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This is a translation of the original German-language version, which is the sole authoritative text.

Contents

Abbreviations and symbols

e Estimated
p Provisional
pe Partly estimated
r Revised
… Data available at a later date
. Data unknown, not to be published or not meaningful
0 Less than 0.5 but more than nil
– Nil

Discrepancies in the totals are due to rounding.

Commentaries

Economic conditions

Underlying trends

German economy continued on strong growth path in Q2

The German economy is likely to have remained on its strong growth path in the second quarter of 2017. Driven by the buoyant demand for German products worldwide, the brisk industrial activity is increasingly becoming a mainstay of economic growth. Industrial output continued to grow sharply of late. Construction activity also remained very brisk. The excellent state of the German economy is also reflected in the sentiment indicators. In June, the Ifo Institute's business climate index for trade and industry reached a new record high for Germany as a whole. Consumers are also very optimistic. Consumer sentiment, as surveyed by the Gesellschaft für Konsumforschung (GfK) market research institution, and consumer income expectations, in particular, are at a very high level. This, together with the favourable labour market developments and the significant rise in retail sales, suggests that private consumption is still on a clear upward trajectory.

Industry

Strong industrial activity

After some ups and downs in the past year, industrial output moved onto a clear growth path after the turn of the year. In May, it also grew by a strong seasonally adjusted 1¼% on the month. On an average of April and May, industrial output also increased sharply on the first quarter of 2017 (+1½%). The buoyant industrial activity benefited manufacturers of intermediate goods, in particular, who posted considerable growth in output (+2%). Manufacturers of electrical equipment stood out here in particular. Producers of capital goods and consumer goods likewise recorded substantial gains in output (+1½% and +1¼% respectively).

Increase in orders, especially from the euro area

Industrial orders rose considerably in May by a seasonally adjusted 1% compared with the previous month. Nevertheless, on an average of April and May, the volume of orders was up only slightly from the first quarter of 2017 (+¼%). Growth was driven by new orders from the euro area (+2¾%), whereas the volume of orders from non-euro-area countries showed no change on the quarter. German industrial enterprises even saw significant declines in domestic orders (-1%). Developments within individual sectors were also heterogeneous. Consumer goods producers recorded the strongest growth in demand (2¼%), whereas the inflow of intermediate and capital goods orders stagnated. Excluding large-scale orders, however, manufacturers of these goods also recorded a considerable increase in orders. Also across sectors, the inflow of new orders on an average of April and May was stronger than in the first quarter if large orders are factored out (+¾%).

Lull in industrial sales, exports remain on expansionary course

Industrial sales in May remained broadly unchanged on the month after adjustment for seasonal variations. Taking the average of April and May, however, they were up considerably from the level of the first quarter of 2017 (+1¾%). The strongest growth in sales was recorded by manufacturers of consumer goods (+3%). Intermediate goods producers likewise posted substantial sales growth (+2¼%), whereas turnover in the capital goods sector was somewhat more moderate (+1%). In regional terms, the development in sales was quite broadly based. German industrial enterprises saw a sharp increase in demand, not only domestically but also from other euro-area and non-euro-area countries. Unlike in the case of industrial sales, nominal exports of goods remained on an expansionary course in May and rose sharply on the month (+1½%). On an average of April and May, they were up even more dynamically, by +2¼% (in both nominal and price-adjusted terms) compared with the

Economic conditions in Germany*

Seasonally adjusted

Period	Orders received (volume); 2010 = 100			
	Industry			
		of which		Main construction
	Total	Domestic	Foreign	
2016 Q3	110.3	103.5	115.8	123.1
Q4	115.0	109.5	119.5	132.9
2017 Q1	113.8	107.6	118.9	133.8
Mar	116.0	107.8	122.7	134.0
Apr	113.5	107.6	118.3	135.2
May	114.6	105.6	122.0	…
	Output; 2010 = 100			
	Industry			
		of which		
	Total	Intermediate goods	Capital goods	Construction
2016 Q3	111.5	107.0	119.1	109.8
Q4	111.8	107.7	119.2	108.4
2017 Q1	113.3	109.0	120.8	112.7
Mar	113.8	109.4	121.3	116.8
Apr	114.3	111.2	121.0	117.0
May	115.8	111.0	124.2	115.8
	Foreign trade; € billion			*Memo item* Current account balance in € billion
	Exports	Imports	Balance	
2016 Q3	298.66	237.42	61.24	61.60
Q4	305.75	245.64	60.11	61.63
2017 Q1	314.29	254.41	59.88	64.65
Mar	105.35	85.53	19.82	23.29
Apr	106.34	86.55	19.79	15.66
May	107.88	87.60	20.28	20.13
	Labour market			
	Employment	Vacancies[1]	Unemployment	Unemployment rate in %
	Number in thousands			
2016 Q4	43,831	679	2,644	6.0
2017 Q1	44,034	693	2,585	5.9
Q2	…	712	2,545	5.7
Apr	44,115	705	2,548	5.8
May	44,151	710	2,540	5.7
June	…	719	2,547	5.7
	Prices			
	Import prices	Producer prices of industrial products	Construction prices[2]	Harmonised consumer prices
	2010 = 100			2015 = 100
2016 Q4	100.0	103.1	114.1	101.0
2017 Q1	102.4	104.3	115.5	101.5
Q2	…	104.5	116.6	101.8
Apr	102.2	104.7	.	101.7
May	101.0	104.4	.	101.8
June	…	104.4	.	101.9

* For explanatory notes, see Statistical Section, XI, and Statistical Supplement, Seasonally adjusted business statistics. **1** Excluding government-assisted forms of employment and seasonal jobs. **2** Not seasonally adjusted.

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first quarter of 2017. Imports of goods also remained on their upward trajectory in May and grew substantially on the month (+1½%). On an average of April and May, 2¾% more goods were imported than in the first quarter of 2017. After adjustment for price effects, the increase amounted to as much as 3½%, which was due to the drop in energy prices.

Construction

Construction output holding steady at very high level

Construction output in May declined perceptibly on the month after adjustment for seasonal variations (-1%). That said, construction output is still holding steady at an exceptionally high level. On an average of April and May, construction output was also up significantly on the level of the first quarter of 2017 (+3¼%). Given that the finishing trades stagnated, this development was solely attributable to the considerably higher output in the main construction sector (+6%). The particularly strong statistical break in the first quarter played a major role in this development.[1] New orders in the main construction sector in April – the period up until which statistical data are currently available – increased again on the already very high level of the first quarter. According to the Ifo Institute, the assessment of the business situation in the construction sector in June was down only slightly on the previously reached all-time high. Against this backdrop, the booming construction activity is likely to have continued during the course of the second quarter.

1 Although the adjustment to the reporting group already occurred at the beginning of 2017, the fact that the increase in the number of hours worked, and thus also in production, is concentrated on February is – according to the Federal Statistical Office – due to technical reasons resulting from the way that data are collected. For more information, see Federal Statistical Office, Anpassungen beim Produktionsindex für das Bauhauptgewerbe, May 2017.

Labour market

Significant rise in employment

Employment saw further considerable growth in May 2017 despite the weaker employment dynamics compared with the final quarter of 2016 and the first quarter of 2017. The total number of persons in work in Germany in May rose by a seasonally adjusted 36,000 on the month. The year-on-year rate of increase, at 1.5% or 648,000 persons, was very strong. The favourable overall development was due predominantly to the substantial expansion in employment subject to social security contributions. Within the last twelve months – here, the most recent, still provisional dataset is from April 2017 – this figure grew more strongly (+727,000) than overall employment. By contrast, the number of persons working exclusively in low-paid part-time jobs fell distinctly. The number of self-employed persons also declined somewhat. The leading indicators of employment demand, notably the Ifo employment barometer and the labour market barometer of the Institute for Employment Research (IAB), suggest that a similar trend in employment is also to be expected for the coming months. The rise in the number of reported job vacancies, which has been visible for quite some time, showed no signs of abating in June.

Registered unemployment rose slightly, yet downward trend likely to continue

After seasonal adjustment, unemployment rose slightly in June 2017 compared with the previous month. 2.55 million persons were registered with the Federal Employment Agency as unemployed. The unemployment rate remained at 5.7%. The increase was not due to cyclical reasons, but is likely to be primarily the result of the spring pick-up in the labour market, which started earlier this year and has now also ended earlier than usual. Compared with the same month one year earlier, 142,000 fewer persons were out of work, and the unemployment rate was 0.4 percentage point lower. Total underemployment (excluding short-time work), which also includes persons taking part in labour market policy measures, grew by the same amount as registered unemployment, which would indicate that the active labour market policy measures had a neutral impact in June. According to the IAB's labour market barometer, the downward trend in unemployment is likely to continue in the coming months.

Prices

Crude oil prices stabilised at a low level recently

Crude oil prices continued on their downward trend path in June 2017 and fell by around 7% on the month. This was due mainly to the high level of inventories worldwide and higher production volumes in a number of oil-producing countries. In the first three weeks of July, oil prices stabilised. As this report went to press, the price of a barrel of Brent crude oil stood at US$50. The premium on crude oil futures was US$1¼ for deliveries six months ahead and US$2 for deliveries 12 months ahead.

No further increase in import and producer prices excluding energy

The price of imports fell quite significantly overall in May. Lower energy prices were one reason. Another, however, was a decline in the prices of other goods, probably as a result of the appreciation of the euro. By contrast, industrial producer prices, which are already available for June, declined on an average of May and June taken together, albeit solely as a result of the drop in energy prices. Excluding energy, industrial producer prices largely treaded water. The year-on-year figure increased by just over 4% of late in the case of import prices and by 2½% in the case of industrial producer prices.

Further slight rise in consumer prices

Consumer prices – as measured by the Harmonised Index of Consumer Prices (HICP) – rose again slightly in June. The impact of the decline in crude oil prices on consumer prices for energy was dampened as a result of the widening of margins by refineries. The prices of food and industrial goods (excluding energy) barely showed any increase. By contrast, the prices of services also rose perceptibly, partly due to anticipatory price adjustments for travel and holiday services. Rents went up only marginally, however. Annual headline HICP inflation went up from +1.4% to +1.5% overall (CPI

+1.6%, following +1.5%). The inflation rate excluding energy and food increased from +1.1% to +1.5%, owing in part to the late timing of Whitsun this year. In July, both headline inflation and inflation excluding energy and food are again likely to be somewhat lower.

Public finances[2]

Local government finances

Lower deficit in 2017 Q1 thanks to sharp rise in revenue

According to the cash statistics, local government saw a €1 billion year-on-year decline in its deficit in the first quarter of 2017, taking it to €5 billion. At 5½% (or €3 billion), growth in expenditure was significantly lower than that in revenue, which came to 7½% (or just under €4 billion). Revenue developments were influenced to a great extent by the sharp rise in current transfers from public administrations (+7½%, or €1½ billion), which also include the increased central government funds forwarded to municipalities by the state governments,[3] and by tax revenue (+5½%, or €1 billion). There was a surge in receipts from fees (+16%, or €1 billion), largely on account of off-budget entities in North Rhine-Westphalia. On the expenditure side, growth in personnel expenditure (6%, or €1 billion) was exceptionally strong, particularly because the second adjustment stage under the latest collective wage agreement, which was not yet in force a year earlier, took effect in February 2017. Other operating expenditure likewise rose very sharply (+8%, or €1 billion).[4] By contrast, spending on social benefits increased only moderately (+1½%), eased by the significant fall in expenditure on benefits for asylum seekers. This reflects the fact that, after the strong refugee-related rise in expenses a year earlier, a larger portion of these costs were transferred to central government as a result of successful asylum applications, while numbers of incoming refugees were relatively subdued towards the end of the period under review. Fixed asset formation decreased – albeit after a relatively sharp increase in the same period last year – and there was also a fall in interest expenditure.

Further surpluses expected

For the year as a whole, in view of the moderate improvement at the start of the year and exceptionally strong growth in the fourth quarter of 2016, local government's surplus is likely to be a similar size to that recorded for 2016 (€5½ billion). Factoring in the effects of court rulings made some time ago, local government tax revenue, bolstered by the €½ billion transfer of central government turnover tax revenue, is set, overall, to grow only somewhat more slowly than at the beginning of the year. If assistance payments to cover refugee-related expenses remain subdued, the rise in transfers from state government should be less pronounced than at the beginning of the year. The increase in personnel expenditure will ease off due to the terms of the collective wage agreement, and growth in other operating expenditure connected with support for refugees is also likely to weaken somewhat. However, given the favourable financial developments and increased assistance from central government, part of which is earmarked for more extensive investment in schools, investment is likely to expand much more strongly in the remainder of the year. Social spending is expected to climb somewhat more sharply again once the dampening impact of falling expenditure on incoming refugees has tailed off. In view of the additional €2½ billion in budgetary assistance from central government from 2018 onwards and the prospect of solid growth in tax revenue, local government appears likely to continue posting surpluses in the medium term

2 In the short commentaries on public finances, the emphasis is on recent outturns. The quarterly editions of the Monthly Report (published in February, May, August and November), by contrast, contain a detailed description of public finance developments during the preceding quarter. For detailed data on budgetary developments and public debt, see the statistical section of this report.
3 General grants from state government, which are, in principle, tied to the development of state government tax receipts and are also included in this item, grew by only 2½%.
4 Off-budget entities in North Rhine-Westphalia accounted for a large share of this.

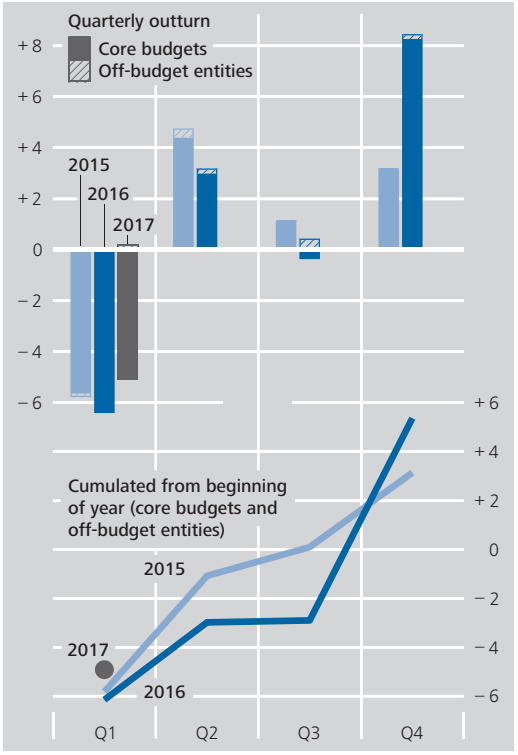
and, at the same time, to have funds available to boost investment.

Overall decline in debt; cash advances increased in almost all states

Following the strong final quarter of 2016, many municipalities were able to go beyond funding the usual seasonal deficit from reserves, meaning that local government debt[5] fell by €½ billion to €147 billion between the end of 2016 and the end of March this year. The decline in regular credit market debt (to just over €93½ billion) more than offset the increase of €1 billion in cash advances, which rose in all federal states – with higher absolute increases in Hesse, Rhineland-Palatinate and Lower Saxony – except North Rhine-Westphalia and Saarland. These advances, which are actually only intended to bridge intra-annual liquidity fluctuations, reached a total of €49 billion, or one-third of the total debt. Saarland (€2,160) still accounts for the highest volume of cash advances *per capita,* followed by North Rhine-Westphalia and Rhineland-Palatinate (around €1,500 each) and Hesse (€1,050).

Local government fiscal deficit/surplus

€ billion



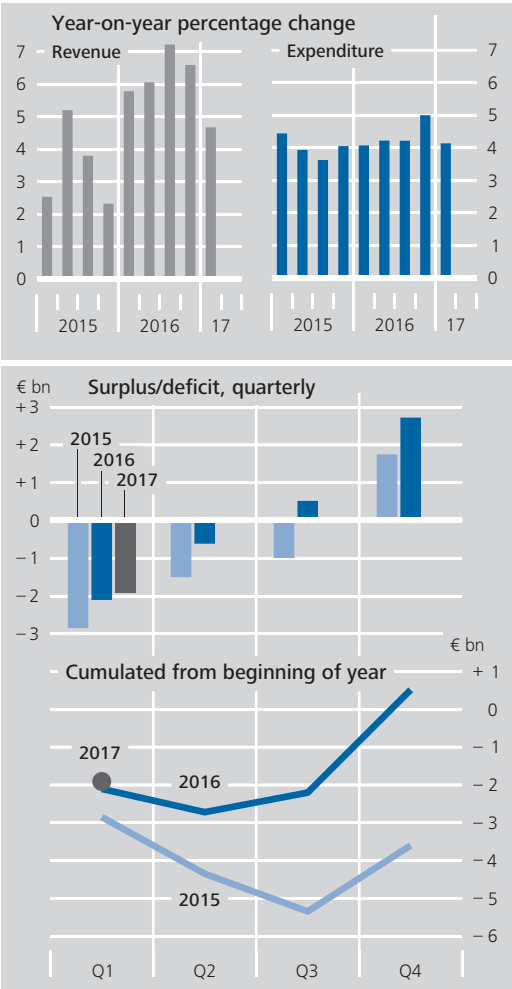
Source: Federal Statistical Office.
Deutsche Bundesbank

Hesse planning to assume debt from cash advances

In view of the unwelcome developments of the past and the fact that the volume of cash advances is still on the rise in some local authorities, the Independent Advisory Board of the Stability Council has now also proposed that, in future, local authorities should only be permitted to obtain cash advances, at least those spanning more than one year, from their home state government and that these advances should then be counted towards that state's borrowing allowance under the debt brake.[6] Given the financial difficulties faced by its local authorities, the state government of Hesse is planning, effectively, to assume all of their debt from cash advances (€6½ billion at last report) as of mid-2018;[7] this move comes on top of the partial debt assumption programme that has already been launched for around one-quarter of its local authorities. The plan involves very long-term loans binding the interest repayments to a low level and the interest costs being passed on to the state government of Hesse. The respective municipality is to make half of the principal repayments (with an annual contribution of €25 *per capita*), with the state government of Hesse covering the other half. Any outstanding principal repayments still owed by individual local authorities after 30 years will be waived by the state government. At the same time, the budgetary rules for local government are to be tightened with the objective of regulating and monitoring the issuance of cash advances more stringently in

5 Debt attributable to core budgets and off-budget entities owed to all public and non-public lenders apart from other municipalities and municipal special-purpose associations (as per the restructured quarterly debt statistics).
6 See Siebte Stellungnahme des unabhängigen Beirats des Stabilitätsrats zur Einhaltung der Obergrenze für das strukturelle gesamtstaatliche Finanzierungsdefizit nach § 51 Abs. 2 HGrG of 12 June 2017, pp 16 ff, and Deutsche Bundesbank, Local government finances: Development and selected aspects, Monthly Report, October 2016, especially pp 26-29.
7 See the press release issued by Hesse's Ministry of Finance on 4 July 2017. As part of Hesse's "Hessenkasse" assistance programme, WIBank, which is owned by the state government of Hesse, will restructure the debt from cash advances. At the same time, a €500 million investment programme will be launched for local authorities with financial or structural weaknesses but no outstanding cash advances.

Finances of the statutory health insurance scheme*



Source: Federal Ministry of Health. * Health fund and health insurance institutions (consolidated). Preliminary quarterly results.
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future. Multi-year cash advances will no longer be permitted. Generally speaking, measures to counteract the high volume of cash advances are a welcome move. In this specific case, the details have yet to be worked out and the plans implemented. Given that the planned debt assumption is so extensive, it would be advisable to impose strict limits on the debt burden to be assumed by state government[8] and tie this to stringent conditions.

Statutory health insurance scheme

Financial situation in Q1 almost unchanged on year

According to preliminary data, the statutory health insurance (SHI) scheme – comprising the health insurance institutions and the health fund – posted a deficit of €2 billion in the first quarter of 2017. As is usual for this time of year, the first-quarter result was negative and was around the same level as it was a year earlier. The health fund's deficit remained unchanged at €2½ billion, although, as planned, it had to make additional reserve-funded transfers totalling €½ billion to the health insurance institutions[9] and the innovation fund. The health insurance institutions increased their surplus (€½ billion) slightly.

Health insurance institutions' expenditure grew somewhat less than their revenue

The health insurance institutions' revenue, which stems mainly from transfers from the health fund, grew by just over 4%, with additional contribution rates remaining virtually unchanged on average. By comparison, the rise in expenditure was somewhat lower (4%). Above all, growth in spending on hospital treatment, a particularly large expenditure item, was below average (+3½%) even though it had been lower a year earlier because of a one-off effect and a stronger increase had seemed likely in view of the benefits expansion introduced under the Hospital Structures Act *(Krankenhausstrukturgesetz)*. Spending on pharmaceuticals rose by almost 4%, with higher cost increases recorded for outpatient medical treatments (4½%), a similarly large expenditure item, and for sickness benefit (+7½%), which is less significant.

Health fund: additional costs offset by high contribution receipts

The health fund recorded strong revenue growth of just over 4½%. This was essentially due to ongoing positive employment developments and higher *per capita* earnings subject

8 This also raises the question of which of the financial assets held by a local government immediately before the cash advance debt is assumed would have to be realised ex ante in order to reduce this debt.
9 In arithmetical terms, the special grant for 2017 lowers the additional contribution rates by 0.1 percentage point.

to compulsory insurance contributions. Contribution receipts from members in employment rose by 4½%. At 6%, growth in pension contributions was even stronger, particularly after the large pension increase in mid-2016.[10] The increase in the central government grant (of €½ billion for the year as a whole, bringing it to a total of €14½ billion, or +3½%) had a positive impact on other revenue. The rise in the health fund's expenditure (which largely comprises transfers to the health insurance institutions), including the forwarded higher funds from central government and the special transfer, came to 4½%.

Only moderate deficit in SHI scheme likely for 2017 as a whole

For 2017 as a whole, the health fund looks likely to post a deficit. This is because, according to plans, the special transfer of €1½ billion to the health insurance institutions and payments of around €½ billion to the structural and innovation fund are to be drawn from the reserves. However, if contribution receipts from members in employment maintain their pace of growth in the remainder of the year, the deficit will probably be perceptibly lower than projected in November 2016 by the group of statutory health insurance estimators (-€2 billion). The statutory health insurance institutions' expenditure growth could accelerate over the course of 2017, primarily because of new benefits in the area of remedies and therapeutic appliances but also as a result of the expanded hospital benefits generally envisaged since last year. All in all, however, the expenditure growth projected by the group of statutory health insurance estimators (+5%) looks likely to have been overestimated again. The health insurance institutions would thus record a surplus for the year as a whole again, and their financial reserves would continue to grow. Yet large reserves make it difficult for legislators to resist calls from providers to increase spending.[11] If health insurance institutions with large reserves were to use their capacity to lower additional contribution rates, however, this would lighten the burden shouldered by contribution payers.

Public long-term care insurance scheme

Second Act to Strengthen Long-term Care leads to deficit in Q1

In the first quarter of 2017, the public long-term care insurance scheme's core area[12] posted a deficit of €½ billion. This €½ billion deterioration on the year was essentially due to the second Act to Strengthen Long-term Care *(Pflegestärkungsgesetz II),* which brought sweeping reforms to the scheme's range of benefits. On the revenue side, the contribution rate was raised by 0.2 percentage point to 2.55% (plus 0.25 percentage point for childless persons).[13] However, the additional revenue that this generated (€½ billion in the first quarter) was not sufficient to cover the substantial cost increases that these reforms entail.

Additional expenditure clearly exceeded revenue from contribution rate rise

The increase in total revenue was very sharp, at 12½%. After adjustment for the contribution rate rise, it went up by a still-sizeable 4%. However, growth in expenditure was even stronger, reaching 20%. The second Act to Strengthen Long-term Care has led to substantial additional spending in all areas. The very large expenditure item benefits in kind, which increased by 15½%, and the less significant item monetary benefits, which climbed by 37%, made similar-sized contributions to the overall rise.

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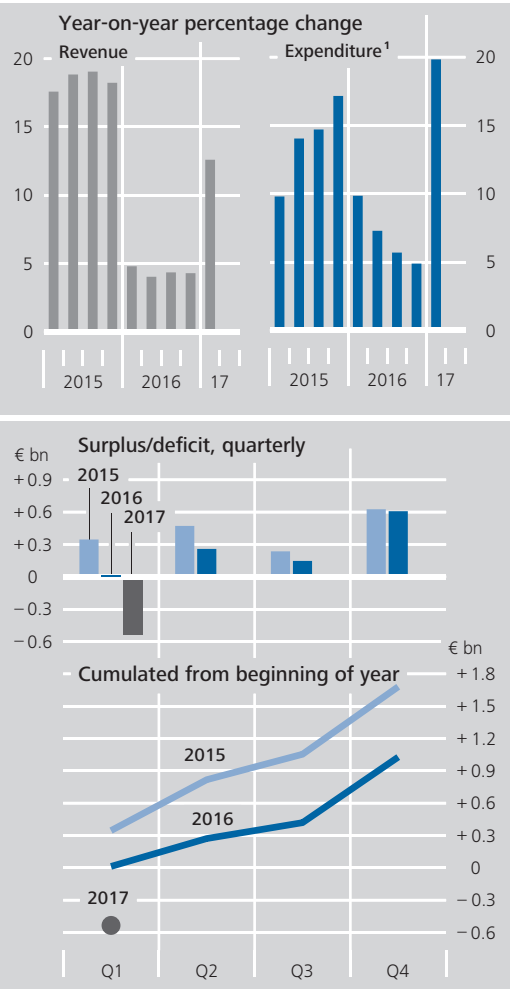
10 For information on the reasons for the large pension increase, see Deutsche Bundesbank, Public finances, Monthly Report, May 2016, p 72. For 2017 as a whole, the lower pension increase in mid-2017 means that slower growth of just over 4% in pension expenditure can be expected, and thus a weaker rise in pension contributions than in the first quarter. As adjustments to the additional contribution rates are passed on to pensioners with a two-month time lag (pursuant to section 247 of the Fifth Book of the Social Security Code), the impact of the average increase of 0.25 percentage point at the beginning of 2016 initially remained small but boosted the growth rate in the first quarter of 2017.

11 See also Deutsche Bundesbank, Public finances, Monthly Report, March 2017, pp 9-10.

12 The developments outlined here and below exclude the long-term care provident fund. Since 2015, the core area has taken the receipts from 0.1 percentage point of the contribution rate (€½ billion in the first quarter of 2017) and transferred them to this fund.

13 At the beginning of 2015, following an expansion of benefits, the contribution rate had already been raised by 0.3 percentage point.

Finances of the public long-term care insurance scheme*



Source: Federal Ministry of Health. * Preliminary quarterly results (PV45). **1** Including the transfers to the long-term care provident fund.
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Deficit likely for 2017 as a whole if expenditure growth does not abate

A sharp rise in spending on benefits had been expected in connection with the reforms to long-term care. The already substantial increase in benefits in kind at the beginning of the year differed from the situation following previous reforms, when the financial impact of newly introduced benefits was delayed. If the growth rates for spending on benefits remain similarly high in the remainder of the year, a perceptible deficit should be expected for the year as a whole, and the long-term care insurance institutions will have to draw on their operational reserves. Additional strong cost pressures are already on the horizon because of demographic change, and the public long-term care insurance scheme, with its pay-as-you-go model, is thus set to require additional contribution rate increases. From 2035 onwards, such rate increases are to be dampened for an interim period by dissolving the reserves of the long-term care provident fund that will have been built up by then.

Securities markets

Bond market

High net issuance in the German bond market

At €93.8 billion, gross issuance in the German bond market in May 2017 was marginally lower than the previous month's figure (€94.1 billion). After deducting the significantly lower redemptions and taking account of changes in issuers' holdings of their own debt securities, net sales of domestic debt securities came to €28.5 billion. The outstanding volume of foreign debt securities in Germany rose by €10.7 billion during the reporting month, which meant that the outstanding volume of debt instruments in the German market increased by €39.1 billion overall.

Increase in public sector capital market debt

In May, the public sector issued debt securities worth €16.6 billion net (following repayments of €9.0 billion in April). Central government was the main issuer of new securities (€14.7 billion), particularly in the medium and long-term segment. As well as issuing two-year Federal Treasury notes (Schätze) worth €5.1 billion and five-year Federal notes (Bobls) worth €3.1 billion, in net terms it also placed ten and 30-year Federal bonds (Bunds) on the market worth €4.3 billion and €2.6 billion respectively. The state governments issued their own bonds to the value of €1.9 billion in net terms.

Net issuance by credit institutions

Domestic credit institutions raised their capital market debt by €10.8 billion net in May, following net redemptions of €5.9 billion in April. Increases were seen primarily in the outstanding volume of debt securities issued by specialised credit institutions (€12.7 billion), which include, for example, public promotional banks.

Other bank debt securities which can be structured flexibly were also placed on the market, albeit on a much smaller scale (€0.5 billion). This contrasted with net redemptions of mortgage Pfandbriefe and public Pfandbriefe (€1.3 billion and €1.1 billion respectively).

Slight rise in enterprises' capital market debt

Domestic enterprises issued bonds with a net value of €1.1 billion in the reporting month, compared with slight net redemptions of €0.3 billion one month earlier. Viewed in net terms, the issuances were predominantly attributable to non-financial corporations, while other financial intermediaries redeemed bonds on balance.

Purchases of debt securities

Foreign investors were the main buyers of bonds in May (€21.3 billion). The Bundesbank also bought bonds (€12.8 billion), predominantly in the context of the asset purchase programmes. The bulk of these purchases were made up of domestic securities issued by public sector entities. Domestic banks added interest-bearing paper worth a net €3.9 billion to their portfolios, acquiring mainly foreign debt securities (€2.2 billion). Domestic non-banks purchased debt securities to the tune of €1.1 billion net, with the key focus being on foreign instruments.

Sales and purchases of debt securities

€ billion

Item	2016 May	2017 April	2017 May
Sales			
Domestic debt securities[1]	29.7	– 15.2	28.5
of which			
Bank debt securities	8.7	– 5.9	10.8
Public debt securities	17.0	– 9.0	16.6
Foreign debt securities[2]	2.7	2.6	10.7
Purchases			
Residents	16.7	3.5	17.8
Credit institutions[3]	– 6.1	– 5.7	3.9
Deutsche Bundesbank	18.1	12.8	12.8
Other sectors[4]	4.6	– 3.6	1.1
of which			
Domestic debt securities	0.7	– 7.3	– 6.3
Non-residents[2]	15.7	– 16.1	21.3
Total sales/purchases	32.4	– 12.6	39.1

1 Net sales at market values plus/minus changes in issuers' holdings of their own debt securities. **2** Transaction values. **3** Book values, statistically adjusted. **4** Residual.

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Equity market

Little net issuance in the German equity market

In the month under review, domestic enterprises issued new shares totalling €0.1 billion net in the German equity market. The volume of foreign equities in the German market rose by €3.2 billion over the same period. On balance, shares were purchased by domestic non-banks (€1.6 billion), foreign investors (€1.3 billion) and domestic credit institutions (€0.5 billion).

Mutual funds

In May, German mutual funds recorded net inflows of €5.7 billion (April: €6.5 billion). On balance, retail funds were the chief beneficiaries (€3.1 billion). Among the fund providers, mixed securities-based funds were the main issuers of new shares (€3.9 billion), but share-based funds also placed new shares on the market (€1.2 billion). Bond-based funds, on the other hand, recorded outflows of funds amounting to €1.1 billion. The outstanding volume of foreign mutual fund units sold in Germany rose by €0.4 billion in the reporting month. Domestic non-banks were the main buyers of mutual fund shares in May (€5.0 billion). On balance, the vast majority of these were domestic securities. Mutual fund shares were also acquired by foreign investors and German credit institutions, whose purchases came to a net €0.6 billion and €0.4 billion respectively.

German mutual funds record inflows

Balance of payments

Rise in current account surplus

Germany's current account recorded a surplus of €17.3 billion in May 2017, putting it €2.4 bil-

Major items of the balance of payments

€ billion

Item	2016r May	2017 April	2017 Mayp
I Current account	+ 17.9	+ 14.9	+ 17.3
1 Goods[1]	+ 23.4	+ 19.7	+ 24.4
Exports (fob)	96.4	99.6	110.9
Imports (fob)	73.0	79.9	86.5
Memo item			
Foreign trade[2]	+ 20.7	+ 18.1	+ 22.0
Exports (fob)	97.0	101.0	110.6
Imports (cif)	76.2	82.9	88.6
2 Services[3]	– 0.9	– 0.8	– 2.0
Receipts	20.8	20.0	21.2
Expenditure	21.6	20.7	23.2
3 Primary income	– 4.0	+ 4.2	– 3.6
Receipts	16.1	16.2	16.1
Expenditure	20.1	11.9	19.7
4 Secondary income	– 0.6	– 8.3	– 1.5
II Capital account	+ 0.3	– 0.3	– 0.0
III Financial account (increase: +)	+ 14.4	+ 18.9	+ 5.3
1 Direct investment	– 4.4	+ 5.4	+ 4.8
Domestic investment abroad	+ 1.1	+ 0.1	+ 9.2
Foreign investment in the reporting country	+ 5.5	– 5.2	+ 4.4
2 Portfolio investment	– 6.5	+ 16.0	– 11.4
Domestic investment in foreign securities	+ 8.0	+ 1.0	+ 11.8
Shares[4]	+ 4.0	– 5.4	+ 0.7
Investment fund shares[5]	+ 1.3	+ 3.8	+ 0.4
Long-term debt securities[6]	+ 5.6	+ 2.4	+ 11.5
Short-term debt securities[7]	– 2.9	+ 0.2	– 0.8
Foreign investment in domestic securities	+ 14.5	– 15.0	+ 23.2
Shares[4]	– 1.4	+ 2.4	+ 1.3
Investment fund shares	+ 0.2	– 1.3	+ 0.6
Long-term debt securities[6]	+ 14.1	– 12.3	+ 12.9
Short-term debt securities[7]	+ 1.5	– 3.8	+ 8.5
3 Financial derivatives[8]	+ 1.4	+ 1.5	+ 1.2
4 Other investment[9]	+ 23.1	– 4.0	+ 10.8
Monetary financial institutions[10]	– 13.9	– 34.6	– 6.3
of which			
Short-term	– 21.2	– 37.7	– 8.1
Enterprises and households[11]	+ 8.1	– 0.6	+ 1.3
General government	+ 4.9	– 3.4	+ 3.8
Bundesbank	+ 24.0	+ 34.6	+ 12.0
5 Reserve assets[12]	+ 0.8	– 0.0	– 0.0
IV Errors and omissions[13]	– 3.8	+ 4.3	– 12.0

1 Excluding freight and insurance costs of foreign trade. **2** Special trade according to the official foreign trade statistics (source: Federal Statistical Office). **3** Including freight and insurance costs of foreign trade. **4** Including participation certificates. **5** Including reinvestment of earnings. **6** Long-term: original maturity of more than one year or unlimited. **7** Short-term: original maturity of up to one year. **8** Balance of transactions arising from options and financial futures contracts as well as employee stock options. **9** Includes in particular loans and trade credits as well as currency and deposits. **10** Excluding the Bundesbank. **11** Includes the following sectors: financial corporations (excluding monetary financial institutions) as well as non-financial corporations, households and non-profit institutions serving households. **12** Excluding allocation of special drawing rights and excluding changes due to value adjustments. **13** Statistical errors and omissions, resulting from the difference between the balance on the financial account and the balances on the current account and the capital account.

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lion above the April level. This was attributable to an increase in the goods account surplus, which outweighed the expanded deficit in the invisible current transactions balance comprising services as well as primary and secondary income.

Higher goods account surplus

In May, the surplus on the goods account was up on the month by €4.7 billion to €24.4 billion, with exports rising more strongly than imports.

Widened deficit in invisible current transactions

The deficit on invisible current transactions widened by €2.3 billion to €7.1 billion, mainly on account of the reversal in the primary income balance from net receipts in April (€4.2 billion) to net expenditure (totalling €3.6 billion) in May. This was due, in particular, to higher dividend payments to non-residents. In addition, the deficit in the services account rose by €1.2 billion to €2.0 billion, not least as a result of the increase in travel expenditure. By contrast, the deficit in the secondary income account narrowed by €6.8 billion to €1.5 billion on the back of higher receipts and lower expenditure, but not by a large enough margin to substantially offset developments in the other two sub-accounts.

Portfolio investment sees net capital imports

In May, the international financial markets were caught between a basically stabilised world economy on the one hand and volatile political influences on the other. Against this backdrop, German cross-border portfolio investment generated net capital imports of €11.4 billion. This was above all a consequence of net purchases of domestic securities by non-resident investors (€23.2 billion), mostly in the form of – primarily public – bonds (€12.9 billion) and money market paper (€8.5 billion). Aside from this, they also acquired shares (€1.3 billion) and mutual fund shares (€0.6 billion). Domestic investors likewise increased their holdings of foreign securities (€11.8 billion), chiefly focussing on – mainly euro-denominated – bonds (€11.5 billion). They also engaged in purchases of shares (€0.7 billion) and mutual fund shares (€0.4 bil-

lion), while parting with money market paper (€0.8 billion) in the period under review.

Direct investment sees net capital exports

Unlike in portfolio investment, direct investment generated net capital exports to the tune of €4.8 billion in May. In large part, this was due to domestic firms making new investments abroad (€9.2 billion) through which they were able to bolster their equity capital (€5.6 billion) and increase lending to affiliated enterprises (€3.6 billion). With regard to credit transactions, loans granted by domestic parents to subsidiaries abroad played a prominent role. Foreign enterprises likewise injected funds into their affiliates in Germany (€4.4 billion), achieved exclusively by means of intra-group loans (€6.7 billion). Lending in the shape of financial loans from foreign subsidiaries to their German parent companies played a key role in this context. By contrast, foreign owners withdrew equity holdings in the amount of €2.3 billion.

Outflows in other investment

Other statistically recorded investment, which comprises both loans and trade credits (where these do not constitute direct investment) as well as bank deposits and other assets, yielded net capital exports totalling €10.8 billion in May. In this context, at €21.9 billion, German liabilities to the rest of the world fell more sharply than the respective claims (€11.2 billion). Both the banking system (€5.7 billion) and non-banks (€5.1 billion) generated outflows of funds. While transactions on the part of the monetary financial institutions (MFIs) led to net imports worth €6.3 billion, both general government and enterprises and individuals recorded net capital exports amounting to €3.8 billion and €1.3 billion respectively. The Bundesbank accounted for the vast majority of these exports (€12.0 billion), with its TARGET2 claims increasing by a total of €13.8 billion. Conversely, its liabilities went up only marginally by €1.5 billion.

Reserve assets

The Bundesbank's reserve assets – at transaction values – remained virtually unchanged in May.

The market for corporate bonds in the low-interest-rate environment

The market for bonds of non-financial corporations in the euro area has grown strongly in recent years amid falling yields. This article examines the causes of this development, looking in particular at the period since the start of 2011, which encompasses structural changes in the banking sector, the impact of the sovereign debt crisis in the euro area and the accompanying low-interest-rate environment. The analysis therefore focuses on a period subsequent to the height of the severe financial and economic crisis in which the market for bonds of non-financial corporations had stagnated and was thus untypical.

The market for bonds of non-financial corporations has been subject to strong supply-side and demand-side forces in recent years. On the supply side, enterprises active in the capital market are likely to have replaced bank loans with bonds as a consequence of the crisis years, thus increasing the bond supply. In addition, the more favourable financing conditions brought about by the low-interest-rate environment have boosted enterprises' issuance activity. At the same time, on the demand side, falling risk-free interest rates have led to avid interest among investors, who have increasingly shifted their investments to higher-yielding, risky instruments such as corporate bonds in their search for yield. Since June 2016, the Eurosystem's corporate sector purchase programme (CSPP) has also boosted demand for bonds of non-financial corporations.

Prices predominantly reflect the pressure of high demand, which is probably partly attributable to the above-average level of risk appetite seen of late. Despite the increase in supply, the yields on bonds of non-financial corporations as well as the spreads over risk-free bonds – which had both reached a relatively high level during the sovereign debt crisis – have fallen significantly on balance. The decline in yields is a reflection of the receding sovereign debt crisis, an increasingly favourable capital market setting and the announcement of the CSPP. In addition, through falling short-term interest rates and a flatter yield curve, accommodative monetary policy has made a key contribution to the falling returns on bonds, and thus to the search for yield.

Furthermore, the period since 2011 is of particular interest with regard to the functioning and stability of the market for corporate bonds. While yields have fallen on balance over the reporting period, they rose temporarily on several occasions. Three phases of increased yield fluctuations reflecting (abrupt) reassessments by investors can be identified. In addition, this study indicates that the importance of sector-specific information for the movement of corporate bond yields has diminished in recent years, which may have something to do with investors differentiating less between individual bonds. This points to a higher risk of the whole market being affected if there is a reassessment of corporate bonds in future. From a central banking perspective, it is essential that this risk be continuously monitored, particularly after the end of the CSPP.

Market trends

Strong growth in market for bonds of non-financial corporations

The market for bonds of non-financial corporations[1] in the euro area has seen strong growth in recent years. After an initial growth surge at the start of monetary union and a short period of stagnation in the wake of the severe economic crisis at the end of the last decade, growth once again accelerated following the financial and sovereign debt crisis when the availability of bank loans became limited in some member states and the financial markets subsequently experienced falling risk-free yields on benchmark paper. On the supply side, bonds presented enterprises with an alternative source of funding to bank loans in this environment, and enterprises used the more favourable financing conditions brought about by the low-interest-rate setting to increasingly raise funds by issuing debt securities. At the same time, on the demand side, non-financial corporate bonds, which mostly offered a positive yield due to their risk premium vis-à-vis risk-free government bonds, elicited avid interest among many (institutional) investors. According to the ECB's capital market statistics, from the start of 2011 to the end of the reporting period the outstanding volume of (euro-denominated) bonds issued by non-financial corporations domiciled in the euro area increased on balance by just under 50% to €1,020.4 billion.

Focus on bonds of non-financial corporations

The above figures do not include bonds issued via (foreign) financing subsidiaries. Many non-financial corporations do not tap the bond market directly, but via a financing subsidiary which then passes on the funds raised from the bond issuance to the parent company.[2] While securities issued by financing subsidiaries domiciled in the euro area are included in the ECB's capital market statistics, they are attributed there to financial enterprises. This makes it difficult to infer the issuance activity of non-financial corporations, which are the focus of this article. If a different classification were used and bonds issued by financing subsidiaries were also counted, the outstanding volume of non-financial corporte bonds in the reporting period would also have risen,[3] but market growth would have been significantly lower.

Financial bonds redeemed on balance since start of 2011

In contrast to non-financial corporate bonds, financial bonds have been redeemed in net terms since the start of 2011. The falling market-based borrowing by financial enterprises is attributable to significantly lower issuing activity by credit institutions, which are traditionally the most active enterprises in the bond market. Insurance companies and pension funds, by contrast, have stepped up their bond market borrowing. The change seen among banks is probably a reflection, among other things, of favourable financing via deposits, the unlimited access to collateralised central bank liquidity, ongoing balance sheet consolidation at many banks, and regulatory changes since the financial crisis.

Bond financing plays a rather modest role in euro area

By international standards, non-financial corporate bonds play a rather minor role as a financing and investment vehicle in the euro area, despite market growth. This can be seen in the market volume of these bonds in relation to gross domestic product (GDP), which stood at 11% in the euro area at the end of 2016 and was thus significantly lower than, say, in the United Kingdom or the United States (20% and 31%, respectively),[4] where corporate bonds have a long-standing tradition as an important source of corporate financing.

High issuance activity by French enterprises in euro area

The regional breakdown within the euro area shows that since the start of 2011, French enterprises, in particular, have issued bonds on a large scale in net terms (see the table on

1 Non-financial corporate bonds are bonds whose issuer is a private corporation that belongs neither to the banking sector nor to the insurance sector and is not a financial enterprise. Non-financial corporate bonds are therefore typically issued by enterprises in the real economy.
2 Possible advantages of issuing bonds via a foreign financing subsidiary include a lower tax burden or lower regulatory requirements of the foreign capital market.
3 According to data of the Bank for International Settlements (BIS), between the beginning of 2011 and March 2017 the outstanding volume of euro-denominated bonds of non-financial corporations domiciled in the euro area has increased by just under 45% under this different classification (ultimate borrower data).
4 Source: BIS.

page 19). In France, the bond market traditionally plays an important role for enterprises. Italian, German and – starting at a relative low level – Spanish enterprises have also made a considerable contribution to (absolute) market growth. Dutch enterprises have expanded their net bond issuance only moderately.

Borrowers' notes an established alternative financing instrument for German enterprises

The figures in the adjacent table do not include borrowers' notes, which are an established alternative financing instrument for German enterprises, in particular. Borrowers' notes are geared to a relatively small group of selected investors such as banks and insurance companies. They thus assume an intermediary position between bonds and syndicated loans, implying lower costs for enterprises than issuing a bond. While bond financing usually entails medium to large volumes, borrowers' notes are more suitable for small to medium financing needs. According to market observers, the supply of capital on the borrowers' note market has grown recently. In the current market environment, it would appear that access to this market is also available to companies that had not previously tapped into it. Measured in relation to the market size, the rather moderate growth in the importance of bond financing for German companies is probably at least partly attributable to the intensified use of borrowers' notes.

Market dominated by long-term instruments …

In terms of their maturity, the overwhelming bulk of the outstanding volume of corporate bonds over the entire reporting period were long-term instruments with an original maturity of more than one year. As enterprises have recently issued relatively few money market instruments while the issuance of long-term bonds has risen, this has further boosted the dominance of long-term bonds. At last count, long-term bonds made up 92% of the outstanding volume of debt securities.

… and investment-grade bonds

Broken down by qualitative criteria, roughly three-quarters of outstanding bonds have an investment-grade rating (see the chart on page 20). However, the outstanding volume of non-investment-grade bonds has seen above-average growth in recent years. Since the start of 2011, the share of high-yield bonds in relation to all outstanding bonds has risen to just under one-fifth. The share of bonds not assessed by rating agencies has also gone up.

Non-financial corporate bonds outstanding*

Region	Outstanding bonds in the market (€ bn)	Percentage share of total euro-area market	Market growth since end-2010 (€ bn)
Germany	146.6	14	28.7
France	489.1	48	204.5
Italy	117.9	12	34.1
Spain	32.6	3	19.1
Netherlands	59.9	6	7.0
Euro area	1,020.4	100	337.3

Source: ECB. * Denominated in euro. As at May 2017.
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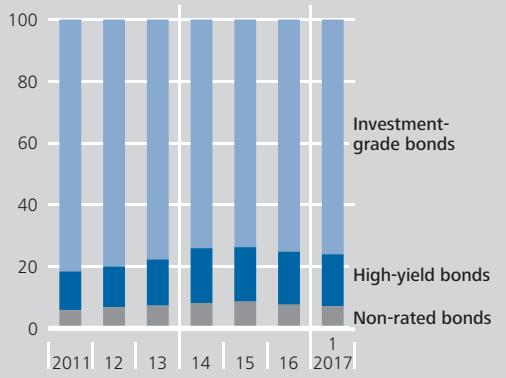
Increasing significance of non-investment-grade bonds

A contributing factor to the higher share of non-investment-grade bonds could be that in recent years – also in the light of the poorer ratings assigned to some euro-area member states – more outstanding bonds have been downgraded than upgraded. Moreover, data from the private data provider Dealogic show that issuance in the bond market by non-investment-grade enterprises has been above average. For example, since 2011, high-yield bonds have accounted for 26% of all bond issuance (net), which is considerably more than their 17% share (based on latest figures) of all outstanding bonds (see the chart on page 20). This suggests that the attractiveness of bond financing has risen particularly strongly for enterprises with a lower credit rating in comparison to alternative financing solutions. French enterprises in particular, but also those in Germany and – to a lesser extent – Italy and Spain, have contributed to the lively issuance of high-yield bonds.

The largest purchasers of non-financial corporate bonds are institutional investors, namely in-

Ratings of non-financial corporate bonds*

Share of total outstanding volume in %



Source: Dealogic. * Enterprises domiciled in the euro area. 1 As at April 2017.
Deutsche Bundesbank

Insurance companies and other financial intermediaries constitute the key investors

surance companies (including pension funds) and other financial intermediaries (OFIs) such as investment funds, which hold European corporate bonds to a similar extent.[5] These two investor groups have significantly expanded their exposure in recent years. The increase in these holdings is at least partly related to portfolio reallocations involving a shift away from debt instruments of monetary financial institutions. This is likely to reflect, on the one hand, supply-side factors, such as the efforts of many banks to consolidate their balance sheets. On the other hand, demand-related effects are also likely to have played a role, with institutional investors also parting with covered bonds, selling them to the Eurosystem under the covered bond purchase programme.[6] The freed-up funds have subsequently been invested in bonds of non-financial corporations instead.

Credit institutions, households and central banks as other investors

Besides insurance companies and OFIs, credit institutions (excluding central banks) and households (including non-profit institutions serving households) also hold a significant volume of corporate bonds, although they have markedly reduced their holdings in recent years. The Eurosystem also became a major investor in corporate bonds with the launch of its corporate bond purchases in June 2016 under the CSPP (see the box on pages 22 to 24).

Important causes of market growth

Substitution of bank loans boosts supply of corporate bonds

Increased importance of financing via retained earnings

Results of the financial accounts and the national accounts show that earnings retained by non-financial corporations in the euro area swiftly recovered following the financial and sovereign debt crisis. In this environment, financing via retained earnings (internal financing) grew in relevance compared, say, to financing via bank loans and bonds (external financing). In terms of external financing, loans from non-banks, loans from abroad, and equity issuance dominated in the crisis years, while bank loans were scaled back on balance. Enterprises also increasingly turned to bond financing. This indicates that enterprises with capital market access partially substituted bank loans with debt instruments, thus supporting a higher volume of corporate bonds on the supply side.

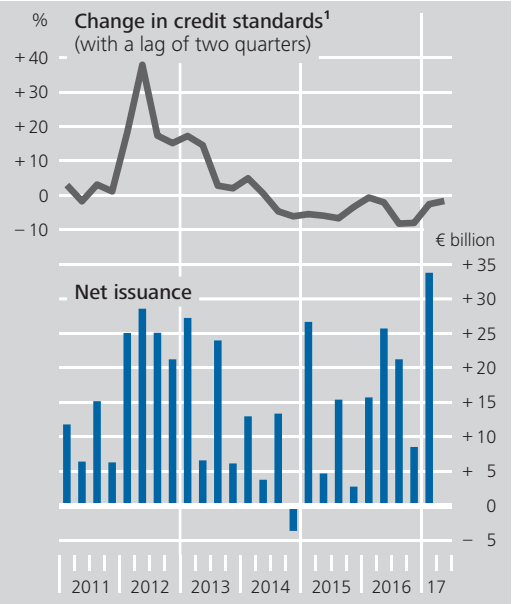
Higher supply of corporate bonds through substitution of bank loans

In the years dominated by the sovereign debt crisis, an important reason for such a substitution is likely to have been that bank loans were available on a reduced scale or at less favourable conditions.[7] In periphery countries with closely intertwined public and banking sectors, such as Italy and Spain, banks' financing costs

5 Source: The ECB's Securities Holdings Statistics by Sector.
6 The reporting period chosen here, which started at the beginning of 2011, covers the CBPP2, which was launched in November 2011 with a nominal purchase volume of €16.4 billion, and the CBPP3, which was launched in October 2014 without a stipulated overall purchase volume and under which the Eurosystem has thus far purchased covered bonds totalling €223.9 billion.
7 This conclusion is consistent with a study by Beschwitz and Howells. Their results indicate that enterprises issued more bonds after the financial crisis when their access to bank loans worsened. See B von Beschwitz and CT Howells (2016), Are euro area corporate bond markets irrelevant? The effect of bond market access on investment, International Finance Discussion Papers 1176, Board of Governors of the Federal Reserve System. Some studies show that the possibility of substituting bank loans through the issuance of corporate bonds was at least partially able to mitigate the negative effect of loan supply shocks on the real economy. See F de Fiore and H Uhlig (2015), Corporate debt structure and the financial crisis, Journal of Money, Credit and Banking, Vol 47 (8), 1571-1598.

increased significantly, dampening the loan supply in these countries. Data on bank loan standards collected by the European System of Central Banks (ESCB) via the Bank Lending Survey (BLS) confirm that these standards did worsen markedly at the time for large corporations – for which bond financing is conceivable. Assuming that credit standards impact net issuance of corporate bonds with a half-year delay, it can be shown that there was a close positive correlation between tightened credit standards and (net) issuance of corporate bonds from 2011 to 2014 (see the adjacent chart). In this period, enterprises increased the supply of bonds, which were evidently a relatively attractive source of funds despite the fact that market-based financing costs had also risen. Once credit standards then improved in a calmer financial market setting, the motivation for substituting bank loans with bonds is likely to have lost relevance. Bond issuance nevertheless continued to increase as of 2014, probably as a result, in particular, of the falling risk-free interest rates, the increasing search for yield among investors, and, more recently, also the CSPP (see pages 21 to 26).

Change in credit standards for large enterprises* and net issuance of corporate bonds



* According to the Bank Lending Survey. **1** In the Bank Lending Survey, the net percentage is defined as the difference between the sum of the percentages for "tightened considerably" and "tightened somewhat", and the sum of the percentages for "eased somewhat" and "eased considerably".

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Credit volume stabilised following decline in crisis years

Developments in bank lending volume support this presumption. While the lending volume to non-financial corporations in the euro area was scaled back between 2011 and 2014, in particular, and, after a period of stabilisation, began to nudge upwards again only recently, the volume of outstanding corporate bonds has grown continuously. In relative terms, the significance of market-based debt financing via corporate bonds has therefore increased markedly.

Relative increase in importance of bond financing in individual euro-area countries

The increased importance of bond financing in relation to financing via bank loans can be shown not only for the euro area as a whole, but also for the four largest euro-area countries. It can be seen above all for enterprises in France, but also for those in Germany, Italy, and, to a lesser extent, Spain. The substitution of bank loans with bonds is likely to have played a role for firms in periphery countries, in particular, where supply-side conditions for bank loans have tightened. For French and German enterprises, by contrast, which on balance have expanded their volume of bank loans, the main driving factor is likely to have been the more favourable financing conditions on the corporate bond market compared with loan interest rates.

Impact of low-interest-rate environment and CSPP

Sharp drop in risk-free interest rates …

With the sovereign debt crisis receding into the background and a very accommodative monetary policy in place not just in the euro area but worldwide, yields on European government debt securities have fallen markedly in recent years. Yields on ten-year Federal bonds (Bunds), which had already fallen to just under 2% at the end of 2013, saw an accelerated fall starting in 2014 (see the chart on page 26), dipping to historical lows on several occasions and even

The corporate bond purchase programme

On 10 March 2016, the Governing Council of the European Central Bank (ECB) adopted the corporate sector purchase programme (CSPP). The CSPP, under which corporate bonds of issuers domiciled in the euro area have been bought since 8 June 2016, therefore expanded the existing asset purchase programme which comprised the public sector purchase programme (PSPP), the covered bond purchase programme 3 (CBPP3) and the asset-backed securities purchase programme (ABSPP). The objective of the CSPP is to improve the financing conditions of the real economy and provide additional monetary accommodation, thus contributing to an inflation rate of below, but close to, 2% over the medium term.

Six national central banks make the purchases on behalf of the Eurosystem. Each national central bank is responsible, with no overlap, for market segments that are defined by region according to the location of the respective issuer's domicile (see the table on page 23). Accordingly, the Bundesbank purchases bonds of German enterprises and of enterprises domiciled in Germany as well as bonds of their Dutch financing subsidiaries. As such securities are generally risky, the central banks take risks onto their balance sheets when they purchase these bonds. Both the income as well as potential losses are distributed among all of the Eurosystem national central banks in proportion to their respective ECB capital shares.

Quality criteria for the purchase programme were defined which securities must meet to qualify for purchase. The bonds have to be eligible as collateral for monetary policy operations, have minimum ratings from external credit rating agencies that are accepted by the Eurosystem and be denominated in euro. They must also satisfy further criteria such as minimum requirements for the remaining maturity. The criteria are checked before the purchases are made and apply to bonds purchased by the Bundesbank and by all other Eurosystem central banks which purchase corporate bonds under the CSPP. Additional precautions such as issue share limits are designed to mitigate the risks associated with the CSPP. Specifically, under the CSPP the Eurosystem purchases only fixed-income securities with an investment-grade rating,[1] with a remaining maturity of more than six months and less than 31 years, which are denominated in euro, whose yield at the time of purchase is above the deposit facility rate and which were issued by an enterprise domiciled in the euro area. Not more than 70% of any issue may be purchased. The buyable universe includes bonds of issuers domiciled in the euro area, even if these are subsidiaries of enterprises that are domiciled outside the euro area. On the other hand, bank bonds and bonds issued by enterprises whose parent company is a bank are excluded. Bonds issued by investment companies are likewise not eligible for the programme.[2] Under the CSPP the Eurosystem is active in both the primary and the secondary market. However, as with the PSPP, participation in primary market issues of public enterprises is not allowed, as purchases of this kind come under the prohibition of monetary financing pursuant to Article 123

1 First-best rating of BBB- or better.
2 This includes, for example, resolution agencies, also known as "bad banks".

of the Treaty on the Functioning of the European Union.[3]

On 20 July 2017, the Eurosystem's holdings under the CSPP reached a book value of €102.0 billion. Purchases by the Bundesbank together accounted for around 24% of this amount. The actual purchase volume was somewhat higher, however, as redemptions during the life of the programme are reinvested in full. Holdings saw a fairly steady increase, rising by an average of around €7 billion per month. Seasonal fluctuations in market liquidity, especially over the summer months and towards the end of the year, were taken into account when making purchases, however. This is because purchases are to be implemented with minimal market impact.

Up to 20 July 2017, the Eurosystem had purchased bonds worth €15.3 billion in the primary market. The Bundesbank accounted for €4.0 billion of that amount. The Bank's share of primary market purchases was 16%, which was in line with the share for the Eurosystem as a whole. Seasonal fluctuations in enterprises' issuance behaviour are likewise taken into account when making purchases. The first months of each year and the months following the summer break are considered to be the most active in enterprises' issuance calendar. In addition, enterprises are subject to bond issuance restrictions in connection with the announcement of their quarterly results. Thus, the share of corporate bonds purchased in the primary market as a percentage of the overall volume of CSPP purchases during the summer months of 2016 was between 4% and 8%, but in September 2016 stood at 20%.

In order to minimise the potential negative liquidity effects, the Bundesbank as a general principle makes holdings it has purchased under the monetary policy programmes available for securities lending. The Bundesbank has been a participant in Clearstream Banking Luxembourg's (CBL) Automated Securities Lending (ASL) programme since the beginning of April 2015. The ASL programme includes a fails lending service, which ensures that borrowers' trades do not fail. Since 18 July 2016, CSPP holdings have been available through both ASL and CBL's strategic lending facility ASLplus. ASLplus allows market participants to borrow these securities at a minimum spread above the current rate for general collateral. Lending transactions concluded under ASLplus are always cash-neutral, as collateral is only accepted in the form of securities. The maximum maturity of a securities lending transaction is 35 days.[4]

Distribution of market segments among national central banks

National central bank	Market segment
Banque Nationale de Belgique	BE, CY, GR, LU, MT, PT, NL, SI and SK
Deutsche Bundesbank	DE and NL[1]
Banco de España	ES and NL[1]
Suomen Pankki/ Finlands Bank	AT, EE, FI, IE, LT, LV
Banque de France	FR
Banca d'Italia	IT and NL[1]

1 Bonds issued by Dutch issuers that are financing subsidiaries of enterprises domiciled in Germany, Spain and Italy.

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3 In this context, public undertakings are defined in accordance with Article 8 of Council Regulation (EC) No 3603/93 of 13 December 1993, under which all undertakings are deemed to be public in which the state, including regional and local authorities, may directly or indirectly exercise a dominant influence. Such influence may be wielded through ownership, financial participation or legal provisions. In addition to the ban on primary market activity, other provisions of the PSPP also apply such as a reduced maximum issue share limit of 33%.

4 The list of purchased corporate bonds and of corporate bonds made available through the lending facility may be found at https://www.bundesbank.de/Redaktion/EN/Dossier/Tasks/outright_transactions.html?https=1&docId=335702&notFirst=true under "Securities available via lending" on the Bundesbank's website.

Purchases should be as market-neutral as possible in order to minimise monetary policy-induced distortions. The purchases therefore take their bearings from both the liquidity of individual bonds in the secondary market and the structure of the market segment assigned to the Bundesbank. Here, the automotive sector makes up the largest share of the overall permissible market; this is reflected in the Bank's CSPP portfolio. The next-largest sectors comprise the enterprises of the chemical industry and utilities. The three main sectors have a combined market share of around 60% of the permissible market as a whole.

As CSPP holdings grow, so too does the importance of the Eurosystem as creditor. One important issue in this respect is the Eurosystem's behaviour with regard to creditors' meetings.[5] If the Eurosystem – in its role as creditor – were to exercise influence on a firm's business policy, this would violate the principle of neutrality in implementing monetary policy. The Eurosystem is therefore at pains to remain as neutral as possible in such cases.

5 At a creditors' meetings the issuer solicits the creditors' consent to amend key terms of a bond issue.

falling into negative territory for a while. In the second quarter of 2015 ("Bund tantrum") and in the second half of 2016 there were certain countermovements, but ultimately they did not last. Yields also rose again slightly towards the end of the reporting period. At roughly 0.4%, they are again above their record lows, but remain extraordinarily low by historical standards.

… impacts supply and demand in corporate bond market

In the market for corporate bonds the decline in yields is likely to have influenced both supply-side and demand-side factors. In order to check the extent to which the falling risk-free yields were accompanied by an increasing search for yield and thus an increase in demand, we examine the development of investors' risk appetite in the following. To this end, a principal component analysis is used to calculate an indicator that extracts a common time-variable determinant from several individual indicators presumed to be relevant for estimating risk.[8] This common factor can then be interpreted as a measure of risk aversion, which is set to the value of zero for the average of the reporting period – a period largely characterised by the financial and sovereign debt crisis as well as the low-interest-rate policy.

Increased risk appetite indicates greater demand for corporate bonds

According to the indicator, in 2011 and 2012, in an environment dominated by the sovereign debt crisis, investors demonstrated very high risk aversion, though this subsequently subsided (see the chart on page 26). Since the fourth quarter of 2013 there has been below-average risk aversion (above-average risk appe-

8 For more on the methodology of the principal component analysis, see the box in Deutsche Bundesbank, Constructing an aggregate risk appetite indicator with a principal component analysis, Monthly Report, August 2008, pp 38-39. The following individual indicators were factored into the analysis: the implied volatility of European shares (VSTOXX), the time-varying correlation between the returns on long-term Bunds and the Euro Stoxx, the spreads of European BBB-rated corporate bonds, CDS spreads of European investment-grade enterprises (iTraxx Europe) and CDS spreads of European high-yield enterprises (iTraxx Europe Crossover).

tite) for the vast majority of the time, with risk aversion exhibiting mostly sideways movements during this period. The development of risk appetite measured in this way indicates that the search for yield may have played an important role for investors since roughly the fourth quarter of 2013. Together with the falling risk-free interest rates, this points to stronger demand for risky investments that offer a higher return than safe government bonds. In the case of corporate bonds, this additional demand is likely to be attributable, above all, to key institutional investors such as insurance companies and investment funds.

Further indications of higher risk appetite

The finding of greater risk appetite is consistent with the market development described on pages 18 to 20. For example, the comparatively large proportion of high-yield instruments among all outstanding bonds since 2014 points to a higher risk acceptance among investors. A further indication of this is the increasing willingness in recent years to invest in long-term bonds, which imply a higher interest rate risk than bonds with a short maturity.

Favourable financing conditions boost supply of corporate bonds

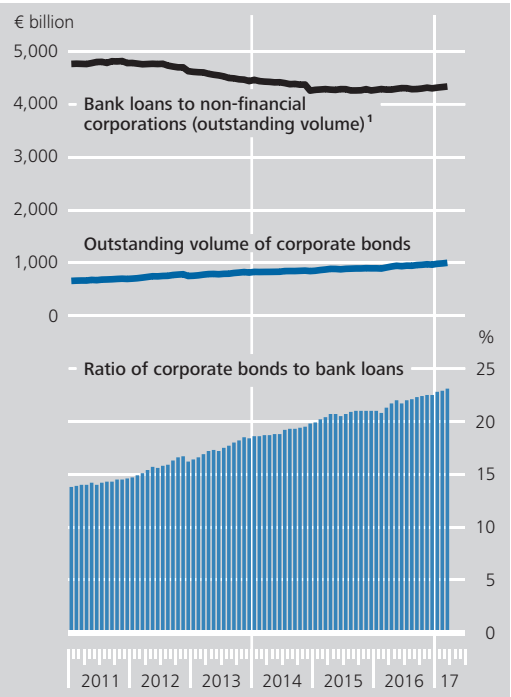
By also leading to lower market-based financing conditions for enterprises (see page 26) and thus more favourable conditions for investment, the falling risk-free interest rates are also likely to have had a positive impact on the supply of corporate bonds. Following the height of the sovereign debt crisis, corporate mergers and acquisitions again picked up as of 2014 in a capital market environment that was once again more favourable on the whole. In this context, there was advancing consolidation both within industries and across sectors. The financing needs associated with this were met partially through the issuance of bonds.

CSPP creates additional scope for bond issuance …

Issuing activity in the market for corporate bonds was also influenced by the CSPP (see the box on pages 22 to 24). Since 8 June 2016, the Eurosystem has purchased up to 70% of the issue volume of eligible corporate bonds. The programme, which is meant to positively influence economic activity and inflation developments, contributed to falling yields and a decline in risk premiums in the corporate bond market, particularly immediately following its announcement on 10 March 2016. Above all, however, it created additional scope for the issuance of bonds. In any case, it suggests that the subsequent rise in net issuance of non-financial corporate bonds is at least partly attributable to the CSPP.

Debt financing of euro-area non-financial corporations

End-of-month levels



Source: ECB and Bundesbank calculations. **1** Adjusted for loan sales and securitisation.
Deutsche Bundesbank

… but comes with side effects

Admittedly, the CSPP was implemented in the knowledge that there could possibly be undesirable side effects, one of which – irrespective of the currently relatively favourable bank lending terms – is the risk of a bias in favour of companies that are active on the capital markets. This is because, for a firm's bonds to be eligible for purchase under the CSPP, the firm has to be rated by an external credit assessment institution (ECAI) that is licensed to operate in the euro area. For large firms which are already active in the international capital markets, this is generally not an additional burden.

Risk-free rates and risk aversion*

Daily data

* Calculated using a principal component analysis on the basis of the following individual indicators: the implied volatility of European shares (VSTOXX), the time-varying correlation between the returns on long-term Bunds and the Euro Stoxx, the yield spreads of European BBB-rated corporate bonds, and the CDS spreads of European enterprises (iTraxx Europe and iTraxx Europe Crossover).

Deutsche Bundesbank

However, for smaller and medium-sized enterprises which need lower funding volumes, the considerable costs of such an assessment are often not worthwhile. They therefore obtain most of their funding through bank loans and less in the capital markets. The Eurosystem thus influences firms' funding opportunities in this manner more than it does using conventional monetary policy instruments. As a creditor to firms, it also takes on a new role when changes to material bond issuing terms are to be adopted at creditors' meetings. This role can be at loggerheads with the principle that monetary policy should retain a maximum of neutrality, ie it should not impact on a firm's business policy. In addition, there are risks to the Eurosystem's balance sheet which, despite the envisaged risk mitigation measures, are greater than those involved in typical refinancing operations with credit institutions. Potential price distortions in the corporate bond markets are yet another undesirable effect, wherever central bank purchases do not affect all bond prices equally and the prices that materialise no longer adequately reflect the risk inherent in the bonds.

Price aspects of market trends

The sale and acquisition of corporate bonds described above are closely intertwined with other market parameters such as yields, spreads and market liquidity. An estimate based on a regression analysis will therefore be performed to study the extent to which relevant financial market variables contribute to explaining yield movements. This study, which centres on the average change in yields over the reporting period, is subsequently augmented by a variance analysis which examines how strongly yields fluctuated over time and what these fluctuations were attributable to.

Movements in yields, spreads and market liquidity

Corporate bond yields down sharply until early 2015, followed by sideways movements

Non-financial and financial corporate bond yields in the euro area fell sharply in the reporting period, mainly between autumn 2011 and spring 2015. Measured in terms of the Barclays broad indices, it was particularly yields on high-yield bonds, which had risen sharply in the crisis period, which went back down. However, yields on investment-grade bonds, having been as high as over 5% at the end of 2011, have likewise dipped perceptibly (see the chart on page 27).[9] Factoring in the effects of the CSPP, among other things, yields have changed very little on balance since the spring of 2015; at last report, they stood at around 3.4% (high-yield bonds) and 0.8% (investment-grade bonds). These are exceptionally low yields by historical standards.

9 The average residual maturity of bonds listed in both Barclays indices is between four and six years.

Narrowing of spreads indicates relatively high valuation

However, since yields on Bunds have likewise been falling and were negative up to the six-year segment at the end of the reporting period, the yield spreads of non-financial and financial corporate bonds over Bunds of the same maturity dropped less sharply than corporate bond yields. However, these spreads have also dipped perceptibly from their high levels of 2011, likewise particularly up until the spring of 2015. They currently stand at around 390 basis points for high-yield bonds and 95 basis points for investment-grade bonds. Along with the diminishing spreads for government bonds, the spreads of financial corporate bonds diminished more strongly than those of non-financial corporate bonds, leading to a perceptible narrowing of the yield gap between the two sectors. Both the spreads on investment-grade bonds and those on high-yield bonds were, at last report, below their respective five-year averages – a sign of relatively high valuation. All the same, the spreads are still above their respective early-2007, pre-crisis levels, which at the time had narrowed comparatively sharply in the light of much higher risk-free interest rates.

Comparison with a model-theoretical replicating portfolio

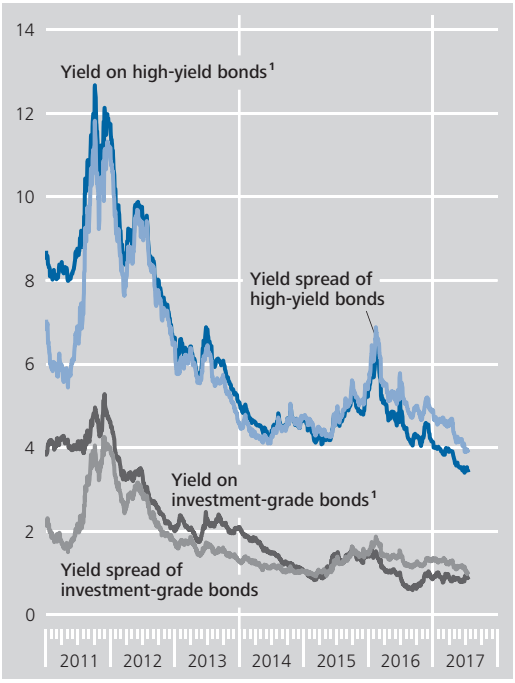
Another way to find out more about the relative valuation level of corporate bonds is to compare their valuation trajectory with that of a model-theoretical replicating portfolio composed of the enterprise's shares and risk-free bonds.[10] Although such a comparison should be interpreted with caution because, among other things, the uncertainty of the model used needs to be factored in and some simplifying assumptions are made for calculating the replicating portfolio,[11] even despite this proviso, the relatively strong movements of the corporate bond valuations compared to a replicating portfolio (based on the Merton model) indicate that the relative valuation is more on the high side.

High valuation has risks

Given a high valuation, it is impossible to rule out the fact that particularly cautious private investors could be crowded out of the market if they no longer find such bonds attractive because of the low level of yields. On the whole, this crowding-out manifests itself in a growing appetite for risk on the part of the remaining market participants. Market liquidity, too, ie the simplicity of trading without major price volatility, could tend to have been impaired by the crowding-out of some private investors. This could diminish the efficiency of capital allocation if less-relevant information were to be factored into prices as a result.

European corporate bonds' yields and yield spreads*

In % or percentage points, daily data



Source: Thomson Reuters Datastream and Bundesbank calculations. * Yield spreads against Bunds with the same maturities. 1 Indices of Barclays in each case.
Deutsche Bundesbank

10 Such a replicating portfolio can be identified under the assumptions of the simple Merton (1974) model. In this model framework, the expected yield on a corporate bond corresponds to the safe yield, plus the equity risk premium weighted with the so-called hedge ratio. The hedge ratio is the sensitivity of the enterprise's debt to equity. For more on the relationship between corporate bonds, equities and safe bonds in the Merton model framework, see N Dötz, Decomposition of country-specific corporate bond spreads, Deutsche Bundesbank Discussion Paper No 37/2014.

11 The model uncertainty results, for instance, from the (unrealistic) assumption that the markets for safe bonds, corporate bonds and equities are perfectly integrated. In addition, the Merton model only looks at the credit risk on a corporate bond, neglecting other empirically relevant factors such as liquidity premiums.

Bid-ask spreads of euro-area non-financial corporate bonds with a BBB rating*

Percentage points, daily data

Source: Bloomberg. * Mean bid-ask spreads of yields on senior non-financial corporate bonds with a BBB rating in the euro area contained in the BofA Merrill Lynch BBB Euro Corporate Index.
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Corporate bond bid-ask spreads declining

Corporate bond bid-ask spreads have been moving largely in sync with yield spreads (see the chart above). Bid-ask spreads are commonly interpreted as a measure of trading costs and an indicator of market liquidity. Seen in those terms, corporate bonds issued by euro-area enterprises appear considerably more liquid than in mid-2011, albeit somewhat less liquid than prior to the outbreak of the financial crisis in 2008.

Impact of asset purchase programmes

However, when interpreting bid-ask spreads by historical standards, one must take into account the Eurosystem's recent asset purchase programmes, which have made up a substantial portion of the demand for corporate bonds – directly via the CSPP and indirectly via investors' portfolio shifts from safe government bonds to higher-risk instruments. The Eurosystem's demand is being driven in particular by the desire to enlarge its balance sheet and is therefore more price-inelastic than demand on the part of private investors. This could have potentially contributed to compressing bid-ask spreads in those cases where dealers, confident that they could sell instruments to the Eurosystem, took them into their portfolios (temporarily) even at relatively narrow spreads. Such behaviour is plausible from an economic point of view because the asset purchase programmes mitigate the dealers' resale risk. What this implies is that the currently relatively low bid-ask spreads could be painting a comparatively positive picture of market liquidity which, however, might vanish quickly at the end of the asset purchase programmes and under market stress.[12] Thus, for instance, there are indications that specialised bond dealers, known as "market makers", cut back their trading activities following the financial crisis. Market liquidity could, in the process, have shifted away from relatively illiquid corporate bonds to liquid instruments such as benchmark sovereign bonds.[13]

Determinants of yield movements

Regression of corporate bond yields

Corporate bond yields and relevant financial market variables (risk-free interest, interest rate uncertainty, European equity prices, sovereign CDS premiums, liquidity premiums, CSPP announcement) share a certain relationship with one another. This relationship can be captured statistically by means of a regression. The procedure therefore provides information on important reasons for yield movements over the reporting period. The yields on investment-grade bonds and high-yield bonds are estimated separately. For risk-free interest rates, two alternative measures which are a standard feature in the literature are used: EONIA swap rates and Bund yields.[14] Both the short-term two-year interest rate and the slope of the yield curve are incorporated into the regression.

12 See Bank for International Settlements, Annual Report 2015, pp 37-38.
13 See Committee on the Global Financial System, 2016, Fixed income market liquidity, CGFS Paper No 55, p 9.
14 Bund yields and EONIA swap rates generally move in sync. In the light of very strong demand for Bunds, the yields on this instrument, especially in the short-term maturity category, were recently lower than EONIA swap rates in the same maturity category. For detailed information on measuring the risk-free interest rate in the euro area, see European Central Bank (2014), Euro area risk-free interest rates: measurement issues, recent developments and relevance to monetary policy, Monthly Bulletin, July 2014, pp 63-77.

Falling yields explained by drop in sovereign CDS premiums, improved capital market setting and falling risk-free interest rates

For both investment-grade bonds and high-yield bonds, the results of the estimations show that the falling yields can be explained in key measure by the following important factors: the diminishing effects of the sovereign debt crisis (falling sovereign CDS premiums), an increasingly favourable capital market environment (rising equity prices and falling interest rate uncertainty) and the announcement of the CSPP. For instance, the announcement of the CSPP in March 2016 was enough to dampen yields by an estimated 7 to 9 basis points (see the adjacent table).[15] The impact of the risk-free interest rate on yields was particularly strong. This applies to both measures of the risk-free interest rate: EONIA swap rates (estimation 1 in the adjacent table) and Bund yields (estimation 2). In this context, the overall impact encompasses the significant positive effects exerted, separately, by the short-term interest rate and the slope of the yield curve.

Results of estimations of yields on European investment-grade corporate bonds[o]

	Estimation 1		Estimation 2	
Explanatory variable	Coeffi-cient	p-value	Coeffi-cient	p-value
C	– 0.001	0.21	– 0.001	0.37
d(EONIA_2y)	0.713*	0.00	–	–
d(Slope_EONIA)	0.312*	0.00	–	–
d(Bund_2y)	–	–	0.823*	0.00
d(Slope_Bund)	–	–	0.382*	0.00
dlog(Euro_Stoxx)	– 0.186*	0.01	– 0.399*	0.00
d(Sovereign_CDS)	0.061*	0.01	0.149*	0.00
CSPP	– 0.091*	0.00	– 0.075*	0.00
d(Vola_Bund)	0.013*	0.00	0.008*	0.00
d(Spread_Agencies)	0.172*	0.00	0.137*	0.00
Adjusted R^2	0.39		0.52	

o The regression (estimated in differences) is based on daily data from 3 January 2011 to 7 July 2017. The dependent variable, the corporate bond yield, is measured in a broad index (Barclays Euro-Aggregate Corporates). EONIA_2y and Bund_2y are the two-year EONIA swap rates and 2-year Bund yields, respectively. Slope_EONIA and Slope_Bund denote the respective slope of the yield curve, calculated as the ten-year interest rate minus the two-year interest rate. European stock prices and interest uncertainty are measured, respectively, by the Euro Stoxx (Euro_Stoxx) and the implied volatility of options on the Bund future (Vola_Bund). A GDP-weighted value of CDS premiums for key euro-area member states (Sovereign_CDS) functions as a measure of sovereign CDS premiums. The announcement of the CSPP is captured through a dummy variable (CSPP). The liquidity premium is measured as the yield spread between AAA bonds issued by European public sector authorities (Agencies) and Bunds (Spread_Agencies). * Significant at the 5% level.

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Contribution by expansionary monetary policy

According to the results, the expansionary monetary policy contributed to more favourable market-based funding conditions through two channels: falling short-term interest rates and a flatter yield curve for all observed enterprises. The falling slope of the yield curve reflects, to a degree, the Eurosystem's sovereign bond purchases. At the same time, it also reflects the economic outlook and international interest rate linkages such as the transatlantic interest rate relationship. The yield-reducing effect of the CSPP on high-yield bonds, which were exempted from this asset purchase programme, could have been caused by substitution effects (portfolio rebalancing) on the part of investors, which also put pressure on the yields of assets that were not eligible for purchase.

Bund yields are central benchmark of risk-free interest rate when valuing corporate bonds

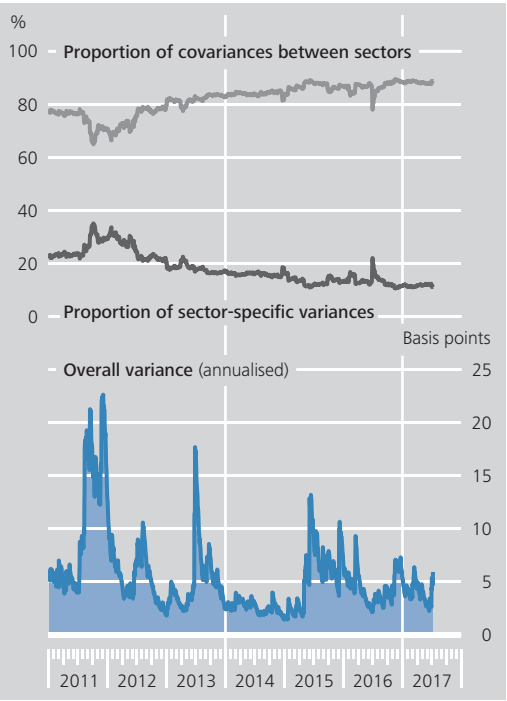
For investment-grade corporate bonds, moreover, a particularly good way of explaining their yields is in terms of the risk-free Bund yield as opposed to EONIA swap rates. This is reflected by the fact that the adjusted coefficient of determination of Estimation 2 is higher than for Estimation 1.[16] Corporate bond market investors are apparently favouring Bunds, a low-risk alternative investment vehicle, as a benchmark of the risk-free interest rate. This underlines the Bunds' prominent role in the valuation of these relatively high-quality corporate bonds. Add-

15 This estimated impact on yields relates only to the announcement of the CSPP, excluding any additional effects of the actual corporate bond purchases.

16 An additional estimation provides further evidence of Bund yields' greater explanatory power. This involves augmenting Estimation 1 with two regressors which reflect the difference between short-term EONIA swap rates and Bund yields and the difference between the EONIA swap rate-related and Bund yield-based slope of the yield curve. In this expanded estimation equation, both additional regressors are significant, and the adjusted coefficient of determination rises to 0.52.

Yield variance on the market for corporate bonds

Daily data



Source: Bloomberg (Bank of America/Merrill Lynch) and Bundesbank estimates.
Deutsche Bundesbank

itional estimations appear to indicate that this could also be the case for bonds issued by German, French, Italian and Spanish enterprises.[17] The choice of metric for the risk-free interest rate, however, is of only minor relevance to explaining the yields on high-yielding corporate bonds. This might reflect the fact that credit risk is a much more important factor in the valuation of these bonds.

Analysis of the yield variance in the corporate bond market

Variance analysis provides information on functional viability and stability of the market

The period following 2011, characterised overall by falling yields, also encompasses episodes in which yields spiked multiple times, often severely. Although these phases were ultimately only temporary, such yield fluctuations, which manifest themselves in the yield variance, do indicate the possibility of abrupt repricing. Analysing this variance can therefore provide key information on the functional viability and stability of the corporate bond market.

Decomposition of the overall variance based on sector-specific sub-indices

In the analysis below, the yield variance of a broad index of financial and non-financial European corporate bonds will be estimated in a time-varying manner. This index (source: BofA Merrill Lynch Euro Corporate Index) is composed of 18 sector-specific sub-indices.[18] In order to identify key drivers of variance trends, it will also be decomposed into individual components based on the sub-indices of the overall index.

