer prices), it is gradually making its monetary policy more expansionary. Within the euro area, however, it is primarily the parts that are not struggling with substantial overindebtedness that are susceptible to the credit expansion the ECB is aiming to bring about. As a result, monetary policy is in danger of stimulating the part of the euro area that not only does not need any stimulus of this type, but where such stimulus is counterproductive in terms of stabilization policy.

Economic policy in Germany is increasingly coming under international pressure to abandon its focus on fiscal stability. As it becomes more and more apparent that monetary policy has run out of options for stimulating the economy, the international macroeconomic debate is increasingly returning to the use of fiscal policy tools. Countries like Germany are being urged to use their budgetary leeway for a more expansive approach to spending and revenue. The view is that this would initially stimulate the domestic economy and then also benefit trading partners by generating higher imports. Action of this kind is provided for within the EU in the reformed European Semester for the euro area: going forward, the average view of the entire single currency area will precede country-specific analysis, in order to arrive at policy recommendations in relation to national economic policy (Gern et al. 2105). Any such orientation of fiscal policy toward the state of the economy in the rest of the euro area would give rise to substantial stability risks for Germany. Ultimately, a policy of this nature would encourage overheating of the German economy.[5] In addition, the impact on the rest of the euro area would be limited, given the relatively weak spill-over effects. It is also doubtful whether the economic problems in other countries are cyclical at all—periods of economic weakness that last several years tend to indicate deep-seated structural problems. Furthermore, responsibility for setting economic policy would be further diluted and reforms to overcome structural problems would be undermined.

Political tensions within the European Union are now considerable. In addition to differences about the direction of monetary policy and around fiscal policy rules, the member states of the European Union have not yet reached a consensus on how to deal with the refugee crisis. All this is having an adverse effect on confidence in the effective functioning of the European institutions, which in turn is detrimental to the attractiveness of the EU as an investment location. As the UK demonstrates, even the freedom of movement to work within the EU is now being called into question. According to opinion polls, this question is the main factor motivating those who advocate the UK's exit from the EU. The referendum scheduled for June 23 of this year is causing a significant short-term spike in political uncertainty. If voters choose to remain in the EU, this uncertainty is likely to disappear at a stroke, along with the related economic wait-and-see stance. If, on the other hand, the Brexit supporters prevail, the institutional structures of the European Union would be shaken to the core, leading to a sustained period of elevated political uncertainty.

The trajectory of the refugee crisis remains uncertain. The number of refugees arriving in Germany has dropped sharply since the start of

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[5] The suggestion that a policy of this nature could also counteract excessively low public sector investment in Germany does not hold water. The question of whether funding is used for investment, consumption or distribution purposes is a question of spending structure, not of the amount. For this reason, the question should be answered in the context of a qualitative consolidation policy.

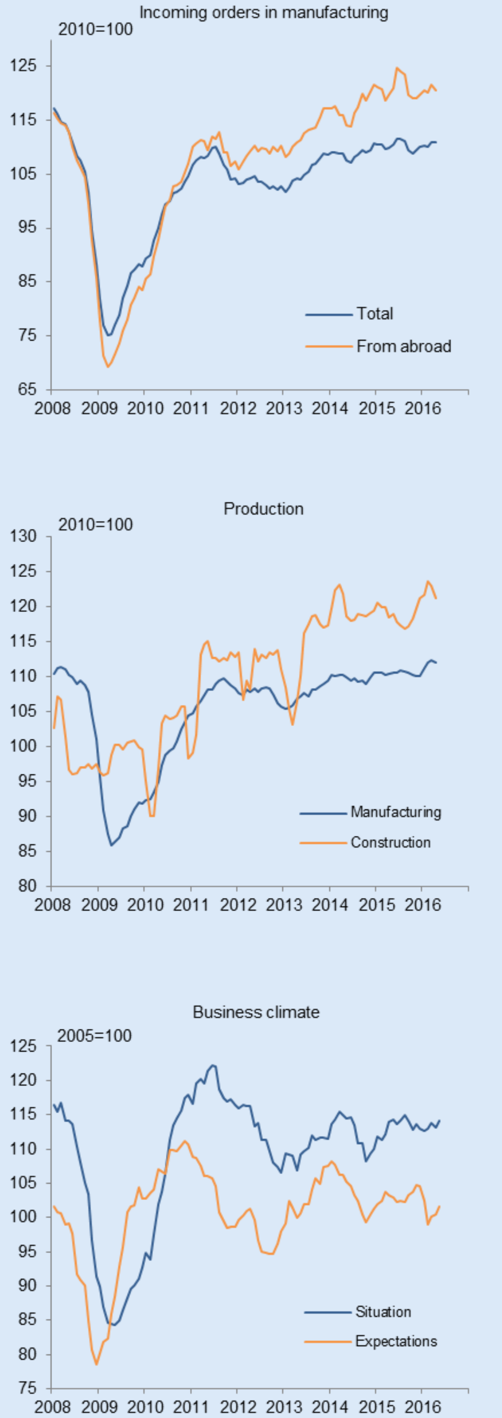
the year, primarily due to decisions made outside Germany. Whether the refugee agreement negotiated with Turkey will be fully implemented or effective has become more uncertain in view of the recent political tension. Any substantial resurgence in the number of refugees would not only have a fiscal impact but could also bring to a head the tensions within the European Union regarding the distribution of the refugees among the various member states.

Data annex

CONTENTS

1. Leading indicators

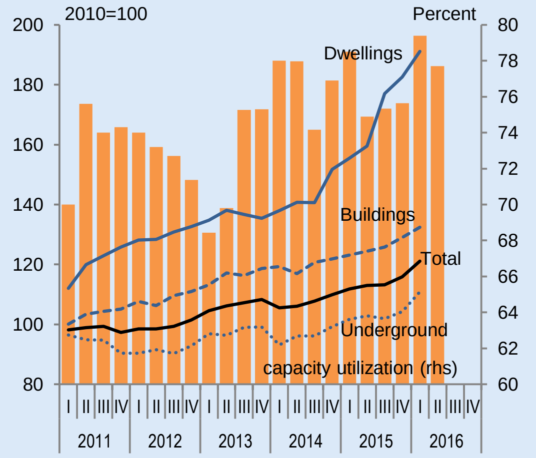
Figure 1.1:
Leading indicators, 2008–2016



Monthly data, seasonally adjusted; incoming orders in manufacturing and production: 3-month moving average.

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

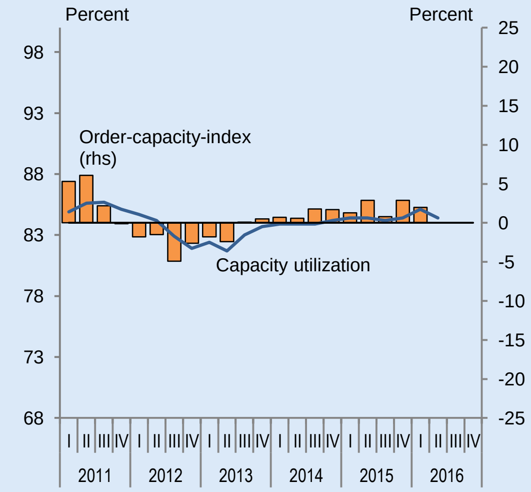
Figure 1.2:
Order stocks and capacity utilization in construction industry, 2011–2016



Quarterly data. Capacity utilization: seasonally adjusted (2016-Q2: April/May); order stocks: price, seasonally and working-day adjusted.