Three phases of heightened variance during the reporting period

At last report, yield variance was relatively low (see the adjacent chart). Throughout the reference period, three phases of heightened variance were identified: autumn to winter 2011, summer 2013 and summer 2015 to March 2016, reflecting temporary (abrupt) repricing. Higher liquidity premiums may have also played a role in the rising yields at the time. One sign of this is that bid-ask spreads moved largely in sync with yields (see the chart on page 28). An initial decomposition is run in order to ascertain to what degree the (weighted) variances of the individual sectors and the (weighted) covariances between these sectors each contributed to the increase in variance.[19] The impact of the covariances provides information on the extent

17 To this end, Estimations 1 and 2 are additionally run for four country-specific Barclays corporate bond indices: those for Germany, France, Italy and Spain. These estimations largely produce similar results. For all four individual countries, Bund yields prove to make a stronger contribution to explaining corporate bond yields than EONIA swap rates.

18 Three of the 18 sub-indices of the overall index comprise financial sectors: banks, financial service providers and insurers. The other 15 sub-indices represent the following sectors: automotive industry, commodities, capital goods, consumer goods, energy, healthcare, leisure, media, real estate, retail, services, telecommunications, technology, transportation and supply.

19 For overall variance (σ^2_{GESAMT}),

$$\sigma^2_{GESAMT} = \sum_{i=1}^{n}\sum_{j=1}^{n} w_i w_j \sigma_{ij},$$

where $n = 18$ denotes the number of sectors and w_i and w_j represent the weights of sectors i and j. The time-varying sector-specific variances and covariances between the sectors, σ_{ij}, are estimated using a multivariate diagonal Garch BEKK model. For an explanation of this model, see R Engle and K Kroner (1995), Multivariate Simultaneous Generalized ARCH, Econometric Theory, 11, pp 122-150.

to which bond price movements in a sector or a small group of sectors can affect the entire market.

Overall variance largely reflects covariances between sectors

The decomposition shows that the covariances between the sectors consistently made the greatest contribution to explaining overall variance. Although they made only a relatively minor contribution to the phase of high volatility between autumn and winter 2011-2012, which especially reflected higher volatility of bank bonds, they subsequently made a relatively large contribution to explaining the periods of high volatility in summer 2013 and between summer 2015 and March 2016. The increased correlation between corporate bonds from various sectors reflected in these two episodes indicates, first of all, that sector-specific information, such as economic and profit expectations, have receded into the background with regard to price movements in the sub-indices. One possible cause is that the importance of sector-specific developments took a back seat to aggregate economic developments. What it also indicates, however, is that investors have become less discriminating in their investment decisions. This could have been caused by a search for yield given the low-interest-rate setting and market-wide "safe haven" flows during periods of heightened uncertainty. Price spreads between real sector corporate bonds could, lastly, also have been caused by the Eurosystem's CSPP.

Financial enterprises less relevant to overall variance

A further decomposition of the overall variance into contributions by financial and non-financial enterprises shows that financial corporate bonds made a significant contribution to the high-volatility period between autumn and winter 2011. Their explanatory contribution to the overall variance, however, has been diminishing distinctly since mid-2012. On that note, the high-volatility periods in summer 2013 and especially between summer 2015 and March 2016 are more readily attributable to real sector corporate bonds. This implies a declining impact of financial corporate bonds on the overall variance and thus a lower probability that risks in the financial sector will spill over to the market as a whole.

Risk of market-wide repricing especially relevant after end of CSPP

On the whole, however, the rise in the correlation between corporate bonds from various sectors reflects a higher risk that a potential repricing of corporate bonds could result in the entire market being affected. It is essential that this risk be continuously monitored, particularly after the end of the CSPP.

Summary and conclusions

Central bank must keep efficiency of capital markets in mind

Both supply and demand factors contributed to the strong growth in the market for European corporate bonds over the past few years. One of the supply factors is that, particularly in some periphery countries, a host of non-financial corporations probably diversified their sources of funding during the crisis years by substituting bank loans with bonds. This was one way in which the bond market helped to cushion the adverse impact of the financial and sovereign debt crisis for the real economy. As the crisis subsided, enterprises continued their brisk bond issuance activity; one key reason for this was that, as risk-free interest rates fell, market-based funding conditions improved significantly. On the demand side, there are some signs that investors' risk appetite has been rising in the past few years. This, along with the corporate sector purchase programme (CSPP) launched by the Eurosystem in 2016, has stoked demand for corporate bonds.

As the sovereign debt crisis has faded into the background, risk-free interest rates have fallen and the capital market environment have become increasingly favourable, yields and spreads have diminished considerably and are currently indicating a relatively high valuation level. At the same time, the correlation between corporate bond yields from a variety of sectors has increased, which could be a sign that investors are being less discriminating in how they choose individual bonds. From a central bank perspective, the risk that this behav-

iour will ultimately impact negatively on the efficiency of the capital markets and capital allocation will require ongoing analysis.

Market could growth further

There are some factors which point to further market growth going forward. For instance, enterprises which went to the trouble – such as by creating the conditions for a rating – for the first time to issue a bond in the past few years could be encouraged to replace bank lending by bonds in the long haul. Ongoing balance sheet consolidation in the banking sector could amplify such disintermediation. In addition, political efforts by the EU, such as moves to dismantle barriers to European bond market integration and to improve transparency between different sets of national rules, could also support market growth.

The development of government interest expenditure in Germany and other euro-area countries

Interest rate developments in recent years have been a major source of relief for government budgets in the euro-area countries. Most of them saw their interest burdens contract on the back of cheaper borrowing terms despite some having substantially increased their debt ratios. The average rate of interest on government debt has hit a low, including for countries whose risk premiums surged for a time in the wake of the financial and economic crisis. If the average interest rate were, for example, still at its pre-crisis level, interest expenditure, viewed in isolation, for the past year alone would have been higher by almost 2% of nominal gross domestic product (GDP) for the euro area. Since 2008, this downturn in interest charges has yielded savings of almost €1 trillion, or a little short of 9% of euro-area GDP.

The very advantageous borrowing terms available currently will probably provide continued relief for government budgets for a time. Yet fiscal policymakers would nonetheless be wise to make provisions for when interest rates bounce back. One fundamental objective anchored in the Stability and Growth Pact is that governments be required to achieve structural budgetary positions which are at least close to balance. Achieving that goal swiftly would go a long way towards reining in what are still very high debt ratios overall and trimming both interest burdens and any risk premiums. However, the most recent figures show that consolidation progress (measured in terms of the structural primary balance) has largely ground to a halt – probably partly because of the sustained favourable borrowing terms. But high debt ratios represent a lingering threat for public finances, given the mounting risk that a rate reversal might erode confidence in the sustainability of individual countries' public finances, and not least that monetary policymakers might then be pressured to respond.

Germany's public finances are in a relatively advantageous position. Yet it is nonetheless appropriate for the country to run moderate structural surpluses in light of its still-high debt ratio and the demographic outlook. The unusually favourable financing terms should not be expected to persist indefinitely; it is worth noting that central and state government have already made provisions for an uptick in interest rates in their medium-term plans. One notable risk factor facing the Federal budget is the current convention of fully netting premiums and discounts directly against interest expenditure when issuing Federal securities. This causes considerable volatility during budget implementation and is incompatible with the European fiscal accounting rules. One option here would be to switch to the accrual accounting method. In light of factors including the looming burden of pension costs, state and local government would be wise to pursue an ambitious fiscal path until budgetary solidity has been achieved at both these levels of government. Otherwise, mounting interest rates might expose debt-ridden entities in particular to the risk of resurgent fiscal imbalances.

Low rates provide relief for government budgets

Only some euro-area countries have reversed debt increase but very low rates providing relief

Government debt levels increased substantially in the wake of the financial and economic crisis, and also peaked relative to GDP, with adverse cyclical factors, an expansionary fiscal policy stance in many countries, and government measures designed to stabilise financial markets all playing a part in this rise. While Germany saw its debt ratio decline distinctly after 2010, levels have yet to recede noticeably in a number of other euro-area countries. In spite of that, the exceptionally low interest rates of the past few years, which are partly down to the crisis, have substantially reduced the cost of servicing debt, giving governments crucial assistance in scaling back their deficits. For the majority of countries, borrowing costs, the average rate of interest on government debt, and government interest expenditure as a ratio of GDP are the lowest they have ever been in the history of the monetary union.

Definitions and selected statistical and economic aspects

Interest expenditure determined by debt level and average interest rate

The main variables which determine the level of government interest expenditure are the debt level and the interest payable on that debt (see the box on pages 35 and 36 for definitions).[1] One notable factor for determining the interest burden is the effective average interest rate for each individual debt instrument. In theory, that rate can be subdivided into a risk-free real interest rate, an inflation component (which also comprises expectations) as well as maturity and risk premiums. Following this logic, bonds with a longer maturity and a lower trading volume, say, will normally be remunerated at a higher rate of interest because investors expect to be compensated for a higher risk of changes in value and limited market liquidity. The borrower's expected ability and willingness to repay the debt have a major bearing on the credit quality assessment and the size of any risk premium. Indicators for this include the expected (structural) fiscal deficit, the borrowing requirement and the debt level (including contingent liabilities), but it is also worth gauging a sovereign's macroeconomic and political prospects. Other potential indicators include the credibility of fiscal rules and the expectation of assistance being provided by third parties.

Average interest rate shows lagged response to changes in borrowing terms

Interest rate terms for current government borrowing are normally driven by supply and demand conditions in the capital market. Yet the overall interest burden of government in a given year is determined not by the prevailing interest rate but by the average rate of interest resulting from past borrowing in relation to the aggregate debt stock. The average rate of interest and interest expenditure show a lagged response to interest rate developments in the capital markets. The higher the gross borrowing requirement, which is to say, the shorter the residual maturity and the higher the deficits which need funding, then the quicker expenditure will respond to rate changes. In the case of floating rate agreements, expenditure will always adjust quite promptly to changes in the relevant reference rate, regardless of maturity.

Interest expenditure relative to output key for debt burden assessment

One notable yardstick for measuring how much of a burden interest expenditure is for public finances is the ratio of interest expenditure to GDP (known as the interest expenditure ratio). Economic output is ultimately also the basis for government (tax) revenue, from which debts need to be serviced. It is important to note that a high level of government debt not only automatically implies larger interest charges for government, but that it also has a bearing on macroeconomic developments themselves.[2] On the one hand, a high level of government debt can, for instance, give rise to risk premiums and uncertainties on the whole. When

1 See also Deutsche Bundesbank, The development of government interest expenditure in Germany, Monthly Report, September 2013, pp 47-67.
2 See Deutsche Bundesbank, Government debt and interest payment burden in Germany, Monthly Report, April 2010, pp 15-33.

Definitions of general government debt and interest expenditure in the statistics for Germany

Definition of the general government sector

The general government sector is defined in almost identical terms in the harmonised European System of Accounts (national accounts) and the national government finance statistics (budgetary statistics[1]). It not only comprises the core budgets of central, state and local governments as well as the social security funds (which are not generally permitted to borrow), but also their off-budget entities, such as bad banks, which count as part of the general government sector.

Definition of debt

According to the national accounts and the government finance statistics, government debt comprises, in the first instance, short and long-term debt securities and loans for budget financing, as well as bridging loans (cash or liquidity advances). The consolidated general government debt is adjusted for the securities holdings of other government units and for intra-government credit operations. The "Maastricht debt level", which is relevant to budgetary surveillance in the euro area, also includes liabilities from circulation coins (issued as currency by general government) and from other deposits with general government. Liabilities such as those arising from holding arrangements with Kreditanstalt für Wiederaufbau (KfW)[2] or for public-private partnerships (PPPs) are also included if it is assumed that general government bears the majority of the associated opportunities and risks or exerts a significant influence. Liabilities for assistance loans to euro-area countries such as Greece that are backed by German guarantees and were paid out formally by KfW or the European Financial Stability Facility (EFSF) also count towards the Maastricht debt level.[3] This also applies to certain loans granted by public promotional banks where, in particular, central government or state governments directly bear the majority of the risks and set the framework conditions of the transactions. The Maastricht debt level likewise encompasses the cash collateral provided to general government under derivatives contracts,[4] the payment obligations (to offset inflation) connected with inflation-linked securities and also, under certain conditions, accounts payable.[5] By contrast, premiums received in association with new issues of securities, for example, which are to be paid back over time through higher coupon amounts, are

1 Expenditure by entities that keep commercial accounts is converted into data showing payment flows.
2 These types of agreement were concluded by central government to sell shares in its public limited companies. Although KfW paid an acquisition price, central government retained the right to any additional revenue generated from the later, final sale to the private sector. In the national accounts, this is booked as central government borrowing from KfW (which is not assigned to the government sector). Not only the associated interest expenditure, but at the same time the dividend income from the public limited companies, is allocated to central government.
3 By comparison, loans issued via the European Stability Mechanism (ESM) are not allocated to the member states, particularly because it is deemed to have its own risk-bearing capacity on the basis of the capital paid in by the creditor countries. See Deutsche Bundesbank, The development of government interest expenditure in Germany, Monthly Report, September 2013, pp 47-67.
4 In addition, potential credit components (which, for instance, provide for an inflow of funds when the agreement is concluded, to be paid back at a later date) contained in derivatives contracts are included in the debt level.
5 Accounts payable arise through the acceptance of payment terms for purchases of goods or services. However, they only count as debt under the Maastricht rules if, say, important payment conditions have been renegotiated or if they have been sold on through factoring without recourse. Likewise, long-term financing agreements should be recorded as credit liabilities.

excluded from the debt amount – which is actually inconsistent with the basic approach adopted.[6]

Other liabilities, such as outstanding tax refunds or entitlements to pension benefits, are not taken into account in the debt level. As long as general government has scope to make adjustments with respect to such obligations, for example by changing the statutory retirement age or benefit level, this type of approach seems reasonable.

Maastricht debt is recorded at redemption value (nominal value). A rise in the market value of outstanding debt instruments caused by a considerable decline in interest rates is thus not reflected in the level of debt. This is also different from the procedure usually otherwise adopted in the national accounts. In the financial accounts, for instance, securities liabilities are reported at market value.

Definition of interest expenditure

Interest expenditure in the government finance statistics refers to current debt servicing expenditure. This encompasses payments to central, state and local governments and special funds, which are to be consolidated for the general government overview, as well as payments to the capital market.[7] In addition to the regular interest payments on loans or securities, issue premiums or discounts for newly issued securities, accrued interest to be paid on issues after the coupon date, as well as payments relating to interest rate swaps or other derivatives contracts have, to date, also generally been recorded in full at the time of payment under the relevant item in the government finance statistics and have an effect on the fiscal balance.

The national accounts, on the other hand, are based on the accrual principle. Whereas, for example, coupon payments for securities issued at the beginning of the year with annual interest payments would not result in any costs in the government finance statistics to begin with, the national accounts already attribute the claims arising over the course of the year to this period.[8] Losses or gains from swaps are generally classified as financial transactions in the national accounts and thus do not have an impact on the fiscal balance. Accrued interest received does not affect the fiscal balance either. The inflows are treated as liabilities, and the counter effect at the time of the next coupon payment retains a neutral effect on the balance in the form of a repayment. Premiums and discounts are distributed over the years to maturity on an accrual basis in the national accounts.

There are further differences to interest expenditure in the government finance statistics owing to the fact that, in the national accounts, some of the interest costs are considered financial intermediation services indirectly measured (FISM) in connection with lending. These are not taken into account in property income paid, but are assigned to the category "intermediate consumption". They thus have an effect on GDP. To provide a comprehensive overview of the burden created by debt servicing, this item is therefore also included here for Germany.

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6 According to this approach, discounts would have to be recognised as a reduction because they reflect lower future coupon payments in comparison to the issue yield. Upon payment of these coupons, the shortfalls compared to market conditions would have to be factored in as increasing the debt level.
7 However, this also includes interest to social security funds, which are allocated in full to the general government sector, and to public-sector enterprises and institutions of which selected entities (attributable to the general government sector) are to be consolidated but are not recorded separately in the publications.
8 In the national accounts, interest costs are recorded under property income paid.

an economy has a generally higher level of interest rates, private investment may be crowded out, which would have a negative impact on potential growth, especially. Should additional tax revenue be needed to cover higher interest charges, the distortions this produces can further dent that economy's growth. On the other hand, borrowing to steady macroeconomic developments (owing to the effect of automatic stabilisers) or to overcome a severe crisis can stimulate growth as long as the capital markets do not lose faith in the general robustness of the country's public finances.

Interest expenditure offset at least in part by government property income

A more detailed picture of the impact of changes in interest rates on the government budget and other variables can be obtained by factoring in property income received on the revenue side. Financial assets such as participating interests in enterprises or loan claims are a source of profit distributions or interest income[3] – and this is an area where central bank profits also come into play. However, generating streams of financial income is not normally the main reason why governments accumulate financial assets: returns are sometimes low (eg those on development loans or assets acquired as part of financial market support measures) and often bear little relation to capital market developments. Besides property income, revenue from the taxation of interest income also offsets interest expenditure to a degree. All told, these factors normally soften the impact of changes in interest rates on public finances. Nonetheless, their effect is mostly relatively muted at present because of the very high debt levels.

Development of government interest expenditure in Germany

General government[4]

Debt ratio up sharply by end-2010 but waning ever since

Germany's general government debt ratio has risen significantly in recent decades, first breaching the 60% Maastricht debt ceiling in 2003. Peaking at 81% in 2010 in the aftermath of the financial and economic crisis, it then fell back sharply on the back of favourable macroeconomic and fiscal developments[5] and the reduction of the portfolios acquired to stabilise the financial markets. Even so, Germany's debt level at the end of 2016, under the Maastricht definition, still lingered at 68¼% of GDP.

Interest expenditure ratio down even before the crisis

Government interest expenditure as a ratio of GDP, meanwhile, peaked back in the mid-1990s at 3½%, before gradually working its way back to 2¾% by the middle of the last decade. After remaining stable for a brief period, the decline continued in 2010, accelerating in the past few years. At last count, the ratio stood at 1½%.

Average interest rate down

The fact that the interest expenditure ratio diminished noticeably after 1999, even though the debt ratio continued to show trend growth initially, is due to the significant drop in the average interest rate. Pushed in part by higher expected inflation and growth to 8% in the early 1990s, the average rate of interest then began to chart a distinct decline. This underlying trend was weakened for a time by higher borrowing costs during upbeat economic spells (like at the turn of the millennium), and the average interest rate hovered at around 4¼% for a number of years from the middle of the last decade. But the downward motion resumed in 2009, bringing the average interest rate on Germany's Maastricht debt level down to just 2% last year.

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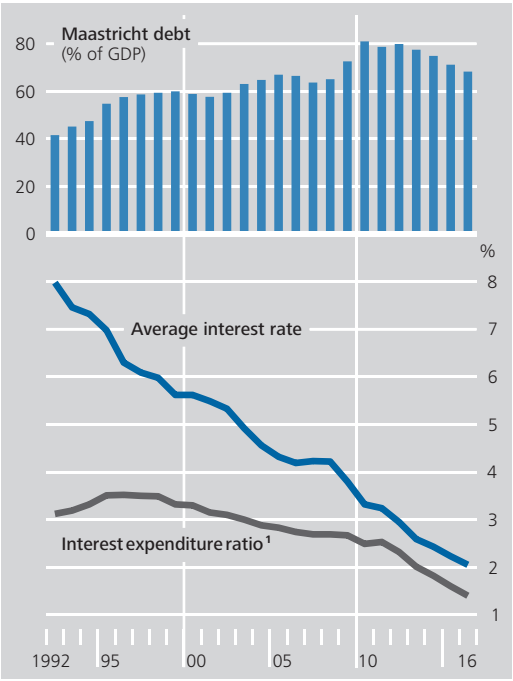
3 The bulk of non-financial assets, such as roads and schools, do not generate any property income. Where they do generate specific receipts, these are chiefly fee income flows.

4 Government interest expenditure is presented for general government in Germany following the national accounts approach, plus financial intermediation services indirectly measured (FISIM) (see the box on pp 35-36). While FISIM had a magnitude of €5¾ billion, or nearly 0.3% of GDP, in 1999, a trend decline into the middle of the last decade reduced that figure to €¾ billion (0.02% of GDP) in 2016.

5 During this period, the fiscal policy stance tended to be neutral overall, while the economic recovery, strong tax revenue growth, healthy labour market developments and dwindling interest burdens ultimately made it possible to achieve the current surplus.

Government debt, interest expenditure and average interest rate



Sources: Federal Statistical Office and Bundesbank calculations.
1 As defined in the national accounts, plus FISIM, as a percentage of GDP.
Deutsche Bundesbank

Drop in average interest rate since start of crisis yields considerable savings

To get an idea of just how much arithmetical fiscal relief the lower interest rates have yielded in recent years, one need only look at the impact of the shrinking average interest rate[6] in isolation. This decline meant that interest expenditure in 2016 was half of what it had been in the pre-crisis year of 2007.[7] Last year alone, the savings this yielded for general government, calculated on the basis of the current debt level, came to €47 billion, or 1½% of GDP. In cumulative terms, the interest expenditure relief generated since 2008 comes to €240 billion, which equates to 7½% of last year's GDP.

Stability programme expects average interest rate to pick up again from 2019

Only a rough estimate of the future path of government interest expenditure – eg depending on various interest rate scenarios – is possible because the available information is incomplete, notably on the scale and the terms for rolling over maturing debt instruments and interest rate adjustment clauses.[8] However, since issue yields have so far fallen well short of the remuneration on maturing identical-maturity securities, the average interest rate looks set to recede further until interest rates go perceptibly into reverse. The German stability programme from April 2017 expects the interest expenditure ratio to decrease again next year before moving more or less sideways. Assuming a fall in the debt-to-GDP ratio, this would mean that the average interest rate, after slipping back one final time this year, will gradually start picking up again, albeit to a limited extent overall, in 2019, rising to roughly 2% at the end of the projection period in 2021. The stability programme thus assumes that capital market rates will climb distinctly from their current very low levels, which means that discernible provision has been made for rising interest rates.

Implications of rise in interest rates for government finances

The sensitivity of government finances to interest rates can be gauged by simulating how spending would increase if capital market rates were one percentage point higher, say, than in a benchmark scenario. In this situation, the additional costs, in cash terms, would normally come to bear one year later on the next interest due date of newly issued paper. Initially, these costs are particularly high year-on-year because short-term debt is quickly rolled over. Given a one-percentage-point interest rate increase, the additional outlay, in cash terms, for general government (assuming annual coupon payments) is thus estimated[9] to come to just over €5 billion in the following year, rising by slightly more than €2 billion again a year later and by just over €1½ billion annually after that. Rolling over the entire debt level (assumed to remain unchanged) would run up additional

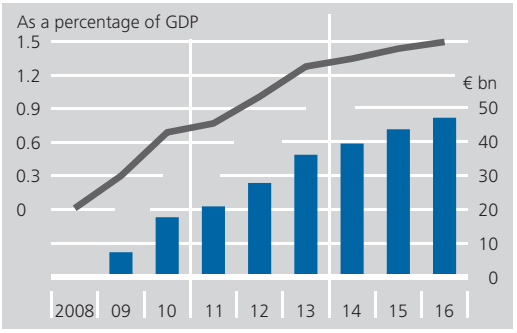
6 This calculation divides interest expenditure as reported in the national accounts (plus FISIM) by the relevant Maastricht debt level (the mean of the levels at the end of the previous year and the reporting year).
7 In 2007, the issue yield roughly matched the average interest rate on debt.
8 Debt statistics on the maturity of debt instruments for the general government budget are currently only available as at year-end 2015. Furthermore, these data provide no information on local government cash advances, for example, which have interest rate lock-in periods of up to ten years. The terms of maturing liabilities are another significant factor, but these are unknown for loans.
9 Based on figures from the debt statistics for 2015.

annual spending of €21½ billion. Almost all the debt would have been rolled over at the new terms after ten years. However, the majority of the 30-year Federal bonds, which make up some 10% of general government debt, would then still need to be rolled over.[10]

Dwindling property income, …

However, it is not only government's interest spending which has been dampened by the lower interest rates, but also property income on the revenue side. Stock changes are a major factor for the latter as well, given that a number of bad banks were established in the wake of the financial crisis. Their liabilities count towards the Maastricht debt level, so the corresponding assets are also recognised as government financial assets, sending their level significantly higher. The still ongoing process of winding up the bad banks, and repayments of capital which government injected into banks in the crisis have pushed government financial assets (and debt) down again in recent years, however. All in all, government financial assets (at market prices) as a ratio of GDP climbed from 23½% in the middle of the last decade to 38½% by 2012, partly due to the establishment of the resolution entities, before falling back to the current level of 36½%. Income from financial assets (defined here as meaning property income received excluding rental receipts) rose initially, but has fallen back noticeably of late, partly on account of dwindling Bundesbank[11] profit distributions. All told, this property income as a ratio of GDP first increased from almost ¾% in the pre-crisis year of 2007 to just shy of 1% in 2011, before falling back to a little more than ½% last year. Property income set in relation to interest expenditure, meanwhile, climbed until 2014, and levelled off recently at just over two-fifths of interest paid.

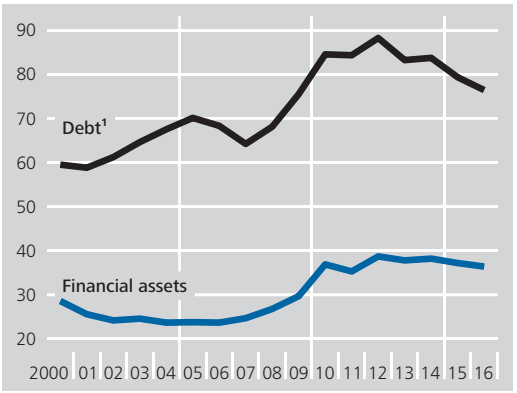
Annual government interest savings* in Germany



Sources: Federal Statistical Office and Bundesbank calculations. * Mean value of Maastricht debt from the end of the reporting year and the previous year, multiplied by the difference between the average interest rate (including FISIM) in 2007 and in the reporting year.
Deutsche Bundesbank

Government financial assets and liabilities at market prices*

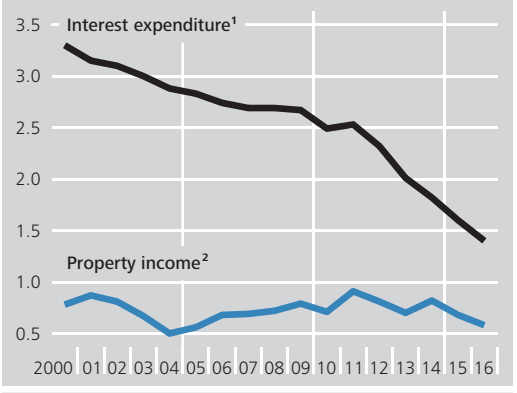
As a percentage of GDP



* Data from the national financial accounts. **1** Maastricht debt at market prices plus other liabilities such as trade payables.
Deutsche Bundesbank

Government interest expenditure and property income

As a percentage of GDP



Source: Federal Statistical Office. **1** Including FISIM. **2** Excluding rental income.
Deutsche Bundesbank

10 More detailed calculations can be found in Deutsche Bundesbank, The development of government interest expenditure in Germany, Monthly Report, September 2013, pp 54-55.
11 The amounts recorded in the national accounts do not match the actual distributions, as the release of provisions created at an earlier point in time in the national accounts does not affect the balance.

… but less correlated to capital market rates than debt servicing

As multiple factors (such as the declining profits of power supply companies or special depreciation) feed into government property income received, this item is normally less correlated to changes in capital market rates than is the case with interest expenditure. What this would also suggest, going forward, is that the Bundesbank profit, for instance, will no longer be positively correlated to rising interest rates for a time, given the implementation of non-standard monetary policy measures (see also the box on pages 58 to 60).[12] All things considered, while the impact of interest rate volatility on interest expenditure will probably continue to meet with countervailing developments on the revenue side, the latter look set to be a much less weighty factor in terms of volume.

Selected aspects of central government's interest expenditure

Average yields on newly issued central government debt down significantly

Among the levels of government, the most detailed information on financing terms is available for central government, which, together with its off-budget entities, accounts for six-tenths of general government interest expenditure.[13] Based on the Federal Ministry of Finance's annual borrowing reports, various aspects of the decline in the interest expenditure of central government (including the off-budget entities it funds[14]) can be presented in more detail. A glance at the average yields on newly issued debt instruments, for example, shows how pronounced the decreases were in the past few years. In 2007, before the onset of the financial and economic crisis, these yields still stood at a little over 4% on average, whereas over the following years they dropped to around ¾% from 2012. As in many western countries, a key contributor to this was the trend decline in the general interest rate level, which itself was down to a variety of factors. Furthermore, in 2015, after the launch of the ESCB's expanded asset purchase programme, interest rates even entered negative territory in some cases, extending into the medium-term maturity range. On average in 2015, a figure of just under ¼% was reached – very beneficial for the government coffers – and was even followed in 2016 by a negative value. Afterwards, too, yields on Federal securities remained exceptionally low. In the June auction of Treasury discount paper with a maturity of six months, for example, a negative issue yield of a little under -0.7% was achieved. Five-year Federal notes were issued with a -0.5% yield this spring, while in July the reported yield was as little as -0.1%. For 30-year Federal bonds, a low of 0.5% was reached last year. In June 2017, the issue yield stood at 1.0%.

Inflation-linked debt instruments helped ease pressure

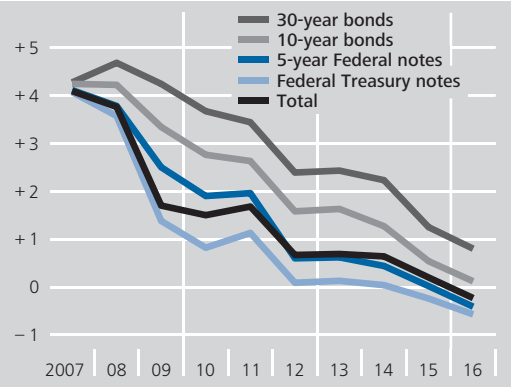
Since 2006, central government has also offered inflation-linked debt instruments, which currently run to a total volume of €70 billion. For these instruments, the coupon and repayment amount are adjusted for inflation as measured by a consumer price index for the euro area as a whole.[15] The unexpectedly low rates overall in the past few years have thus provided distinct relief to the Federal budget. To make provision for the inflation-adjusted final payments, central government set up a special fund in 2009 to which – after a back payment for the preceding years – the relevant transfers are made on an accrual basis.[16] These are recorded in the budget as interest expenditure in the relevant years,

12 Tax revenue from interest income is positively correlated, ceteris paribus, to general interest rate developments, but they are only correlated up to a point with Germany's general government interest expenditure. Receipts from withholding tax on interest income and capital gains shrunk from 0.5% of GDP in 2009, the year that tax was introduced, to 0.2% of GDP in 2016.
13 Of the remainder, just over three-quarters is accounted for by state government and just under one-quarter by local government.
14 Particularly the investment and repayment fund (with outstanding liabilities in the region of €20 billion, or just under 2% of central government debt), but excluding the bad bank set up while rescuing Hypo Real Estate, which accounts for roughly one-tenth of total central government debt.
15 Investor protection against higher inflation remains incomplete, however, insofar as the settlement payment upon redemption (like nominal coupon payments, which for conventional bonds contain a lump-sum inflation adjustment) is taxed as interest income (see also the article entitled "Return on private financial assets taking into account inflation and taxes" in this Monthly Report, pp 69-75).
16 In 2015, however, the Federal budget received a repayment on balance, as the reference index fell.

which is the correct economic approach and conforms with reporting of these figures in the national accounts. According to the budget plan, a transfer of just under €¼ billion will suffice for this year. For the next few years, inflation rates are expected to remain moderate in the financial markets, judging by issue yields. Overall, the share of outstanding central government debt accounted for by inflation-linked instruments has grown distinctly over the past few years, but still remained within limits at around 6% at the end of 2016. Provisioning for redemptions amounted to €2½ billion. Settlement payments of €3½ billion had been made from the special fund in the meantime, however.

Yield on newly issued central government debt instruments

%



Sources: Federal Ministry of Finance and the Federal Republic of Germany – Finance Agency.
Deutsche Bundesbank

Clearly falling average interest rate easing pressure on central government considerably

Against the backdrop of reduced issue yields, the average rate of interest on central government debt, as defined in the national accounts, also contracted significantly. From a starting point of just over 4% in 2007, the last year before the crisis, the rate fell rapidly, especially at the end of the last decade, to just over 3%, which was followed by a relatively even further decline up to the current end. In 2016, the average rate of interest was no higher than almost 2%. Central government's interest expenditure (including the off-budget entities) came to €26½ billion last year. Given an average interest rate at the pre-crisis level, central government's interest expenditure would have been €30 billion (1% of GDP) higher last year. Calculated in this way, the cumulative saving since 2008 runs to €155 billion.

Rising interest rate lock-in period

On balance, the declining average interest rate was not helped by a reduction in the average interest rate lock-in period, which, taken in isolation, generally (for an upward-pointing yield curve) facilitates lower average yields. Instead, the lock-in period rose over the past few years. Having stood at just over 5¾ years in 2007 (pre-crisis), the lock-in period hit almost 6¾ years in 2016,[17] a high level by historical standards. Central government is evidently trying to lock in the extraordinarily low interest rates for a longer period, after having temporarily shortened the lock-in period markedly in 2009, during the crisis.

Scenarios for future developments …

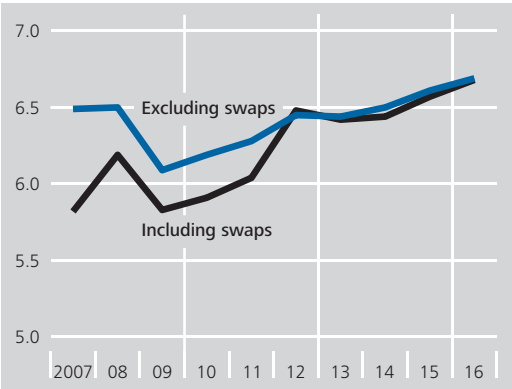
For the Federal budget (including the off-budget entities funded by central government, the interest expenditure of which recently came to only around one-twentieth of that in the core budget), future developments in total interest expenditure can be roughly estimated for a variety of financing assumptions on the basis of the maturities and terms and conditions of listed securities. If current capital market conditions were to persist – as a hypothetical reference line of largely interest-free financing – interest expenses would continue to shrink in subsequent years, under the assumption of an unchanged level of debt[18] and of refinancing obtained with the same original maturity. Based on a 2016 starting level of around

17 Both figures factor in the limited effects, on balance, of swap agreements on this. The cost or saving these entail for the budget cannot be quantified on the basis of the data published by central government, however. In the Federal budget, for example, the effects of swaps are only reported together with the interest payments for the respective debt instruments. In the national accounts, swaps generally have no impact on the fiscal balance. Payments resulting from swaps are categorised as financial transactions and thus are excluded here.

18 The plan for a balanced budget, ie no net borrowing in the budget, only relates to the core Federal budget. However, the planned deficits in the off-budget entities, which are counted towards the debt brake, are offset by surpluses in the precautionary special fund for pension costs. Depleting the reserves in order to finance the budget would, however, drive up debt – after the debt level was initially pushed down when the reserves were accumulated (by deferring follow-up financing).

Average interest rate lock-in period for outstanding central government debt

Years



Sources: Federal Ministry of Finance and the Federal Republic of Germany – Finance Agency.
Deutsche Bundesbank

€25 billion in the budget (adjusted for the effects of premiums), interest expenditure would be roughly halved successively up until 2022.

… reveal essentially moderate impact of interest rate rise, but risks stemming from accounting for discounts and premiums

A deterioration from today's financing terms, however, would slow down or even reverse this process. By way of example, a one percentage point increase in financing costs from the middle of this year would roughly halve the aforementioned annual additional saving from the first coupon payments for the new – higher-yielding – debt instruments (ie basically with a one-year delay). A rise of two percentage points would lead to slightly increasing additional expenditure, although even in 2021 (the final year of the financial plan) interest expenditure would be only moderately higher, relatively, than the actual 2016 figure (adjusted for premiums). The benchmark figures for central government's financial plan (excluding the off-budget special funds) adopted in March 2017 indicate an estimate for 2021 that is roughly €2 billion lower than the actual figure for 2016, adjusted for premiums.[19] Thus, discernible provision has been made for interest rate rises in the capital markets. However, any discounts that arise in this connection when issuing debt instruments could, because they are accounted for immediately as expenditure, lead to considerable budgetary strains in the short term. For fundamental reasons, it would be advisable to change the current convention for recording discounts and premiums in the budget (for more information, see the box on pages 43 and 44).

Selected aspects of state and local government interest expenditure

State and local government budgets heavily eased overall by declining interest rates, …

For both state and local government, national accounts data on interest expenditure are available at the aggregate level only. However, the development of average interest rates over the last decade (for both levels of government together) differs only immaterially from that of central government; since 2007, the last year before the crisis, there has been a contraction from 4¼% to just over 2% recently. The (Maastricht) debt ratio of state and local government initially rose from just over 25% to a little more than 30% by 2012 (partly in connection with the establishment of a government resolution agency for WestLB). Thereafter, the ratio slid back to the pre-crisis level by the end of 2016.

… facilitating compliance with the debt brake rules

On balance, state and local government have also benefited considerably from the very favourable interest rate level, and the interest burden has fallen sharply. Against an average interest rate unchanged since 2007, nearly €17 billion in interest expenditure was saved, corresponding to just under 3½% of total expenditure in 2016. The strong savings were a considerable aid to the consolidation of state and local government finances.[20] Under these con-

19 Besides interest payments, the debt servicing section contained in the Federal budget also includes calls on guarantees, for which major fluctuations are not normally envisaged (but which are not presented separately in the benchmark figures). For premiums and discounts on issuance, usually only minor amounts are budgeted.

20 In a commercial (double-entry) bookkeeping system, however, a counter effect on profit/loss in the pension provisions also has to be recognised. When interest rates are low, future burdens are much heavier from today's perspective, which means that greater precautions have to be taken by building up provisions. For local government at least, which largely uses double-entry bookkeeping, this entails expenses which are substantial in some cases (but which are not visible in the national accounts data).

Distortive accounting of premiums and discounts in the Federal budget

The way that interest expenditure is currently recorded in the Federal budget means that this budgetary position is volatile and difficult to accurately forecast. The securities issued have regular coupon payments that are spread evenly over the term. If the coupons are not in line with the current market interest rates when the bonds are issued, this results in corresponding premiums or discounts on the issue price. These are recorded in the budget in full when the instrument is issued as negative or positive interest expenditure. A premium thus effectively eases pressure on the current budget at the expense of budgets in subsequent years in which, all other things being equal, higher interest payments are to be made (in line with the higher coupons). Discounts have the opposite effect.

There are generally not too many premiums and discounts on new issuances if these are made at market rates. However, the desire for greater market liquidity for individual series of debt instruments requires high outstanding volumes, which typically cannot be achieved by a one-off issue. If market yields have changed when the bonds are subsequently tapped, these bonds will have the same coupon as the first issuance but the issue price will deviate from the nominal value despite the coupons initially having been in line with market rates. Generally, these deviations are positive when yields are declining and negative when yields are increasing. Furthermore, premiums regularly occur in a negative-interest-rate environment because there are no negative coupons.

Over the past year, for example, premiums totalling €6 billion were received (following €4 billion and €1½ billion in 2014 and 2015, respectively) on account of the low-interest-rate environment. Their deduction from interest expenditure contributed significantly to the fact that, for example, the budget outturn for interest expenditure in 2016 was almost €6½ billion lower than originally planned and therefore down by a quarter. The high premiums primarily arose because the yield on 30-year Bunds had, at times, fallen to as little as ½%, while coupons had been set in line with market rates at 2½% when initially issued. At their peak, issue premiums of almost 60% on the nominal value were paid when these bonds were tapped.

Ultimately, the current method of recording premiums and discounts results in interest expenditure in the Federal budget frequently departing considerably from the planned figures. The budget outturn therefore does not reflect financing conditions. This would require premiums and discounts to be distributed over the term of the bonds. An additional cause for concern is that recording premiums in full in the year of issue may give the false impression that there is budgetary scope. Ultimately, securities with high coupons might be issued deliberately in order to exploit the fact that premiums have an immediate effect on the balance sheet so as to ensure compliance with budgetary requirements in the short term in spite of financial difficulties. In economic terms, however, this is the equivalent of borrowing and would make it possible to circumvent the debt brake. By the same token, the current accounting method could jeopardise the achievement of budget targets when implementing the budget should interest rate policy be reversed because the debt service charges for discounts are overstated at the current end. Thus when the bonds are tapped, considerable

discounts could accrue for longer maturities in particular and especially for 30-year securities, thereby driving up interest expenditure.

A switch to an accruals-based allocation of interest costs would not mean venturing into new territory as such a process is already employed for inflation-linked bonds. Each year, an inflation-related provision is recognised in the Federal budget for subsequent compensation payments when redeeming the inflation-linked debt instruments. This protects the budget against potentially erratic cost leaps when securities reach final maturity, and the costs are allocated to the economically relevant periods.

Another argument in favour of a change in accounting practice is that when recording interest expenditure in the national accounts premiums and discounts are generally distributed over the term of the bond and that the respective burdens affecting the fiscal balance therefore match the market yields when the bonds were issued (and not necessarily the coupons). The national accounts and the general government fiscal balances calculated therein are based on the European fiscal rules. As national rules also aim not least to ensure compliance with these provisions, any discrepancies that are present should be reduced.[1] All the more so given that this could provide a better picture of economic reality and decisively reduce the risks associated with rising interest rates during budget implementation.

1 For these reasons, it would be appropriate to alter the method of accounting for receipts and payments arising from derivative contracts, too. Like premiums and discounts, under the EU rules these are generally classed as financial transactions and thus not included in the fiscal balance calculation.

ditions, compliance with the debt brake, which envisages (structurally) balanced budgets for all state governments from 2020, is also much easier than was expected when the debt brake was adopted.

Major differences across Federal states in debt service burden, …

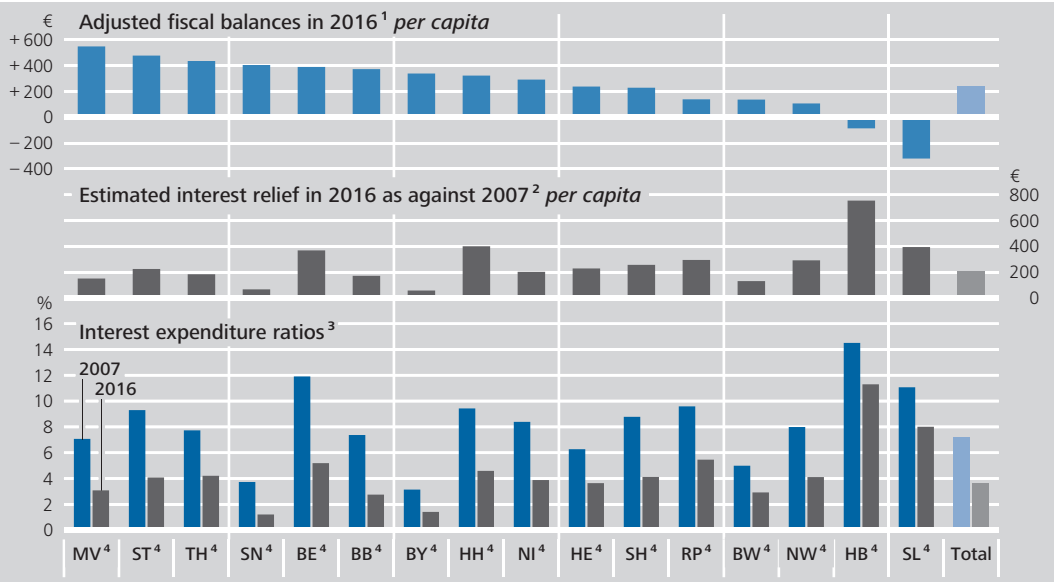
The major differences between individual state governments (each including their local governments in the following) remain obscured when looking at the national accounts data. According to the more detailed figures of the government finance statistics, debt *per capita* at the end of last year was more than ten times higher in Bremen (€35,400) than in Saxony or Bavaria (see the table on page 62). In Saarland, the non-city state with the highest debt *per capita* (€18,500), the figure was slightly better, but still nearly double the national average (€9,700). Particularly extensive debt entails significantly higher interest burdens. Looking at the share of interest expenditure in overall spending, while the national average was 3½% last year, the figures ranged from just under 1½% in Saxony and Bavaria through as much as just under 5½% in Rhineland-Palatinate and Berlin to 8% in Saarland and even 11½% in Bremen. In other words, interest expenditure *per capita* came to just over €1,000 in Bremen, whereas the same metric for Saarland and Hamburg was a little under €500. In Saxony and Bavaria, interest expenditure *per capita* stayed below €100.

… given virtually identical financing terms

These differences in interest expenditure depend crucially on the level of debt, whereas the financing terms for borrowing are likely to differ moderately, at most, between the individual state governments on balance. For bonds issued by the state governments, say, there are only very limited differences in yields,[21] with

21 For example, for a group of comparable bonds with a residual maturity of around 9 years and a similar coupon amount, the difference in yields (between Bavaria and North Rhine-Westphalia) recently came to approximately ¼ percentage point. Joint bonds (with pro rata liability) were issued by a number of state governments ("jumbo state government bonds").

Budget position and interest relief of state and local government *



Sources: Federal Statistical Office and Bundesbank calculations. * State and local government viewed together. Core budget and off-budget entities. **1** Fiscal balance (according to quarterly cash statistics) adjusted for financial transactions. **2** Change in arithmetical uniform average interest rate (aggregate interest expenditure of state and local government, as reported in the national accounts, for the reporting year in relation to mean Maastricht debt levels at the end of the reporting year and of the respective previous year) in 2016 as against 2007 in relation to the Federal state-specific debt levels at the end of 2016 (according to the government finance statistics; no consolidation of debt owed to general government). Counter-effects relating to interest income are disregarded here. **3** Interest expenditure as a percentage of total expenditure (according to the quarterly cash statistics). **4** MV: Mecklenburg-West Pomerania; ST: Saxony-Anhalt; TH: Thuringia; SN: Saxony; BE: Berlin; BB: Brandenburg; BY: Bavaria; HH: Hamburg; NI: Lower Saxony; HE: Hesse; SH: Schleswig-Holstein; RP: Rhineland-Palatinate; BW: Baden-Württemberg; NW: North Rhine-Westphalia; HB: Bremen; SL: Saarland.
Deutsche Bundesbank

the capital markets apparently assuming that financial support obligations will ultimately kick in, as they did for the budgetary hardship situations identified in Bremen and Saarland by the Federal Constitutional Court in 1992. At the local government level, too, there are major differences in debt levels both within and between the non-city states.[22] Nonetheless, even highly indebted local governments (some with arithmetically negative equity capital) have to offer at most comparatively limited interest rate premiums for cash advances owing to the expectation that, where necessary, support payments would be provided from the relevant state government.

Varying levels of relief brought by interest developments thus far

On the whole, the more highly indebted state and local governments, in particular, have enjoyed major relief, and consolidation was aided considerably. Measured by total expenditure, the share accounted for by interest expenditure halved from 2007, going from just over 7% to 3½% on average. The greatest savings made in this connection were in Berlin (just over 6½ percentage points) as well as in Saxony-Anhalt and Hamburg (roughly 5 percentage points each).

Schematic projections of interest relief

Changes in the shares of interest expenditure give only limited insight into the relief provided by lower interest rates, however, because this relief is also shaped by the differing debt and expenditure dynamics of the individual state governments (including local governments) over time. It is possible to arrive at a rough estimate of the gross savings provided by lower interest rates for each state government by applying the two-percentage-point decrease in the average interest rate uniformly calculated

22 For more information, see Deutsche Bundesbank, Local government finances: development and selected aspects, Monthly Report, October 2016, pp 13-36. Where this involves cash advances, with which budget shortfalls are bridged, possibly over multiple years, the anticipated additional expenditure of especially highly indebted local governments is currently obscured in large part by the extremely low interest rate level. In numerous cases, it appears that negative interest rates have even been agreed for such advances at present.

using the national accounts data to the current levels of debt (see also the chart on page 45).[23] For Bremen, the Federal state with the highest debt *per capita*, this produces a saving of €½ billion (€750 *per capita*) compared with 2007. For Saarland, the saving comes to just under €½ billion (€390 *per capita*). In the case of North Rhine-Westphalia, the estimated saving is more than €5 billion (€290 *per capita*). In addition, besides the remaining city states, the other highly indebted states of Rhineland-Palatinate, Schleswig-Holstein, Hesse and Saxony-Anhalt also enjoyed especially strong savings.

Highly indebted Federal states still urged on

Given the unabated major differences in debt levels, budget sensitivities to future interest rate changes also vary in strength. Like central government, the state governments will still benefit from the very favourable financing terms at present, and the average interest rate is likely to fall further initially. However, it would be a mistake to assume that the low interest level reached at this stage will be sustained into the long term and to ignore the possibility of an interest rate reversal in the medium and longer-term financial planning. When the debt brake enters into force, all state governments will be required to produce at least a (structurally) balanced budget from 2020. Given the still largely aligned financial capacities and a virtual lack of tax-raising autonomy, major debt servicing burdens ultimately have to be offset by restricting the range of public services provided. More highly indebted Federal states, especially – and chiefly Bremen and Saarland – are particularly urged to rigorously pursue an ambitious budgetary stance, so as to also be equipped for resurgent interest rates.

Development of government interest expenditure[24] in euro-area countries

Fiscal relief from lower financing costs

Following on from the detailed analysis of interest expenditure in Germany, this section outlines developments in selected euro-area countries.[25] The low-interest-rate environment has brought about favourable financing terms in the other euro-area countries, as well. In spite of rising debt ratios, the ratio of interest expenditure to GDP has declined in almost all countries. In a number of euro-area countries, average interest rates and interest expenditure ratios fell much more heavily than in Germany. This section illustrates developments for the founding members of the euro area from 1999 to 2016.[26]

Interest rate convergence at the start of monetary union

The launch of the euro intensified the convergence in the member states' government financing terms that had already been seen in the lead-up (see the chart on page 47). The inflation and risk premiums that existed in some cases decreased significantly. Yields on ten-year government bonds, for example, approached the German level to a very large extent. Even

23 The arithmetical average interest rate for individual state governments calculated on the basis of the government finance statistics is comparable to a limited extent only owing to classification problems. It is possible that debt and interest payments between core budgets and off-budget entities were not consolidated consistently. In order to simplify matters, the uniform calculation performed here on the basis of the national accounts data assumes that refinancing terms improved to the same extent and that differences in average interest rates arise mainly from differences in debt management. Due to the lack of detailed information on numerous debt instruments and their maturities in the individual Federal states, the effects related to these have to be disregarded here.

24 Government interest expenditure is described here at the general government level as per the national accounts. Unlike the analysis of interest expenditure in the preceding section about Germany, financial intermediation services indirectly measured (FISIM) are excluded owing to a lack of data in some cases.

25 To ensure comparability, this section disregards the countries that joined the euro area after 1999: Slovenia (accession: 2007), Malta and Cyprus (2008), Slovakia (2009), Estonia (2011), Latvia (2014) and Lithuania (2015). The founding member Luxembourg is likewise excluded owing to its very low debt ratio and its low absolute volume of debt throughout the period under review. Greece (2001), as a country that is still reliant on financial assistance, is analysed separately (see the box on pp 52-54). Comprehensive comparative tables containing data on all euro-area countries can be found in the annex to this article; see pp 62-67.

26 To better illustrate the trends, the charts depict one group of countries which were hit especially hard by the financial and debt crisis and which have received support from fiscal and bank-related rescue measures or the Eurosystem's SMP (Italy, Spain, Portugal and Ireland). The remaining countries (Austria, Belgium, Finland, France and the Netherlands) are analysed in a second group.

though there was a temporary general increase in interest rates around the turn of the millennium, average interest rates on government debt saw a continued trend decline (see the upper chart on page 48). As the yields converged, most euro-area countries reported a stronger decrease in average interest rates than Germany – from a higher starting level. Since the debt ratios predominantly receded or stabilised up to 2007, the interest expenditure ratio also went down markedly in almost all countries (see the lower chart on page 48 and the chart on page 50).

Disparities during the financial and economic crisis

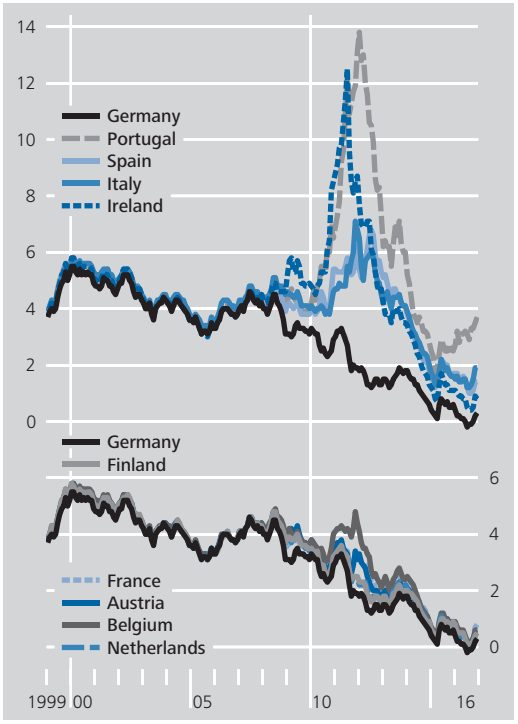
During the financial and economic crisis, a more differentiated risk assessment of the individual euro-area countries re-emerged. As a consequence, yields rose sharply in the countries hit especially hard by the crisis. In Italy, Spain and Portugal, the average rates of interest on government debt saw a marked interim rise (see the table on page 64).[27] Issuance of bonds at the lower-yielding short end of the maturity structure was stepped up, which dampened the impact of the rising yields on the average issue yields. The rescue instruments in place since 2010, which today are bundled in the European Stability Mechanism (ESM), and also the Eurosystem's programmes for purchasing government bonds from certain countries (the activated SMP and the announced OMT programme) played a role in ensuring that even these countries that were hit especially hard by the crisis could again take on debt at significantly better conditions as time progressed. For the other founding members, average interest rates continued to fall during the crisis, too, and interest expenditure ratios dropped or remained broadly stable.

Divergence in average interest rates has now fallen back

The average interest rate in all countries is now significantly lower than it was before the crisis. Financing terms have once more converged to a considerable extent. However, risk premiums can be identified for heavily-indebted Italy, Portugal and Spain in particular. The average interest rate on government debt in these countries tends towards the upper end of the spectrum

Average yield on outstanding ten-year government bonds

%, monthly



Source: Bloomberg.
Deutsche Bundesbank

at roughly 3%, whereas Germany, Finland, France and the Netherlands are at the lower end with a figure of 2%. The divergence is therefore still greater than it was prior to the crisis. Although Germany regularly reported the most favourable financing terms on the capital market, the average interest rate in France, Finland and the Netherlands was for the most part lower due to differences in the debt structure.

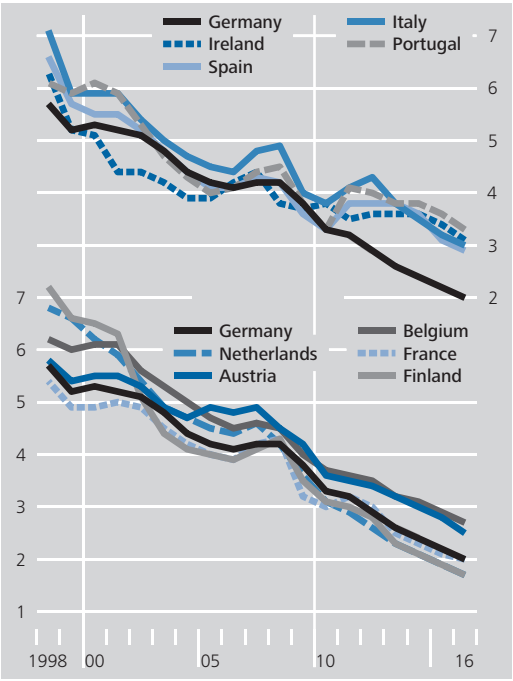
Market yields having a delayed effect on average interest rates

As the average interest rate reflects borrowing conditions in the past, changes to the current financing terms only gradually take effect (see also the chart on page 49). Consequently, the interest rate level, which has been very low for

27 In Ireland, the average interest rate experienced a comparatively small increase during the crisis. The low starting level of government debt and sound fiscal policy history prior to the crisis are likely to have maintained the confidence of the capital markets at first. The financial assistance programme then reduced interest rate pressure from as early as the end of 2010, and in 2011 and 2012 interest payments on government promissory notes were suspended in order to recapitalise banks ("interest holiday").

Average rates of interest on government debt*

%



Sources: European Commission and Bundesbank calculations. * Interest expenditure in relation to the average debt level for the year.

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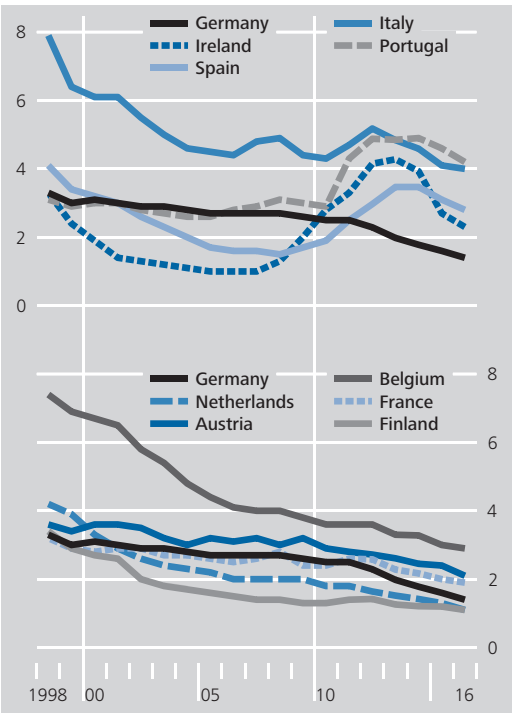
Interest expenditure*

As a percentage of GDP



Source: European Commission. * Government interest expenditure according to the national accounts (excluding financial intermediation services indirectly measured (FISIM)).

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years, is currently still bringing down the average interest rate. As the observed very low issue yields are for the most part still below the remuneration level of maturing government bonds with comparable maturity, even at the longer end of the maturity spectrum, a further decline in the average interest rate in all countries appears likely unless there is a fundamental interest rate reversal or a marked lengthening of the maturity structure.

Current trend towards longer-term indebtedness

While debt instruments with a relatively short maturity were resorted to more often during the crisis as a result of higher risk premiums and uncertainty, an issuance strategy aimed at implementing a longer lock-in period has established itself at the current juncture, thereby anchoring the current historically-low interest rate level.[28] This enables countries to shield themselves better against increasing financing costs in the years to come.[29]

Increasing debt ratios in the wake of the crisis

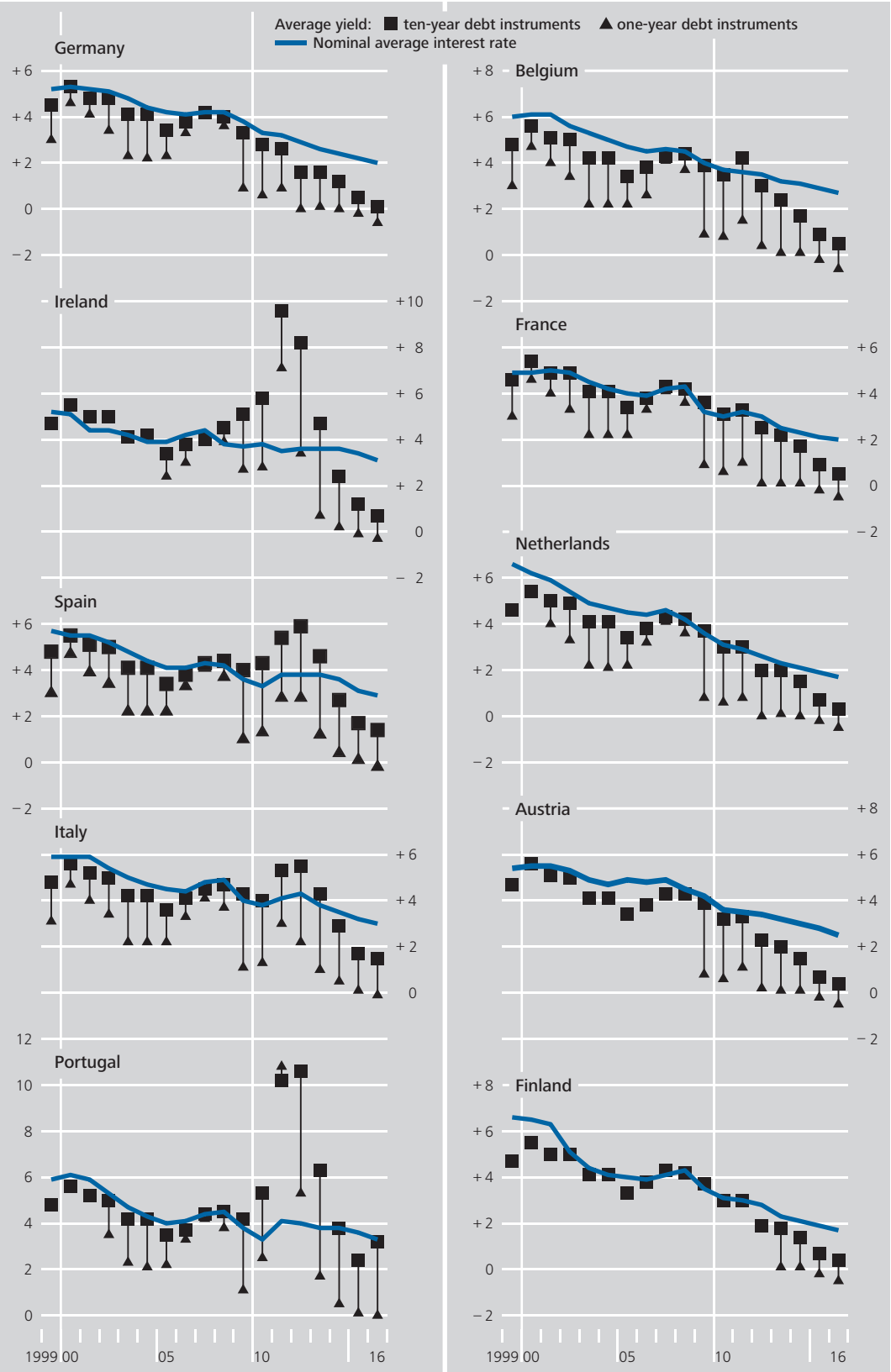
Debt ratios experienced a strong initial increase in all countries during the crisis (see also the table on page 63). This increase was particularly sharp in Ireland, but also in Portugal and Spain. In recent years, there has been a marked debt ratio decline in Germany, Ireland and the Netherlands, whilst in the other countries,

28 Despite the positive effects of a low interest rate from the borrower's point of view, creditors may face risks. For instance, if banks have invested heavily in long-dated government securities (or other long-dated claims) and have shorter-term funding, an increase in the interest rate will burden the balance sheet. To prevent risks being transferred to the government, sufficient provisioning by banks is important, as is the consistent implementation of investors' liability, where necessary – within the context of the banking union's recovery and resolution scheme, for instance. Breaking the sovereign-bank nexus would essentially represent an important step towards strengthening the stability of the euro area. For more information, see Deutsche Bundesbank, Approaches to strengthening the regulatory framework of European monetary union, Monthly Report, March 2015, pp 15-37, and Deutsche Bundesbank, Financial Stability Review, 2016, pp 31-48.

29 Alterations were also made to interest rate agreements. Since 2013, the proportion of variable-interest loans (including inflation-linked bonds) in Belgium, Finland, Germany, Ireland and the Netherlands, which, similarly to short-term liabilities, are associated with volatile interest charges, has decreased substantially. This is amplifying the effect of increased average bond times to maturity. By contrast, a slight shift from fixed rate to floating rate debt instruments ensued, particularly in Italy, Spain and Austria.

Change in financing costs* and average interest rates

%



Sources: European Commission and Bloomberg. * Financing costs depicted by average yield on outstanding one-year and ten-year government bonds. Data on the average yield on outstanding one-year government bonds only available from 2005 for Ireland, from 2002 for Portugal, from 2001 for the Netherlands, from 2009 for Austria, and from 2013 for Finland.

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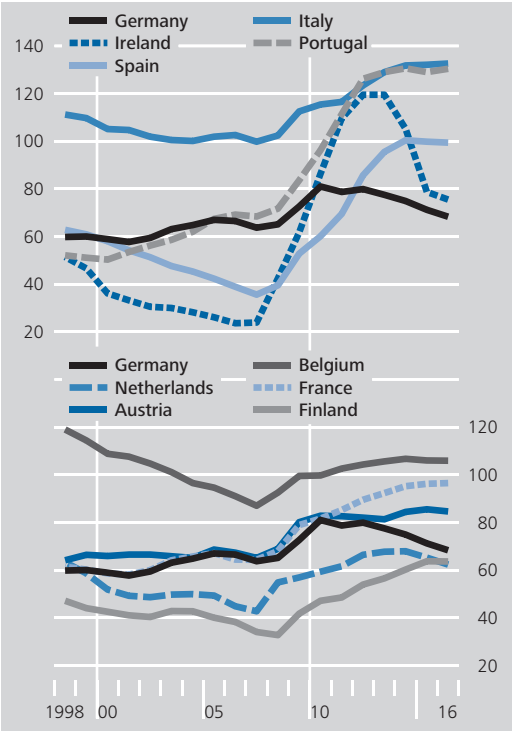
Debt *

As a percentage of GDP



Source: European Commission. * Under the Maastricht criteria (nominal figures).
Deutsche Bundesbank

slower increases and sideways movements were observed. Out of the countries under review, Italy, Portugal and Belgium had debt ratios exceeding 100% at end-2016, standing at 133%, 130% and 106% respectively. Government debt ratios in Spain and France came in at just under 100%.

Declining trend in interest expenditure ratios in the aftermath of the crisis

The ratio of interest expenditure to GDP tended to sink in most countries, albeit in some cases considerably more slowly in recent years than during the first few years of the monetary union (see the table on page 63). Only Ireland, Portugal and Spain experienced additional interest expenses on account of their sharply increased debt ratios, although a decline has since set in once more. In Italy, the downward trend following the onset of the crisis abated for several years. However, since 2014, the interest expenditure ratio there has fallen once again. At last count, the interest expenditure ratio ranged from around 1% in Finland and the Netherlands to roughly 4% in Portugal.

Significant budget relief in comparison to 2007 resulting from reduced financing costs

The declining average interest rate has contributed substantially to the fact that the interest expenditure ratio in most countries is at its lowest level since the launch of the monetary union, in spite of sharply increased debt ratios. Had the average interest rate remained unchanged from its level in 2007, the year preceding the crisis, interest expenditure would currently be significantly higher (see the chart on page 51). Alongside the declining average interest rate, such interest savings are particularly dependent on the level of government debt. In this way, the greatest savings have been made in Italy, amounting to 2½% of GDP for 2016 alone and 10½% of GDP for the years 2008 to 2016 cumulated. Savings were similarly high in the Netherlands, Austria, France and Belgium, all of which have lower debt levels but have seen a fairly sharp decline in the average interest rate. Germany's cumulative savings, by comparison, are 7½% lower, placing it in the middle of the countries under review. However, even the countries which depended on financial assistance during the crisis are set to make significant savings compared to the pre-crisis interest rate level.[30]

Relationship between interest rates and economic growth

Lower interest rates ease the pressure on current government budgets, all other things being equal. Taken in isolation, they result in declining deficits and make existing debt levels more sustainable. However, the latter can be undermined by a simultaneously slackening

30 At end-2015, the average interest rate on ESM loans to Spain stood at 0.9%. In Portugal, the average interest rate on outstanding EFSM, IMF and EFSF loans is 2.6%. Repayment of the IMF loans (interest rate of 4.6%) is envisaged, as Portugal is now able to borrow under more favourable capital market conditions. Ireland was able to refinance the majority of its IMF loans in the years 2014-2015 by means of low-interest government bonds, which reduced the average interest rate. The net interest burden faced by the Irish government is therefore lower than the figure recorded when the Irish central bank purchased a large volume of government bonds as part of the support given to the banking sector in 2013. The Irish central bank's net interest income is thus higher as related interest income is offset by significantly lower liabilities expenditure. This income ultimately returns to the Irish government over time by means of correspondingly higher profit distribution.

pace of growth.[31] Alongside the primary balance (ie the fiscal balance excluding interest expenditure), the development of the government debt ratio is dependent on the average interest rate and (nominal) growth. The interest rate-growth differential is derived from the last two factors.[32]

Declining trend growth rates in the euro area as a whole

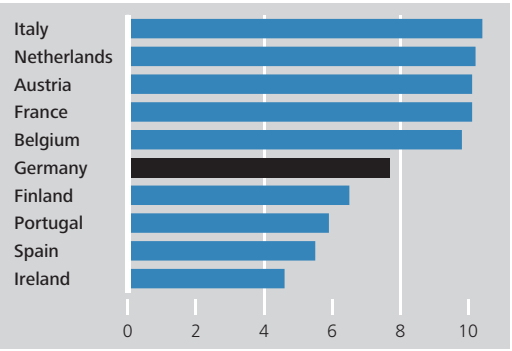
In the euro area as a whole, not only interest rates but also trend growth rates have declined over time. This means that for the most part, substantially falling real growth trends were observed over the past two decades, and price inflation was also lower in the aftermath of the crisis. In this respect, Germany is an exception to the rule, as its nominal GDP trend growth rates were already rather low prior to the crisis and did not decrease thereafter (see the chart on page 55). While Germany had the lowest nominal trend growth rate of all the countries under review at the start of the monetary union, its rate was relatively high last year. In the other countries, particularly those hit hardest by the crisis, declines were observed – some substantial. Following a sharp drop during the crisis, however, signs of recovery have recently been observed once more.

Stronger interest rate-growth differential fluctuations in the countries hit hardest by the crisis

Viewed as a whole, this backdrop puts the easing of public finances due to subdued interest expenditure into perspective (see the top chart on page 56). In the wake of the crisis, therefore, almost all countries initially experienced a deterioration in their interest rate-growth differential due to decreasing trend growth rates and, in the countries hit hardest by the crisis, to the temporary effect of increasing average interest rates. From the government's perspective, however, the interest rate-growth differential has improved recently by a combination of decreasing interest rates and stable or increasing trend growth rates. In Germany, the interest rate-growth differential has declined more substantially since 2007 than in most other countries. Viewed as a whole, reductions in interest expenditure, taken in isolation, during the observation period provided significant relief for government budgets and are therefore making it easier to comply with the fiscal rules focused on the deficit. However, in most countries, the lower growth rate trend is restricting the scope for expenditure. The positive effects on debt dynamics are therefore being offset to a considerable extent, or indeed, outweighed in the countries hit hardest by the crisis.

Cumulative saving on interest expenditure * from 2008 to 2016

As a percentage of 2016 GDP



Sources: European Commission and Bundesbank calculations. * Calculated as the difference between actual interest expenditure in 2016 and what would have been incurred given the average interest rates for 2007.

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Improved structural primary balances recently

Alongside the interest rate-growth differential, the development of a country's debt dynamics is dependent on the primary balance.[33] Before the onset of the financial crisis, the primary

31 To the extent that lower capital market rates reflect worsening growth prospects, lagging average interest rate development even makes it possible to identify a (temporary) burden. GDP and tax revenue growth subsequently decrease more quickly than interest payment growth, as a result of which the scope for other expenditure shrinks.

32 The interest rate-growth differential is calculated below as the difference between the (nominal) average interest rate on government debt and the trend of nominal GDP growth. The trend is used in order to see beyond fluctuations in real GDP or the price component. In principle, a positive interest rate-growth rate differential necessitates a positive primary balance to prevent the debt ratio from rising. The higher the debt ratio and the interest rate-growth differential, the larger the primary balance must be. For more information, see Deutsche Bundesbank, Government debt and interest payment burden in Germany, Monthly Report, April 2010, pp 15-33.

33 The impact of financial transactions with a neutral balance effect is disregarded hereinafter. If a country purchases financial assets of value (generally only shown as a deficit-neutral booking in the national accounts), this should not, in principle, result in an unfunded additional burden.

Greece: support programmes have sharply reduced interest expenditure

In 2001, Greece joined the euro area with a high debt-to-GDP ratio of over 100%. Interest expenditure had run up to nearly 6½% of gross domestic product (GDP), and the average rate of interest was at roughly the same level. Thereafter, funding terms were initially barely less unfavourable than those elsewhere in the euro area. The average rate of interest and the interest expenditure-to-GDP ratio therefore gradually fell to 4½%.

During the financial crisis, a strong rise in the deficit and debt and the news that falsified statistics had been published were two major factors triggering a loss of confidence in Greek government finances. Funding on the market no longer seemed possible. Support programmes were subsequently launched. Since the spring of 2010, the Greek government has been funded largely by support loans, for which primarily the other euro-area countries and, to a smaller degree, also the other member countries of the International Monetary Fund (IMF) are liable. The terms and conditions of the support loans are, all in all, extremely favourable.[1] In addition, in 2012 private sector debt was restructured, including relief concerning the terms of interest and an extension of maturities. That enabled the precipitous increase in the interest expenditure ratio to over 7% between 2008 and 2011 to be reversed.[2] Despite the drastic spike in the debt-to-GDP ratio from just over 100% in 2007 to 180% in 2014, as early as in 2013 the interest expenditure ratio had already fallen below its pre-crisis level and amounted to just over 3% last year. The average rate of interest on sovereign debt dropped from over 4% prior to 2010 to a recent figure of below 2%. Greece's interest payments-to-GDP ratio has thus, since 2013, been well below that of Italy and Portugal, two particularly highly indebted countries. If the average interest rate on Greek government debt were at its 2007 (pre-crisis) level, in 2016 alone nearly 5% of GDP would have had to be additionally spent on debt service, and for the 2008 to 2016 period additional expenses totalling, overall, €37 billion (around 21½% of GDP) would have been incurred.[3] The support programmes have provided substantial debt relief, which turns out to be even more extensive if based on alternative market terms and conditions.[4]

Greece's future burden of interest payments will depend on how successfully it reduces the debt ratio and on funding conditions. Since the terms of the support loans are, in most cases, locked in at the very low level over quite a long-term horizon, in this respect Greece will be protected in large part from any unfavourable market conditions and risk premiums for many years to come. In order to minimise the burden when, especially in later years, funding in the capital

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1 The terms and conditions (interest and maturity) of the support loans have been repeatedly eased over time, but are not published for each individual tranche. According to information provided by the European Stability Mechanism (ESM), the average interest rate on ESM loans to Greece stood at 0.7% at the end of 2015. The funding terms for IMF support, by contrast, are perceptibly worse.

2 The interest expenditure ratios being examined here are as defined in the national accounts. The temporary reduction in the cash payment burden caused by extensive deferrals of interest payments is neglected here.

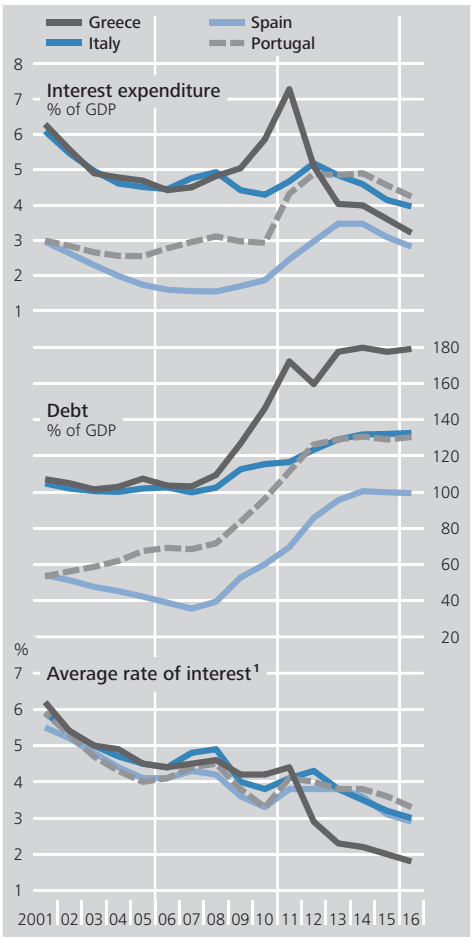
3 For more information on the calculation methods, see page 51.

4 According to calculations by the ESM, for 2016 alone its loans will generate savings of 5.6% of GDP (€9.9 billion). See ESM, Annual Report 2016, pp 48-49. These calculations compare the interest on ESM loans and on the loans under the European Financial Stabilisation Facility with the market yield on Greek government bonds, yet only inasmuch as the latter were below a selected threshold of 6.4%; otherwise, the relief is calculated based on the difference from this upper limit. The interest saving calculated using this method is, from this point of view, larger than if the average interest rate of 2007 were used as a reference, even though this only takes account of borrowing from the ESM and not the entire debt level.

market increases, future investors need to be convinced that Greece's government finances are on a sound trajectory. According to the underlying scenario of the European Commission's current sustainability calculations, the average return on issues following the end of the programme will be around 5% and, by 2060, will drop below the 4½% mark.[5] Against this background, the interest expenditure ratio is expected to gradually rise over the next few years up to just over 4½% of GDP and subsequently be in the area of 4% by 2060, corresponding roughly to the latest reported interest expenditure ratio in Portugal. Should market participants' confidence return more quickly and strongly, this would dampen the interest expenditure ratio and, in conjunction with a fall in the debt ratio, provide stronger relief. The higher Greece's annual primary surplus (net lending/net borrowing less interest payments), the more quickly its debt ratio will fall (at a given nominal GDP growth and interest rate terms). The same will apply to higher growth, especially on the back of successful structural reforms. Conversely, lower primary surpluses or less favourable growth rates would weigh on the debt-to-GDP ratio.

The requirements regarding the primary surplus were rewritten in connection with the programme review which ended in July; now Greece has to demonstrate a primary surplus of at least 3.5% of GDP by 2022. The Eurogroup stated in June 2017 that the European fiscal rules should be complied with after that. According to the European Commission, this will require, as from 2023, a primary surplus of around 2% of GDP. In order to achieve a structural budget that is (close to) balanced, interest expenditure should thus hardly exceed 2% of GDP. As things now stand, this appears illusory, and higher interest expenditure should be expected under the European Commission's baseline scenario. It is therefore not beyond the realms of possibility that Greece will be permitted to get away with a less ambitious budget target than other countries. However, reducing the requirements for the country with the EU's highest debt-to-GDP ratio to a level below that in the Stability and Growth Pact would hardly be conducive to instilling confidence in sound government finances, and the fiscal rules would be weakened further.

Interest burden indicators in selected euro-area countries



Sources: European Commission and Bundesbank calculations.
1 Interest expenditure-to-debt ratio.
Deutsche Bundesbank

5 These assumptions reflect expectations about a rise in the risk-free interest rate and a decrease in the risk premium. According to European Commission calculations, the debt-to-GDP ratio in 2020 will be around 160%, dropping to around 90% by 2060. See European Commission, Compliance Report, The Third Economic Adjustment Programme for Greece, Second Review, June 2017. The IMF appears to be, on the whole, more pessimistic about developments in Greece.

Support programmes should be designed to put government budgets on a firm footing, and structural reforms should create the conditions for sustainable, sound economic growth. If programme conditionality and a structurally close to balanced budget are implemented credibly, it should be possible to regain the confidence of the capital markets even in light of higher debt levels. If the reform process does not succeed, or programme agreements are not credible, even a further haircut – which the IMF has declared to be a precondition for providing further financial support – could also prove futile. With regard to fiscal targets, it would be worrying if Greece were seen as not being able to deliver a considerable longer-term primary surplus. In other euro-area countries, the persistently high debt ratios mean that perceptible primary surpluses will be necessary in order to achieve the medium-term budgetary objectives set out by the fiscal rules, quickly reduce their high debt level and thus also create sufficient scope to cope with any future burdens. The current interest expenditure ratios of Portugal and Italy are around 4%, meaning that there, too, to achieve a structurally balanced budget, appropriately high structural primary surpluses will be needed.[6] Some countries have achieved these, and even far more ambitious, fiscal positions and have maintained them for relatively long periods.[7] According to the assumptions in the European Commission's baseline scenario, if Greece were to maintain a primary surplus of around 4% beyond 2022, it could achieve, without any further haircuts, an at least close to balanced budget and a steady, perceptible decline in the debt-to-GDP ratio.

However, the Eurogroup apparently regards a primary surplus of 3.5% of GDP for more than five years as being too ambitious for Greece – a far cry from the situation in June 2016, when the objective was to maintain this level until 2028. On 15 June 2017, the Eurogroup reiterated its intent to examine whether, once the current programme expires in 2018, further debt relief measures should be taken. One of the ideas presented was that the maturity of the outstanding loans granted, ultimately, by the euro-area countries was to be once again postponed, and that interest and redemption payments on the EFSF loans were to be deferred once again. In accordance with this memorandum of understanding, these measures would be an option if Greece were to fully implement the current programme, yet debt sustainability, measured in terms of the gross funding ratio,[8] is still not yet certain. These measures are apparently designed to get around a formal haircut. On the whole, further actions going forward should be taken with a view to not further eroding the credibility of future programme agreements. This is a genuine concern if programme agreements do not appear to be binding and the impression is given that they will be softened later on if the political will to implement them evaporates. There is also a threat of a further erosion of the European fiscal framework if country-specific exceptions are increasingly permitted. This would cause the rules to cease to act as an anchor of confidence in sound government finances, which also helps keep risk premiums down.

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6 Although interest expenditure could initially fall, it should also be possible to cope with resurging interest rates going forward.

7 For instance, Belgium ran a primary surplus of mostly far above 4% of GDP from the 1990s up until the outbreak of the crisis. Similarly, in more than ten years Finland and also Denmark had a primary surplus that was, in some cases, significantly higher. Since 1995 Italy and Ireland were each able, in five years, to achieve a primary surplus of 4% or more.

8 The gross funding ratio is composed of annual net new borrowing and debt to be rolled over (each as a percentage of GDP). For Greece, the Eurogroup has set an initial threshold of not more than 15%, to go up later to 20%, as a measure of debt sustainability. In the baseline scenario for the European Commission's debt sustainability analysis (excluding additional debt relief, with a long-term primary surplus of around 2% of GDP) the gross funding ratio is expected to exceed the threshold value somewhat after 2045, corresponding to a decline in the debt ratio to around 90% by 2060.

budget balance, adjusted for cyclical effects,[34] in combination with the respective interest rate-growth differential, allowed a reduction of the debt ratio in most countries. During the crisis, however, the metrics deteriorated, and the debt ratios increased markedly (see the upper chart on page 56).[35] In recent years, both the primary balance and the interest rate-growth differential have improved again in most countries. In 2016, therefore, with the exception of France, Italy and Spain, all the countries were suitably positioned to bring about reductions (albeit highly variable) in their debt ratios, viewed in isolation.