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

Figure 1.3:
Capacity utilization, 2011–2016

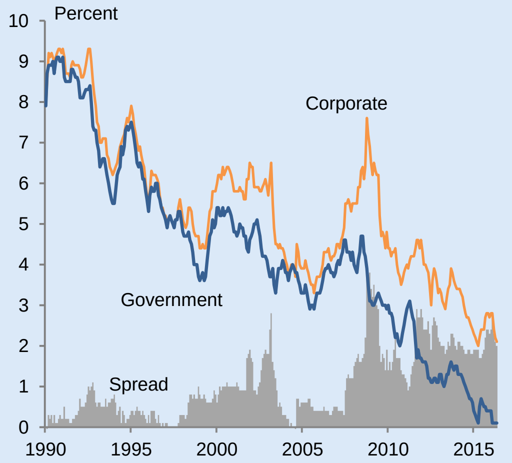


Quarterly data, seasonally adjusted; capacity utilization in manufacturing (axes cross at normal capacity utilization).

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

2. Monetary conditions and prices

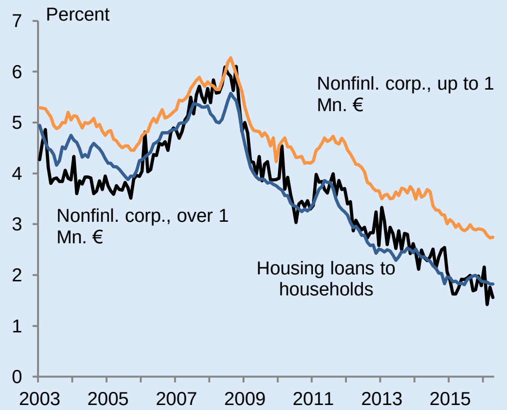
Figure 2.1:
Bond yields, 1990–2016



Monthly data, average maturities above three years.

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

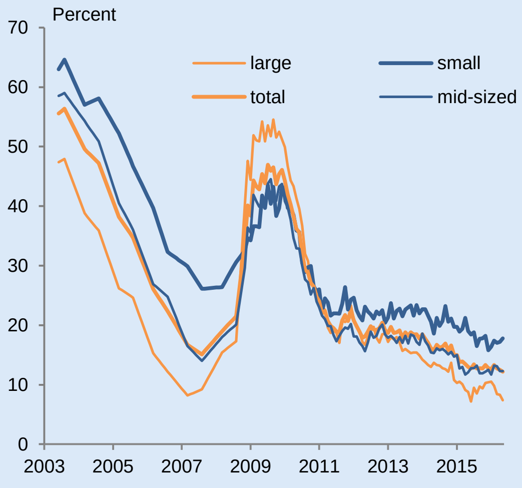
Figure 2.2:
Loan interest, 2003–2016



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

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

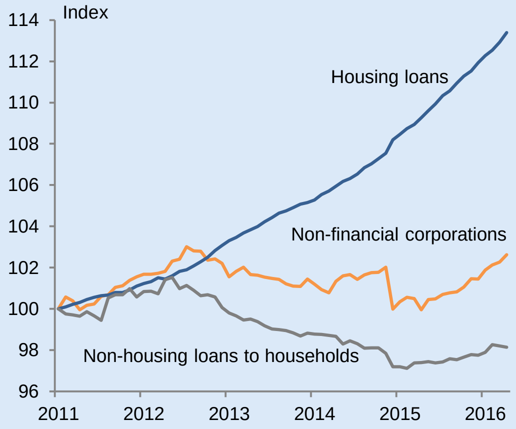
Figure 2.3:
Credit constraints by firm size, 2003–2016



Monthly data since November 2008; share of firms (manufacturing sector) assessing that credit access is restrictive.

Source: ifo, *Credit Constraint Indicator*.

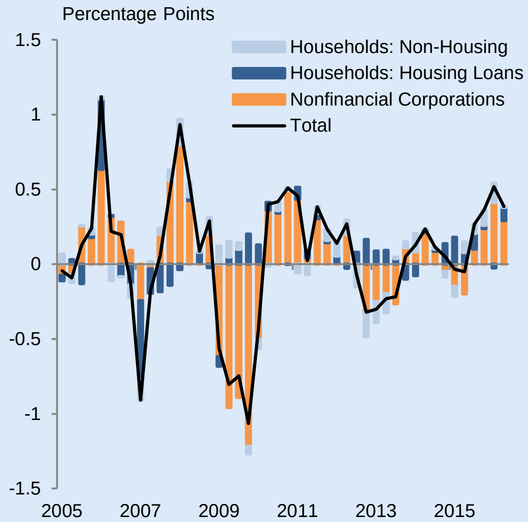
Figure 2.4:
Sum of loans, 2011–2016



Index: Jan 2011=100; Monthly data.

Source: Deutsche Bundesbank, *Seasonally Adjusted Business Statistics*.

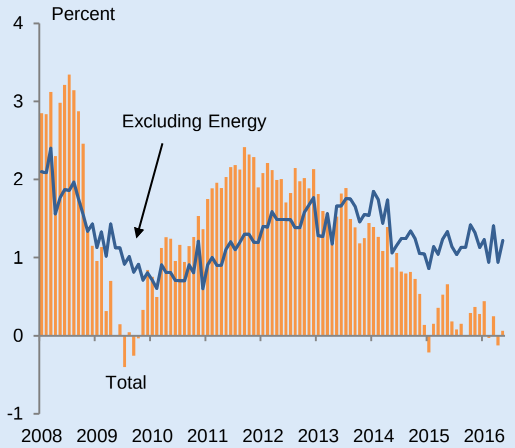
Figure 2.5:
Credit impulse, 2005–2016



Quarterly data, most recent quarter based on first month; calculations follow Biggs et al. (2009).

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

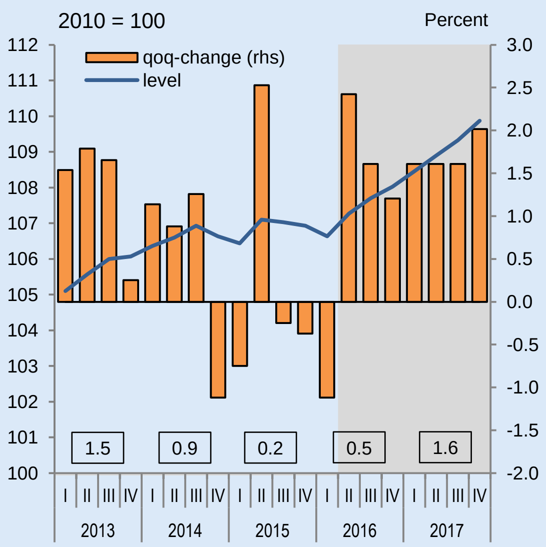
Figure 2.6:
Consumer prices, 2008–2016



Monthly data; year-on-year change.