Countries with lower debt levels better prepared for interest rate increases and foreseeable demographic challenges

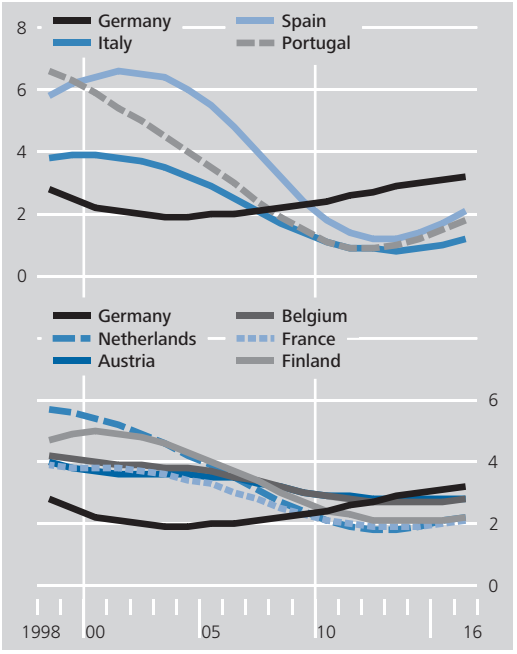
To ensure lasting debt sustainability, the European fiscal rules prescribe a scaling-back of debt ratios. A relatively rapid reduction of the debt ratio could be achieved, particularly if the goal of structural budgetary positions that are at least close to balance were accomplished.[36] Although the average interest rate could fall further in the near future if bonds and loans which still bear relatively high rates of interest are refinanced more cheaply, it is likely to increase again, looking ahead. Against this background, it would seem risky from a fiscal policy perspective to rely on the interest rate-growth differential remaining negative in the longer term, for example. Should the trend of a declining average interest rate reverse, interest burdens will increase once more, which is of even greater consequence in the context of a higher debt level. The long-term strains on government finances from demographic trends could also be better managed if the countries swiftly achieved balanced structural budget positions. The associated decline in debt ratios and interest burdens would make it easier to cover the foreseeable additional expenditure associated with an aging population.[37]

Interest rate-sensitive revenue for the most part considerably lower than interest expenditure

As changes in the interest rate do not solely affect government interest expenditure but are also reflected on the revenue side, interest rate-sensitive property income, including distributed central bank profits, also has to be taken into account, as a general rule. In relation to government interest expenditure, government property income stood at just under 30% (28% at last count) for the euro-area member states

Nominal trend GDP*

Change on the previous period as a percentage



Sources: European Commission and Bundesbank calculations. * Real GDP trend and GDP deflator trend taken into account (each with HP filter and smoothing parameter lambda = 100). Values for Ireland are not shown here due to the sharp increase in its nominal GDP in 2015 (around 32%). (For related data, see the statistical overview in the annex to this article).

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34 As the European Commission publishes no data for the structural primary balance (ie adjusted for cyclical and temporary effects) for the years prior to 2010, the figures here are based on the cyclically adjusted primary balance.

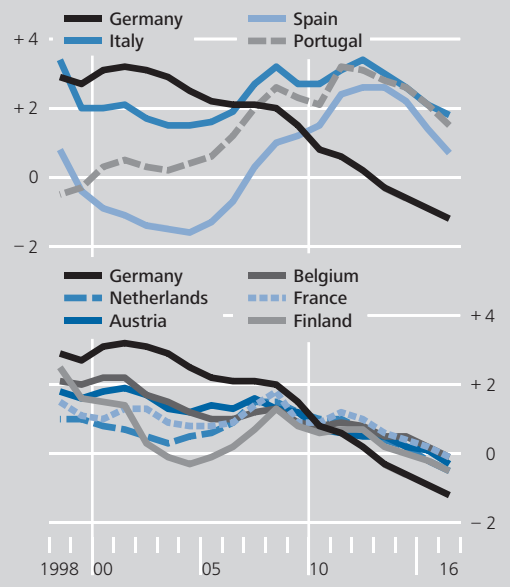
35 Contributing to these were sometimes extensive support measures for credit institutions, which affected the debt level but (as financial transactions) were not reflected in the fiscal balance.

36 The medium-term budget target is intended to support safety margins set below the agreed deficit ceiling of 3% of GDP ("minimum benchmark") and ensure sustainable public finances through a reduction of high government debt levels. To this end, the target is set every three years, taking into account general government budget burdens related to population aging. See European Commission, Vade Mecum on the Stability and Growth Pact, 2017 Edition, Institutional Paper 52, March 2017.

37 For information on long-term sustainability gaps, particularly those due to demographic change, see European Commission, Fiscal Sustainability Report, 2015, European Economy, Institutional Paper 018, January 2016. Sensitivity analyses compared with the long-term scenario deemed plausible for Germany suggest that higher potential growth rates arising from stronger productivity growth, for example, or lower interest rates, will change little in regard to the current German sustainability gap. See M Werding, Modellrechnungen für den vierten Tragfähigkeitsbericht des BMF, FiFo-Berichte No 20, February 2016.

Interest rate-growth differentials*

Percentage points



Sources: European Commission and Bundesbank calculations.
* Defined here as the difference between the nominal average interest rate on government debt and the trend growth rate of nominal GDP. In the case of the latter, both the real GDP trend and the price component trend are taken into account (each with HP filter and smoothing parameter lambda = 100). Values for Ireland are not shown here due to the sharp increase in its nominal GDP in 2015 (around 32%). (For related data, see the statistical overview in the annex to this article).

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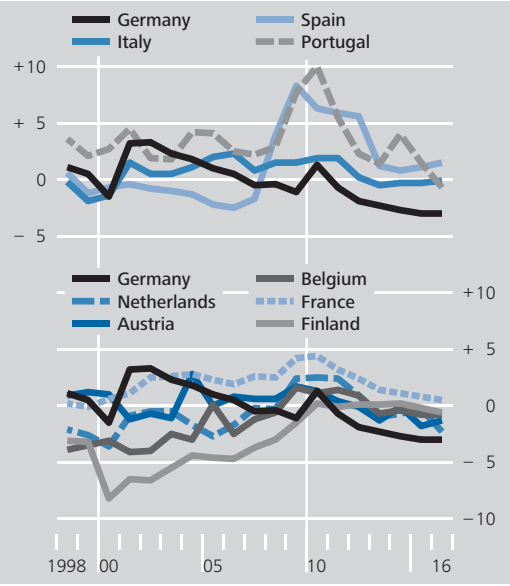
Difference between primary balances that stabilise debt ratios and realised cyclically-adjusted primary balances*

%



Sources: European Commission and Bundesbank calculations.
* Negative values: a realised cyclically-adjusted primary balance results, ceteris paribus, in a declining debt ratio. Values for Ireland are not shown here due to the sharp increase in its nominal GDP in 2015 (around 32%). (For related data, see the statistical overview in the annex to this article).

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in the period 2007 to 2016. The level of the arithmetical average yield on government financial assets is lower than the level of the average interest rate on government debt, which is probably attributable to the fact that gains are not the priority here, or that less profitable assets are involved, as is the case for resolution entities. The arithmetical average interest rate also decreased over time (see the chart on page 57),[38] but less strongly than for government debt. Viewed as a whole, then, changes in governments' property income compensate for interest-related influences on the expenditure side to a certain, but still fairly minor, extent. However, such savings are likely to be lower than in previous cycles in the event of a future interest rate increase, since central bank profits will initially tend to react not positively but negatively to interest rate increases, as a result of the non-standard monetary policy measures (see the box on pages 58 to 60).

Conclusion

Interest burden in euro area countries mostly at a low despite increased debt ratios

Government debt in the euro-area countries increased substantially in the wake of the financial and economic crisis and, in most cases, is still near peak levels in relation to GDP. Compared with the pre-crisis year 2007, however, the interest expenditure burden affecting general government budgets has generally fallen almost continuously, with a few exceptions in cases of particularly strong debt growth. The extremely favourable financing terms are a cru-

38 For a rough calculation of the average yield on government property income, the received property income (less rental receipts) can be compared to financial assets in accordance with the financial accounts. If the ratio of property income to interest expenditure were to be viewed as an indicator of the relative value of financial assets in relation to the debt level, this would produce a correspondingly extrapolated average financial asset value of around 25% of GDP in the euro area between 2007 and 2016 (with the average debt ratio, at market prices, of 91%). According to the financial accounts, the value of financial assets amounted to 36% of GDP in the same period. Overall, financial assets are comparatively less significant in relation to gross debt. Notable exceptions are member states which record capital-backed social security systems to a larger extent in the general government sector (eg Finland).

cial factor. The average interest rate on government debt has since reached a low in all countries. If the average interest rate had been that of 2007, interest expenditure in the euro area last year would have been higher by almost 2% of GDP (eg by nearly 2½% in Italy, by just over 2% in France and by 1½% in Germany). This has generated savings of approximately €1 trillion or just under 9% of total GDP in the euro area over the past nine years.

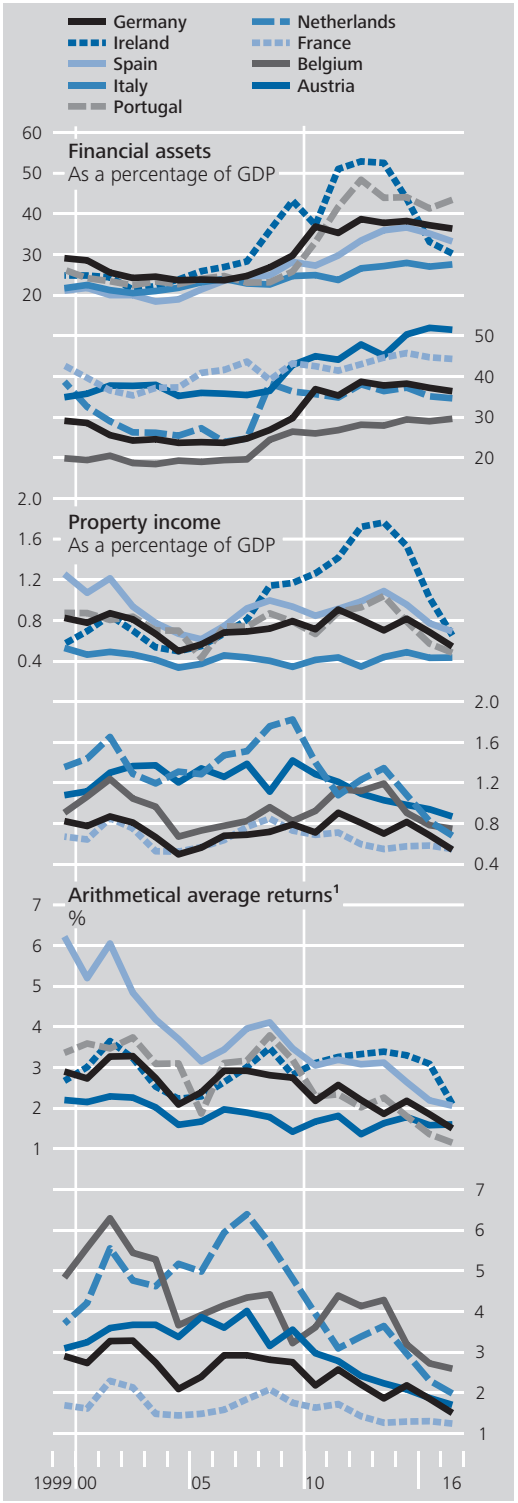
Fiscal policy not to be built on low interest rates

The very low interest rate level, also supported by the significant government bond purchases by the Eurosystem, gives reason in the first instance to expect further decreases in average interest rates and interest expenditure ratios. However, building fiscal policy on the assumption that financing terms for high levels of government debt will remain extremely favourable would be problematic. Instead, it is important to swiftly put public finances on a sound footing. If the goal of structural budgetary positions that are at least close to balance, enshrined in the Stability and Growth Pact, were to be achieved, the debt ratios, which are predominantly still very high, could be lowered relatively rapidly.

Monetary policy could come under pressure if high debt ratios not reduced

In actual fact, however, consolidation effects have faltered in the last three years. In the majority of member states, the structural primary balance has deteriorated yet further, or has barely improved. The persistent easing of funding conditions and the associated decline in interest costs are likely to have contributed to this. In view of the high debt ratios, however, public finances remain vulnerable to shocks, and an increase in the interest rate will have a stronger negative impact, all other things being equal. The fiscal consolidation requirements, which would then become more substantial again, are also likely to entail greater political costs. If, as a result, this risks eroding the confidence of the financial markets in the sustainability of public finances, monetary policy not least is likely to be pressured to respond.

Government financial assets and property income*



Sources: Eurostat and Bundesbank calculations. * Finland is not shown here because its funded pension provision is, to a large extent, recorded in the general government sector. At last report, financial assets in Finland amounted to 129% of GDP, property income amounted to 2.6% of GDP and arithmetical average return totalled 2%. 1 Property income less rental receipts relative to the mean of the level of financial assets at the end of the previous year and the year in question.

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Central bank profits: the impact of changes in interest rates in the context of unconventional monetary policy

A central bank's profit (or loss) and the subsequent transfer to the government are determined by a number of different factors.[1] In a highly stylised and simplified approach, where a central bank balance sheet has a conventional structure, a rise in key interest rates drives up net interest income and profit. This is because cash issued by a central bank does not bear interest (liability) and is offset by claims on credit institutions resulting from refinancing operations (assets) which bear interest at the main refinancing rate for monetary policy and thus yield higher income when key interest rates are raised. If this higher central bank profit is transferred to the government budget, it counteracts the impact of interest rate rises on government interest expenditure which, all other things being equal, increases in a phase of rising interest rates.[2]

However, due to unconventional monetary policy measures and the resulting high excess liquidity, relationships are becoming much more complex and are tending to be reversed. Once monetary policy, and with it interest rate rises, return to normal, central bank profits will initially fall markedly. If profit transfers also decline as a result, this – taken in isolation – will temporarily heighten the impact of interest rate rises on public finances.

Central bank profits in connection with unconventional monetary policy measures

As a result of the relationship described above (taken in isolation), cuts in key policy rates have lowered interest income and profits in the Eurosystem. At the same time, in the wake of unconventional policy measures, the European banking system has built up a considerable amount of excess liquidity on central bank accounts. These increased Eurosystem liabilities are predominantly offset by extensive new assets from monetary policy purchase programmes (used to purchase primarily government but also corporate bonds) and from the targeted longer-term refinancing operations (TLTRO).[3] As interest on such central bank assets at present is usually higher than interest on excess liquidity (which currently bears interest at the negative deposit rate of -0.4%), this results in net interest income on balance.[4]

The positive effect of bond purchases under the current programme is thus relatively small for the Bundesbank as each national central bank (NCB) purchases government bonds of its own country and, while the exclusion of risk-sharing minimises risk for the Bundesbank, it means that interest earned is also only correspondingly low. In the previous securities markets programme, which ran from May 2010 until September 2012, the focus was on bonds from countries where risk premiums rose particularly sharply. As a result of the fact that risk-sharing was agreed for this pro-

1 Including the structure and volume of the balance sheet, accounting rules, fiscal regulations and provisions governing profit transfer to the government or other shareholders. The Eurosystem has harmonised accounting rules (for valuation and income recognition). In addition, each national central bank has national (specific) regulations on profit transfer, setting up reserves and general risk provisions.

2 In this simplified approach, interest income equates to income from short-term investment in the amount of cash holdings (in accordance with the capital key, Germany's share of cash holdings in the Eurosystem amounts to around €270 billion, or just over 8% of gross domestic product (GDP)). In the Eurosystem, central bank balances for minimum reserves bear interest at the main refinancing rate and thus have no impact here on net interest income. Excess liquidity (credit institutions' central bank balances that exceed the minimum reserve requirements), which bears interest at the deposit facility rate (which is lower than the main refinancing rate), should not play a notable role in a functioning money market (such as that prior to the financial crisis).

3 For more information on the Eurosystem's non-standard measures since mid-2014, see Deutsche Bundesbank, The macroeconomic impact of quantitative easing in the euro area, Monthly Report, June 2016, pp 29-53.

4 The TLTRO initially bear interest at the main refinancing rate (0%); however, if the bank in question issues sufficient loans, the rate is (retroactively) cut (at most to the deposit rate (-0.4%)). The respective rate is fixed for a period of four years. If the purchasing bank so desires, it can repay the transactions at an earlier date.

gramme, interest income was also shared in accordance with the capital key. In the euro area as a whole, excess liquidity currently totals around €1.6 trillion. By the end of the year, this could rise in line with the planned bond purchases to around €2 trillion, or approximately 18% of euro-area nominal GDP. The NCBs' net interest income from this unconventional policy, all other things being equal, is thus likely to increase as the year progresses – assuming returns on these purchases remain above the deposit rate.

In simplified terms, the significance of bond purchases for public finances is as follows. An NCB ultimately uses the bond purchase programme to take medium to long-term national bonds on to its balance sheet and finances this by creating short-term central bank deposits that bear interest at the deposit rate.[5] If the resultant central bank profit or loss has a direct impact on the government budget, in economic terms this equates to the financial impact of switching a government's financing modalities from longer-term debt (government bonds at current market conditions) to debt at the short-term, standard monetary policy deposit rate. As described above, this generates additional relief for the government – at least initially – (in excess of the yield-reducing effect of purchases of newly issued government bonds) as long as the deposit rate remains below the return on the purchased bonds and, all other things being equal, the central bank's profit and the subsequent transfer to government rise. However, this also increases public finances' sensitivity to changes in short-term interest rates (as is also the case when switching from long-term to short-term debt).

Impact of an interest rate rise

If, as part of the process to normalise monetary policy, key policy rates in the Eurosystem are raised, net interest income and (taken in isolation) central bank profits initially decline – in contrast to the simplified conventional central bank balance sheet – and this could also result in losses. As the deposit rate rises, profitability declines in connection with excess liquidity due to interest payments to credit institutions, whereas interest income from the TLTRO (which do not reach maturity until 2020/2021) and securities purchased (such as those under the public sector purchase programme, which have a weighted average term of around eight years for the Eurosystem's total portfolio) remains unchanged until maturity. Losses generally occur if the deposit rate is raised above the average return on the assets (bonds and refinancing operations).[6]

Seen in this light, the unconventional central bank balance sheet means that interest rate rises no longer simply cause the government's interest expenditure for newly issued bonds or floating rate bonds to increase (as it would usually do in a phase of rising interest rates). In addition, a central bank's profit initially declines (rather than rising, as it would do in the case of conventional monetary policy), meaning that interest rate rises place a greater strain on public finances (once the central bank's profit has been factored in). This is also demonstrated by the above considerations on the impact of government bond purchases: when an NCB purchases such bonds, the net costs initially fall; however, any subsequent interest rate rise (starting from a favourable position) has a greater impact on public finances. With excess liquidity at 18% of GDP in the euro area, a one percentage point rise in the deposit rate means, all other things being equal, a fall of 0.18% of GDP in the Eurosystem's net interest income (equivalent to around €6 billion for Germany).

The higher the return on the assets purchased, the greater the initial relief for public finances from expanding the central bank balance sheet as described above. However, the expected future deterioration in profitability when interest rates are raised would thus, all other things being equal, affect all countries

5 The financial impact depends on the purchase volume and the return on the paper purchased. The effect is thus the same irrespective of whether government bonds or corporate bonds are purchased – assuming returns on both are identical.
6 If sold before maturity, this would result in losses in the corresponding period.

Profits of the euro-area national central banks in the 2016 financial year

As a percentage of GDP

Country	Profit before taxation	Taxes and transfer to government
Austria	0.0	0.0
Belgium	0.2	0.1
Cyprus	0.4	0.3
Estonia	0.2	0.0
Finland	0.1	0.0
France	0.2	0.2
Germany	0.0	0.0
Greece	0.6	0.6
Ireland	0.9	0.7
Italy	0.2	0.2
Latvia	0.0	0.0
Lithuania	0.1	0.0
Luxembourg	0.0	0.0
Malta	0.6	0.5
Netherlands	0.0	0.0
Portugal	0.4	0.3
Slovakia	0.2	0.0
Slovenia	0.1	0.0
Spain	0.1	0.1

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(starting from different positions) in approximately the amount at which they participate in the bond purchase programme.

The extent to which the above-mentioned effects have a concrete effect on public finances in the individual years ultimately depends on a number of other factors. Central bank profits and transfers are, for instance, subject to other influences, some of them country-specific. For example, profits or losses may have an effect elsewhere or in connection with the bonds purchased under the programme (say, if various risks were to materialise). As far as the individual transfers are concerned, setting up or releasing reserves could also play a role, causing shifts in or changes to the time frame.

In the Bundesbank's case, given the low risk premium, the German government bonds purchased yield very low – in some cases even negative – returns and, as a result, the contribution to growth in the Bundesbank's profit from these purchases is relatively small. With regard to interest rate risks, in last year's annual accounts additional reserves of just under €2 billion were set aside and similar plans have been announced for this year. These reserves thus already spell a reduction in the profit transfer and make provisions for future losses from an interest rate rise. Given the fact that the Bundesbank's profit transfer (of only €½ billion) at the beginning of this year was already low, it cannot fall all too sharply even if interest rates are raised in the future. However, the profit transfer could be low, or even zero, for the medium to long term. Keeping to the past approach of factoring in €2½ billion in central government's budgetary and financial planning would therefore be risky.

In some of the other euro-area countries, transfers of central bank profits to the government (in relation to GDP) for the 2016 financial year were higher than in Germany (see the table on this page[7]). Profitability *inter alia* is initially more favourable due to the fact that greater risks generally mean that interest earned on bonds purchased under the programme is higher and, as purchases are set to continue, profitability is subsequently likely to improve in relative terms this year, too. If a central bank makes a large profit transfer, the potential for setbacks when monetary policy returns to normal is generally greater accordingly. The strain on public finances from rising financing costs would be intensified further as a result of reduced central bank profit transfers.

7 Governments' investment income from central bank profits reported in the national accounts may deviate from the figures given here. Seigniorage in Ireland is particularly high as extensive government liabilities were transferred to the central bank balance sheet in connection with bank rescue measures. The above-mentioned effects of holding government bonds in the current environment are thus especially pronounced in Ireland. The profits, but likewise the risks, of some central banks are also inflated by higher interest income in connection with the granting of ELA.

Longer maturities for government debt, but dampening effect of central bank profits would cease if interest rates reversed

Borrowing in most countries is currently shifting more strongly towards debt instruments with longer maturities, meaning that the implications of increasing interest rates in the future are delayed. Government property income could, in principle, benefit from a rising interest rate, thereby easing expenditure pressures. However, it is less significant in quantitative terms and is likely to be less responsive to interest rate changes on the whole. Central banks' profit distribution also usually increases with rising interest rates. In the light of the non-standard monetary policy measures and high excess liquidity, however, increased interest rates would initially burden the Eurosystem's balance sheets and ultimately government finances. With regard to containing further fiscal risks resulting from increasing interest rates, it is also important that financial institutions make sufficient preparations for the event of an interest rate reversal, and that, should financial distress occur, investors' liability is enforced as envisaged within the banking union arrangements.

Germany in more favourable position, but surpluses also appropriate

Germany's public finances are currently in a relatively favourable position. However, moderate structural surpluses are also appropriate in light of the still-high debt ratio and the demographic outlook. Moreover, it has proven beneficial to ensure safety margins rather than running close to the limits set in the rules. It was thus possible to absorb the financial impact of refugee immigration in the budget plans without counterfinancing measures. Low interest rates have aided the emergence of fiscal surpluses in Germany considerably. If the average interest rate had remained at its pre-crisis level of 2007, last year's interest expenditure would have been €47 billion or 1½% of GDP higher. Even if interest expenditure continues to decrease against a backdrop of ongoing favourable financing conditions, such terms should not be expected to remain the norm. The central and state governments, however, have evidently already made certain provisions for this in their medium-term plans.

Amended booking of interest expenditure advisable in Federal budget

However, the current recording procedure for premiums and discounts when borrowing poses a risk to the Federal budget. Contrary to European accounting rules and the economic background, these are fully recorded upon accrual as negative or positive interest expenditure, making the budgets highly volatile. It would be wise to distribute burdens and relief evenly over the life of the bond, as is already the case for inflation-linked bonds.

Relief for heavily indebted state and local governments, but challenges remain

The state and local governments also profit greatly from lower interest rates. This makes it easier for the very heavily-indebted states to adhere to the national debt brake, which requires all states to have (structurally) balanced budgets from 2020. Interest expenditure halved from 7% to 3½% during the period 2007 to 2016 relative to budget volume, whereas debt-to-GDP levels barely changed. Even the very high debt levels of some local governments are becoming more affordable. This is also due to the significant fall in the burden arising from cash advances, which are a significant source of funding for local government and whose remuneration is generally fixed in the short term. As at the European level, however, an ambitious fiscal stance should be pursued, particularly given high debt levels, until a sound budgetary situation has been achieved. Otherwise, mounting interest rates might expose heavily-indebted entities in particular to the risk of resurgent fiscal imbalances in the event of an interest rate reversal.

The tables accompanying this article are printed on the following pages.

Germany: state and local government debt and interest expenditure in 2016*

State	Debt[1]	Interest expenditure		Balance[2]	Change from 2007 to 2016				Estimated interest relief in 2016 compared with 2007[3]		
					Debt	Interest expenditure		Balance			
	€ *per capita*	€ *per capita*	% of total expend-iture	€ *per capita*	€ *per capita*	€ *per capita*	% of total expend-iture	€ *per capita*	€ mn	€ *per capita*	% of total 2016 expend-iture
Baden-Württemberg	6,083	182	2.9	137	1,284	– 34	– 2.1	– 235	1,411	130	2.1
Bavaria	2,680	89	1.4	339	– 564	– 48	– 1.7	– 82	734	57	0.9
Brandenburg	8,001	169	2.7	373	130	– 189	– 4.6	58	424	171	2.8
Hesse	10,710	255	3.6	238	3,370	– 69	– 2.6	193	1,410	228	3.3
Lower Saxony	9,457	218	3.9	292	1,522	– 131	– 4.5	283	1,598	202	3.6
Mecklenburg-West Pomerania	7,013	188	3.1	549	– 769	– 157	– 4.0	312	241	150	2.4
North Rhine-Westphalia	13,624	262	4.1	107	4,890	– 98	– 3.9	116	5,190	291	4.6
Rhineland-Palatinate	13,790	310	5.5	139	4,488	– 98	– 4.1	145	1,192	294	5.2
Saarland	18,458	487	8.0	– 320	7,352	– 11	– 3.1	– 68	392	394	6.5
Saxony	3,078	69	1.2	405	– 633	– 100	– 2.5	– 218	268	66	1.1
Saxony-Anhalt	10,514	253	4.1	478	449	– 200	– 5.2	312	503	224	3.6
Schleswig-Holstein	12,005	260	4.1	229	2,831	– 119	– 4.7	407	732	256	4.1
Thuringia	8,562	236	4.2	436	406	– 127	– 3.5	217	396	183	3.3
Berlin	17,243	398	5.2	390	– 619	– 359	– 6.7	314	1,294	368	4.8
Bremen	35,362	1,011	11.3	– 86	13,032	92	– 3.2	1,072	506	754	8.4
Hamburg	18,763	470	4.6	323	5,839	– 117	– 4.8	157	715	400	3.9
Total	9,706	226	3.6	241	2,145	– 100	– 3.6	81	17,008	207	3.3

Sources: Federal Statistical Office, debt statistics and quarterly cash statistics (excluding "fifth quarter" accruals). Bundesbank calculations. ***** State and local government viewed together. Core budgets and off-budget entities. **1** Including debt owed to other government sectors and specific public entities. Data as at 31 December 2016. **2** Fiscal balance adjusted for financial transactions. **3** Change in arithmetical uniform average interest rate (aggregate interest expenditure of state and local government, as reported in the national accounts, for the reporting year in relation to mean Maastricht debt levels for the reporting year and for the respective previous year) in 2016 as against 2007 in relation to the Federal state-specific debt levels at the end of 2016 (according to the government finance statistics; no consolidation of debt owed to the general government budget). Counter-effects relating to interest income are disregarded here.

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Euro area: government debt

As a percentage of GDP

Country	1999	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Austria	66.41	65.10	68.85	80.09	82.78	82.59	82.02	81.32	84.44	85.47	84.61
Belgium	114.40	87.03	92.53	99.52	99.73	102.58	104.34	105.61	106.66	105.96	105.88
Cyprus	54.87	53.51	44.67	53.34	55.80	65.23	79.26	102.22	107.13	107.50	107.81
Estonia	6.47	3.66	4.49	7.04	6.56	6.07	9.74	10.19	10.67	10.05	9.49
Finland	44.04	33.98	32.68	41.71	47.14	48.51	53.91	56.46	60.20	63.67	63.58
France	60.18	64.35	68.01	78.94	81.65	85.16	89.53	92.32	95.24	96.20	96.50
Germany	59.98	63.66	65.15	72.58	80.96	78.73	79.94	77.48	74.89	71.18	68.33
Greece	98.89	103.10	109.43	126.76	146.26	172.10	159.57	177.41	179.67	177.41	179.03
Ireland	46.59	23.87	42.41	61.70	86.28	109.61	119.49	119.47	105.25	78.73	75.46
Italy	109.66	99.79	102.40	112.55	115.41	116.52	123.35	129.02	131.78	132.06	132.61
Latvia	12.12	8.41	18.68	36.60	47.44	42.70	41.21	39.01	40.88	36.52	40.13
Lithuania	22.73	15.87	14.56	27.96	36.21	37.19	39.76	38.71	40.53	42.70	40.23
Luxembourg	6.76	7.72	14.90	15.74	19.79	18.70	21.72	23.39	22.43	21.61	20.02
Malta	62.07	62.39	62.75	67.80	67.63	70.37	68.06	68.75	64.28	60.61	58.25
Netherlands	58.55	42.74	54.84	56.85	59.33	61.64	66.39	67.74	67.95	65.19	62.26
Portugal	51.07	68.45	71.67	83.61	96.20	111.37	126.25	129.03	130.58	128.97	130.37
Slovakia	47.08	30.10	28.46	36.30	41.20	43.68	52.17	54.74	53.63	52.47	51.94
Slovenia	23.71	22.84	21.79	34.65	38.37	46.62	53.89	71.00	80.89	83.15	79.66
Spain	60.94	35.59	39.47	52.78	60.14	69.53	85.74	95.45	100.44	99.84	99.38

Source: European Commission.
Deutsche Bundesbank

Euro area: government interest expenditure*

As a percentage of GDP

Country	1999	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Austria	3.44	3.15	2.96	3.16	2.90	2.79	2.72	2.61	2.45	2.37	2.10
Belgium	6.88	3.98	3.96	3.82	3.61	3.60	3.60	3.30	3.28	3.03	2.86
Cyprus	2.82	2.77	2.58	2.33	2.04	2.18	3.15	3.34	2.82	2.88	2.60
Estonia	0.37	0.17	0.21	0.19	0.13	0.13	0.14	0.11	0.10	0.09	0.08
Finland	2.90	1.42	1.40	1.33	1.33	1.39	1.42	1.26	1.21	1.16	1.06
France	2.92	2.62	2.81	2.40	2.39	2.60	2.58	2.28	2.17	2.04	1.89
Germany	3.04	2.67	2.67	2.64	2.47	2.50	2.29	1.98	1.78	1.56	1.38
Greece	7.58	4.50	4.82	5.04	5.86	7.28	5.10	4.03	3.99	3.60	3.21
Ireland	2.36	1.00	1.28	2.01	2.84	3.33	4.15	4.28	3.93	2.67	2.32
Italy	6.40	4.76	4.93	4.42	4.29	4.67	5.18	4.84	4.59	4.14	3.96
Latvia	0.64	0.35	0.55	1.52	1.75	1.78	1.64	1.48	1.43	1.32	1.13
Lithuania	1.47	0.66	0.65	1.24	1.82	1.84	1.97	1.76	1.60	1.52	1.35
Luxembourg	0.43	0.32	0.38	0.40	0.41	0.47	0.52	0.54	0.41	0.34	0.34
Malta	3.84	3.48	3.34	3.27	3.08	3.17	3.00	2.87	2.74	2.46	2.20
Netherlands	3.87	1.96	2.03	2.02	1.77	1.76	1.64	1.52	1.42	1.25	1.08
Portugal	2.94	2.95	3.11	2.97	2.93	4.32	4.88	4.85	4.90	4.56	4.24
Slovakia	3.35	1.39	1.30	1.43	1.30	1.53	1.77	1.87	1.90	1.75	1.65
Slovenia	2.31	1.24	1.10	1.31	1.63	1.89	2.03	2.58	3.30	3.27	3.21
Spain	3.42	1.56	1.55	1.70	1.87	2.46	2.97	3.47	3.47	3.09	2.82

Sources: European Commission and Bundesbank calculations. * Government interest expenditure as presented for general government in the national accounts. Financial intermediation services indirectly measured (FISIM) not included.
Deutsche Bundesbank

Euro area: nominal average interest rate on government debt

%

Country	1999	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Austria	5.40	4.90	4.49	4.20	3.61	3.46	3.35	3.22	2.99	2.82	2.51
Belgium	6.04	4.59	4.47	3.95	3.70	3.62	3.52	3.16	3.12	2.89	2.74
Cyprus	5.33	5.18	5.49	4.72	3.81	3.64	4.33	3.56	2.66	2.69	2.43
Estonia	6.18	4.52	5.10	3.09	1.98	2.18	1.89	1.16	1.02	0.93	0.79
Finland	6.55	4.10	4.28	3.48	3.05	2.99	2.80	2.30	2.09	1.89	1.69
France	4.90	4.17	4.30	3.22	3.01	3.17	2.97	2.52	2.33	2.15	1.98
Germany	5.15	4.20	4.19	3.76	3.30	3.20	2.91	2.55	2.37	2.17	2.02
Greece	7.98	4.50	4.62	4.23	4.19	4.39	2.95	2.33	2.22	2.00	1.80
Ireland	5.18	4.36	3.78	3.70	3.81	3.45	3.65	3.63	3.62	3.38	3.07
Italy	5.89	4.80	4.91	4.04	3.80	4.07	4.29	3.82	3.54	3.16	3.02
Latvia	6.13	4.42	4.16	4.99	4.07	4.20	4.06	3.77	3.64	3.48	2.98
Lithuania	7.42	4.39	4.57	5.42	5.77	5.29	5.29	4.59	4.14	3.70	3.32
Luxembourg	6.43	4.27	3.39	2.59	2.41	2.52	2.61	2.47	1.87	1.57	1.65
Malta	6.95	5.66	5.51	5.01	4.72	4.68	4.44	4.33	4.33	4.13	3.83
Netherlands	6.59	4.60	4.24	3.56	3.08	2.93	2.57	2.28	2.11	1.90	1.73
Portugal	5.93	4.40	4.48	3.80	3.29	4.12	4.02	3.82	3.81	3.58	3.32
Slovakia	8.50	4.81	4.63	4.29	3.43	3.68	3.73	3.53	3.55	3.36	3.21
Slovenia	10.50	5.39	5.10	4.56	4.47	4.49	3.99	4.12	4.42	4.06	4.00
Spain	5.73	4.35	4.18	3.63	3.32	3.77	3.78	3.81	3.57	3.14	2.88

Source: European Commission.
Deutsche Bundesbank

Euro area: government interest savings per year

As a percentage of GDP

Country	2008	2009	2010	2011	2012	2013	2014	2015	2016	Cumulative savings[1]
Austria	0.27	0.52	1.03	1.17	1.26	1.36	1.56	1.74	2.01	10.12
Belgium	0.11	0.62	0.87	0.97	1.10	1.50	1.55	1.79	1.94	9.77
Cyprus	– 0.15	0.23	0.74	0.92	0.62	1.51	2.68	2.67	2.94	12.30
Estonia	– 0.02	0.09	0.17	0.14	0.20	0.33	0.36	0.37	0.36	1.79
Finland	– 0.06	0.24	0.46	0.52	0.66	0.98	1.17	1.35	1.52	6.54
France	– 0.09	0.71	0.91	0.82	1.04	1.49	1.71	1.91	2.09	10.12
Germany	0.01	0.31	0.68	0.78	1.01	1.28	1.37	1.45	1.50	7.70
Greece	– 0.12	0.32	0.43	0.18	2.68	3.76	4.10	4.48	4.80	21.23
Ireland	0.19	0.36	0.41	0.87	0.81	0.86	0.80	0.77	0.97	4.61
Italy	– 0.11	0.84	1.13	0.84	0.62	1.24	1.64	2.15	2.34	10.41
Latvia	0.03	– 0.17	0.15	0.09	0.14	0.26	0.31	0.36	0.55	1.63
Lithuania	– 0.03	– 0.24	– 0.43	– 0.31	– 0.34	– 0.07	0.10	0.28	0.44	– 0.31
Luxembourg	0.10	0.26	0.32	0.33	0.33	0.40	0.53	0.58	0.54	2.95
Malta	0.09	0.42	0.62	0.67	0.83	0.88	0.84	0.91	1.06	5.11
Netherlands	0.17	0.59	0.88	1.00	1.29	1.55	1.67	1.78	1.80	10.16
Portugal	– 0.05	0.47	0.98	0.30	0.46	0.74	0.77	1.05	1.39	5.86
Slovakia	0.05	0.17	0.52	0.47	0.51	0.68	0.68	0.76	0.82	4.30
Slovenia	0.06	0.24	0.33	0.38	0.71	0.79	0.72	1.07	1.11	5.12
Spain	0.06	0.34	0.58	0.37	0.45	0.49	0.76	1.19	1.44	5.48

Sources: European Commission and Bundesbank calculations. **1** Cumulative savings: sum of annual savings since 2008 as a ratio of 2016 GDP.
Deutsche Bundesbank

Euro area: interest rate-growth differential*

Percentage points

Country	1999	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Austria	1.56	1.56	1.30	1.16	0.67	0.59	0.55	0.45	0.24	0.06	– 0.29
Belgium	1.98	1.22	1.28	0.94	0.83	0.85	0.83	0.51	0.46	0.17	– 0.06
Cyprus	– 2.29	0.37	1.53	1.65	1.58	2.15	3.43	3.02	2.22	2.13	1.60
Estonia	– 7.70	– 4.36	– 2.61	– 3.64	– 4.05	– 3.38	– 3.29	– 3.72	– 3.63	– 3.55	– 3.59
Finland	1.63	0.74	1.30	0.83	0.63	0.74	0.66	0.23	0.02	– 0.23	– 0.53
France	1.06	1.36	1.76	0.91	0.88	1.15	1.04	0.61	0.40	0.15	– 0.12
Germany	2.68	2.07	1.99	1.46	0.85	0.60	0.17	– 0.33	– 0.63	– 0.93	– 1.17
Greece	1.11	2.16	3.47	4.23	5.17	6.06	4.96	4.32	3.89	3.14	2.27
Ireland	– 6.85	0.26	0.52	0.88	0.99	0.27	– 0.16	– 0.95	– 1.73	– 2.61	– 3.26
Italy	2.04	2.67	3.18	2.65	2.67	3.12	3.44	2.98	2.61	2.11	1.82
Latvia	– 7.34	– 4.33	– 3.19	– 1.06	– 1.08	– 0.39	– 0.16	– 0.21	– 0.20	– 0.31	– 0.82
Lithuania	– 7.06	– 4.19	– 2.94	– 1.09	– 0.03	– 0.00	0.40	0.01	– 0.21	– 0.48	– 0.75
Luxembourg	– 0.63	– 1.78	– 2.40	– 2.97	– 3.01	– 2.80	– 2.62	– 2.71	– 3.27	– 3.51	– 3.36
Malta	0.37	0.81	0.55	– 0.11	– 0.66	– 0.98	– 1.53	– 1.96	– 2.22	– 2.58	– 2.95
Netherlands	0.97	1.46	1.51	1.19	0.98	1.01	0.74	0.44	0.19	– 0.17	– 0.52
Portugal	– 0.34	1.97	2.55	2.32	2.15	3.17	3.12	2.81	2.57	2.08	1.54
Slovakia	– 1.14	– 5.95	– 5.13	– 4.30	– 3.99	– 2.69	– 1.73	– 1.22	– 0.71	– 0.58	– 0.58
Slovenia	4.02	0.97	1.30	1.38	1.80	2.17	1.86	2.02	2.20	1.66	1.39
Spain	– 0.43	0.33	1.00	1.23	1.54	2.41	2.61	2.61	2.16	1.40	0.74

Sources: European Commission and Bundesbank calculations. * Calculated here as the difference between the nominal average interest rate on government debt and the nominal GDP trend growth rate. The latter takes into account the real GDP trend and the GDP deflator trend (each with HP filter and smoothing parameter $\lambda = 100$).

Deutsche Bundesbank

Euro area: government property income*

As a percentage of GDP

Country	1999	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Austria	1.08	1.39	1.11	1.42	1.29	1.21	1.09	1.03	0.98	0.94	0.87
Belgium	0.91	0.82	0.96	0.83	0.92	1.14	1.12	1.19	0.91	0.78	0.75
Cyprus	0.77	0.65	0.72	0.89	1.37	0.81	0.69	0.65	1.58	1.35	1.06
Estonia	0.56	1.38	1.36	2.16	1.38	1.00	1.17	0.90	1.09	0.96	0.75
Finland	2.33	4.06	4.51	3.67	3.30	3.36	3.21	3.05	2.88	2.83	2.59
France	0.67	0.77	0.85	0.73	0.69	0.71	0.60	0.55	0.58	0.58	0.55
Germany	0.82	0.69	0.72	0.79	0.71	0.91	0.81	0.70	0.82	0.68	0.54
Greece	0.76	0.77	0.70	0.61	0.61	0.66	0.76	0.54	0.39	0.34	0.31
Ireland	0.57	0.81	1.14	1.17	1.26	1.42	1.72	1.76	1.53	1.02	0.65
Italy	0.53	0.44	0.40	0.34	0.41	0.43	0.35	0.44	0.49	0.43	0.43
Latvia	0.62	0.51	0.81	1.50	1.22	1.21	1.12	1.01	0.79	0.85	0.85
Lithuania	1.19	0.45	0.47	0.48	0.52	0.36	0.40	0.19	0.21	0.31	0.40
Luxembourg	1.50	1.71	2.04	1.46	1.46	1.54	1.57	1.45	1.39	1.28	1.28
Malta	–	1.25	1.08	1.05	1.04	1.05	1.09	1.10	0.94	0.91	0.79
Netherlands	1.36	1.51	1.76	1.82	1.40	1.08	1.23	1.35	1.08	0.82	0.68
Portugal	0.87	0.74	0.87	0.79	0.67	0.88	0.93	1.04	0.79	0.57	0.48
Slovakia	1.90	1.42	1.17	1.28	0.88	0.87	1.07	0.83	0.65	0.80	0.96
Slovenia	–	0.70	0.88	0.68	0.89	0.72	1.09	1.33	1.00	1.13	1.20
Spain	1.26	0.92	1.00	0.94	0.85	0.91	0.99	1.09	0.96	0.77	0.69

Sources: Eurostat and Bundesbank calculations. * Countries where funded pension provision is, to a large extent, recorded in the government sector (such as Luxembourg and Finland) are generally shown to have higher property income in this table.

Deutsche Bundesbank

Euro area: government financial assets*

As a percentage of GDP, market prices

Country	1999	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Austria	34.89	35.44	36.46	42.82	44.98	44.13	47.88	45.15	50.35	51.96	51.49
Belgium	19.88	19.61	24.43	26.43	25.98	26.79	28.13	27.92	29.43	28.99	29.59
Cyprus	27.50	28.18	19.23	22.39	21.89	27.49	31.28	41.56	42.98	42.52	44.57
Estonia	50.12	35.45	33.74	40.72	46.99	42.98	44.54	45.03	44.83	54.93	56.61
Finland	101.32	109.80	88.78	109.18	117.68	105.88	113.28	117.56	124.95	127.74	129.24
France	42.69	43.66	39.16	43.22	42.53	41.42	43.02	44.66	45.77	44.72	44.31
Germany	29.10	24.73	26.84	29.74	36.88	35.32	38.70	37.78	38.24	37.20	36.38
Greece	–	–	–	–	–	–	–	–	–	–	–
Ireland	24.84	28.30	35.90	43.24	37.21	51.05	52.91	52.55	43.71	33.11	30.23
Italy	21.71	22.88	22.63	24.71	24.94	23.74	26.61	27.16	27.94	27.03	27.57
Latvia	23.86	16.87	23.95	35.71	39.04	33.06	33.40	29.31	31.01	24.05	28.26
Lithuania	57.85	30.10	23.69	31.20	32.69	24.58	24.92	22.24	27.25	29.93	29.53
Luxembourg	63.93	70.53	75.88	77.80	77.68	70.91	77.95	79.96	80.71	79.16	77.99
Malta	–	29.66	26.61	29.96	30.36	32.56	35.41	35.89	32.29	31.32	33.63
Netherlands	38.72	24.75	38.28	36.31	35.65	34.83	38.07	36.40	37.26	35.11	34.63
Portugal	26.24	23.09	23.17	25.81	33.07	41.72	48.39	43.96	44.11	41.35	43.47
Slovakia	53.86	21.40	19.18	20.11	19.40	17.11	27.14	28.47	25.08	24.02	23.31
Slovenia	–	47.39	35.53	44.58	47.41	48.05	51.95	65.66	76.97	76.60	68.57
Spain	21.12	24.38	24.88	28.19	27.28	29.76	33.44	35.97	36.66	35.15	33.22

Sources: Eurostat and Bundesbank calculations. * Countries where funded pension provision is, to a large extent, recorded in the government sector (such as Luxembourg and Finland) are generally shown to have higher financial assets in this table.

Deutsche Bundesbank

Euro area: ratio of government property income to government interest expenditure*

%

Country	1999	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Austria	31.35	44.06	37.63	44.98	44.33	43.35	40.23	39.50	40.16	39.78	41.36
Belgium	13.18	20.71	24.26	21.58	25.63	31.65	31.10	36.18	27.65	25.87	26.16
Cyprus	27.49	23.31	27.75	38.34	67.20	37.06	21.95	19.39	56.00	46.97	40.99
Estonia	150.25	832.34	660.41	1,141.42	1,043.81	773.95	809.62	797.18	1,055.12	1,016.15	999.37
Finland	80.33	285.51	321.67	275.19	246.90	241.09	225.53	242.30	237.56	243.96	243.57
France	23.03	29.33	30.21	30.47	28.91	27.35	23.13	24.12	26.64	28.82	29.19
Germany	27.11	25.90	26.90	30.01	28.80	36.30	35.29	35.39	45.91	43.94	39.23
Greece	10.02	17.07	14.59	12.12	10.37	9.06	14.86	13.35	9.76	9.37	9.72
Ireland	24.07	80.26	89.34	58.10	44.48	42.51	41.45	41.17	39.03	38.23	28.05
Italy	8.26	9.14	8.16	7.76	9.59	9.32	6.66	9.08	10.61	10.43	10.95
Latvia	98.21	145.03	146.70	98.88	69.68	68.24	68.16	68.35	55.58	64.45	75.41
Lithuania	80.65	68.71	71.60	39.11	28.85	19.71	20.24	10.62	12.88	20.09	29.46
Luxembourg	347.80	541.90	535.89	361.90	353.89	329.35	300.03	266.84	335.21	380.04	379.20
Malta	84.72	36.07	32.40	32.12	33.86	33.18	36.31	38.17	34.31	36.85	35.73
Netherlands	34.99	77.29	86.48	90.18	79.31	61.43	74.93	88.64	76.09	65.69	62.91
Portugal	29.67	25.03	27.97	26.51	22.74	20.43	19.03	21.43	16.09	12.51	11.37
Slovakia	56.73	102.32	89.71	89.14	68.01	56.97	60.69	44.50	34.46	45.90	58.09
Slovenia	32.60	56.48	80.41	51.82	54.77	38.21	53.82	51.74	30.48	34.51	37.53
Spain	36.75	58.72	64.41	54.99	45.14	37.14	33.15	31.34	27.49	24.98	24.52

Sources: Eurostat and Bundesbank calculations. * Countries where funded pension provision is, to a large extent, recorded in the government sector (such as Luxembourg and Finland) are generally shown to have higher property income in this table. The very high ratio of property income to interest expenditure shown here for Estonia is due to the country's exceptionally low interest expenditure.

Deutsche Bundesbank

Euro area: arithmetical average returns on government financial assets*

%

Country	1999	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Austria	3.09	4.01	3.15	3.55	2.97	2.78	2.41	2.23	2.08	1.87	1.70
Belgium	4.83	4.34	4.42	3.22	3.61	4.39	4.13	4.28	3.19	2.72	2.59
Cyprus	3.18	2.43	3.16	4.26	6.31	3.30	2.34	1.72	3.68	3.17	2.46
Estonia	1.15	4.07	3.97	5.40	3.20	2.36	2.78	2.06	2.49	1.95	1.38
Finland	2.73	3.83	4.63	3.59	2.95	3.09	2.95	2.67	2.39	2.26	2.04
France	1.69	1.84	2.08	1.75	1.63	1.72	1.42	1.26	1.29	1.30	1.24
Germany	2.90	2.92	2.81	2.75	2.18	2.57	2.20	1.86	2.18	1.85	1.50
Greece	–	–	–	–	–	–	–	–	–	–	–
Ireland	2.67	3.01	3.48	2.82	3.11	3.26	3.33	3.39	3.30	3.09	2.10
Italy	2.20	1.89	1.78	1.42	1.67	1.81	1.36	1.63	1.78	1.58	1.60
Latvia	2.84	3.32	4.07	4.49	3.17	3.60	3.51	3.29	2.68	3.15	3.29
Lithuania	2.24	1.58	1.86	1.61	1.67	1.35	1.67	0.81	0.85	1.08	1.36
Luxembourg	2.44	2.61	2.82	1.87	1.96	2.15	2.13	1.88	1.79	1.64	1.66
Malta	–	4.44	3.98	3.72	3.59	3.40	3.28	3.17	2.90	2.98	2.50
Netherlands	3.70	6.39	5.67	4.81	3.94	3.09	3.38	3.64	2.96	2.30	1.98
Portugal	3.36	3.17	3.79	3.19	2.29	2.34	2.02	2.26	1.80	1.36	1.15
Slovakia	3.94	7.04	6.24	6.40	4.59	4.88	4.90	3.02	2.48	3.34	4.12
Slovenia	–	1.62	2.22	1.66	1.94	1.53	2.16	2.26	1.43	1.50	1.68
Spain	6.22	3.96	4.11	3.47	3.05	3.19	3.08	3.12	2.64	2.19	2.06

Sources: Eurostat and Bundesbank calculations. * Shown here are each country's property income less rental receipts, divided by the mean average of financial assets as at the end of the previous year and the year in question.

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Return on private financial assets taking into account inflation and taxes

Nominal interest rates have fallen sharply in recent years, and the rate of return on new investments in interest-bearing instruments is low from a longer-term perspective. However, developments in Germany are much less pronounced when inflation and taxes are taken into account and after-tax real interest rates, which are particularly relevant for private investments, are considered. After-tax real interest rates are dependent on the interplay between nominal interest rates, the inflation rate and the tax rate.

Developments are heterogeneous for short and longer-term investments. In the case of savings deposits with a short notice period, the nominal interest rate has declined significantly, and the real interest rate is also very low and has fallen into negative territory. Even in the past, however, the real interest rate was frequently negative, especially after tax, making a perceptible move into positive territory in only a small number of years. At the beginning of the 1980s and 1990s, for example, the after-tax real interest rate was clearly negative for higher personal tax rates. Overall, the after-tax real interest rate was supported over time by the fact that inflation rates tended to decrease and tax rates were also lowered. With regard to longer-term investments in ten-year bonds, a downward trend has been observed both in nominal and real returns since the early 1980s. If tax is also taken into account, however, no clear trend (in the case of higher personal tax rates) is visible here up to the start of the current decade either. Over the past few years, real returns on new investments have fallen to a very low level, both before and after tax, and also stood in negative territory of late.

The statutory tax rates for (nominal) private interest income have been lowered perceptibly, especially since the introduction of the withholding tax. Private interest income is consequently taxed at a lower rate compared with the personal income tax rate on higher incomes. However, in the current debate about a possible reform or discontinuation of the withholding tax, it should also be noted that the compensation for inflation contained in nominal returns does not constitute a gain in financial capacity, but merely compensates for the inflation-induced depreciation of savings. When real interest rates are low, even the lower rate of withholding tax results in high effective tax rates on real interest returns, even in combination with moderate inflation rates.

Development of interest rates on private financial assets taking into account inflation and taxes

Inflation and taxes also important for returns on private savings

In recent years, (nominal) interest rates have declined significantly worldwide, including in Germany, and are now at a historically low level.[1] This reduces the return on private financial assets and, all other things being equal, makes it less attractive to save. From the perspective of savers, the burden arising from inflation and taxes also has to be taken into account, however. For example, the development of short-term real interest rates (nominal interest rates adjusted for inflation)[2] on financial assets with a short lock-in period, which are often the preferred choice in Germany (savings accounts, for instance), has been less exceptional from a longer-term perspective because inflation has also been lower over the past few years. This is even more so the case if after-tax real interest rates are taken into account as these reflect the interplay between the rates of return, inflation and taxes. Reductions in statutory (nominal) tax rates and, above all, the lower weight of taxation on the inflationary compensation when inflation rates are lower have, when viewed in isolation, supported the development of after-tax real rates of return over time.

Taxation of private interest income

Since 2009, significantly lower taxation of nominal interest income owing to withholding tax

Since 2009, private investment income in Germany is, as a general rule, subject to a withholding tax – provided that the interest income does not fall under the savers' tax-free allowance on capital gains[3] – charged at a flat rate of 25%,[4] in addition to the solidarity surcharge and, where applicable, church tax.[5] Investment income, such as interest and dividends, but also capital gains are subject to taxation. Losses on sales can be offset against gains from the same asset class. Any negative interest is interpreted by the tax authorities as "custody and deposit fees" and thus as income-related expenses, which is deemed to be covered by the savers' tax-free allowance. At the enterprise level, dividends are subject to upstream charges of corporation tax (plus the solidarity surcharge) as well as local business tax, whereas interest remains largely untaxed at the corporate end.[6] Investment income incurred prior to 2009 used to be taxed together with other relevant income as part of the (progressive) income tax scale, and account was taken (schematically) of upstream tax on dividends at the corporate level. The tax rates on nominal interest income were significantly reduced when the income tax rate was lowered, especially at the turn of the millennium, and, for higher taxable income, by the introduction of withholding tax (see, for example, the upper chart on page 71).

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1 See also Deutsche Bundesbank, German households' saving and investment behaviour in light of the low-interest-rate environment, Monthly Report, October 2015, pp 13-31, and Deutsche Bundesbank, Developments in real interest rates on deposits in Germany, Monthly Report, July 2017, pp 101-103, in which the development for various types of deposits is shown over an extended period of time.

2 Here, the actual rate of consumer price inflation is used. This is appropriate for the actual interest income earned after tax, whereas for questions relating to investment decisions, inflation expectations are more relevant.

3 In 2009, the lump-sum allowance for income-related expenses and the previous savers' tax allowance were consolidated into a standard savers' tax-free allowance (€801 for single persons and €1,602 for couples who are assessed jointly for income tax purposes). Since then, it has not been possible to claim a tax deduction for actually incurred income-related expenses in connection with investment income. Previously, the savers' tax allowance was in some cases lower than the current standard allowance (up to 1992), but in some cases also significantly higher (eg DM 6,000 (€3,068) for single persons between 1993 and 1999).

4 It is possible to request that private investment income be taxed on the basis of the statutory income tax rate (together with other taxable income) if this results in the tax burden being lower on the whole (identification of more favourable tax treatment). For single persons, a tax rate of above 25% is currently applied to the portion of annual taxable income exceeding €16,071.

5 Unless otherwise stated, the tax charges specified in the following include the solidarity surcharge, provided that this was levied in the year in question. Church tax and the associated reduction, on the other hand, are generally disregarded as church tax is not attributable to federal income tax. Church tax rates differ depending on the respective state government.

6 Unlike corporation tax, where fewer restrictions apply, interest payments are not fully deductible from the tax base in the case of local business tax.

The importance of inflation and real interest rates for the taxation of real interest income

Relative tax burden on real interest income always higher than the statutory tax rate amidst inflation

Income tax is, in principle, linked to financial capacity. In the case of interest-bearing investments, inflation depresses the value of savings in real terms and part of the remuneration goes purely towards compensating for this loss. This inflationary compensation therefore does not increase the financial capacity, it merely maintains the purchasing power of the savings. Taxation systems generally use the nominal rate of interest, however. In times of positive inflation, the relative tax charge on real income (hereinafter referred to as the "real tax rate") is therefore always greater than the relative tax charge on nominal income ("nominal tax rate"). For a given nominal tax rate, the real tax rate increases in line with the relationship between inflation and real interest rates. In the event of low real interest rates, real burdens of over 100% can already occur even with the low withholding tax rate in combination with moderate rates of inflation (see the lower adjacent chart).[7] Conversely, for a given real interest rate, the after-tax real rate of return declines as inflation rates rise (provided that the nominal interest rate is positive and thus taxes are payable at all). With a given savers' tax-free allowance, higher and higher investment amounts generate tax-free income, the lower the nominal interest rate.

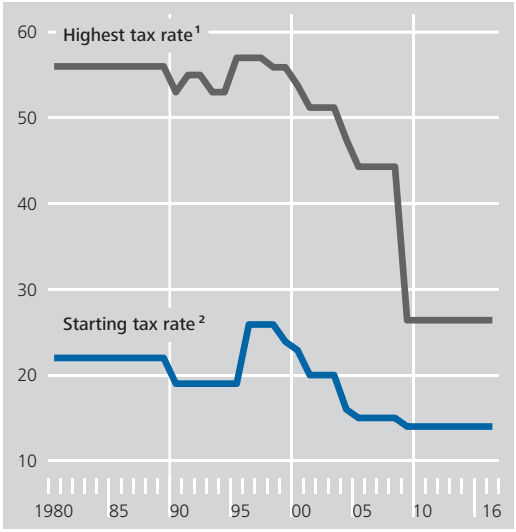
The development of after-tax real interest rates on savings deposits

Short-term real interest rates at the current juncture …

The development of returns on the interest-bearing investments of households in Germany has varied significantly both in nominal and real terms, as well as before and after tax. By way

Statutory tax rates for interest income*

Tax rate (%)



* The chart shows the respective marginal tax rates, ie the tax rates that are applied to each additional taxable euro of income above the basic tax allowance or after reaching the highest tax rate. **1** As the statutory tax rate for individuals earning higher interest income, the chart uses, by way of example, the highest rate of income tax (excluding additional top-income tax bracket in the amount of 45% from 2007) up until the year 2008, and from 2009 onwards the withholding tax rate, in each case including the solidarity surcharge (provided that it was levied in the year in question). **2** Starting rate of the income tax scale (owing to the tax-free allowance excluding the solidarity surcharge).

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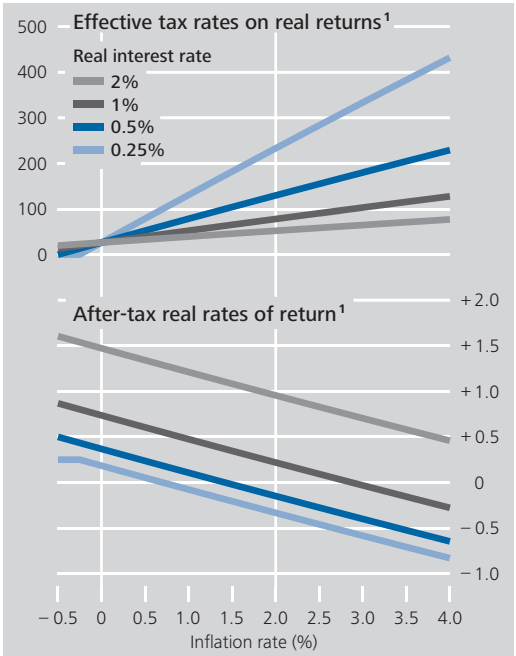
Effective tax rates on real returns and after-tax real rates of return

%



1 For various combinations of real interest and inflation for the applicable rate of withholding tax (25%) plus solidarity surcharge (+1.4 percentage point) and excluding the savers' tax-free allowance.

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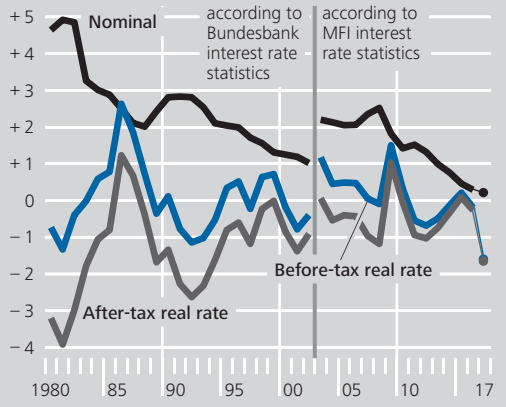
7 Given a real interest rate of 0.25% and an inflation rate of 1%, for example, a real tax rate of over 130% is achieved if the current rate of withholding tax (including the solidarity surcharge) is applied.

Savings deposits with a notice period of up to three months*

Interest as an annual percentage rate



* Interest rate obtained by households for savings deposits with an agreed notice period of up to three months (effective interest rate according to the MFI interest rate statistics from January 2003 onwards, previously nominal interest rate according to earlier Bundesbank interest rate statistics). MFI interest rate statistics are not available for the years prior to 2003, and the Bundesbank's interest rate statistics were discontinued following the methodological change; see also Deutsche Bundesbank, Changes to the MFI interest rate statistics, Monthly Report, July 2017, p 94. Adjusted for inflation using the consumer price index (CPI). The after-tax real interest rates were calculated in a stylised way using the "highest tax rate" shown in the chart on page 71. For 2017, data are shown up to and including May. For further information about real interest rates on bank deposits, see Deutsche Bundesbank, July 2017, op cit.

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of example, short-term and longer-term interest-bearing investments are shown here for the period since 1980. For savings deposits with a notice period of up to three months, there is a downward tendency in nominal interest rates (see also the chart above). They were at a low level in 2016 and decreased somewhat further in the first half of this year. In real terms, however, interest rates developed without a marked trend. Last year, real interest rates were slightly negative, although not exceptionally low. Given that the inflation rate has risen in the meantime, though, real interest rates declined again distinctly in the first half of the current year.

… less unusual after tax

After-tax real interest rates were lower in the past.[8] Whenever personal tax rates were higher, these were negative in the vast majority of cases and distinctly positive in only a few years. As a result, they were less favourable in the early 1980s and 1990s than at the current juncture. In previous years, relatively high inflation rates and the tax burdens that accompanied them played a particularly significant role in this context. While the tax burden did, to all intents and purposes, fall when withholding tax was introduced (provided that the relevant income tax rate was higher, as assumed in the stylised calculations presented here), the (after-tax) real interest rate was likewise negative – markedly so in most cases – in the period from 2011 to 2014. In 2015 and 2016, it hovered at around zero, close to the nominal rate, due to the low inflation rate. In terms of the tax burden on households' savings deposits, the combination of low nominal interest rates with low inflation was therefore not especially unfavourable in 2015 and 2016 compared with previous years. This is all the more true when taking the savers' tax-free allowance into account, which exempts a greater volume of savings from tax when interest rates are low. In the first few months of this year, however, real interest rates before and after tax returned to significantly more negative territory in the light of higher inflation rates. That said, given that the nominal interest rate is close to zero, taxation still plays only a minor role when it comes to interest rates. The difference between the real interest rates before and after tax all but disappeared in the period from 1980 (when it amounted to around 2.5 percentage points) to 2016.

The relationship between inflation and the real interest rate is a key element in determining the

8 As described above, for the purpose of determining the after-tax real rate of return here, a stylised assumption of the relevant top tax rate is made for the period prior to the introduction of withholding tax in 2009. Given the relatively high income thresholds, the additional top-income tax bracket (tax rate of 45% on income above €256,304 at present for single persons) that was introduced in 2007 is excluded. For the sake of simplicity, standard allowances (as well as income-related expenses) are factored out. If, instead of the top tax rate, it were always, for example, the starting tax rate that was of relevance (see also the chart on p 71), the burdens would lie somewhere between the before-tax and after-tax real rates of return depicted in the charts on this page and p 73. If investment income were to undershoot the thresholds for standard allowances, or if no tax were to be paid when identifying the more favourable tax treatment, the before-tax real interest rate would equal the after-tax real interest rate.

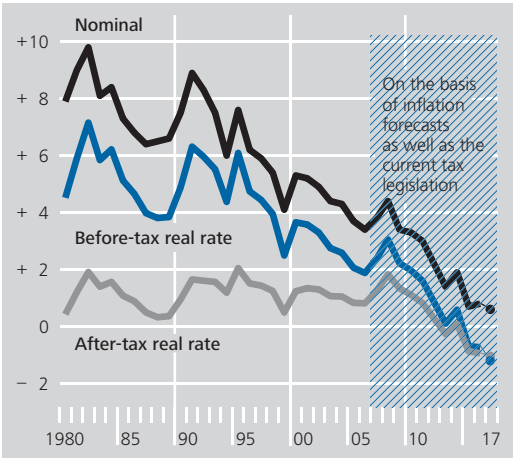
Real tax rates usually very high, …

real tax rate. The real tax rate was usually well above the statutory tax burden. Despite negative before-tax real rates of return, tax payments were still incurred in a number of years. The lowest real tax rate for the other years was over 30%, which was recorded in 2009. However, in terms of saving incentives, a bigger role is played by the absolute differences in returns owing to tax payments – in combination with low inflation rates (despite potentially very high tax rates), at least, these tend to be small when returns are low.[9] If the nominal interest rate is zero or less, there is ultimately no tax payment due (and the tax rates are zero, accordingly). The effect of standard allowances, which are becoming more important in the low-interest-rate environment in that higher investment volumes remain tax-exempt, is disregarded. For example, at a nominal interest rate of ¼% and taking into account the savers' tax-free allowance of €801, the income on an investment amount of €320,000 would currently be tax-exempt for single persons.[10]

… but only comparatively low tax-induced decrease in returns when nominal interest rates low

Return on investment in ten-year domestic debt securities*

Annual percentage rate



* Yields on outstanding domestic debt securities with an average residual maturity of nine to ten years (December average value of the previous year). The real returns are calculated using the inflation rates realised during the maturity period (up until 2016 the consumer price index, from 2017 to 2019 the Harmonised Index of Consumer Prices based on Bundesbank estimates, and from 2020 Consensus Economics forecasts). The after-tax real rate of return is determined using the "highest tax rate" applicable during the maturity period (see the chart on p 71). An unchanged tax system is assumed as of 2017. The value for a given year therefore takes account of the nominal coupon from December of the previous year as well as the inflation rates and the tax framework of the current year and the following nine years.

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The development of after-tax real rates of return on ten-year bonds

After-tax real rate of return on investments in ten-year bonds

Longer-term investments in fixed-income securities figure less prominently than instruments such as short-term bank deposits in the average financial asset portfolio in Germany.[11] However, in order to illustrate the range of return patterns, developments ought to also be described here using the example of long-dated bonds. The starting point for these calculations is the nominal average yield on outstanding ten-year German debt securities that are held to maturity (see the above chart). To determine the real rate of return, payments are adjusted for purchasing power using the consumer price inflation realised over the bond's holding period. In the case of investments made from 2007 onwards, the end of the holding period lies in the future. For the years from 2017 onwards, therefore, inflation is approximated by current inflation forecasts.[12] To determine the after-tax real rate of return, nominal coupon payments received are taxed at the tax rate applicable at the time of payment.[13] The real return on a nominal bond that will actually be generated in future for investments made from 2007 onwards is therefore uncertain and

9 For instance, at a nominal interest rate of 0.3%, an inflation rate of 0.2% and a tax rate of 25%, the resulting after-tax real rate of return and real tax rate would be 0.02% and 75% respectively. Though the real tax rate is very high, the absolute difference in returns owing to taxation is on the small side.
10 In this example, it is assumed that no income-related expenses are incurred and no other relevant investment income has to be recognised.
11 See Deutsche Bundesbank (2015), op cit, p 20. The share of directly held longer-term debt securities is much lower than the share of bank deposits. At just under 40%, households' claims on insurance corporations are weighty, and insurance corporations hold a significant share of longer-term bonds. That said, the taxation described here often does not apply to the taxation of these bonds, and they do not form the main focus of this article.
12 The Bundesbank's estimate for the Harmonised Index of Consumer Prices is used for this purpose for 2017 to 2019, with survey data from Consensus Economics being used from 2020.
13 See the chart on p 71. An unchanged tax system is assumed as of 2017.

hinges on the future path of inflation as well as any changes to tax legislation (the last point only applying with respect to the after-tax real rate of return). The later the investment was made, the greater the extent to which this applies.

No clear tendency displayed by after-tax real rate of return until start of 2010s, …

The before-tax real rates of return on ten-year bonds are usually higher than those on short-term investments, which means not least that the relative significance of taxing the inflationary compensation is lower. Overall, before-tax nominal and real rates of return run more in parallel for these forms of investment. Unlike savings deposits, real rates of return on these bonds have fallen significantly over time, starting in the early 1980s. They have been negative since 2015. By contrast, the after-tax real rate of return displayed no clear tendency until the current decade, as the decline in real rates of return was cushioned by shrinking real tax burdens (when personal income tax rates were higher) due to falling inflation rates and, furthermore, as statutory tax rates were lowered. The after-tax real rates of return fluctuated almost consistently between ½% and 2%. In the current decade and, in particular, over the last few years, however, the before-tax real rates of return then dropped into negative territory and differed comparatively little from the after-tax real rates of return in the period under review. This year, developments are virtually unchanged compared with 2016 and, provided inflation develops as forecast and tax legislation remains unchanged, the after-tax real rate of return amounted to -1.2% at last report.

… but currently unfavourable

Real tax rate well above statutory rate in case of ten-year bonds, too

On the whole, it can be determined in the case of investments in ten-year bonds as well that the decline in the nominal rate of return, which has been observed for some time, is much less pronounced when taking into account inflation and taxation. The effect of taxation, ie the difference between the before-tax and after-tax real rate of return, on ten-year bonds has diminished, falling significantly between the early 1980s (when the difference stood at around 5 percentage points) and 2016 (0.1 percentage point). In the case of these long-dated bonds, too, the relative real tax burden has been significantly higher than the statutory tax rate on an annual average since 1980 – but, due to the higher and more stable real interest rate, it has also been lower and less volatile than the burden associated with short-term deposits. At the current juncture, the rates of return on new investments are low by any measure (nominal, real and real after tax).

Concluding remarks

Nominal interest rates historically low

Nominal interest rates in Germany are currently historically low. Thus, on the one hand, financing conditions are highly favourable over the entire maturity and risk spectrum. This applies not only to government financing but also, for example, to financing for enterprises, households and banks. The low interest rates are attributable to a number of structural and cyclical factors. In addition to the highly accommodative monetary policy still being pursued on account of persistently low inflation in the euro area, an important role is also being played by a decline in potential growth and a high propensity to save, partly in the face of demographic change. On the other hand, the low interest paid by borrowers also means that savers are generating low returns on their financial assets.

Real interest rates after tax less remarkable than nominal interest rates

When assessing interest rate movements from the savers' perspective, a distinction should be made between nominal interest rates, which are often at the heart of the debate, real interest rates and after-tax real interest rates. For instance, all in all, the decline in interest rates is weaker and less remarkable when looking at real interest rates before and after tax. For savings deposits terminable at short notice, for instance, real interest rates after tax (in the case of higher personal tax rates) were frequently negative even in the past, making a perceptible move into positive territory in only a few years. The real rates of return on investments in ten-year bonds have also dropped markedly in the

period under review. The decline is somewhat weaker than in nominal terms. Looking at after-tax real rates of return (at higher tax rates) up to the start of this decade, however, no clear tendency can be identified, with values fluctuating between ½% and 2%. As a result of receding inflation, real tax burdens shrank and, in addition, statutory tax rates were cut. Both of these factors counteracted the decline in before-tax nominal interest rates. In the past few years, however, the after-tax real rates of return on longer-term bonds have also fallen significantly, moving into negative territory.

Real tax rate often well above statutory tax rate

On the whole, taxation of interest income has been scaled back in Germany over the past few decades. The factors that have contributed to this are general income tax cuts and, in particular, the introduction of withholding tax in 2009. In terms of the tax system and the economic effect, it should be noted that the inflationary compensation contained in nominal returns does not constitute a gain in financial capacity, but merely compensates for the inflation-induced depreciation of the savings amount.[14] Taxing nominal interest income can lead, even when inflation rates are moderate, to a high tax burden on real interest income. For example, if the inflation rate were close to 2% and the long-term real return on investment slightly above expected real potential growth of 1¼%, this would result in a nominal rate of return of around 3½%. Factoring in the withholding tax rate of 25%, this would produce a real tax rate in the order of 60%, which would still be markedly higher than the current top income tax rates of 42% and 45% respectively. When real interest rates are lower or inflation rates higher, the relative real tax burden is even higher.

Withholding tax and inflation-induced depreciation

Taxation of private interest income that is fully based on real values is not currently up for discussion and would probably be fraught with implementation issues in practice (eg when determining tax-relevant annual returns or selecting inflation variables). Irrespective of that, it would be necessary to bear in mind the high real burden in some cases when taxing at nominal rates in connection with a reform of withholding tax as discussed in some quarters and the advantages and drawbacks that this would entail. Since the introduction of withholding tax, nominal interest income is taxed at a lower rate than the personal income tax rate for higher incomes. However, even when inflation rates are moderate, low real interest rates result in high real tax rates on interest income.

14 The nominal principle set out in tax legislation tends to lead in some areas to the taxation of components that only compensate for inflation, eg also more generally in the case of income tax. However, the effect when taxing interest is usually particularly great.

The danger posed to the global economy by protectionist tendencies

Protectionism has reappeared on the international economic policy agenda. Calls for restrictions on cross-border trade are typically heard in phases of major macroeconomic problems. During the global financial and economic crisis, however, the leading economic nations declared their common support for the rules-based multilateral world trading system. Over the past years, global economic output has expanded steadily while unemployment in the group of industrial countries has receded.

Recent studies do point, though, to a negative impact of globalisation on local labour markets. In particular, low earners with limited geographical and sectoral mobility have suffered job and income losses. While trade liberalisation has yielded benefits on balance, their uneven distribution across sectors, regions and individuals is now threatening to weaken popular acceptance of globalisation and is presenting a challenge to policymakers. The topic of so-called global imbalances has likewise attracted critical attention. Persistent large surplus and deficit positions in current account balances are sometimes cited as evidence of a supposed uneven distribution of the benefits of the current world trading system.

Neither argument provides ammunition for attacking the existing trade system set-up. The structural problems arising from globalisation resemble – and often accompany – those relating to technological progress. Current account balances reflect saving and investment decisions and cannot be labelled as either good or bad without first analysing their backgrounds. Moreover, global imbalances are currently substantially lower than they were prior to the global financial and economic crisis.

Protectionist measures harbour the risk of inflicting self-harm even if they do not trigger retaliatory measures. As a rule, a country's own export industry suffers, and higher prices may depress consumption. This is also suggested by simulations using various macroeconomic models. A country's own economy would be negatively impacted at the latest when adversely affected partner countries took retaliatory action. The welfare losses for the world as a whole would then be even greater than before.

Protectionist tendencies pose a major danger to the global economy. There is thus a lot to be said in favour of defending and further developing the rules-based multilateral trading system. In order to tackle problems that may emanate from structural change, suitable adjustments should be made, if necessary, to education and economic policies as well as to tax and transfer systems.

Tendencies since the global financial and economic crisis

No slide to protectionism during the financial crisis

During the global financial and economic crisis, many feared that governments might be tempted to impose trade barriers in their quest to halt falling output and employment. Such a slide to protectionist measures probably exacerbated the global economic crisis in the 1930s.[1] There was no repeat of this in 2009.[2] Subsequently, global trade recovered quickly from the sharp economic downturn.

Sluggish growth in global trade over the past few years, …

Yet since 2012 global trade has grown sluggishly, also in relation to aggregate output, although the latter has likewise expanded less dynamically. However, protectionist tendencies do not appear to have been driving this.[3] This development probably owes more to the changed composition of global demand. In particular, global economic growth was largely fuelled during this period by the emerging markets, whose expansion is not as trade-intensive as that of the advanced economies.[4] In addition, capital formation, which is likewise often accompanied by a high level of imports, was restrained in the past few years by adjustments in the commodities sector and the realignment of the Chinese economy.[5] This demand-side explanation for the sluggish development of world trade is supported by the fact that the global economy's acceleration in recent quarters was notably accompanied by a pick-up in investment and in cross-border trade in goods.[6]

… but trade policy tendencies relatively inconspicuous

Information from the World Trade Organization (WTO) suggests that protectionist tendencies have not intensified over the last few years.[7,8] Following a temporary increase in 2013, the number of new trade restrictions adopted in the G20 countries, which account for the bulk of world trade, has been relatively stable. Yet only a fraction of the trade barriers imposed since 2009 have since been terminated, which means that their stock has steadily increased. However, many of these restrictions were trade remedy actions such as anti-dumping and countervailing investigations designed to counter unfair trading practices and which WTO member states are fundamentally entitled to introduce. In addition, a number of trade-facilitating measures were recorded. While the number of such trade-facilitating measures fell well short of the newly introduced trade restrictions, these figures should be interpreted with caution as the trade coverage of the measures may differ substantially.[9] At 6½% at the end of 2016, the share of G20 imports sub-

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1 See M J Crucini and J Kahn (1996), Tariffs and aggregate economic activity: Lessons from the Great Depression, Journal of Monetary Economics, Vol 38, pp 427-467. According to Eichengreen and Irwin, clinging to the gold standard, with the constraints on monetary policy that this entailed, was one of the main reasons for the relapse into protectionism; see B Eichengreen and D A Irwin (2010), The slide to protectionism in the Great Depression: Who succumbed and why?, Journal of Economic History, Vol 70, pp 871-897.

2 See C Henn and B McDonald, Avoiding protectionism, International Monetary Fund, Finance & Development, March 2010, pp 20-23.

3 See Deutsche Bundesbank, On the weakness of global trade, Monthly Report, March 2016, pp 13-35; IRC Trade Task Force (2016), Understanding the weakness in global trade – What is the new normal?, European Central Bank, Occasional Paper Series, No 178; and International Monetary Fund, Global trade: What's behind the slowdown?, World Economic Outlook, October 2016, pp 63-119.

4 See Deutsche Bundesbank, The decline in the elasticity of global trade to global economic activity, Monthly Report, January 2015, pp 27-29.

5 See Deutsche Bundesbank, Recent trends in world trade in goods, Monthly Report, March 2016, pp 23-24.

6 See Deutsche Bundesbank, Global and European setting, Monthly Report, May 2017, pp 10-11.

7 The WTO has been monitoring trade policy developments since 2009 and has reported on them at regular intervals. For further information, see WTO, Report on G20 trade measures, 30 June 2017, available at http://www.oecd.org/daf/inv/investment-policy/17th-Report-on-G20-Trade-and-Investment-Measures.pdf.

8 The WTO records traditional trade-restrictive measures, such as tariffs or anti-dumping measures. The Global Trade Alert (GTA) database, which is occasionally used as an alternative, also covers protectionist measures that are not directly aimed at international trade but may be of a discriminatory nature ("murky protectionism"), such as government aid for domestic companies. Bundesbank observations suggest that the GTA data are highly susceptible to revision, with corrections even being made to data from many years ago.

9 It should be noted that the information customarily included in the regular WTO reports does not take into account the extensive effect of implementing the ITA Expansion Agreement. This agreement aims to abolish tariffs on high-tech products, which make up around 10% of global goods trade. The initial steps of this implementation (since July 2016) already affected goods flows in the amount of US$375 billion (3% of the G20 countries' imports of goods). See WTO, Report on G20 trade measures, 10 November 2016, available at https://www.wto.org/english/news_e/news16_e/g20_wto_report_november16_e.pdf

ject to the import restrictions recorded since October 2008 was rather low.[10]

Despite steady economic growth and declining unemployment …

Overall, the global economic setting in recent years did not seem to foster stronger protectionist dangers. Global economic output expanded steadily, albeit at a moderate pace. The industrial countries saw a gradual decline in unemployment. Of late, the unemployment rate in some major economies has even dropped to lows that, in some cases, have not been reached in decades.

… more calls for protectionism of late

In the light of the above, it is all the more astonishing that protectionism has recently been identified by many observers as one of the most significant downside risks to the global economy.[11,12] Moreover, the jump in corresponding internet searches suggests that interest in the topic of protectionism shot up at the turn of 2016-17.[13] While one factor in this may have been the outcome of the presidential election in the United States, it would be oversimplistic to narrow this problem down to the United States alone. Demands which could ultimately lead to greater isolation of a country's economy have also been voiced in other mature economies.

Rationale behind protectionist measures

The calls for more restrictive trade policies are essentially based on two arguments: the dislocations induced by globalisation, especially on domestic labour markets, and so-called global imbalances.

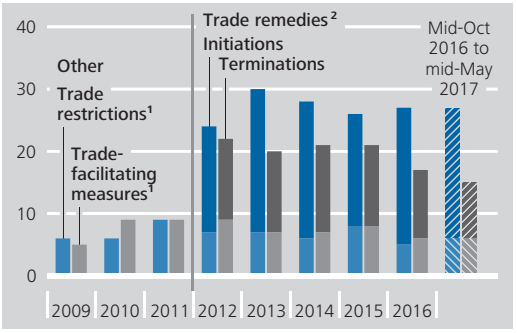
Employment losses in the manufacturing sector

Globalisation and long-term loss of importance of manufacturing for employment

The alleged adverse effects of globalisation are frequently cited in order to justify demands for restrictive trade policies. Some claim, for instance, that the United States has suffered massive job losses in the industrial sector due to competition from cheap imports following China's entry into the market. In fact, the number of jobs in the manufacturing sector fell from 17½ million in 1998 to just 11½ million in 2010 after essentially not having changed over more than three decades. Looking at the overall employment dynamics since the turn of the millennium, which have been greatly dulled by demographic change, the share of manufacturing jobs in total non-farm payroll employment contracted between 1998 and 2010 from 14% to just under 9%. While this contraction hardly stands out against the long-term loss of manu-

Newly introduced trade policy measures in the G20 countries

Number, average per month



Source: WTO Report on G20 trade measures (mid-October 2016 to mid-May 2017). **1** Export and import-related measures and other measures. **2** Trade remedies include anti-dumping and countervailing investigations as well as safeguards. Annual data on trade remedies before 2012 are not available.

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10 According to figures for the period from mid-October 2016 to mid-May 2017, newly introduced import restrictions and trade remedy initiations affected just over ½% of G20 imports. At the same time, 1¼% of imports benefited from additional trade-facilitating measures. This does not include the effects of implementing the ITA Expansion Agreement. See WTO, Report on G20 trade measures, 10 November 2016, ibid; WTO, Report on G20 trade measures, 30 June 2017, ibid.

11 See International Monetary Fund, Global prospects and policies, World Economic Outlook, April 2017, pp 23-24; and European Central Bank, The recent evolution of global risks – an assessment, Economic Bulletin, Issue 4 /2017, pp 36-39.

12 Crowley et al (2017) even argue that uncertainty about future trade policies alone could weigh on international goods flows. However, the effectiveness of such a channel to some degree contradicts the recovery of global trade recently observed. See M Crowley, H Song and N Meng, Protectionist threats jeopardise international trade: Chinese evidence for Trump's policies, VOX, 10 February 2017, available at http://voxeu.org/article/protectionist-threats-jeopardise-international-trade

13 See World Bank, Global Outlook: A fragile recovery, Global Economic Prospects, June 2017, pp 25-26.

Employment in the US manufacturing sector

Sources: US Bureau of Labor Statistics, Census Bureau, Haver Analytics and Bundesbank calculations. **1** Non-farm payroll employment. **2** Data refer to 18 sectors or product categories. **3** Chinese import penetration defined as the ratio of imports from China to the value of production.

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facturing employment in favour of jobs in the services sector,[14] a breakdown of the main US manufacturing industries does reveal that the job losses that have occurred since 2000 tended to be higher when the competition from imports, especially from China, was greater. This could be an indication that globalisation has accelerated the underlying structural change.

Marked job losses after opening up of markets to China

Earlier studies predominantly identified technological progress as the driving force behind the relative employment haemorrhage in the US manufacturing sector. They additionally argued that job cuts in the sectors or regions affected could have been offset without much ado by new employment opportunities in other areas. However, recent studies draw a more nuanced picture.[15] They state that a substantial part of industrial job losses were attributable to the increase in Chinese imports.[16] They also say that the job cuts that occurred in sectors in direct competition with imports and among the associated suppliers then spilled over into other industries via income and demand losses.[17] Another finding is that the increased competitive pressures prompted firms to invest in labour-saving technology, an effect that was amplified by US corporations' offshore and outsourcing activities.[18]

Persistent effects on local labour markets; low earners particularly hit

The adverse labour market effects in the regions of the United States where the affected industries are concentrated were found to be comparatively persistent. Migration processes seem to have played an insufficient role as an offsetting mechanism.[19] Low earners, in particular, remained in their region and industry and suffered sizeable income losses. By contrast, those on a higher income – most likely owing to their higher level of education – appeared better able

14 According to the data of the US Bureau of Labor Statistics, which date back to 1939, the peak share of manufacturing employment (38%) was reached way back in 1943.
15 See DH Autor, D Dorn and GH Hanson (2016), The China shock: Learning from labor-market adjustment to large changes in trade, Annual Review of Economics, Vol 8, pp 205-240.
16 Autor et al (2013) quantify the contribution at around one-quarter of the reduction in employment in industry between 1990 and 2007. See DH Autor, D Dorn and GH Hanson (2013), The China syndrome: Local labor market effects of import competition in the United States, American Economic Review, Vol 103, pp 2121-2168.
17 According to Acemoglu et al (2016), the number of job cuts between 1999 and 2011, which the authors attribute to Chinese import competition, increased from just under 1 million (around half of which occurred in the industries directly affected and half in their upstream suppliers) to up to 2½ million. See D Acemoglu, DH Autor, GH Hanson and B Price (2016), Import competition and the great U.S. employment sag of the 2000s, Journal of Labor Economics, Vol 34, pp S141-S198.
18 See JR Pierce and PK Schott (2016), The surprisingly swift decline of US manufacturing employment, American Economic Review, Vol 106, pp 1632-1662.
19 This is consistent with empirical studies which found that the level of geographical mobility in the US economy has diminished over time. See R Molloy, CL Smith and A Wozniak (2011), Internal migration in the United States, Journal of Economic Perspectives, Vol 25, pp 173-196.

to find new jobs, also in a different industry, and to suffer virtually no income cuts.[20]

More favourable finding for Germany

In Germany, on the other hand, it appears that globalisation tends to have boosted industrial workers' earnings. The key factor was evidently that new opportunities in the export sector more than offset the dampening effect in the segments competing with imports. But for Germany, too, noticeable distribution effects and dislocations are perceived on the labour market.[21]

Positive effects predominate in other sectors and regions

Such partial analyses, however, disregard potential favourable effects of globalisation. Although a general equilibrium analysis in the context of a dynamic trade model with regional labour markets confirmed the dampening effect of China's integration into the global economy on employment in the US manufacturing sector,[22] it was found that other economic sectors created more extra jobs than were lost in industry. On the whole, the results indicate an increase in US welfare as especially consumers benefited from access to cheaper goods from China. There were, however, large differences in the labour market and welfare effects across regions.[23] This poses a potential danger to the popular acceptance of globalisation and presents policymakers with considerable challenges.[24]

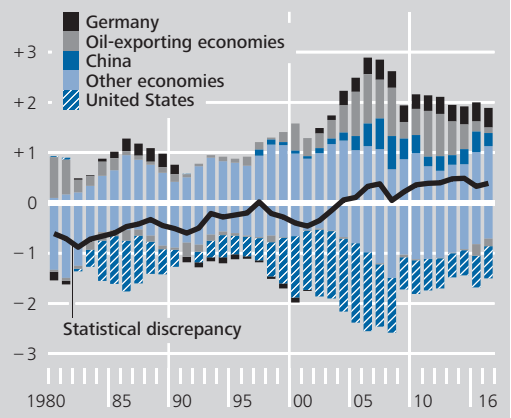
Global imbalances

Opportunities and risks from current account balances

Calls for protectionist measures also point by way of justification to so-called global imbalances. These relate to persistent, large balances on national current accounts.[25] Extensive surplus and deficit positions are sometimes interpreted as a sign of an uneven distribution of the current world trading system's benefits. However, such balances are ultimately the result of an economy's saving and investment decisions, with a deficit indicating the funding shortfall financed by the rest of the world. In the sense of an intertemporal trade analysis, an economy's deficit enables it to take up funds to expand its potential output without having to restrict current consumption accordingly. Conversely, countries with a surplus are able to share in the growth potential of economies with current account deficits. However, extensive balances may also reflect unsound developments (eg of a fiscal nature or in the exchange rate regime) that are not sustainable in the long term. A large deficit, for instance, harbours the risk that financial flows from other countries may suddenly dry up and thereby necessitate a painful adjustment.

Current account balances

As a percentage of global GDP



Sources: IMF World Economic Outlook and Bundesbank calculations.

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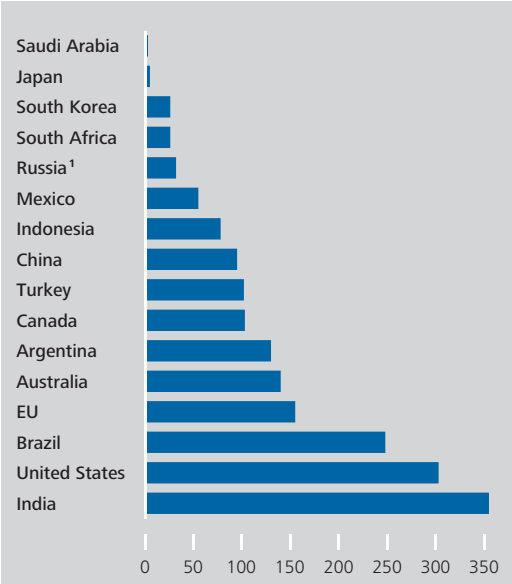
20 See D H Autor, D Dorn, G H Hanson and J Song (2014), Trade adjustment: Worker-level evidence, Quarterly Journal of Economics, Vol 129, pp 1799-1860.
21 See W Dauth, S Findeisen and J Suedekum (2017), Trade and manufacturing jobs in Germany, American Economic Review: Papers & Proceedings 2017, Vol 107, pp 337-342.
22 Caliendo et al (2015) estimate that opening the market to China cost the US manufacturing sector 0.8 million jobs in all between 2000 and 2007. This is equivalent to half of the fall in the sector's share of employment that cannot be explained by a long-term trend. See L Caliendo, M Dvorkin and F Parro, Trade and labor market dynamics, Federal Reserve Bank of St Louis, Working Paper 2015-009C.
23 Furthermore, Caliendo et al (2015) show that opening markets up to China also increased the welfare of other countries, albeit to varying extents. See L Caliendo, M Dvorkin and F Parro (2015), op cit.
24 See also OECD, How to make trade work for all, Economic Outlook, June 2017, pp 63-106; and Bank for International Settlements (2017), Understanding globalisation, 87th Annual Report, Chapter VI.
25 For further information, see Deutsche Bundesbank, The role of trade in goods in the development of global imbalances, Monthly Report, January 2015, pp 13-32.

Initiations of trade remedy* investigations the G20 countries between 2008 and 2016**

Number, cumulated



Sources: OECD, WTO und UNCTAD (Reports on G20 trade and investment measures), WTO Trade Monitoring Database and Bundesbank calculations.* Trade remedies: anti-dumping and countervailing investigations as well as saveguards. ** Some data are based on unofficial sources which were not verified by the WTO. **1** No data available for Russia for 2008.

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Global imbalances contained since the crisis

Prior to the global financial and economic crisis, the US current account deficit, in particular, was therefore deemed a downward risk for the global economy. Measured as the sum of national deficits, the global imbalances rose from around 1% of global economic output in the mid-1990s to 2½% ten years later.[26] Of this amount, the US deficit alone accounted for 1½ percentage points. Yet the feared abrupt adjustment via a sharp depreciation of the US dollar did not materialise. Instead, the imbalances declined in the wake of the global recession and, since then, have held steady at a level of just over 1½% of global output.[27] The US current account deficit fell from 6% of US gross domestic product (GDP) to 2½%.

Adjustment of current account deficit primarily a national task

Given this scale of global imbalances, both the direct threat of an escalating danger for the global economy and the urgency of further adjustments appear rather small. Moreover, individual surplus countries would hardly be able to significantly reduce the US current account deficit by increasing their demand (see the box on pages 83 to 85).[28] This is due first to the order of magnitude involved. Thus the US economy is over five times as large as the German economy. A second obstacle is that increased demand – for instance in Germany – would not just affect the United States. It would also stimulate domestic output and exports from other economies with which Germany has close trade ties and, not least, from those countries that have surpluses themselves.[29] Experience in the past few years in countries that export crude oil has shown that the reduction of individual economies' current account surpluses has neither helped to remove global imbalances nor to eliminate the US deficit.[30] The crucial requirement to achieve the latter would rather be to influence saving and investment decisions in the United States itself, eg by shifting fiscal policy onto a consolidation course.

Caution needed when interpreting bilateral trade balances

Proponents of the hypothesis that the current trading system is unfair frequently refer to balances in the bilateral trade of goods and services. However, it is not easy to interpret such bilateral balances. Even focusing on absolute values can be misleading (see the box on pages 87 and 88). This is because the absolute value depends not least on the scale of the mu-

26 In theory, the national current account balances should sum to zero. In practice, however, a statistical discrepancy is observable. Thus the size of the global imbalances differs slightly depending on whether it is calculated on the basis of the sum of all current account deficits or surpluses.
27 The sum of current account surpluses was slightly higher and fell from just under 3% of global economic output in 2006 to around 2% in recent years.
28 See also Deutsche Bundesbank, On the problems of macroeconomic imbalances in the euro area, Monthly Report, July 2010, pp 17-38.
29 The spillover effects would be limited, even within Europe. See Deutsche Bundesbank, The international spillover effects of an expansion of public investment in Germany, Monthly Report, August 2016, pp 13-17.
30 The group of crude oil-exporting countries (as defined by the International Monetary Fund) reported aggregate current account surpluses of almost 1% of global economic output in 2011. However, these surpluses had been almost entirely eroded by 2016. The fall in oil prices, which is likely to have played a key role in this contraction, concurrently contributed directly to improving the US current account balance.

Possibilities for adjusting the US current account deficit

The US economy's external position has recently become a focus of public debate in connection with potential trade policy measures. Prior to the global financial and economic crisis, a disorderly adjustment of the US current account deficit was considered one of the most significant risks to the global economy.[1] In 2006, the deficit amounted to almost 6% of US gross domestic product (GDP), causing serious questions to be raised as to its sustainability.[2] However, the United States' current account balance then contracted considerably in the wake of the recession of 2008-09 and amounted to merely 2½% of US GDP in 2016, as in 2015. In addition, there was a marked shift in the sectoral structure of the deficit. Thus the current account deficit last year was solely attributable to government borrowing requirements, whereas ten years earlier households (including non-corporate business) had also recorded net borrowing.

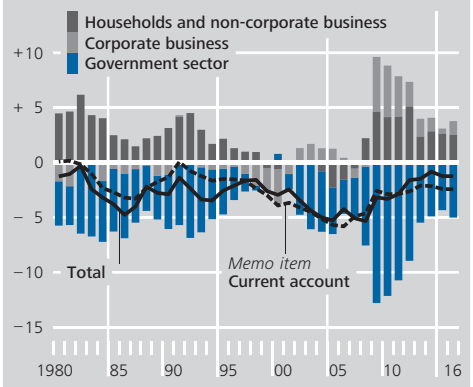
In the light of this change, the adjustment need not only appears smaller than before but also less urgent. In addition, it is probably closely linked to the need to consolidate public finances. Nonetheless, the analysis below outlines possible options which could contribute to further narrowing the US current account deficit. The macroeconomic effects are determined via simulations using NiGEM, the global economic model developed by the National Institute of Economic and Social Research (NIESR).[3]

A current account deficit implies that an economy invests more than it saves; in other words, domestic absorption exceeds GDP. It therefore makes intuitive sense to reduce financing needs vis-à-vis the rest of the world by curbing domestic demand. According to a calculation in NiGEM, a permanent reduction in domestic demand in the United States by 1% of GDP would improve the current account balance by ½ percentage point in the long run.[4] Yet, at the same time, US economic output would be significantly dampened, especially in the short run.[5]

For this reason, there have been numerous calls for adjustment by boosting demand in surplus countries. While a permanent increase in German domestic demand by 1% of domestic GDP would considerably worsen Germany's current account balance (by ¾ percentage point in relation to GDP in the long run), the positive effect on the external position of the United States would be marginal.[6]

Sectoral net lending in the United States

As a percentage of GDP



Sources: Bureau of Economic Analysis and Bundesbank calculations.

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1 See for example International Monetary Fund, Global prospects and policy issues, World Economic Outlook, September 2006, pp 12-16.

2 This figure was equivalent to more than half of global imbalances as measured by the sum of national current account deficits.

3 NiGEM models most OECD countries as well as major emerging markets and their economic interconnectedness via foreign trade and the interest rate-exchange rate nexus. The model has New Keynesian features as well as forward-looking elements on the financial and labour markets. See https://nimodel.niesr.ac.uk.

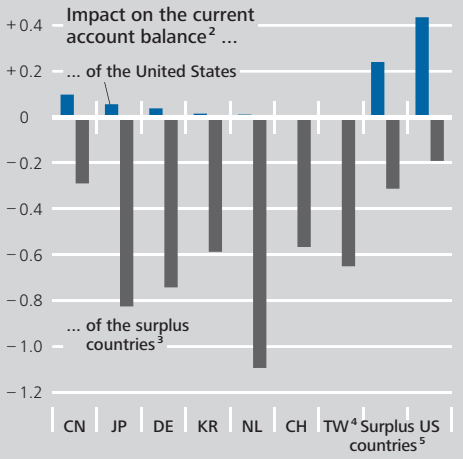
4 To this end, public consumption is reduced exogenously (and with the fiscal rule deactivated) so as not to affect the equations for private demand variables. The scenario can be interpreted as a general decline in demand, as imports are a function of aggregate demand in NiGEM. Monetary policy follows a conventional monetary policy rule here, as in the following simulations.

5 Real GDP would fall by ¾% relative to the baseline in the short term, and by ¼% in the long term.

6 See Deutsche Bundesbank, The international spillover effects of an expansion of public investment in Germany, Monthly Report, August 2016, pp 13-17.

Impact of country-specific changes in demand on current account balances in NiGEM simulations*

Deviation[1] from the baseline in percentage points



* Bundesbank calculations using NiGEM or IMF data. Permanent increase in public consumption or domestic demand by 1% of GDP in the respective surplus country; for the United States an analogous reduction of public consumption. Endogenous monetary policy response in accordance with standard rules. **1** Average over 14 years. **2** As a percentage of GDP. **3** In the case of the United States and the group of countries, impact on aggregate current account balance of the surplus countries listed. **4** Taiwan, province of China. **5** Group of aforementioned countries excluding the United States.

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This is due, not least, to the two economies' relative sizes: measured at market exchange rates, US economic output last year was more than five times as high as that of Germany.

If, alternatively, China were to stimulate domestic demand on the same scale,[7] the impact on the US current account balance would be somewhat larger but still small according to the model simulation. Even if seven major surplus countries were to simultaneously boost their demand by 1% of GDP,[8] the US current account balance would improve by just ¼ percentage point in the longer term. This is because the additional demand would not be confined to goods from the United States. Instead it would also encompass domestic products and goods from other countries, which in some cases likewise have a current account surplus.

In order to be sustainable, the stimulus must also have a permanent impact. If the expansion in demand were generated by fiscal measures, the related costs to public finances would cumulate over time. This means that fiscal sustainability should also be taken into consideration as a limiting factor. Overall, there seems little prospect that the mismatch between savings and investment in the United States could be resolved by steering demand in the surplus countries.

A final option to be considered for reducing the US current account deficit is a gradual financial market-driven depreciation of the US dollar; such an exchange rate shift would occur via a higher risk premium for investments in the US currency.[9] In contrast to the risk scenario of a sudden drying-up of capital flows, financial investors would incrementally realign their portfolios in favour of other countries or currencies and thus enable the economies to adjust with fewer frictions. Even so, the model simulation shows that a gradual nominal depreciation of 10% (in effective terms) in the long term would improve the US current account balance by ¾ percentage point. The shift in relative prices would divert national and international demand and thus contribute to a steep decline in US real imports and a considerable increase in exports.

The rebalancing of the US economy would go much deeper, however, since financing conditions would worsen in the context of the de-

7 In the simulations for China, South Korea, Switzerland and Taiwan (province of China) domestic demand is directly increased on a permanent basis.
8 China, Japan, Germany, South Korea, the Netherlands, Switzerland and Taiwan.
9 The scenario is created in NiGEM by a staggered row of simulations in which within eight quarters a limited risk premium is permanently introduced in each case into the uncovered interest parity between the US dollar and all other currencies such that, conversely, the United States' trading partners' currencies gradually appreciate. To this end the fixed exchange rates outside Europe that are anchored in the model are suspended. See also R Barrell, D Holland and I Hurst, Sustainable adjustment of global imbalances, in A Åslund and M Dabrowski (eds), Challenges of globalization: Macroeconomic imbalances and growth, Peterson Institute for International Economics, July 2008, pp 107-125. For the role that the preferences of international investors play in the US current account deficit and US dollar exchange rate, see also O Blanchard, F Giavazzi, F Sa, International investors, the US current account, and the dollar, Brookings Papers on Economic Activity, Vol 1:2005, pp 1-49.

preciating currency. The real long-term interest rate would be distinctly higher than in the baseline scenario.[10] As a result, investment would plummet. In addition, households would rein in their real consumption significantly on the back of higher import and consumer prices. US GDP would consequently be 2½% lower in the long run. Mirroring the development in the United States, other economies would benefit from the positive effects of appreciation and improved financing terms. Conversely, the simulation illustrates that, from this perspective, the United States could benefit considerably from a strong dollar and its current account deficit. Foreign investors' preference for financial assets in the United States allows US citizens to increase their domestic absorption in excess of their incomes.[11] A dollar depreciation resulting from a shift in risk premiums would not boost US GDP but rather reduce it, albeit not to the same extent as domestic demand.

10 As a result of the United States' position as a net external debtor, the interest rate increase also leads to increased payments to the rest of the world. This dampens the improvement in the US current account balance; it is smaller than the improvement in the trade balance. This implies that a current account adjustment via depreciation would not be as effective today as it would be in the case of a smaller net foreign debt. Nonetheless, the revaluation leads to a considerable improvement in the net international investment position.
11 For the role played by the United States in the international capital markets and the implications for the current account deficit, see also C C Coughlin, M R Pakko and W Poole, How dangerous is the US current account deficit?, Federal Reserve Bank of St Louis, The Regional Economist, April 2006, pp 5-9; P-O Gourinchas und H Rey (2014), External adjustment, global imbalances, valuation effects, in G Gopinath, E Helpman and K Rogoff (eds), Handbook of International Economics, Vol 4, pp 585-645; Y Chien and K Naknoi (2015), The risk premium and long-run global imbalances, Journal of Monetary Economics, Vol 76, pp 299-315.

tual trade links. If, for example, the US deficit in trade in goods with Germany is set in relation to the value of bilateral trade, it is less elevated in international terms than the absolute numbers might suggest. In addition, consumers' specific preferences and product specialisation may be important factors in the bilateral balance in the trade in goods.[31] International production chains mean that the reported amounts also contain value added from other economies.[32] While the respective trade policy may play a role, it is hardly possible to infer the extent of protectionism from the bilateral trade balance alone. According to WTO data, the United States – along with India and Brazil – are among those G20 countries that have initiated the most trade remedy investigations since 2008.[33]

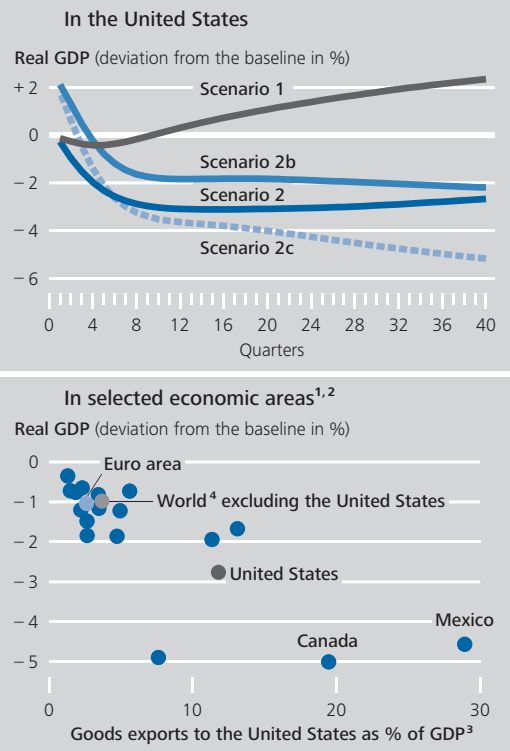
Simulations using macroeconomic models

Various modelling approaches

Advocates of trade restrictions hope that these will increase national welfare, not least by raising output and employment. To estimate the macroeconomic effects of possible protectionist measures, the following section presents simulations using two macroeconomic struc-

31 Balances in the trade in goods are normally the main feature of the current account balance. The trade balances for fuels and motor vehicles are particularly pronounced in relation to the respective trade values. The former may reflect the uneven geographical distribution of natural resources and the latter differentiated product specialisation. See Deutsche Bundesbank, The role of trade in goods in the development of global imbalances, op cit, pp 18-23.
32 See Deutsche Bundesbank, Decomposition of bilateral gross trade balances into direct value added flows and third-country effects, Monthly Report, October 2014, pp 33-36.
33 From the available data it cannot be readily determined which of these measures may have been a legitimate response to unfair trade practices of other countries and which could be deemed protectionism using legal means. The World Bank reports comparatively high average customs duties for Brazil and India.

Output effects of imposing an import duty in the United States in NiGEM scenarios*



Source: Bundesbank calculations using modified NiGEM versions. * Imposition of a permanent price mark-up of 20% on exports of goods (excluding raw materials) to the United States. Monetary policy responses in accordance with standard rules. Scenario 1: endogenous adjustments to deviations of export prices including duty; no fiscal impact. Scenario 2: endogenous adjustments to deviations of export prices excluding duty; no fiscal impact. Scenario 2b: as scenario 2, but duty revenues captured and used to increase public-sector demand. Scenario 2c: as scenario 2b, but partner countries levy retaliatory duty of 20% (no fiscal impact). **1** In Scenario 2. **2** Average of the first ten years. **3** Based on the figures for 2016. For the United States total goods imports. **4** Aggregation power parities.
Deutsche Bundesbank

tural models that have been adapted for this purpose. The first is NiGEM, the global economic model of the National Institute of Economic and Social Research (NIESR). On the basis of empirically estimated error correction equations, this model aims to show the behaviour of key macroeconomic variables for a plurality of countries.[34] The second is a New Keynesian dynamic stochastic general equilibrium model (DSGE model) designed by the Bundesbank for three global regions (here the United States, the euro area excluding Germany, and Germany). The advantage of this model lies in its detailed microeconomic foundation which also makes it possible to consider welfare aspects.[35] In the examples, it is assumed that the United States permanently imposes a general import duty of 20% on import prices.

NiGEM

Higher prices and lower economic output in the USA …

In NiGEM, the assumed US import duty is depicted as a mark-up on foreign firms' prices of exports to the United States.[36] From the US viewpoint, customs duties would directly result in a rise in import and consumer prices. The resulting appreciation of the US dollar could only mitigate this effect. Higher inflation would depress private consumption, with negative consequences for domestic economic activity. The macroeconomic effects of a general import duty would thus be similar to those of a negative technology shock which inflates prices and constrains economic output. US exports, too, would drop in real terms due to the appreciation of the US dollar and a lower level of demand abroad. Nevertheless, there would be a marked improvement in the US current account balance, not least because real imports would fall at a sharper rate as they would have become more expensive.

34 In NiGEM, most of the OECD countries and major emerging markets are modelled separately and linked to each other via foreign trade as well as the interest rate-exchange rate nexus. The model has New Keynesian features as well as forward-looking elements on the financial and labour markets. For further information on the model structure, see https://nimodel.niesr.ac.uk

35 For an overview of the basic structure of such a model, see Deutsche Bundesbank, Development and application of DSGE models for the Germany economy, Monthly Report, July 2008, pp 31-46.

36 As NiGEM, in the form provided by NIESR, is unable to capture bilateral trade flows, extensive modifications are necessary. The focus on the prices of exports to the USA follows Ebell and Warren (2016) and Ebell et al (2016). However, they consider endogenous shocks, and the persistence of the resulting effects is ultimately pre-specified. By contrast, the approach adopted here makes it possible to study the endogenous adjustment mechanisms in response to permanent exogenous shocks. Overall, the price systems of 18 US trading partners and three regions have been adjusted, which together account for around 90% of US foreign trade. See M Ebell and J Warren (2016), The long-term economic impact of leaving the EU, National Institute Economic Review, Vol 236, pp 121-138; as well as M Ebell, I Hurst and J Warren (2016), Modelling the long-run economic impact of leaving the European Union, Economic Modelling, Vol 59, pp 196-209.

The magnitude of the United States' bilateral trade balances

The political debate surrounding the United States' persistent current account deficits has repeatedly centred on the large trade deficits it runs with individual partner countries. According to one line of argument, these bilateral balances could be seen as an indication of unfair trade practices. In the past, such accusations were levelled mainly at emerging market economies in Asia, but recently a number of other countries have also come under attack. Criticism has centred on China, as well as Mexico, Japan and Germany. In arithmetic terms, these four economies have accounted in recent years for around three-quarters of the United States' overall trade deficit of just over 4% of gross domestic product.

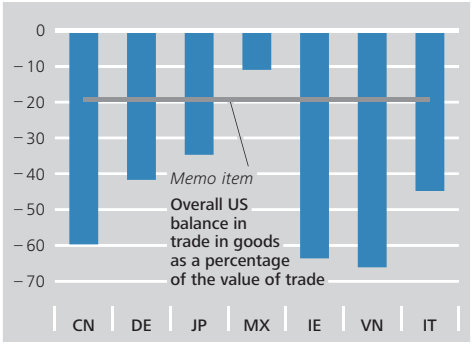
Germany's bilateral current account surplus with the United States amounted to €56 billion in 2016 according to the Bundesbank's balance of payments statistics. In the US balance of payments deficits with Germany are reported as being slightly higher.[1] Such discrepancies, where two countries record the data relating to their bilateral relations somewhat differently, are termed statistical asymmetries and may be caused, for instance, by different data collection methods or data availability. Many of these difficulties result from the existence of third countries which may influence the bilateral current account directly (as a trading partner) or indirectly (as a transit country).[2]

However, bilateral current account balances are of limited meaningfulness not only because they disregard relations with third countries. Even where all countries' current accounts are balanced, there may be considerable positive or negative balances between individual partners, say because of different specialisation patterns.[3] Given that the US balance of trade as a whole is in deficit, the United States can, moreover, be expected to run a large deficit in absolute terms with any partner with which it conducts a large volume of bilateral trade. Individual countries' large surpluses often shrink into perspective once they are compared with the respective trade values. Thus the US trade deficit amounted to nearly 20% of the country's total value of trade in the years 2014 to 2016. The trade deficit with

1 In 2015, the difference totalled €4.6 billion, while it was €8.5 billion in 2016.
2 For example, the United States' large trade surplus with the Netherlands could be seen as an indication that US products reach buyers in Germany via Dutch sea ports.
3 Divergent industrial specialisation patterns are reflected in mismatches in the trading partners' respective export profiles and influence bilateral trade balances, in part via third-country effects. For instance, Germany is heavily reliant on commodity imports, while the United States is rich in natural resources. This means that Germany tends to have trade deficits with countries such as Russia. Even if, hypothetically speaking, Germany's overall trade account were perfectly balanced, these bilateral deficits would have to be offset by trade surpluses with other countries, such as the United States. For this line of reasoning, see P Krugman, On the US-Germany imbalance, blog entry of 31 May 2017, available at https://krugman.blogs.nytimes.com/2017/05/31/on-the-us-germany-imbalance

The United States' bilateral deficits in trade in goods with selected economies*

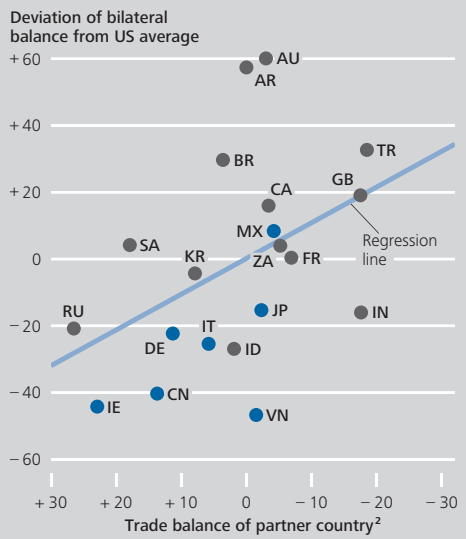
Mean for 2014-16 as a percentage of the value of trade[1]



Sources: IMF Direction of Trade Statistics and Bundesbank calculations. * Economies with the largest arithmetic contribution to the US trade deficit. **1** Sum of imports and exports.
Deutsche Bundesbank

The United States' bilateral deficits and surpluses in trade in goods with selected economies*

As a percentage of the value of trade[1]



Sources: IMF Direction of Trade Statistics and Bundesbank calculations. * G20 states and countries with a large surplus in bilateral trade in goods with the United States; economies with the largest arithmetic contribution to the US deficit are marked in blue. **1** Sum of imports and exports; mean for 2014-16. **2** Axis inverted.

Deutsche Bundesbank

Mexico, by contrast, was only roughly one-seventh of the bilateral value of trade. While the deficit with Germany was twice as high as the US average percentage, deviations of a similar magnitude are also observed for Japan and Italy. According to this criterion, the deficits with Vietnam, Ireland and China, amongst others, were even more striking.

But in addition to reflecting the value of trade and the US economy's overall deficit, bilateral balances may also be affected by the respective partner country's foreign trade profile. Thus large deficits are likely to accrue especially in trade relations with economies that are net exporters on the global markets. That includes China, Germany, Italy and Ireland. And indeed, the German balance in the transatlantic trade in goods is only slightly larger than one would expect given the opposite signs and relative magnitudes of the national trade balances.[4]

At the macroeconomic level, the gap between exports and imports, as part of the current account, reflects national saving and investment decisions, which, in an open economy, can barely be influenced by trade policy instruments. In any case, the United States' trade balances with individual countries cannot be construed as direct evidence of supposed trade-distorting policy measures in the partner countries. This is also true of US-German trade links, although the euro's current external value does give German exporters comparatively favourable price competitiveness.

All in all, bilateral balances in the cross-border exchange of goods are therefore not a reliable indicator of unfair trade practices. Hence caution is warranted when deriving consequences for economic policy such as the possible imposition of tariffs. There are, moreover, grounds for doubting the proposition that the US foreign trade position could be improved noticeably by introducing import barriers.[5] In actual fact, such steps are likely to weaken not only the partner countries but also the US economy itself and increase the risk of spiralling international trade disputes.

4 Notwithstanding some fairly large forecast errors, the national trade balances have, overall, considerable explanatory power for the sign and the level of the United States' bilateral positions vis-à-vis major trading partners in recent years. For an earlier, more critical assessment of the approach, see D R Davis and D E Weinstein (2002), The mystery of the excess trade (balances), American Economic Review, Vol 92, pp 170-174.

5 In approaches based on New International Macroeconomics and in the New Keynesian model world, the introduction of tariffs may even result in a deterioration of the balance of trade in the short term. See S Reitz and U D Slopek (2005), Macroeconomic effects of tariffs: Insights from a New Open Economy Macroeconomics Model, Schweizerische Zeitschrift für Volkswirtschaft und Statistik, Vol 141, pp 285-311; and G Ganelli and J Tervala (2015), Value of WTO trade agreements in a New Keynesian model, Journal of Macroeconomics, Vol 45, pp 347-362.

… and in other countries

In other countries this would not just adversely affect their exports. The relative depreciation of their currencies would also diminish purchasing power, causing private consumption and GDP to contract. In this model framework, imposing a duty on imports to the United States would therefore trigger symmetric effects both there and in its trading partners. And the closer an economy's trade links with the United States, the greater these effects would tend to be in that partner country. Hence the GDP losses incurred in Canada and Mexico would be especially high. The repercussions for the euro area would be less severe.

Exporters' price-setting behaviour key to scale and persistence of effects

The scale and persistence of the macroeconomic effects would largely hinge on the price-setting behaviour of exporters in the individual trading partner countries. Inasmuch as exporters responded to the imposition of a duty by gradually lowering their net prices, the price shock would gradually wane.[37] The adverse GDP effects in the United States would then be comparatively small from the outset, become less significant over time and ultimately reverse. However, if foreign firms adjusted the (dollar) prices of their exports to the USA only marginally, the macroeconomic damage for the United States would be quite significant and persistent. Real US GDP would remain 3% below the baseline in the third year of the model calculation, with private consumption falling over 4% short. At the same time, aggregate output in the rest of the world would be pushed down by almost 1%. Ultimately, the improvement in the US external trade position would likewise be less pronounced.

Fiscal effects and retaliation

However, a new import duty would not only have a direct impact on prices and an indirect impact on output, it would also lead to a significant increase in revenue for the US Treasury, which could be used to finance additional expenditure. It is thus likely that increased government demand would mitigate the fall in output in the United States in the short to medium term. That said, the contractionary forces at play on the supply side would later predominate. In this scenario, the US current account balance would actually deteriorate. If the USA's trading partners resorted to retaliation, eg by likewise imposing a 20% tariff on imports from the United States, the GDP loss for the US economy would be considerably greater. A major factor in this would be the sharper decline in US exports, which would also be reflected in an initially even larger current account deficit. However, in this model framework retaliation on the part of trading partners would not necessarily put them in a better position.[38]

DSGE model

GDP losses across the globe, …

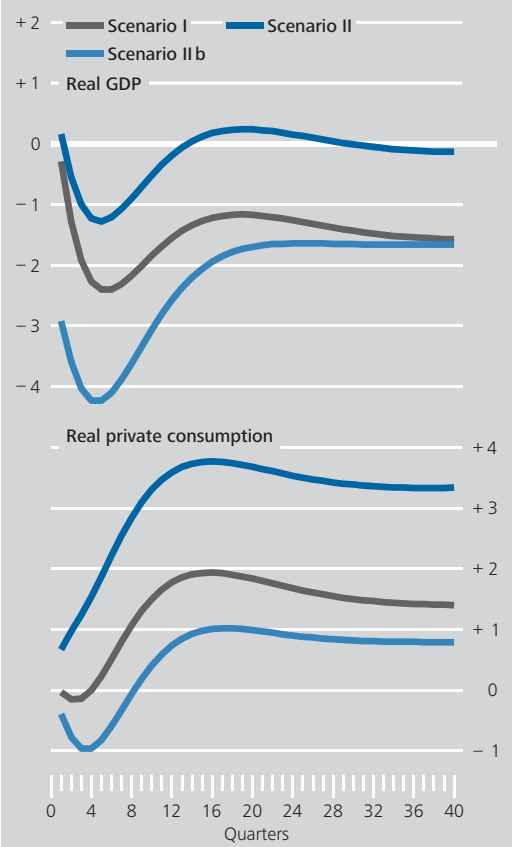
Under the New Keynesian DSGE model, too, real GDP in both the United States and elsewhere would contract upon the introduction of an import tariff owing to similar mechanisms to those operating in NiGEM. On the one hand, the burden imposed on imports by the tariff would likely dampen US demand for foreign goods, generating a drag on output in Europe; on the other hand, the demand for US-produced goods would fall on this side of the Atlantic owing to depressed incomes and higher prices in the wake of an appreciating dollar. In the long term, the economic output of the United States as well as of the world as a whole would shrink by 1½%. In view of the greater importance of foreign trade for the German economy, its GDP losses would be larger in percentage terms than in the rest of the euro area.

37 In turn, exporters' price-setting behaviour would probably depend crucially on how far they factor the demand effects of the import duty into their costing ex ante and how fast they adjust their own prices when these differ from those of their competitors. This is ultimately an empirical question. With respect to a possible border tax adjustment within corporation tax, Buiter (2017) likewise highlights the role of exporters' price-setting behaviour regarding tax inclusion (and currency choice). See W H Buiter (2017), Exchange rate implications of border tax adjustment neutrality, Centre for Economic Policy Research, Discussion Paper, No DP11885.

38 This would at least be the case assuming that exporters barely adjust their net prices and disregarding fiscal aspects of retaliation.

Domestic effects of imposing an import duty in the United States in the context of a DSGE model*

Percentage deviation from the original long-run equilibrium



* Calculations based on a Bundesbank DSGE model for three economic areas. Permanent import duty of 20%. Model adapted to capture United States, Germany and the euro area (excluding Germany). Scenario I: duty revenues transferred in lump sums to households. Scenario II: duty revenues used to reduce wage tax. Scenario II b: imposition of a retaliatory duty of 20% in the rest of the world, with duty revenues used to reduce wage tax.

Deutsche Bundesbank

… but US consumers would benefit from improvements in the terms of trade

If the revenues from the import duty were transferred in lump sums to US households, the latter's scope for spending would barely be constrained. Moreover, the direct price shock would also be followed by a gradual reduction in the sales prices of foreign goods, and not just because of the appreciation of the US dollar against the euro. Under this model framework, European exporters would also lower their net prices in euro terms with a view to maximising their profits. Consequently, US households could benefit from an improvement in the US economy's terms of trade.[39] In the rest of the world, the shift in relative prices would reduce real consumption options. In the long term, private consumption in Germany might contract by more than 3% according to the model simulations, and in other euro-area economies it could decrease by around 2%, while in the United States it would expand by just over 1%.

Better outcome if wage tax is concurrently reduced, …

If the revenues from the US import duty were used to lower wage tax, the domestic labour supply would increase, and the GDP losses would be smaller. In the long term economic output in the United States would then not be impaired at all and employment could grow somewhat. Households would increase their consumption even more.

… but this would be offset by retaliatory tariffs

However, this benign outcome for the United States would only endure for as long as its trading partner countries refrained from taking retaliatory action. The introduction of an equal retaliatory tariff would significantly reduce the change in the terms of trade in favour of the United States, which would severely curtail the consumption effects in the USA compared with the scenario in which no retaliation occurs. Conversely, euro-area consumers would be placed in a better position. But the DSGE model simulation likewise indicates that, as a result of retaliatory action, global output losses (at almost 2%) would be higher in the long run.

Economic policy implications

Model results should be interpreted with caution

Macroeconomic models simplify the world in many respects, hence the results of such simulations should generally be interpreted with caution. In particular, the models used here are based on representative firms and households, which means that different behaviour and dis-

39 The DSGE model thus confirms the finding of traditional foreign trade theory that a large country stands to benefit from imposing an import duty thanks to improved terms of trade. This was also shown earlier in a similar New Keynesian model framework designed by Reitz and Slopek (2005). See S Reitz and U D Slopek (2005), Macroeconomic effects of tariffs: Insights from a New Open Economy Macroeconomics Model, Schweizerische Zeitschrift für Volkswirtschaft und Statistik, Vol 141, pp 285-311.

tributional effects are ignored. Supply-side linkages via global production chains are likewise not captured, and substitutional effects between products from different countries may be insufficiently taken into account. Longer-term interrelationships between an economy's degree of openness and productivity dynamics are also left out of the equation. Moreover, the financial systems are modelled in only a rudimentary fashion. However, protectionist measures could divert capital flows via their impact on exchange rates, triggering financial dislocations, not least in emerging market economies, with potentially serious macroeconomic consequences. All in all, there are some indications to suggest that the simulations presented here may understate the adverse effects of protectionist measures.

Purchasing power losses and output distortions

Both models point to the possibility of considerable macroeconomic damage caused by the imposition of import duties, including in the imposing country.[40] The aspired objective of reducing global imbalances is not achieved in realistic NiGEM scenarios; the production of tradable goods in the United States is similarly dampened under the DGSE framework.[41] Moreover, the DSGE analyses indicate that, although a clever combination of policy measures may boost domestic wealth at the expense of other countries, retaliatory measures contain those countries' losses and also harm the protectionist country. Similarly to the classic prisoner's dilemma, optimisation strategies on both sides could therefore lead to a situation in which all parties levy tariffs and everybody is worse off in the end. Hence, even large economies cannot assume that they will gain an advantage by erecting trade barriers. Such a scenario would harbour particular dangers for the German economy given its heavy reliance on foreign trade.

Need for a rules-based multilateral trading system

The illustrative and hypothetical focus on the United States in these simulations should not obscure the fact that protectionist tendencies also loom elsewhere in the world. In order to banish the dangers arising from escalating trade conflicts, it is necessary to defend and further develop the rules-based multilateral trading system. This could also generate important expansionary stimuli for the global economy.[42] The confidence-building discussions between representatives of the G20 countries may be conducive to this objective. It was not least the common resolve of this group of nations that prevented a slide into protectionism during the global financial and economic crisis. In order to tackle problems that may emanate from structural change, suitable adjustments should be made, if necessary, to education and economic policies as well as to tax and transfer systems.[43]

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40 The model results presented here are broadly in line with the findings of other studies. For instance, in a simulation using the METRO model, the OECD (2016) finds that increasing trade costs in the United States, the European Union and China by 10 percentage points would markedly dampen GDP, first and foremost in these economies themselves. Using an experimental NiGEM version, Carreras and Ramina (2017) conclude that increasing the prices of Chinese exports to the United States would negatively impact US private consumption and economic output. Anderson et al (2013) find that, using the GIMF model (the International Monetary Fund's DSGE model that incorporates several regions of the world), a permanent increase in US import duties by 10 percentage points leads to a 1% decline in real GDP in the United States in the long run. In addition, deploying its GIMF model, the International Monetary Fund (2016) confirms that partner countries would have an incentive to retaliate and that, ultimately, all parties would lose out. Felbermayr and Steininger (2016), using the ifo trade model, ascertain that a trade war arising from the imposition of import duties by the United States would primarily hurt the US economy itself. See OECD, The impact of changes in global trade costs, Economic Outlook, November 2016, pp 23-25; O Carreras and M Ramina (2017), The risks from increased trade protectionism, National Institute of Economic and Social Research, NiGEM Observations, No 11; D Anderson, B Hunt, M Kortelainen, M Kumhof, D Laxton, D Muir, S Mursula and S Snudden (2013), Getting to know GIMF: The simulation properties of the Global Integrated Monetary and Fiscal Model, International Monetary Fund, Discussion Paper, No WP/13/55; International Monetary Fund, Tariff scenarios, World Economic Outlook, October 2016, Scenario box 1, pp 37-39; as well as G Felbermayr and M Steininger, Wie gefährlich ist die angekündigte Handelspolitik von Donald Trump?, ifo Schnelldienst, No 22/2016, pp 34-41.

41 In the GIMF model, an increase in import duties in the United States would lead to a slight deterioration in the US current account balance. See D Anderson, B Hunt, M Kortelainen, M Kumhof, D Laxton, D Muir, S Mursula and S Snudden (2013), op cit.

42 See International Monetary Fund, The role of trade policies in reinvigorating trade, World Economic Outlook, October 2016, Box 2.2, pp 91-93; as well as International Monetary Fund, Potential gains from jump-starting trade liberalization, ibid., Box 2.3, p 94.

43 See for example: International Monetary Fund, World Bank and WTO, Making trade an engine for growth for all, March 2017.

Changes to the MFI interest rate statistics

The latest enhancements to the monetary financial institution (MFI) interest rate statistics have brought with them considerably more scope for data analysis in relation to monetary policy and financial stability. Renegotiated loans, for example, are now reported separately, meaning that the gross flow from bank loans issued to the real economy for the first time can now be estimated. This change allows the financing conditions of households and non-financial corporations to be analysed in greater detail with respect to the categories included in the MFI interest rate statistics. In addition, the further breakdown of outstanding loan amounts by residual maturity and interest rate reset period provides for a more thorough examination of the transmission of monetary policy measures.

The quality assurance measures for the MFI interest rate statistics data were expanded and better harmonised across Europe, with changes made to the grossing-up procedure used in particular. In addition, a further criterion for regularly checking the sample quality was introduced.

The MFI interest rate statistics data also serve as a basis for calculating the real interest rates on households' bank deposits. Since 1967, nominal interest rates in this category have been below the inflation rate on a number of occasions, meaning real interest rates were negative. Negative real interest rates on the bank deposits of households in Germany are therefore not unusual.

The new MFI interest rate statistics data and calculations on real interest rates are now available in the time series databases.

Content and purpose of the MFI interest rate statistics

Source of information for monetary policy and financial stability analysis

The MFI interest rate statistics provide key data for the analysis of monetary developments and the monetary policy transmission mechanism. The latter depicts the transmission channels through which a monetary policy measure, typically a change in the official interest rate, impacts economic variables such as output, employment and, finally, inflation. In theory, it is possible to identify a number of transmission channels in which bank interest rates frequently play a central role.[1] The MFI interest rate statistics data are also applied in other fields relevant to central banking, such as financial stability analysis, banking supervision and studies on the integration of Europe's financial markets.

Data collected for the MFI interest rate statistics

The data collected comprise the interest rates applied by monetary financial institutions (banks) in Germany and the corresponding volumes of new business and outstanding amounts for deposits and loans denominated in euro vis-à-vis non-financial corporations and households[2] in the euro-area member states. The aggregated interest rates are calculated as volume-weighted averages across all new business concluded during the reporting month or for all outstanding amounts at the end of the month. The German data are compiled based on a representative sample of financial institutions with reporting obligations.

Division of labour in the European System of Central Banks (ESCB)

The euro-area national central banks collect the MFI interest rate statistics data for their respective national banking sectors on a monthly basis following a common methodology. They also calculate the national aggregates and forward these to the European Central Bank, where they are consolidated and the figures for the euro area as a whole are determined.

Enhancements to the MFI interest rate statistics since 2003

Since the collection of these data began in 2003, the regulation on the MFI interest rate statistics has been revised twice.[3] For example, new reporting indicators were added in June 2010. The sampling procedure was also refined and the group of reporting agents updated.[4] Four years later, further enhancements were introduced with regard to the data collected. In addition, the data quality assurance methods were expanded and data aggregation procedures in the euro area better harmonised.[5]

Introduction of new data collection items to the MFI interest rate statistics

Additional reporting indicators since December 2014

The new items introduced to the MFI interest rate statistics for reporting as from December 2014 concerned both outstanding amounts and new business. In the case of outstanding amounts, loans were further broken down by residual maturity and next interest rate reset, while for new business, renegotiated loans were now to be reported separately.

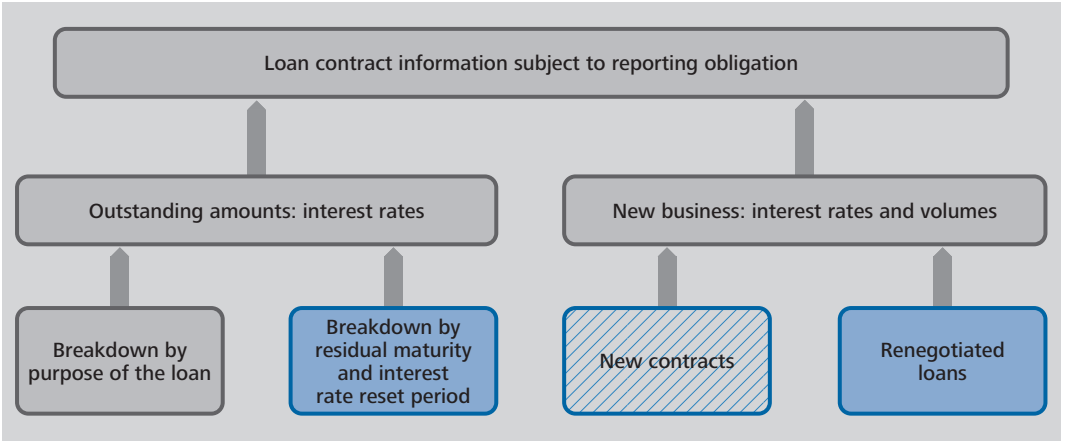
Outstanding loan amounts by residual maturity and next interest rate reset

Further breakdown of outstanding amounts

The new statistical breakdown of outstanding loan amounts by residual maturity and time to next interest rate reset is prepared in combination with the existing breakdown by agreed original maturity, with data on loans to both households and non-financial corporations with an original maturity of over one year and over two years collected separately. These new items distinguish, first, between loans with a residual maturity of up to one year and up to two years and, second, between loans with a residual maturity of over one year and an inter-

1 See European Central Bank, The monetary policy of the ECB, 2011.
2 Including sole proprietors and non-profit institutions serving households.
3 See Deutsche Bundesbank, The new MFI interest rate statistics – methodology for collecting the German data, Monthly Report, January 2004, pp 45-59.
4 See Deutsche Bundesbank, Extended MFI interest rate statistics: methodology and first results, Monthly Report, June 2011, pp 45-57.
5 See Regulation ECB/2013/34, Official Journal of the European Union (OJ L 297, p 51), and Regulation ECB/2014/30, Official Journal of the European Union (OJ L 205, p 14).

Overview of data collected for the MFI interest rate statistics*



* The new changes to the reporting scope are shown in blue, with information that can be derived shaded.
Deutsche Bundesbank

est rate reset within the next 12 months and loans with a residual maturity of over two years and an interest rate reset within the next 24 months. These new figures help to explain, for example, the extent to which monetary policy measures also have an effect on existing loans, where the interest rate is renegotiated upon expiry of the fixed interest period.

Analysis of outstanding loan amounts in Germany: mainly longer residual maturities with fixed interest rates …

At the end of May 2017, the outstanding volume of loans to households in Germany was approximately twice as high as the outstanding volume of loans to non-financial corporations. The vast majority of households' outstanding loans have original maturities of over two years. Only in relatively few cases will the contract end in the next two years or interest rates be adjusted in the next 24 months. A breakdown by purpose of the loan shows that outstanding loans with an original maturity of up to two years are primarily consumer loans. The outstanding volumes of loans to households with an original maturity of over two years, by contrast, are mainly comprised of housing loans. While loans with an original maturity of over two years also make up the largest share of the total outstanding volume of loans to non-financial corporations, short-term loans and loans with an interest rate reset within the next 24 months account for a significantly greater proportion of the total volume than they do for households.

… causing lag in interest rate adjustment for existing loans

These observations illustrate that loan parties in Germany tend to enter into contracts with a long period of fixed interest. As a result, there is some delay before interest rate changes are reflected in the average interest rates on outstanding loans, with rate adjustments being visible sooner for loans to non-financial corporations than for loans to households.

Sinking interest rates on outstanding loans to non-financial corporations

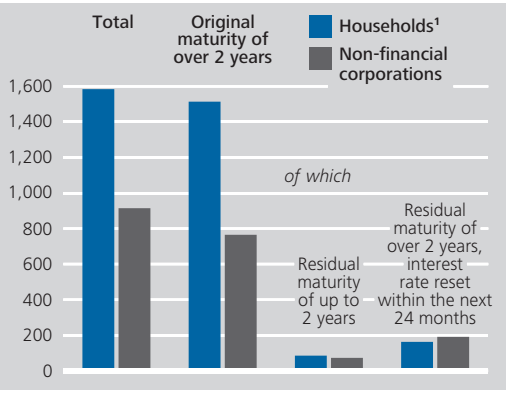
The respective interest rates on outstanding loan amounts have been drifting downwards. The latest figures show that interest rates on loans to non-financial corporations with an original maturity and residual maturity of over two years and an interest rate reset within the next 24 months are, at just under 2%, significantly lower than those for loans to non-financial corporations with an original maturity of over two years as a whole (2.3%). The interest rate on loans with an original maturity of over two years and a residual maturity of up to two years is even higher, at around 2.4%.

Mixed developments for interest rates on loans to households

Interest rate developments for loans to households are less uniform than for non-financial corporations. While the interest rates on loans with an original maturity and residual maturity of over two years and an interest rate reset

Outstanding loan amounts of banks in Germany

€ billion, as at 31 May 2017

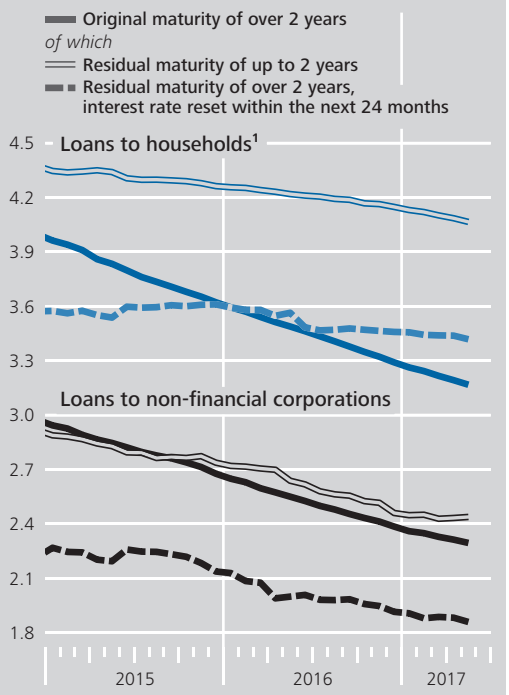


1 Including sole proprietors and non-profit institutions serving households.

Deutsche Bundesbank

Interest rates on outstanding loan amounts of banks in Germany

% pa



1 Including sole proprietors and non-profit institutions serving households.

Deutsche Bundesbank

within the next 24 months have remained virtually unchanged at around 3.5% since December 2014, the rates on loans with a residual maturity of over two years have continually fallen as a whole, now standing at approximately 3.2%. Interest rates on loans with an original maturity of over two years and a residual maturity of up to two years, on the other hand, are significantly higher and were roughly 4.1% at last count. One reason for this is that this category comprises considerably more consumer loans, which typically have shorter maturities and higher interest rates than, for example, long-term housing loans.

New lending: differentiating between new and renegotiated loans

New sub-items in new business …

Besides the described changes to outstanding amounts, additional classifications have also been introduced for new business. In the MFI interest rate statistics, new business includes, by definition, all new and all renegotiated agreements between the reporting institution and households or non-financial corporations during the period under review.[6] Since December 2014, interest rates and volumes of renegotiated loans are reported separately in every lending category. It is easier for reporting agents to collect data on renegotiated loans than to provide the corresponding information on new loans, which is now calculated and published by central banks.

… allow interest rates and volumes for new loan contracts to be calculated

The volume of new loans (v_E) is calculated as the difference between the total credit volume (v_G) and the volume of renegotiated loans (v_{NV}):

$$v_E = v_G - v_{NV}$$

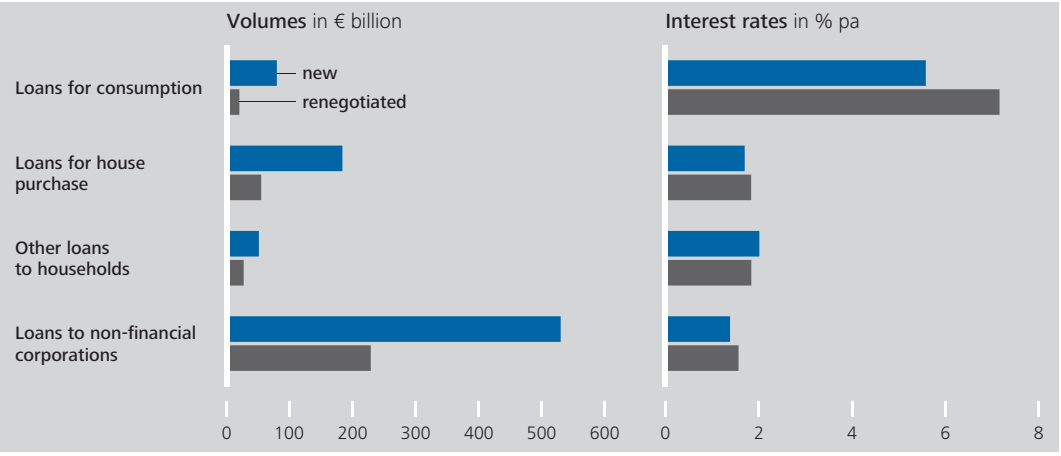
The associated volume-weighted average interest rate on new loans (z_E) can be calculated using the average interest rate for all new business (z_G) and the average interest rate on renegotiated loans (z_{NV}):

$$z_E = \frac{z_G v_G - z_{NV} v_{NV}}{v_E}$$

6 By contrast, new business does not include previously agreed or automatic (ie without the customer's active involvement) changes to existing loan contracts which do not require a renegotiation of the contract's terms and conditions (including the interest rate).

New and renegotiated loans

As at 31 May 2017, aggregated over 12 months



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More detailed analysis of lending possible

The data on new loans can be used to measure the gross flow of new loans to the real economy. While growth in new lending that is in line with overall economic factors contributes to healthy economic expansion, significantly higher lending growth may be linked to the emergence of speculative asset bubbles.[7]

New loans dominate new business

New loans make up the largest part in all items relating to new business volume, roughly 80% for loans to households for consumption and house purchase and around 65% for loans to non-financial corporations and other loans to households.[8]

Interest rates for new loan contracts lower than for renegotiated loans for consumption …

The interest rate level for consumer credit is significantly higher than the interest rate level for other categories. At the same time, renegotiated loans for consumption are concluded on average at notably higher rates than new loan contracts. This is largely due to banks whose business model specialises in higher-yielding instalment loans. Because these institutions account for the majority of renegotiated loans in total new business, the interest rates for renegotiated loans are on the whole higher than for new loans.

… and for house purchase

Interest rates for renegotiated loans for house purchase are also slightly above the interest rates for new loans. This observation is systematic and has occurred almost every month since the new reporting categories were introduced. Amongst other things, this is because the intensity of competition when issuing new loans for house purchase is higher than for renegotiated loans, and banks try to increase their market share by offering attractive terms.

Only minor differences for loans to non-financial corporations

In the case of other loans to households and loans to non-financial corporations, aggregate interest rates for new and renegotiated contracts are largely at a similar level and display comparable trends. There is no indication of systematic divergences.

Higher data quality

Stronger harmonisation across Europe

In addition to expanding the reporting items in the MFI interest rate statistics, the new rules further harmonise Europe-wide data preparation by national central banks. To this end, the grossing-up procedure used in the MFI interest rate statistics has been revised and a further cri-

7 See Deutsche Bundesbank, Financial Stability Review 2015, p 76, and Ò Jordà, M Schularick and A M Taylor (2013), When credit bites back, Journal of Money, Credit and Banking, Vol 45, Special Issue 2, pp 3-28.
8 Loans to sole proprietors are mostly allocated to the "Other loans to households" category. Loans to non-financial corporations and other loans to households therefore often have similar features.

terion of regularly checking the sample quality introduced.

MFI interest rate statistics as stratified sampling with low reporting costs

The MFI interest rate statistics are collected in Germany as a representative stratified sample that avoids the high costs of a complete survey.[9] For this purpose, the reporting population of potential reporting institutions is divided into strata, with banks with similar business models being allocated to the same stratum.[10] In Germany, the largest institutions within each stratum were chosen so that, with approximately 13% of credit institutions obliged to report, there is coverage of roughly 70% of the relevant business and it was possible to achieve a significant reduction in the reporting burden of smaller banks. The data collected are grossed up in order to reflect the reporting population of all financial institutions.

Specification of the grossing-up procedure

This procedure, which has been the standard and recognised practice for some time now, is explicitly named in Guideline ECB/2014/15. The guideline also includes a new formula for calculating the expansion factors when applying this method.[11] There are now also detailed rules at the European level on the use of grossed-up volumes to calculate the national volume-weighted average rates.

A further criterion for checking the sample quality

The synthetic mean absolute error was also introduced to check the sample quality regularly. This indicator must not exceed a set threshold. Otherwise, measures to improve the sample quality must be taken, eg by expanding the number of reporting institutions.[12] The sample quality of the German MFI interest rate statistics can be regarded as good based on the synthetic mean absolute error, too. There is no need for adjustment.

Data pool for calculating the real rate of interest on the bank deposits of German households

Real interest rates calculated as …

In addition to the areas of use described above, the MFI interest rate statistics data are also used to calculate the real interest rate on households' deposits in Germany. The real interest rate describes the rate of interest on a financial investment adjusted for developments in purchasing power. It is broadly calculated (in the case of low interest rates and relatively stable prices) as the difference between the nominal interest rate and the inflation rate. The Bundesbank's calculation is based on the exact formulation of the Fisher equation (see the box on pages 101 to 103).

… the interest rate on households' deposits …

The required (nominal) interest rates on bank deposits are derived from reports for the MFI interest rate statistics. For outstanding household deposits, a distinction is made between the categories of overnight deposits (sight deposits), deposits with an agreed maturity (time deposits) and deposits redeemable at notice.[13] In new business for households' deposits, the survey is limited to time deposits with varying maturity bands for practical reasons. For the period before the introduction of the MFI interest rate statistics, data from the "survey of lending and deposit rates" (Bundesbank interest rate statistics) that are available until 2003

9 For a detailed description of the sampling method, see Deutsche Bundesbank, Extended MFI interest rate statistics: methodology and first results, Monthly Report, June 2011, p 53.
10 See European Central Bank, Manual on MFI interest rate statistics, January 2017, pp 126 ff.
11 For an explanation of the previous grossing-up procedure, see Deutsche Bundesbank, The new MFI interest rate statistics – methodology for collecting the German data, Monthly Report, January 2004, pp 54-56.
12 For a more detailed description of this criterion, see Guideline ECB/2014/15 on monetary and financial statistics, Part 14, paragraphs 19 to 21, as well as the European Central Bank, Quality measures in non-random sampling, ECB Statistics Paper Series No 3, 2013.
13 Households' savings deposits constitute the largest share of deposits redeemable at notice. This item also includes a small percentage of corporate deposits redeemable at notice.

New grossing-up procedure for the MFI interest rate statistics

The new grossing-up procedure applies a two-step process to every reporting item. In a first step, grossing-up takes place at stratum level, with aggregate interest rates and volumes calculated in a second step. For each item, the interest rate for each stratum is calculated as the average interest rate weighted by the volume reported in the MFI interest rate statistics:

$$I_j = \frac{\sum_{i=1}^{I} MV_{ij} * I_{ij}}{\sum_{i=1}^{I} MV_{ij}}$$

where

- i index for banks in the actual reporting population,
- j index for the strata,
- I_j volume-weighted interest rate of stratum j,
- MV_{ij} reported volume of bank i in stratum j,
- I_{ij} reported interest rate of bank i in stratum j.

The stratum volume is grossed up based on the volumes recorded in the balance sheet statistics[1] using the ratio of the volume reported for all banks in a stratum to the volume reported for the banks in the actual reporting population in that stratum:

$$HF_j = \frac{\hat{B}_j}{\sum_{i=1}^{N_j} \hat{B}_{ij}}$$

where

- HF_j expansion factor of stratum j,
- $\hat{B}_j$ total volume for all institutions within stratum j as estimated from the balance sheet statistics,[2]
- $\hat{B}_{ij}$ volume within each stratum j for sampled bank i as estimated from the balance sheet statistics,[2]
- N_j number of banks sampled in stratum j.

The expansion factor thus indicates, for each stratum, the factor by which the total stratum volume as reported in the balance sheet statistics exceeds the volume that the actual reporting population of the MFI interest rate statistics reports in the balance sheet statistics. The volume reported in the MFI interest rate statistics must be increased by this factor. To this end, the reported volume for each stratum (MV_j) is multiplied by a stratum-specific factor in order to determine the grossed-up volume per stratum (HV_j):

$$HV_j = HF_j * MV_j$$

In the second step, aggregate interest rates and aggregate volumes are calculated. The aggregate volume of a reporting item (HV) is calculated as:

$$HV = \sum_{j=1}^{J} HV_j$$

Finally, the aggregate interest rate of an item (I) is calculated as the volume-weighted interest rate using the volume-weighted interest rate per stratum and the grossed-up stratum volume:

$$I = \frac{\sum_{j=1}^{J} HV_j * I_j}{HV}$$

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1 The monthly balance sheet statistics give a comprehensive overview of the business of German banks (MFIs). The latter report their balance sheet data on a monthly basis, with annexes containing a more in-depth breakdown by sector and original maturity. The monthly balance sheet statistics are a key source of data for the consolidated balance sheet of the sector of monetary financial institutions in Germany and thus for the German contribution to the monetary aggregates of the euro area.

2 The breakdowns in the MFI interest rate statistics and the balance sheet statistics do not match up exactly. For the grossing-up, the items from the balance sheet statistics that best fit the MFI interest rate statistics data are used.

are used.[14] The deposit categories in the MFI interest rate statistics are compared with those categories of the Bundesbank interest rate statistics with the greatest similarities in terms of data collection method.

… adjusted for the inflation rate

To measure developments in purchasing power, the Consumer Price Index (CPI) which is calculated monthly by the Federal Statistical Office is used. A distinction should be drawn between the CPI and the Harmonised Index of Consumer Prices (HICP), which is calculated for each member state of the European Union on the basis of common standards. Both indicators measure inflation for goods and services using the changing cost of a basket of goods. However, because the HICP was designed specifically to allow pan-European comparisons and for the data to be aggregated into a European index, the CPI and the HICP differ from each other in certain fundamental aspects, such as the inclusion of equivalent rents for owner-occupied housing in the basket of goods (included in the CPI, but not in the HICP). When it comes to the real deposit rates for households in Germany, savers are more concerned with comparing the purchasing power of the interest they earn on bank deposits over time than with comparing real deposit rates across the European Union. The CPI was therefore used to calculate the underlying real interest rates.

Publications

Publication in the online time series database

All the results presented here are published in the Bundesbank's time series database.[15] A complete breakdown of all newly collected and calculated positions is thus available alongside the previous information. Chapter VI in the Statistical Section of the Monthly Report now shows renegotiated loans separately. This means that external data users, too, can use the extended range of information for their analyses.

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14 The Bundesbank's old interest rate statistics measured the interest rates most frequently agreed upon for new business with domestic non-banks as well as extensions and changes to earlier interest rate agreements in a two-week (mid-month) reporting period. The average rates were calculated as the unweighted arithmetic mean of the reported interest rates within the spread. The spread was ascertained by eliminating the highest 5% and the lowest 5% of interest rates.

15 These are available at www.bundesbank.de. MFI interest rate statistics data can be found under "Statistics/Money and capital markets/Interest rates and yields/Interest rates on deposits and loans".

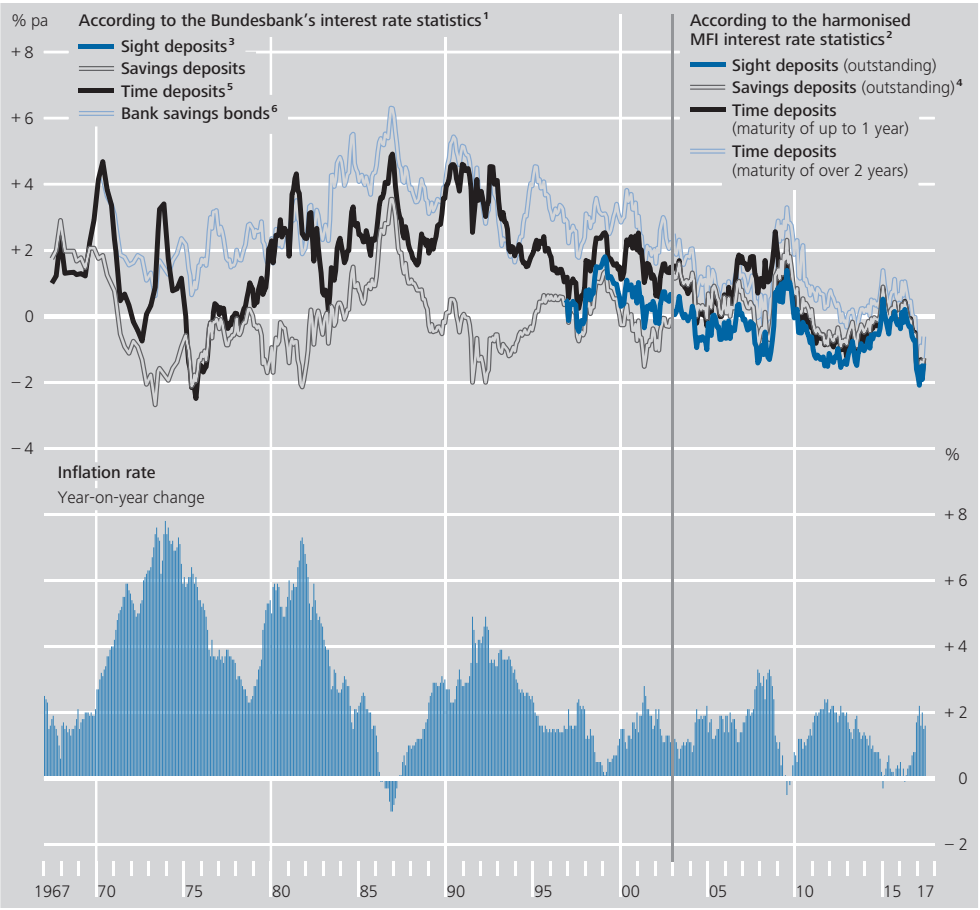
Developments in real interest rates on deposits in Germany

Households in Germany traditionally hold a significant proportion of their financial assets in the form of bank deposits. Because the nominal interest rate on these deposits has been historically low in recent years, it has increasingly become the subject of public debate.[1] However, of greater relevance to savers than the nominal interest rate i_t is the purchasing power associated with the interest credited, and thus the real interest rate r_t on deposits. According to the simplified Fisher equation,[2] the real interest rate is approximately equal to the difference between the nominal interest

1 See Deutsche Bundesbank, German households' saving and investment behaviour in light of the low-interest-rate environment, Monthly Report, October 2015, pp 13-31.
2 The simplified Fisher equation is based on the following relationship between the nominal interest rate i_t, the real interest rate r_t and the expected inflation rate π^e_{t+1} : $(1+i_t) = (1+r_t)\,(1+\pi^e_{t+1})$. Expanding the right-hand side of the equation and disregarding the cross-product, which is very minor in the case of low inflation and nominal interest rates, yields the equation overleaf as a condition for equilibrium. This relationship was formally derived for the first time in I Fisher (1896), Appreciation and interest, Publications of the American Economic Association, pp 23-29 and pp 88-92.

Real interest rates on deposits in Germany*

Monthly



* Adjusted for inflation using the CPI (officially called the price index for the standard of living of all households prior to 2000; up to 1994, data for West Germany). **1** Interest rates not weighted by volume; new business of households unless otherwise indicated. **2** Interest rates are weighted by the respective volume; new business of households. **3** Sight deposits with higher interest rates. **4** Deposits redeemable at notice of up to 3 months. **5** Time deposits of domestic non-banks with agreed maturity of 1 month, from €50,000 to less than €500,000. **6** Bank savings bonds of domestic non-banks with 4-year maturity.

Deutsche Bundesbank

rate and the expected inflation rate over the investment period π^e_{t+1}:

$$r_t \approx i_t - \pi^e_{t+1}$$

Fisher's theory emphasises that depositors ultimately think in terms of real units of goods; that is to say, they look through changes in the price level over the investment period. To reflect the expectations component, the term "*ex ante* real rate of interest" is used in this context. The "*ex post* real rate of interest", on the other hand, is obtained by replacing the expected inflation rate with the actual inflation rate achieved over the investment period. It reflects the real interest income that is actually generated by a bank deposit, ie the increase in purchasing power resulting from the interest payment. From a saver's perspective, this is the relevant variable for an *ex post* comparison of real interest rates. A precise determination of the *ex post* real rate of interest would require information about the actual length of time the deposit was held at the bank, the nominal interest rate paid and the actual inflation rate over this period. However, because no sufficiently robust data are available for this, the *ex post* real interest rate can only be approximated. For reasons of consistency, we use the annual inflation rate recorded for the relevant reporting month for each deposit category of the interest rate statistics.[3]

If the real interest rate is negative, the nominal interest credited does not compensate for the inflation-based loss of the deposit's purchasing power, and it loses value in real terms. Negative real interest rates on the bank deposits of households in Germany are not uncommon. Over the past five decades, savings deposits in particular, of which there is a significant volume, have experienced roughly as many phases of negative real interest rates as phases of positive real interest rates. In the first half of this period, negative real interest rates dominated, not least owing to the significantly higher inflation rates in this period.

Looking at sight deposits, which are households' most liquid form of investment, the interest rate statistics include data on interest rates only from November 1996 onwards. On top of this, only higher-yielding segments of sight deposits had to be reported until 2003, making long-term comparative analyses impossible.[4] Since records on total holdings of sight deposits began (with the introduction of the MFI interest rate statistics in 2003), nominal interest rates in this segment have mostly been below the inflation rate, meaning that real interest rates were almost consistently negative, with developments in nominal interest rates closely mirroring movements in key monetary policy rates. However, low nominal interest rates on sight deposits should also be seen in the context of bank customers' greater preference for liquidity, which has been reflected in a sharp rise in sight deposits at German banks since 2008. With the general interest rate level approaching zero, the nominal interest rate on sight deposits and the inflation rate drifted further apart, meaning that real rates of interest on this form of investment were strongly negative although the inflation rate was low by historical standards.

Compared with sight deposits and savings deposits, time deposits play a much smaller role as a form of investment for households in the aggregate balance sheet of the German banking sector. Their longer maturities mean that yields on these deposits are traditionally higher than those on sight and savings deposits provided the yield curve is not inverted. Since the start of the 1990s, nom-

3 See also Deutsche Bundesbank, Real interest rates: movements and determinants, Monthly Report, July 2001, pp 31-47. For an analysis from an after-tax perspective, see Deutsche Bundesbank, Return on private financial assets taking into account inflation and taxes, Monthly Report, July 2017, pp 69-75.

4 For the purposes of the Bundesbank's interest rate statistics, interest rates on the sight deposits of employees had to be taken into account only if they were higher than the reporting institution's standard conditions. The statistics included accounts both with and without a payment function.

inal interest rates for time deposits in new business have recorded a downward trend that cannot be explained by a reduction in the average investment horizon. All the same, interest rates have not generally fallen below the inflation rate. Although the real interest rate therefore fluctuated in line with the inflation rate, it remained, by and large, in positive territory until the financial crisis. The onset of the financial crisis changed the situation, however. The general interest rate level fell sharply, which also translated into a clear downturn in interest rates on new time deposits. These sank to historic lows and are currently negative.

The longer the low-interest-rate environment persisted, the narrower the gap became between the interest rates on longer-term deposits (time and savings deposits) and the interest rates on overnight deposits. This is due, amongst other things, to the fact that most German banks are trying to avoid introducing negative nominal interest rates on households' bank deposits (the zero lower bound). On balance, all the nominal interest rates analysed here have fluctuated within a narrow corridor of between 0% and 1% for more than 12 months. At a nominal interest rate of 0%, however, a positive inflation rate leads to a negative real interest rate of identical size. This is why the fact that the inflation rate has edged back up towards the 2% mark over the last 12 months has been a key factor driving the real interest rate in this definition into negative territory for all types of deposits. The overall picture of negative real interest rates for all the types of deposits under analysis remains essentially unchanged even if the expected *ex ante* inflation rate according to the Consensus Forecast or the Survey of Professional Forecasters is used instead of the actual *ex post* inflation rate.

Statistical Section

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V Minimum reserves

VI Interest rates

VII Insurance corporations and pension funds

VIII Capital market

IX Financial accounts

X Public finances in Germany

XI Economic conditions in Germany

XII External sector

I Key economic data for the euro area

1 Monetary developments and interest rates

Period	Money stock in various definitions [1,2]				Determinants of the money stock [1]			Interest rates		
			M 3 [3]							
	M1	M2		3-month moving average (centred)	MFI lending, total	MFI lending to enterprises and households	Monetary capital formation [4]	Eonia [5,7]	3-month Euribor [6,7]	Yield on European government bonds outstanding [8]
	Annual percentage change							% Annual percentage as a monthly average		
2015 Sep	11.3	5.0	4.7	4.9	2.2	0.7	– 3.3	– 0.14	– 0.04	1.3
Oct	11.5	5.4	5.2	5.0	2.3	0.9	– 3.4	– 0.14	– 0.05	1.1
Nov	10.8	5.1	4.9	4.9	2.6	1.1	– 3.2	– 0.13	– 0.09	1.1
Dec	10.5	5.2	4.6	4.9	2.3	0.6	– 3.0	– 0.20	– 0.13	1.2
2016 Jan	10.5	5.5	5.1	5.0	2.8	1.1	– 3.2	– 0.24	– 0.15	1.1
Feb	10.4	5.5	5.1	5.1	3.3	1.2	– 3.2	– 0.24	– 0.18	1.0
Mar	10.3	5.6	5.2	5.0	3.2	1.1	– 3.1	– 0.29	– 0.23	0.9
Apr	9.7	5.2	4.8	5.0	3.5	1.3	– 2.5	– 0.34	– 0.25	0.9
May	9.1	5.1	4.9	5.0	3.7	1.4	– 2.2	– 0.34	– 0.26	0.8
June	8.8	5.1	5.1	5.1	4.0	1.5	– 2.0	– 0.33	– 0.27	0.7
July	8.6	5.1	5.1	5.1	3.9	1.3	– 2.3	– 0.33	– 0.29	0.6
Aug	8.6	5.0	5.0	5.1	3.9	1.6	– 2.1	– 0.34	– 0.30	0.5
Sep	8.4	5.0	5.1	4.9	4.0	1.9	– 2.1	– 0.34	– 0.30	0.6
Oct	8.0	4.6	4.5	4.8	4.3	2.2	– 1.6	– 0.35	– 0.31	0.7
Nov	8.5	4.9	4.7	4.7	4.4	2.2	– 1.6	– 0.35	– 0.31	1.0
Dec	8.8	4.8	5.0	4.9	4.7	2.4	– 1.6	– 0.35	– 0.32	1.0
2017 Jan	8.4	4.7	4.8	4.8	4.5	2.4	– 1.6	– 0.35	– 0.33	1.1
Feb	8.4	4.8	4.7	4.9	4.3	2.3	– 1.2	– 0.35	– 0.33	1.2
Mar	9.1	5.1	5.3	5.0	4.8	2.8	– 1.2	– 0.35	– 0.33	1.2
Apr	9.3	5.1	4.9	5.1	4.5	2.6	– 1.5	– 0.36	– 0.33	1.1
May	9.3	5.1	5.0	...	4.4	2.7	– 1.4	– 0.36	– 0.33	1.1
June	...	...	...	...	...	...	...	– 0.36	– 0.33	1.0

1 Source: ECB. **2** Seasonally adjusted. **3** Excluding money market fund shares/units, money market paper and debt securities with a maturity of up to two years held by non-euro-area residents. **4** Longer-term liabilities to euro-area non-MFIs. **5** Euro OverNight Index Average. **6** Euro Interbank Offered Rate. **7** See also footnotes to Table VI.4, p 43• **8** GDP-weighted yield on ten-year government bonds. Countries include:DE,FR,NL,BE,AT,FI,IE,PT,ES,IT,GR,SK.

2 External transactions and positions *

Period	Selected items of the euro-area balance of payments r								Euro exchange rates [1]		
	Current account		Financial account							Effective exchange rate [3]	
	Balance	*of which* Goods	Balance	Direct investment	Portfolio investment	Financial derivatives [2]	Other investment	Reserve assets	Dollar rate	Nominal	Real
	€ million								1 EUR = ... USD	Q1 1999 = 100	
2015 Sep	+ 36,149	+ 29,905	+ 43,756	– 325	+ 14,377	– 5,351	+ 26,772	+ 8,282	1.1221	93.8	89.7
Oct	+ 32,383	+ 33,336	+ 74,629	+ 19,215	+ 15,321	+ 12,759	+ 33,343	– 6,009	1.1235	93.6	89.6
Nov	+ 32,908	+ 32,338	– 15,745	– 53,574	+ 31,729	+ 21,227	– 17,589	+ 2,462	1.0736	91.1	87.1
Dec	+ 43,696	+ 31,440	+ 71,903	+ 50,450	+ 63,279	+ 22,109	– 72,062	+ 8,126	1.0877	92.5	88.3
2016 Jan	+ 12,677	+ 14,092	– 4,558	– 18,730	+ 76,162	+ 15,198	– 76,032	– 1,155	1.0860	93.6	89.1
Feb	+ 17,372	+ 27,934	+ 21,437	+ 51,803	+ 33,713	+ 13,598	– 78,738	+ 1,061	1.1093	94.7	90.0
Mar	+ 38,593	+ 39,332	+ 40,164	+ 22,709	– 10,005	+ 364	+ 26,034	+ 1,063	1.1100	94.1	89.5
Apr	+ 38,078	+ 36,110	+ 35,155	– 8,623	+ 135,565	– 21,749	– 68,421	– 1,617	1.1339	94.8	90.1
May	+ 21,293	+ 32,849	+ 17,859	+ 21,695	+ 4,954	– 14,064	+ 2,164	+ 3,110	1.1311	95.1	90.5
June	+ 41,490	+ 39,488	+ 33,384	– 40,683	+ 29,638	– 9,821	+ 53,558	+ 692	1.1229	94.7	90.3
July	+ 36,757	+ 33,631	+ 27,319	+ 26,559	+ 59,757	+ 13,337	– 71,456	– 878	1.1069	94.9	90.4
Aug	+ 27,438	+ 25,222	+ 44,998	+ 55,713	+ 48,555	+ 6,884	– 67,968	+ 1,813	1.1212	95.2	90.6
Sep	+ 38,742	+ 33,117	+ 58,692	+ 52,885	+ 4,414	+ 3,715	– 9,112	+ 6,789	1.1212	95.4	90.7
Oct	+ 27,016	+ 27,955	+ 7,799	+ 35,516	+ 52,876	+ 6,220	– 82,862	– 3,951	1.1026	95.5	90.8
Nov	+ 33,177	+ 33,457	+ 1,272	– 7,430	– 23,847	+ 2,868	+ 27,224	+ 2,458	1.0799	95.0	90.2
Dec	+ 40,300	+ 32,737	+ 74,673	– 10,826	+ 63,837	+ 6,080	+ 9,510	+ 6,073	1.0543	94.2	89.6
2017 Jan	– 80	+ 7,656	– 12,475	– 12,326	+ 11,539	+ 2,211	– 8,822	– 5,077	1.0614	94.4	89.8
Feb	+ 25,133	+ 26,221	+ 22,018	+ 32,437	+ 55,657	+ 8,057	– 76,114	+ 1,981	1.0643	93.9	89.5
Mar	+ 44,723	+ 37,941	+ 43,523	+ 16,588	+ 9,313	+ 5,214	+ 11,845	+ 563	1.0685	94.4	89.8
Apr	+ 21,473	+ 24,700	+ 15,795	+ 24,124	+ 45,819	+ 1,347	– 51,106	– 4,390	1.0723	94.1 p	89.6
May	...	...	...	...	...	...	...	...	1.1058	96.0 p	91.2
June	...	...	...	...	...	...	...	...	1.1229	96.8 p	91.8

***** Source: ECB, according to the international standards of the Balance of Payments Manual in the 6th edition of the International Monetary Fund. **1** See also Tables XII.10 and 12, pp 81–82• **2** Including employee stock options. **3** Vis-à-vis the currencies of The-EER-19 group.