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

Figure 2.7:
Consumer price index, 2013–2017



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, 2014–2017

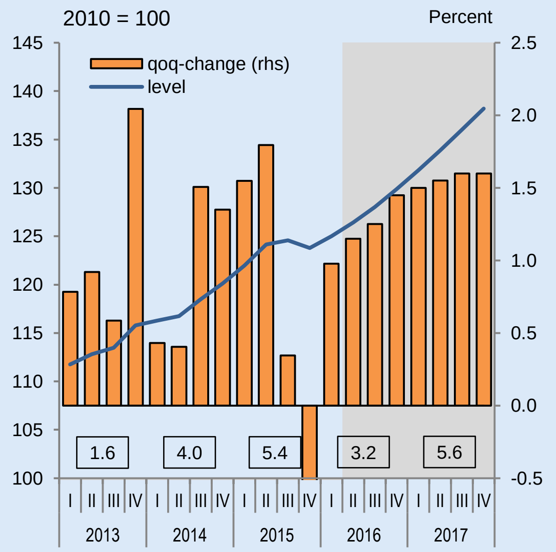
	2014				2015				2016				2017			
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
ECB key interest rate	0.25	0.23	0.10	0.05	0.05	0.05	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Long-term interest rate	1.7	1.4	1.1	0.8	0.4	0.5	0.5	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1
US-dollar/euro exchange rate	1.37	1.37	1.33	1.25	1.13	1.10	1.12	1.09	1.10	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Price competitive-ness	87.1	87.2	86.1	85.5	83.1	82.5	83.3	83.4	84.9	84.6	85.2	85.3	84.6	84.1	83.8	83.6
Export markets	0.3	0.4	0.6	0.6	0.6	0.5	0.5	0.6	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6
Oil price	107.9	109.8	102.1	76.0	54.1	62.1	49.9	44.6	35.3	46.9	48.0	49.0	50.0	52.5	54.0	55.0

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

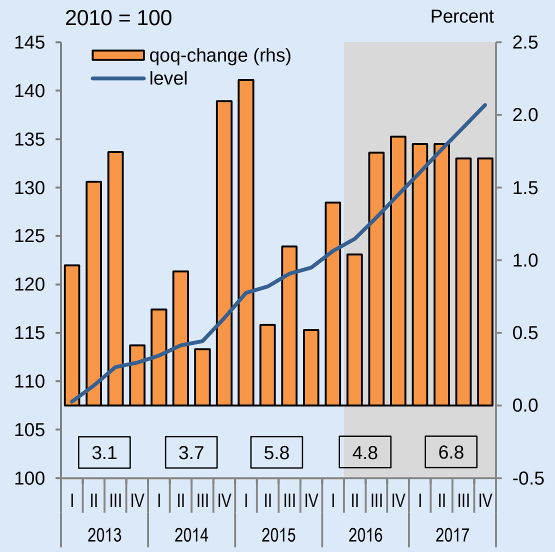
Figure 3.1:
Exports, 2013– 2017



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.

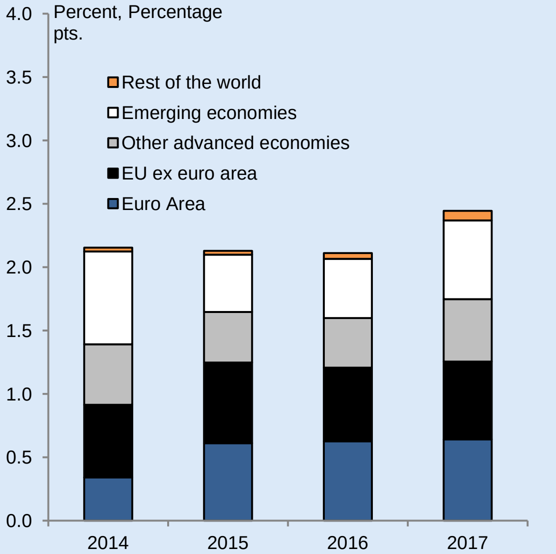
Figure 3.2:
Imports, 2013–2017



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.

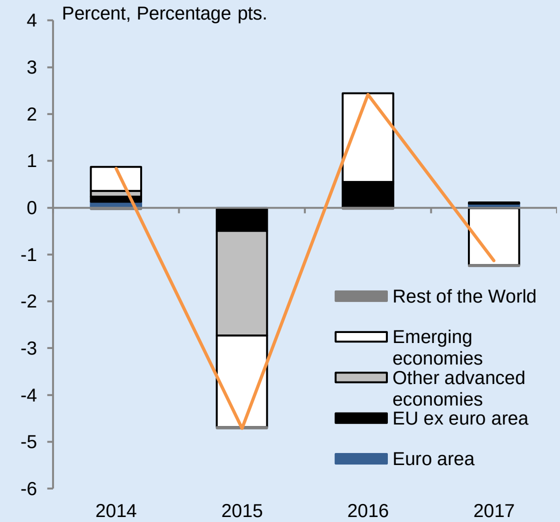
Figure 3.3:
German export markets, 2014–2017



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; 2016–2017: IfW forecast.

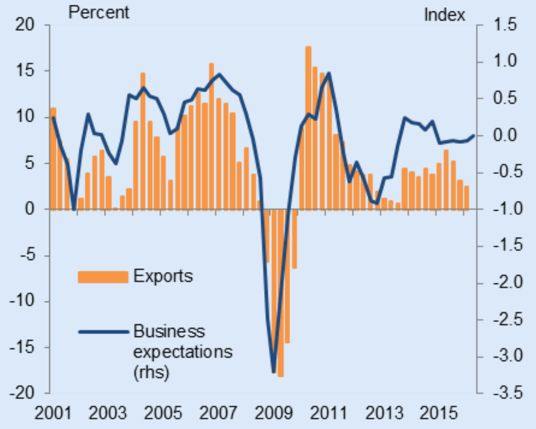
Figure 3.4:
Germany's price competitiveness, 2014–2017

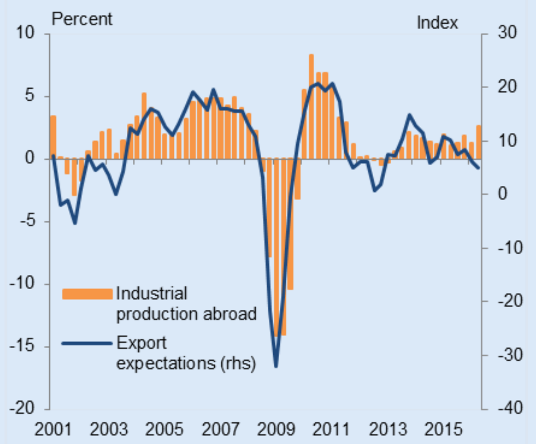


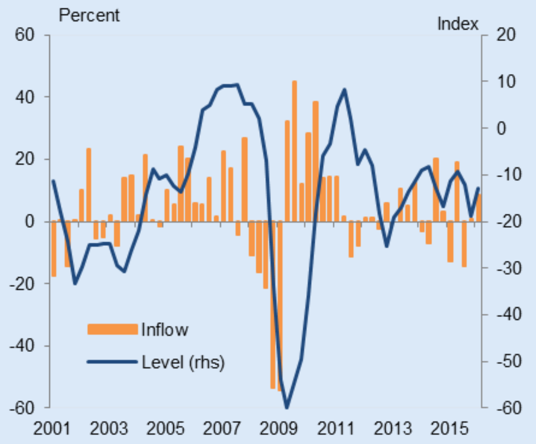
Annual data; against 56 countries based on consumer prices; weights according to Germany's price competitiveness indicator against 56 trading partners based on consumer price indices of the Deutsche Bundesbank. Increase implies worsening of price competitiveness.

Source: Bundesbank, *Monthly Report* 8.2015; national sources; own calculations; 2016–2017: IfW forecast.

Figure 3.5:
Export indicators, 2001–2015





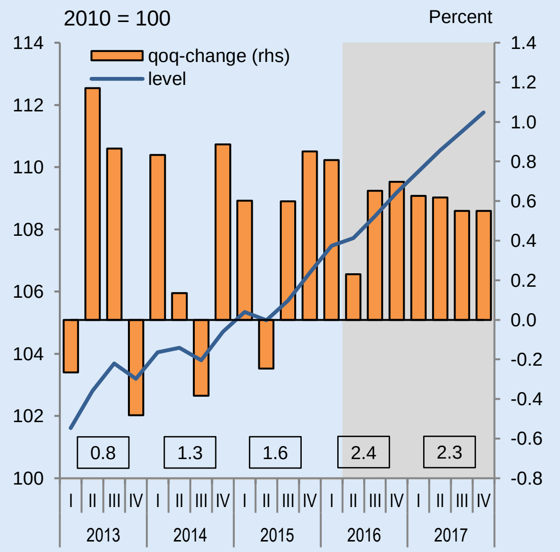


Quarterly data; Exports, industrial production, order inflow: volumes, change on previous year; Export expectations, Foreign orders on hand: volumes; Business expectations, industrial production: Based on 41 countries weighted by shares of German exports.

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

4. Domestic expenditure

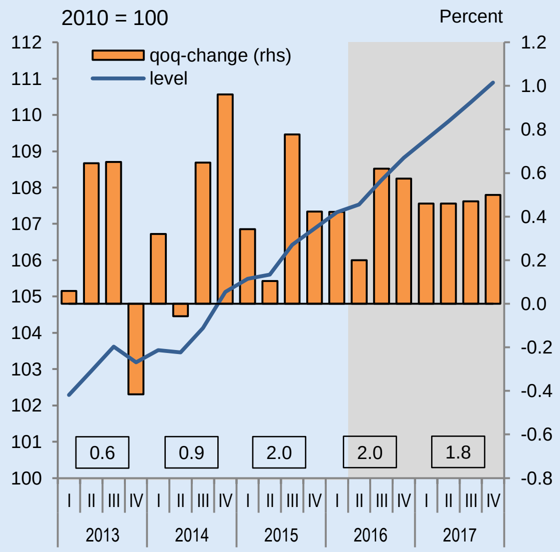
Figure 4.1:
Domestic expenditure, 2013–2017



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.

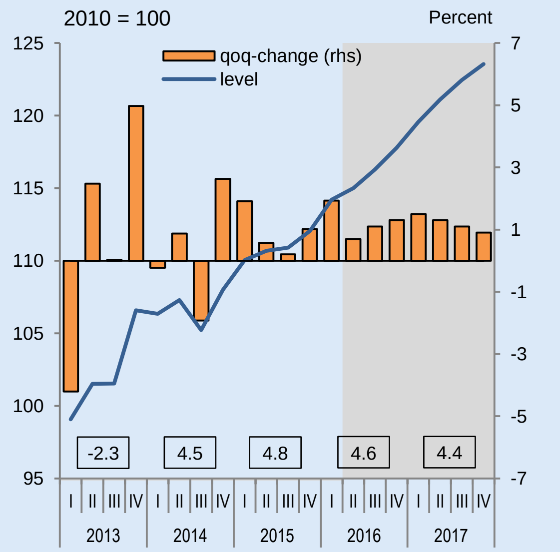
Figure 4.2:
Private consumption, 2013–2017



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.

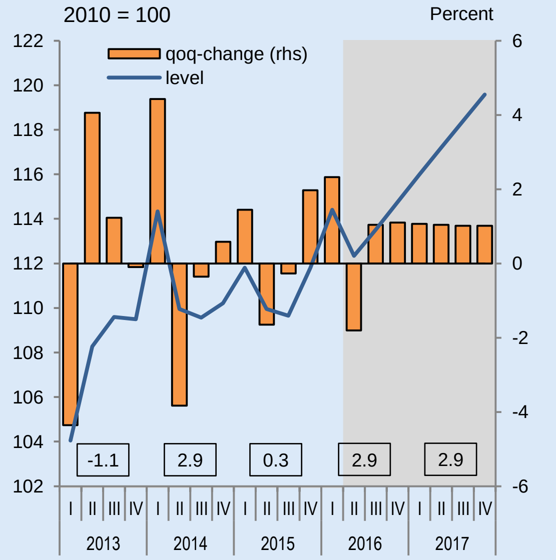
Figure 4.3:
M & E investments, 2013–2017



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.

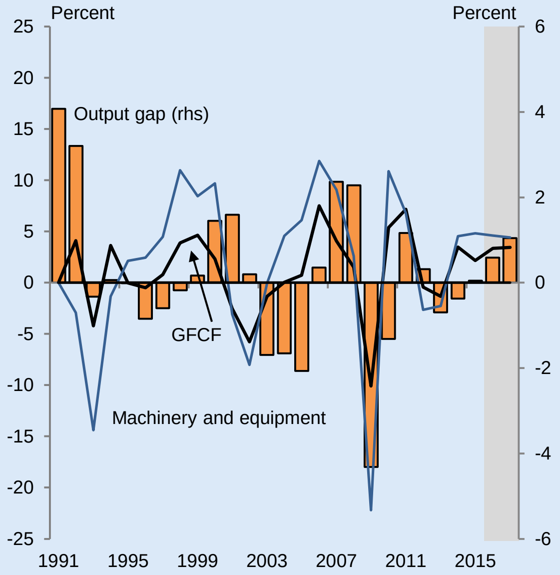
Figure 4.4:
Construction, 2013–2017



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.

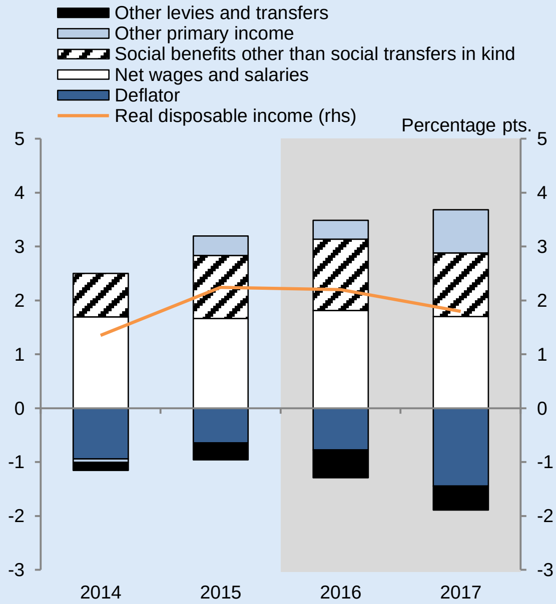
Figure 4.5:
Investment cycles, 1991–2017



Annual data; GFCF, machinery and equipment: volumes, change on previous year; output gap: in percent of potential output.

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

Figure 4.6:
Contributions to changes in real disposable income 2014–2017



Annual data. Other levies and transfers: Levies on social benefits, taxes on consumption and other transfers received (net); Deflator: Deflator of private consumption.

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

Table 4.1:
Gross fixed capital formation, 2014–2017

	2014	2015	2016	2017
Total	3.5	2.2	3.4	3.4
Corporate investment	3.7	2.7	3.4	3.3
Machinery and equipment	4.5	4.8	4.6	4.4
Construction (non-dwellings)	2.3	-1.8	1.9	1.0
Other	3.1	2.6	2.3	3.0
Dwellings	3.3	1.6	3.2	4.0
Public (nondwellings)	2.7	-0.6	3.5	2.0
Memorandum item:				
Construction	2.9	0.3	2.9	2.9

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, 2015–2017

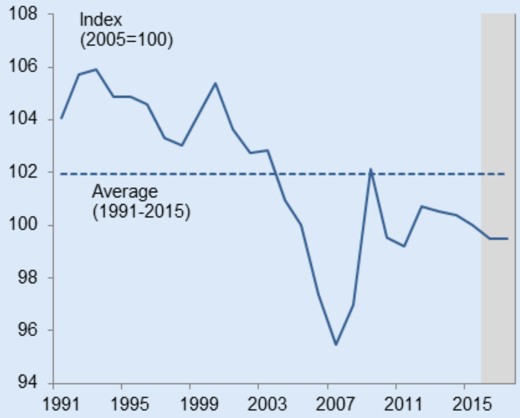
	2015	2016				2017
	IV	I	II	III	IV	I
	Seasonally and calendar adjusted, quarter-on-quarter change in percent					
Gross domestic product	0.3	0.7	0.3	0.5	0.6	0.6
Gross value added	0.0	0.9	0.3	0.5	0.6	0.6
Industry excluding construction	-1.3	1.6	0.4	0.6	0.8	0.8
Manufacturing	-1.0	2.0	0.4	0.6	0.8	0.8
Construction	1.2	2.0	-1.2	1.0	1.0	1.0
Trade, transport, accommodation, and food services	-0.1	1.9	0.1	0.7	0.7	0.6
Information and communication	0.6	-0.7	1.7	1.1	1.2	1.3
Financial and insurance services	1.0	3.3	0.1	0.1	0.2	0.2
Real estate activities	0.4	-0.1	0.5	0.4	0.4	0.4
Business services	1.1	-0.6	0.7	0.5	0.6	0.7
Public services, education, health	0.0	0.3	0.4	0.3	0.3	0.3
Other services	0.5	-0.4	0.1	0.1	0.2	0.2

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, 1991–2017



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

Source: Federal Employment Agency, *Fachserie 18, Series 1.2*; shaded: IfW forecast.