I Key economic data for the euro area

3 General economic indicators

Period	Euro area	Belgium	Germany	Estonia	Finland	France	Greece	Ireland	Italy	Latvia
	Real gross domestic product [1,2]									
2014	1.2	1.6	1.6	2.8	– 0.6	0.9	0.4	8.5	0.1	2.1
2015	2.0	1.5	1.7	1.4	0.0	1.1	– 0.2	26.3	0.8	2.7
2016	1.8	1.2	1.9	1.6	1.9	1.2	0.0	5.2	0.9	2.0
2015 Q4	1.9	1.6	2.1	0.8	0.5	1.2	0.9	28.4	1.2	2.7
2016 Q1	1.7	1.2	1.5	1.5	1.7	1.4	– 0.8	3.9	1.0	2.4
Q2	1.6	1.2	3.2	0.7	1.8	1.8	0.0	3.3	1.1	2.3
Q3	1.8	1.2	1.6	1.3	2.2	0.6	2.1	6.2	0.9	0.5
Q4	1.8	1.1	1.3	2.7	2.0	0.9	– 1.3	7.2	0.4	2.6
2017 Q1	1.9	1.7	2.9	4.4	3.8	1.5	0.8	...	2.1	4.0
	Industrial production [1,3]									
2014	0.8	1.0	1.4	4.3	– 1.9	– 0.8	– 2.0	20.9	– 0.7	– 0.9
2015	2.1	– 0.0	0.8	0.1	– 1.2	1.8	1.0	36.9	1.1	3.6
2016	1.4	4.3	1.0	1.8	2.3	0.3	2.6	0.7	1.7	4.9
2015 Q4	1.9	1.4	– 0.3	– 2.9	– 0.2	2.2	2.6	36.6	1.3	3.0
2016 Q1	1.3	4.6	1.5	– 2.0	– 0.7	0.7	– 0.9	– 0.2	1.6	3.8
Q2	1.1	3.4	0.5	– 1.2	3.7	0.6	5.3	0.7	0.2	4.4
Q3	1.0	4.8	0.6	3.0	2.6	– 0.6	2.0	– 0.8	1.6	1.4
Q4	2.3	4.5	1.4	7.6	3.2	0.4	4.0	3.2	3.6	9.8
2017 Q1	1.4	1.6	r 1.0	10.6	1.4	0.9	9.7	– 6.0	1.6	8.6
	Capacity utilisation in industry [4]									
2014	80.4	79.3	83.9	73.0	79.0	81.9	67.7	–	73.7	72.2
2015	81.3	79.7	84.5	71.4	79.2	82.7	66.2	–	75.5	71.5
2016	81.8	80.0	85.0	73.6	78.0	83.2	67.6	–	76.3	72.6
2016 Q1	81.9	80.0	85.0	72.5	79.5	82.6	65.5	–	77.1	72.3
Q2	81.5	79.3	84.6	73.8	78.0	82.8	67.8	–	76.5	73.0
Q3	81.6	79.7	84.8	73.0	73.8	83.8	67.8	–	76.0	71.8
Q4	82.3	80.9	85.7	75.0	80.6	83.6	69.3	–	75.7	73.1
2017 Q1	82.5	80.7	85.9	74.4	81.0	84.6	68.6	–	76.5	74.5
Q2	82.6	81.4	86.0	76.4	82.1	84.2	68.1	–	76.0	74.8
	Standardised unemployment rate [5]									
2014	11.6	8.5	5.0	7.4	8.7	10.3	26.5	11.3	12.7	10.8
2015	10.9	8.5	4.6	6.2	9.4	10.4	24.9	9.4	11.9	9.9
2016	10.0	7.8	4.1	6.8	8.8	10.1	23.6	7.9	11.7	9.6
2017 Jan	9.6	7.6	3.9	5.8	8.8	9.7	23.1	6.9	11.8	9.3
Feb	9.4	7.6	4.0	5.6	8.8	9.6	22.6	6.8	11.5	8.9
Mar	9.4	7.6	3.8	5.5	8.9	9.6	22.0	6.6	11.5	8.5
Apr	9.3	6.8	4.0	6.2	8.9	9.5	21.7	6.4	11.2	8.3
May	9.3	...	3.8	...	8.8	9.6	...	6.4	11.3	8.3
June	...	...	...	...	...	...	...	6.3	...	...
	Harmonised Index of Consumer Prices [1]									
2014	[6] 0.4	0.5	0.8	0.5	1.2	0.6	– 1.4	0.3	0.2	0.7
2015	[7] 0.0	0.6	0.1	0.1	– 0.2	0.1	– 1.1	0.0	0.1	0.2
2016	0.2	1.8	0.4	0.8	0.4	0.3	0.0	– 0.2	– 0.1	0.1
2017 Jan	1.8	3.1	1.9	2.8	0.9	1.6	1.5	0.2	1.0	2.9
Feb	2.0	3.3	2.2	3.4	1.4	1.4	1.4	0.3	1.6	3.2
Mar	1.5	2.5	1.5	3.0	0.9	1.4	1.7	0.6	1.4	3.3
Apr	1.9	2.7	2.0	3.6	1.0	1.4	1.6	0.7	2.0	3.3
May	1.4	1.9	1.4	3.5	0.9	0.9	1.5	0.0	1.6	2.7
June	1.3	1.5	1.5	3.1	0.9	0.8	0.9	– 0.6	1.2	3.1
	General government financial balance [8]									
2014	– 2.6	– 3.1	0.3	0.7	– 3.2	– 3.9	– 3.7	– 3.7	– 3.0	– 1.6
2015	– 2.1	– 2.5	0.7	0.1	– 2.7	– 3.6	– 5.9	– 2.0	– 2.7	– 1.3
2016	– 1.5	– 2.6	0.8	0.3	– 1.9	– 3.4	0.7	– 0.6	– 2.4	0.0
	General government debt [8]									
2014	92.0	106.7	74.9	10.7	60.2	94.9	179.7	105.3	131.8	40.9
2015	90.3	106.0	71.2	10.1	63.7	95.6	177.4	78.7	132.1	36.5
2016	89.2	105.9	68.3	9.5	63.6	96.0	179.0	75.4	132.6	40.1

Sources: National data, European Commission, Eurostat, European Central Bank. Latest data are partly based on press reports and are provisional. **1** Annual percentage change. **2** GDP of the euro area calculated from seasonally adjusted data. **3** Manufacturing, mining and energy; adjusted for working-day variations. **4** Manufacturing, in %; seasonally adjusted; data are collected in January, April, July and October. **5** As a percentage of the civilian labour force; seasonally adjusted. Standardised unemployment rate of Germany: calculation based on unadjusted data from the Federal Statistical Office.

I Key economic data for the euro area

Lithuania	Luxembourg	Malta	Netherlands	Austria	Portugal	Slovakia	Slovenia	Spain	Cyprus	Period
Real gross domestic product [1,2]										
3.5	5.6	8.3	1.4	0.6	0.9	2.6	3.1	1.4	– 1.5	2014
1.8	4.0	7.3	2.3	1.0	1.6	3.8	2.3	3.2	1.7	2015
2.3	4.2	5.0	2.2	1.5	1.4	3.3	2.5	3.2	2.8	2016
2.1	3.2	6.7	1.8	1.1	1.5	4.6	2.8	3.3	2.7	2015 Q4
2.3	3.1	6.3	1.7	1.7	1.0	3.4	2.2	3.6	2.6	2016 Q1
1.8	4.6	4.5	2.3	1.5	1.1	3.8	2.7	3.5	2.8	Q2
1.6	5.0	4.4	2.4	1.3	1.5	3.0	2.5	3.2	2.9	Q3
3.4	4.1	4.9	2.4	1.6	1.9	3.0	2.6	2.6	3.0	Q4
3.9	4.0	4.2	3.2	2.3	3.0	3.1	5.3	3.0	3.4	2017 Q1
Industrial production [1,3]										
0.3	4.5	– 5.7	– 2.9	1.0	1.8	3.5	1.7	1.3	– 0.7	2014
4.6	0.9	6.3	– 3.4	2.2	1.7	7.4	5.1	3.4	3.4	2015
2.8	– 0.1	– 3.6	2.2	2.1	1.0	4.7	7.9	1.8	7.9	2016
5.4	0.9	5.1	– 4.5	2.4	2.2	9.4	3.7	4.8	6.3	2015 Q4
5.5	2.0	– 5.0	– 2.7	1.8	0.9	4.5	7.3	2.9	10.2	2016 Q1
– 0.3	0.6	– 4.3	3.4	1.7	0.8	7.4	6.8	1.3	8.7	Q2
3.0	0.0	– 3.1	3.4	1.0	0.4	2.8	8.1	0.9	6.1	Q3
3.1	– 2.8	– 1.7	5.6	3.6	1.9	4.1	9.5	1.8	7.0	Q4
5.9	– 4.9	4.3	2.2	3.0	3.0	7.8	6.6	1.9	8.7	2017 Q1
Capacity utilisation in industry [4]										
74.9	66.2	78.1	80.2	84.3	78.4	80.7	80.3	75.8	53.9	2014
74.2	68.3	78.6	81.8	84.0	80.4	82.4	83.6	77.8	58.2	2015
75.9	76.9	79.1	81.7	84.3	80.2	84.5	83.5	78.6	59.8	2016
75.9	72.4	77.8	81.4	85.0	80.0	85.4	83.2	79.0	56.9	2016 Q1
76.1	76.1	78.9	81.7	84.0	80.8	83.0	83.1	77.8	63.9	Q2
75.5	77.6	79.8	81.5	83.2	79.6	84.3	83.7	78.4	58.7	Q3
76.0	81.3	79.9	82.1	85.1	80.3	85.4	84.1	79.1	59.6	Q4
76.5	82.6	79.3	81.4	85.1	79.8	87.1	84.5	78.8	58.1	2017 Q1
77.4	82.1	79.1	82.5	86.6	79.1	86.5	85.4	78.1	57.6	Q2
Standardised unemployment rate [5]										
10.7	6.0	5.8	7.4	5.6	14.1	13.2	9.7	24.5	16.1	2014
9.1	6.5	5.4	6.9	5.7	12.6	11.5	9.0	22.1	15.0	2015
7.9	6.3	4.7	6.0	6.0	11.2	9.6	8.0	19.6	13.1	2016
7.7	6.1	4.3	5.3	5.7	10.1	8.7	7.5	18.3	12.8	2017 Jan
7.9	6.1	4.3	5.3	5.8	9.9	8.6	7.3	18.2	12.5	Feb
8.1	6.0	4.2	5.1	5.7	9.8	8.4	7.1	18.1	12.1	Mar
7.5	6.0	4.1	5.1	5.4	9.8	8.3	7.1	17.8	11.3	Apr
7.3	6.0	4.1	5.1	5.4	9.8	8.1	7.1	17.7	11.0	May
...	...	...	...	...	...	...	...	...	...	June
Harmonised Index of Consumer Prices [1]										
0.2	0.7	0.8	0.3	1.5	– 0.2	– 0.1	0.4	– 0.2	– 0.3	2014
– 0.7	0.1	1.2	0.2	0.8	0.5	– 0.3	– 0.8	– 0.6	– 1.5	2015
0.7	0.0	0.9	0.1	1.0	0.6	– 0.5	– 0.2	– 0.3	– 1.2	2016
2.5	2.5	1.4	1.6	2.1	1.3	0.8	1.5	2.9	0.7	2017 Jan
3.2	2.7	1.2	1.7	2.4	1.6	1.2	2.5	3.0	1.4	Feb
3.2	2.5	1.2	0.6	2.1	1.4	1.0	2.0	2.1	1.5	Mar
3.5	2.6	1.1	1.4	2.3	2.4	0.8	1.7	2.6	2.1	Apr
3.2	1.9	1.1	0.7	2.1	1.7	1.1	1.5	2.0	0.9	May
3.5	1.5	1.0	1.0	2.0	1.0	1.0	0.9	1.6	0.9	June
General government financial balance [8]										
– 0.7	1.4	– 2.0	– 2.3	– 2.7	– 7.2	– 2.7	– 5.4	– 6.0	– 8.8	2014
– 0.2	1.4	– 1.3	– 2.1	– 1.1	– 4.4	– 2.7	– 2.9	– 5.1	– 1.2	2015
0.3	1.6	1.0	0.4	– 1.6	– 2.0	– 1.7	– 1.8	– 4.5	0.4	2016
General government debt [8]										
40.5	22.4	64.3	67.9	84.4	130.6	53.6	80.9	100.4	107.1	2014
42.7	21.6	60.6	65.2	85.5	129.0	52.5	83.1	99.8	107.5	2015
40.2	20.0	58.3	62.3	84.6	130.4	51.9	79.7	99.4	107.8	2016

6 Including Latvia from 2014 onwards. **7** Including Lithuania from 2015 onwards. **8** As a percentage of GDP (Maastricht Treaty definition). Euro area: European Central Bank, regularly updated. Member states excluding Germany: latest data publication under the excessive deficit procedure (Eurostat). Germany: current data according to the Federal Statistical Office and Bundesbank calculations.

II Overall monetary survey in the euro area

1 The money stock and its counterparts *
(a) Euro area

€ billion

Period	I Lending to non-banks (non-MFIs) in the euro area					II Net claims on non-euro-area residents			III Monetary capital formation at monetary financial institutions (MFIs) in the euro area				
		Enterprises and households		General government									
	Total	Total	*of which* Securities	Total	*of which* Securities	Total	Claims on non-euro-area residents	Liabilities to non-euro-area residents	Total	Deposits with an agreed maturity of over 2 years	Deposits at agreed notice of over 3 months	Debt securities with maturities of over 2 years (net) **2**	Capital and reserves **3**
2015 Oct	24.2	0.8	– 15.3	23.4	19.9	9.6	22.5	13.0	– 38.5	– 25.7	– 1.1	– 17.5	5.8
Nov	89.6	49.1	2.0	40.5	48.5	4.0	– 15.6	– 19.6	– 4.2	– 13.6	– 1.7	– 4.6	15.7
Dec	– 108.7	– 70.7	– 2.0	– 38.0	– 32.9	– 3.9	– 190.9	– 186.9	– 7.5	4.1	– 0.6	– 27.1	16.1
2016 Jan	157.6	45.9	6.0	111.8	96.6	– 45.5	129.0	174.5	– 25.3	– 8.1	– 0.4	– 18.3	1.4
Feb	87.9	45.1	– 0.5	42.8	51.7	– 81.6	32.3	113.9	– 13.8	11.2	– 1.2	– 24.0	0.2
Mar	64.6	22.2	– 5.6	42.3	43.1	27.5	– 86.1	– 113.5	– 10.3	– 6.5	– 0.9	3.9	– 6.8
Apr	96.8	47.7	27.7	49.1	43.9	– 61.4	119.0	180.5	– 0.1	– 3.7	– 1.3	– 0.5	5.4
May	70.8	20.7	12.9	50.2	56.4	– 0.7	62.0	62.7	3.7	– 5.0	– 0.5	– 0.1	9.3
June	55.6	5.1	– 7.0	50.5	62.1	31.4	– 23.2	– 54.6	– 7.3	– 20.8	– 0.8	– 10.3	24.6
July	54.5	29.5	14.7	25.0	24.1	– 85.0	56.9	141.9	– 23.9	– 7.1	– 0.5	– 23.8	7.5
Aug	17.2	16.9	27.1	0.3	8.9	– 39.7	7.8	47.5	2.4	– 4.9	– 0.6	– 0.3	8.2
Sep	41.8	26.6	– 7.3	15.2	19.4	– 16.9	– 69.0	– 52.1	– 22.8	– 12.2	– 0.5	– 19.6	9.5
Oct	83.4	36.0	4.5	47.5	45.1	– 45.7	153.2	198.9	– 4.8	– 5.7	– 0.6	– 8.8	10.4
Nov	106.4	56.1	16.1	50.3	62.2	4.0	– 21.2	– 25.3	– 1.9	– 8.8	– 0.7	– 1.1	8.7
Dec	– 56.2	– 48.2	– 5.7	– 8.0	– 1.2	39.7	– 154.4	– 194.1	– 9.7	– 1.7	– 1.1	– 13.8	6.9
2017 Jan	132.7	45.4	32.1	87.2	69.3	– 9.7	234.1	243.8	– 21.8	– 10.2	– 0.2	– 4.3	– 7.1
Feb	45.7	30.2	3.4	15.5	35.6	– 47.8	52.7	100.5	15.4	– 6.3	– 0.5	– 3.1	25.2
Mar	151.4	92.7	25.1	58.7	62.6	– 4.0	– 51.5	– 47.4	– 12.5	2.6	– 0.5	– 22.3	7.8
Apr	56.4	24.6	20.8	31.7	27.3	– 42.2	77.7	120.0	– 23.6	– 12.4	– 0.3	– 0.3	– 10.5
May	48.8	26.3	16.8	22.5	34.9	– 4.4	– 7.3	– 2.8	10.6	– 5.8	– 0.9	9.5	7.8

(b) German contribution

Period	I Lending to non-banks (non-MFIs) in the euro area					II Net claims on non-euro-area residents			III Monetary capital formation at monetary financial institutions (MFIs) in the euro area				
		Enterprises and households		General government									
	Total	Total	*of which* Securities	Total	*of which* Securities	Total	Claims on non-euro-area residents	Liabilities to non-euro-area residents	Total	Deposits with an agreed maturity of over 2 years	Deposits at agreed notice of over 3 months	Debt securities with maturities of over 2 years (net) **2**	Capital and reserves **3**
2015 Oct	4.7	– 3.8	– 9.4	8.4	4.9	– 8.5	– 13.2	– 4.7	– 9.4	– 9.0	– 1.3	0.5	0.4
Nov	28.6	21.2	7.8	7.4	12.0	– 13.0	– 35.9	– 22.9	– 11.4	– 3.6	– 1.2	– 4.0	– 2.5
Dec	– 19.0	– 11.6	– 5.8	– 7.4	– 1.9	5.2	– 52.1	– 57.3	– 23.1	– 3.9	– 0.9	– 22.2	3.9
2016 Jan	21.1	5.7	– 3.0	15.4	11.8	– 21.1	24.7	45.8	0.3	– 1.5	– 1.3	2.6	0.5
Feb	17.2	10.9	– 4.2	6.3	6.3	– 29.3	7.2	36.5	– 10.4	– 1.8	– 1.3	– 8.0	0.8
Mar	14.0	4.4	0.6	9.6	9.9	7.3	– 22.6	– 29.8	2.7	– 0.0	– 1.1	2.3	1.5
Apr	25.7	12.3	0.7	13.4	8.8	– 40.1	13.6	53.7	0.6	– 3.3	– 1.1	1.6	3.3
May	24.8	16.2	4.9	8.6	11.9	1.5	1.1	– 0.4	7.5	0.8	– 1.0	4.7	3.0
June	4.7	1.7	0.5	2.9	8.6	– 2.9	23.9	26.8	– 3.5	– 1.5	– 0.7	– 7.5	6.2
July	30.2	13.3	1.6	16.9	13.8	– 18.4	7.1	25.5	– 6.0	– 0.8	– 0.9	– 5.4	1.1
Aug	11.1	8.9	1.5	2.2	4.0	– 16.5	2.5	19.0	2.0	– 1.8	– 0.8	3.9	0.6
Sep	24.6	13.2	3.4	11.4	12.6	– 37.2	– 11.1	26.1	– 7.2	– 1.1	– 0.7	– 6.2	0.9
Oct	21.5	11.8	2.6	9.6	6.5	– 3.2	42.4	45.7	7.1	2.2	– 0.8	5.8	– 0.2
Nov	28.1	18.4	4.4	9.7	14.4	– 22.4	– 25.7	– 3.3	9.2	– 0.6	– 0.5	9.6	0.8
Dec	– 10.1	– 8.1	0.4	– 2.1	8.4	19.6	– 9.5	– 29.1	– 2.6	– 2.0	– 0.4	– 2.9	2.7
2017 Jan	23.6	15.0	2.3	8.6	8.5	– 24.4	31.8	56.2	9.8	– 3.1	– 0.7	15.9	– 2.3
Feb	17.3	12.5	3.9	4.9	5.5	– 30.2	7.5	37.8	– 1.4	– 1.4	– 0.6	– 0.1	0.8
Mar	18.2	12.7	1.8	5.5	9.5	– 3.6	6.3	9.9	2.7	– 1.0	– 0.5	– 1.3	5.5
Apr	14.9	7.8	– 1.5	7.1	5.4	– 18.8	– 7.2	11.7	9.3	– 3.5	– 0.5	1.3	11.9
May	13.8	13.2	3.4	0.6	7.9	7.5	– 12.7	– 20.1	2.7	– 0.1	– 0.4	1.8	1.4

***** The data in this table are based on the consolidated balance sheet of monetary financial institutions (MFIs) (Table II.2); statistical breaks have been eliminated from the flow figures (see also the "Notes on the figures" in the "Explanatory notes" in the Statistical Supplement to the Monthly Report 1, p 30•). **1** Source: ECB. **2** Excluding MFIs' portfolios. **3** After deduction of inter-MFI participations. **4** Including the counterparts of monetary liabilities of central governments. **5** Including the monetary liabilities of central governments (Post Office, Treasury). **6** In Germany, only savings deposits. **7** Paper held by residents outside the euro area has been eliminated.

II Overall monetary survey in the euro area

(a) Euro area

IV Deposits of central governments	V Other factors: Total [4]	V Other factors: *of which* Intra-Eurosystem liability/claim related to banknote issue	VI Money stock M3 (balance I plus II less III less IV less V): Total	Money stock M2: Total	Money stock M1: Total	Money stock M1: Currency in circulation	Money stock M1: Overnight deposits [5]	Deposits with an agreed maturity of up to 2 years [5]	Deposits at agreed notice of up to 3 months [5,6]	Repo transactions	Money market fund shares (net) [2,7,8]	Debt securities with maturities of up to 2 years (incl money market paper) (net) [2,7]	Period
32.9	– 64.1	–	103.4	67.9	82.9	2.2	80.7	– 10.2	– 4.8	– 7.1	21.9	1.4	2015 Oct
– 17.0	60.5	–	54.3	55.7	58.5	5.7	52.8	– 0.7	– 2.2	3.3	15.9	0.6	Nov
– 71.4	– 38.0	–	4.3	54.1	44.2	14.4	29.7	9.0	0.9	– 28.3	– 22.6	– 10.8	Dec
87.7	– 19.7	–	69.5	38.2	36.3	– 11.1	47.4	– 8.4	10.4	21.8	11.0	7.6	2016 Jan
– 14.1	0.3	–	33.9	15.2	21.7	1.2	20.5	– 11.7	5.2	44.5	– 1.3	7.0	Feb
31.8	31.7	–	38.8	55.9	42.6	3.7	38.9	11.0	2.3	– 6.2	– 11.9	1.7	Mar
– 35.9	– 29.4	–	100.7	75.3	92.7	4.6	88.2	– 17.2	– 0.3	– 4.5	17.1	2.7	Apr
20.1	12.5	–	33.8	35.2	47.5	2.3	45.3	– 20.2	7.9	– 9.5	– 0.1	– 2.0	May
60.5	14.8	–	19.1	31.3	34.6	8.4	26.2	– 1.9	– 1.4	2.5	– 9.4	5.9	June
– 29.0	– 74.1	–	96.6	73.6	67.1	10.1	57.0	6.1	0.5	– 22.7	15.6	5.0	July
– 54.7	40.8	–	– 10.9	– 8.9	– 5.1	– 3.5	– 1.6	– 4.5	0.7	2.4	0.6	– 2.5	Aug
2.7	42.5	–	2.5	18.3	23.7	2.2	21.5	1.4	– 6.7	– 4.8	– 1.7	– 5.9	Sep
– 3.0	14.3	–	31.2	16.3	52.2	2.8	49.3	– 29.7	– 6.2	– 16.9	18.0	0.8	Oct
5.1	17.9	–	89.4	84.7	95.4	1.7	93.6	– 8.8	– 1.9	– 1.8	7.0	1.2	Nov
– 48.3	– 15.1	–	56.5	73.9	92.1	16.2	75.9	– 24.5	6.4	4.0	– 5.9	– 4.3	Dec
62.7	52.6	–	29.4	6.2	– 6.7	– 11.9	5.2	3.0	9.9	– 17.5	13.0	– 0.7	2017 Jan
– 18.4	– 28.3	–	29.2	30.9	30.9	3.0	27.9	– 2.1	2.1	– 8.6	– 4.3	6.1	Feb
24.2	27.1	–	108.6	92.8	93.6	4.3	89.3	– 6.1	5.3	13.9	13.3	– 0.6	Mar
– 5.3	– 12.0	–	55.0	74.6	103.2	6.8	96.4	– 31.1	2.5	– 5.8	– 4.5	– 17.6	Apr
13.5	– 13.8	–	34.0	26.4	42.9	0.5	42.4	– 21.7	5.2	– 11.0	– 5.2	11.6	May

(b) German contribution

IV Deposits of central governments	V Other factors: Total	V Other factors: *of which* Intra-Eurosystem liability/claim related to banknote issue [9,11]	V Other factors: *of which* Currency in circulation	VI Money stock M3 (balance I plus II less III less IV less V) [10]: Total	Components of the money stock: Overnight deposits	Deposits with an agreed maturity of up to 2 years	Deposits at agreed notice of up to 3 months [6]	Repo transactions	Money market fund shares (net) [7,8]	Debt securities with maturities of up to 2 years (incl money market paper)(net) [7]	Period
– 0.6	– 25.3	3.0	– 0.3	31.4	30.7	– 3.8	1.3	– 0.5	– 0.0	3.7	2015 Oct
– 1.2	– 15.2	2.0	1.8	43.4	34.3	6.8	0.9	– 0.5	– 0.1	2.1	Nov
10.3	15.2	2.6	2.3	– 16.2	– 21.3	6.3	3.0	– 3.6	– 0.4	– 0.2	Dec
– 0.8	– 24.2	– 0.7	– 1.9	24.7	27.8	– 5.5	0.9	0.3	0.3	0.9	2016 Jan
7.1	– 24.0	0.6	0.4	15.2	13.3	– 1.9	1.6	1.4	– 0.1	1.0	Feb
21.0	3.1	2.1	0.6	– 5.5	– 12.5	10.9	– 0.8	– 0.9	– 0.2	– 2.0	Mar
– 17.4	– 20.7	1.2	1.0	23.1	24.1	– 1.0	– 0.7	0.5	– 0.5	0.7	Apr
18.7	– 19.8	2.9	– 0.5	19.9	21.5	0.3	– 0.6	– 0.2	– 0.4	– 0.7	May
13.0	– 7.9	4.2	1.5	0.2	2.0	– 0.7	– 0.4	– 1.0	0.0	0.4	June
– 31.8	25.0	3.7	2.1	24.5	12.3	4.0	– 0.1	0.9	– 0.2	7.6	July
8.8	– 22.3	2.3	– 0.8	6.2	11.3	– 1.6	0.1	– 0.2	– 0.1	– 3.4	Aug
8.6	– 21.2	4.7	– 0.6	7.2	3.0	5.5	– 0.6	– 0.3	0.0	– 0.5	Sep
– 8.8	18.6	3.2	– 0.5	1.4	12.0	– 10.2	0.2	0.3	– 0.1	– 0.8	Oct
6.9	– 48.2	1.9	0.3	37.8	36.2	3.3	0.1	– 0.2	0.0	– 1.7	Nov
– 13.6	30.4	3.3	2.4	– 4.8	– 4.9	– 1.5	2.7	– 0.9	– 0.0	– 0.1	Dec
– 12.6	– 27.2	1.1	– 2.7	29.2	16.9	8.9	0.7	2.6	– 0.1	0.2	2017 Jan
– 4.2	– 18.9	1.7	1.2	11.6	13.6	– 2.4	0.7	– 0.3	– 0.0	0.0	Feb
14.2	– 2.7	1.8	1.1	0.5	2.4	3.5	– 1.4	– 1.9	– 0.1	– 2.0	Mar
– 6.7	– 8.8	3.3	1.6	2.3	10.3	– 7.1	– 0.0	0.9	– 0.0	– 1.8	Apr
7.7	– 8.4	2.9	– 0.7	19.2	18.3	1.3	– 0.1	– 1.1	– 0.0	0.8	May

8 Less German MFIs' holdings of paper issued by euro-area MFIs. **9** Including national banknotes still in circulation. **10** The German contributions to the Eurosystem's monetary aggregates should on no account be interpreted as national monetary aggregates and are therefore not comparable with the erstwhile German money stocks M1, M2 or M3. **11** The difference between the volume of euro banknotes actually issued by the Bundesbank and the amount disclosed in accordance with the accounting regime chosen by the Eurosystem (see also footnote 2 on banknote circulation in Table III.2).

II Overall monetary survey in the euro area

2 Consolidated balance sheet of monetary financial institutions (MFIs) *

End of year/month	Total assets or liabilities	Assets										
		Lending to non-banks (non-MFIs) in the euro area									Claims on non-euro-area residents	Other assets
		Total	Enterprises and households				General government					
			Total	Loans	Debt securities 2	Shares and other equities	Total	Loans	Debt securities 3			
	Euro area (€ billion) 1											
2015 Apr	26,839.9	16,452.1	12,746.4	10,664.2	1,274.8	807.4	3,705.7	1,152.9	2,552.8	5,418.1	4,969.7
May	26,685.3	16,472.1	12,762.9	10,681.9	1,276.3	804.8	3,709.2	1,138.4	2,570.8	5,413.2	4,800.0
June	26,127.5	16,435.2	12,728.4	10,683.9	1,254.0	790.5	3,706.8	1,136.8	2,570.1	5,275.2	4,417.0
July	26,346.9	16,514.6	12,785.5	10,682.8	1,301.0	801.7	3,729.1	1,135.4	2,593.7	5,296.1	4,536.2
Aug	26,196.6	16,494.0	12,735.6	10,646.0	1,302.7	786.9	3,758.4	1,126.5	2,631.9	5,247.5	4,455.1
Sep	26,145.1	16,526.0	12,714.3	10,639.8	1,303.0	771.4	3,811.8	1,121.0	2,690.7	5,164.7	4,454.4
Oct	26,337.3	16,576.0	12,732.6	10,661.8	1,288.0	782.8	3,843.4	1,125.0	2,718.5	5,251.2	4,510.1
Nov	26,653.4	16,691.7	12,803.5	10,716.5	1,295.5	791.5	3,888.3	1,117.1	2,771.2	5,314.1	4,647.6
Dec	25,850.7	16,541.4	12,703.0	10,627.4	1,296.3	779.3	3,838.4	1,110.2	2,728.2	5,034.5	4,274.8
2016 Jan	26,414.5	16,689.5	12,731.2	10,656.8	1,306.9	767.5	3,958.2	1,127.1	2,831.2	5,149.6	4,575.4
Feb	26,749.2	16,774.6	12,771.5	10,700.6	1,313.1	757.8	4,003.1	1,118.6	2,884.5	5,228.2	4,746.4
Mar	26,406.8	16,825.5	12,776.3	10,709.9	1,312.0	754.4	4,049.1	1,117.9	2,931.3	5,030.7	4,550.7
Apr	26,557.6	16,909.0	12,815.8	10,721.4	1,325.7	768.7	4,093.2	1,127.9	2,965.3	5,173.9	4,474.7
May	26,807.0	16,993.9	12,842.5	10,733.4	1,341.3	767.8	4,151.4	1,121.7	3,029.6	5,270.0	4,543.1
June	27,072.9	17,041.3	12,829.2	10,732.4	1,344.2	752.7	4,212.1	1,110.6	3,101.4	5,278.2	4,753.4
July	27,135.0	17,093.6	12,852.6	10,737.6	1,359.6	755.3	4,241.1	1,111.6	3,129.5	5,326.7	4,714.7
Aug	27,037.8	17,105.6	12,866.5	10,723.2	1,365.0	778.2	4,239.1	1,102.9	3,136.2	5,321.4	4,610.7
Sep	26,973.2	17,147.5	12,892.5	10,756.7	1,359.3	776.5	4,255.0	1,098.8	3,156.2	5,266.4	4,559.3
Oct	27,051.8	17,205.0	12,925.5	10,787.5	1,363.1	775.0	4,279.5	1,101.1	3,178.4	5,422.5	4,424.3
Nov	27,164.5	17,298.2	12,986.1	10,832.8	1,383.3	770.0	4,312.1	1,089.1	3,223.0	5,452.3	4,414.0
Dec	26,682.2	17,239.6	12,930.6	10,774.6	1,374.7	781.3	4,309.0	1,079.6	3,229.4	5,208.4	4,234.2
2017 Jan	26,766.2	17,322.5	12,962.4	10,779.2	1,396.8	786.4	4,360.1	1,097.5	3,262.6	5,378.2	4,065.4
Feb	27,026.1	17,383.4	12,999.8	10,809.5	1,401.2	789.0	4,383.6	1,076.4	3,307.2	5,497.9	4,144.9
Mar	26,978.4	17,516.2	13,082.9	10,866.2	1,426.9	789.9	4,433.3	1,072.9	3,360.4	5,418.3	4,043.9
Apr	27,063.4	17,562.8	13,097.5	10,861.0	1,432.8	803.7	4,465.3	1,077.4	3,387.9	5,450.5	4,050.1
May	26,985.4	17,600.2	13,114.4	10,860.9	1,450.6	802.9	4,485.8	1,062.6	3,423.3	5,358.3	4,026.9
	German contribution (€ billion)										
2015 Apr	6,203.1	3,772.8	2,966.9	2,546.0	135.6	285.3	805.9	382.9	423.0	1,317.1	1,113.2
May	6,140.7	3,771.0	2,972.2	2,555.9	135.0	281.3	798.8	370.7	428.1	1,317.8	1,052.0
June	5,995.9	3,767.4	2,967.3	2,557.3	133.3	276.7	800.1	367.0	433.1	1,279.1	949.4
July	6,058.5	3,803.2	2,993.0	2,561.0	153.8	278.2	810.2	368.0	442.2	1,274.1	981.2
Aug	6,026.9	3,813.3	2,996.1	2,567.6	155.4	273.1	817.2	364.9	452.3	1,260.5	953.1
Sep	6,042.0	3,824.3	2,996.1	2,572.5	157.2	266.4	828.1	364.5	463.6	1,257.0	960.7
Oct	6,041.8	3,832.3	2,994.6	2,578.6	150.5	265.6	837.7	368.4	469.2	1,257.1	952.5
Nov	6,104.8	3,865.0	3,019.5	2,594.8	153.5	271.2	845.5	363.9	481.6	1,236.6	1,003.2
Dec	5,925.1	3,840.1	3,003.6	2,586.5	155.7	261.3	836.5	358.3	478.2	1,166.4	918.6
2016 Jan	6,057.8	3,858.2	3,004.8	2,592.8	154.8	257.3	853.4	362.0	491.4	1,191.2	1,008.3
Feb	6,155.3	3,874.9	3,014.0	2,607.0	151.1	255.9	860.9	362.0	498.9	1,209.7	1,070.8
Mar	6,060.6	3,885.5	3,015.6	2,607.8	151.8	256.0	869.9	361.6	508.3	1,163.7	1,011.4
Apr	6,050.2	3,908.3	3,026.3	2,617.8	152.2	256.3	882.1	366.1	515.9	1,181.7	960.2
May	6,091.2	3,934.7	3,043.0	2,629.7	153.3	260.0	891.7	362.8	528.9	1,187.1	969.4
June	6,221.2	3,939.7	3,042.5	2,629.1	152.9	260.5	897.2	357.3	540.0	1,221.3	1,060.1
July	6,245.6	3,968.5	3,054.3	2,639.3	155.3	259.7	914.2	360.3	553.8	1,228.3	1,048.8
Aug	6,218.9	3,977.8	3,062.7	2,646.2	155.3	261.2	915.1	358.5	556.6	1,226.9	1,014.2
Sep	6,202.1	4,001.8	3,075.1	2,655.3	157.6	262.1	926.8	357.2	569.5	1,215.0	985.4
Oct	6,208.1	4,019.0	3,087.3	2,664.9	161.9	260.5	931.7	360.3	571.4	1,260.2	928.9
Nov	6,186.1	4,046.1	3,107.1	2,680.4	165.0	261.7	939.0	355.5	583.5	1,243.2	896.8
Dec	6,131.1	4,037.0	3,099.2	2,671.7	164.0	263.6	937.8	345.2	592.6	1,234.7	859.4
2017 Jan	6,131.6	4,054.1	3,112.0	2,682.7	165.0	264.3	942.1	345.2	596.8	1,260.2	817.4
Feb	6,196.5	4,075.7	3,124.9	2,691.3	168.1	265.5	950.8	344.6	606.2	1,281.9	839.0
Mar	6,176.3	4,089.6	3,136.8	2,701.2	169.6	266.0	952.8	340.6	612.3	1,281.0	805.7
Apr	6,174.4	4,103.1	3,143.3	2,709.1	170.4	263.9	959.8	342.3	617.5	1,264.2	807.1
May	6,160.1	4,114.4	3,157.1	2,719.5	172.6	265.0	957.3	332.4	624.9	1,234.6	811.2

* Monetary financial institutions (MFIs) comprise banks (including building and loan associations), money market funds, and the European Central Bank and national central banks (the Eurosystem). **1** Source: ECB. **2** Including money market paper of enterprises. **3** Including Treasury bills and other money market paper issued by general government. **4** Euro currency in circulation (see also footnote 8 on p 12•) Excluding MFIs' cash in hand (in euro). The German contribution includes the volume

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Liabilities										
	Deposits of non-banks (non-MFIs) in the euro area									
			Enterprises and households							
					With agreed maturities of			At agreed notice of [6]		
Currency in circulation [4]	Total	*of which* in euro [5]	Total	Overnight	up to 1 year	over 1 year and up to 2 years	over 2 years	up to 3 months	over 3 months	End of year/month
										Euro area (€ billion) [1]
999.8	11,274.1	10,601.6	10,702.3	4,972.1	1,028.0	369.2	2,131.8	2,117.3	83.9	2015 Apr
1,006.4	11,370.9	10,644.8	10,742.7	5,049.9	999.5	364.6	2,124.5	2,121.9	82.3	May
1,017.1	11,390.8	10,645.9	10,747.1	5,096.4	976.4	361.0	2,110.1	2,122.0	81.2	June
1,031.3	11,391.9	10,681.7	10,796.9	5,135.0	983.0	358.9	2,119.8	2,119.7	80.4	July
1,029.4	11,375.8	10,678.2	10,788.2	5,137.0	981.5	353.8	2,114.8	2,122.1	79.1	Aug
1,026.5	11,410.5	10,694.5	10,796.3	5,162.5	977.4	350.6	2,110.9	2,116.6	78.3	Sep
1,028.8	11,498.5	10,739.4	10,848.4	5,244.5	972.9	349.1	2,092.0	2,112.5	77.3	Oct
1,034.5	11,524.1	10,774.1	10,869.8	5,288.4	970.8	343.9	2,081.4	2,109.6	75.7	Nov
1,048.9	11,486.5	10,813.7	10,922.5	5,325.7	981.5	343.8	2,083.3	2,112.9	75.2	Dec
1,037.7	11,611.6	10,852.2	10,953.0	5,365.0	973.3	344.1	2,074.6	2,121.8	74.3	2016 Jan
1,038.9	11,620.9	10,871.7	10,975.9	5,385.0	967.8	340.6	2,085.3	2,124.1	73.1	Feb
1,042.5	11,686.3	10,916.6	11,007.0	5,418.7	973.3	339.8	2,076.3	2,126.7	72.3	Mar
1,047.1	11,715.5	10,978.0	11,072.8	5,504.2	963.0	337.5	2,071.0	2,126.5	70.5	Apr
1,049.3	11,766.7	11,005.8	11,092.4	5,545.0	945.2	331.9	2,066.3	2,134.0	70.0	May
1,057.7	11,829.0	11,001.2	11,089.1	5,565.0	944.9	330.2	2,046.5	2,133.1	69.3	June
1,067.8	11,849.4	11,053.6	11,133.5	5,614.9	952.1	325.6	2,039.3	2,132.9	68.8	July
1,064.3	11,783.3	11,037.6	11,120.7	5,611.2	952.6	320.7	2,034.0	2,134.1	68.1	Aug
1,066.5	11,788.7	11,032.3	11,130.4	5,636.9	960.1	315.0	2,021.8	2,129.2	67.4	Sep
1,069.3	11,797.2	11,047.7	11,134.5	5,680.6	936.0	307.1	2,019.8	2,123.8	67.2	Oct
1,071.1	11,882.7	11,108.1	11,212.7	5,780.1	926.6	303.3	2,014.3	2,121.9	66.6	Nov
1,087.3	11,890.6	11,172.6	11,282.4	5,869.8	910.5	294.0	2,014.0	2,128.5	65.6	Dec
1,075.4	11,945.7	11,152.3	11,266.9	5,867.0	912.7	286.6	1,997.4	2,138.2	65.0	2017 Jan
1,078.4	11,953.4	11,171.0	11,290.3	5,891.7	917.8	284.4	1,991.6	2,140.2	64.6	Feb
1,082.7	12,064.2	11,241.7	11,384.1	5,988.4	908.6	285.3	1,992.7	2,145.1	64.1	Mar
1,089.5	12,104.1	11,286.9	11,420.0	6,066.8	884.6	278.6	1,978.7	2,147.6	63.7	Apr
1,089.9	12,124.0	11,312.7	11,417.2	6,094.9	862.3	273.5	1,970.3	2,154.3	62.0	May
										German contribution (€ billion)
233.8	3,265.4	3,191.1	3,080.3	1,598.9	187.3	31.7	661.3	528.5	72.7	2015 Apr
234.9	3,289.4	3,214.1	3,094.6	1,620.0	183.7	31.9	659.5	528.5	71.1	May
238.3	3,287.5	3,208.9	3,090.0	1,626.3	178.9	32.2	654.6	528.3	69.7	June
241.6	3,312.5	3,236.6	3,120.9	1,643.3	179.8	32.4	669.3	527.9	68.2	July
241.2	3,321.2	3,246.0	3,123.4	1,651.0	175.8	32.2	669.5	528.2	66.7	Aug
240.3	3,330.8	3,253.8	3,131.7	1,667.0	172.0	31.7	666.7	529.0	65.3	Sep
240.1	3,349.1	3,271.6	3,154.0	1,698.6	170.8	32.9	657.5	530.3	64.0	Oct
241.9	3,386.8	3,309.9	3,182.3	1,732.8	168.6	33.2	653.8	531.1	62.8	Nov
244.2	3,379.0	3,293.1	3,168.8	1,711.8	176.9	34.4	649.6	534.1	61.9	Dec
242.2	3,398.2	3,312.7	3,191.1	1,739.2	172.6	35.6	647.9	535.1	60.7	2016 Jan
242.7	3,412.8	3,319.7	3,197.4	1,747.9	172.1	35.8	645.5	536.7	59.4	Feb
243.3	3,428.4	3,315.7	3,188.8	1,735.7	176.5	37.5	644.9	535.9	58.3	Mar
244.2	3,429.1	3,334.3	3,208.5	1,759.1	178.5	38.3	640.3	535.1	57.2	Apr
243.7	3,469.8	3,356.2	3,222.9	1,779.2	175.2	37.3	640.6	534.4	56.2	May
245.2	3,481.5	3,352.9	3,218.7	1,779.1	173.1	38.3	638.8	533.9	55.4	June
247.4	3,464.1	3,368.1	3,233.1	1,793.5	174.7	38.2	638.3	533.8	54.6	July
246.5	3,480.0	3,376.0	3,238.3	1,803.0	173.4	38.2	636.2	533.8	53.8	Aug
245.9	3,494.5	3,380.7	3,247.0	1,807.9	179.4	38.3	635.0	533.3	53.1	Sep
245.4	3,489.6	3,386.4	3,254.0	1,821.1	172.1	37.8	637.3	533.5	52.3	Oct
245.7	3,536.5	3,424.0	3,288.1	1,857.7	171.0	37.4	636.6	533.7	51.7	Nov
248.1	3,517.1	3,419.8	3,284.1	1,851.0	171.5	38.4	635.6	536.3	51.3	Dec
245.4	3,526.3	3,439.3	3,306.3	1,873.8	174.0	38.7	632.1	537.1	50.6	2017 Jan
246.6	3,532.6	3,448.3	3,313.4	1,881.5	175.3	38.8	630.0	537.9	50.0	Feb
247.7	3,549.3	3,449.2	3,318.1	1,886.4	177.4	39.9	628.4	536.5	49.5	Mar
249.3	3,540.9	3,447.5	3,317.0	1,895.9	170.7	40.0	624.7	536.6	49.0	Apr
248.6	3,566.1	3,465.8	3,327.4	1,910.5	167.6	40.2	624.1	536.4	48.7	May

of euro banknotes put into circulation by the Bundesbank in accordance with the accounting regime chosen by the Eurosystem (see also footnote 2 on banknote circulation in Table III.2). The volume of currency actually put into circulation by the Bundesbank can be calculated by adding to this total the item "Intra-Eurosystem liability/claim related to banknote issue" (see "Other liability items"). **5** Excluding central governments' deposits. **6** In Germany, only savings deposits.

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2 Consolidated balance sheet of monetary financial institutions (MFIs) (cont'd) *

End of year/month	Liabilities (cont'd)												
	Deposits of non-banks (non-MFIs) in the euro area (cont'd)								Repo transactions with non-banks in the euro area		Money market fund shares (net) [3]	Debt securities	
	General government												
	Central governments	Other general government											
		Total	Overnight	With agreed maturities of			At agreed notice of [2]		Total	*of which* Enterprises and households		Total	*of which* denominated in euro
				up to 1 year	over 1 year and up to 2 years	over 2 years	up to 3 months	over 3 months					
	Euro area (€ billion) [1]												
2015 Apr	251.4	320.4	144.8	97.9	12.8	39.5	20.3	5.1	336.7	329.0	458.8	2,469.3	1,747.7
May	295.5	332.7	157.0	97.0	13.1	39.9	20.7	5.0	331.0	324.4	449.8	2,450.8	1,723.4
June	309.5	334.2	157.2	97.6	13.1	40.9	20.5	4.9	312.2	308.7	434.4	2,438.7	1,708.9
July	266.4	328.6	149.2	100.3	13.3	38.8	22.3	4.9	301.3	298.1	457.1	2,410.6	1,685.1
Aug	251.6	335.9	155.2	100.4	13.3	38.8	23.4	4.8	305.4	300.3	455.7	2,379.6	1,675.5
Sep	280.6	333.7	153.5	101.4	13.2	39.4	21.5	4.8	304.5	296.9	449.9	2,344.0	1,660.4
Oct	315.5	334.6	157.4	98.6	13.2	39.6	20.9	4.7	297.6	288.1	471.8	2,337.6	1,640.5
Nov	298.5	355.7	168.0	108.4	13.0	39.7	21.9	4.7	301.4	296.2	487.7	2,367.2	1,646.3
Dec	227.4	336.6	154.4	104.6	13.7	39.7	19.5	4.7	272.8	270.9	465.2	2,318.6	1,633.5
2016 Jan	315.1	343.4	160.9	102.3	14.3	39.7	21.0	5.2	294.5	292.9	475.6	2,300.6	1,614.2
Feb	301.0	344.0	162.6	98.1	14.4	39.9	24.0	5.1	339.1	335.1	474.3	2,287.2	1,596.9
Mar	333.3	345.9	159.5	102.0	15.1	40.8	23.6	5.0	332.3	329.1	462.9	2,270.6	1,589.5
Apr	297.6	345.2	161.9	97.2	15.4	42.2	23.5	4.9	327.9	323.1	480.3	2,275.1	1,585.5
May	317.7	356.6	167.0	102.1	15.5	43.1	24.0	4.9	318.7	312.8	480.4	2,283.2	1,574.6
June	378.3	361.6	171.3	102.4	15.9	43.7	23.5	4.8	321.3	318.0	471.1	2,280.5	1,568.0
July	349.2	366.7	174.1	101.6	18.2	43.8	24.2	4.8	298.6	297.4	486.2	2,256.9	1,542.4
Aug	294.6	368.1	175.7	100.8	18.7	44.3	23.8	4.9	301.0	299.9	486.9	2,251.9	1,533.2
Sep	297.4	361.0	170.5	99.5	19.4	44.4	22.3	5.0	286.5	285.7	485.2	2,225.8	1,515.8
Oct	295.3	367.4	182.2	94.1	19.8	44.7	21.3	5.3	266.4	265.7	503.2	2,224.8	1,502.0
Nov	300.4	369.6	178.6	98.9	21.2	44.2	21.6	5.2	264.9	264.2	510.3	2,242.8	1,504.8
Dec	253.1	355.1	169.8	93.9	21.5	43.3	21.4	5.1	268.9	268.2	504.4	2,232.1	1,501.3
2017 Jan	316.8	362.0	170.7	99.5	21.3	43.4	21.7	5.5	250.1	249.5	517.3	2,211.2	1,485.9
Feb	299.0	364.1	176.2	96.3	20.2	44.1	21.9	5.4	241.7	241.0	513.0	2,222.4	1,492.1
Mar	323.1	357.0	166.6	96.5	21.5	44.6	22.3	5.4	255.6	254.9	526.3	2,195.1	1,478.9
Apr	317.8	366.2	177.7	92.4	23.7	44.7	22.2	5.5	249.6	248.9	521.8	2,165.7	1,464.5
May	331.3	375.4	183.0	94.4	25.3	45.2	22.9	4.7	238.3	237.6	516.4	2,171.7	1,489.2
	German contribution (€ billion)												
2015 Apr	12.0	173.1	46.9	80.2	9.3	33.0	3.1	0.7	11.4	8.7	3.2	567.3	280.9
May	13.4	181.4	54.6	80.0	9.7	33.3	3.2	0.6	5.0	3.8	3.3	557.3	272.4
June	15.6	181.8	53.2	80.8	9.7	34.4	3.1	0.6	3.3	2.2	3.4	555.5	269.8
July	12.4	179.3	49.8	83.6	9.8	32.3	3.1	0.6	4.5	3.3	3.4	558.4	267.2
Aug	12.1	185.7	56.0	83.8	9.8	32.5	3.1	0.6	6.6	4.6	3.5	547.0	266.9
Sep	14.0	185.1	54.4	84.5	9.7	32.8	3.1	0.6	7.0	4.9	4.0	547.0	272.6
Oct	13.4	181.6	54.1	80.9	9.8	33.1	3.1	0.6	6.6	5.0	3.9	555.3	275.2
Nov	12.3	192.2	55.6	90.2	9.5	33.2	3.1	0.6	6.1	4.5	3.8	562.5	270.9
Dec	22.6	187.6	54.3	86.0	10.2	33.4	3.1	0.5	2.5	2.0	3.4	533.4	254.9
2016 Jan	21.8	185.2	54.5	83.2	10.5	33.4	3.1	0.5	2.8	2.7	3.7	534.8	257.0
Feb	28.9	186.5	59.1	79.7	10.5	33.7	3.1	0.5	4.2	3.7	3.6	527.9	250.2
Mar	49.3	190.2	57.4	84.1	10.8	34.3	3.1	0.5	3.2	2.0	3.4	518.7	250.5
Apr	31.9	188.7	58.2	80.3	10.9	35.6	3.2	0.5	3.7	2.4	3.0	521.8	249.1
May	50.6	196.3	60.4	84.9	11.1	36.2	3.3	0.5	3.5	2.4	2.5	530.9	244.9
June	63.6	199.2	62.2	85.0	11.5	36.6	3.3	0.5	2.5	2.3	2.6	523.0	241.2
July	31.9	199.1	59.9	85.2	13.3	36.8	3.3	0.5	3.4	3.2	2.4	524.2	241.2
Aug	40.6	201.0	61.7	84.6	13.6	37.2	3.4	0.5	3.2	3.2	2.3	524.4	241.5
Sep	49.3	198.3	59.7	83.5	14.0	37.2	3.4	0.5	2.9	2.9	2.4	516.7	240.8
Oct	40.5	195.1	58.8	80.4	14.9	37.2	3.4	0.5	3.2	3.2	2.3	526.0	242.2
Nov	47.4	201.0	59.5	84.2	16.1	37.3	3.3	0.6	3.0	3.0	2.3	542.1	251.4
Dec	33.8	199.1	61.6	80.5	16.6	36.6	3.3	0.6	2.2	2.2	2.3	541.3	250.6
2017 Jan	21.2	198.8	55.1	86.6	16.4	36.9	3.2	0.6	4.8	4.8	2.2	553.4	261.4
Feb	17.5	201.8	61.5	83.2	15.7	37.7	3.1	0.6	4.5	4.5	2.2	556.7	262.6
Mar	31.6	199.5	58.7	82.5	16.5	38.2	3.1	0.6	2.6	2.6	2.1	551.8	263.6
Apr	25.0	198.9	59.0	79.4	18.8	38.2	3.0	0.6	3.5	3.5	2.1	546.7	264.9
May	32.7	206.0	61.6	81.5	20.6	38.7	3.1	0.6	2.4	2.4	2.1	542.6	263.2

***** Monetary financial institutions (MFIs) comprise banks (including building and loan associations), money market funds, and the European Central Bank and national central banks (the Eurosystem). **1** Source: ECB. **2** In Germany, only savings deposits. **3** Excluding holdings of MFIs; for the German contribution, excluding German MFIs' portfolios of securities issued by MFIs in the euro area. **4** In Germany, bank debt securities with maturities of up to one year are classed as money market paper. **5** Excluding liabilities arising from securities issued. **6** After deduction of inter-MFI participations. **7** The German contributions to the Eurosystem's monetary aggregates should on no account be interpreted as national monetary aggregates and are therefore not comparable with the erstwhile German money stocks M1, M2 or M3. **8** including DM banknotes still in circulation (see also footnote 4 on p 10•) **9** For the German contribution, the difference between the volume of

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issued (net) [3]						Other liability items		*Memo item*					
	With maturities of							Monetary aggregates [7] (From 2002, German contribution excludes currency in circulation)					
up to 1 year [4]	over 1 year and up to 2 years	over 2 years	Liabilities to non-euro-area residents [5]	Capital and reserves [6]	Excess of inter-MFI liabilities	Total [8]	*of which* Intra-Eurosystem-liability/ claim related to banknote issue [9]	M1 [10]	M2 [11]	M3 [12]	Monetary capital formation [13]	Monetary liabilities of central governments (Post Office, Treasury) [14]	End of year/month
Euro area (€ billion) [1]													
57.3	46.0	2,366.1	4,003.4	2,541.7	– 78.5	4,834.6	–	6,203.6	9,869.7	10,554.2	7,168.2	107.6	2015 Apr
54.3	42.4	2,354.1	3,960.9	2,550.2	– 67.3	4,632.6	–	6,302.5	9,940.0	10,591.0	7,156.1	110.0	May
58.9	44.9	2,334.9	3,790.5	2,532.6	– 59.5	4,270.7	–	6,361.2	9,973.5	10,593.4	7,104.7	112.4	June
46.2	45.2	2,319.2	3,889.7	2,531.6	– 66.9	4,400.5	–	6,408.3	10,027.7	10,667.5	7,094.6	114.8	July
35.8	47.5	2,296.3	3,884.5	2,530.1	– 65.8	4,301.9	–	6,416.1	10,032.4	10,663.8	7,063.8	116.3	Aug
32.7	46.5	2,264.8	3,808.9	2,534.0	– 52.8	4,319.4	–	6,438.2	10,040.3	10,657.8	7,032.2	117.3	Sep
32.6	47.2	2,257.9	3,861.9	2,560.1	– 75.9	4,356.8	–	6,525.2	10,113.8	10,766.3	7,031.7	115.7	Oct
31.1	49.2	2,286.9	3,915.5	2,565.3	– 77.1	4,534.8	–	6,592.2	10,180.4	10,831.8	7,053.7	121.9	Nov
22.9	47.8	2,247.9	3,662.8	2,549.2	– 49.3	4,095.9	–	6,631.5	10,228.1	10,830.7	6,999.9	123.0	Dec
28.9	50.6	2,221.0	3,810.5	2,573.0	– 76.5	4,387.6	–	6,665.8	10,264.0	10,898.4	6,987.8	123.6	2016 Jan
33.4	54.2	2,199.6	3,922.3	2,609.9	– 98.0	4,554.5	–	6,688.2	10,278.2	10,932.4	7,012.9	122.8	Feb
37.2	51.9	2,181.5	3,733.8	2,592.4	– 93.9	4,379.8	–	6,721.4	10,322.5	10,959.4	6,968.3	121.3	Mar
41.7	50.0	2,183.4	3,921.4	2,604.3	– 98.9	4,285.0	–	6,815.2	10,399.0	11,061.6	6,976.4	122.7	Apr
39.9	49.2	2,194.1	4,027.4	2,600.8	– 82.8	4,363.2	–	6,867.4	10,440.7	11,101.7	6,979.2	126.6	May
49.8	47.2	2,183.5	3,949.8	2,664.9	– 61.7	4,560.3	–	6,901.2	10,471.8	11,122.7	7,012.8	127.7	June
54.6	47.8	2,154.5	4,080.7	2,678.7	– 104.2	4,521.0	–	6,967.5	10,542.8	11,216.7	6,989.9	131.5	July
53.9	46.2	2,151.8	4,122.7	2,676.2	– 84.0	4,435.5	–	6,961.8	10,533.2	11,205.5	6,979.1	131.4	Aug
48.7	46.1	2,131.0	4,077.7	2,698.3	– 44.0	4,388.4	–	6,984.4	10,550.7	11,207.6	6,967.9	131.3	Sep
53.5	43.6	2,127.7	4,284.0	2,683.2	– 30.1	4,253.7	–	7,043.2	10,566.2	11,239.6	6,947.8	131.8	Oct
54.7	42.8	2,145.3	4,326.6	2,662.6	– 54.3	4,257.8	–	7,145.5	10,659.5	11,337.1	6,938.1	136.4	Nov
51.1	42.0	2,139.1	4,043.8	2,658.5	– 38.7	4,035.3	–	7,238.2	10,732.2	11,392.3	6,925.6	135.4	Dec
47.2	45.8	2,118.1	4,247.1	2,645.8	– 10.7	3,884.4	–	7,227.7	10,732.1	11,416.0	6,875.2	139.1	2017 Jan
52.1	47.2	2,123.2	4,379.4	2,697.0	– 17.3	3,958.2	–	7,262.1	10,767.2	11,449.7	6,925.8	140.1	Feb
51.1	47.2	2,096.7	4,315.6	2,677.7	1.4	3,859.8	–	7,353.4	10,857.0	11,554.9	6,881.3	140.0	Mar
37.6	43.3	2,084.8	4,401.8	2,663.8	0.9	3,866.3	–	7,452.1	10,925.4	11,603.7	6,841.2	142.1	Apr
50.0	43.2	2,078.5	4,336.8	2,659.3	– 6.7	3,855.7	–	7,487.6	10,944.2	11,630.3	6,819.9	143.7	May
German contribution (€ billion)													
18.9	8.3	540.2	770.7	553.7	– 666.9	1,698.4	276.9	1,645.8	2,485.8	2,527.5	1,861.4	–	2015 Apr
18.6	5.6	533.1	764.2	556.8	– 676.8	1,641.5	279.3	1,674.6	2,511.5	2,544.0	1,854.4	–	May
18.5	5.4	531.7	718.1	555.8	– 670.9	1,543.2	280.2	1,679.6	2,512.5	2,543.1	1,846.8	–	June
18.2	5.2	535.1	742.1	552.4	– 692.2	1,577.2	284.9	1,693.1	2,529.7	2,561.0	1,857.9	–	July
16.2	5.9	524.9	754.9	552.8	– 711.7	1,552.8	287.3	1,707.0	2,539.8	2,571.9	1,847.1	–	Aug
21.9	8.0	517.2	736.7	553.5	– 709.5	1,572.5	290.1	1,721.4	2,551.4	2,592.3	1,836.0	–	Sep
25.8	7.8	521.7	737.2	558.6	– 735.5	1,566.6	293.1	1,752.7	2,580.5	2,624.6	1,835.4	–	Oct
26.4	9.6	526.5	724.9	553.7	– 754.5	1,621.4	295.2	1,788.4	2,624.1	2,670.0	1,830.6	–	Nov
26.3	9.3	497.8	659.6	552.5	– 742.7	1,537.4	297.8	1,766.1	2,610.8	2,652.3	1,795.8	–	Dec
25.2	11.2	498.4	702.8	560.8	– 766.0	1,620.7	297.1	1,793.6	2,633.8	2,676.6	1,801.7	–	2016 Jan
25.5	11.8	490.7	739.6	574.8	– 790.7	1,683.0	297.7	1,807.0	2,644.8	2,689.9	1,804.6	–	Feb
24.0	10.9	483.8	699.0	569.9	– 784.5	1,622.4	299.8	1,793.1	2,641.1	2,682.7	1,791.6	–	Mar
23.9	11.7	486.1	753.1	575.6	– 803.0	1,566.8	300.9	1,817.3	2,663.6	2,705.9	1,795.3	–	Apr
22.8	12.3	495.8	758.5	571.4	– 823.1	1,577.5	303.9	1,839.6	2,685.7	2,726.9	1,800.7	–	May
23.8	11.8	487.5	783.3	592.6	– 834.3	1,670.0	308.0	1,841.3	2,686.4	2,727.1	1,811.5	–	June
30.5	12.6	481.1	807.8	595.1	– 824.9	1,673.4	311.7	1,853.4	2,702.0	2,750.9	1,806.5	–	July
27.4	12.5	484.5	826.1	589.2	– 846.9	1,640.6	314.1	1,864.6	2,711.7	2,757.1	1,801.3	–	Aug
26.4	12.9	477.4	851.2	594.2	– 876.5	1,616.7	318.8	1,867.6	2,719.5	2,764.2	1,797.3	–	Sep
25.3	13.4	487.3	899.9	585.7	– 863.2	1,564.6	322.0	1,879.9	2,721.9	2,766.1	1,800.2	–	Oct
22.7	14.6	504.7	905.9	578.4	– 918.6	1,536.5	323.9	1,917.2	2,762.9	2,805.6	1,809.3	–	Nov
23.1	14.2	504.0	878.8	580.3	– 897.1	1,506.3	327.3	1,912.6	2,759.2	2,801.0	1,808.4	–	Dec
22.8	14.4	516.2	930.2	575.5	– 926.5	1,465.7	328.3	1,928.9	2,784.9	2,829.2	1,811.9	–	2017 Jan
22.2	15.2	519.2	972.2	587.9	– 944.3	1,484.8	330.1	1,943.0	2,797.0	2,841.1	1,825.3	–	Feb
19.5	15.9	516.4	979.6	586.5	– 957.7	1,462.2	331.9	1,945.1	2,801.0	2,841.1	1,819.5	–	Mar
17.7	16.9	512.1	985.8	597.9	– 965.5	1,463.1	335.2	1,954.8	2,803.4	2,843.5	1,822.6	–	Apr
18.4	16.8	507.4	957.7	595.0	– 967.6	1,461.9	338.1	1,972.1	2,821.5	2,861.2	1,814.4	–	May

euro banknotes actually issued by the Bundesbank and the amount disclosed in accordance with the accounting regime chosen by the Eurosystem (see also footnote 2 on banknote circulation in Table III.2). **10** Overnight deposits (excluding central governments' deposits), and (for the euro area) currency in circulation, central governments' overnight monetary liabilities, which are not included in the consolidated balance sheet. **11** M1 plus deposits with agreed maturities of up to 2 years and at agreed notice of up to 3 months (excluding central governments' deposits) and (for the euro area) central governments' monetary liabilities with such maturities. **12** M2 plus repo transactions, money market fund shares, money market paper and debt securities up to 2 years. **13** Deposits with agreed maturities of over 2 years and at agreed notice of over 3 months, debt securities with maturities of over 2 years, capital and reserves. **14** Non-existent in Germany.

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3 Banking system's liquidity position * Stocks

€ billion; period averages of daily positions

Reserve maintenance period ending in 1	Liquidity-providing factors					Liquidity-absorbing factors						
		Monetary policy operations of the Eurosystem										
	Net assets in gold and foreign currency	Main refinancing operations	Longer-term refinancing operations	Marginal lending facility	Other liquidity-providing operations 3	Deposit facility	Other liquidity-absorbing operations 4	Banknotes in circulation 5	Central government deposits	Other factors (net) 6	Credit institutions' current account balances (including minimum reserves) 7	Base money 8
Eurosystem 2												
2015 Jan	576.4	119.0	454.4	0.5	217.9	50.2	0.0	1 005.5	66.3	9.8	236.3	1 292.1
Feb	.	.	.	.	.	.	.	.	.	.	.	.
Mar	589.2	142.6	375.0	0.4	230.8	42.4	0.0	1 005.4	62.1	2.7	225.3	1 273.1
Apr	625.9	118.9	386.1	0.2	290.6	68.6	0.0	1 015.9	70.2	5.1	261.8	1 346.4
May	.	.	.	.	.	.	.	.	.	.	.	.
June	655.7	95.9	406.6	0.1	383.1	99.7	0.0	1 027.4	76.5	34.5	303.4	1 430.5
July	642.9	82.4	443.2	0.3	471.8	103.1	0.0	1 042.7	96.3	17.2	381.4	1 527.2
Aug	.	.	.	.	.	.	.	.	.	.	.	.
Sep	627.4	72.4	462.2	0.6	550.8	148.0	0.0	1 055.3	63.4	18.1	428.4	1 631.8
Oct	619.1	70.2	462.1	0.1	643.2	152.8	0.0	1 052.4	95.2	28.9	465.3	1 670.5
Nov	.	.	.	.	.	.	.	.	.	.	.	.
Dec	612.2	66.1	459.3	0.0	730.7	173.1	0.0	1 056.5	93.5	51.5	493.8	1 723.4
2016 Jan	611.6	71.6	466.9	0.2	811.8	196.6	0.0	1 072.8	82.5	53.2	557.1	1 826.5
Feb	.	.	.	.	.	.	.	.	.	.	.	.
Mar	607.8	62.9	461.7	0.1	907.6	230.5	0.0	1 063.4	115.6	73.9	556.5	1 850.4
Apr	627.3	58.1	460.8	0.2	1 000.1	262.0	0.0	1 069.3	147.4	97.7	570.0	1 901.3
May	.	.	.	.	.	.	.	.	.	.	.	.
June	640.3	53.9	456.3	0.2	1 105.3	309.0	0.0	1 076.6	123.9	122.8	623.8	2 009.4
July	666.1	47.6	471.6	0.1	1 227.1	323.1	0.0	1 087.1	175.5	169.4	657.5	2 067.7
Aug	.	.	.	.	.	.	.	.	.	.	.	.
Sep	685.0	43.5	483.7	0.0	1 339.7	355.1	0.0	1 096.2	137.8	214.0	748.8	2 200.2
Oct	687.8	37.4	503.5	0.1	1 447.0	387.3	0.0	1 094.7	168.3	248.0	777.4	2 259.4
Nov	.	.	.	.	.	.	.	.	.	.	.	.
Dec	687.4	34.0	511.8	0.2	1 570.2	439.4	0.0	1 103.1	159.7	277.6	823.9	2 366.3
2017 Jan	674.7	34.6	548.9	0.2	1 670.8	434.4	0.0	1 119.1	143.1	313.6	919.0	2 472.6
Feb	.	.	.	.	.	.	.	.	.	.	.	.
Mar	662.4	29.0	554.3	0.3	1 787.5	479.2	0.0	1 110.8	160.3	322.2	960.9	2 550.9
Apr	.	.	.	.	.	.	.	.	.	.	.	.
May	678.6	18.5	707.4	0.3	1 905.3	550.0	0.0	1 118.4	182.0	378.8	1 081.1	2 749.4
June	683.1	13.7	767.4	0.2	1 995.0	593.7	0.0	1 126.0	163.6	397.4	1 178.7	2 898.5
Deutsche Bundesbank												
2015 Jan	141.9	13.4	30.7	0.0	50.4	14.9	0.0	237.3	1.2	– 92.3	75.3	327.5
Feb	.	.	.	.	.	.	.	.	.	.	.	.
Mar	143.2	6.6	30.9	0.0	52.4	12.4	0.0	237.0	1.5	– 92.6	74.7	324.1
Apr	151.5	5.6	29.5	0.1	64.8	21.2	0.0	239.9	1.1	– 100.3	89.4	350.5
May	.	.	.	.	.	.	.	.	.	.	.	.
June	159.2	3.6	28.8	0.0	83.9	28.6	0.0	242.5	2.0	– 100.4	102.8	373.9
July	155.4	2.1	36.4	0.0	102.5	25.5	0.0	246.2	3.4	– 101.4	122.8	394.4
Aug	.	.	.	.	.	.	.	.	.	.	.	.
Sep	151.2	1.8	40.0	0.0	119.1	42.4	0.0	249.5	2.9	– 118.3	135.9	427.7
Oct	148.4	2.8	40.8	0.0	138.2	40.8	0.0	248.8	5.2	– 115.9	151.2	440.9
Nov	.	.	.	.	.	.	.	.	.	.	.	.
Dec	146.1	3.2	43.3	0.0	156.3	56.1	0.0	249.1	9.3	– 116.3	150.7	455.9
2016 Jan	144.8	3.6	48.4	0.1	174.0	50.0	0.0	252.4	18.0	– 124.0	174.4	476.8
Feb	.	.	.	.	.	.	.	.	.	.	.	.
Mar	143.7	1.9	46.3	0.0	193.9	59.8	0.0	250.4	26.1	– 113.3	162.9	473.1
Apr	152.2	3.1	45.0	0.0	214.1	67.6	0.0	252.1	37.3	– 105.1	162.4	482.1
May	.	.	.	.	.	.	.	.	.	.	.	.
June	156.4	3.3	45.3	0.0	237.2	87.3	0.0	254.7	41.1	– 127.2	186.5	528.4
July	163.3	2.7	44.7	0.0	263.4	89.8	0.0	257.4	47.2	– 117.0	196.6	543.9
Aug	.	.	.	.	.	.	.	.	.	.	.	.
Sep	168.3	1.9	44.0	0.0	288.2	90.8	0.0	258.7	36.2	– 112.6	229.3	578.9
Oct	168.7	1.5	50.6	0.0	311.9	105.2	0.0	258.6	50.5	– 125.2	243.6	607.4
Nov	.	.	.	.	.	.	.	.	.	.	.	.
Dec	167.7	0.9	54.0	0.0	339.2	129.7	0.0	260.3	43.7	– 141.9	270.0	660.0
2017 Jan	163.8	0.9	62.0	0.0	361.5	132.7	0.0	264.2	35.4	– 146.1	302.0	698.9
Feb	.	.	.	.	.	.	.	.	.	.	.	.
Mar	159.4	0.8	63.5	0.0	386.6	153.7	0.0	262.3	23.1	– 169.8	341.0	757.0
Apr	.	.	.	.	.	.	.	.	.	.	.	.
May	164.4	1.0	86.0	0.1	412.4	181.4	0.0	264.1	29.7	– 185.3	374.0	819.5
June	165.8	0.3	95.0	0.0	431.8	181.2	0.0	266.2	32.4	– 204.9	418.0	865.4

Discrepancies may arise from rounding. * The banking system's liquidity position is defined as the current account holdings in euro of euro-area credit institutions with the Eurosystem. Amounts are derived from the consolidated financial statement of the Eurosystem and the financial statement of the Bundesbank. **1** Figures are daily averages for the reserve maintenance period ending in the month indicated. Following the changeover in the frequency of Governing Council monetary policy meetings to a six-week cycle, a reserve maintenance period no longer ends in every month. No figures are available in such cases. **2** Source: ECB. **3** Includes liquidity provided under the Eurosystem's securities purchase programmes. **4** From Aug. 2009, includes liquidity absorbed as a result of the Eurosystem's foreign exchange swap operations. **5** From 2002, euro banknotes and other banknotes which have been issued by the national central banks of the Eurosystem and which are still in circulation. In accordance with the accounting procedure chosen by the Eurosystem for the issue of euro banknotes, 8% of the total value of the euro banknotes in circulation are

II Overall monetary survey in the euro area

Flows

Liquidity-providing factors					Liquidity-absorbing factors					Credit institutions' current account balances (including minimum reserves) 7	Base money 8	Reserve maintenance period ending in 1
	Monetary policy operations of the Eurosystem											
Net assets in gold and foreign currency	Main refinancing operations	Longer-term refinancing operations	Marginal lending facility	Other liquidity-providing operations 3	Deposit facility	Other liquidity-absorbing operations 4	Banknotes in circulation 5	Central government deposits	Other factors (net) 6			
Eurosystem 2												
+ 12.1	+ 15.7	+ 58.3	+ 0.3	+ 15.9	+ 22.9	± 0.0	+ 25.7	– 5.4	+ 8.0	+ 50.9	+ 99.6	2015 Jan
+ 12.8	+ 23.6	– 79.4	– 0.1	+ 12.9	– 7.8	± 0.0	– 0.1	– 4.2	– 7.1	– 11.0	– 19.0	Feb
+ 36.7	– 23.7	+ 11.1	– 0.2	+ 59.8	+ 26.2	± 0.0	+ 10.5	+ 8.1	+ 2.4	+ 36.5	+ 73.3	Mar
+ 29.8	– 23.0	+ 20.5	– 0.1	+ 92.5	+ 31.1	± 0.0	+ 11.5	+ 6.3	+ 29.4	+ 41.6	+ 84.1	Apr
– 12.8	– 13.5	+ 36.6	+ 0.2	+ 88.7	+ 3.4	± 0.0	+ 15.3	+ 19.8	– 17.3	+ 78.0	+ 96.7	May
– 15.5	– 10.0	+ 19.0	+ 0.3	+ 79.0	+ 44.9	± 0.0	+ 12.6	– 32.9	+ 0.9	+ 47.0	+ 104.6	June
– 8.3	– 2.2	– 0.1	– 0.5	+ 92.4	+ 4.8	± 0.0	– 2.9	+ 31.8	+ 10.8	+ 36.9	+ 38.7	July
– 6.9	– 4.1	– 2.8	± 0.0	+ 87.5	+ 20.3	± 0.0	+ 4.1	– 1.7	+ 22.6	+ 28.5	+ 52.9	Aug
– 0.6	+ 5.5	+ 7.6	+ 0.1	+ 81.1	+ 23.5	± 0.0	+ 16.3	– 11.0	+ 1.7	+ 63.3	+ 103.1	Sep
– 3.8	– 8.7	– 5.2	– 0.1	+ 95.8	+ 33.9	± 0.0	– 9.4	+ 33.1	+ 20.7	– 0.6	+ 23.9	Oct
+ 19.5	– 4.8	– 0.9	+ 0.1	+ 92.5	+ 31.5	± 0.0	+ 5.9	+ 31.8	+ 23.8	+ 13.5	+ 50.9	Nov
+ 13.0	– 4.2	– 4.5	± 0.0	+ 105.2	+ 47.0	± 0.0	+ 7.3	– 23.5	+ 25.1	+ 53.8	+ 108.1	Dec
+ 25.8	– 6.3	+ 15.3	– 0.1	+ 121.8	+ 14.1	± 0.0	+ 10.5	+ 51.6	+ 46.6	+ 33.7	+ 58.3	2016 Jan
+ 18.9	– 4.1	+ 12.1	– 0.1	+ 112.6	+ 32.0	± 0.0	+ 9.1	– 37.7	+ 44.6	+ 91.3	+ 132.5	Feb
+ 2.8	– 6.1	+ 19.8	+ 0.1	+ 107.3	+ 32.2	± 0.0	– 1.5	+ 30.5	+ 34.0	+ 28.6	+ 59.2	Mar
– 0.4	– 3.4	+ 8.3	+ 0.1	+ 123.2	+ 52.1	± 0.0	+ 8.4	– 8.6	+ 29.6	+ 46.5	+ 106.9	Apr
– 12.7	+ 0.6	+ 37.1	± 0.0	+ 100.6	– 5.0	± 0.0	+ 16.0	– 16.6	+ 36.0	+ 95.1	+ 106.3	May
– 12.3	– 5.6	+ 5.4	+ 0.1	+ 116.7	+ 44.8	± 0.0	– 8.3	+ 17.2	+ 8.6	+ 41.9	+ 78.3	June
+ 16.2	– 10.5	+ 153.1	± 0.0	+ 117.8	+ 70.8	± 0.0	+ 7.6	+ 21.7	+ 56.6	+ 120.2	+ 198.5	July
+ 4.5	– 4.8	+ 60.0	– 0.1	+ 89.7	+ 43.7	± 0.0	+ 7.6	– 18.4	+ 18.6	+ 97.6	+ 149.1	Aug
Deutsche Bundesbank												
+ 1.1	+ 6.7	+ 14.1	– 0.0	+ 3.1	+ 5.6	± 0.0	+ 4.9	+ 0.3	– 5.7	+ 19.8	+ 30.4	2015 Jan
+ 1.2	– 6.7	+ 0.2	+ 0.0	+ 2.0	– 2.5	± 0.0	– 0.3	+ 0.3	– 0.2	– 0.7	– 3.5	Feb
+ 8.3	– 1.1	– 1.4	+ 0.0	+ 12.4	+ 8.8	± 0.0	+ 3.0	– 0.4	– 7.8	+ 14.7	+ 26.4	Mar
+ 7.7	– 2.0	– 0.7	– 0.0	+ 19.2	+ 7.4	± 0.0	+ 2.6	+ 0.8	– 0.0	+ 13.5	+ 23.4	Apr
– 3.8	– 1.5	+ 7.6	– 0.0	+ 18.6	– 3.1	± 0.0	+ 3.7	+ 1.4	– 1.0	+ 19.9	+ 20.5	May
– 4.1	– 0.3	+ 3.7	+ 0.0	+ 16.6	+ 16.9	± 0.0	+ 3.2	– 0.4	– 17.0	+ 13.1	+ 33.2	June
– 2.9	+ 0.9	+ 0.8	– 0.0	+ 19.1	– 1.5	± 0.0	– 0.6	+ 2.3	+ 2.4	+ 15.4	+ 13.2	July
– 2.3	+ 0.4	+ 2.5	– 0.0	+ 18.1	+ 15.2	± 0.0	+ 0.3	+ 4.1	– 0.4	– 0.6	+ 15.0	Aug
– 1.3	+ 0.5	+ 5.1	+ 0.1	+ 17.7	– 6.0	± 0.0	+ 3.3	+ 8.7	– 7.6	+ 23.7	+ 21.0	Sep
– 1.0	– 1.7	– 2.1	– 0.0	+ 19.9	+ 9.8	± 0.0	– 2.1	+ 8.1	+ 10.7	– 11.5	– 3.8	Oct
+ 8.4	+ 1.1	– 1.3	+ 0.0	+ 20.3	+ 7.8	± 0.0	+ 1.7	+ 11.3	+ 8.2	– 0.4	+ 9.0	Nov
+ 4.3	+ 0.3	+ 0.4	– 0.0	+ 23.1	+ 19.7	± 0.0	+ 2.6	+ 3.8	– 22.1	+ 24.1	+ 46.3	Dec
+ 6.9	– 0.6	– 0.6	– 0.0	+ 26.2	+ 2.6	± 0.0	+ 2.8	+ 6.1	+ 10.2	+ 10.1	+ 15.4	2016 Jan
+ 5.1	– 0.8	– 0.7	– 0.0	+ 24.8	+ 1.0	± 0.0	+ 1.3	– 11.0	+ 4.4	+ 32.7	+ 35.0	Feb
+ 0.4	– 0.5	+ 6.6	+ 0.0	+ 23.7	+ 14.4	± 0.0	– 0.1	+ 14.3	– 12.6	+ 14.2	+ 28.5	Mar
– 0.9	– 0.5	+ 3.3	+ 0.0	+ 27.3	+ 24.4	± 0.0	+ 1.7	– 6.8	– 16.7	+ 26.5	+ 52.6	Apr
– 4.0	– 0.1	+ 8.1	– 0.0	+ 22.3	+ 3.0	± 0.0	+ 3.9	– 8.3	– 4.3	+ 31.9	+ 38.8	May
– 4.4	– 0.0	+ 1.4	+ 0.0	+ 25.1	+ 21.0	± 0.0	– 1.9	– 12.2	– 23.6	+ 39.0	+ 58.1	June
+ 4.9	+ 0.1	+ 22.6	+ 0.0	+ 25.9	+ 27.7	± 0.0	+ 1.8	+ 6.6	– 15.6	+ 33.0	+ 62.5	July
+ 1.5	– 0.7	+ 9.0	– 0.1	+ 19.4	– 0.2	± 0.0	+ 2.1	+ 2.6	– 19.6	+ 44.0	+ 45.9	Aug

allocated on a monthly basis to the ECB. The counterpart of this adjustment is shown under "Other factors". The remaining 92% of the value of the euro banknotes in circulation is allocated, likewise on a monthly basis, to the NCBs, with each NCB showing in its balance sheet the percentage of the euro banknotes in circulation that corresponds to its paid-up share in the ECB's capital. The difference between the value of the euro banknotes allocated to an NCB and the value of the euro banknotes which that NCB has put into circulation is likewise shown under "Other factors". From 2003 euro banknotes only. **6** Remaining items in the consolidated financial statement of the Eurosystem and the financial statement of the Bundesbank. **7** Equal to the difference between the sum of liquidity-providing factors and the sum of liquidity-absorbing factors. **8** Calculated as the sum of the "deposit facility", "banknotes in circulation" and "credit institutions' current account holdings".