Table 6.1:
Wages and productivity, 2014–2017

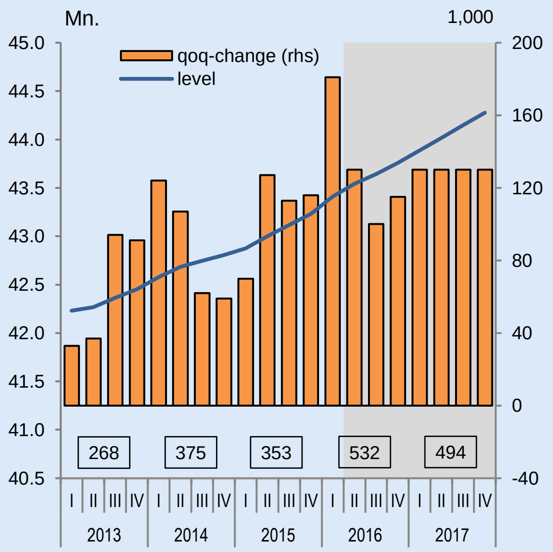
	2014	2015	2016	2017
Per hour				
Negotiated wages	3.0	2.4	2.2	2.4
Gross wages and salaries	2.1	2.3	2.0	3.0
Wage drift	-0.9	0.0	-0.1	0.6
Compensation of employees	2.0	2.2	1.9	2.8
Labor productivity	0.4	0.5	0.6	1.2
Unit labor costs	1.7	1.7	1.2	1.6
Unit labor costs (real)	-0.1	-0.4	-0.5	-0.2
Per capita				
Negotiated wages	2.9	2.3	2.2	2.4
Gross wages and salaries	2.7	2.8	2.2	2.6
Wage drift	-0.2	0.4	0.1	0.2
Compensation of employees	2.6	2.6	2.1	2.5
Labor productivity	0.7	0.9	0.6	0.9
Unit labor costs	1.9	1.7	1.4	1.6
Unit labor costs (real)	0.2	-0.3	-0.3	-0.2

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

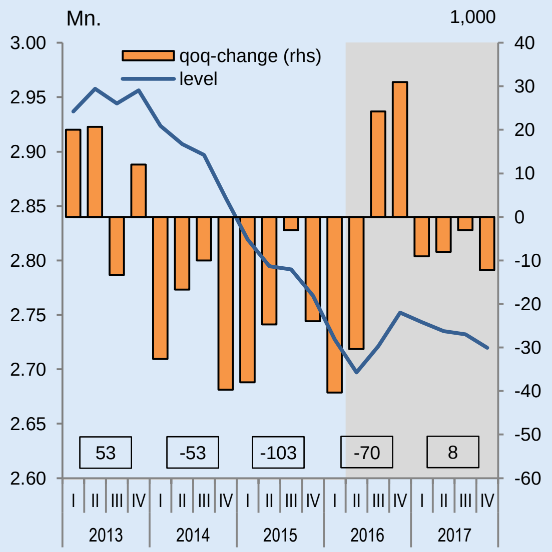
Figure 7.1:
Employment, 2013–2017



Quarterly data, seasonally adjusted, qoq-change. Annual data: yoy-change (boxes).

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

Figure 7.2:
Unemployment, 2013–2017



Quarterly data, seasonally adjusted, qoq-change. Annual data: yoy-change (boxes).

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

Table 7.1:
Employment, 2013–2017 (1,000 persons)

	2013	2014	2015	2016	2017
Hours worked (domestic concept, mn. hours)	57,639	58,349	59,038	59,761	60,291
Persons in employment (domestic concept)	42,328	42,703	43,056	43,589	44,082
Self-employed	4,460	4,397	4,326	4,301	4,281
Employees (domestic concept)	37,869	38,306	38,730	39,286	39,800
Employees subject to social security contributions	29,729	30,218	30,854	31,482	32,000
Minijobs	5,018	5,028	4,849	4,818	4,818
Net commuting	58	64	68	67	67
Persons in employment (national concept)	42,270	42,640	42,988	43,520	44,014
Employees (national concept)	37,810	38,242	38,662	39,219	39,733
Unemployed persons (registered)	2,949	2,896	2,793	2,724	2,733
Unemployment rate (registered; percent)	6.9	6.7	6.4	6.2	6.1
Unemployment rate (ILO; percent)	4.9	4.7	4.4	4.0	3.6

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, 2013–2017 (bn. euro)

	2013	2014	2015	2016	2017
Revenues	**1,252.4**	**1,299.6**	**1,350.7**	**1,397.0**	**1,448.9**
➢ *relative to GDP*	*44.4*	*44.6*	*44.6*	*44.6*	*44.5*
Taxes	637.4	659.6	691.8	717.0	745.6
➢ *relative to GDP*	*22.6*	*22.6*	*22.9*	*22.9*	*22.9*
Social contributions	464.9	481.9	500.8	519.7	541.6
➢ *relative to GDP*	*16.5*	*16.5*	*16.6*	*16.6*	*16.6*
Other revenues	150.1	158.0	158.1	160.3	161.7
➢ *relative to GDP*	*5.3*	*5.4*	*5.2*	*5.1*	*5.0*
Expenditures	**1,256.2**	**1,291.2**	**1,331.1**	**1,389.9**	**1,440.3**
➢ *relative to GDP*	*44.5*	*44.3*	*44.0*	*44.3*	*44.2*
Compensation of employees	218.6	224.6	229.6	236.3	241.9
Intermediate consumption	135.0	138.6	144.0	152.6	157.1
Social transfers in kind	227.1	240.1	252.1	266.8	281.4
Gross capital formation	63.5	63.2	66.6	69.8	72.3
Capital transfers	56.0	51.5	48.0	45.6	42.8
Social benefits	438.6	451.0	470.8	494.0	515.4
Subsidies	24.4	25.5	27.5	28.7	29.5
Other current transfers	63.0	61.6	64.6	62.6	66.7
Other capital transfers and investment grants	31.2	36.4	29.8	34.8	38.0
Other expenditures	-1.3	-1.3	-1.9	-1.3	-4.9
Net lending/net borrowing	**-3.8**	**8.4**	**19.6**	**7.1**	**8.6**
➢ *relative to GDP*	*-0.1*	*0.3*	*0.6*	*0.2*	*0.3*
Revenues of central, state, and local governments	**814.6**	**845.0**	**876.6**	**904.5**	**935.0**
Net of transfers from social security funds	813.6	843.9	875.5	903.4	934.0
Transfers from social security funds	1.0	1.1	1.1	1.1	1.1
Expenditures of central, state, and local governments	**823.8**	**840.0**	**861.0**	**903.1**	**929.9**
Net of transfers to social security funds	723.0	738.2	756.8	794.3	817.1
Transfers to social security funds	100.8	101.8	104.2	108.7	112.7
Net lending/net borrowing central, state, and local government	-9.2	5.0	15.6	1.4	5.1
Revenues of social security funds	**539.7**	**557.4**	**579.4**	**602.3**	**627.7**
Net of transfers from central, state, and local governments	438.9	455.7	475.2	493.6	515.0
Expenditures of social security funds	**534.3**	**554.1**	**575.4**	**596.7**	**624.2**
Net of transfers to central, state, and local governments	533.3	553.0	574.3	595.6	623.2
Net lending/net borrowing social security funds	**5.3**	**3.4**	**4.0**	**5.6**	**3.5**

Sums may deviate due to rounding.

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

9. GDP and its components

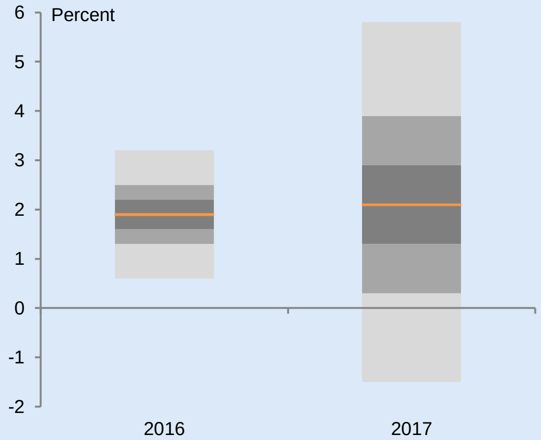
Table 9.1:
Quarterly data, 2015–2017

	2015				2016				2017			
	I	II	III	IV	I	II	III	IV	I	II	III	IV
Gross domestic product	0.4	0.4	0.3	0.3	0.7	0.3	0.5	0.6	0.6	0.6	0.6	0.6
Private consumption	0.3	0.1	0.8	0.4	0.4	0.2	0.6	0.6	0.5	0.5	0.5	0.5
Government consumption	0.7	0.7	0.7	0.9	0.5	1.3	0.5	0.4	0.5	0.5	0.5	0.4
Machinery and equipment	1.9	0.6	0.2	1.0	1.9	0.7	1.1	1.3	1.5	1.3	1.1	0.9
Constructions	1.4	-1.7	-0.3	2.0	2.3	-1.8	1.0	1.1	1.1	1.0	1.0	1.0
Other investment	0.7	0.6	0.7	0.7	0.2	0.6	0.8	0.8	0.8	0.7	0.7	0.6
Change in inventories	0.0	-0.3	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Domestic expenditure	0.6	-0.2	0.6	0.9	0.8	0.2	0.7	0.7	0.6	0.6	0.6	0.6
Exports	1.5	1.8	0.3	-0.6	1.0	1.2	1.3	1.4	1.5	1.5	1.6	1.6
Imports	2.2	0.6	1.1	0.5	1.4	1.0	1.7	1.8	1.8	1.8	1.7	1.7
Net exports	-0.2	0.6	-0.3	-0.5	-0.1	0.1	-0.1	-0.1	0.0	0.0	0.1	0.1
Employment (domestic)	42,875	43,001	43,115	43,231	43,413	43,542	43,642	43,757	43,887	44,017	44,147	44,277
Unemployment (registered)	2,819	2,795	2,792	2,768	2,727	2,697	2,721	2,752	2,743	2,735	2,732	2,720

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.

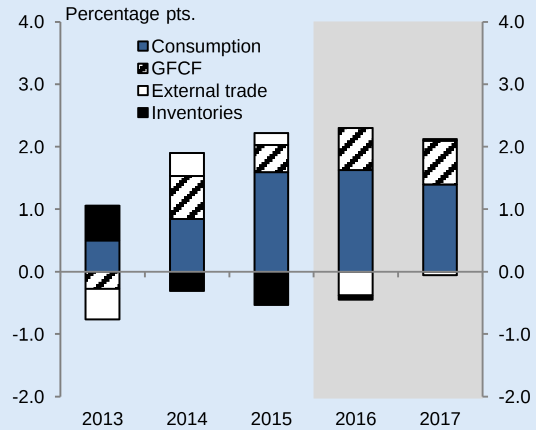
Figure 9.1:
Forecast intervals for GDP growth, 2016–2017



GDP: volumes, change over previous year. Point forecasts: orange lines. Forecast intervalls greay 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 second quarter 1994–2015 .

Source: Own calculations.

Figure 9.2:
Expenditure-side components to GDP-growth, 2013–2017



Annual data; price-adjusted, Lundberg components.

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

10. The German economy, 2014–2017

	2015	2014	2015	2016	2017
	€ bn.	Change over previous year in percent			
GDP (constant prices)		1.6	1.7	1.9	2.1
Private consumption expenditure		0.9	2.0	2.0	1.8
Public consumption expenditure		1.7	2.5	2.9	2.1
Total fixed investment		3.5	2.2	3.4	3.4
Machinery and equipment		4.5	4.8	4.6	4.4
Construction		2.9	0.3	2.9	2.9
Other equipment		3.1	2.6	2.3	3.0
Changes in stocks		-0.3	-0.5	-0.1	0.0
Domestic Demand		1.3	1.6	2.4	2.3
Exports		4.0	5.4	3.2	5.6
Imports		3.7	5.8	4.8	6.8
Net exports		0.4	0.2	-0.4	-0.1
GDP (current prices)	3,025.9	3.4	3.8	3.6	3.9
Private consumption expenditure	1,634.8	1.9	2.7	2.7	3.3
Public consumption expenditure	586.8	4.1	4.0	5.0	4.0
Total fixed investment	606.1	5.0	3.6	4.9	5.6
Machinery and equipment	200.1	4.7	5.4	5.1	5.2
Construction	297.6	5.2	2.0	4.9	5.9
Other equipment	108.5	4.8	4.7	4.4	5.6
Changes in stocks (€ bn.)		-22.0	-38.0	-41.2	-41.1
Domestic Demand	2,789.7	2.6	2.6	3.6	4.0
Exports	1,419.7	3.9	6.5	2.1	6.6
Imports	1,183.5	2.1	4.1	1.7	7.5
Net exports (€ bn.)		196.4	236.2	245.5	251.3
Gross national income	3,091.3	3.5	3.7	3.6	3.9
Deflator of GDP		1.7	2.1	1.7	1.8
Private consumption expenditure		0.9	0.6	0.8	1.4
Public consumption expenditure		2.3	1.5	2.0	1.8
Investment in machinery and equipment		0.2	0.6	0.5	0.7
Investment in construction		2.3	1.7	1.9	2.9
Investment in other equipment		1.6	2.1	2.1	2.5
Exports		-0.1	1.0	-1.0	1.0
Imports		-1.6	-1.6	-2.9	0.6
Addendum: Consumer prices		0.9	0.2	0.5	1.6
Income distribution					
National income	2,261.2	3.8	3.9	3.9	4.3
Employment income	1,541.3	3.8	3.8	3.6	3.8
in percent of national income		68.3	68.2	67.9	67.7
Entrepreneurial and property income	719.9	3.8	4.2	4.6	5.2
Disposable income of private households	1,759.3	2.3	2.9	3.0	3.2
Savings rate		9.5	9.7	9.8	9.7
Wages and salaries	1,261.1	3.9	3.9	3.7	3.9
Wage per hour		2.1	2.3	2.0	3.0
Unit labor costs		1.7	1.7	1.2	1.6
Productivity per hour		0.4	0.5	0.6	1.2
Unemployment (1000)		2,896	2,793	2,724	2,733
Rate of unemployment (percent)		6.7	6.4	6.2	6.1
Total employment (1000)		42,703	43,027	43,441	43,870
Public sector budget balance (€ bn.)		8.9	28.4	2.2	5.7
Public sector budget balance (in percent of GDP)		0.3	0.9	0.1	0.2
Public debts (in percent)		74.7	71.2	68.0	64.7

Change in stocks, net exports: contribution to GDP growth.