III Consolidated financial statement of the Eurosystem

1 Assets *

€ billion

On reporting date/ End of month [1]	Total assets	Gold and gold receivables	Claims on non-euro area residents denominated in foreign currency			Claims on euro area residents denominated in foreign currency	Claims on non-euro area residents denominated in euro		
			Total	Receivables from the IMF	Balances with banks, security investments, external loans and other external assets		Total	Balances with banks, security investments and loans	Claims arising from the credit facility under ERM II
Eurosystem [2]									
2016 Nov 4	3,518.5	412.6	312.9	78.2	234.7	36.1	17.6	17.6	–
11	3,534.3	412.6	314.3	78.2	236.1	32.4	17.1	17.1	–
18	3,553.4	412.6	314.6	78.2	236.4	32.5	18.3	18.3	–
25	3,566.2	412.6	314.1	77.4	236.6	32.3	18.2	18.2	–
Dec 2	3,587.4	412.6	314.4	77.4	237.0	34.0	17.4	17.4	–
9	3,609.8	412.6	316.5	77.5	239.1	36.1	17.9	17.9	–
16	3,630.7	412.6	319.5	77.5	242.0	36.9	18.1	18.1	–
23	3,685.7	412.6	317.8	77.1	240.6	35.5	18.3	18.3	–
30	3,662.9	382.1	327.9	78.8	249.1	30.7	19.1	19.1	–
2017 Jan 6	3,672.6	382.1	326.6	78.7	247.8	31.9	18.5	18.5	–
13	3,697.3	382.1	326.9	78.7	248.2	34.7	17.5	17.5	–
20	3,719.6	382.1	325.7	78.7	247.0	31.4	19.0	19.0	–
27	3,740.8	382.1	323.6	78.7	245.0	35.8	18.8	18.8	–
Feb 3	3,749.5	382.1	323.4	78.7	244.8	34.7	19.8	19.8	–
10	3,770.9	382.1	323.2	78.4	244.7	36.4	18.9	18.9	–
17	3,787.9	382.1	324.7	77.8	246.9	34.7	19.0	19.0	–
24	3,808.2	382.1	324.4	77.8	246.6	35.6	19.1	19.1	–
Mar 3	3,820.3	382.1	323.8	77.8	246.1	34.1	19.4	19.4	–
10	3,839.9	382.1	325.3	77.8	247.6	34.6	19.7	19.7	–
17	3,856.9	382.1	324.6	77.9	246.8	33.0	18.7	18.7	–
24	3,877.0	382.1	326.4	77.8	248.5	32.8	19.5	19.5	–
31	4,100.7	404.2	323.4	77.6	245.8	33.9	20.2	20.2	–
2017 Apr 7	4,116.4	404.2	323.1	77.7	245.4	31.6	18.6	18.6	–
14	4,130.0	404.2	321.8	77.7	244.2	31.6	19.8	19.8	–
21	4,139.4	404.2	321.6	77.7	243.9	31.4	19.0	19.0	–
28	4,148.0	404.2	319.6	77.5	242.1	34.6	17.2	17.2	–
May 5	4,156.8	404.1	319.7	77.4	242.4	34.6	16.8	16.8	–
12	4,170.6	404.1	320.9	77.4	243.5	32.3	17.0	17.0	–
19	4,185.7	404.1	320.6	77.4	243.2	32.7	17.4	17.4	–
26	4,195.7	404.1	321.2	77.4	243.7	30.3	15.9	15.9	–
June 2	4,204.5	404.1	321.2	77.4	243.8	30.2	16.3	16.3	–
9	4,218.1	404.1	321.5	77.4	244.1	29.9	16.7	16.7	–
16	4,232.9	404.1	322.9	77.6	245.3	28.7	18.3	18.3	–
23	4,246.2	404.1	321.6	77.6	244.0	30.7	18.5	18.5	–
30	4,209.5	379.1	304.8	74.4	230.4	31.2	18.0	18.0	–
July 7	4,214.7	379.1	303.5	74.6	228.9	30.5	17.2	17.2	–
Deutsche Bundesbank									
2015 Aug	930.8	113.8	53.1	20.2	32.9	–	–	–	–
Sep	936.9	109.0	53.0	20.1	32.8	–	–	–	–
Oct	956.3	109.0	53.1	20.1	33.0	–	–	–	–
Nov	1 002.6	109.0	52.6	20.0	32.6	0.0	–	–	–
Dec	1 011.5	105.8	53.7	20.3	33.4	–	0.0	0.0	–
2016 Jan	1 018.5	105.8	53.6	20.4	33.2	0.0	–	–	–
Feb	1 043.7	105.8	55.0	22.0	33.0	0.0	–	–	–
Mar	1 077.6	117.8	53.4	21.5	32.0	0.0	–	–	–
Apr	1 112.7	117.8	54.1	21.5	32.7	0.0	0.0	0.0	–
May	1 159.5	117.8	54.9	21.5	33.4	0.0	–	–	–
June	1 214.0	129.0	55.7	21.5	34.1	0.7	–	–	–
July	1 209.4	129.0	56.0	21.5	34.5	0.2	–	–	–
Aug	1 239.2	129.0	56.1	21.4	34.7	0.3	–	–	–
Sep	1 305.3	128.8	55.0	21.3	33.7	2.3	0.4	0.4	–
Oct	1 312.2	128.8	54.9	21.3	33.6	– 0.0	0.3	0.3	–
Nov	1 376.5	128.8	55.0	21.1	33.9	0.1	0.4	0.4	–
Dec	1 392.7	119.3	56.5	21.5	35.0	1.8	0.4	0.4	–
2017 Jan	1 449.7	119.3	56.4	21.5	34.9	0.1	1.8	1.8	–
Feb	1 484.8	119.3	56.2	21.2	35.0	0.1	1.5	1.5	–
Mar	1 558.0	126.2	55.7	21.1	34.7	2.7	1.7	1.7	–
Apr	1 582.8	126.1	55.7	21.0	34.7	0.0	2.4	2.4	–
May	1 608.2	126.1	55.7	21.0	34.7	0.0	2.0	2.0	–
June	1 616.4	118.2	53.1	20.0	33.0	1.3	2.1	2.1	–

* The consolidated financial statement of the Eurosystem comprises the financial statement of the European Central Bank (ECB) and the financial statements of the national central banks of the euro area member states (NCBs). The balance sheet items for foreign currency, securities, gold and financial instruments are valued at the

III Consolidated financial statement of the Eurosystem

Lending to euro area credit institutions related to monetary policy operations denominated in euro							Other claims on euro area credit institutions denominated in euro	Securities of euro area residents in euro			General government debt denominated in euro	Other assets	On reporting date/ End of month [1]
Total	Main refinancing operations	Longer-term refinancing operations	Fine-tuning reverse operations	Structural reverse operations	Marginal lending facility	Credits related to margin calls		Total	Securities held for monetary policy purposes	Other securities			
Eurosystem [2]													
545.1	32.7	512.2	–	–	0.2	–	91.8	1 856.6	1 531.4	325.1	26.4	219.3	2016 Nov 4
543.7	31.4	512.2	–	–	0.1	–	91.4	1 875.6	1 551.1	324.5	26.4	220.6	11
544.9	32.6	512.2	–	–	0.0	–	87.5	1 895.5	1 572.3	323.3	26.4	221.0	18
546.1	33.7	512.2	–	–	0.2	–	83.8	1 913.9	1 590.1	323.8	26.4	218.7	25
546.6	36.0	510.5	–	–	0.2	–	83.1	1 932.3	1 608.1	324.2	26.4	220.6	Dec 2
546.5	35.8	510.5	–	–	0.2	–	81.7	1 950.6	1 626.5	324.1	26.4	221.4	9
547.4	36.8	510.5	–	–	0.1	–	79.8	1 967.1	1 644.0	323.1	26.4	222.9	16
589.8	32.9	556.6	–	–	0.4	–	71.7	1 982.3	1 659.5	322.9	26.4	231.3	23
595.9	39.1	556.6	–	–	0.2	–	69.1	1 974.9	1 654.0	320.9	26.5	236.8	30
590.8	34.0	556.6	–	–	0.2	–	70.9	1 987.0	1 666.1	320.9	26.5	238.5	2017 Jan 6
589.1	32.3	556.6	–	–	0.2	–	74.8	2 010.4	1 690.2	320.1	26.5	235.4	13
589.0	32.3	556.6	–	–	0.1	–	78.1	2 030.4	1 710.9	319.5	26.5	237.5	20
588.7	34.0	554.5	–	–	0.2	–	80.4	2 049.8	1 730.3	319.4	26.5	235.2	27
586.3	31.6	554.5	–	–	0.2	–	79.7	2 064.0	1 748.6	315.4	26.4	233.1	Feb 3
584.7	29.6	554.5	–	–	0.6	–	81.4	2 083.9	1 768.7	315.2	26.4	234.0	10
583.1	28.0	554.5	–	–	0.6	–	81.0	2 101.8	1 787.9	313.8	26.4	235.1	17
584.7	30.8	553.8	–	–	0.1	–	81.1	2 119.6	1 807.1	312.5	26.4	235.2	24
579.3	25.3	553.8	–	–	0.2	–	83.5	2 136.5	1 825.9	310.6	26.4	235.2	Mar 3
578.1	23.9	553.8	–	–	0.5	–	82.7	2 153.8	1 844.2	309.6	26.4	237.1	10
580.5	26.5	553.8	–	–	0.2	–	86.3	2 172.9	1 862.9	309.9	26.4	232.4	17
586.8	32.7	553.8	–	–	0.3	–	82.5	2 188.5	1 878.7	309.8	26.4	232.0	24
784.2	14.8	769.2	–	–	0.3	–	69.8	2 192.8	1 887.1	305.7	26.4	245.9	31
782.5	13.2	769.2	–	–	0.1	–	81.4	2 211.3	1 906.3	305.0	26.4	237.4	2017 Apr 7
783.1	13.2	769.2	–	–	0.7	–	80.7	2 225.9	1 921.4	304.5	26.4	236.5	14
784.2	14.8	769.2	–	–	0.2	–	82.0	2 236.2	1 933.0	303.2	26.4	234.5	21
782.1	14.4	767.3	–	–	0.4	–	78.2	2 247.4	1 946.9	300.5	26.4	238.4	28
782.0	14.4	767.3	–	–	0.3	–	78.6	2 257.5	1 959.9	297.6	26.4	237.1	May 5
781.2	13.7	767.3	–	–	0.2	–	79.6	2 271.4	1 974.7	296.8	26.4	237.6	12
781.5	14.0	767.3	–	–	0.2	–	78.6	2 285.2	1 989.0	296.2	26.4	239.3	19
783.5	15.9	767.3	–	–	0.2	–	75.9	2 299.1	2 002.4	296.7	26.4	239.3	26
780.1	12.1	767.8	–	–	0.3	–	74.5	2 311.0	2 015.2	295.8	26.4	240.7	June 2
780.0	12.1	767.8	–	–	0.1	–	73.7	2 325.6	2 029.8	295.9	26.4	240.3	9
779.1	11.0	767.8	–	–	0.3	–	75.5	2 338.7	2 045.0	293.7	26.4	239.2	16
779.6	11.5	767.8	–	–	0.3	–	73.1	2 352.1	2 058.4	293.7	26.4	240.1	23
779.3	11.6	767.3	–	–	0.3	–	70.9	2 358.6	2 064.4	294.2	25.8	241.9	30
775.7	8.3	767.3	–	–	0.1	–	69.5	2 374.4	2 081.3	293.1	25.7	239.0	July 7
Deutsche Bundesbank													
41.6	1.8	39.7	–	–	0.1	–	4.6	124.4	124.4	–	4.4	588.9	2015 Aug
46.3	4.1	42.2	–	–	0.0	–	4.2	136.8	136.8	–	4.4	583.2	Sep
45.8	4.1	41.7	–	–	0.0	–	3.8	149.1	149.1	–	4.4	591.2	Oct
50.2	3.1	47.1	–	–	0.0	–	3.5	161.7	161.7	–	4.4	621.2	Nov
58.1	9.1	48.6	–	–	0.3	–	3.5	172.3	172.3	–	4.4	613.7	Dec
51.2	2.6	48.5	–	–	0.0	–	2.8	185.0	185.0	–	4.4	615.7	2016 Jan
44.9	1.9	43.0	–	–	0.0	–	2.3	197.6	197.6	–	4.4	633.6	Feb
49.7	3.7	46.0	–	–	0.0	–	3.4	210.4	210.4	–	4.4	638.4	Mar
49.7	4.2	45.5	–	–	0.0	–	4.3	227.3	227.3	–	4.4	655.0	Apr
48.8	3.8	45.0	–	–	0.0	–	4.3	244.8	244.8	–	4.4	684.4	May
47.3	2.8	44.5	–	–	0.0	–	5.2	261.8	261.8	–	4.4	710.0	June
46.4	2.3	44.1	–	–	0.0	–	5.5	279.9	279.9	–	4.4	688.0	July
46.3	2.3	44.1	–	–	0.0	–	5.5	292.6	292.6	–	4.4	705.0	Aug
55.3	1.3	54.0	–	–	–	–	5.7	309.3	309.3	–	4.4	744.1	Sep
55.5	0.9	53.9	–	–	0.7	–	5.4	326.7	326.7	–	4.4	736.2	Oct
55.2	1.0	53.9	–	–	0.3	–	4.8	345.4	345.4	–	4.4	782.3	Nov
65.5	1.8	63.5	–	–	0.1	–	3.0	357.7	357.7	–	4.4	784.1	Dec
64.0	0.6	63.4	–	–	0.0	–	4.1	375.7	375.7	–	4.4	823.9	2017 Jan
63.9	0.7	63.2	–	–	0.0	–	4.5	392.6	392.6	–	4.4	842.4	Feb
95.6	0.4	95.0	–	–	0.2	–	3.9	408.8	408.8	–	4.4	859.0	Mar
95.7	0.6	95.0	–	–	0.1	–	4.2	421.4	421.4	–	4.4	872.8	Apr
95.3	0.3	95.0	–	–	0.0	–	4.0	434.3	434.3	–	4.4	886.4	May
96.4	1.2	95.0	–	–	0.1	–	3.9	445.8	445.8	–	4.4	891.3	June

end of the quarter. **1** For the Eurosystem: financial statements for specific weekly dates; for the Bundesbank: end of month financial statement. **2** Source: ECB.

III Consolidated financial statement of the Eurosystem

2 Liabilities *

€ billion

On reporting date/ End of month 1	Total liabilities	Banknotes in circulation 2	Liabilities to euro area credit institutions related to monetary policy operations denominated in euro						Other liabilities to euro-area credit institutions denominated in euro	Debt certificates issued	Liabilities to other euro area residents denominated in euro		
			Total	Current accounts (covering the minimum reserve system)	Deposit facility	Fixed-term deposits	Fine-tuning reverse operations	Deposits related to margin calls			Total	General government	Other liabilities
Eurosystem 4													
2016 Nov 4	3,518.5	1,102.5	1,256.7	801.1	455.6	–	–	0.0	3.5	–	241.6	136.3	105.3
11	3,534.3	1,100.7	1,260.2	800.3	459.7	–	–	0.1	3.8	–	258.8	150.7	108.1
18	3,553.4	1,099.3	1,261.5	802.5	459.0	–	–	0.0	3.8	–	270.6	164.1	106.6
25	3,566.2	1,099.8	1,249.2	820.4	428.8	–	–	0.0	3.5	–	290.2	184.7	105.5
Dec 2	3,587.4	1,108.4	1,301.3	849.7	451.6	–	–	0.0	3.6	–	253.8	147.0	106.8
9	3,609.8	1,114.3	1,321.0	869.0	451.9	–	–	0.1	3.4	–	249.0	144.9	104.1
16	3,630.7	1,117.4	1,298.1	879.7	418.4	–	–	0.0	4.9	–	271.8	168.9	102.9
23	3,685.7	1,126.7	1,353.8	930.9	422.9	–	–	0.0	8.8	–	238.0	133.1	104.9
30	3,662.9	1,126.2	1,313.3	889.0	424.2	–	–	0.1	9.4	–	220.8	114.9	105.9
2017 Jan 6	3,672.6	1,122.2	1,369.2	928.6	440.5	–	–	0.0	8.9	–	213.8	110.2	103.6
13	3,697.3	1,115.5	1,396.8	935.3	461.4	–	–	0.1	9.6	–	240.2	137.9	102.4
20	3,719.6	1,110.7	1,386.8	952.4	434.3	–	–	0.2	9.7	–	281.8	177.7	104.0
27	3,740.8	1,109.0	1,385.7	978.9	406.7	–	–	0.0	7.7	–	305.2	201.3	103.9
Feb 3	3,749.5	1,111.4	1,438.1	963.9	474.2	–	–	0.0	10.0	–	237.5	130.5	107.0
10	3,770.9	1,110.9	1,451.1	955.3	495.8	–	–	0.0	8.5	–	252.0	144.2	107.8
17	3,787.9	1,110.1	1,422.6	953.6	469.0	–	–	0.0	9.5	–	293.9	185.6	108.3
24	3,808.2	1,110.8	1,434.8	957.4	477.4	–	–	0.0	10.0	–	289.7	177.5	112.3
Mar 3	3,820.3	1,113.5	1,468.1	966.3	501.8	–	–	0.0	11.5	–	254.5	140.4	114.0
10	3,839.9	1,113.8	1,491.9	966.3	525.5	–	–	0.0	15.4	–	257.1	142.5	114.6
17	3,856.9	1,112.9	1,475.6	984.4	491.3	–	–	0.0	15.3	–	297.9	178.4	119.4
24	3,877.0	1,111.2	1,455.1	946.2	508.9	–	–	0.0	14.1	–	340.9	221.5	119.4
31	4,100.7	1,114.5	1,632.5	1,048.5	584.0	–	–	0.0	15.1	–	304.8	178.9	125.9
2017 Apr 7	4,116.4	1,119.2	1,721.1	1,132.9	588.2	–	–	0.0	13.7	–	279.2	153.9	125.3
14	4,130.0	1,127.5	1,708.3	1,144.5	563.8	–	–	0.0	13.2	–	298.1	164.7	133.4
21	4,139.4	1,121.6	1,682.0	1,123.0	559.0	–	–	0.0	10.7	–	344.2	209.5	134.7
28	4,148.0	1,125.3	1,709.1	1,132.6	576.4	–	–	0.0	12.9	–	306.2	172.0	134.3
May 5	4,156.8	1,125.1	1,773.1	1,172.7	600.4	–	–	0.0	12.4	–	256.0	114.2	141.8
12	4,170.6	1,124.7	1,766.3	1,165.6	600.7	–	–	0.0	10.8	–	283.1	140.8	142.2
19	4,185.7	1,123.2	1,760.3	1,169.5	590.7	–	–	0.0	9.6	–	314.5	177.1	137.4
26	4,195.7	1,124.1	1,748.4	1,159.5	588.9	–	–	0.1	10.3	–	353.1	209.3	143.9
June 2	4,204.5	1,131.3	1,796.2	1,194.2	602.0	–	–	0.0	11.3	–	299.9	157.7	142.2
9	4,218.1	1,130.5	1,800.6	1,199.2	601.3	–	–	0.1	9.1	–	310.2	172.5	137.7
16	4,232.9	1,131.7	1,776.2	1,168.4	607.8	–	–	0.0	7.4	–	351.7	209.7	142.1
23	4,246.2	1,131.3	1,735.3	1,158.1	577.2	–	–	0.0	7.7	–	400.8	259.1	141.7
30	4,209.5	1,136.9	1,723.1	1,106.1	617.0	–	–	0.1	9.2	–	347.6	210.1	137.5
July 7	4,214.7	1,140.0	1,787.3	1,166.6	620.7	–	–	0.0	9.8	–	340.1	209.1	131.0
Deutsche Bundesbank													
2015 Aug	930.8	248.0	185.8	135.3	50.6	–	–	–	–	–	42.2	1.9	40.3
Sep	936.9	247.5	173.5	139.4	34.1	–	–	0.0	–	–	56.8	2.3	54.5
Oct	956.3	247.9	184.3	140.9	43.3	–	–	0.0	–	–	65.5	2.8	62.7
Nov	1 002.6	249.0	212.4	154.3	58.0	–	–	0.0	–	–	79.3	2.9	76.4
Dec	1 011.5	254.8	208.7	155.1	53.6	–	–	0.0	–	–	71.9	11.6	60.2
2016 Jan	1 018.5	249.9	228.7	172.7	56.0	–	–	–	–	–	75.6	10.7	64.8
Feb	1 043.7	250.1	231.5	165.9	65.6	–	–	–	–	–	88.2	18.7	69.5
Mar	1 077.6	251.9	227.3	167.8	59.6	–	–	–	–	–	108.8	39.9	69.0
Apr	1 112.7	252.5	272.4	180.8	91.6	–	–	–	–	–	96.3	24.2	72.1
May	1 159.5	253.4	293.2	200.0	93.2	–	–	–	–	–	121.2	41.8	79.4
June	1 214.0	255.6	299.7	214.4	85.3	–	–	0.0	–	–	130.6	56.5	74.1
July	1 209.4	258.0	320.7	235.4	85.4	–	–	0.0	–	–	101.4	25.3	76.1
Aug	1 239.2	257.1	334.5	242.3	92.2	–	–	0.0	0.0	–	110.4	33.5	76.9
Sep	1 305.3	257.9	362.6	244.7	117.9	–	–	–	0.1	–	122.4	43.9	78.6
Oct	1 312.2	259.2	380.0	260.5	119.5	–	–	–	0.3	–	110.8	35.6	75.3
Nov	1 376.5	259.5	428.0	293.1	134.9	–	–	–	0.3	–	116.6	40.0	76.6
Dec	1 392.7	264.9	411.4	284.9	126.4	–	–	–	0.5	–	105.8	32.5	73.4
2017 Jan	1 449.7	260.9	499.0	348.3	150.7	–	–	–	2.2	–	92.9	17.1	75.8
Feb	1 484.8	261.3	507.1	347.0	160.1	–	–	–	1.7	–	97.3	12.4	84.9
Mar	1 558.0	262.1	543.2	353.8	189.3	–	–	–	1.7	–	115.4	26.8	88.6
Apr	1 582.8	264.7	591.2	402.7	188.5	–	–	–	4.1	–	88.9	20.0	68.9
May	1 608.2	264.9	607.1	433.6	173.5	–	–	–	2.5	–	102.9	27.8	75.1
June	1 616.4	267.4	586.1	418.6	167.5	–	–	–	3.4	–	112.9	40.0	72.9

***** The consolidated financial statement of the Eurosystem comprises the financial statement of the European Central Bank (ECB) and the financial statements of the national central banks of the euro area member states (NCBs). The balance sheet items for foreign currency, securities, gold and financial instruments are valued at market rates at the end of the quarter. **1** For Eurosystem: financial statements for specific weekly dates; for the Bundesbank: end-of-month financial statements. **2** According to the accounting regime chosen by the Eurosystem on the issue of euro banknotes, a share of 8% of the total value of the euro banknotes in circulation is allocated to the ECB on a monthly basis. The counterpart of this adjustment is disclosed as an "Intra-Eurosystem liability related to euro banknote issue". The

III Consolidated financial statement of the Eurosystem

Liabilities to non-euro area residents denominated in euro	Liabilities to euro area residents in foreign currency	Liabilities to non-euro area residents denominated in foreign currency			Counterpart of special drawing rights allocated by the IMF	Other liabilities [3]	Intra-Eurosystem liability related to euro banknote issue [2]	Revaluation accounts	Capital and reserves	On reporting date/ End of month [1]
		Total	Deposits, balances and other liabilities	Liabilities arising from the credit facility under ERM II						
Eurosystem [4]										
103.8	4.0	12.5	12.5	–	58.1	216.3	–	418.5	100.8	2016 Nov 4
101.5	3.8	10.6	10.6	–	58.1	217.4	–	418.5	100.8	11
109.9	4.4	10.0	10.0	–	58.1	216.4	–	418.5	100.8	18
117.4	2.8	10.5	10.5	–	58.1	215.2	–	418.5	100.8	25
113.2	3.8	10.9	10.9	–	58.1	214.7	–	418.5	100.8	Dec 2
112.0	6.2	12.2	12.2	–	58.1	215.4	–	418.5	99.5	9
127.3	7.1	12.2	12.2	–	58.1	215.6	–	418.5	99.5	16
145.7	7.0	10.4	10.4	–	58.1	219.0	–	418.5	99.5	23
205.7	3.6	9.3	9.3	–	59.3	221.4	–	394.4	99.5	30
167.4	5.7	10.7	10.7	–	59.3	221.3	–	394.4	99.8	2017 Jan 6
138.8	7.7	13.4	13.4	–	59.3	221.7	–	394.4	99.8	13
133.8	7.3	9.7	9.7	–	59.3	226.4	–	394.4	99.8	20
133.0	9.2	10.5	10.5	–	59.3	227.0	–	394.4	99.8	27
151.5	9.2	9.4	9.4	–	59.3	228.7	–	394.4	100.1	Feb 3
144.8	8.5	11.9	11.9	–	59.3	229.6	–	394.4	100.0	10
147.7	8.6	12.2	12.2	–	59.3	229.6	–	394.4	100.0	17
159.9	9.5	11.0	11.0	–	59.3	228.2	–	394.4	100.6	24
168.4	7.7	10.6	10.6	–	59.3	231.8	–	394.4	100.6	Mar 3
157.0	6.0	12.8	12.8	–	59.3	231.7	–	394.4	100.6	10
152.9	3.5	12.4	12.4	–	59.3	232.1	–	394.4	100.6	17
153.5	5.0	12.0	12.0	–	59.3	231.0	–	394.4	100.6	24
218.8	3.0	10.4	10.4	–	59.0	229.4	–	412.0	101.1	31
168.5	3.9	11.6	11.6	–	59.0	226.6	–	412.0	101.4	2017 Apr 7
170.5	2.9	11.2	11.2	–	59.0	225.8	–	412.0	101.4	14
169.1	3.0	10.5	10.5	–	59.0	225.7	–	412.0	101.4	21
180.7	5.0	10.1	10.1	–	59.0	225.5	–	412.0	102.3	28
175.2	4.1	11.4	11.4	–	59.0	226.3	–	412.0	102.3	May 5
170.5	3.7	11.1	11.1	–	59.0	227.2	–	412.0	102.2	12
162.0	3.7	11.6	11.6	–	59.0	227.4	–	412.0	102.3	19
145.5	2.9	11.1	11.1	–	59.0	226.9	–	412.0	102.3	26
150.7	2.8	10.7	10.7	–	59.0	228.3	–	412.0	102.3	June 2
152.7	2.8	10.8	10.8	–	59.0	228.1	–	412.0	102.3	9
149.0	3.0	11.0	11.0	–	59.0	229.5	–	412.0	102.3	16
152.1	3.0	12.5	12.5	–	59.0	230.1	–	412.0	102.3	23
222.5	4.1	10.8	10.8	–	56.7	224.4	–	371.9	102.3	30
168.8	5.0	10.3	10.3	–	56.7	222.5	–	371.9	102.3	July 7
Deutsche Bundesbank										
10.0	0.0	0.5	0.5	–	15.2	23.7	287.3	113.1	5.0	2015 Aug
16.2	0.0	0.5	0.5	–	15.1	24.0	290.1	108.2	5.0	Sep
12.4	0.0	0.8	0.8	–	15.1	24.1	293.1	108.2	5.0	Oct
13.9	0.0	0.4	0.4	–	15.1	24.2	295.2	108.2	5.0	Nov
27.2	0.0	0.6	0.6	–	15.3	24.4	297.8	105.7	5.0	Dec
16.0	0.0	0.1	0.1	–	15.3	25.0	297.1	105.7	5.0	2016 Jan
28.0	0.0	0.2	0.2	–	15.3	22.0	297.7	105.7	5.0	Feb
30.5	0.0	0.3	0.3	–	14.9	22.8	299.8	116.2	5.0	Mar
30.7	0.0	0.8	0.8	–	14.9	22.9	300.9	116.2	5.0	Apr
27.2	0.0	1.4	1.4	–	14.9	23.1	303.9	116.2	5.0	May
47.0	0.0	1.0	1.0	–	15.2	23.4	308.0	128.5	5.0	June
43.8	0.0	1.4	1.4	–	15.2	23.6	311.7	128.5	5.0	July
48.9	0.0	1.7	1.7	–	15.2	23.7	314.1	128.5	5.0	Aug
70.3	0.0	1.1	1.1	–	15.1	24.0	318.8	128.0	5.0	Sep
66.5	0.0	1.0	1.0	–	15.1	24.3	322.0	128.0	5.0	Oct
74.7	0.0	1.0	1.0	–	15.1	24.4	323.9	128.0	5.0	Nov
117.0	0.0	1.2	1.2	–	15.4	24.7	327.3	119.7	5.0	Dec
100.5	0.0	0.6	0.6	–	15.4	25.2	328.3	119.7	5.0	2017 Jan
121.3	0.0	0.9	0.9	–	15.4	24.5	330.1	119.7	5.6	Feb
131.3	0.0	0.5	0.5	–	15.3	25.1	331.9	126.0	5.6	Mar
125.9	0.0	0.7	0.7	–	15.3	25.3	335.2	126.0	5.6	Apr
119.4	0.0	0.7	0.7	–	15.3	25.8	338.1	126.0	5.6	May
140.4	0.0	1.1	1.1	–	14.7	26.2	342.8	115.8	5.6	June

remaining 92 % of the value of the euro banknote in circulation is also allocated to the NCBs on a monthly basis, and each NCB shows in its balance sheet the share of the euro banknotes issued which corresponds to its paid-up share in the ECB's capital. The difference between the value of the euro banknotes allocated to the NCB according to the aforementioned accounting regime and the value of euro banknotes put into circulation is also disclosed as an "Intra-Eurosystem claim/ liability related to banknote issue". **3** For the Deutsche Bundesbank: including DM banknotes still in circulation. **4** Source: ECB.

IV Banks

1 Assets and liabilities of monetary financial institutions (excluding the Bundesbank) in Germany *
Assets

€ billion

Period	Balance sheet total [1]	Cash in hand	Lending to banks (MFIs) in the euro area							Lending to non-banks (non-MFIs) in the			
				to banks in the home country			to banks in other member states				to non-banks in the home country		
												Enterprises and households	
			Total	Total	Loans	Securities issued by banks	Total	Loans	Securities issued by banks	Total	Total	Total	Loans
	End of year or month												
2008	7,892.7	17.8	2,681.8	1,990.2	1,404.3	585.8	691.6	452.9	238.8	3,638.2	3,163.0	2,686.9	2,357.3
2009	7,436.1	17.2	2,480.5	1,813.2	1,218.4	594.8	667.3	449.5	217.8	3,638.3	3,187.9	2,692.9	2,357.5
2010	8,304.8	16.5	2,361.6	1,787.8	1,276.9	510.9	573.9	372.8	201.0	3,724.5	3,303.0	2,669.2	2,354.7
2011	8,393.3	16.4	2,394.4	1,844.5	1,362.2	482.2	550.0	362.3	187.7	3,673.5	3,270.5	2,709.4	2,415.1
2012	8,226.6	19.2	2,309.0	1,813.2	1,363.8	449.4	495.9	322.2	173.7	3,688.6	3,289.4	2,695.5	2,435.7
2013	7,528.9	18.7	2,145.0	1,654.8	1,239.1	415.7	490.2	324.6	165.6	3,594.3	3,202.1	2,616.3	2,354.0
2014	7,802.3	19.2	2,022.8	1,530.5	1,147.2	383.3	492.3	333.9	158.4	3,654.5	3,239.4	2,661.2	2,384.8
2015	7,665.2	19.5	2,013.6	1,523.8	1,218.0	305.8	489.8	344.9	144.9	3,719.9	3,302.5	2,727.4	2,440.0
2016	7,792.6	26.0	2,101.4	1,670.9	1,384.2	286.7	430.5	295.0	135.5	3,762.9	3,344.5	2,805.6	2,512.0
2015 Aug	7,840.0	15.5	2,059.4	1,574.0	1,220.8	353.2	485.3	340.0	145.3	3,726.2	3,301.6	2,716.9	2,421.1
Sep	7,829.3	15.8	2,042.0	1,547.5	1,200.0	347.6	494.5	348.7	145.8	3,728.0	3,301.1	2,716.7	2,426.3
Oct	7,856.5	16.5	2,082.1	1,584.2	1,240.4	343.8	497.9	352.0	145.9	3,727.4	3,302.2	2,716.0	2,431.7
Nov	7,940.1	15.9	2,106.9	1,613.7	1,275.3	338.4	493.2	347.0	146.2	3,751.3	3,319.2	2,733.8	2,446.0
Dec	7,665.2	19.5	2,013.6	1,523.8	1,218.0	305.8	489.8	344.9	144.9	3,719.9	3,302.5	2,727.4	2,440.0
2016 Jan	7,823.5	16.5	2,057.4	1,562.4	1,257.7	304.8	494.9	352.3	142.6	3,727.4	3,307.6	2,729.1	2,443.1
Feb	7,913.1	16.2	2,072.2	1,566.4	1,263.3	303.1	505.8	361.1	144.7	3,734.6	3,317.1	2,739.2	2,453.8
Mar	7,783.4	17.5	2,039.2	1,547.2	1,243.5	303.7	492.0	347.9	144.1	3,736.0	3,316.8	2,742.1	2,458.5
Apr	7,806.5	17.2	2,089.1	1,594.3	1,291.0	303.3	494.8	352.8	142.0	3,747.3	3,329.8	2,753.3	2,467.1
May	7,817.2	18.7	2,070.3	1,587.2	1,284.7	302.4	483.1	342.8	140.4	3,759.2	3,334.1	2,762.8	2,476.2
June	7,920.6	19.3	2,072.8	1,592.2	1,292.9	299.3	480.6	338.2	142.4	3,745.9	3,321.4	2,759.7	2,473.7
July	7,942.1	19.7	2,086.0	1,604.7	1,308.1	296.6	481.2	341.4	139.8	3,758.8	3,333.6	2,766.6	2,479.7
Aug	7,908.5	19.7	2,086.1	1,611.7	1,317.0	294.7	474.4	336.0	138.5	3,758.4	3,335.4	2,774.3	2,486.3
Sep	7,863.9	21.0	2,074.5	1,636.4	1,343.9	292.5	438.2	300.7	137.5	3,766.0	3,343.0	2,785.6	2,497.3
Oct	7,868.7	22.8	2,079.5	1,641.2	1,349.4	291.8	438.3	301.6	136.7	3,773.0	3,349.9	2,793.6	2,502.5
Nov	7,911.6	22.9	2,154.7	1,712.1	1,421.7	290.5	442.6	306.3	136.2	3,785.7	3,361.6	2,810.0	2,518.4
Dec	7,792.6	26.0	2,101.4	1,670.9	1,384.2	286.7	430.5	295.0	135.5	3,762.9	3,344.5	2,805.6	2,512.0
2017 Jan	7,889.3	24.6	2,210.1	1,777.0	1,490.7	286.3	433.1	299.8	133.3	3,769.9	3,347.6	2,813.5	2,519.3
Feb	7,944.8	23.9	2,225.4	1,783.3	1,497.9	285.4	442.1	307.6	134.5	3,774.5	3,347.6	2,819.5	2,525.6
Mar	7,926.1	23.6	2,237.5	1,797.8	1,513.2	284.6	439.7	306.9	132.7	3,776.8	3,351.3	2,828.1	2,533.8
Apr	7,954.6	24.7	2,276.6	1,847.6	1,563.1	284.6	428.9	298.2	130.8	3,780.1	3,357.1	2,836.6	2,541.1
May	7,947.0	25.6	2,286.6	1,864.5	1,579.5	285.0	422.1	290.1	132.0	3,782.1	3,360.7	2,847.1	2,552.5
	Changes [3]												
2009	– 454.5	– 0.5	– 189.0	– 166.4	– 182.2	15.8	– 22.5	– 1.8	– 20.7	17.4	38.3	17.0	6.6
2010	– 136.3	– 0.7	– 111.6	– 15.6	58.5	– 74.1	– 95.9	– 80.9	– 15.1	96.4	126.0	– 13.7	0.7
2011	54.1	– 0.1	32.6	58.7	91.7	– 33.0	– 26.0	– 12.1	– 13.9	– 51.8	– 35.3	38.7	56.7
2012	– 129.2	2.9	– 81.9	– 28.4	3.0	– 31.4	– 53.5	– 39.7	– 13.8	27.5	27.7	17.0	28.8
2013	– 703.6	– 0.5	– 257.1	– 249.2	– 216.5	– 32.7	– 7.9	1.6	– 9.5	13.6	16.6	23.6	21.6
2014	206.8	0.4	– 126.2	– 128.6	– 95.3	– 33.4	2.4	7.2	– 4.8	55.1	40.0	52.3	36.8
2015	– 191.4	0.3	– 18.2	– 12.1	66.1	– 78.2	– 6.1	6.6	– 12.8	64.8	64.1	68.1	56.6
2016	184.3	6.5	120.3	178.4	195.3	– 16.8	– 58.1	– 49.2	– 8.8	57.5	53.4	88.8	81.0
2015 Sep	– 7.3	0.3	– 17.3	– 26.7	– 20.8	– 5.9	9.3	8.8	0.6	4.0	1.1	2.3	6.7
Oct	13.7	0.7	37.8	35.4	39.8	– 4.4	2.4	2.4	0.0	– 3.5	– 0.4	– 1.7	5.4
Nov	59.5	– 0.6	21.2	27.7	33.7	– 6.0	– 6.5	– 6.8	0.3	20.0	14.7	15.6	12.6
Dec	– 252.6	3.6	– 88.7	– 87.4	– 56.1	– 31.3	– 1.3	– 0.5	– 0.8	– 26.5	– 13.7	– 3.6	– 4.5
2016 Jan	169.4	– 3.1	45.1	39.8	39.9	– 0.1	5.3	7.3	– 2.0	12.0	7.7	4.3	4.4
Feb	94.5	– 0.3	16.5	5.2	6.3	– 1.1	11.4	9.1	2.3	8.8	10.5	11.1	11.4
Mar	– 107.0	1.3	– 29.0	– 17.2	– 18.4	1.2	– 11.8	– 11.2	– 0.6	4.5	1.7	4.7	6.7
Apr	31.0	– 0.3	49.9	47.2	47.6	– 0.4	2.7	4.8	– 2.1	13.0	14.4	12.6	9.9
May	35.2	1.5	8.4	20.2	21.4	– 1.2	– 11.7	– 10.1	– 1.6	11.4	5.3	10.6	10.0
June	108.2	0.7	3.7	5.6	8.2	– 2.6	– 1.9	– 4.2	2.3	– 10.4	– 11.4	– 1.7	– 1.2
July	23.5	0.4	13.1	12.4	15.2	– 2.8	0.7	3.4	– 2.7	14.5	13.4	8.2	7.3
Aug	– 31.5	– 0.0	0.4	7.1	9.0	– 1.9	– 6.7	– 5.3	– 1.4	0.2	2.1	8.0	6.8
Sep	– 42.7	1.3	– 11.3	24.9	26.9	– 2.0	– 36.3	– 35.2	– 1.1	8.3	8.3	11.7	11.4
Oct	– 0.5	1.8	4.8	5.2	5.6	– 0.4	– 0.3	0.5	– 0.9	6.5	7.1	7.9	5.2
Nov	25.9	0.1	72.2	69.4	71.4	– 2.0	2.8	3.4	– 0.5	11.6	11.3	15.8	15.2
Dec	– 121.7	3.1	– 53.6	– 41.3	– 37.8	– 3.5	– 12.3	– 11.7	– 0.6	– 23.1	– 17.0	– 4.4	– 6.1
2017 Jan	108.8	– 1.4	110.7	107.1	107.1	0.0	3.5	5.7	– 2.2	9.4	4.6	9.3	8.5
Feb	47.4	– 0.7	14.0	5.6	6.8	– 1.2	8.4	7.1	1.2	4.3	0.3	6.3	6.5
Mar	– 13.0	– 0.3	13.1	14.9	15.5	– 0.6	– 1.8	– 0.0	– 1.8	3.2	4.3	9.0	8.9
Apr	40.1	1.1	41.0	50.7	50.5	0.2	– 9.7	– 7.8	– 1.9	4.7	6.8	9.4	8.3
May	– 7.3	0.9	10.0	16.8	16.4	0.4	– 6.8	– 8.1	1.3	2.1	3.6	8.1	8.9

* This table serves to supplement the "Overall monetary survey" in section II. Unlike the other tables in section IV, this table includes – in addition to the figures reported by banks (including building and loan associations) – data from money market funds. **1** See footnote 1 in Table IV.2. **2** Including debt securities arising from the

IV Banks

euro area														
				to non-banks in other member states						Claims on non-euro-area residents			
	General government				Enterprises and households		General government						
Securities	Total	Loans	Securities [2]	Total	Total	*of which* Loans	Total	Loans	Securities	Total	*of which* Loans	Other assets [1]	Period
End of year or month													
329.6	476.1	342.8	133.4	475.1	348.1	172.1	127.0	27.6	99.4	1,279.2	1,008.6	275.7	2008
335.4	495.0	335.1	160.0	450.4	322.2	162.9	128.2	23.5	104.7	1,062.6	821.1	237.5	2009
314.5	633.8	418.4	215.3	421.6	289.2	164.2	132.4	24.8	107.6	1,021.0	792.7	1,181.1	2010
294.3	561.1	359.8	201.2	403.1	276.9	161.2	126.2	32.6	93.6	995.1	770.9	1,313.8	2011
259.8	594.0	350.3	243.7	399.2	275.1	158.1	124.1	30.4	93.7	970.3	745.0	1,239.4	2012
262.3	585.8	339.2	246.6	392.3	267.6	144.6	124.6	27.8	96.9	921.2	690.5	849.7	2013
276.4	578.2	327.9	250.4	415.0	270.0	142.7	145.0	31.9	113.2	1,050.1	805.0	1,055.8	2014
287.4	575.1	324.5	250.6	417.5	276.0	146.4	141.5	29.4	112.1	1,006.5	746.3	905.6	2015
293.6	538.9	312.2	226.7	418.4	281.7	159.5	136.7	28.5	108.2	1,058.2	802.3	844.1	2016
295.8	584.7	330.3	254.4	424.6	278.9	146.2	145.7	30.1	115.5	1,097.3	843.1	941.6	2015 Aug
290.4	584.3	330.1	254.2	426.9	279.2	146.0	147.7	30.0	117.8	1,094.7	841.4	948.8	Sep
284.3	586.1	333.2	252.9	425.2	278.4	146.7	146.8	30.8	116.1	1,090.1	833.3	940.4	Oct
287.8	585.4	329.5	255.9	432.0	285.5	148.6	146.6	30.0	116.6	1,075.0	813.3	991.0	Nov
287.4	575.1	324.5	250.6	417.5	276.0	146.4	141.5	29.4	112.1	1,006.5	746.3	905.6	Dec
286.1	578.4	328.4	250.1	419.8	275.5	149.5	144.3	29.2	115.2	1,026.3	765.1	996.1	2016 Jan
285.4	578.0	328.0	249.9	417.4	274.6	153.0	142.8	29.5	113.4	1,031.4	767.7	1,058.7	Feb
283.6	574.7	327.8	246.9	419.2	273.3	149.1	145.9	29.3	116.6	992.1	727.7	998.5	Mar
286.2	576.5	331.6	244.8	417.6	272.8	150.4	144.8	30.0	114.8	1,005.6	741.1	947.2	Apr
286.6	571.3	329.5	241.9	425.1	280.0	153.3	145.1	28.9	116.2	1,012.9	750.5	956.2	May
286.0	561.8	323.9	237.9	424.4	281.2	155.2	143.2	28.9	114.3	1,036.4	774.7	1,046.2	June
286.8	567.0	327.0	240.0	425.2	284.2	159.3	141.0	28.9	112.1	1,041.7	785.1	1,036.0	July
288.0	561.0	324.9	236.1	423.1	283.3	159.7	139.8	29.1	110.7	1,042.6	786.2	1,001.7	Aug
288.3	557.5	323.0	234.5	422.9	282.2	157.8	140.7	29.8	110.9	1,030.5	774.4	971.9	Sep
291.0	556.4	326.3	230.0	423.0	284.6	162.1	138.5	29.5	108.9	1,077.9	823.1	915.5	Oct
291.6	551.6	321.9	229.7	424.1	285.9	161.9	138.3	29.2	109.1	1,065.1	811.1	883.2	Nov
293.6	538.9	312.2	226.7	418.4	281.7	159.5	136.7	28.5	108.2	1,058.2	802.3	844.1	Dec
294.2	534.1	312.2	221.9	422.4	284.6	163.1	137.7	28.6	109.2	1,080.8	826.0	803.9	2017 Jan
294.0	528.0	311.6	216.5	427.0	289.4	165.6	137.6	28.6	109.0	1,095.4	843.6	825.5	Feb
294.3	523.2	307.1	216.1	425.5	290.8	167.2	134.7	29.0	105.7	1,097.1	847.5	791.1	Mar
295.5	520.5	307.9	212.6	423.0	287.1	167.8	135.8	29.9	105.9	1,080.7	832.2	792.5	Apr
294.6	513.6	299.0	214.5	421.4	288.5	166.8	132.9	28.9	103.9	1,056.3	808.0	796.5	May
Changes [3]													
10.5	21.3	– 5.1	26.4	– 20.9	– 20.9	– 7.1	0.0	– 3.9	3.9	– 182.5	– 162.3	– 99.8	2009
– 14.3	139.7	83.4	56.3	– 29.6	– 36.4	0.2	6.8	3.1	3.7	– 74.1	– 61.9	– 46.3	2010
– 18.0	– 74.0	– 59.1	– 14.9	– 16.6	– 13.8	– 5.5	– 2.7	8.0	– 10.7	– 39.5	– 34.9	112.9	2011
– 11.8	10.7	– 10.5	21.2	– 0.2	– 0.7	– 1.5	0.5	– 2.2	2.7	– 15.5	– 17.7	– 62.2	2012
2.0	– 7.0	– 10.9	3.9	– 3.0	– 3.4	– 9.3	0.5	– 2.6	3.1	– 38.8	– 47.2	– 420.8	2013
15.5	– 12.3	– 15.1	2.9	15.1	0.4	– 4.0	14.6	0.9	13.8	83.6	72.0	194.0	2014
11.5	– 3.9	– 4.2	0.3	0.7	4.4	1.8	– 3.7	– 1.0	– 2.8	– 88.3	– 101.0	– 150.1	2015
7.8	– 35.4	– 12.1	– 23.3	4.0	8.2	14.6	– 4.2	– 0.9	– 3.3	51.4	55.0	– 51.4	2016
– 4.4	– 1.2	– 1.0	– 0.2	2.9	1.8	0.1	1.1	– 0.4	1.5	– 1.5	– 1.0	7.2	2015 Sep
– 7.1	1.3	2.8	– 1.5	– 3.2	– 2.1	0.3	– 1.1	0.8	– 1.9	– 12.9	– 15.3	– 8.4	Oct
3.0	– 0.9	– 3.8	2.9	5.3	5.7	0.9	– 0.4	– 0.8	0.4	– 31.7	– 35.4	50.6	Nov
0.9	– 10.1	– 4.9	– 5.2	– 12.8	– 8.0	– 1.3	– 4.8	– 0.6	– 4.2	– 55.6	– 55.3	– 85.4	Dec
– 0.1	3.4	3.8	– 0.4	4.3	1.4	4.3	2.9	– 0.2	3.1	24.8	22.7	90.5	2016 Jan
– 0.3	– 0.7	– 0.4	– 0.2	– 1.6	– 0.2	3.7	– 1.4	0.3	– 1.8	5.8	3.1	63.5	Feb
– 1.9	– 3.0	– 0.2	– 2.9	2.8	– 0.3	– 2.8	3.1	– 0.2	3.3	– 23.5	– 25.4	– 60.2	Mar
2.7	1.8	3.9	– 2.1	– 1.4	– 0.3	1.7	– 1.1	0.7	– 1.8	12.9	13.1	– 44.4	Apr
0.6	– 5.2	– 2.3	– 2.9	6.1	5.7	1.4	0.4	– 1.0	1.4	0.9	3.7	13.0	May
– 0.5	– 9.7	– 5.7	– 4.0	1.0	2.0	2.4	– 1.0	0.0	– 1.0	24.7	25.5	89.5	June
0.8	5.3	3.1	2.2	1.0	3.2	4.4	– 2.2	– 0.0	– 2.1	6.7	11.9	– 11.1	July
1.2	– 5.9	– 2.0	– 3.9	– 1.9	– 0.6	0.6	– 1.3	0.2	– 1.5	2.3	2.4	– 34.3	Aug
0.3	– 3.4	– 1.8	– 1.6	0.0	– 0.8	– 1.7	0.8	0.6	0.1	– 10.8	– 10.5	– 30.3	Sep
2.8	– 0.9	3.5	– 4.3	– 0.6	1.9	4.0	– 2.5	– 0.3	– 2.2	42.7	44.1	– 56.4	Oct
0.6	– 4.5	– 4.3	– 0.2	0.4	0.6	– 1.2	– 0.2	– 0.4	0.1	– 25.7	– 24.1	– 32.3	Nov
1.7	– 12.6	– 9.7	– 2.9	– 6.0	– 4.4	– 2.3	– 1.6	– 0.7	– 0.9	– 9.4	– 11.4	– 38.8	Dec
0.8	– 4.7	0.0	– 4.8	4.9	3.7	4.2	1.2	0.1	1.1	30.4	31.0	– 40.2	2017 Jan
– 0.2	– 6.1	– 0.6	– 5.4	4.0	4.2	2.1	– 0.2	0.0	– 0.2	8.2	11.7	21.6	Feb
0.2	– 4.7	– 4.4	– 0.3	– 1.2	1.7	2.1	– 2.9	0.4	– 3.3	5.5	7.5	– 34.5	Mar
1.2	– 2.6	0.8	– 3.4	– 2.1	– 3.3	1.1	1.2	0.9	0.3	– 8.0	– 7.3	1.4	Apr
– 0.8	– 4.4	– 6.4	1.9	– 1.5	1.5	– 0.8	– 3.0	– 1.0	– 2.0	– 24.4	– 24.0	4.1	May

exchange of equalisation claims. **3** Statistical breaks have been eliminated from the flow figures (see also footnote * in Table II.1).

IV Banks

1 Assets and liabilities of monetary financial institutions (excluding the Bundesbank) in Germany * Liabilities

€ billion

Period	Balance sheet total [1]	Deposits of banks (MFIs) in the euro area			Deposits of non-banks (non-MFIs) in the euro area								
						Deposits of non-banks in the home country						Deposits of non-banks	
			of banks					With agreed maturities		At agreed notice			
		Total	in the home country	in other member states	Total	Total	Over-night	Total	*of which* up to 2 years	Total	*of which* up to 3 months	Total	Over-night
	End of year or month												
2008	7,892.7	1,827.7	1,583.0	244.7	2,798.2	2,687.3	809.5	1,342.7	598.7	535.2	424.8	74.2	22.4
2009	7,436.1	1,589.7	1,355.6	234.0	2,818.0	2,731.3	997.8	1,139.1	356.4	594.4	474.4	63.9	17.7
2010	8,304.8	1,495.8	1,240.1	255.7	2,925.8	2,817.6	1,089.1	1,110.3	304.6	618.2	512.5	68.4	19.3
2011	8,393.3	1,444.8	1,210.3	234.5	3,033.4	2,915.1	1,143.3	1,155.8	362.6	616.1	515.3	78.8	25.9
2012	8,226.6	1,371.0	1,135.9	235.1	3,091.4	2,985.2	1,294.9	1,072.8	320.0	617.6	528.4	77.3	31.2
2013	7,528.9	1,345.4	1,140.3	205.1	3,130.5	3,031.5	1,405.3	1,016.2	293.7	610.1	532.4	81.3	33.8
2014	7,802.3	1,324.0	1,112.3	211.7	3,197.7	3,107.4	1,514.3	985.4	298.1	607.7	531.3	79.7	34.4
2015	7,665.2	1,267.8	1,065.9	201.9	3,307.1	3,215.1	1,670.2	948.4	291.5	596.4	534.5	80.8	35.3
2016	7,792.6	1,205.2	1,033.2	172.0	3,411.3	3,318.5	1,794.8	935.3	291.2	588.5	537.0	84.2	37.2
2015 Aug	7,840.0	1,281.1	1,072.9	208.1	3,279.0	3,182.1	1,625.2	961.8	286.7	595.1	528.5	86.5	41.3
Sep	7,829.3	1,281.8	1,076.3	205.5	3,274.0	3,174.2	1,624.8	954.9	283.2	594.5	529.3	87.9	41.9
Oct	7,856.5	1,295.4	1,096.9	198.5	3,283.6	3,187.7	1,650.4	942.7	278.9	594.6	530.6	85.1	39.5
Nov	7,940.1	1,312.0	1,108.5	203.5	3,307.5	3,215.4	1,672.6	948.6	287.1	594.2	531.5	82.8	39.5
Dec	7,665.2	1,267.8	1,065.9	201.9	3,307.1	3,215.1	1,670.2	948.4	291.5	596.4	534.5	80.8	35.3
2016 Jan	7,823.5	1,266.8	1,066.5	200.3	3,322.6	3,225.5	1,686.6	942.9	286.9	596.0	535.4	85.3	41.5
Feb	7,913.1	1,264.9	1,062.1	202.8	3,324.6	3,227.5	1,694.0	937.1	283.2	596.3	537.0	86.0	42.5
Mar	7,783.4	1,252.3	1,058.8	193.5	3,319.6	3,221.8	1,682.6	944.7	290.4	594.4	536.2	86.8	40.1
Apr	7,806.5	1,258.6	1,060.8	197.8	3,332.8	3,240.8	1,704.9	943.2	291.0	592.7	535.6	82.4	38.4
May	7,817.2	1,230.3	1,027.5	202.8	3,348.6	3,253.7	1,717.2	945.3	292.6	591.1	535.0	84.9	41.7
June	7,920.6	1,241.7	1,039.1	202.6	3,350.9	3,250.2	1,718.1	942.1	290.9	590.0	534.5	89.4	44.9
July	7,942.1	1,226.7	1,023.7	203.0	3,362.7	3,267.1	1,733.1	945.0	295.2	589.1	534.5	85.5	40.7
Aug	7,908.5	1,211.5	1,016.5	195.0	3,369.5	3,274.0	1,744.5	941.2	292.8	588.4	534.6	85.5	40.4
Sep	7,863.9	1,194.8	1,029.1	165.7	3,372.1	3,274.9	1,743.8	944.0	297.4	587.1	534.0	88.0	41.4
Oct	7,868.7	1,186.8	1,025.4	161.3	3,378.8	3,286.5	1,763.9	936.0	288.5	586.6	534.3	83.7	37.1
Nov	7,911.6	1,205.6	1,042.2	163.4	3,420.0	3,320.5	1,795.0	939.3	292.8	586.1	534.4	89.8	43.4
Dec	7,792.6	1,205.2	1,033.2	172.0	3,411.3	3,318.5	1,794.8	935.3	291.2	588.5	537.0	84.2	37.2
2017 Jan	7,889.3	1,237.0	1,053.4	183.6	3,433.4	3,337.5	1,807.5	941.6	300.1	588.4	537.7	88.4	42.2
Feb	7,944.8	1,245.6	1,055.3	190.3	3,435.3	3,336.9	1,812.7	935.8	295.0	588.5	538.3	89.6	41.7
Mar	7,926.1	1,259.8	1,077.3	182.5	3,433.9	3,334.5	1,813.5	934.4	296.4	586.6	537.0	91.2	39.6
Apr	7,954.6	1,254.1	1,075.4	178.8	3,452.0	3,352.3	1,840.8	925.4	290.7	586.2	536.9	91.2	41.7
May	7,947.0	1,259.3	1,079.9	179.4	3,463.2	3,360.6	1,848.6	926.4	292.7	585.7	536.8	93.5	44.2
	Changes [4]												
2009	– 454.5	– 235.4	– 224.6	– 10.8	31.9	43.9	205.0	– 220.4	– 259.3	59.3	50.3	– 9.6	– 4.1
2010	– 136.3	– 75.2	– 99.4	24.2	72.3	59.7	88.7	– 53.0	– 52.2	24.0	38.3	– 4.4	2.2
2011	54.1	– 48.4	– 28.8	– 19.6	102.1	97.4	52.4	47.6	58.8	– 2.6	1.3	4.8	6.5
2012	– 129.2	– 68.7	– 70.0	1.3	57.8	67.1	156.1	– 90.4	– 50.2	1.5	14.1	– 1.4	5.4
2013	– 703.6	– 106.2	– 73.9	– 32.3	39.1	47.8	111.5	– 56.3	– 26.6	– 7.3	4.0	2.6	3.3
2014	206.8	– 28.4	– 32.2	3.9	62.7	71.6	106.0	– 32.1	3.1	– 2.4	– 2.4	– 2.5	– 0.0
2015	– 191.4	– 62.1	– 50.3	– 11.9	104.1	104.8	153.2	– 37.0	– 10.1	– 11.3	4.2	– 0.4	– 0.3
2016	184.3	– 31.6	– 2.2	– 29.4	105.7	105.2	124.3	– 11.1	1.4	– 8.0	2.4	2.7	1.9
2015 Sep	– 7.3	0.8	3.6	– 2.8	– 4.9	– 7.7	– 0.4	– 6.7	– 3.3	– 0.6	0.8	1.4	0.6
Oct	13.7	12.7	20.0	– 7.3	8.7	12.7	25.1	– 12.4	– 4.4	0.1	1.3	– 2.9	– 2.5
Nov	59.5	14.4	10.2	4.1	22.2	26.3	21.0	5.6	8.0	– 0.3	0.9	– 2.6	– 0.2
Dec	– 252.6	– 42.5	– 41.5	– 1.0	1.0	0.9	– 1.4	0.1	4.5	2.2	3.0	– 1.8	– 4.1
2016 Jan	169.4	– 0.4	1.0	– 1.4	16.0	10.9	16.5	– 5.3	– 4.5	– 0.4	0.9	4.6	6.3
Feb	94.5	– 0.6	– 3.3	2.7	4.3	4.2	7.4	– 3.5	– 1.8	0.3	1.6	0.7	1.0
Mar	– 107.0	– 10.1	– 1.9	– 8.3	– 3.2	– 4.6	– 10.1	7.4	7.0	– 1.9	– 0.8	1.1	– 2.3
Apr	31.0	6.3	2.0	4.3	13.1	18.9	22.2	– 1.5	0.6	– 1.8	– 0.7	– 4.5	– 1.6
May	35.2	– 1.4	– 5.7	4.2	14.8	12.0	11.7	1.8	1.4	– 1.5	– 0.6	2.4	3.2
June	108.2	13.0	12.4	0.6	2.2	– 3.0	1.0	– 2.9	– 1.5	– 1.1	– 0.4	3.9	3.2
July	23.5	– 14.9	– 15.4	0.5	11.9	17.1	15.1	2.9	4.3	– 0.9	– 0.1	– 3.9	– 4.2
Aug	– 31.5	– 15.0	– 7.1	– 7.9	7.0	7.0	11.5	– 3.8	– 2.4	– 0.7	0.1	0.1	– 0.3
Sep	– 42.7	– 16.5	12.7	– 29.2	2.7	1.0	– 0.6	2.9	4.6	– 1.2	– 0.5	2.5	1.1
Oct	– 0.5	– 8.4	– 3.7	– 4.7	6.2	11.2	19.8	– 8.1	– 8.9	– 0.6	0.2	– 4.3	– 4.4
Nov	25.9	17.3	15.9	1.4	39.7	32.7	30.1	3.0	4.0	– 0.4	0.1	5.8	6.1
Dec	– 121.7	– 0.9	– 9.3	8.4	– 9.0	– 2.2	– 0.4	– 4.1	– 1.3	2.3	2.7	– 5.7	– 6.2
2017 Jan	108.8	32.8	20.7	12.1	23.0	19.7	13.3	6.4	9.1	– 0.0	0.7	4.4	5.1
Feb	47.4	7.6	1.6	6.1	1.2	– 0.7	4.7	– 5.5	– 4.8	0.1	0.7	1.1	– 0.5
Mar	– 13.0	14.8	22.2	– 7.4	– 1.0	– 2.1	1.1	– 1.3	1.5	– 1.9	– 1.4	1.6	– 2.1
Apr	40.1	– 4.4	– 1.3	– 3.1	19.1	18.7	27.8	– 8.7	– 5.5	– 0.5	– 0.0	0.2	2.2
May	– 7.3	5.2	4.5	0.6	11.2	8.3	7.8	1.0	2.0	– 0.5	– 0.1	2.3	2.5

* This table serves to supplement the "Overall monetary survey" in section II. Unlike the other tables in section IV, this table includes – in addition to the figures reported by banks (including building and loan associations) – data from money market funds. **1** See footnote 1 in Table IV.2. **2** Excluding deposits of central

IV Banks

in other member states [2]				Deposits of central governments				Debt securities issued [3]					
With agreed maturities		At agreed notice				Liabilities arising from repos with non-banks in the euro area	Money market fund shares issued [3]			Liabilities to non-euro-area residents	Capital and reserves	Other Liabilities [1]	Period
Total	*of which* up to 2 years	Total	*of which* up to 3 months	Total	*of which* domestic central governments			Total	*of which* with maturities of up to 2 years [3]				
End of year or month													
49.5	24.9	2.4	1.8	36.6	34.8	61.1	16.4	1,609.9	233.3	666.3	461.7	451.5	2008
43.7	17.0	2.5	2.0	22.8	22.2	80.5	11.4	1,500.5	146.3	565.6	454.8	415.6	2009
46.4	16.1	2.8	2.2	39.8	38.7	86.7	9.8	1,407.8	82.3	636.0	452.6	1,290.2	2010
49.6	18.4	3.3	2.5	39.5	37.9	97.1	6.2	1,345.7	75.7	561.5	468.1	1,436.6	2011
42.3	14.7	3.8	2.8	28.9	25.9	80.4	7.3	1,233.1	56.9	611.4	487.3	1,344.7	2012
44.0	16.9	3.5	2.7	17.6	16.0	6.7	4.1	1,115.2	39.0	479.5	503.0	944.5	2013
42.0	15.9	3.3	2.7	10.6	10.5	3.4	3.5	1,077.6	39.6	535.3	535.4	1,125.6	2014
42.2	16.0	3.3	2.8	11.3	9.6	2.5	3.5	1,017.7	48.3	526.2	569.3	971.1	2015
43.9	15.8	3.1	2.6	8.6	7.9	2.2	2.4	1,030.3	47.2	643.4	591.5	906.3	2016
41.8	14.9	3.4	2.8	10.4	9.7	6.6	3.5	1,061.0	36.3	634.9	573.2	1,000.8	2015 Aug
42.6	14.8	3.4	2.7	12.0	10.5	7.0	4.1	1,060.5	43.6	606.7	577.1	1,018.1	Sep
42.2	15.5	3.4	2.8	10.8	8.7	6.6	4.1	1,069.9	48.1	609.1	578.5	1,009.4	Oct
40.0	14.3	3.4	2.8	9.3	7.8	6.1	3.9	1,075.9	50.6	599.6	574.7	1,060.4	Nov
42.2	16.0	3.3	2.8	11.3	9.6	2.5	3.5	1,017.7	48.3	526.2	569.3	971.1	Dec
40.4	15.0	3.3	2.7	11.8	8.4	2.8	3.8	1,021.1	49.5	583.5	566.5	1,056.5	2016 Jan
40.1	14.9	3.3	2.7	11.2	8.5	4.2	3.7	1,020.2	51.2	595.3	579.5	1,120.8	Feb
43.5	18.6	3.3	2.7	11.0	8.3	3.2	3.5	1,014.7	49.0	557.1	576.3	1,056.7	Mar
40.7	17.0	3.2	2.7	9.6	7.9	3.7	3.1	1,019.3	50.3	606.6	583.6	998.9	Apr
40.0	15.9	3.2	2.7	10.0	8.1	3.5	2.7	1,029.8	49.8	611.6	583.9	1,007.0	May
41.3	17.1	3.2	2.7	11.3	8.8	2.5	2.7	1,023.9	50.0	618.1	587.3	1,093.4	June
41.6	16.2	3.2	2.7	10.1	8.1	3.4	2.5	1,021.8	56.6	656.1	578.1	1,090.9	July
42.0	17.0	3.2	2.7	10.0	7.9	3.2	2.4	1,020.1	52.7	663.4	581.9	1,056.4	Aug
43.4	17.9	3.1	2.7	9.2	8.1	2.9	2.5	1,011.1	51.9	655.7	596.9	1,028.0	Sep
43.6	16.6	3.1	2.6	8.5	7.6	3.2	2.4	1,019.6	50.7	710.2	594.9	972.9	Oct
43.4	16.0	3.1	2.6	9.7	8.2	3.0	2.4	1,035.2	48.4	711.7	591.2	942.6	Nov
43.9	15.8	3.1	2.6	8.6	7.9	2.2	2.4	1,030.3	47.2	643.4	591.5	906.3	Dec
43.2	15.6	3.0	2.6	7.5	6.9	4.8	2.3	1,043.2	47.5	716.8	585.0	866.9	2017 Jan
44.8	18.0	3.0	2.6	8.8	7.7	4.5	2.3	1,050.8	48.0	734.1	588.5	883.7	Feb
48.6	19.9	3.0	2.6	8.3	7.9	2.6	2.2	1,045.7	45.9	730.2	594.1	857.6	Mar
46.6	18.3	3.0	2.6	8.5	7.6	3.5	2.2	1,042.1	43.9	749.0	598.3	853.4	Apr
46.4	17.2	3.0	2.6	9.1	7.8	2.4	2.1	1,042.5	44.6	724.9	603.2	849.4	May
Changes [4]													
– 5.7	– 7.7	0.1	0.2	– 2.4	– 0.8	19.4	– 5.0	– 104.6	– 87.1	– 95.3	– 0.3	– 65.0	2009
– 6.8	– 5.8	0.3	0.3	17.0	16.5	6.2	– 1.6	– 106.7	– 63.2	54.4	– 7.1	– 78.6	2010
– 2.2	1.7	0.5	0.3	– 0.1	– 0.7	10.0	– 3.7	– 76.9	– 6.6	– 80.5	13.7	137.8	2011
– 7.2	– 3.6	0.5	0.3	– 7.9	– 9.2	– 19.6	1.2	– 107.0	– 18.6	54.2	21.0	– 68.5	2012
– 0.5	2.2	– 0.3	– 0.1	– 11.3	– 10.0	4.1	– 3.2	– 104.9	– 17.6	– 134.1	18.9	– 417.1	2013
– 2.3	– 1.2	– 0.2	– 0.1	– 6.4	– 4.8	– 3.4	– 0.6	– 63.7	– 0.2	35.9	26.1	178.3	2014
– 0.1	0.0	0.0	0.1	– 0.4	– 1.9	– 1.0	– 0.0	– 86.8	7.7	– 30.3	28.0	– 143.2	2015
1.1	0.0	– 0.3	– 0.1	– 2.2	– 1.2	– 0.3	– 1.1	8.6	– 1.3	116.1	26.4	– 39.5	2016
0.8	– 0.1	– 0.0	– 0.0	1.4	0.6	0.4	0.5	– 0.2	7.3	– 27.9	4.0	19.9	2015 Sep
– 0.4	0.7	– 0.0	0.0	– 1.1	– 1.8	– 0.5	– 0.0	4.5	4.4	– 1.3	0.0	– 10.5	Oct
– 2.4	– 1.2	– 0.0	– 0.0	– 1.5	– 0.9	– 0.5	– 0.1	– 3.9	2.3	– 16.9	– 6.7	51.1	Nov
2.3	1.8	– 0.0	0.0	2.0	1.8	– 3.6	– 0.5	– 50.1	– 2.1	– 67.8	– 2.8	– 86.4	Dec
– 1.7	– 1.0	– 0.0	– 0.0	0.5	– 1.3	0.3	0.3	5.8	1.3	59.2	– 2.2	90.4	2016 Jan
– 0.3	– 0.1	– 0.0	– 0.0	– 0.6	0.1	1.4	– 0.1	– 1.2	1.6	11.7	13.1	65.8	Feb
3.5	4.0	– 0.0	– 0.0	0.3	0.4	– 0.9	– 0.2	4.8	– 1.8	– 30.7	– 0.2	– 66.4	Mar
– 2.8	– 1.6	– 0.0	– 0.0	– 1.3	– 0.5	0.5	– 0.4	3.9	1.2	49.3	7.2	– 48.8	Apr
– 0.8	– 1.1	– 0.0	– 0.0	0.4	0.3	– 0.2	– 0.4	4.8	– 0.7	1.0	4.3	12.3	May
0.7	0.8	– 0.0	– 0.0	1.3	0.7	– 1.0	0.0	– 5.0	0.3	8.4	3.9	86.7	June
0.3	– 0.3	– 0.0	– 0.0	– 1.3	– 0.7	0.9	– 0.2	– 1.2	6.6	38.6	– 8.9	– 2.7	July
0.4	0.8	– 0.0	– 0.0	– 0.1	– 0.2	– 0.2	– 0.1	– 1.1	– 3.8	7.9	6.6	– 36.6	Aug
1.5	0.8	– 0.0	– 0.0	– 0.8	0.1	– 0.3	0.0	– 8.1	– 0.8	– 7.0	12.0	– 25.5	Sep
0.1	– 1.3	– 0.1	– 0.0	– 0.7	– 0.5	0.3	– 0.1	5.3	– 1.3	52.6	– 2.9	– 53.5	Oct
– 0.3	– 0.7	– 0.0	– 0.0	1.2	0.6	– 0.2	0.1	7.3	– 2.6	– 5.1	– 6.2	– 27.0	Nov
0.5	– 0.2	– 0.0	0.0	– 1.1	– 0.3	– 0.8	– 0.0	– 6.8	– 1.3	– 69.7	– 0.2	– 34.3	Dec
– 0.6	– 0.1	– 0.0	– 0.0	– 1.1	– 1.0	2.6	– 0.1	17.9	0.5	76.7	– 5.1	– 38.9	2017 Jan
1.6	2.3	0.0	0.0	0.8	0.3	– 0.3	– 0.1	3.4	0.3	14.4	2.4	18.7	Feb
3.7	2.0	– 0.0	– 0.0	– 0.6	0.3	– 1.9	– 0.1	– 2.8	– 2.0	– 2.2	6.2	– 26.2	Mar
– 1.9	– 1.6	– 0.0	0.0	0.2	– 0.3	0.9	– 0.0	1.4	– 1.8	22.7	5.6	– 5.1	Apr
– 0.2	– 1.0	0.0	0.0	0.6	0.2	– 1.1	– 0.0	– 1.7	– 1.4	– 24.1	7.0	– 3.7	May

governments. **3** In Germany, debt securities with maturities of up to one year are classed as money market paper; up to the January 2002 Monthly Report they were published together with money market fund shares. **4** Statistical breaks have been eliminated from the flow figures (see also footnote * in Table II.1).

IV Banks

2 Principal assets and liabilities of banks (MFIs) in Germany, by category of banks*

€ billion

End of month	Number of reporting institutions	Balance sheet total [1]	Cash in hand and credit balances with central banks	Lending to banks (MFIs)			Lending to non-banks (non-MFIs)					Participating interests	Other assets [1]
					of which			*of which*					
								Loans					
				Total	Balances and loans	Securities issued by banks	Total	for up to and including 1 year	for more than 1 year	Bills	Securities issued by non-banks		
All categories of banks													
2016 Dec	1,711	7,836.3	323.4	2,420.8	1,920.3	499.2	4,030.5	337.7	2,937.4	0.7	749.4	119.9	941.7
2017 Jan	1,701	7,933.7	385.4	2,476.4	1,978.8	495.7	4,050.5	359.6	2,939.6	0.6	744.5	119.4	901.9
Feb	1,699	7,989.3	387.7	2,502.2	2,004.8	495.0	4,061.0	362.0	2,948.9	0.6	742.5	114.4	924.0
Mar	1,698	7,970.5	396.2	2,510.0	2,015.1	491.6	4,060.6	361.8	2,954.1	0.7	738.9	114.1	889.7
Apr	1,696	7,999.0	442.7	2,488.5	1,995.4	490.0	4,063.3	366.4	2,959.3	0.7	731.1	113.7	890.8
May	1,692	7,993.3	466.1	2,453.0	1,956.5	493.1	4,064.6	359.2	2,967.5	0.6	730.3	113.6	896.0
Commercial banks [6]													
2017 Apr	263	3,266.5	280.1	1,086.3	1,003.2	82.5	1,204.6	195.8	777.5	0.5	227.9	51.5	643.9
May	263	3,259.5	298.9	1,049.7	966.1	82.7	1,209.0	196.3	782.0	0.4	226.8	51.3	650.7
Big banks [7]													
2017 Apr	4	1,861.9	125.9	585.8	549.9	35.7	497.0	110.0	281.7	0.1	104.2	45.9	607.4
May	4	1,857.4	145.0	555.4	519.5	35.7	499.5	111.5	282.3	0.1	103.9	45.8	611.8
Regional banks and other commercial banks													
2017 Apr	154	986.1	75.1	250.8	207.5	42.8	626.1	61.9	450.6	0.3	111.5	4.9	29.2
May	154	982.7	72.3	247.3	203.6	43.1	628.2	60.9	454.2	0.3	111.3	4.8	30.2
Branches of foreign banks													
2017 Apr	105	418.5	79.1	249.7	245.8	3.9	81.6	23.9	45.1	0.1	12.2	0.8	7.3
May	105	419.4	81.6	247.0	243.1	3.9	81.3	23.9	45.5	0.0	11.5	0.8	8.8
Landesbanken													
2017 Apr	9	929.1	50.6	269.9	202.7	66.2	494.4	57.7	358.8	0.1	76.6	10.5	103.8
May	9	930.2	54.9	275.9	207.5	67.4	486.1	51.6	356.7	0.1	75.9	10.5	102.9
Savings banks													
2017 Apr	397	1,174.4	31.1	183.3	66.5	116.7	930.3	48.0	727.4	0.0	154.7	14.2	15.6
May	397	1,176.3	31.2	183.3	65.8	117.4	932.1	47.1	730.0	0.0	154.8	14.2	15.6
Credit cooperatives													
2017 Apr	972	859.7	14.9	169.0	61.6	106.9	641.2	32.0	504.2	0.0	104.8	16.1	18.4
May	968	864.1	17.1	167.3	59.3	107.5	645.0	31.8	507.8	0.0	105.3	16.2	18.5
Mortgage banks													
2017 Apr	15	266.4	1.6	45.1	31.5	13.6	211.5	2.9	172.3	–	36.4	0.2	8.1
May	15	265.9	2.9	44.7	31.4	13.3	210.2	2.8	171.7	–	35.7	0.1	8.0
Building and loan associations													
2017 Apr	20	228.3	1.5	59.1	42.2	16.9	162.8	1.3	136.7	.	24.7	0.3	4.6
May	20	228.1	1.0	58.9	41.8	17.1	163.2	1.3	137.1	.	24.8	0.3	4.7
Banks with special, development and other central support tasks													
2017 Apr	20	1,274.7	62.9	675.9	587.8	87.2	418.5	28.7	282.5	0.0	106.0	21.0	96.4
May	20	1,269.1	60.3	673.2	584.4	87.7	419.0	28.2	282.3	0.0	107.1	21.0	95.6
***Memo item:* Foreign banks [8]**													
2017 Apr	140	1,133.5	129.4	433.7	391.8	41.3	476.1	70.1	296.2	0.4	107.4	4.2	90.1
May	140	1,122.1	128.6	419.4	377.4	41.3	479.1	68.5	301.2	0.3	106.9	4.2	90.8
***of which:* Banks majority-owned by foreign banks [9]**													
2017 Apr	35	715.1	50.3	184.0	146.1	37.4	394.5	46.2	251.0	0.3	95.2	3.4	82.8
May	35	702.7	47.0	172.4	134.3	37.4	397.9	44.6	255.7	0.3	95.4	3.4	82.0

***** Assets and liabilities of monetary financial institutions (MFIs) in Germany. The assets and liabilities of foreign branches, of money market funds (which are also classified as MFIs) and of the Bundesbank are not included. For the definitions of the respective items, see the footnotes to Table IV.3. **1** Owing to the Act Modernising Accounting Law (Gesetz zur Modernisierung des Bilanzrechts) of 25 May 2009, derivative financial instruments in the trading portfolio (trading portfolio derivatives) within the meaning of section 340e (3) sentence 1 of the German Commercial Code (Handelsgesetzbuch) read in conjunction with section 35 (1) No 1a of the Credit Institution Accounting Regulation (Verordnung über die Rechnungslegung der Kreditinstitute) are classified under "Other assets and liabilities" as of the December 2010 reporting date. Trading portfolio derivatives are listed separately in the Statistical Supplement to the Monthly Report 1, Banking statistics, in Tables I.1 to I.3. **2** For building and

IV Banks

Deposits of banks (MFIs)			Deposits of non-banks (non-MFIs)										
	of which			*of which*									
					Time deposits [2]			Savings deposits [4]					
Total	Sight deposits	Time deposits	Total	Sight deposits	for up to and including 1 year	for more than 1 year [2]	*Memo item* Liabilities arising from repos [3]	Total	*of which* At three months' notice	Bank savings bonds	Bearer debt securities out-standing [5]	Capital including published reserves, partici-pation rights capital, funds for general banking risks	Other liabi-lities [1]	End of month
All categories of banks														
1,729.0	504.0	1,225.0	3,532.9	1,898.4	280.5	698.3	41.9	596.5	544.0	59.1	1,131.9	489.7	952.8	2016 Dec
1,798.7	589.5	1,209.1	3,593.0	1,938.1	305.2	695.2	73.0	596.4	544.6	58.1	1,140.0	487.9	914.0	2017 Jan
1,819.8	622.1	1,197.6	3,599.6	1,946.2	305.1	694.2	76.4	596.5	545.3	57.6	1,151.0	488.0	930.9	Feb
1,845.9	625.5	1,220.4	3,580.4	1,930.7	303.1	695.3	57.8	594.6	543.8	56.8	1,147.8	491.8	904.7	Mar
1,826.3	570.1	1,256.1	3,632.2	1,976.6	311.4	693.7	84.6	594.0	543.8	56.5	1,137.0	503.1	900.4	Apr
1,811.9	606.0	1,205.9	3,637.8	1,986.3	307.4	694.9	83.3	593.5	543.7	55.6	1,140.2	505.2	898.2	May
Commercial banks [6]														
887.6	405.8	481.8	1,429.9	874.9	184.5	243.0	62.1	102.7	93.7	24.8	169.2	176.9	602.8	2017 Apr
879.8	434.8	445.0	1,431.2	879.7	179.8	244.5	62.8	102.8	93.6	24.4	167.8	175.2	605.5	May
Big banks [7]														
443.0	182.7	260.3	628.4	357.6	115.8	86.5	62.0	62.4	61.0	6.1	135.3	105.9	549.2	2017 Apr
445.0	199.9	245.1	625.5	357.0	112.7	87.6	62.8	62.2	60.8	6.0	134.7	104.1	548.1	May
Regional banks and other commercial banks														
200.2	48.6	151.6	644.6	412.5	44.7	130.4	0.0	39.7	32.4	17.2	33.6	62.9	44.9	2017 Apr
192.2	56.3	135.9	648.6	416.3	44.4	131.1	0.0	40.0	32.4	16.9	32.7	63.0	46.2	May
Branches of foreign banks														
244.5	174.6	70.0	156.9	104.9	24.0	26.1	–	0.5	0.3	1.5	0.3	8.1	8.7	2017 Apr
242.6	178.5	64.1	157.1	106.5	22.8	25.9	–	0.5	0.3	1.5	0.4	8.1	11.1	May
Landesbanken														
271.6	56.6	215.1	295.0	121.3	61.5	98.9	18.1	12.8	9.9	0.5	208.3	53.1	101.1	2017 Apr
272.8	68.6	204.1	296.7	122.9	62.1	98.6	17.0	12.7	9.8	0.5	208.1	53.3	99.2	May
Savings banks														
133.2	6.6	126.5	882.7	537.8	14.7	14.9	–	292.3	265.5	23.0	13.7	102.0	42.8	2017 Apr
132.6	6.8	125.8	884.2	540.1	14.7	15.0	–	291.9	265.4	22.6	14.2	103.8	41.5	May
Credit cooperatives														
110.7	1.9	108.8	638.8	399.7	31.3	15.3	–	185.9	174.3	6.5	7.6	69.7	32.9	2017 Apr
111.5	1.9	109.6	642.1	402.5	32.4	15.1	–	185.7	174.4	6.4	7.6	71.2	31.7	May
Mortgage banks														
50.8	4.5	46.4	103.9	4.7	7.3	91.9	–	–	–	.	91.5	10.4	9.7	2017 Apr
51.9	5.1	46.8	103.2	4.7	6.6	91.8	–	–	–	.	91.0	10.4	9.4	May
Building and loan associations														
26.5	4.1	22.4	175.2	3.6	1.6	169.5	–	0.4	0.4	0.1	2.9	11.0	12.6	2017 Apr
26.0	4.0	22.0	175.5	3.5	1.5	169.9	–	0.4	0.4	0.1	2.9	11.1	12.7	May
Banks with special, development and other central support tasks														
345.8	90.6	255.2	106.6	34.6	10.3	60.1	4.5	–	–	.	643.7	80.1	98.4	2017 Apr
337.3	84.7	252.6	104.9	32.9	10.4	60.0	3.5	–	–	.	648.4	80.2	98.3	May
***Memo item:* Foreign banks [8]**														
428.2	239.2	189.0	537.7	371.7	58.6	77.0	9.7	21.2	20.7	9.0	22.6	52.5	92.6	2017 Apr
414.7	246.0	168.7	539.1	374.3	57.6	77.0	8.3	21.2	20.7	9.0	21.9	49.5	96.9	May
***of which:* Banks majority-owned by foreign banks [9]**														
183.7	64.6	119.1	380.8	266.9	34.7	51.0	9.7	20.7	20.5	7.5	22.3	44.4	83.9	2017 Apr
172.0	67.5	104.6	382.0	267.9	34.8	51.2	8.3	20.7	20.4	7.5	21.5	41.4	85.7	May

loan associations: Including deposits under savings and loan contracts (see Table IV.12). **3** Included in time deposits. **4** Excluding deposits under savings and loan contracts (see also footnote 2). **5** Including subordinated negotiable bearer debt securities; excluding non-negotiable bearer debt securities. **6** Commercial banks comprise the sub-groups "Big banks", "Regional banks and other commercial banks" and "Branches of foreign banks". **7** Deutsche Bank AG, Dresdner Bank AG (up to Nov. 2009), Commerzbank AG, UniCredit Bank AG (formerly Bayerische Hypo- und Vereinsbank AG) and Deutsche Postbank AG. **8** Sum of the banks majority-owned by foreign banks and included in other categories of banks and the category "Branches (with dependent legal status) of foreign banks". **9** Separate presentation of the banks majority-owned by foreign banks included in other banking categories.