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

11. National accounts

National Accounts
Forecast period: 2016 to 2017

	2015	2016	2017	2016 H1	2016 H2	2017 H1	2017 H2
1. Production							
Change over the same period of the preceding year in %							
Persons in employment	0.8	1.2	1.1	1.3	1.2	1.1	1.2
Hours worked	1.2	1.2	0.9	1.7	0.8	0.8	1.0
Hours worked by person in employment	0.4	0.0	- 0.2	0.4	- 0.4	- 0.3	- 0.2
Labor productivity [1]	0.5	0.6	1.2	0.4	0.8	1.3	1.1
Gross domestic product, price-adjusted	1.7	1.9	2.1	2.1	1.6	2.1	2.0
2. Use of gross domestic product at current prices							
a) EUR bn.							
Consumption expenditure	2 221.6	2 295.7	2 375.5	1 117.3	1 178.3	1 156.0	1 219.5
Private households [2]	1 634.8	1 679.7	1 735.1	819.2	860.5	845.9	889.2
Government	586.8	616.0	640.4	298.2	317.8	310.1	330.3
Gross fixed capital formation	606.1	635.6	671.4	304.4	331.3	321.2	350.2
Machinery and equipment	200.1	210.3	221.2	99.5	110.8	105.2	116.0
Construction	297.6	312.1	330.6	149.8	162.3	157.9	172.6
Other products	108.5	113.3	119.6	55.0	58.2	58.1	61.6
Changes in inventories [3]	- 38.0	- 41.2	- 41.1	- 8.7	- 32.5	- 7.0	- 34.0
Domestic expenditure	2 789.7	2 890.1	3 005.8	1 413.0	1 477.1	1 470.1	1 535.7
Net exports	236.2	245.5	251.3	127.6	117.9	128.2	123.1
Exports	1 419.7	1 449.2	1 545.4	710.4	738.8	757.7	787.7
Imports	1 183.5	1 203.8	1 294.1	582.8	620.9	629.5	664.6
Gross domestic product	3 025.9	3 135.6	3 257.1	1 540.6	1 595.0	1 598.3	1 658.8
b) Change over the same period of the preceding year in %							
Consumption expenditure	3.0	3.3	3.5	3.4	3.2	3.5	3.5
Private households [2]	2.7	2.7	3.3	2.8	2.6	3.3	3.3
Government	4.0	5.0	4.0	5.1	4.9	4.0	3.9
Gross fixed capital formation	3.6	4.9	5.6	5.1	4.6	5.5	5.7
Machinery and equipment	5.4	5.1	5.2	5.6	4.7	5.7	4.7
Construction	2.0	4.9	5.9	5.1	4.6	5.4	6.4
Other products	4.7	4.4	5.6	4.4	4.5	5.5	5.8
Domestic expenditure	2.6	3.6	4.0	3.6	3.6	4.0	4.0
Exports	6.5	2.1	6.6	1.7	2.4	6.7	6.6
Imports	4.1	1.7	7.5	0.7	2.7	8.0	7.0
Gross domestic product	3.8	3.6	3.9	3.9	3.4	3.7	4.0
3. Use of gross domestic product, price-adjusted (chain-linked, 2010=100)							
a) EUR bn.							
Consumption expenditure	2 063.7	2 109.6	2 149.9	1 033.9	1 075.7	1 053.8	1 096.1
Private households [2]	1 533.8	1 563.8	1 592.4	765.1	798.7	778.8	813.7
Government	529.8	545.4	557.1	268.5	276.9	274.7	282.3
Gross fixed capital formation	558.3	577.0	596.9	276.8	300.2	286.3	310.6
Machinery and equipment	195.9	204.9	214.0	96.5	108.4	101.2	112.8
Construction	263.3	271.0	278.9	130.9	140.1	134.2	144.7
Other products	99.4	101.7	104.8	49.6	52.1	51.2	53.6
Domestic expenditure	2 586.4	2 649.1	2 710.3	1 306.3	1 342.8	1 337.1	1 373.1
Exports	1 350.9	1 393.5	1 471.0	684.1	709.4	723.1	747.9
Imports	1 153.6	1 208.5	1 291.2	586.8	621.7	628.2	662.9
Gross domestic product	2 782.5	2 834.2	2 892.8	1 403.3	1 431.0	1 432.6	1 460.2
b) Change over the same period of the preceding year in %							
Consumption expenditure	2.2	2.2	1.9	2.5	2.0	1.9	1.9
Private households [2]	2.0	2.0	1.8	2.3	1.7	1.8	1.9
Government	2.5	2.9	2.1	3.0	2.9	2.3	2.0
Gross fixed capital formation	2.2	3.4	3.4	3.8	3.0	3.4	3.5
Machinery and equipment	4.8	4.6	4.4	5.0	4.2	4.9	4.0
Construction	0.3	2.9	2.9	3.5	2.3	2.6	3.3
Other products	2.6	2.3	3.0	2.2	2.4	3.1	2.9
Domestic expenditure	1.6	2.4	2.3	2.6	2.2	2.4	2.3
Exports	5.4	3.2	5.6	3.0	3.3	5.7	5.4
Imports	5.8	4.8	6.8	4.4	5.1	7.1	6.6
Gross domestic product	1.7	1.9	2.1	2.1	1.6	2.1	2.0

National Accounts (cont.)
Forecast period: 2016 to 2017

	2015	2016	2017	2016 H1	2016 H2	2017 H1	2017 H2
4. Deflators (2010=100)							
Change on the same period of the preceding year in %							
Private consumption [2]	0.6	0.8	1.4	0.6	1.0	1.4	1.4
Government consumption	1.5	2.0	1.8	2.0	1.9	1.7	1.9
Gross fixed capital formation	1.4	1.5	2.1	1.3	1.6	2.0	2.2
Machinery and equipment	0.6	0.5	0.7	0.5	0.5	0.8	0.7
Construction	1.7	1.9	2.9	1.5	2.2	2.8	3.0
Exports	1.0	- 1.0	1.0	- 1.2	- 0.8	0.9	1.1
Imports	- 1.6	- 2.9	0.6	- 3.6	- 2.3	0.9	0.4
Gross domestic product	2.1	1.7	1.8	1.8	1.7	1.6	1.9
5. National income							
a) EUR bn.							
Primary income of private households [2]	2 117.1	2 178.0	2 253.8	1 071.4	1 106.7	1 103.3	1 150.5
Employers social contributions	280.1	287.6	297.2	139.6	148.0	143.6	153.6
Gross wages and salaries	1 261.1	1 308.4	1 360.0	627.2	681.2	647.6	712.5
Other primary income [4]	575.8	582.0	596.6	304.5	277.5	312.1	284.4
Primary income of other sectors	443.0	479.4	513.1	220.6	258.8	240.1	273.0
Net national income	2 560.1	2 657.5	2 766.8	1 292.0	1 365.5	1 343.4	1 423.4
Consumption of fixed capital	531.3	545.5	561.4	271.4	274.2	279.2	282.1
Gross national income	3 091.3	3 203.0	3 328.2	1 563.4	1 639.6	1 622.6	1 705.6
memorandum item:							
Net national income (factor costs)	2 261.2	2 349.0	2 449.2	1 140.8	1 208.3	1 187.7	1 261.5
Property and entrepreneurial income	719.9	753.0	791.9	373.9	379.1	396.5	395.4
Compensation of employees	1 541.3	1 596.0	1 657.2	766.8	829.2	791.2	866.0
b) Change over the same period of the preceding year in %							
Primary income of private households [2]	3.0	2.9	3.5	3.1	2.7	3.0	4.0
Employers social contributions	3.1	2.7	3.3	3.0	2.4	2.8	3.8
Gross wages and salaries	3.9	3.7	3.9	4.3	3.2	3.2	4.6
… per employee	2.8	2.2	2.6	2.8	1.7	2.0	3.2
Other primary income [4]	1.1	1.1	2.5	0.7	1.5	2.5	2.5
Primary income of other sectors	8.1	8.2	7.0	9.8	7.0	8.8	5.5
Net national income	3.9	3.8	4.1	4.2	3.4	4.0	4.2
Consumption of fixed capital	2.6	2.7	2.9	2.6	2.7	2.9	2.9
Gross national income	3.7	3.6	3.9	3.9	3.3	3.8	4.0
memorandum item:							
Net national income (factor costs)	3.9	3.9	4.3	4.3	3.5	4.1	4.4
Property and entrepreneurial income	4.2	4.6	5.2	4.6	4.6	6.0	4.3
Compensation of employees	3.8	3.6	3.8	4.1	3.1	3.2	4.4
6. Disposable income of private households [2]							
a) EUR bn.							
Mass income	1 263.0	1 314.3	1 363.0	633.2	681.1	653.9	709.1
Net wages and salaries	836.5	868.5	899.3	411.8	456.7	422.6	476.7
Social benefits other than social transfers in kind	525.6	548.8	570.2	272.3	276.5	284.2	286.0
less: Levies on social benefits, taxes on consumption	99.1	103.0	106.5	50.9	52.1	52.9	53.6
Other primary income [4]	575.8	582.0	596.6	304.5	277.5	312.1	284.4
Other transfers received (net) [5]	- 79.5	- 84.8	- 89.4	- 40.9	- 43.9	- 43.1	- 46.3
Disposable income	1 759.3	1 811.5	1 870.2	896.8	914.7	923.0	947.2
Change in pension entitlements	50.5	51.4	52.2	25.4	26.0	25.8	26.4
Consumption expenditure	1 634.8	1 679.7	1 735.1	819.2	860.5	845.9	889.2
Saving	175.0	183.2	187.4	103.0	80.2	102.9	84.4
Saving ratio (%) [6]	9.7	9.8	9.7	11.2	8.5	10.8	8.7
b) Change over the same period of the preceding year in %							
Mass income	3.7	4.1	3.7	4.2	3.9	3.3	4.1
Net wages and salaries	3.5	3.8	3.5	4.5	3.2	2.6	4.4
Social benefits other than social transfers in kind	4.0	4.4	3.9	3.5	5.3	4.4	3.4
less: Levies on social benefits, taxes on consumption	3.4	3.9	3.4	3.1	4.8	3.8	2.9
Other primary income [4]	1.1	1.1	2.5	0.7	1.5	2.5	2.5
Disposable income	2.9	3.0	3.2	2.9	3.0	2.9	3.6
Consumption expenditure	2.7	2.7	3.3	2.8	2.6	3.3	3.3
Saving	4.4	4.7	2.2	3.3	6.5	- 0.1	5.3

National Accounts (cont.)
Forecast period: 2016 to 2017

	2015	2016	2017	2016 H1	2016 H2	2017 H1	2017 H2
7. Revenue and expenditure by general government [7]							
a) EUR bn.							
Revenue							
Taxes	691.8	717.0	745.6	358.9	358.1	373.2	372.3
Social contributions	500.8	519.7	541.6	252.7	267.0	262.1	279.5
Property income	21.6	20.5	19.5	11.8	8.7	10.8	8.7
Other current transfers	21.5	21.5	21.5	9.1	12.5	9.1	12.5
Capital transfers	12.2	12.6	12.8	5.5	7.1	5.6	7.2
Sales	102.6	105.4	107.5	49.9	55.5	50.9	56.6
Other subsidies	0.2	0.2	0.2	0.1	0.1	0.1	0.1
Total	1 350.7	1 397.0	1 448.9	687.9	709.0	711.9	737.0
Expenditure							
Intermediate consumption [8]	396.1	419.4	438.6	201.4	218.0	210.6	228.0
Compensation of employees	229.6	236.3	241.9	113.4	122.8	116.3	125.6
Property income (interest)	48.0	45.6	42.8	23.2	22.4	21.8	21.0
Subsidies	27.5	28.7	29.5	14.2	14.5	14.6	14.9
Social benefits	470.8	494.0	515.4	245.0	249.0	256.9	258.5
Other current transfers	64.6	62.6	66.7	34.9	27.7	37.2	29.5
Capital transfers	29.8	34.8	38.0	12.8	22.0	16.3	21.7
Gross capital formation	66.6	69.8	72.3	29.6	40.3	30.6	41.7
Net acquisitions of non-produced non-financial assets	- 1.9	- 1.3	- 4.9	- 0.6	- 0.7	- 2.4	- 2.5
Total	1 331.1	1 389.9	1 440.3	673.8	716.1	701.9	738.4
Net lending	19.6	7.1	8.6	14.1	- 7.0	10.0	- 1.4
b) Change over the same period of the preceding year in %							
Revenue							
Taxes	4.9	3.6	4.0	4.3	3.0	4.0	4.0
Social contributions	3.9	3.8	4.2	4.1	3.5	3.7	4.7
Property income	- 13.5	- 4.8	- 4.9	- 7.5	- 0.8	- 8.5	0.0
Other current transfers	12.3	0.4	0.0	1.1	0.0	0.0	0.0
Capital transfers	0.1	3.4	2.1	5.6	1.7	2.4	1.8
Sales	1.1	2.7	2.0	3.0	2.4	2.0	2.0
Other subsidies	- 18.5	- 2.2	0.0	- 5.1	0.0	0.0	0.0
Total	3.9	3.4	3.7	3.8	3.0	3.5	3.9
Expenditure							
Intermediate consumption [8]	4.6	5.9	4.6	6.2	5.6	4.5	4.6
Compensation of employees	2.2	2.9	2.4	2.8	3.0	2.6	2.2
Property income (interest)	- 6.8	- 4.9	- 6.1	- 4.4	- 5.5	- 6.0	- 6.2
Subsidies	8.0	4.4	2.8	5.5	3.3	2.8	2.8
Social benefits	4.4	4.9	4.3	3.9	6.0	4.9	3.8
Other current transfers	4.9	- 3.2	6.6	- 3.1	- 3.2	6.6	6.5
Capital transfers	- 18.2	16.9	9.2	1.2	28.5	27.9	- 1.7
Gross capital formation	5.3	4.9	3.5	5.8	4.2	3.6	3.5
Net acquisitions of non-produced non-financial assets	38.0	- 27.6	268.5	- 44.1	0.0	278.2	259.4
Total	3.1	4.4	3.6	3.8	5.0	4.2	3.1

[1] Price-adjusted gross domestic product per hour w orked.
[2] Incl. non-profit institutions serving households.
[3] Incl. acquisitions less disposals of valuables.
[4] Operating surplus/mixed income, net property income
[5] Received less payed other current transfers.
[6] Savings in percent of disposable income (incl. change in pension entitlements).
[7] Central, regional, local and social security funds.
[8] Incl. social transfers in kind and other production taxes.

Source: Federal Statistical Office, *Fachserie 18* ; ow n calculations. IfW forecast.

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