IV Banks

3 Assets and liabilities of banks (MFIs) in Germany vis-à-vis residents *

€ billion

Period	Cash in hand (euro-area banknotes and coins)	Credit balances with the Bundesbank	Lending to domestic banks (MFIs)						Lending to domestic non-banks (non-MFIs)				
			Total	Credit balances and loans	Bills	Negotiable money market paper issued by banks	Securities issued by banks	*Memo item* Fiduciary loans	Total	Loans	Bills	Treasury bills and negotiable money market paper issued by non-banks	Securities issued by non-banks [1]
													End of year or month *
2007	17.5	64.6	1,751.8	1,222.5	0.0	25.3	504.0	2.3	2,975.7	2,647.9	1.6	1.5	324.7
2008	17.4	102.6	1,861.7	1,298.1	0.0	55.7	507.8	2.0	3,071.1	2,698.9	1.2	3.1	367.9
2009	16.9	78.9	1,711.5	1,138.0	–	31.6	541.9	2.2	3,100.1	2,691.8	0.8	4.0	403.5
2010	16.0	79.6	1,686.3	1,195.4	–	7.5	483.5	1.8	3,220.9	2,770.4	0.8	27.9	421.8
2011	15.8	93.8	1,725.6	1,267.9	–	7.1	450.7	2.1	3,197.8	2,774.6	0.8	6.4	415.9
2012	18.5	134.3	1,655.0	1,229.1	–	2.4	423.5	2.4	3,220.4	2,785.5	0.6	2.2	432.1
2013	18.5	85.6	1,545.6	1,153.1	0.0	1.7	390.8	2.2	3,131.6	2,692.6	0.5	1.2	437.2
2014	18.9	81.3	1,425.9	1,065.6	0.0	2.1	358.2	1.7	3,167.3	2,712.2	0.4	0.7	454.0
2015	19.2	155.0	1,346.6	1,062.6	0.0	1.7	282.2	1.7	3,233.9	2,764.0	0.4	0.4	469.0
2016	25.8	284.0	1,364.9	1,099.8	0.0	0.8	264.3	2.0	3,274.3	2,823.8	0.3	0.4	449.8
2015 Dec	19.2	155.0	1,346.6	1,062.6	0.0	1.7	282.2	1.7	3,233.9	2,764.0	0.4	0.4	469.0
2016 Jan	16.2	170.9	1,368.7	1,086.0	0.0	2.0	280.8	1.6	3,238.7	2,771.0	0.4	0.7	466.5
Feb	15.9	164.3	1,379.8	1,098.3	0.0	1.8	279.7	1.6	3,248.0	2,781.4	0.4	1.5	464.7
Mar	17.2	166.6	1,358.5	1,076.3	0.0	2.0	280.2	1.6	3,247.2	2,785.9	0.3	1.2	459.7
Apr	16.9	179.8	1,392.1	1,110.3	0.0	2.1	279.7	1.6	3,260.6	2,798.3	0.4	1.3	460.6
May	18.4	197.2	1,367.7	1,086.7	0.0	1.8	279.2	1.5	3,264.8	2,805.3	0.3	1.4	457.8
June	19.1	213.5	1,356.7	1,078.8	0.0	1.6	276.2	1.7	3,252.1	2,797.2	0.3	1.8	452.9
July	19.4	233.0	1,349.1	1,074.3	0.0	1.3	273.4	1.7	3,264.5	2,806.4	0.3	1.7	456.1
Aug	19.4	240.9	1,348.1	1,075.2	0.0	1.2	271.7	1.7	3,265.9	2,810.9	0.3	1.3	453.5
Sep	20.7	246.0	1,368.1	1,097.3	0.0	1.2	269.5	1.7	3,274.2	2,819.9	0.3	1.6	452.4
Oct	22.6	258.7	1,360.3	1,090.2	0.0	1.4	268.7	1.7	3,281.0	2,828.6	0.2	1.6	450.6
Nov	22.6	291.7	1,397.6	1,128.8	0.0	1.1	267.6	1.7	3,293.1	2,840.0	0.2	1.3	451.6
Dec	25.8	284.0	1,364.9	1,099.8	0.0	0.8	264.3	2.0	3,274.3	2,823.8	0.3	0.4	449.8
2017 Jan	24.3	346.9	1,407.0	1,142.5	0.0	1.0	263.5	1.7	3,277.7	2,831.2	0.3	0.8	445.4
Feb	23.6	346.6	1,413.8	1,150.2	0.0	1.1	262.5	1.8	3,279.0	2,836.8	0.3	0.8	441.1
Mar	23.4	352.1	1,423.3	1,160.4	0.0	1.3	261.6	1.7	3,283.0	2,840.6	0.3	1.0	441.1
Apr	24.4	400.2	1,424.8	1,161.7	0.0	1.1	262.0	1.7	3,288.9	2,848.6	0.3	1.1	438.9
May	25.4	426.0	1,415.5	1,152.3	0.0	1.1	262.1	1.7	3,292.8	2,851.3	0.2	1.8	439.6
													Changes *
2008	– 0.1	+ 39.4	+ 125.9	+ 90.1	± 0.0	+ 30.6	+ 5.2	– 0.8	+ 92.0	+ 47.3	– 0.4	+ 1.8	+ 43.3
2009	– 0.5	– 23.6	– 147.2	– 157.3	– 0.0	– 24.1	+ 34.3	+ 0.2	+ 25.7	– 11.2	– 0.4	+ 1.4	+ 35.9
2010	– 0.9	+ 0.6	– 19.3	+ 61.5	± 0.0	– 24.0	– 56.8	– 0.3	+ 130.5	+ 78.7	+ 0.0	+ 23.8	+ 28.0
2011	– 0.2	+ 14.2	+ 47.3	+ 80.5	–	– 0.4	– 32.8	– 0.1	– 30.6	– 3.2	+ 0.0	– 21.5	– 5.9
2012	+ 2.7	+ 40.5	– 68.6	– 37.5	–	– 4.6	– 26.5	+ 0.1	+ 21.0	+ 9.8	– 0.2	– 4.3	+ 15.7
2013	+ 0.0	– 48.8	– 204.1	– 170.6	+ 0.0	– 0.7	– 32.7	– 0.2	+ 4.4	+ 0.3	– 0.1	– 0.6	+ 4.8
2014	+ 0.4	– 4.3	– 119.3	– 87.1	+ 0.0	+ 0.4	– 32.6	+ 0.1	+ 36.7	+ 20.6	– 0.1	– 0.6	+ 16.8
2015	+ 0.3	+ 73.7	– 80.7	– 4.3	– 0.0	– 0.4	– 75.9	– 0.1	+ 68.9	+ 54.1	– 0.0	– 0.3	+ 15.1
2016	+ 6.5	+129.1	+ 48.1	+ 66.9	–	– 0.9	– 17.9	+ 0.4	+ 43.7	+ 62.8	– 0.1	– 0.1	– 18.9
2015 Dec	+ 3.6	+ 2.8	– 91.8	– 59.9	–	– 0.9	– 31.0	+ 0.1	– 15.1	– 11.1	+ 0.1	– 0.6	– 3.5
2016 Jan	– 3.1	+ 15.9	+ 22.2	+ 23.4	–	+ 0.3	– 1.5	– 0.0	+ 4.5	+ 6.7	– 0.0	+ 0.3	– 2.4
Feb	– 0.3	– 6.5	+ 11.9	+ 13.1	–	– 0.2	– 1.0	– 0.0	+ 9.6	+ 10.6	– 0.1	+ 0.8	– 1.7
Mar	+ 1.3	+ 2.3	– 21.3	– 22.1	–	+ 0.2	+ 0.5	+ 0.0	– 0.8	+ 4.5	– 0.0	– 0.3	– 5.0
Apr	– 0.3	+ 13.2	+ 33.6	+ 34.0	–	+ 0.1	– 0.6	– 0.1	+ 13.3	+ 12.3	+ 0.0	+ 0.1	+ 0.8
May	+ 1.5	+ 17.4	+ 3.9	+ 4.8	–	– 0.4	– 0.5	– 0.0	+ 5.7	+ 8.4	– 0.1	+ 0.1	– 2.7
June	+ 0.7	+ 16.4	– 10.9	– 7.8	–	– 0.1	– 3.0	+ 0.2	– 11.9	– 7.3	– 0.0	+ 0.4	– 5.0
July	+ 0.4	+ 19.4	– 7.6	– 4.5	–	– 0.3	– 2.8	– 0.1	+ 13.3	+ 10.2	– 0.0	– 0.0	+ 3.2
Aug	– 0.0	+ 7.9	– 1.0	+ 0.9	–	– 0.1	– 1.8	+ 0.0	+ 1.5	+ 4.6	+ 0.0	– 0.4	– 2.6
Sep	+ 1.3	+ 5.1	+ 20.0	+ 22.1	–	+ 0.0	– 2.1	– 0.0	+ 8.2	+ 9.1	– 0.0	+ 0.3	– 1.1
Oct	+ 1.8	+ 12.7	– 7.3	– 6.6	–	+ 0.1	– 0.8	– 0.0	+ 7.0	+ 8.6	– 0.0	+ 0.0	– 1.7
Nov	+ 0.1	+ 33.0	+ 37.3	+ 38.7	–	– 0.3	– 1.1	+ 0.0	+ 12.1	+ 11.4	– 0.0	– 0.3	+ 1.0
Dec	+ 3.1	– 7.7	– 32.7	– 29.0	–	– 0.3	– 3.3	+ 0.3	– 19.0	– 16.4	+ 0.1	– 0.9	– 1.8
2017 Jan	– 1.4	+ 62.9	+ 42.1	+ 42.6	–	+ 0.2	– 0.8	– 0.3	+ 3.3	+ 7.3	– 0.0	+ 0.5	– 4.4
Feb	– 0.7	– 0.3	+ 6.8	+ 7.7	–	+ 0.1	– 1.0	+ 0.1	+ 1.4	+ 5.7	– 0.0	– 0.0	– 4.2
Mar	– 0.3	+ 5.5	+ 9.5	+ 10.2	–	+ 0.2	– 0.9	– 0.0	+ 3.9	+ 3.7	+ 0.0	+ 0.2	– 0.0
Apr	+ 1.1	+ 48.1	+ 1.7	+ 1.3	–	–	+ 0.4	– 0.0	+ 5.9	+ 8.1	+ 0.0	+ 0.1	– 2.3
May	+ 0.9	+ 25.8	– 9.3	– 9.5	–	– 0.0	+ 0.1	– 0.0	+ 3.9	+ 2.6	– 0.1	+ 0.7	+ 0.7

***** See Table IV.2, footnote*; statistical breaks have been eliminated from the changes. The figures for the latest date are always to be regarded as provisional. Subsequent revisions which appear in the following Monthly Report, are not specially marked. **1** Excluding debt securities arising from the exchange of equalisation claims (see also footnote 2). **2** Including debt securities arising from the exchange of equalisation claims. **3** Including liabilities arising from registered debt securities, registered money market paper and non-negotiable bearer debt securities; including subordinated liabilities. **4** Including liabilities arising from monetary policy operations

IV Banks

Equalisation claims [2]	*Memo item* Fiduciary loans	Participating interests in domestic banks and enterprises	Deposits of domestic banks (MFIs) [3] Total	Sight deposits [4]	Time deposits [4]	Redis-counted bills [5]	*Memo item* Fiduciary loans	Deposits of domestic non-banks (non-MFIs) Total	Sight deposits	Time deposits [6]	Savings deposits [7]	Bank savings bonds [8]	*Memo item* Fiduciary loans	Period
End of year or month *														
–	51.1	109.4	1,478.6	122.1	1,356.5	0.0	20.0	2,579.1	779.9	1,125.4	555.4	118.4	36.4	2007
–	47.2	111.2	1,582.5	138.5	1,444.0	0.0	41.6	2,781.4	834.6	1,276.1	535.2	135.4	32.3	2008
–	43.9	106.1	1,355.1	128.9	1,226.2	0.0	35.7	2,829.7	1,029.5	1,102.6	594.5	103.2	43.4	2009
–	33.7	96.8	1,238.3	135.3	1,102.6	0.0	13.8	2,935.2	1,104.4	1,117.1	618.2	95.4	37.5	2010
–	36.3	94.6	1,210.5	114.8	1,095.3	0.0	36.1	3,045.5	1,168.3	1,156.2	616.1	104.8	36.5	2011
–	34.8	90.0	1,135.5	132.9	1,002.6	0.0	36.3	3,090.2	1,306.5	1,072.5	617.6	93.6	34.9	2012
–	31.6	92.3	1,140.3	125.6	1,014.7	0.0	33.2	3,048.7	1,409.9	952.0	610.1	76.6	32.9	2013
–	26.5	94.3	1,111.9	127.8	984.0	0.0	11.7	3,118.2	1,517.8	926.7	607.8	66.0	30.9	2014
–	20.4	89.6	1,065.6	131.1	934.5	0.0	6.1	3,224.7	1,673.7	898.4	596.5	56.1	29.3	2015
–	19.1	91.0	1,032.9	129.5	903.3	0.1	5.6	3,326.7	1,798.2	889.6	588.5	50.4	28.8	2016
–	20.4	89.6	1,065.6	131.1	934.5	0.0	6.1	3,224.7	1,673.7	898.4	596.5	56.1	29.3	2015 Dec
–	20.3	90.0	1,066.1	145.0	921.1	0.0	6.0	3,233.8	1,689.6	893.3	596.1	54.8	29.3	2016 Jan
–	20.2	89.8	1,061.7	151.8	909.9	0.0	5.9	3,236.2	1,697.4	887.8	596.4	54.6	29.3	Feb
–	19.9	90.3	1,058.6	147.9	910.7	0.0	5.9	3,231.2	1,687.4	894.9	594.5	54.4	29.1	Mar
–	19.8	89.8	1,060.2	149.7	910.4	0.0	5.9	3,249.8	1,709.6	893.5	592.7	54.0	29.0	Apr
–	19.7	89.9	1,026.8	142.0	884.7	0.0	5.8	3,262.7	1,721.8	896.1	591.2	53.7	29.0	May
–	19.6	89.9	1,038.6	152.5	886.0	0.0	6.0	3,259.9	1,722.6	894.1	590.0	53.1	28.7	June
–	19.5	90.1	1,022.8	140.0	882.7	0.0	5.9	3,275.7	1,737.1	896.8	589.1	52.7	28.6	July
–	19.4	90.3	1,015.7	137.3	878.3	0.0	5.9	3,282.1	1,748.5	893.1	588.4	52.2	28.7	Aug
–	19.3	89.8	1,028.7	132.1	896.6	0.0	5.8	3,283.7	1,748.1	896.6	587.2	51.8	28.6	Sep
–	19.1	89.7	1,025.1	137.1	887.9	0.0	5.7	3,294.7	1,768.0	888.8	586.6	51.3	28.6	Oct
–	19.1	89.3	1,041.1	145.9	895.1	0.0	5.6	3,328.9	1,799.3	892.5	586.2	50.9	28.6	Nov
–	19.1	91.0	1,032.9	129.5	903.3	0.1	5.6	3,326.7	1,798.2	889.6	588.5	50.4	28.8	Dec
–	20.3	90.8	1,052.6	136.9	915.6	0.1	5.5	3,346.3	1,812.5	895.8	588.5	49.5	30.6	2017 Jan
–	20.3	89.4	1,054.6	141.4	913.1	0.0	5.6	3,345.5	1,816.6	891.4	588.5	49.0	30.5	Feb
–	20.1	89.1	1,077.0	137.4	939.6	0.0	5.5	3,342.8	1,817.0	890.9	586.7	48.2	30.4	Mar
–	20.1	88.8	1,074.8	140.7	934.2	0.0	5.5	3,360.3	1,844.4	881.9	586.2	47.8	30.3	Apr
–	20.0	88.7	1,079.5	142.0	937.5	–	5.5	3,368.4	1,852.2	883.4	585.7	47.0	30.4	May
Changes *														
–	– 5.4	+ 7.8	+ 124.3	+ 23.0	+ 101.3	– 0.0	– 3.6	+ 207.6	+ 54.3	+ 156.6	– 20.2	+ 17.0	– 1.3	2008
–	– 4.2	+ 0.7	– 225.4	– 9.7	– 215.7	– 0.0	– 5.7	+ 59.7	+ 211.4	– 179.3	+ 59.3	– 31.6	– 0.9	2009
–	– 2.1	– 9.2	– 96.5	+ 22.3	– 119.1	– 0.0	– 0.2	+ 77.8	+ 76.0	– 18.9	+ 24.0	– 3.3	– 1.7	2010
–	– 1.1	– 2.2	– 25.0	– 20.0	– 5.1	– 0.0	+ 0.1	+ 111.2	+ 63.7	+ 40.9	– 2.6	+ 9.3	– 1.1	2011
–	– 1.3	– 4.1	– 70.8	+ 21.5	– 91.9	– 0.0	+ 0.2	+ 42.2	+ 138.7	– 86.7	+ 1.5	– 11.2	– 1.6	2012
–	– 3.3	+ 2.4	– 79.4	– 24.1	– 55.3	+ 0.0	– 3.4	+ 40.2	+ 118.4	– 53.9	– 7.4	– 17.0	– 1.7	2013
–	– 1.9	+ 2.0	– 29.0	+ 2.2	– 31.2	– 0.0	– 0.6	+ 69.7	+ 107.9	– 25.3	– 2.4	– 10.6	– 2.0	2014
–	– 2.1	– 4.3	– 46.6	+ 3.3	– 50.0	+ 0.0	– 1.3	+ 106.5	+ 156.2	– 28.3	– 11.3	– 10.1	– 1.6	2015
–	– 1.3	+ 1.5	– 1.7	+ 0.3	– 2.0	+ 0.0	– 0.5	+ 104.7	+ 124.5	– 6.9	– 7.9	– 5.0	– 0.5	2016
–	– 0.1	– 2.0	– 42.4	– 27.1	– 15.2	–	– 0.1	– 0.0	– 3.2	+ 1.7	+ 2.2	– 0.7	– 0.2	2015 Dec
–	– 0.1	+ 0.4	+ 0.5	+ 13.9	– 13.4	– 0.0	– 0.1	+ 9.1	+ 15.8	– 5.8	– 0.4	– 0.6	+ 0.0	2016 Jan
–	– 0.1	– 0.2	– 3.1	+ 7.0	– 10.1	+ 0.0	– 0.0	+ 4.8	+ 7.9	– 3.1	+ 0.3	– 0.2	– 0.0	Feb
–	– 0.3	+ 0.5	– 3.2	– 4.0	+ 0.8	– 0.0	– 0.1	– 5.0	– 10.0	+ 7.0	– 1.9	– 0.2	– 0.2	Mar
–	– 0.1	– 0.3	+ 1.6	+ 1.9	– 0.3	– 0.0	+ 0.0	+ 18.6	+ 22.2	– 1.3	– 1.8	– 0.5	– 0.1	Apr
–	– 0.1	+ 0.1	– 5.1	– 2.9	– 2.2	+ 0.0	– 0.0	+ 12.9	+ 12.2	+ 2.5	– 1.5	– 0.3	– 0.0	May
–	– 0.1	+ 0.0	+ 12.8	+ 10.8	+ 2.0	–	+ 0.2	– 2.5	+ 0.9	– 1.7	– 1.1	– 0.5	– 0.3	June
–	– 0.1	– 0.0	– 15.8	– 12.5	– 3.3	–	– 0.1	+ 15.8	+ 14.5	+ 2.7	– 0.9	– 0.5	– 0.0	July
–	– 0.1	+ 0.2	– 7.1	– 2.7	– 4.4	–	– 0.0	+ 6.4	+ 11.4	– 3.8	– 0.7	– 0.5	+ 0.0	Aug
–	– 0.1	– 0.5	+ 13.0	– 5.3	+ 18.3	–	– 0.1	+ 1.6	– 0.4	+ 3.6	– 1.2	– 0.3	– 0.0	Sep
–	– 0.2	+ 0.1	– 3.2	+ 1.5	– 4.7	+ 0.0	– 0.1	+ 11.0	+ 20.0	– 7.9	– 0.6	– 0.5	– 0.0	Oct
–	– 0.0	– 0.4	+ 16.0	+ 8.8	+ 7.3	– 0.0	– 0.0	+ 34.2	+ 31.3	+ 3.7	– 0.4	– 0.4	–	Nov
–	+ 0.0	+ 1.6	– 8.2	– 16.4	+ 8.2	+ 0.0	– 0.0	– 2.2	– 1.2	– 2.8	+ 2.3	– 0.5	+ 0.2	Dec
–	+ 1.2	– 0.2	+ 19.7	+ 7.4	+ 12.3	–	– 0.1	+ 19.6	+ 14.4	+ 6.2	– 0.1	– 0.9	+ 1.0	2017 Jan
–	– 0.1	– 1.4	+ 2.0	+ 4.6	– 2.5	– 0.0	+ 0.1	– 0.8	+ 4.1	– 4.5	+ 0.1	– 0.5	– 0.1	Feb
–	– 0.1	– 0.3	+ 22.4	– 4.1	+ 26.5	– 0.0	– 0.1	– 2.7	+ 0.4	– 0.5	– 1.9	– 0.7	– 0.1	Mar
–	– 0.1	– 0.3	– 2.2	+ 3.3	– 5.5	– 0.0	– 0.0	+ 17.5	+ 27.3	– 9.0	– 0.5	– 0.4	– 0.1	Apr
–	– 0.0	– 0.0	+ 4.6	+ 1.3	+ 3.3	– 0.0	+ 0.0	+ 8.1	+ 7.8	+ 1.6	– 0.5	– 0.8	+ 0.0	May

with the Bundesbank. **5** Own acceptances and promissory notes outstanding. **6** Since the inclusion of building and loan associations in January 1999, including deposits under savings and loan contracts (see Table IV.12). **7** Excluding deposits under savings and loan contracts (see also footnote 8). **8** Including liabilities arising from non-negotiable bearer debt securities.

IV Banks

4 Assets and liabilities of banks (MFIs) in Germany vis-à-vis non-residents *

€ billion

Period	Cash in hand (non-euro-area banknotes and coins)	Lending to foreign banks (MFIs)							Lending to foreign non-banks (non-MFIs)					
		Total	Credit balances and loans, bills			Negotiable money market paper issued by banks	Securities issued by banks	*Memo item* Fiduciary loans	Total	Loans and bills			Treasury bills and negotiable money market paper issued by non-banks	Securities issued by non-banks
			Total	Short-term	Medium and long-term					Total	Short-term	Medium and long-term		
	End of year or month *													
2007	0.3	1,433.5	1,105.9	803.6	302.4	13.4	314.2	0.5	908.3	492.9	197.5	295.4	27.5	387.9
2008	0.3	1,446.6	1,131.6	767.2	364.3	15.6	299.5	1.9	908.4	528.9	151.4	377.5	12.9	366.6
2009	0.3	1,277.4	986.1	643.5	342.6	6.2	285.0	2.9	815.7	469.6	116.9	352.7	9.8	336.3
2010	0.5	1,154.1	892.7	607.7	285.1	2.1	259.3	1.8	773.8	461.4	112.6	348.8	10.1	302.3
2011	0.6	1,117.6	871.0	566.3	304.8	4.6	241.9	2.6	744.4	455.8	102.0	353.8	8.5	280.1
2012	0.8	1,046.0	813.5	545.5	268.1	5.4	227.0	2.6	729.0	442.2	105.1	337.1	9.0	277.8
2013	0.2	1,019.7	782.4	546.6	235.8	7.2	230.1	2.5	701.0	404.9	100.3	304.6	8.2	287.8
2014	0.2	1,125.2	884.8	618.7	266.1	7.9	232.5	1.1	735.1	415.2	94.4	320.8	6.5	313.5
2015	0.3	1,066.9	830.7	555.9	274.7	1.2	235.0	1.0	751.5	424.3	83.8	340.5	7.5	319.7
2016	0.3	1,055.9	820.6	519.8	300.7	0.5	234.9	1.0	756.2	451.6	90.1	361.4	5.0	299.6
2015 Dec	0.3	1,066.9	830.7	555.9	274.7	1.2	235.0	1.0	751.5	424.3	83.8	340.5	7.5	319.7
2016 Jan	0.3	1,080.5	844.9	570.2	274.8	1.9	233.6	1.0	766.7	440.2	101.3	338.8	8.9	317.6
Feb	0.3	1,095.3	854.5	580.2	274.3	3.1	237.8	1.0	765.9	445.3	102.6	342.7	10.2	310.3
Mar	0.3	1,057.4	816.6	551.7	264.9	3.0	237.8	1.0	754.4	427.1	87.9	339.2	9.1	318.2
Apr	0.3	1,064.5	824.2	559.7	264.5	3.3	237.1	1.0	762.5	440.0	99.9	340.0	9.4	313.1
May	0.3	1,063.5	825.4	554.4	271.0	3.5	234.6	1.0	766.3	439.7	94.3	345.4	8.9	317.7
June	0.3	1,091.2	851.1	580.7	270.4	3.6	236.4	1.0	758.7	435.5	89.4	346.1	6.4	316.8
July	0.3	1,089.1	854.6	586.5	268.0	2.7	231.9	1.0	766.0	448.5	100.1	348.4	4.1	313.4
Aug	0.3	1,081.5	848.6	577.9	270.7	2.5	230.4	1.0	765.4	450.3	99.9	350.4	5.1	310.0
Sep	0.3	1,046.8	806.0	535.5	270.5	2.5	238.4	1.0	751.0	444.0	93.6	350.4	4.7	302.3
Oct	0.3	1,089.3	850.4	571.3	279.0	2.1	236.8	1.0	758.1	454.5	102.9	351.6	4.2	299.3
Nov	0.3	1,074.3	837.9	541.7	296.2	1.7	234.7	1.0	765.2	459.4	103.6	355.9	5.5	300.3
Dec	0.3	1,055.9	820.6	519.8	300.7	0.5	234.9	1.0	756.2	451.6	90.1	361.4	5.0	299.6
2017 Jan	0.3	1,069.4	836.4	537.3	299.0	0.8	232.2	1.7	772.9	468.4	109.0	359.4	5.3	299.1
Feb	0.3	1,088.4	854.7	552.1	302.6	1.3	232.5	1.7	782.0	474.4	110.6	363.8	6.2	301.3
Mar	0.3	1,086.7	854.7	548.7	306.0	1.9	230.0	1.7	777.5	475.7	110.9	364.9	4.1	297.7
Apr	0.3	1,063.7	833.7	529.7	304.0	1.9	228.0	1.7	774.4	477.4	114.5	362.9	4.8	292.2
May	0.3	1,037.5	804.3	506.9	297.4	2.2	231.0	1.9	771.7	475.9	112.3	363.6	5.1	290.8
	Changes *													
2008	+ 0.0	+ 8.5	+ 20.2	– 43.0	+ 63.2	+ 2.1	– 13.7	– 0.0	+ 4.3	+ 45.1	– 31.9	+ 77.0	– 14.5	– 26.3
2009	– 0.0	– 170.0	– 141.3	– 122.5	– 18.8	– 10.3	– 18.4	– 0.2	– 72.8	– 43.8	– 31.7	– 12.1	– 3.3	– 25.7
2010	+ 0.1	– 141.5	– 116.2	– 47.3	– 68.9	– 4.8	– 20.4	– 0.2	– 62.0	– 24.5	– 12.6	– 11.9	+ 0.4	– 38.0
2011	+ 0.1	– 48.4	– 32.6	– 45.3	+ 12.7	+ 2.5	– 18.4	+ 0.0	– 38.9	– 13.6	– 12.8	– 0.9	– 1.6	– 23.6
2012	+ 0.1	– 70.1	– 56.8	– 23.1	– 33.7	+ 0.9	– 14.1	– 0.1	– 9.4	– 7.5	+ 8.3	– 15.9	+ 0.6	– 2.5
2013	– 0.5	– 22.7	– 26.9	– 1.3	– 25.6	+ 1.8	+ 2.4	– 0.0	– 21.2	– 33.1	– 5.8	– 27.2	– 0.7	+ 12.6
2014	– 0.0	+ 86.1	+ 80.1	+ 63.2	+ 16.8	+ 0.7	+ 5.3	– 0.6	+ 5.7	– 10.2	– 12.8	+ 2.7	– 1.8	+ 17.7
2015	+ 0.1	– 91.8	– 86.0	– 82.2	– 3.8	– 6.7	+ 0.8	– 0.1	– 6.1	– 9.2	– 6.5	– 2.7	+ 1.1	+ 2.0
2016	+ 0.0	– 25.5	– 14.5	– 38.2	+ 23.7	– 0.7	– 10.3	– 0.0	+ 17.4	+ 28.9	+ 10.1	+ 18.8	– 3.0	– 8.5
2015 Dec	– 0.0	– 36.7	– 33.4	– 37.5	+ 4.1	– 1.6	– 1.7	– 0.1	– 27.1	– 20.7	– 18.9	– 1.9	+ 0.8	– 7.2
2016 Jan	– 0.0	+ 16.1	+ 16.8	+ 15.6	+ 1.2	+ 0.7	– 1.4	+ 0.0	+ 18.2	+ 18.2	+ 18.6	– 0.4	+ 1.3	– 1.3
Feb	+ 0.0	+ 14.9	+ 9.6	+ 10.3	– 0.7	+ 1.1	+ 4.2	+ 0.0	– 0.2	+ 5.8	+ 2.1	+ 3.7	+ 1.1	– 7.1
Mar	– 0.0	– 26.3	– 26.5	– 22.8	– 3.7	– 0.1	+ 0.3	+ 0.0	– 3.8	– 12.2	– 13.6	+ 1.3	– 0.9	+ 9.3
Apr	– 0.0	+ 6.6	+ 7.0	+ 7.6	– 0.5	+ 0.3	– 0.8	+ 0.0	+ 7.5	+ 12.7	+ 11.9	+ 0.7	+ 0.1	– 5.3
May	+ 0.0	– 5.7	– 3.3	– 7.9	+ 4.6	+ 0.2	– 2.6	+ 0.0	+ 0.8	– 2.7	– 4.6	+ 1.9	– 0.4	+ 3.9
June	+ 0.0	+ 28.8	+ 26.7	+ 26.9	– 0.3	+ 0.1	+ 2.0	– 0.0	– 5.5	– 2.8	– 4.3	+ 1.4	– 2.8	+ 0.1
July	– 0.0	– 1.0	+ 4.4	+ 6.2	– 1.9	– 1.0	– 4.5	+ 0.0	+ 8.0	+ 13.6	+ 10.9	+ 2.7	– 2.3	– 3.3
Aug	+ 0.0	– 6.7	– 5.0	– 8.1	+ 3.0	– 0.2	– 1.5	+ 0.0	– 0.2	+ 2.2	– 0.1	+ 2.3	+ 1.0	– 3.3
Sep	– 0.0	– 44.3	– 42.2	– 42.1	– 0.1	– 0.0	– 2.1	+ 0.0	– 3.2	– 5.3	– 6.1	+ 0.8	– 0.4	+ 2.5
Oct	– 0.0	+ 38.4	+ 40.6	+ 34.1	+ 6.5	– 0.3	– 1.8	– 0.0	+ 5.4	+ 9.0	+ 9.1	– 0.1	– 0.5	– 3.1
Nov	+ 0.0	– 25.6	– 22.6	– 35.0	+ 12.3	– 0.5	– 2.5	+ 0.0	+ 0.9	– 0.4	– 0.5	+ 0.1	+ 1.2	+ 0.1
Dec	+ 0.0	– 20.7	– 19.9	– 23.1	+ 3.2	– 1.2	+ 0.4	– 0.0	– 10.7	– 9.1	– 13.4	+ 4.3	– 0.5	– 1.2
2017 Jan	+ 0.0	+ 18.9	+ 21.1	+ 19.8	+ 1.3	+ 0.3	– 2.5	+ 0.0	+ 19.9	+ 19.5	+ 19.3	+ 0.2	+ 0.3	+ 0.1
Feb	– 0.0	+ 14.0	+ 13.5	+ 12.3	+ 1.2	+ 0.4	+ 0.1	+ 0.0	+ 6.2	+ 3.5	+ 1.0	+ 2.5	+ 0.9	+ 1.8
Mar	– 0.0	+ 1.3	+ 3.0	– 1.8	+ 4.8	+ 0.4	– 2.1	– 0.0	– 2.7	+ 2.7	+ 0.6	+ 2.1	– 0.7	– 4.7
Apr	+ 0.0	– 16.1	– 14.2	– 15.4	+ 1.2	+ 0.0	– 1.9	+ 0.0	– 0.1	+ 4.2	+ 3.8	+ 0.4	+ 0.6	– 4.9
May	– 0.0	– 17.3	– 20.9	– 18.6	– 2.3	+ 0.3	+ 3.3	+ 0.2	+ 2.8	+ 3.0	– 0.3	+ 3.4	+ 0.4	– 0.6

* See Table IV.2, footnote*; statistical breaks have been eliminated from the changes. The figures for the latest date are always to be regarded as provisional. Subsequent revisions, which appear in the following Monthly Report, are not specially marked.

IV Banks

Memo item Fiduciary loans	Participating interests in foreign banks and enterprises	Deposits of foreign banks (MFIs)						Deposits of foreign non-banks (non-MFIs)						Period
		Total	Sight deposits	Time deposits (including bank savings bonds)			Memo item Fiduciary loans	Total	Sight deposits	Time deposits (including savings deposits and bank savings bonds)			Memo item Fiduciary loans	
				Total	Short-term	Medium and long-term				Total	Short-term	Medium and long-term		
End of year or month *														
5.7	48.3	738.9	164.7	574.1	461.2	113.0	0.2	303.1	76.0	227.1	122.3	104.8	3.1	2007
25.5	45.1	703.3	218.1	485.1	362.3	122.9	0.3	286.1	92.2	193.9	95.1	98.8	2.5	2008
32.1	45.4	652.6	213.6	439.0	307.4	131.6	0.2	216.3	78.1	138.2	73.7	64.5	1.9	2009
15.6	48.8	741.7	258.7	483.0	349.3	133.6	0.1	227.6	84.8	142.7	76.7	66.0	1.5	2010
32.9	45.0	655.7	242.6	413.1	289.4	123.7	0.1	225.9	92.3	133.6	66.9	66.6	1.3	2011
32.6	46.4	691.1	289.4	401.7	284.6	117.0	0.1	237.6	107.2	130.3	69.1	61.2	1.2	2012
30.8	39.0	515.7	222.6	293.2	196.0	97.2	0.1	257.8	118.1	139.7	76.8	62.9	1.0	2013
14.0	35.6	609.2	277.1	332.1	242.7	89.4	0.1	221.0	113.0	107.9	47.8	60.1	0.7	2014
13.1	30.5	611.9	323.4	288.5	203.8	84.7	0.1	201.1	102.6	98.5	49.3	49.2	0.7	2015
13.1	28.7	696.1	374.4	321.6	234.2	87.5	0.0	206.2	100.3	105.9	55.2	50.8	0.7	2016
13.1	30.5	611.9	323.4	288.5	203.8	84.7	0.1	201.1	102.6	98.5	49.3	49.2	0.7	2015 Dec
13.2	29.6	637.8	352.2	285.7	201.3	84.3	0.1	237.7	129.1	108.6	60.5	48.2	0.8	2016 Jan
13.2	29.0	644.4	357.8	286.6	201.8	84.8	0.1	246.4	137.2	109.2	61.8	47.5	0.8	Feb
13.3	28.9	623.4	349.6	273.8	192.0	81.8	0.0	218.8	119.8	99.0	52.9	46.1	0.8	Mar
13.3	28.9	658.0	344.2	313.8	234.1	79.6	0.0	233.6	126.9	106.7	62.0	44.8	0.8	Apr
13.3	28.9	664.6	389.5	275.1	195.6	79.5	0.0	239.7	130.6	109.0	64.2	44.8	0.7	May
13.1	29.2	679.1	397.7	281.4	203.4	77.9	0.0	235.5	132.8	102.7	57.2	45.5	0.7	June
13.1	29.4	706.1	408.3	297.8	217.9	80.0	0.0	244.0	129.1	114.9	68.2	46.6	0.7	July
13.1	29.4	701.3	398.5	302.8	220.1	82.7	0.0	248.3	127.3	121.0	74.9	46.1	0.7	Aug
13.1	29.4	679.5	366.0	313.5	231.3	82.2	0.0	233.3	124.6	108.7	62.0	46.7	0.7	Sep
13.2	28.8	692.7	398.6	294.1	211.9	82.2	0.0	266.3	146.2	120.1	72.0	48.1	0.7	Oct
13.2	28.9	703.9	416.7	287.2	203.2	84.0	0.0	266.2	138.3	128.0	79.1	48.9	0.7	Nov
13.1	28.7	696.1	374.4	321.6	234.2	87.5	0.0	206.2	100.3	105.9	55.2	50.8	0.7	Dec
13.0	28.4	746.1	452.6	293.5	206.4	87.1	0.0	246.7	125.6	121.1	71.1	50.0	0.7	2017 Jan
13.0	24.8	765.2	480.7	284.5	197.4	87.1	0.0	254.0	129.5	124.5	74.8	49.7	0.7	Feb
12.9	24.7	768.8	488.1	280.7	192.1	88.6	0.0	237.6	113.7	124.0	72.2	51.8	0.7	Mar
12.9	24.8	751.4	429.4	322.0	234.2	87.7	0.0	271.9	132.3	139.7	89.0	50.6	0.7	Apr
12.8	24.6	732.4	464.0	268.4	181.8	86.5	0.0	269.4	134.1	135.3	85.0	50.3	0.6	May
Changes *														
+ 0.7	– 3.1	– 50.1	+ 52.2	– 102.3	– 120.7	+ 18.5	+ 0.1	– 12.4	+ 16.1	– 28.5	– 19.4	– 9.1	– 0.6	2008
– 3.2	+ 0.1	– 81.4	– 2.1	– 79.3	– 57.5	– 21.7	– 0.2	– 33.5	– 13.3	– 20.1	– 17.0	– 3.1	– 0.6	2009
+ 0.2	+ 1.4	+ 895.4	+ 42.0	+ 542.4	+ 38.1	+ 136.8	– 0.1	– 1.6	+ 6.0	– 7.6	– 3.3	– 4.4	– 0.4	2010
– 0.1	– 3.9	– 88.8	– 13.8	– 75.0	– 61.8	– 13.1	– 0.0	– 9.3	+ 6.4	– 15.7	– 10.4	– 5.3	– 0.2	2011
– 0.3	+ 1.5	+ 38.2	+ 51.7	– 13.5	– 7.5	– 6.0	– 0.0	+ 12.6	+ 15.2	– 2.6	+ 2.5	– 5.1	– 0.1	2012
– 1.8	– 7.2	– 174.0	– 75.6	– 98.4	– 83.1	– 15.4	– 0.0	+ 13.5	+ 9.6	+ 3.9	+ 6.9	– 3.0	– 0.2	2013
+ 0.1	– 3.8	+ 76.3	+ 47.8	+ 28.5	+ 39.0	– 10.5	– 0.0	– 43.6	– 8.3	– 35.3	– 30.7	– 4.6	+ 0.2	2014
– 0.6	– 6.1	– 15.4	+ 40.6	– 56.0	– 48.6	– 7.4	– 0.0	– 26.5	– 13.9	– 12.6	+ 0.3	– 13.0	– 0.0	2015
– 0.1	– 1.5	+ 82.7	+ 51.0	+ 31.7	+ 27.0	+ 4.7	– 0.0	+ 3.5	– 3.1	+ 6.7	+ 5.9	+ 0.8	– 0.0	2016
– 0.2	– 4.3	– 32.0	– 48.3	+ 16.4	+ 15.5	+ 0.8	– 0.0	– 40.4	– 32.6	– 7.9	– 6.0	– 1.9	– 0.1	2015 Dec
+ 0.1	– 0.9	+ 27.6	+ 29.5	– 1.9	– 1.6	– 0.2	–	+ 36.9	+ 26.4	+ 10.6	+ 11.2	– 0.6	+ 0.1	2016 Jan
+ 0.0	– 0.4	+ 6.2	+ 5.1	+ 1.1	+ 0.8	+ 0.3	–	+ 8.9	+ 8.3	+ 0.6	+ 1.3	– 0.7	– 0.0	Feb
+ 0.0	– 0.0	– 14.0	– 5.4	– 8.6	– 6.7	– 2.0	– 0.0	– 25.6	– 16.5	– 9.1	– 7.9	– 1.2	+ 0.0	Mar
+ 0.0	– 0.0	+ 34.2	– 5.7	+ 39.9	+ 40.6	– 0.7	–	+ 14.7	+ 7.1	+ 7.6	+ 9.1	– 1.4	– 0.0	Apr
+ 0.0	+ 0.0	+ 2.8	+ 44.1	– 41.3	– 40.6	– 0.7	+ 0.0	+ 5.0	+ 3.3	+ 1.7	+ 1.9	– 0.2	– 0.1	May
– 0.2	+ 0.3	+ 16.8	+ 9.4	+ 7.4	+ 7.8	– 0.4	– 0.0	– 4.5	+ 2.2	– 6.8	– 7.3	+ 0.5	+ 0.0	June
+ 0.0	+ 0.4	+ 27.8	+ 11.0	+ 16.8	+ 14.7	+ 2.1	– 0.0	+ 8.5	– 3.8	+ 12.3	+ 11.5	+ 0.8	– 0.0	July
+ 0.0	+ 0.0	– 4.3	– 9.5	+ 5.2	+ 2.4	+ 2.8	–	+ 4.5	– 1.7	+ 6.2	+ 6.7	– 0.5	– 0.1	Aug
+ 0.0	– 0.0	– 21.2	– 32.3	+ 11.1	+ 11.6	– 0.5	– 0.0	– 14.8	– 2.7	– 12.1	– 12.7	+ 0.7	– 0.0	Sep
+ 0.1	– 0.6	+ 11.1	+ 31.7	– 20.5	– 20.1	– 0.4	– 0.0	+ 32.5	+ 21.4	+ 11.2	+ 9.8	+ 1.3	+ 0.1	Oct
+ 0.0	+ 0.0	+ 4.9	+ 15.8	– 10.9	– 12.0	+ 1.1	– 0.0	– 2.2	– 9.0	+ 6.9	+ 6.4	+ 0.4	+ 0.0	Nov
– 0.1	– 0.3	– 9.2	– 42.7	+ 33.5	+ 30.2	+ 3.3	– 0.0	– 60.5	– 38.2	– 22.3	– 24.1	+ 1.8	+ 0.0	Dec
– 0.0	– 0.2	+ 52.9	+ 79.0	– 26.1	– 26.2	+ 0.1	–	+ 41.2	+ 25.6	+ 15.6	+ 16.2	– 0.6	– 0.0	2017 Jan
– 0.1	– 3.6	+ 15.9	+ 26.6	– 10.7	– 10.3	– 0.4	–	+ 6.6	+ 3.7	+ 2.9	+ 3.4	– 0.4	+ 0.0	Feb
– 0.0	– 0.0	+ 5.5	+ 8.3	– 2.8	– 4.5	+ 1.7	–	– 15.9	– 15.7	– 0.2	– 2.4	+ 2.2	– 0.0	Mar
– 0.0	+ 0.1	– 12.8	– 56.2	+ 43.4	+ 43.7	– 0.4	–	+ 34.4	+ 18.2	+ 16.2	+ 17.1	– 0.9	–	Apr
– 0.1	– 0.1	– 13.8	+ 36.5	– 50.3	– 49.8	– 0.5	–	– 0.9	+ 2.4	– 3.3	– 3.3	– 0.0	– 0.0	May

IV Banks

5 Lending by banks (MFIs) in Germany to domestic non-banks (non-MFIs) *

€ billion

Period	Lending to domestic non-banks, total		Short-term lending							Medium and long-term	
				to enterprises and households			to general government				to enterprises
	including negotiable money market paper, securities, equalisation claims	excluding negotiable money market paper, securities, equalisation claims	Total	Total	Loans and bills	Negotiable money market paper	Total	Loans	Treasury bills	Total	Total
	End of year or month *										
2007	2,975.7	2,649.5	331.2	301.8	301.5	0.3	29.4	28.2	1.2	2,644.6	2,168.3
2008	3,071.1	2,700.1	373.0	337.5	335.3	2.2	35.5	34.5	1.0	2,698.1	2,257.8
2009	3,100.1	2,692.6	347.3	306.3	306.2	0.1	41.0	37.1	3.9	2,752.8	2,299.7
2010	3,220.9	2,771.3	428.0	283.0	282.8	0.2	145.0	117.2	27.7	2,793.0	2,305.6
2011	3,197.8	2,775.4	383.3	316.5	316.1	0.4	66.8	60.7	6.0	2,814.5	2,321.9
2012	3,220.4	2,786.1	376.1	316.8	316.3	0.5	59.3	57.6	1.7	2,844.3	2,310.9
2013	3,131.6	2,693.2	269.1	217.7	217.0	0.6	51.4	50.8	0.6	2,862.6	2,328.6
2014	3,167.3	2,712.6	257.5	212.7	212.1	0.6	44.8	44.7	0.1	2,909.8	2,376.8
2015	3,233.9	2,764.4	255.5	207.8	207.6	0.2	47.8	47.5	0.2	2,978.3	2,451.4
2016	3,274.3	2,824.2	248.6	205.7	205.4	0.3	42.9	42.8	0.1	3,025.8	2,530.0
2015 Dec	3,233.9	2,764.4	255.5	207.8	207.6	0.2	47.8	47.5	0.2	2,978.3	2,451.4
2016 Jan	3,238.7	2,771.4	259.0	208.1	207.7	0.4	50.9	50.5	0.3	2,979.7	2,452.5
Feb	3,248.0	2,781.8	266.3	214.3	213.6	0.7	52.0	51.2	0.8	2,981.7	2,456.1
Mar	3,247.2	2,786.3	271.4	218.7	217.9	0.8	52.6	52.2	0.4	2,975.9	2,454.1
Apr	3,260.6	2,798.7	273.9	217.9	217.2	0.8	56.0	55.5	0.5	2,986.6	2,466.5
May	3,264.8	2,805.6	276.1	221.2	220.4	0.8	55.0	54.4	0.6	2,988.7	2,472.7
June	3,252.1	2,797.5	268.8	217.8	216.8	1.1	51.0	50.3	0.7	2,983.3	2,472.8
July	3,264.5	2,806.6	268.8	213.8	212.9	1.0	55.0	54.2	0.7	2,995.6	2,483.9
Aug	3,265.9	2,811.2	262.2	208.1	207.5	0.6	54.1	53.4	0.7	3,003.8	2,497.1
Sep	3,274.2	2,820.2	268.7	214.2	213.7	0.5	54.5	53.4	1.1	3,005.4	2,502.7
Oct	3,281.0	2,828.8	269.7	212.6	212.0	0.6	57.1	56.1	1.0	3,011.3	2,512.3
Nov	3,293.1	2,840.2	268.0	216.3	215.8	0.5	51.7	51.0	0.8	3,025.0	2,525.5
Dec	3,274.3	2,824.2	248.6	205.7	205.4	0.3	42.9	42.8	0.1	3,025.8	2,530.0
2017 Jan	3,277.7	2,831.5	252.1	208.6	208.0	0.6	43.5	43.3	0.2	3,025.6	2,535.3
Feb	3,279.0	2,837.1	252.8	209.7	209.1	0.7	43.1	42.9	0.1	3,026.2	2,541.5
Mar	3,283.0	2,840.9	252.7	212.6	211.8	0.8	40.0	39.8	0.2	3,030.4	2,547.5
Apr	3,288.9	2,849.0	253.7	210.6	209.8	0.8	43.1	42.8	0.3	3,035.2	2,558.1
May	3,292.8	2,851.5	249.3	211.0	210.0	0.9	38.4	37.5	0.8	3,043.5	2,568.7
	Changes *										
2008	+ 92.0	+ 46.9	+ 43.1	+ 36.8	+ 34.9	+ 1.8	+ 6.3	+ 6.3	– 0.0	+ 48.9	+ 83.4
2009	+ 25.7	– 11.6	– 26.1	– 31.5	– 30.0	– 1.5	+ 5.5	+ 2.5	+ 2.9	+ 51.8	+ 36.6
2010	+ 130.5	+ 78.7	+ 80.4	– 23.4	– 23.5	+ 0.1	+ 103.8	+ 80.1	+ 23.7	+ 50.1	+ 14.9
2011	– 30.6	– 3.2	– 45.2	+ 33.6	+ 33.3	+ 0.2	– 78.7	– 57.0	– 21.7	+ 14.6	+ 9.4
2012	+ 21.0	+ 9.6	– 9.7	– 1.6	– 1.7	+ 0.1	– 8.2	– 3.8	– 4.3	+ 30.7	+ 10.9
2013	+ 4.4	+ 0.1	– 13.8	– 5.8	– 6.3	+ 0.5	– 8.0	– 7.0	– 1.1	+ 18.2	+ 17.6
2014	+ 36.7	+ 20.5	– 11.6	– 4.5	– 4.5	– 0.0	– 7.1	– 6.5	– 0.6	+ 48.3	+ 52.5
2015	+ 68.9	+ 54.1	+ 1.6	– 1.3	– 0.9	– 0.4	+ 2.9	+ 2.8	+ 0.1	+ 67.2	+ 73.9
2016	+ 43.7	+ 62.7	– 5.2	– 0.3	– 0.4	+ 0.1	– 4.9	– 4.8	– 0.2	+ 48.9	+ 79.8
2015 Dec	– 15.1	– 11.0	– 8.6	– 5.1	– 4.7	– 0.4	– 3.5	– 3.3	– 0.2	– 6.5	+ 0.3
2016 Jan	+ 4.5	+ 6.7	+ 3.1	+ 0.0	– 0.1	+ 0.2	+ 3.1	+ 3.0	+ 0.1	+ 1.4	+ 1.1
Feb	+ 9.6	+ 10.5	+ 7.6	+ 6.4	+ 6.1	+ 0.3	+ 1.2	+ 0.7	+ 0.4	+ 2.0	+ 3.6
Mar	– 0.8	+ 4.5	+ 5.3	+ 4.7	+ 4.6	+ 0.1	+ 0.6	+ 1.0	– 0.4	– 6.0	– 2.2
Apr	+ 13.3	+ 12.4	+ 2.6	– 0.8	– 0.8	– 0.0	+ 3.4	+ 3.3	+ 0.1	+ 10.7	+ 12.3
May	+ 5.7	+ 8.3	+ 2.2	+ 3.2	+ 3.2	+ 0.0	– 1.0	– 1.1	+ 0.1	+ 3.5	+ 7.7
June	– 11.9	– 7.3	– 6.5	– 2.5	– 2.8	+ 0.3	– 4.0	– 4.1	+ 0.1	– 5.4	+ 0.2
July	+ 13.3	+ 10.2	+ 0.1	– 3.9	– 3.8	– 0.1	+ 4.0	+ 3.9	+ 0.1	+ 13.3	+ 12.0
Aug	+ 1.5	+ 4.6	– 6.7	– 5.8	– 5.4	– 0.4	– 0.9	– 0.8	– 0.1	+ 8.2	+ 13.2
Sep	+ 8.2	+ 9.0	+ 6.6	+ 6.2	+ 6.3	– 0.1	+ 0.4	– 0.0	+ 0.4	+ 1.6	+ 5.5
Oct	+ 7.0	+ 8.6	+ 1.1	– 1.5	– 1.6	+ 0.1	+ 2.6	+ 2.7	– 0.1	+ 5.8	+ 9.4
Nov	+ 12.1	+ 11.4	– 1.7	+ 3.7	+ 3.8	– 0.1	– 5.4	– 5.2	– 0.2	+ 13.7	+ 13.0
Dec	– 19.0	– 16.2	– 19.0	– 10.1	– 9.9	– 0.2	– 8.9	– 8.2	– 0.7	+ 0.0	+ 3.8
2017 Jan	+ 3.3	+ 7.3	+ 3.5	+ 2.9	+ 2.5	+ 0.3	+ 0.6	+ 0.5	+ 0.1	– 0.2	+ 5.3
Feb	+ 1.4	+ 5.6	+ 0.7	+ 1.2	+ 1.1	+ 0.1	– 0.4	– 0.3	– 0.1	+ 0.6	+ 6.2
Mar	+ 3.9	+ 3.7	– 0.2	+ 2.8	+ 2.7	+ 0.1	– 3.0	– 3.1	+ 0.1	+ 4.1	+ 5.9
Apr	+ 5.9	+ 8.1	+ 1.0	– 2.0	– 2.0	– 0.0	+ 3.0	+ 2.9	+ 0.1	+ 4.9	+ 10.6
May	+ 3.9	+ 2.5	– 4.0	+ 0.7	+ 0.5	+ 0.1	– 4.7	– 5.2	+ 0.5	+ 7.9	+ 7.8

***** See Table IV.2, footnote*; statistical breaks have been eliminated from the changes. The figures for the latest date are always to be regarded as provisional. Subsequent revisions, which appear in the following Monthly Report, are not specially marked. **1** Excluding debt securities arising from the exchange of equalisation claims (see also footnote 2). **2** Including debt securities arising from the exchange of equalisation claims.

IV Banks

lending												
prises and households					to general government							
Loans						Loans						
Total	Medium-term	Long-term	Securities	*Memo item* Fiduciary loans	Total	Total	Medium-term	Long-term	Securities [1]	Equalisation claims [2]	*Memo item* Fiduciary loans	Period
End of year or month *												
1,987.3	207.7	1,779.6	181.1	46.5	476.2	332.5	31.9	300.6	143.7	–	4.7	2007
2,022.0	222.0	1,800.0	235.8	42.8	440.3	308.2	29.7	278.5	132.1	–	4.5	2008
2,051.3	242.7	1,808.6	248.4	39.6	453.1	298.0	32.2	265.8	155.1	–	4.3	2009
2,070.0	238.1	1,831.8	235.7	30.7	487.3	301.2	36.1	265.1	186.1	–	3.1	2010
2,099.5	247.9	1,851.7	222.4	32.7	492.6	299.1	41.1	258.0	193.5	–	3.6	2011
2,119.5	249.7	1,869.8	191.4	31.4	533.4	292.7	39.4	253.3	240.7	–	3.5	2012
2,136.9	248.0	1,888.9	191.7	28.9	534.0	288.4	38.8	249.7	245.6	–	2.7	2013
2,172.7	251.7	1,921.0	204.2	24.4	532.9	283.1	33.5	249.6	249.8	–	2.1	2014
2,232.4	256.0	1,976.3	219.0	18.3	527.0	277.0	27.9	249.0	250.0	–	2.1	2015
2,306.5	264.1	2,042.4	223.4	17.3	495.8	269.4	23.9	245.5	226.4	–	1.8	2016
2,232.4	256.0	1,976.3	219.0	18.3	527.0	277.0	27.9	249.0	250.0	–	2.1	2015 Dec
2,235.3	257.1	1,978.3	217.2	18.2	527.2	277.8	27.7	250.1	249.4	–	2.1	2016 Jan
2,240.2	257.4	1,982.8	215.9	18.0	525.6	276.8	27.7	249.1	248.8	–	2.1	Feb
2,240.5	257.3	1,983.2	213.5	17.9	521.8	275.6	27.5	248.1	246.2	–	2.0	Mar
2,249.9	258.6	1,991.3	216.6	17.8	520.1	276.1	27.5	248.7	244.0	–	2.0	Apr
2,255.8	258.0	1,997.8	216.9	17.7	516.0	275.1	27.1	247.9	240.9	–	2.0	May
2,256.9	258.7	1,998.2	216.0	17.8	510.4	273.5	26.9	246.6	236.9	–	1.8	June
2,266.8	258.5	2,008.2	217.1	17.7	511.7	272.7	25.9	246.8	239.0	–	1.8	July
2,278.8	260.6	2,018.1	218.4	17.6	506.6	271.5	25.9	245.6	235.1	–	1.8	Aug
2,283.5	261.0	2,022.5	219.3	17.5	502.7	269.6	25.4	244.2	233.1	–	1.8	Sep
2,290.5	261.5	2,029.0	221.8	17.3	498.9	270.2	24.4	245.7	228.8	–	1.8	Oct
2,302.5	264.0	2,038.5	223.0	17.3	499.5	270.9	24.3	246.6	228.6	–	1.8	Nov
2,306.5	264.1	2,042.4	223.4	17.3	495.8	269.4	23.9	245.5	226.4	–	1.8	Dec
2,311.3	264.5	2,046.8	224.0	18.6	490.3	268.9	24.2	244.7	221.4	–	1.7	2017 Jan
2,316.5	263.2	2,053.3	225.1	18.5	484.7	268.6	25.0	243.7	216.1	–	1.7	Feb
2,322.0	264.4	2,057.6	225.5	18.4	482.9	267.3	24.6	242.7	215.6	–	1.7	Mar
2,331.2	265.4	2,065.9	226.8	18.4	477.2	265.1	23.6	241.5	212.0	–	1.7	Apr
2,342.6	266.2	2,076.4	226.2	18.3	474.8	261.4	23.4	238.0	213.4	–	1.7	May
Changes *												
+ 28.8	+ 12.0	+ 16.8	+ 54.7	– 5.3	– 34.5	– 23.2	– 2.3	– 20.8	– 11.4	–	– 0.1	2008
+ 23.5	+ 17.3	+ 6.3	+ 13.1	– 3.9	+ 15.2	– 7.6	+ 2.5	– 10.2	+ 22.8	–	– 0.2	2009
+ 18.6	– 4.0	+ 22.6	– 3.8	– 1.7	+ 35.2	+ 3.5	+ 3.5	– 0.0	+ 31.7	–	– 0.3	2010
+ 22.6	+ 2.2	+ 20.4	– 13.2	– 1.0	+ 5.2	– 2.1	+ 4.9	– 7.0	+ 7.3	–	– 0.2	2011
+ 21.6	+ 1.5	+ 20.1	– 10.7	– 1.1	+ 19.8	– 6.6	– 1.9	– 4.7	+ 26.4	–	– 0.2	2012
+ 17.7	– 0.1	+ 17.8	– 0.1	– 2.5	+ 0.6	– 4.3	– 0.7	– 3.6	+ 4.9	–	– 0.8	2013
+ 39.9	+ 5.6	+ 34.3	+ 12.5	– 1.8	– 4.1	– 8.5	– 5.1	– 3.4	+ 4.3	–	– 0.2	2014
+ 59.0	+ 4.5	+ 54.6	+ 14.8	– 2.1	– 6.6	– 6.9	– 4.8	– 2.0	+ 0.2	–	+ 0.0	2015
+ 75.1	+ 9.7	+ 65.4	+ 4.7	– 0.9	– 30.9	– 7.3	– 4.0	– 3.3	– 23.6	–	– 0.4	2016
– 1.3	– 0.1	– 1.2	+ 1.6	– 0.2	– 6.8	– 1.7	– 0.2	– 1.5	– 5.1	–	+ 0.1	2015 Dec
+ 3.0	+ 0.4	+ 2.5	– 1.8	– 0.1	+ 0.2	+ 0.9	– 0.2	+ 1.1	– 0.6	–	+ 0.0	2016 Jan
+ 4.8	+ 1.0	+ 3.7	– 1.1	– 0.1	– 1.7	– 1.1	– 0.0	– 1.0	– 0.6	–	+ 0.0	Feb
+ 0.2	– 0.1	+ 0.2	– 2.4	– 0.2	– 3.8	– 1.2	– 0.2	– 1.0	– 2.6	–	– 0.1	Mar
+ 9.2	+ 1.2	+ 8.0	+ 3.0	– 0.0	– 1.6	+ 0.6	– 0.0	+ 0.6	– 2.2	–	– 0.0	Apr
+ 7.4	+ 0.8	+ 6.6	+ 0.3	– 0.1	– 4.2	– 1.1	– 0.4	– 0.8	– 3.1	–	– 0.0	May
+ 1.2	+ 0.7	+ 0.5	– 0.9	+ 0.1	– 5.6	– 1.6	– 0.2	– 1.4	– 4.0	–	– 0.2	June
+ 10.8	+ 0.8	+ 10.1	+ 1.1	– 0.1	+ 1.3	– 0.8	– 1.0	+ 0.2	+ 2.1	–	– 0.0	July
+ 12.0	+ 2.1	+ 9.9	+ 1.3	– 0.1	– 5.1	– 1.2	– 0.0	– 1.2	– 3.9	–	– 0.0	Aug
+ 4.6	+ 0.3	+ 4.2	+ 0.9	– 0.1	– 3.8	– 1.8	– 0.5	– 1.3	– 2.0	–	– 0.0	Sep
+ 6.8	+ 0.5	+ 6.2	+ 2.7	– 0.2	– 3.6	+ 0.7	– 0.9	+ 1.7	– 4.3	–	– 0.0	Oct
+ 11.9	+ 2.4	+ 9.4	+ 1.1	– 0.1	+ 0.7	+ 0.9	– 0.1	+ 1.0	– 0.1	–	+ 0.0	Nov
+ 3.4	– 0.5	+ 3.9	+ 0.5	+ 0.0	– 3.8	– 1.5	– 0.4	– 1.1	– 2.3	–	– 0.0	Dec
+ 4.8	+ 0.3	+ 4.5	+ 0.5	+ 1.3	– 5.5	– 0.5	+ 0.3	– 0.8	– 5.0	–	– 0.0	2017 Jan
+ 5.1	– 1.3	+ 6.4	+ 1.1	– 0.1	– 5.6	– 0.2	+ 0.8	– 1.0	– 5.3	–	– 0.0	Feb
+ 5.5	+ 1.2	+ 4.3	+ 0.4	– 0.1	– 1.8	– 1.4	– 0.3	– 1.0	– 0.4	–	– 0.0	Mar
+ 9.3	+ 1.0	+ 8.3	+ 1.3	– 0.1	– 5.7	– 2.2	– 1.0	– 1.1	– 3.6	–	– 0.0	Apr
+ 8.5	+ 0.8	+ 7.7	– 0.7	– 0.0	+ 0.1	– 1.3	– 0.2	– 1.1	+ 1.4	–	– 0.0	May

IV Banks

6 Lending by banks (MFIs) in Germany to domestic enterprises and households, housing loans, sectors of economic activity *

€ billion

Period	Lending to domestic enterprises and households (excluding holdings of negotiable money market paper and excluding securities portfolios) [1]													
		of which				Lending to enterprises and self-employed persons								
			Housing loans											
	Total	Mortgage loans, total	Total	Mortgage loans secured by residential real estate	Other housing loans	Total	*of which* Housing loans	Manufacturing	Electricity, gas and water supply; refuse disposal, mining and quarrying	Construction	Wholesale and retail trade; repair of motor vehicles and motorcycles	Agriculture, forestry, fishing and aquaculture	Transportation and storage; post and telecommunications	Financial intermediation (excluding MFIs) and insurance companies
	Lending, total													**End of year or quarter ***
2015	2,440.0	1,253.3	1,230.2	1,010.4	219.8	1,314.2	339.6	127.4	100.9	60.5	125.2	50.0	65.3	130.5
2016 Mar	2,458.5	1,227.2	1,235.2	987.0	248.2	1,328.6	342.5	133.3	101.9	62.2	126.6	50.1	62.6	131.6
June	2,473.6	1,235.1	1,248.0	996.2	251.8	1,332.0	345.8	131.5	101.7	62.7	125.4	50.9	59.0	133.7
Sep	2,497.2	1,248.2	1,264.5	1,007.6	256.9	1,341.1	350.5	130.3	103.0	63.2	126.9	51.2	57.4	136.4
Dec	2,512.0	1,259.7	1,276.6	1,016.5	260.1	1,347.5	354.1	125.1	104.7	62.2	128.2	50.6	57.0	139.7
2017 Mar	2,533.8	1,267.0	1,283.2	1,022.4	260.8	1,364.4	356.6	129.4	105.2	66.9	131.5	50.5	55.9	141.0
	Short-term lending													
2015	207.6	–	8.5	–	8.5	173.8	4.3	33.7	4.7	11.5	42.0	3.9	5.3	24.1
2016 Mar	218.0	–	7.7	–	7.7	185.1	4.1	39.4	4.9	13.0	43.6	4.0	5.3	24.6
June	216.8	–	7.9	–	7.9	184.7	4.3	37.0	4.7	13.1	42.1	4.2	5.1	27.2
Sep	213.8	–	7.6	–	7.6	181.6	4.1	34.3	4.6	13.0	42.6	4.1	4.7	28.5
Dec	205.5	–	6.9	–	6.9	174.3	3.7	29.7	4.4	11.8	43.2	3.6	4.4	29.3
2017 Mar	211.8	–	6.9	–	6.9	181.3	3.7	33.6	4.5	13.6	44.8	3.8	4.2	28.6
	Medium-term lending													
2015	256.0	–	35.2	–	35.2	181.3	13.3	23.8	5.1	10.4	16.4	4.4	11.7	41.1
2016 Mar	257.3	–	34.8	–	34.8	181.8	13.2	23.9	5.1	10.4	16.2	4.5	11.5	41.2
June	258.7	–	34.7	–	34.7	182.1	13.2	23.7	5.1	10.5	16.6	4.5	11.1	40.4
Sep	261.0	–	34.8	–	34.8	183.4	13.4	24.3	5.7	10.5	16.5	4.6	11.0	41.1
Dec	264.1	–	34.5	–	34.5	186.4	13.5	23.6	5.5	10.5	17.2	4.5	11.2	41.8
2017 Mar	264.4	–	34.0	–	34.0	186.8	13.4	23.3	4.9	11.4	17.9	4.4	10.8	43.0
	Long-term lending													
2015	1,976.3	1,253.3	1,186.4	1,010.4	176.0	959.1	322.0	70.0	91.2	38.5	66.9	41.7	48.3	65.3
2016 Mar	1,983.2	1,227.2	1,192.7	987.0	205.7	961.7	325.3	70.1	91.9	38.8	66.8	41.7	45.8	65.8
June	1,998.2	1,235.1	1,205.5	996.2	209.3	965.3	328.3	70.7	91.9	39.1	66.8	42.1	42.8	66.0
Sep	2,022.5	1,248.2	1,222.1	1,007.6	214.5	976.1	332.9	71.7	92.7	39.7	67.8	42.4	41.6	66.9
Dec	2,042.4	1,259.7	1,235.1	1,016.5	218.6	986.8	336.9	71.8	94.8	39.9	67.7	42.5	41.4	68.6
2017 Mar	2,057.6	1,267.0	1,242.4	1,022.4	220.0	996.2	339.6	72.5	95.8	41.9	68.7	42.3	40.9	69.4
	Lending, total													**Change during quarter ***
2016 Q1	+ 18.5	+ 3.5	+ 5.5	+ 5.4	+ 0.2	+ 14.1	+ 2.9	+ 5.9	+ 1.0	+ 1.8	+ 1.0	+ 0.1	– 2.8	+ 1.0
Q2	+ 17.4	+ 7.0	+ 12.9	+ 8.9	+ 4.0	+ 5.7	+ 3.4	– 1.1	– 0.1	+ 0.5	– 1.0	+ 0.6	– 3.7	+ 3.3
Q3	+ 24.5	+ 12.4	+ 16.0	+ 10.9	+ 5.1	+ 10.2	+ 4.2	– 1.1	+ 1.2	+ 0.6	+ 1.6	+ 0.3	– 1.6	+ 2.7
Q4	+ 14.4	+ 9.1	+ 12.4	+ 8.4	+ 4.0	+ 6.0	+ 3.8	– 5.2	+ 1.4	– 1.0	+ 1.3	– 0.6	– 0.3	+ 3.2
2017 Q1	+ 21.7	+ 7.3	+ 6.6	+ 5.8	+ 0.7	+ 16.8	+ 2.6	+ 4.3	+ 0.5	+ 2.0	+ 3.3	– 0.1	– 1.1	+ 1.2
	Short-term lending													
2016 Q1	+ 10.6	–	– 0.2	–	– 0.2	+ 11.4	– 0.0	+ 5.7	+ 0.2	+ 1.5	+ 1.4	+ 0.1	+ 0.1	+ 0.4
Q2	– 0.4	–	+ 0.1	–	+ 0.1	+ 0.3	+ 0.2	– 1.8	– 0.2	+ 0.1	– 1.3	+ 0.3	– 0.3	+ 2.6
Q3	– 2.9	–	– 0.3	–	– 0.3	– 2.9	– 0.2	– 2.8	– 0.1	– 0.1	+ 0.6	– 0.1	– 0.3	+ 1.3
Q4	– 7.6	–	– 0.7	–	– 0.7	– 6.6	– 0.5	– 4.6	– 0.2	– 1.2	+ 0.7	– 0.5	– 0.3	+ 0.9
2017 Q1	+ 6.3	–	– 0.0	–	– 0.0	+ 7.0	+ 0.0	+ 4.0	+ 0.1	+ 1.0	+ 1.6	+ 0.2	– 0.2	– 0.7
	Medium-term lending													
2016 Q1	+ 1.4	–	– 0.4	–	– 0.4	+ 0.5	– 0.1	+ 0.1	+ 0.1	+ 0.0	– 0.2	+ 0.0	– 0.3	+ 0.1
Q2	+ 2.7	–	– 0.2	–	– 0.2	+ 1.7	– 0.1	– 0.0	+ 0.0	+ 0.1	+ 0.4	– 0.0	– 0.3	+ 0.3
Q3	+ 3.2	–	+ 0.1	–	+ 0.1	+ 2.4	+ 0.2	+ 0.7	+ 0.6	+ 0.1	+ 0.0	+ 0.1	– 0.1	+ 0.6
Q4	+ 2.4	–	– 0.3	–	– 0.3	+ 2.3	+ 0.0	– 0.6	– 0.3	– 0.0	+ 0.7	– 0.0	+ 0.2	+ 0.7
2017 Q1	+ 0.2	–	– 0.6	–	– 0.6	+ 0.4	– 0.1	– 0.4	– 0.5	+ 0.5	+ 0.7	– 0.1	– 0.4	+ 1.1
	Long-term lending													
2016 Q1	+ 6.5	+ 3.5	+ 6.1	+ 5.4	+ 0.8	+ 2.1	+ 3.1	+ 0.1	+ 0.7	+ 0.2	– 0.2	+ 0.0	– 2.6	+ 0.6
Q2	+ 15.1	+ 7.0	+ 12.9	+ 8.9	+ 4.1	+ 3.7	+ 3.2	+ 0.7	+ 0.0	+ 0.2	– 0.1	+ 0.4	– 3.1	+ 0.4
Q3	+ 24.2	+ 12.4	+ 16.2	+ 10.9	+ 5.3	+ 10.7	+ 4.2	+ 1.0	+ 0.7	+ 0.6	+ 1.0	+ 0.3	– 1.2	+ 0.8
Q4	+ 19.6	+ 9.1	+ 13.3	+ 8.4	+ 4.9	+ 10.4	+ 4.3	+ 0.1	+ 1.8	+ 0.2	– 0.1	+ 0.0	– 0.2	+ 1.6
2017 Q1	+ 15.1	+ 7.3	+ 7.2	+ 5.8	+ 1.4	+ 9.4	+ 2.6	+ 0.7	+ 0.9	+ 0.5	+ 0.9	– 0.2	– 0.5	+ 0.8

* Excluding lending by foreign branches. Breakdown of lending by building and loan associations by areas and sectors estimated. Statistical alterations have been eliminated from the changes. The figures for the latest date are always to be regarded as provisional; subsequent alterations, which will appear in the following Monthly Report,

IV Banks

Lending to employees and other individuals												Lending to non-profit institutions		
Services sector (including the professions)				*Memo items*				Other lending						
	of which								*of which*					
Total	Housing enterprises	Holding companies	Other real estate activities	Lending to self-employed persons [2]	Lending to craft enterprises	Total	Housing loans	Total	Instalment loans [3]	Debit balances on wage, salary and pension accounts		Total	*of which* Housing loans	Period
End of year or quarter *													**Lending, total**	
654.3	193.4	32.4	176.5	395.6	46.8	1,111.6	887.1	224.6	154.4	10.1		14.2	3.5	2015
660.2	194.8	34.4	177.4	397.2	47.1	1,115.9	889.2	226.6	156.8	10.3		14.1	3.4	2016 Mar
667.2	198.4	34.6	178.1	399.4	46.9	1,127.6	898.7	228.9	159.6	9.8		14.0	3.5	June
672.7	201.4	34.8	180.8	401.1	46.8	1,142.0	910.5	231.5	162.3	9.8		14.2	3.5	Sep
680.0	204.7	36.3	181.6	401.3	46.0	1,150.1	919.0	231.2	163.3	9.2		14.4	3.6	Dec
684.0	206.2	38.8	179.7	403.8	46.3	1,154.8	922.9	231.9	165.5	9.2		14.6	3.7	2017 Mar
												Short-term lending		
48.7	8.7	4.9	10.7	25.4	5.6	33.2	4.2	29.0	1.7	10.1		0.5	0.0	2015
50.3	8.1	6.5	10.5	25.6	6.2	32.4	3.7	28.7	1.8	10.3		0.5	0.0	2016 Mar
51.2	8.6	6.1	10.7	25.5	5.9	31.6	3.6	28.1	1.8	9.8		0.5	0.0	June
49.9	8.5	5.9	11.1	24.7	5.7	31.6	3.4	28.2	1.7	9.8		0.5	0.0	Sep
47.9	8.4	5.7	10.2	23.9	5.1	30.6	3.2	27.4	1.8	9.2		0.6	0.0	Dec
48.2	8.4	6.6	9.1	24.5	5.7	29.8	3.2	26.7	1.8	9.2		0.6	0.0	2017 Mar
												Medium-term lending		
68.4	10.1	7.3	19.3	32.4	3.5	74.2	21.9	52.3	47.4	–		0.6	0.0	2015
69.1	10.1	7.2	19.4	32.7	3.5	74.9	21.5	53.3	48.1	–		0.6	0.0	2016 Mar
70.1	10.6	7.3	19.0	33.0	3.6	76.0	21.4	54.6	49.3	–		0.6	0.0	June
69.7	10.7	7.3	18.9	33.0	3.7	77.1	21.4	55.7	50.3	–		0.5	0.0	Sep
72.1	11.1	8.2	19.3	32.9	3.6	77.3	21.1	56.2	51.0	–		0.5	0.0	Dec
71.1	11.3	8.6	17.8	32.7	3.6	77.1	20.6	56.5	51.7	–		0.5	0.0	2017 Mar
												Long-term lending		
537.3	174.6	20.2	146.5	337.8	37.7	1,004.2	861.0	143.3	105.3	–		13.0	3.5	2015
540.8	176.7	20.7	147.6	338.9	37.4	1,008.6	864.0	144.6	106.9	–		13.0	3.4	2016 Mar
545.8	179.2	21.2	148.5	340.9	37.4	1,019.9	873.7	146.2	108.6	–		13.0	3.4	June
553.1	182.1	21.6	150.8	343.4	37.4	1,033.3	885.7	147.6	110.2	–		13.1	3.5	Sep
560.0	185.2	22.4	152.2	344.5	37.3	1,042.3	894.7	147.6	110.5	–		13.3	3.5	Dec
564.7	186.5	23.6	152.7	346.5	37.1	1,047.9	899.2	148.8	112.1	–		13.4	3.7	2017 Mar
Change during quarter *													**Lending, total**	
+ 6.1	+ 1.8	+ 1.8	+ 0.9	+ 1.1	+ 0.6	+ 4.4	+ 2.6	+ 1.7	+ 1.9	+ 0.2		– 0.0	– 0.0	2016 Q1
+ 7.3	+ 3.1	+ 0.1	+ 1.3	+ 2.1	– 0.1	+ 11.8	+ 9.5	+ 2.3	+ 2.9	– 0.5		– 0.0	+ 0.0	Q2
+ 6.4	+ 2.7	+ 0.3	+ 3.1	+ 1.7	– 0.1	+ 14.1	+ 11.8	+ 2.3	+ 2.4	+ 0.0		+ 0.2	+ 0.1	Q3
+ 7.1	+ 3.3	+ 1.5	+ 0.8	+ 0.2	– 0.8	+ 8.2	+ 8.5	– 0.4	+ 1.1	– 0.6		+ 0.2	+ 0.0	Q4
+ 6.8	+ 1.4	+ 2.3	+ 0.8	+ 2.3	+ 0.3	+ 4.9	+ 4.1	+ 0.8	+ 2.3	– 0.0		+ 0.1	– 0.0	2017 Q1
												Short-term lending		
+ 2.1	– 0.4	+ 1.7	– 0.2	+ 0.2	+ 0.6	– 0.8	– 0.2	– 0.7	+ 0.1	+ 0.2		– 0.0	+ 0.0	2016 Q1
+ 1.0	+ 0.5	– 0.4	+ 0.3	– 0.2	– 0.3	– 0.7	– 0.1	– 0.6	– 0.1	– 0.5		– 0.0	–	Q2
– 1.4	– 0.1	– 0.1	+ 0.3	– 0.8	– 0.2	– 0.0	– 0.1	+ 0.1	– 0.1	+ 0.0		+ 0.1	+ 0.0	Q3
– 1.4	+ 0.1	– 0.3	– 0.5	– 0.8	– 0.6	– 1.1	– 0.2	– 0.9	+ 0.1	– 0.6		+ 0.0	+ 0.0	Q4
+ 1.0	+ 0.0	+ 0.9	– 0.2	+ 0.7	+ 0.6	– 0.7	– 0.0	– 0.7	+ 0.0	– 0.0		+ 0.1	– 0.0	2017 Q1
												Medium-term lending		
+ 0.8	– 0.0	– 0.2	+ 0.1	+ 0.1	+ 0.1	+ 0.8	– 0.3	+ 1.1	+ 0.7		–	+ 0.0	+ 0.0	2016 Q1
+ 1.2	+ 0.5	+ 0.0	– 0.2	+ 0.4	+ 0.1	+ 1.1	– 0.1	+ 1.2	+ 1.2		–	– 0.0	+ 0.0	Q2
+ 0.4	+ 0.2	+ 0.1	– 0.1	+ 0.0	+ 0.0	+ 0.8	– 0.1	+ 0.9	+ 0.9		–	– 0.1	+ 0.0	Q3
+ 1.7	+ 0.2	+ 1.0	– 0.0	– 0.1	– 0.1	+ 0.2	– 0.3	+ 0.5	+ 0.6		–	– 0.0	– 0.0	Q4
– 0.5	+ 0.2	+ 0.2	– 0.9	– 0.1	– 0.0	– 0.2	– 0.5	+ 0.3	+ 0.7		–	+ 0.0	– 0.0	2017 Q1
												Long-term lending		
+ 3.2	+ 2.2	+ 0.3	+ 1.0	+ 0.8	– 0.1	+ 4.4	+ 3.1	+ 1.3	+ 1.1		–	+ 0.0	– 0.0	2016 Q1
+ 5.2	+ 2.1	+ 0.5	+ 1.3	+ 1.9	+ 0.1	+ 11.4	+ 9.7	+ 1.7	+ 1.7		–	– 0.0	+ 0.0	Q2
+ 7.4	+ 2.5	+ 0.4	+ 2.8	+ 2.5	+ 0.1	+ 13.3	+ 12.0	+ 1.3	+ 1.6		–	+ 0.2	+ 0.1	Q3
+ 6.8	+ 3.1	+ 0.8	+ 1.3	+ 1.1	– 0.1	+ 9.1	+ 9.0	+ 0.0	+ 0.4		–	+ 0.1	+ 0.0	Q4
+ 6.2	+ 1.2	+ 1.1	+ 2.0	+ 1.8	– 0.2	+ 5.8	+ 4.6	+ 1.2	+ 1.6		–	– 0.0	– 0.0	2017 Q1

are not specially marked. **1** Excluding fiduciary loans. **2** Including sole proprietors.
3 Excluding mortgage loans and housing loans, even in the form of instalment credit.

IV Banks

7 Deposits of domestic non-banks (non-MFIs) at banks (MFIs) in Germany*

€ billion

Period	Deposits, total	Sight deposits	Time deposits [1,2]					Savings deposits [3]	Bank savings bonds [4]	*Memo item*		
			Total	for up to and including 1 year	for more than 1 year [2]					Fiduciary loans	Subordinated liabilities (excluding negotiable debt securities)	Liabilities arising from repos
					Total	for up to and including 2 years	for more than 2 years					
	Domestic non-banks, total											**End of year or month***
2014	3,118.2	1,517.8	926.7	257.0	669.7	29.4	640.3	607.8	66.0	30.9	26.2	1.7
2015	3,224.7	1,673.7	898.4	243.0	655.4	37.3	618.1	596.5	56.1	29.3	20.5	0.5
2016	3,326.7	1,798.2	889.6	232.4	657.3	47.2	610.1	588.5	50.4	28.8	18.3	0.9
2016 June	3,259.9	1,722.6	894.1	235.9	658.2	42.8	615.4	590.0	53.1	28.7	19.5	1.5
July	3,275.7	1,737.1	896.8	238.0	658.8	44.5	614.3	589.1	52.7	28.6	19.3	1.0
Aug	3,282.1	1,748.5	893.1	234.7	658.3	45.0	613.3	588.4	52.2	28.7	19.0	0.7
Sep	3,283.7	1,748.1	896.6	239.5	657.2	45.5	611.7	587.2	51.8	28.6	18.8	1.3
Oct	3,294.7	1,768.0	888.8	229.9	658.8	45.8	613.1	586.6	51.3	28.6	18.7	1.1
Nov	3,328.9	1,799.3	892.5	233.6	658.8	46.5	612.4	586.2	50.9	28.6	18.6	0.8
Dec	3,326.7	1,798.2	889.6	232.4	657.3	47.2	610.1	588.5	50.4	28.8	18.3	0.9
2017 Jan	3,346.3	1,812.5	895.8	241.0	654.9	46.8	608.0	588.5	49.5	30.6	18.1	2.5
Feb	3,345.5	1,816.6	891.4	237.3	654.1	46.5	607.6	588.5	49.0	30.5	17.6	1.5
Mar	3,342.8	1,817.0	890.9	237.8	653.1	47.8	605.3	586.7	48.2	30.4	17.2	0.9
Apr	3,360.3	1,844.4	881.9	229.2	652.6	50.3	602.3	586.2	47.8	30.3	17.3	0.8
May	3,368.4	1,852.2	883.4	229.3	654.1	52.3	601.8	585.7	47.0	30.4	17.1	0.4
												Changes*
2015	+ 106.5	+ 156.2	– 28.3	– 13.6	– 14.7	+ 7.6	– 22.3	– 11.3	– 10.1	– 1.6	– 5.7	– 1.2
2016	+ 104.7	+ 124.5	– 6.9	– 8.9	+ 2.0	+ 10.2	– 8.2	– 7.9	– 5.0	– 0.5	– 2.1	+ 0.3
2016 June	– 2.5	+ 0.9	– 1.7	– 1.6	– 0.1	+ 0.9	– 1.0	– 1.1	– 0.5	– 0.3	– 0.1	– 0.0
July	+ 15.8	+ 14.5	+ 2.7	+ 2.1	+ 0.6	+ 1.7	– 1.1	– 0.9	– 0.5	– 0.0	– 0.2	– 0.5
Aug	+ 6.4	+ 11.4	– 3.8	– 3.3	– 0.5	+ 0.5	– 1.0	– 0.7	– 0.5	+ 0.0	– 0.3	– 0.3
Sep	+ 1.6	– 0.4	+ 3.6	+ 4.7	– 1.2	+ 0.5	– 1.6	– 1.2	– 0.3	– 0.0	– 0.2	+ 0.7
Oct	+ 11.0	+ 20.0	– 7.9	– 9.5	+ 1.7	+ 0.2	+ 1.4	– 0.6	– 0.5	– 0.0	– 0.1	– 0.2
Nov	+ 34.2	+ 31.3	+ 3.7	+ 3.7	+ 0.0	+ 0.7	– 0.7	– 0.4	– 0.4	–	– 0.2	– 0.3
Dec	– 2.2	– 1.2	– 2.8	– 0.8	– 2.0	+ 0.5	– 2.5	+ 2.3	– 0.5	+ 0.2	– 0.2	+ 0.1
2017 Jan	+ 19.6	+ 14.4	+ 6.2	+ 8.6	– 2.4	– 0.4	– 2.1	– 0.1	– 0.9	+ 1.0	– 0.2	+ 1.7
Feb	– 0.8	+ 4.1	– 4.5	– 3.7	– 0.8	– 0.4	– 0.4	+ 0.1	– 0.5	– 0.1	– 0.5	– 1.1
Mar	– 2.7	+ 0.4	– 0.5	+ 0.5	– 1.0	+ 1.3	– 2.3	– 1.9	– 0.7	– 0.1	– 0.4	– 0.6
Apr	+ 17.5	+ 27.3	– 9.0	– 8.5	– 0.5	+ 2.5	– 3.0	– 0.5	– 0.4	– 0.1	+ 0.0	– 0.1
May	+ 8.1	+ 7.8	+ 1.6	+ 0.1	+ 1.5	+ 2.0	– 0.5	– 0.5	– 0.8	+ 0.0	– 0.2	– 0.4
	Domestic government											**End of year or month***
2014	186.7	52.4	128.2	84.5	43.7	7.5	36.2	3.8	2.3	29.1	4.8	0.5
2015	197.4	57.6	132.6	87.7	44.9	10.2	34.7	3.7	3.5	27.9	2.7	0.5
2016	199.8	57.9	133.5	79.5	54.0	16.6	37.4	3.9	4.5	27.1	2.5	–
2016 June	204.0	62.1	134.0	84.6	49.4	11.6	37.8	3.9	4.0	27.3	2.6	0.2
July	203.8	60.1	135.8	84.5	51.3	13.3	38.0	3.9	4.1	27.2	2.6	0.2
Aug	206.1	62.4	135.6	83.6	52.1	13.7	38.4	4.0	4.1	27.3	2.6	0.0
Sep	202.6	59.6	134.8	82.4	52.4	14.1	38.3	3.9	4.3	27.2	2.7	0.2
Oct	199.1	58.8	132.1	78.9	53.2	14.9	38.3	3.9	4.3	27.2	2.7	–
Nov	207.0	61.7	137.0	82.6	54.4	16.2	38.3	3.9	4.4	27.2	2.6	–
Dec	199.8	57.9	133.5	79.5	54.0	16.6	37.4	3.9	4.5	27.1	2.5	–
2017 Jan	202.2	55.1	138.7	84.7	54.1	16.4	37.7	3.8	4.5	26.7	2.5	–
Feb	205.7	61.4	136.0	81.8	54.2	15.8	38.4	3.7	4.6	26.8	2.5	–
Mar	204.0	58.9	136.8	81.4	55.4	16.5	38.9	3.7	4.7	26.7	2.5	–
Apr	203.1	59.1	135.6	77.9	57.7	18.7	39.0	3.6	4.7	26.7	2.5	–
May	209.6	61.1	140.3	80.3	59.9	20.4	39.5	3.7	4.6	26.4	2.5	–
												Changes*
2015	+ 10.1	+ 5.2	+ 3.7	+ 2.9	+ 0.8	+ 2.5	– 1.7	– 0.0	+ 1.2	– 1.2	– 2.1	+ 0.1
2016	+ 3.1	+ 0.3	+ 2.0	– 6.7	+ 8.7	+ 6.4	+ 2.3	+ 0.1	+ 0.7	– 0.8	– 0.2	– 0.5
2016 June	– 0.2	– 1.4	+ 1.1	+ 0.2	+ 0.9	+ 0.4	+ 0.4	+ 0.1	+ 0.0	– 0.3	– 0.0	– 0.9
July	– 0.2	– 2.0	+ 1.7	– 0.2	+ 1.9	+ 1.7	+ 0.1	+ 0.0	+ 0.1	– 0.1	+ 0.0	– 0.1
Aug	+ 2.1	+ 2.3	– 0.3	– 0.9	+ 0.6	+ 0.3	+ 0.3	+ 0.1	+ 0.0	+ 0.0	+ 0.0	– 0.1
Sep	– 3.8	– 2.7	– 1.0	– 1.2	+ 0.2	+ 0.4	– 0.2	– 0.0	– 0.0	– 0.1	+ 0.0	+ 0.1
Oct	– 3.5	– 0.8	– 2.7	– 3.6	+ 0.8	+ 0.8	– 0.0	– 0.0	+ 0.1	– 0.0	+ 0.0	– 0.2
Nov	+ 7.8	+ 2.9	+ 5.0	+ 3.7	+ 1.3	+ 1.3	– 0.0	– 0.1	+ 0.0	– 0.0	– 0.1	–
Dec	– 7.2	– 3.8	– 3.5	– 2.5	– 1.0	+ 0.2	– 1.1	+ 0.0	+ 0.1	– 0.1	– 0.1	–
2017 Jan	+ 2.4	– 2.7	+ 5.2	+ 5.1	+ 0.1	– 0.2	+ 0.3	– 0.1	+ 0.1	– 0.4	– 0.0	–
Feb	+ 3.5	+ 6.3	– 2.8	– 2.9	+ 0.2	– 0.6	+ 0.8	– 0.1	+ 0.1	+ 0.0	+ 0.0	–
Mar	– 1.7	– 2.5	+ 0.8	– 0.3	+ 1.1	+ 0.6	+ 0.5	– 0.0	+ 0.1	– 0.1	– 0.0	–
Apr	– 1.0	+ 0.3	– 1.2	– 3.5	+ 2.4	+ 2.3	+ 0.1	– 0.1	+ 0.1	– 0.0	+ 0.0	–
May	+ 6.6	+ 1.9	+ 4.6	+ 2.5	+ 2.2	+ 1.7	+ 0.5	+ 0.1	– 0.1	– 0.1	+ 0.0	–

***** See Table IV.2, footnote *; statistical breaks have been eliminated from the changes. The figures for the latest date are always to be regarded as provisional. Subsequent revisions, which appear in the following Monthly Report, are not specially marked. **1** Including subordinated liabilities and liabilities arising from registered debt securities. **2** Including deposits under savings and loan contracts (see

IV Banks

7 Deposits of domestic non-banks (non-MFIs) at banks (MFIs) in Germany * (cont'd)

€ billion

Period	Deposits, total	Sight deposits	Time deposits [1,2]					Savings deposits [3]	Bank savings bonds [4]	*Memo item*		
			Total	for up to and including 1 year	for more than 1 year [2]					Fiduciary loans	Subordinated liabilities (excluding negotiable debt securities)	Liabilities arising from repos
					Total	for up to and including 2 years	for more than 2 years					
	Domestic enterprises and households											**End of year or month***
2014	2,931.5	1,465.4	798.4	172.5	625.9	21.8	604.1	604.0	63.7	1.8	21.5	1.2
2015	3,027.3	1,616.1	765.8	155.3	610.5	27.1	583.5	592.7	52.6	1.4	17.8	–
2016	3,127.0	1,740.3	756.2	152.8	603.3	30.6	572.7	584.6	45.9	1.7	15.8	0.9
2016 June	3,055.9	1,660.5	760.1	151.3	608.8	31.2	577.6	586.2	49.1	1.4	16.9	1.2
July	3,071.8	1,677.0	761.1	153.6	607.5	31.2	576.3	585.2	48.6	1.4	16.7	0.8
Aug	3,076.0	1,686.1	757.4	151.1	606.3	31.4	574.9	584.4	48.1	1.4	16.4	0.6
Sep	3,081.1	1,688.4	761.8	157.0	604.8	31.4	573.3	583.2	47.6	1.4	16.1	1.2
Oct	3,095.6	1,709.2	756.7	151.1	605.6	30.9	574.8	582.7	47.0	1.4	16.0	1.1
Nov	3,121.9	1,737.6	755.5	151.1	604.4	30.3	574.1	582.3	46.5	1.5	15.9	0.8
Dec	3,127.0	1,740.3	756.2	152.8	603.3	30.6	572.7	584.6	45.9	1.7	15.8	0.9
2017 Jan	3,144.2	1,757.4	757.1	156.3	600.8	30.4	570.3	584.7	45.0	3.8	15.6	2.5
Feb	3,139.8	1,755.2	755.4	155.5	599.9	30.6	569.2	584.8	44.4	3.7	15.1	1.5
Mar	3,138.8	1,758.1	754.1	156.3	597.8	31.3	566.4	583.0	43.6	3.7	14.8	0.9
Apr	3,157.2	1,785.2	746.3	151.4	594.9	31.6	563.3	582.6	43.1	3.7	14.8	0.8
May	3,158.7	1,791.1	743.2	149.0	594.2	31.9	562.4	582.0	42.4	4.0	14.6	0.4
												Changes*
2015	+ 96.4	+ 151.0	– 32.0	– 16.5	– 15.4	+ 5.1	– 20.6	– 11.3	– 11.3	– 0.4	– 3.7	– 1.2
2016	+ 101.7	+ 124.2	– 8.9	– 2.2	– 6.7	+ 3.8	– 10.5	– 8.0	– 5.7	+ 0.3	– 1.9	+ 0.9
2016 June	– 2.2	+ 2.3	– 2.8	– 1.8	– 1.0	+ 0.5	– 1.5	– 1.2	– 0.6	– 0.0	– 0.1	+ 0.9
July	+ 15.9	+ 16.4	+ 1.0	+ 2.3	– 1.3	– 0.0	– 1.3	– 1.0	– 0.5	+ 0.0	– 0.2	– 0.4
Aug	+ 4.3	+ 9.1	– 3.5	– 2.4	– 1.1	+ 0.2	– 1.3	– 0.8	– 0.5	– 0.0	– 0.4	– 0.2
Sep	+ 5.4	+ 2.3	+ 4.6	+ 5.9	– 1.3	+ 0.1	– 1.4	– 1.2	– 0.3	+ 0.0	– 0.2	+ 0.5
Oct	+ 14.5	+ 20.8	– 5.1	– 6.0	+ 0.8	– 0.6	+ 1.4	– 0.5	– 0.6	+ 0.0	– 0.1	– 0.1
Nov	+ 26.4	+ 28.4	– 1.3	– 0.0	– 1.2	– 0.5	– 0.7	– 0.3	– 0.5	+ 0.0	– 0.1	– 0.3
Dec	+ 5.0	+ 2.7	+ 0.7	+ 1.7	– 1.1	+ 0.3	– 1.4	+ 2.3	– 0.6	+ 0.3	– 0.1	+ 0.1
2017 Jan	+ 17.2	+ 17.1	+ 1.0	+ 3.5	– 2.5	– 0.2	– 2.3	+ 0.1	– 1.0	+ 1.4	– 0.2	+ 1.7
Feb	– 4.3	– 2.2	– 1.7	– 0.8	– 0.9	+ 0.2	– 1.1	+ 0.2	– 0.6	– 0.1	– 0.5	– 1.1
Mar	– 1.0	+ 2.9	– 1.3	+ 0.8	– 2.1	+ 0.7	– 2.8	– 1.9	– 0.8	+ 0.0	– 0.3	– 0.6
Apr	+ 18.4	+ 27.0	– 7.8	– 5.0	– 2.8	+ 0.2	– 3.1	– 0.4	– 0.5	– 0.0	+ 0.0	– 0.1
May	+ 1.5	+ 5.9	– 3.1	– 2.4	– 0.7	+ 0.3	– 0.9	– 0.6	– 0.7	+ 0.1	– 0.2	– 0.4
	of which: **Domestic enterprises**											**End of year or month***
2014	1,007.9	457.1	529.1	104.1	425.0	10.4	414.6	6.9	14.9	1.8	16.4	1.2
2015	1,029.8	502.8	506.5	99.8	406.7	14.4	392.3	7.1	13.3	1.3	14.0	–
2016	1,032.4	518.3	494.1	98.3	395.8	17.4	378.4	6.9	13.2	1.6	13.0	0.9
2016 June	1,027.4	508.9	498.0	95.7	402.2	17.6	384.7	7.3	13.3	1.3	13.7	1.2
July	1,027.0	506.7	499.6	98.2	401.4	17.5	384.0	7.4	13.4	1.3	13.6	0.8
Aug	1,030.7	512.7	497.2	96.9	400.2	17.7	382.5	7.4	13.4	1.3	13.3	0.6
Sep	1,035.0	512.9	501.4	103.0	398.4	17.8	380.7	7.3	13.4	1.3	13.1	1.2
Oct	1,040.1	523.5	496.0	96.5	399.5	17.2	382.2	7.3	13.3	1.3	13.1	1.1
Nov	1,043.0	527.1	495.6	96.6	399.0	17.0	382.0	6.9	13.3	1.3	13.0	0.8
Dec	1,032.4	518.3	494.1	98.3	395.8	17.4	378.4	6.9	13.2	1.6	13.0	0.9
2017 Jan	1,048.4	532.9	495.6	102.1	393.6	17.6	376.0	6.9	13.0	2.9	12.8	2.5
Feb	1,033.8	520.4	493.6	100.5	393.1	18.0	375.1	6.8	13.0	2.8	12.4	1.5
Mar	1,034.5	522.7	492.1	101.3	390.8	18.4	372.4	6.8	12.9	2.8	12.1	0.9
Apr	1,035.4	530.1	485.4	97.5	387.9	18.6	369.2	6.9	13.0	2.8	12.1	0.8
May	1,033.4	531.1	482.6	95.8	386.8	18.8	368.1	6.8	12.9	2.9	12.0	0.4
												Changes*
2015	+ 22.7	+ 46.0	– 22.1	– 3.8	– 18.3	+ 3.7	– 22.0	+ 0.3	– 1.5	– 0.5	– 2.5	– 1.2
2016	+ 4.6	+ 15.9	– 11.2	– 1.2	– 10.1	+ 3.2	– 13.2	– 0.2	+ 0.1	+ 0.2	– 0.9	+ 0.9
2016 June	– 7.8	– 4.4	– 3.4	– 2.3	– 1.1	+ 0.5	– 1.6	+ 0.0	– 0.0	– 0.0	+ 0.0	+ 0.9
July	– 0.1	– 2.0	+ 1.6	+ 2.4	– 0.8	– 0.1	– 0.7	+ 0.1	+ 0.2	– 0.0	– 0.1	– 0.4
Aug	+ 3.8	+ 6.0	– 2.3	– 1.2	– 1.1	+ 0.3	– 1.4	+ 0.0	+ 0.0	– 0.0	– 0.3	– 0.2
Sep	+ 4.7	+ 0.2	+ 4.4	+ 6.1	– 1.7	+ 0.1	– 1.7	– 0.1	+ 0.1	+ 0.0	– 0.2	+ 0.5
Oct	+ 5.0	+ 10.6	– 5.4	– 6.5	+ 1.0	– 0.5	+ 1.6	– 0.1	– 0.1	+ 0.0	+ 0.0	– 0.1
Nov	+ 3.0	+ 3.6	– 0.5	+ 0.0	– 0.5	– 0.3	– 0.2	– 0.2	+ 0.1	+ 0.0	– 0.1	– 0.3
Dec	– 10.6	– 8.8	– 1.5	+ 1.7	– 3.2	+ 0.4	– 3.6	– 0.1	– 0.1	+ 0.3	– 0.1	+ 0.1
2017 Jan	+ 16.0	+ 14.6	+ 1.6	+ 3.8	– 2.2	+ 0.2	– 2.4	–	– 0.2	+ 1.4	– 0.1	+ 1.7
Feb	– 14.2	– 12.6	– 1.6	– 1.1	– 0.5	+ 0.4	– 0.9	– 0.0	– 0.0	– 0.1	– 0.5	– 1.1
Mar	+ 0.7	+ 2.4	– 1.5	+ 0.8	– 2.3	+ 0.4	– 2.7	– 0.1	– 0.2	– 0.0	– 0.3	– 0.6
Apr	+ 0.9	+ 7.3	– 6.6	– 3.8	– 2.8	+ 0.2	– 3.1	+ 0.1	+ 0.2	– 0.0	+ 0.1	– 0.1
May	– 2.0	+ 1.0	– 2.7	– 1.7	– 1.0	+ 0.1	– 1.2	– 0.1	– 0.1	–	– 0.1	– 0.4

Table IV.12). **3** Excluding deposits under savings and loan contracts (see also footnote 2). **4** Including liabilities arising from non-negotiable bearer debt securities.

IV Banks

8 Deposits of domestic households and non-profit institutions at banks (MFIs) in Germany*

€ billion

Period	Deposits of domestic households and non-profit institutions, total	Sight deposits						Time deposits [1,2]					
		Total	by creditor group					Total	by creditor group				
			Domestic households				Domestic non-profit institutions		Domestic households				
			Total	Self-employed persons	Employees	Other individuals			Total	Self-employed persons	Employees	Other individuals	
	End of year or month*												
2014	1,923.6	1,008.3	980.1	173.3	673.0	133.8	28.2	269.3	254.7	27.8	185.0	41.8	
2015	1,997.5	1,113.3	1,081.2	188.9	748.6	143.7	32.1	259.3	246.2	24.9	179.8	41.6	
2016	2,094.5	1,222.0	1,186.9	206.0	828.6	152.3	35.1	262.1	248.6	25.0	182.0	41.5	
2016 Dec	2,094.5	1,222.0	1,186.9	206.0	828.6	152.3	35.1	262.1	248.6	25.0	182.0	41.5	
2017 Jan	2,095.7	1,224.5	1,189.6	211.3	828.3	150.0	34.9	261.5	248.0	24.9	181.8	41.3	
Feb	2,106.0	1,234.9	1,199.9	212.0	837.0	150.9	34.9	261.8	247.2	24.6	181.5	41.1	
Mar	2,104.3	1,235.4	1,200.2	208.2	841.4	150.5	35.2	262.0	247.1	25.1	181.5	40.5	
Apr	2,121.9	1,255.1	1,220.2	211.6	856.4	152.2	35.0	260.9	246.1	24.8	180.6	40.7	
May	2,125.3	1,260.1	1,223.9	213.8	857.9	152.2	36.2	260.5	245.5	24.4	180.6	40.5	
	Changes*												
2015	+ 73.7	+ 105.0	+ 101.1	+ 15.6	+ 75.4	+ 10.1	+ 3.9	– 9.9	– 8.1	– 3.0	– 4.5	– 0.7	
2016	+ 97.1	+ 108.4	+ 105.3	+ 17.5	+ 78.7	+ 9.0	+ 3.0	+ 2.4	+ 1.8	+ 0.1	+ 1.9	– 0.3	
2016 Dec	+ 15.6	+ 11.5	+ 11.2	+ 2.0	+ 7.2	+ 2.0	+ 0.3	+ 2.2	+ 1.9	+ 0.2	+ 1.4	+ 0.4	
2017 Jan	+ 1.2	+ 2.5	+ 2.7	+ 5.3	– 0.3	– 2.3	– 0.2	– 0.6	– 0.6	– 0.1	– 0.3	– 0.2	
Feb	+ 9.9	+ 10.4	+ 10.3	+ 0.7	+ 8.7	+ 0.9	+ 0.0	– 0.1	– 0.7	– 0.3	– 0.2	– 0.2	
Mar	– 1.7	+ 0.5	+ 0.2	– 3.7	+ 4.2	– 0.2	+ 0.3	+ 0.2	– 0.2	+ 0.5	– 0.2	– 0.4	
Apr	+ 17.5	+ 19.8	+ 20.0	+ 3.4	+ 14.5	+ 2.1	– 0.3	– 1.2	– 1.0	– 0.2	– 1.0	+ 0.3	
May	+ 3.5	+ 4.9	+ 3.7	+ 2.2	+ 1.3	+ 0.1	+ 1.3	– 0.4	– 0.6	– 0.3	– 0.0	– 0.2	

* See Table IV.2, footnote*; statistical breaks have been eliminated from the changes. The figures for the latest date are always to be regarded as provisional. Subsequent revisions, which appear in the following Monthly Report, are not specially marked. **1** Including subordinated liabilities and liabilities arising from registered debt

9 Deposits of domestic government at banks (MFIs) in Germany, by creditor group*

€ billion

Period	Deposits												
	Domestic government, total	Federal Government and its special funds [1]						State governments					
		Total	Sight deposits	Time deposits		Savings deposits and bank savings bonds [2]	*Memo item* Fiduciary loans	Total	Sight deposits	Time deposits		Savings deposits and bank savings bonds [2]	*Memo item* Fiduciary loans
				for up to and including 1 year	for more than 1 year					for up to and including 1 year	for more than 1 year		
	End of year or month*												
2014	186.7	10.5	2.6	2.4	5.5	0.1	14.6	40.2	13.4	10.4	15.8	0.7	14.1
2015	197.4	9.6	3.1	3.9	2.6	0.1	14.1	44.3	13.2	13.7	16.5	0.9	13.5
2016	199.8	7.9	3.6	2.0	2.2	0.1	13.5	42.3	13.4	11.2	16.6	1.1	13.2
2016 Dec	199.8	7.9	3.6	2.0	2.2	0.1	13.5	42.3	13.4	11.2	16.6	1.1	13.2
2017 Jan	202.2	6.9	3.5	1.1	2.2	0.1	13.5	48.7	13.3	17.7	16.6	1.1	12.8
Feb	205.7	7.7	3.6	1.6	2.3	0.1	13.6	49.0	13.5	17.9	16.6	1.0	12.9
Mar	204.0	7.9	3.6	1.9	2.3	0.1	13.5	51.0	13.4	20.0	16.6	1.0	12.8
Apr	203.1	7.6	3.7	1.5	2.3	0.1	13.5	49.2	12.3	19.2	16.6	1.1	12.8
May	209.6	7.8	3.7	1.6	2.4	0.1	13.5	48.3	11.2	18.8	17.1	1.1	12.7
	Changes*												
2015	+ 10.1	– 1.9	+ 0.5	+ 0.4	– 2.9	+ 0.0	– 0.6	+ 4.0	– 0.3	+ 3.4	+ 0.7	+ 0.2	– 0.6
2016	+ 3.1	– 1.2	+ 0.5	– 1.4	– 0.3	+ 0.0	– 0.5	– 1.8	+ 0.1	– 1.8	– 0.3	+ 0.1	– 0.3
2016 Dec	– 7.2	– 0.3	– 0.9	+ 0.7	– 0.2	– 0.0	– 0.3	– 4.5	+ 0.1	– 3.3	– 1.3	– 0.0	+ 0.2
2017 Jan	+ 2.4	– 1.0	– 0.1	– 1.0	– 0.0	– 0.0	+ 0.0	+ 6.4	– 0.1	+ 6.6	– 0.0	– 0.1	– 0.4
Feb	+ 3.5	+ 0.3	+ 0.1	+ 0.1	+ 0.1	– 0.0	+ 0.0	+ 0.3	+ 0.1	+ 0.1	+ 0.0	– 0.0	+ 0.0
Mar	– 1.7	+ 0.3	+ 0.0	+ 0.3	– 0.0	–	– 0.0	+ 2.0	– 0.1	+ 2.1	– 0.0	+ 0.0	– 0.1
Apr	– 1.0	– 0.3	+ 0.1	– 0.4	+ 0.0	–	– 0.0	– 1.8	– 1.1	– 0.8	– 0.0	+ 0.0	– 0.0
May	+ 6.6	+ 0.2	+ 0.0	+ 0.2	+ 0.0	+ 0.0	– 0.1	– 0.9	– 1.1	– 0.3	+ 0.6	– 0.0	– 0.1

* See Table IV.2, footnote *; excluding deposits of the Treuhand agency and its successor organisations, of the Federal Railways, east German Railways and Federal Post Office, and, from 1995, of Deutsche Bahn AG, Deutsche Post AG and Deutsche Telekom AG, and of publicly owned enterprises, which are included in "Enterprises". Statistical breaks have been eliminated from the changes. The figures for the latest date are always to be regarded as provisional. Subsequent revisions, which appear in

IV Banks

Savings deposits [3]									*Memo item*			
	by maturity											
		more than 1 year [2]										
			of which									
Domestic non-profit institutions	up to and including 1 year	Total	up to and including 2 years	more than 2 years	Total	Domestic households	Domestic non-profit institutions	Bank savings bonds [4]	Fiduciary loans	Subordinated liabilities (excluding negotiable debt securities) [5]	Liabilities arising from repos	Period
End of year or month*												
14.6	68.4	200.9	11.4	189.5	597.2	587.7	9.4	48.8	0.0	5.0	–	2014
13.1	55.5	203.9	12.7	191.1	585.6	576.6	9.0	39.2	0.0	3.8	–	2015
13.5	54.5	207.5	13.3	194.3	577.7	569.3	8.4	32.7	0.1	2.9	–	2016
13.5	54.5	207.5	13.3	194.3	577.7	569.3	8.4	32.7	0.1	2.9	–	2016 Dec
13.5	54.3	207.2	12.9	194.3	577.8	569.4	8.4	31.9	0.9	2.8	–	2017 Jan
14.6	55.1	206.7	12.6	194.1	578.0	569.7	8.4	31.3	0.9	2.7	–	Feb
15.0	55.1	207.0	12.9	194.1	576.2	567.9	8.3	30.7	0.9	2.7	–	Mar
14.8	53.9	207.0	13.0	194.0	575.8	567.4	8.3	30.1	0.9	2.7	–	Apr
15.0	53.1	207.4	13.1	194.3	575.3	567.0	8.3	29.5	1.1	2.6	–	May
Changes*												
– 1.8	– 12.8	+ 2.9	+ 1.4	+ 1.4	– 11.5	– 11.1	– 0.5	– 9.8	+ 0.0	– 1.2	–	2015
+ 0.6	– 1.0	+ 3.4	+ 0.7	+ 2.7	– 7.9	– 7.3	– 0.5	– 5.8	+ 0.1	– 0.9	–	2016
+ 0.3	+ 0.1	+ 2.1	– 0.1	+ 2.2	+ 2.4	+ 2.5	– 0.1	– 0.5	+ 0.0	– 0.0	–	2016 Dec
+ 0.0	– 0.3	– 0.3	– 0.4	+ 0.1	+ 0.1	+ 0.1	– 0.1	– 0.8	+ 0.0	– 0.1	–	2017 Jan
+ 0.6	+ 0.4	– 0.5	– 0.2	– 0.2	+ 0.2	+ 0.2	– 0.0	– 0.6	+ 0.0	– 0.1	–	Feb
+ 0.4	– 0.0	+ 0.2	+ 0.3	– 0.1	– 1.8	– 1.7	– 0.1	– 0.6	+ 0.0	– 0.0	–	Mar
– 0.2	– 1.2	+ 0.0	+ 0.0	– 0.0	– 0.5	– 0.5	+ 0.0	– 0.6	+ 0.0	– 0.1	–	Apr
+ 0.2	– 0.7	+ 0.4	+ 0.1	+ 0.2	– 0.5	– 0.4	– 0.1	– 0.6	+ 0.1	– 0.1	–	May

securities. **2** Including deposits under savings and loan contracts (see Table IV.12). **3** Excluding deposits under savings and loan contracts (see also foot-note 2). **4** Including liabilities arising from non-negotiable bearer debt securities. **5** Included in time deposits.

Local government and local government associations (including municipal special-purpose associations)						Social security funds						
		Time deposits [3]						Time deposits				
Total	Sight deposits	for up to and including 1 year	for more than 1 year	Savings deposits and bank savings bonds [2,4]	*Memo item* Fiduciary loans	Total	Sight deposits	for up to and including 1 year	for more than 1 year	Savings deposits and bank savings bonds [2]	*Memo item* Fiduciary loans	Period
End of year or month*												
48.0	25.3	11.2	7.0	4.5	0.4	88.0	11.1	60.6	15.4	0.9	–	2014
52.4	29.2	9.6	8.3	5.2	0.4	91.2	12.1	60.5	17.5	1.1	–	2015
56.0	31.5	8.7	10.1	5.7	0.4	93.6	9.4	57.6	25.1	1.5	–	2016
56.0	31.5	8.7	10.1	5.7	0.4	93.6	9.4	57.6	25.1	1.5	–	2016 Dec
49.4	25.4	8.4	10.0	5.7	0.4	97.2	13.0	57.5	25.2	1.5	–	2017 Jan
53.1	28.9	8.3	10.2	5.7	0.4	95.9	15.4	54.0	25.0	1.5	–	Feb
51.7	27.1	8.2	10.7	5.7	0.4	93.4	14.7	51.4	25.8	1.5	–	Mar
51.7	27.5	7.8	10.8	5.7	0.4	94.5	15.6	49.4	28.1	1.5	–	Apr
57.0	31.6	8.4	11.3	5.8	0.2	96.5	14.5	51.5	29.1	1.4	–	May
Changes*												
+ 4.1	+ 3.8	– 1.5	+ 1.1	+ 0.7	+ 0.0	+ 4.0	+ 1.2	+ 0.6	+ 1.9	+ 0.2	–	2015
+ 3.7	+ 2.4	– 0.8	+ 1.6	+ 0.5	– 0.0	+ 2.4	– 2.6	– 2.8	+ 7.7	+ 0.2	–	2016
+ 2.9	+ 2.5	+ 0.1	+ 0.2	+ 0.1	– 0.0	– 5.3	– 5.6	– 0.0	+ 0.3	+ 0.0	–	2016 Dec
– 6.6	– 6.2	– 0.4	– 0.0	– 0.0	–	+ 3.6	+ 3.6	– 0.1	+ 0.1	+ 0.0	–	2017 Jan
+ 3.7	+ 3.5	– 0.1	+ 0.2	+ 0.0	–	– 0.7	+ 2.5	– 3.1	– 0.1	+ 0.0	–	Feb
– 1.4	– 1.8	– 0.1	+ 0.4	+ 0.0	– 0.0	– 2.5	– 0.7	– 2.6	+ 0.8	– 0.0	–	Mar
+ 0.1	+ 0.3	– 0.3	+ 0.1	– 0.1	–	+ 1.1	+ 0.9	– 2.1	+ 2.2	– 0.0	–	Apr
+ 5.3	+ 4.1	+ 0.5	+ 0.5	+ 0.1	– 0.0	+ 2.0	– 1.1	+ 2.1	+ 1.1	– 0.1	–	May

the following Monthly Report, are not specially marked. **1** Federal Railways Fund, Indemnification Fund, Redemption Fund for Inherited Liabilities, ERP Special Fund, German Unity Fund, Equalisation of Burdens Fund. **2** Including liabilities arising from non-negotiable bearer debt securities. **3** Including deposits under savings and loan contracts. **4** Excluding deposits under savings and loan contracts (see also footnote 3).

IV Banks

10 Savings deposits and bank savings bonds of banks (MFIs) in Germany sold to non-banks (non-MFIs)*

€ billion

Period	Savings deposits [1]								Memo item	Bank savings bonds [3], sold to			
		of residents					of non-residents				domestic non-banks		
			at three months' notice		at more than three months' notice								
	Total	Total	Total	of which Special savings facilities [2]	Total	of which Special savings facilities [2]	Total	of which At three months' notice	Interest credited on savings deposits	non-banks, total	Total	of which With maturities of more than 2 years	foreign non-banks
	End of year or month*												
2014	617.0	607.8	531.3	401.4	76.4	63.3	9.2	7.4	6.1	79.8	66.0	51.4	13.8
2015	605.4	596.5	534.6	379.7	61.9	48.0	8.9	7.4	4.4	64.9	56.1	41.0	8.7
2016	596.5	588.5	537.1	361.6	51.5	37.7	8.0	6.9	3.3	59.1	50.4	35.8	8.7
2017 Jan	596.4	588.5	537.7	354.6	50.7	37.2	8.0	6.9	0.2	58.1	49.5	35.2	8.6
Feb	596.5	588.5	538.4	354.9	50.2	36.6	8.0	6.9	0.1	57.6	49.0	34.9	8.6
Mar	594.6	586.7	537.0	351.5	49.7	36.2	7.9	6.8	0.1	56.8	48.2	34.4	8.6
Apr	594.0	586.2	537.0	351.6	49.2	35.8	7.8	6.8	0.1	56.5	47.8	34.1	8.7
May	593.5	585.7	536.9	349.1	48.9	35.3	7.8	6.8	0.1	55.6	47.0	33.6	8.6
	Changes*												
2015	– 11.6	– 11.3	+ 4.3	– 20.6	– 15.6	– 16.3	– 0.3	+ 0.0	.	– 15.1	– 10.1	– 6.6	– 5.1
2016	– 8.8	– 7.9	+ 2.5	– 18.4	– 10.4	– 10.3	– 0.9	– 0.5	.	– 5.0	– 5.0	– 4.7	– 0.0
2017 Jan	– 0.1	– 0.1	+ 0.7	– 7.0	– 0.7	– 0.5	– 0.1	– 0.0	.	– 1.0	– 0.9	– 0.6	– 0.1
Feb	+ 0.1	+ 0.1	+ 0.7	+ 0.3	– 0.6	– 0.5	– 0.0	+ 0.0	.	– 0.5	– 0.5	– 0.3	+ 0.0
Mar	– 1.9	– 1.9	– 1.4	– 3.4	– 0.5	– 0.4	– 0.1	– 0.1	.	– 0.7	– 0.7	– 0.5	–
Apr	– 0.5	– 0.5	– 0.0	– 0.0	– 0.4	– 0.5	– 0.0	– 0.0	.	– 0.4	– 0.4	– 0.2	+ 0.0
May	– 0.5	– 0.5	– 0.1	– 2.4	– 0.4	– 0.5	– 0.0	– 0.0	.	– 0.9	– 0.8	– 0.5	– 0.1

***** See Table IV.2, footnote*; statistical breaks have been eliminated from the changes. The figures for the latest date are always to be regarded as provisional. Subsequent revisions, which appear in the following Monthly Report, are not specially marked. **1** Excluding deposits under savings and loan contracts, which are classified as time deposits. **2** Savings deposits bearing interest at a rate which exceeds the minimum or basic rate of interest. **3** Including liabilities arising from non-negotiable bearer debt securities.

11 Debt securities and money market paper outstanding of banks (MFIs) in Germany*

€ billion

Period	Negotiable bearer debt securities and money market paper									Non-negotiable bearer debt securities and money market paper [6]		Subordinated	
		of which				with maturities of							
						up to and including 1 year		more than 1 year up to and including 2 years					
	Total	Floating rate bonds [1]	Zero coupon bonds [1,2]	Foreign currency bonds [3,4]	Certificates of deposit	Total	of which without a nominal guarantee [5]	Total	of which without a nominal guarantee [5]	more than 2 years	Total	of which with maturities of more than 2 years	negotiable debt securities	non-negotiable debt securities
	End of year or month*													
2014	1,114.2	286.4	26.3	354.0	69.2	83.6	1.8	26.3	5.0	1,004.3	1.0	0.2	33.7	1.2
2015	1,075.7	189.2	30.2	384.1	88.7	109.8	2.1	28.4	5.7	937.5	0.3	0.2	31.9	0.5
2016	1,098.1	177.0	28.1	407.1	90.9	111.3	4.1	37.4	5.8	949.4	0.6	0.2	33.8	0.5
2017 Jan	1,106.2	173.5	27.0	404.4	87.6	107.1	4.3	37.2	6.0	961.9	0.6	0.2	33.8	0.5
Feb	1,118.1	174.2	27.2	409.5	88.5	108.1	4.7	40.1	6.1	969.9	0.8	0.2	32.9	0.5
Mar	1,114.6	172.2	29.0	405.1	87.3	108.0	4.7	40.1	6.2	966.6	0.8	0.2	33.2	0.5
Apr	1,104.2	169.8	26.5	391.2	80.5	99.0	4.7	39.8	6.4	965.3	0.8	0.2	32.8	0.5
May	1,107.3	173.0	26.7	391.2	84.0	103.3	4.8	39.0	6.6	965.1	0.5	0.2	32.8	0.5
	Changes*													
2015	– 38.5	– 97.2	+ 3.9	+ 30.1	+ 19.5	+ 26.2	+ 0.3	+ 2.1	+ 0.7	– 66.8	– 0.8	+ 0.0	– 1.8	– 0.7
2016	+ 22.1	– 12.0	– 2.1	+ 23.0	+ 2.2	+ 1.6	+ 2.0	+ 8.8	+ 0.1	+ 11.7	+ 0.3	– 0.1	+ 1.9	– 0.0
2017 Jan	+ 8.1	– 3.5	– 1.1	– 2.6	– 3.3	– 4.3	+ 0.2	– 0.2	+ 0.2	+ 12.5	+ 0.0	+ 0.0	+ 0.1	–
Feb	+ 11.9	+ 0.8	+ 0.2	+ 5.1	+ 0.9	+ 1.0	+ 0.4	+ 2.9	+ 0.1	+ 8.0	+ 0.2	+ 0.0	– 0.9	+ 0.0
Mar	– 3.6	– 2.0	+ 1.9	– 4.5	– 1.2	– 0.1	+ 0.0	– 0.1	+ 0.1	– 3.4	– 0.0	– 0.0	+ 0.3	–
Apr	– 10.4	– 2.4	– 2.5	– 13.9	– 6.8	– 8.9	– 0.0	– 0.2	+ 0.1	– 1.2	+ 0.0	+ 0.0	– 0.4	–
May	+ 3.2	+ 3.2	+ 0.2	– 0.0	+ 3.5	+ 4.2	+ 0.1	– 0.8	+ 0.2	– 0.2	– 0.3	+ 0.0	– 0.0	–

***** See Table IV.2, footnote*; statistical breaks have been eliminated from the changes. The figures for the latest date are always to be regarded as provisional. Subsequent revisions, which appear in the following Monthly Report, are not specially marked. **1** Including debt securities denominated in foreign currencies. **2** Issue value when floated. **3** Including floating rate notes and zero coupon bonds denominated in foreign currencies. **4** Bonds denominated in non-euro-area currencies. **5** Negotiable bearer debt securities respectively money market paper with a nominal guarantee of less than 100%. **6** Non-negotiable bearer debt securities are classified among bank savings bonds (see also Table IV.10, footnote 2).

IV Banks

12 Building and loan associations (MFIs) in Germany *)
Interim statements

€ billion

End of year/month	Number of associations	Balance sheet total 13	Lending to banks (MFIs)			Lending to non-banks (non-MFIs)				Deposits of banks (MFIs) 5		Deposits of non-banks (non-MFIs)		Bearer debt securities outstanding	Capital (including published reserves) 7	*Memo item* New contracts entered into in year or month 8
			Credit balances and loans (excluding building loans) 1	Building loans 2	Bank debt securities 3	Building loans			Securities (including Treasury bills and Treasury discount paper) 4	Deposits under savings and loan contracts	Sight and time deposits	Deposits under savings and loan contracts	Sight and time deposits 6			
						Loans under savings and loan contracts	Interim and bridging loans	Other building loans								
All building and loan associations																
2015	21	213.6	43.1	0.0	17.5	15.8	93.4	17.5	21.4	2.0	21.3	159.2	5.3	2.4	9.9	98.5
2016	20	218.8	43.6	0.0	16.6	13.8	98.6	18.1	23.4	2.5	21.4	163.8	5.5	2.0	10.2	89.2
2017 Mar	20	220.4	43.0	0.0	17.0	13.3	99.7	18.5	24.4	2.6	21.5	164.8	5.5	2.2	10.9	7.4
Apr	20	228.3	43.7	0.0	16.9	13.3	99.8	25.0	24.7	2.6	23.9	164.9	10.3	2.9	11.0	6.7
May	20	228.1	42.8	0.0	17.1	13.1	100.2	25.1	24.8	2.6	23.4	165.4	10.1	2.9	11.1	7.4
Private building and loan associations																
2017 Mar	12	152.5	27.4	–	7.9	9.9	77.3	15.7	10.9	1.7	18.6	107.8	5.2	2.2	7.3	4.7
Apr	12	160.5	28.2	–	7.9	10.0	77.3	22.2	11.2	1.7	21.4	107.8	10.1	2.9	7.3	4.3
May	12	160.4	27.4	–	8.0	9.8	77.6	22.3	11.3	1.7	21.3	108.0	9.8	2.9	7.4	4.5
Public building and loan associations																
2017 Mar	8	67.9	15.6	0.0	9.2	3.3	22.4	2.8	13.5	0.8	2.8	57.0	0.3	–	3.7	2.7
Apr	8	67.8	15.5	0.0	9.0	3.3	22.5	2.8	13.5	0.8	2.5	57.1	0.3	–	3.7	2.4
May	8	67.7	15.4	0.0	9.1	3.3	22.6	2.8	13.5	0.8	2.2	57.4	0.3	–	3.7	2.9

Trends in building and loan association business

€ billion

Period	Changes in deposits under savings and loan contracts			Capital promised		Capital disbursed						Disbursement commitments outstanding at end of period		Interest and repayments received on building loans 10		
							Allocations									
							Deposits under savings and loan contracts		Loans under savings and loan contracts 9							
	Amounts paid into savings and loan accounts 9	Interest credited on deposits under savings and loan contracts	Repayments of deposits under cancelled savings and loan contracts	Total	*of which* Net allocations 11	Total	Total	*of which* Applied to settlement of interim and bridging loans	Total	*of which* Applied to settlement of interim and bridging loans	Newly granted interim and bridging loans and other building loans	Total	*of which* Under allocated contracts	Total	*of which* Repayments during quarter	*Memo item* Housing bonuses received 12
All building and loan associations																
2015	28.1	2.5	8.2	51.5	31.2	44.4	19.9	4.2	5.3	3.6	19.2	15.6	8.1	9.5	8.3	0.4
2016	27.5	2.2	7.6	46.8	27.4	40.9	17.2	4.4	4.9	3.7	18.8	16.3	8.0	8.0	7.2	0.2
2017 Mar	2.4	0.0	0.7	4.1	2.1	3.6	1.5	0.3	0.4	0.3	1.8	16.9	8.0	0.6	1.6	0.0
Apr	2.1	0.0	0.5	4.1	2.5	3.4	1.5	0.4	0.5	0.4	1.5	17.1	8.1	0.6		0.0
May	2.5	0.0	0.6	4.2	2.4	3.3	1.4	0.3	0.4	0.3	1.6	17.3	8.3	0.6		0.0
Private building and loan associations																
2017 Mar	1.6	0.0	0.4	3.0	1.5	2.7	1.1	0.2	0.3	0.2	1.4	12.2	4.9	0.5	1.2	0.0
Apr	1.3	0.0	0.3	3.0	1.8	2.6	1.1	0.3	0.4	0.3	1.2	12.3	4.9	0.4		0.0
May	1.6	0.0	0.3	2.8	1.5	2.6	1.1	0.2	0.3	0.2	1.3	12.2	4.8	0.4		0.0
Public building and loan associations																
2017 Mar	0.8	0.0	0.4	1.1	0.6	0.9	0.4	0.1	0.1	0.1	0.4	4.7	3.1	0.2	0.4	0.0
Apr	0.7	0.0	0.3	1.1	0.8	0.7	0.3	0.1	0.1	0.1	0.3	4.8	3.2	0.1		0.0
May	0.9	0.0	0.3	1.4	0.9	0.8	0.3	0.1	0.1	0.0	0.4	5.1	3.4	0.1		0.0

***** Excluding assets and liabilities and/or transactions of foreign branches. The figures for the latest date are always to be regarded as provisional. Subsequent revisions, which appear in the following Monthly Report, are not specially marked. **1** Including claims on building and loan associations, claims arising from registered debt securities and central bank credit balances. **2** Loans under savings and loan contracts and interim and bridging loans. **3** Including money market paper and small amounts of other securities issued by banks. **4** Including equalisation claims. **5** Including liabilities to building and loan associations. **6** Including small amounts of savings deposits. **7** Including participation rights capital and fund for general banking risks. **8** Total amount covered by the contracts; only contracts newly entered into, for which the contract fee has been fully paid. Increases in the sum contracted count as new contracts. **9** For disbursements of deposits under savings and loan contracts arising from the allocation of contracts see "Capital disbursed". **10** Including housing bonuses credited. **11** Only allocations accepted by the beneficiaries; including allocations applied to settlement of interim and bridging loans. **12** The amounts already credited to the accounts of savers or borrowers are also included in "Amounts paid into savings and loan accounts" and "Interest and repayments received on building loans". **13** See Table IV.2, footnote 1.

IV Banks

13 Assets and liabilities of the foreign branches and foreign subsidiaries of German banks (MFIs) *

€ billion

Period	Number of: German banks (MFIs) with foreign branches and/or foreign subsidiaries	Number of: foreign branches [1] and/or foreign subsidiaries	Balance sheet total [7]	Lending to banks (MFIs): Total	Lending to banks (MFIs): Credit balances and loans: Total	Lending to banks (MFIs): Credit balances and loans: German banks	Lending to banks (MFIs): Credit balances and loans: Foreign banks	Lending to banks (MFIs): Money market paper, securities [2,3]	Lending to non-banks (non-MFIs): Total	Lending to non-banks (non-MFIs): Loans: Total	Lending to non-banks (non-MFIs): Loans: to German non-banks	Lending to non-banks (non-MFIs): Loans: to foreign non-banks	Lending to non-banks (non-MFIs): Money market paper, securities [2]	Other assets [7]: Total	Other assets [7]: *of which* Derivative financial instruments in the trading portfolio
	Foreign branches														**End of year or month** *
2014	56	205	1,926.2	548.8	532.2	201.2	331.0	16.5	593.5	473.1	14.0	459.1	120.5	783.8	551.9
2015	51	198	1,842.9	526.0	508.7	161.3	347.5	17.3	635.1	511.6	14.0	497.6	123.6	681.8	499.0
2016	51	191	1,873.3	584.2	570.5	205.0	365.5	13.8	580.5	489.8	14.5	475.3	90.8	708.5	485.3
2016 July	50	187	2,060.2	587.5	572.6	183.1	389.6	14.9	668.3	551.7	13.6	538.1	116.5	804.5	590.3
Aug	50	187	1,959.7	569.3	553.9	187.9	366.0	15.4	643.3	528.5	13.9	514.6	114.7	747.1	544.6
Sep	50	187	1,916.6	595.9	581.3	200.4	380.9	14.6	629.3	524.9	14.3	510.6	104.4	691.4	511.1
Oct	50	186	1,942.2	626.9	613.0	212.4	400.6	13.9	599.9	496.1	13.3	482.8	103.7	715.4	497.2
Nov	50	185	1,928.8	592.4	578.4	205.9	372.5	14.0	622.8	516.4	14.1	502.3	106.4	713.7	495.0
Dec	51	191	1,873.3	584.2	570.5	205.0	365.5	13.8	580.5	489.8	14.5	475.3	90.8	708.5	485.3
2017 Jan	51	192	1,877.2	603.8	590.4	215.5	375.0	13.4	586.0	492.4	14.1	478.4	93.6	687.4	461.8
Feb	51	193	1,920.0	617.9	604.9	227.3	377.5	13.1	600.4	505.3	13.8	491.4	95.1	701.7	467.6
Mar	51	193	1,918.1	616.1	602.7	228.2	374.5	13.4	609.0	513.0	14.1	499.0	95.9	693.0	452.2
Apr	51	192	1,931.5	631.8	618.6	224.4	394.2	13.3	597.8	503.9	13.7	490.3	93.9	701.8	460.3
															Changes *
2015	− 5	− 7	− 145.0	− 56.3	− 56.0	− 40.0	− 16.0	− 0.3	+ 4.5	+ 7.0	+ 0.0	+ 7.0	− 2.6	− 109.0	− 58.2
2016	± 0	− 7	+ 29.1	+ 49.3	+ 52.9	+ 43.7	+ 9.2	− 3.5	− 56.4	− 24.6	+ 0.5	− 25.1	− 31.8	+ 24.9	− 14.8
2016 Aug	−	−	− 100.4	− 17.6	− 18.2	+ 4.9	− 23.0	+ 0.5	− 24.1	− 22.5	+ 0.3	− 22.7	− 1.7	− 57.2	− 45.2
Sep	−	−	− 42.9	+ 27.4	+ 28.1	+ 12.5	+ 15.6	− 0.7	− 12.8	− 2.7	+ 0.4	− 3.1	− 10.1	− 55.6	− 32.4
Oct	−	− 1	+ 24.9	+ 26.9	+ 27.7	+ 11.9	+ 15.8	− 0.8	− 32.2	− 31.4	− 0.9	− 30.5	− 0.8	+ 23.3	− 16.4
Nov	−	− 1	− 15.5	− 44.0	− 43.9	− 6.5	− 37.4	− 0.2	+ 12.5	+ 11.3	+ 0.7	+ 10.6	+ 1.1	− 3.8	− 9.1
Dec	+ 1	+ 6	− 55.9	− 10.2	− 9.9	− 1.0	− 8.9	− 0.3	− 44.3	− 28.4	+ 0.4	− 28.8	− 15.9	− 5.5	− 11.1
2017 Jan	−	+ 1	+ 5.1	+ 24.7	+ 25.0	+ 10.5	+ 14.5	− 0.2	+ 11.3	+ 7.9	− 0.4	+ 8.3	+ 3.5	− 20.0	− 20.0
Feb	−	+ 1	+ 41.4	+ 9.6	+ 10.1	+ 11.8	− 1.8	− 0.4	+ 8.8	+ 7.9	− 0.2	+ 8.1	+ 0.9	+ 13.0	+ 2.9
Mar	−	−	− 1.2	+ 0.7	+ 0.4	+ 0.9	− 0.5	+ 0.4	+ 11.7	+ 10.6	+ 0.3	+ 10.3	+ 1.2	− 7.9	− 13.7
Apr	−	− 1	+ 14.9	+ 22.0	+ 22.0	− 3.8	+ 25.8	+ 0.1	− 4.5	− 3.1	− 0.4	− 2.6	− 1.4	+ 10.3	+ 11.7
	Foreign subsidiaries														**End of year or month** *
2014	28	63	389.4	154.5	137.9	83.4	54.5	16.7	172.7	141.2	21.6	119.5	31.5	62.2	–
2015	24	58	376.0	126.5	113.5	50.1	63.4	13.0	184.3	152.5	22.2	130.3	31.8	65.1	–
2016	20	53	320.5	82.1	72.2	21.4	50.8	9.9	161.4	130.3	22.6	107.7	31.2	76.9	–
2016 July	19	56	355.3	116.3	106.2	51.8	54.5	10.1	170.3	137.4	23.7	113.7	32.9	68.7	–
Aug	19	55	352.7	112.4	102.3	48.0	54.3	10.0	167.7	135.4	23.0	112.3	32.3	72.6	–
Sep	19	53	320.9	84.2	74.1	20.9	53.2	10.0	168.0	135.7	23.2	112.6	32.3	68.7	–
Oct	19	53	316.6	81.4	71.3	20.5	50.8	10.1	157.9	126.3	22.9	103.4	31.5	77.3	–
Nov	19	52	323.1	83.1	73.2	19.9	53.3	10.0	154.6	123.1	23.1	100.0	31.5	85.4	–
Dec	20	53	320.5	82.1	72.2	21.4	50.8	9.9	161.4	130.3	22.6	107.7	31.2	76.9	–
2017 Jan	20	53	314.1	81.3	71.7	22.0	49.7	9.6	161.5	130.5	22.9	107.6	31.0	71.3	–
Feb	20	53	315.4	80.7	71.2	30.9	40.4	9.5	162.0	130.8	23.1	107.7	31.2	72.7	–
Mar	20	53	309.8	79.8	70.7	31.1	39.7	9.1	162.7	131.5	23.0	108.5	31.2	67.2	–
Apr	20	53	303.2	73.1	64.1	24.8	39.3	9.0	160.8	130.9	22.8	108.0	29.9	69.3	–
															Changes *
2015	− 4	− 5	− 23.9	− 33.3	− 28.7	− 33.3	+ 4.6	− 4.6	+ 6.5	+ 6.2	+ 0.6	+ 5.6	+ 0.3	+ 2.9	–
2016	− 4	− 5	− 56.8	− 45.9	− 42.6	− 28.7	− 13.9	− 3.3	− 22.7	− 22.1	+ 0.4	− 22.4	− 0.6	+ 11.8	–
2016 Aug	−	− 1	− 2.3	− 3.8	− 3.8	− 3.8	+ 0.0	− 0.0	− 2.4	− 1.9	− 0.7	− 1.2	− 0.6	+ 4.0	–
Sep	−	− 2	− 31.5	− 28.0	− 28.0	− 27.0	− 1.0	− 0.0	+ 0.4	+ 0.4	+ 0.1	+ 0.3	− 0.0	− 3.9	–
Oct	−	−	− 5.6	− 3.6	− 3.5	− 0.5	− 3.0	− 0.1	− 10.6	− 9.8	− 0.3	− 9.6	− 0.8	+ 8.6	–
Nov	−	− 1	+ 3.8	− 0.0	+ 0.4	− 0.6	+ 0.9	− 0.4	− 4.2	− 4.2	+ 0.2	− 4.3	− 0.0	+ 8.0	–
Dec	+ 1	+ 1	− 3.4	− 1.6	− 1.5	+ 1.5	− 3.0	− 0.1	+ 6.6	+ 7.0	− 0.5	+ 7.4	− 0.4	− 8.4	–
2017 Jan	−	−	− 4.8	+ 0.2	+ 0.4	+ 0.5	− 0.2	− 0.2	+ 0.6	+ 0.8	+ 0.3	+ 0.5	− 0.2	− 5.6	–
Feb	−	−	+ 0.0	− 1.4	− 1.1	+ 8.9	− 10.0	− 0.2	+ 0.0	− 0.2	+ 0.2	− 0.4	+ 0.2	+ 1.4	–
Mar	−	−	− 4.9	− 0.4	− 0.1	+ 0.2	− 0.3	− 0.3	+ 1.0	+ 1.0	− 0.1	+ 1.1	+ 0.0	− 5.5	–
Apr	−	−	− 4.9	− 5.7	− 5.7	− 6.3	+ 0.5	+ 0.1	− 1.3	− 0.0	− 0.2	+ 0.1	− 1.3	+ 2.1	–

***** In this table "foreign" also includes the country of domicile of the foreign branches and foreign subsidiaries. Statistical revisions have been eliminated from the changes. (Breaks owing to changes in the reporting population have not been eliminated from the flow figures for the foreign subsidiaries.) The figures for the latest date are always to be regarded as provisional; subsequent revisions, which appear in the following Monthly Report, are not specially marked. **1** Several branches in a given

IV Banks

Deposits									Money *market* paper and debt securities out-stand-ing [5]	Working capital and own funds	Other liabilities [6,7]		Period
	of banks (MFIs)			of non-banks (non-MFIs)									
					German non-banks [4]								
Total	Total	German banks	Foreign banks	Total	Total	Short-term	Medium and long-term	Foreign non-banks			Total	*of which* Derivative financial instruments in the trading portfolio	
End of year or month *												**Foreign branches**	
1,046.7	739.9	416.2	323.7	306.8	20.6	16.1	4.4	286.2	128.4	45.2	705.8	557.5	2014
1,060.9	715.3	359.3	356.0	345.6	21.1	16.2	4.9	324.6	128.9	49.9	603.1	497.4	2015
1,136.5	800.9	424.9	376.0	335.6	15.4	11.8	3.6	320.2	100.6	51.2	585.1	481.0	2016
1,163.1	772.6	388.8	383.8	390.5	21.3	17.5	3.8	369.2	108.5	49.8	738.9	593.8	2016 July
1,128.2	760.8	382.8	378.1	367.4	21.6	17.7	3.8	345.8	114.7	49.8	667.0	548.8	Aug
1,117.2	763.1	380.6	382.5	354.1	21.5	17.7	3.8	332.6	113.7	49.7	636.1	513.9	Sep
1,186.7	833.2	422.0	411.2	353.4	21.6	17.8	3.8	331.9	108.9	49.6	597.0	491.1	Oct
1,165.0	791.8	410.5	381.3	373.2	19.1	15.5	3.6	354.1	104.2	50.3	609.4	495.3	Nov
1,136.5	800.9	424.9	376.0	335.6	15.4	11.8	3.6	320.2	100.6	51.2	585.1	481.0	Dec
1,161.3	804.3	417.6	386.7	357.0	15.2	11.7	3.5	341.8	111.2	50.9	553.9	456.6	2017 Jan
1,190.7	816.8	423.2	393.6	373.9	16.5	13.2	3.4	357.4	114.0	51.2	564.0	462.0	Feb
1,197.9	825.3	436.0	389.3	372.6	15.2	11.8	3.4	357.4	106.9	51.6	561.7	448.3	Mar
1,210.4	846.5	422.0	424.5	363.9	15.3	12.0	3.3	348.7	104.7	51.3	565.0	455.4	Apr
Changes *													
– 30.8	– 53.8	– 57.0	+ 3.2	+ 23.0	+ 0.5	+ 0.0	+ 0.4	+ 22.5	– 2.1	+ 4.7	– 124.1	– 65.8	2015
+ 66.8	+ 76.8	+ 65.6	+ 11.2	– 10.1	– 5.7	– 4.4	– 1.2	– 4.4	– 29.6	+ 1.2	– 18.1	– 17.3	2016
– 34.3	– 11.2	– 6.0	– 5.2	– 23.2	+ 0.2	+ 0.2	+ 0.0	– 23.4	+ 6.4	+ 0.1	– 71.9	– 44.4	2016 Aug
– 10.3	+ 3.0	– 2.1	+ 5.1	– 13.2	– 0.1	– 0.0	– 0.0	– 13.2	– 0.9	– 0.2	– 30.9	– 33.9	Sep
+ 65.3	+ 66.1	+ 41.4	+ 24.7	– 0.7	+ 0.1	+ 0.1	– 0.1	– 0.8	– 5.5	– 0.0	– 39.1	– 25.5	Oct
– 31.1	– 50.5	– 11.5	– 39.0	+ 19.4	– 2.5	– 2.4	– 0.2	+ 21.9	– 6.8	+ 0.7	+ 12.3	– 2.6	Nov
– 30.5	+ 7.1	+ 14.4	– 7.3	– 37.6	– 3.7	– 3.7	+ 0.0	– 34.0	– 4.0	+ 0.8	– 24.3	– 15.8	Dec
+ 30.0	+ 8.5	– 7.3	+ 15.8	+ 21.5	– 0.2	– 0.1	– 0.1	+ 21.7	+ 11.7	– 0.3	– 31.2	– 20.5	2017 Jan
+ 24.8	+ 8.0	+ 5.6	+ 2.4	+ 16.8	+ 1.3	+ 1.5	– 0.1	+ 15.4	+ 1.6	+ 0.3	+ 10.2	+ 2.3	Feb
+ 9.9	+ 11.1	+ 12.8	– 1.7	– 1.2	– 1.3	– 1.3	– 0.0	+ 0.1	– 6.4	+ 0.4	– 2.4	– 11.9	Mar
+ 19.0	+ 27.4	– 14.1	+ 41.5	– 8.5	+ 0.1	+ 0.2	– 0.1	– 8.6	– 0.7	– 0.3	+ 3.4	+ 11.1	Apr
End of year or month *												**Foreign subsidiaries**	
297.1	173.6	101.1	72.5	123.5	20.3	14.5	5.8	103.2	18.4	25.9	48.0	–	2014
292.3	166.7	99.6	67.1	125.7	13.1	10.5	2.6	112.6	14.4	26.3	42.9	–	2015
247.0	134.3	71.8	62.5	112.7	12.2	6.7	5.5	100.5	13.6	23.8	36.0	–	2016
282.4	162.9	98.9	64.1	119.4	11.5	8.7	2.7	108.0	12.5	24.4	36.0	–	2016 July
281.4	167.7	99.9	67.8	113.7	11.0	6.3	4.8	102.7	12.4	24.4	34.5	–	Aug
248.4	136.3	72.9	63.3	112.2	11.2	6.4	4.7	101.0	12.5	23.8	36.2	–	Sep
243.7	140.6	76.3	64.3	103.1	10.8	6.3	4.5	92.3	12.7	23.9	36.3	–	Oct
250.1	139.7	77.1	62.6	110.4	10.2	5.2	4.9	100.3	12.6	23.8	36.6	–	Nov
247.0	134.3	71.8	62.5	112.7	12.2	6.7	5.5	100.5	13.6	23.8	36.0	–	Dec
240.0	131.4	70.5	61.0	108.5	12.2	6.8	5.4	96.3	13.5	24.0	36.7	–	2017 Jan
239.3	129.5	70.4	59.1	109.8	13.0	7.6	5.4	96.8	13.9	24.1	38.2	–	Feb
237.1	126.8	68.1	58.6	110.3	13.8	8.4	5.4	96.5	13.8	23.7	35.2	–	Mar
229.6	116.9	57.7	59.1	112.7	12.9	7.2	5.7	99.8	13.8	23.6	36.2	–	Apr
Changes *													
– 12.3	– 11.2	– 1.5	– 9.7	– 1.1	– 7.2	– 4.0	– 3.2	+ 6.1	– 4.0	+ 0.4	– 7.9	–	2015
– 46.2	– 33.5	– 27.8	– 5.7	– 12.7	– 0.9	– 3.8	+ 2.9	– 11.9	– 0.8	– 2.5	– 7.3	–	2016
– 0.8	+ 4.9	+ 1.0	+ 3.8	– 5.7	– 0.4	– 2.4	+ 2.0	– 5.2	– 0.1	– 0.0	– 1.3	–	2016 Aug
– 32.7	– 31.3	– 27.0	– 4.3	– 1.4	+ 0.2	+ 0.2	– 0.0	– 1.6	+ 0.2	– 0.6	+ 1.6	–	Sep
– 5.8	+ 3.7	+ 3.4	+ 0.3	– 9.4	– 0.4	– 0.1	– 0.3	– 9.0	+ 0.2	+ 0.1	– 0.2	–	Oct
+ 4.4	– 2.1	+ 0.8	– 2.9	+ 6.6	– 0.6	– 1.1	+ 0.4	+ 7.2	– 0.1	– 0.1	– 0.4	–	Nov
– 3.7	– 5.8	– 5.3	– 0.5	+ 2.1	+ 2.0	+ 1.5	+ 0.6	+ 0.1	+ 1.0	+ 0.0	– 0.8	–	Dec
– 5.8	– 2.1	– 1.3	– 0.8	– 3.7	+ 0.0	+ 0.1	– 0.1	– 3.8	– 0.1	+ 0.1	+ 1.0	–	2017 Jan
– 1.6	– 2.5	– 0.1	– 2.4	+ 0.9	+ 0.8	+ 0.8	– 0.0	+ 0.1	+ 0.4	+ 0.1	+ 1.1	–	Feb
– 1.7	– 2.4	– 2.2	– 0.2	+ 0.7	+ 0.7	+ 0.8	– 0.0	– 0.0	– 0.1	– 0.4	– 2.7	–	Mar
– 6.3	– 9.1	– 10.4	+ 1.3	+ 2.8	– 0.9	– 1.2	+ 0.3	+ 3.7	+ 0.0	– 0.1	+ 1.5	–	Apr

country of domicile are regarded as a single branch. **2** Treasury bills, Treasury discount paper and other money market paper, debt securities. **3** Including own debt securities. **4** Excluding subordinated liabilities and non-negotiable debt securities. **5** Issues of negotiable and non-negotiable debt securities and money market paper. **6** Including subordinated liabilities. **7** See also Table IV.2, footnote 1.

V Minimum reserves

1 Reserve maintenance in the euro area

€ billion

Maintenance period beginning in [1]	Reserve base [2]	Required reserves before deduction of lump-sum allowance [3]	Required reserves after deduction of lump-sum allowance [4]	Current accounts [5]	Excess reserves [6]	Deficiencies [7]
2010	10,559.5	211.2	210.7	212.4	1.7	0.0
2011	10,376.3	207.5	207.0	212.3	5.3	0.0
2012	10,648.6	106.5	106.0	489.0	383.0	0.0
2013	10,385.9	103.9	103.4	248.1	144.8	0.0
2014	10,677.3	106.8	106.3	236.3	130.1	0.0
2015	11,375.0	113.8	113.3	557.1	443.8	0.0
2016	11,918.5	119.2	118.8	919.0	800.3	0.0
2017 Apr	.	.	.	.	.	.
May	12,271.6	122.7	122.3	1,178.7	1,056.4	0.0
June p	12,317.0	123.2	122.7	...	...	...

2 Reserve maintenance in Germany

€ million

Maintenance period beginning in [1]	Reserve base [2]	German share of euro-area reserve base in per cent	Required reserves before deduction of lump-sum allowance [3]	Required reserves after deduction of lump-sum allowance [4]	Current accounts [5]	Excess reserves [6]	Deficiencies [7]
2010	2,530,997	24.0	50,620	50,435	51,336	901	0
2011	2,666,422	25.7	53,328	53,145	54,460	1,315	1
2012	2,874,716	27.0	28,747	28,567	158,174	129,607	1
2013	2,743,933	26.4	27,439	27,262	75,062	47,800	2
2014	2,876,931	26.9	28,769	28,595	75,339	46,744	4
2015	3,137,353	27.6	31,374	31,202	174,361	143,159	0
2016	3,371,095	28.3	33,711	33,546	301,989	268,443	0
2017 Apr	.	.	.	.	.	.	.
May	3,467,773	28.3	34,678	34,513	417,999	383,486	1
June p	3,467,899	28.2	34,679	34,515	...	...	...

(a) Required reserves of individual categories of banks

€ million

Maintenance period beginning in [1]	Big banks	Regional banks and other commercial banks	Branches of foreign banks	Landesbanken and savings banks	Credit cooperatives	Mortgage banks	Banks with special, development and other central support tasks
2010	10,633	7,949	1,845	18,128	9,153	556	2,170
2011	10,459	8,992	3,078	18,253	9,437	601	2,324
2012 [3]	5,388	4,696	2,477	9,626	4,886	248	1,247
2013	5,189	4,705	1,437	9,306	5,123	239	1,263
2014	5,593	4,966	1,507	9,626	5,375	216	1,312
2015	6,105	5,199	2,012	10,432	5,649	226	1,578
2016	6,384	5,390	2,812	10,905	5,960	236	1,859
2017 Apr	.	.	.	.	.	.	.
May	6,494	5,537	3,407	10,992	6,055	198	1,832
June	6,583	5,618	3,231	11,065	6,088	167	1,762

(b) Reserve base by subcategories of liabilities

€ million

Maintenance period beginning in [1]	Liabilities (excluding savings deposits, deposits with building and loan associations and repos) to non-MFIs with agreed maturities of up to 2 years	Liabilities (excluding repos and deposits with building and loan associations) with agreed maturities of up to 2 years to MFIs that are resident in euro-area countries but not subject to minimum reserve requirements	Liabilities (excluding repos and deposits with building and loan associations) with agreed maturities of up to 2 years to banks in non-euro-area countries	Savings deposits with agreed periods of notice of up to 2 years	Liabilities arising from bearer debt securities issued with agreed maturities of up to 2 years and bearer money market paper after deduction of a standard amount for bearer debt certificates or deduction of such paper held by the reporting institution
2010	1,484,334	2,376	344,440	594,119	105,728
2011	1,609,904	3,298	354,235	596,833	102,153
2012	1,734,716	2,451	440,306	602,834	94,453
2013	1,795,844	2,213	255,006	600,702	90,159
2014	1,904,200	1,795	282,843	601,390	86,740
2015	2,063,317	1,879	375,891	592,110	104,146
2016	2,203,100	1,595	447,524	585,099	133,776
2017 Apr	.	.	.	.	.
May	2,244,724	1,684	509,025	586,013	126,323
June	2,274,005	1,813	487,900	585,613	118,566

1 The reserve maintenance period starts on the settlement day of the main refinancing operation immediately following the meeting of the Governing Council of the ECB for which the discussion on the monetary policy stance is scheduled. **2** Article 3 of the Regulation of the European Central Bank on the application of minimum reserves (excluding liabilities to which a reserve ratio of 0% applies, pursuant to Article 4 (1)). **3** Amount after applying the reserve ratio to the reserve base. The reserve ratio for liabilities with agreed maturities of up to two years was 2% between 1 January 1999 and 17 January 2012. Since 18 January 2012, it was stood at 1%. **4** Article 5 (2) of the Regulation of the European Central Bank on the application of minimum reserves. **5** Average credit balances of credit institutions at national central banks. **6** Average credit balances less required reserves after deduction of the lump-sum allowance. **7** Required reserves after deduction of the lump-sum allowance.

VI Interest rates

1 ECB interest rates

% per annum

Applicable from	Deposit facility	Main refinancing operations: Fixed rate	Main refinancing operations: Minimum bid rate	Marginal lending facility	Applicable from	Deposit facility	Main refinancing operations: Fixed rate	Main refinancing operations: Minimum bid rate	Marginal lending facility
2005 Dec 6	1.25	–	2.25	3.25	2011 Apr 13	0.50	1.25	–	2.00
					July 13	0.75	1.50	–	2.25
2006 Mar 8	1.50	–	2.50	3.50	Nov 9	0.50	1.25	–	2.00
June 15	1.75	–	2.75	3.75	Dez 14	0.25	1.00	–	1.75
Aug 9	2.00	–	3.00	4.00					
Oct 11	2.25	–	3.25	4.25	2012 July 11	0.00	0.75	–	1.50
Dec 13	2.50	–	3.50	4.50					
					2013 May 8	0.00	0.50	–	1.00
2007 Mar 14	2.75	–	3.75	4.75	Nov 13	0.00	0.25	–	0.75
June 13	3.00	–	4.00	5.00					
					2014 June 11	–0.10	0.15	–	0.40
2008 July 9	3.25	–	4.25	5.25	Sep 10	–0.20	0.05	–	0.30
Oct 8	2.75	–	3.75	4.75					
Oct 9	3.25	3.75	–	4.25	2015 Dec 9	–0.30	0.05	–	0.30
Nov 12	2.75	3.25	–	3.75					
Dec 10	2.00	2.50	–	3.00	2016 Mar 16	–0.40	0.00	–	0.25
2009 Jan 21	1.00	2.00	–	3.00					
Mar 11	0.50	1.50	–	2.50					
Apr 8	0.25	1.25	–	2.25					
May 13	0.25	1.00	–	1.75					

1 Pursuant to section 247 of the Civil Code.

2 Base rates

% per annum

Applicable from	Base rate as per Civil Code **1**	Applicable from	Base rate as per Civil Code **1**
2002 Jan 1	2.57	2009 Jan 1	1.62
July 1	2.47	July 1	0.12
2003 Jan 1	1.97	2011 July 1	0.37
July 1	1.22		
		2012 Jan 1	0.12
2004 Jan 1	1.14		
July 1	1.13	2013 Jan 1	–0.13
		July 1	–0.38
2005 Jan 1	1.21		
July 1	1.17	2014 Jan 1	–0.63
		July 1	–0.73
2006 Jan 1	1.37		
July 1	1.95	2015 Jan 1	–0.83
2007 Jan 1	2.70	2016 July 1	–0.88
July 1	3.19		
2008 Jan 1	3.32		
July 1	3.19		

3 Eurosystem monetary policy operations allotted through tenders *

Date of settlement	Bid amount	Allotment amount	Fixed rate tenders: Fixed rate	Variable rate tenders: Minimum bid rate	Variable rate tenders: Marginal rate **1**	Variable rate tenders: Weighted average rate	Running for ... days
	€ million		% per annum				
Main refinancing operations							
2017 June 14	11,013	11,013	0.00	–	–	–	7
June 21	11,521	11,521	0.00	–	–	–	7
June 28	11,636	11,636	0.00	–	–	–	7
July 5	8,250	8,250	0.00	–	–	–	7
July 12	7,104	7,104	0.00	–	–	–	7
July 19	6,828	6,828	0.00	–	–	–	7
Long-term refinancing operations							
2017 Mar 30	1,314	1,314	**2** 0.00	–	–	–	91
Apr 27	1,470	1,470	**2** ...	–	–	–	91
June 1	3,050	3,050	**2** ...	–	–	–	91
June 29	2,667	2,667	**2** ...	–	–	–	91

***** Source: ECB. **1** Lowest or highest interest rate at which funds were allotted or collected. **2** Interest payment on the maturity date; the rate will be fixed at the average minimum bid rate of the main refinancing operations over the life of this operation.

4 Money market rates, by month *

% per annum

Monthly average	EONIA **1**	EURIBOR **2**: One-week funds	One-month funds	Three-month funds	Six-month funds	Nine-month funds	Twelve-month funds
2016 Dec	– 0.35	– 0.38	– 0.37	– 0.32	– 0.22	– 0.14	– 0.08
2017 Jan	– 0.35	– 0.38	– 0.37	– 0.33	– 0.24	– 0.15	– 0.09
Feb	– 0.35	– 0.38	– 0.37	– 0.33	– 0.24	– 0.17	– 0.11
Mar	– 0.35	– 0.38	– 0.37	– 0.33	– 0.24	– 0.17	– 0.11
Apr	– 0.36	– 0.38	– 0.37	– 0.33	– 0.25	– 0.18	– 0.12
May	– 0.36	– 0.38	– 0.37	– 0.33	– 0.25	– 0.18	– 0.13
June	– 0.36	– 0.38	– 0.37	– 0.33	– 0.27	– 0.20	– 0.15

***** Averages are Bundesbank calculations. Neither the Deutsche Bundesbank nor anyone else can be held liable for any irregularity or inaccuracy of the EONIA rate and the EURIBOR rate. **1** Euro OverNight Index Average: weighted average overnight rate for interbank operations calculated by the European Central Bank since 4 January 1999 on the basis of real turnover according to the act/360 method and published via Reuters. **2** Euro Interbank Offered Rate: unweighted average rate calculated by Reuters since 30 December 1998 according to the act/360 method.

VI Interest rates

5 Interest rates and volumes for outstanding amounts and new business of German banks (MFIs) *
(a) Outstanding amounts o

End of month	Households' deposits				Non-financial corporations' deposits			
	with an agreed maturity of							
	up to 2 years		over 2 years		up to 2 years		over 2 years	
	Effective interest rate 1 % pa	Volume 2 € million	Effective interest rate 1 % pa	Volume 2 € million	Effective interest rate 1 % pa	Volume 2 € million	Effective interest rate 1 % pa	Volume 2 € million
2016 May	0.43	77,295	1.58	220,985	0.19	80,922	1.86	18,025
June	0.42	77,303	1.56	220,707	0.16	78,910	1.80	18,063
July	0.41	77,112	1.55	219,660	0.14	80,553	1.76	18,143
Aug	0.41	75,607	1.53	219,332	0.14	79,332	1.72	18,124
Sep	0.40	75,235	1.52	219,354	0.12	83,015	1.65	18,371
Oct	0.40	75,245	1.51	218,836	0.13	80,349	1.60	18,507
Nov	0.39	74,620	1.49	218,016	0.10	82,888	1.56	19,037
Dec	0.38	74,227	1.48	220,035	0.10	81,192	1.54	19,097
2017 Jan	0.37	73,435	1.46	219,585	0.10	82,672	1.53	19,293
Feb	0.35	73,708	1.45	219,045	0.10	83,514	1.52	19,144
Mar	0.34	73,460	1.44	218,575	0.09	84,520	1.49	19,649
Apr	0.33	72,221	1.42	218,122	0.09	82,082	1.44	20,074
May	0.33	71,573	1.41	217,847	0.08	82,646	1.41	20,472

End of month	Housing loans to households 3						Loans for consumption and other purposes to households 4, 5					
	with a maturity of											
	up to 1 year 6		over 1 year and up to 5 years		over 5 years		up to 1 year 6		over 1 year and up to 5 years		over 5 years	
	Effective interest rate 1 % pa	Volume 2 € million	Effective interest rate 1 % pa	Volume 2 € million	Effective interest rate 1 % pa	Volume 2 € million	Effective interest rate 1 % pa	Volume 2 € million	Effective interest rate 1 % pa	Volume 2 € million	Effective interest rate 1 % pa	Volume 2 € million
2016 May	2.57	4,959	2.29	27,187	3.19	1,059,863	7.36	52,678	4.24	81,793	4.33	309,250
June	2.57	4,863	2.28	27,272	3.16	1,064,491	7.39	53,521	4.22	82,252	4.31	309,025
July	2.50	4,836	2.25	27,233	3.13	1,069,851	7.26	51,406	4.20	82,844	4.29	310,390
Aug	2.50	4,772	2.23	27,198	3.10	1,074,183	7.27	51,516	4.17	83,206	4.27	310,914
Sep	2.49	4,645	2.22	27,195	3.07	1,079,270	7.29	52,985	4.15	83,297	4.24	310,507
Oct	2.49	4,711	2.19	27,068	3.04	1,083,120	7.26	52,115	4.12	83,574	4.21	310,941
Nov	2.42	4,538	2.13	27,004	3.02	1,087,318	7.17	51,035	4.09	83,826	4.19	311,454
Dec	2.42	4,380	2.11	26,777	2.99	1,090,316	7.18	51,459	4.07	83,809	4.16	310,013
2017 Jan	2.43	4,463	2.10	26,399	2.96	1,090,663	7.21	51,134	4.04	83,791	4.13	310,789
Feb	2.41	4,314	2.09	26,272	2.94	1,093,062	7.24	50,975	4.02	83,726	4.11	311,206
Mar	2.47	4,342	2.07	26,205	2.91	1,097,148	7.32	51,515	4.01	84,063	4.09	311,220
Apr	2.45	4,296	2.05	26,173	2.88	1,102,315	7.10	50,383	3.99	84,268	4.08	310,696
May	2.44	4,356	2.04	26,187	2.85	1,106,601	7.13	50,321	3.96	84,963	4.06	312,176

End of month	Loans to non-financial corporations with a maturity of					
	up to 1 year 6		over 1 year and up to 5 years		over 5 years	
	Effective interest rate 1 % pa	Volume 2 € million	Effective interest rate 1 % pa	Volume 2 € million	Effective interest rate 1 % pa	Volume 2 € million
2016 May	2.60	136,538	2.15	132,698	2.62	605,918
June	2.62	135,941	2.13	133,455	2.60	604,497
July	2.59	133,112	2.09	133,334	2.57	608,349
Aug	2.60	129,449	2.08	134,293	2.55	613,121
Sep	2.58	132,381	2.06	134,447	2.52	612,812
Oct	2.53	132,273	2.04	134,868	2.50	615,105
Nov	2.54	131,980	2.02	136,298	2.48	620,104
Dec	2.57	125,998	2.01	136,477	2.45	623,831
2017 Jan	2.52	130,773	2.00	136,921	2.42	628,271
Feb	2.55	132,264	1.99	136,362	2.41	631,862
Mar	2.54	132,741	1.98	136,980	2.39	632,484
Apr	2.51	133,262	1.98	137,137	2.37	637,174
May	2.45	133,366	1.97	137,748	2.35	643,439

***** The interest rate statistics gathered on a harmonised basis in the euro area from January 2003 are collected in Germany on a sample basis. The grossing-up procedure was changed according to the ECB (Guideline ECB/2014/15). The data published hitherto from June 2010 to May 2015 were grossed-up again with the new method. The MFI interest rate statistics are based on the interest rates applied by MFIs and the related volumes of euro-denominated deposits and loans to households and non-financial corporations domiciled in the euro area. The household sector comprises individuals (including sole proprietors) and non-profit institutions serving households. Non-financial corporations include all enterprises other than insurance companies, banks and other financial institutions. The most recent figures are in all cases to be regarded as provisional. Subsequent revisions appearing in the following Monthly Report are not specially marked. Further information on the MFI interest rate statistics can be found on the Bundesbank's website (Statistics / Reporting system / Banking statistics / MFI interest rate statistics). **o** The statistics on outstanding amounts are collected at the end of the month. **1** The effective interest rates are calculated either as annualised agreed interest rates or as narrowly defined effective rates. Both calculation methods cover all interest payments on deposits and loans but not any other related charges which may occur for enquiries, administration, preparation of the documents, guarantees and credit insurance. **2** Data based on monthly balance sheet statistics. **3** Secured and unsecured loans for home purchase, including building and home improvements; including loans granted by building and loan associations and interim credits as well as transmitted loans granted by the reporting agents in their own name and for their own account. **4** Loans for consumption are defined as loans granted for the purpose of personal use in the consumption of goods and services. **5** For the purpose of these statistics, other loans are loans granted for other purposes such as business, debt consolidation, education etc. **6** Including overdrafts (see also footnotes 13 to 15 p 47•).

VI Interest rates

5 Interest rates and volumes for outstanding amounts and new business of German banks (MFIs) * (cont'd)
(b) New business +

Reporting period	Households' deposits											
	Overnight		with an agreed maturity of						redeemable at notice of **8**			
			up to 1 year		over 1 year and up to 2 years		over 2 years		up to 3 months		over 3 months	
	Effective interest rate **1** % pa	Volume **2** € million	Effective interest rate **1** % pa	Volume **7** € million	Effective interest rate **1** % pa	Volume **7** € million	Effective interest rate **1** % pa	Volume **7** € million	Effective interest rate **1** % pa	Volume **2** € million	Effective interest rate **1** % pa	Volume **2** € million
2016 May	0.10	1,142,947	0.34	5,430	0.69	747	0.89	901	0.31	534,122	0.37	56,154
June	0.08	1,149,604	0.27	6,027	0.73	759	0.83	935	0.30	533,649	0.36	55,415
July	0.08	1,168,427	0.27	5,846	0.57	856	0.80	903	0.28	533,501	0.35	54,560
Aug	0.08	1,171,644	0.33	5,081	0.61	1,148	0.86	961	0.27	533,503	0.34	53,749
Sep	0.08	1,173,762	0.32	5,240	0.50	671	0.77	885	0.26	532,980	0.33	53,031
Oct	0.07	1,184,012	0.30	6,402	0.44	716	0.75	933	0.25	533,209	0.32	52,223
Nov	0.07	1,208,967	0.30	5,075	0.58	523	0.77	907	0.24	533,406	0.32	51,649
Dec	0.07	1,220,413	0.23	5,583	0.51	621	0.68	967	0.24	536,031	0.32	51,299
2017 Jan	0.07	1,222,852	0.28	6,002	0.59	715	0.61	999	0.23	536,834	0.31	50,563
Feb	0.06	1,233,193	0.31	4,688	0.47	617	0.70	773	0.22	537,566	0.31	49,971
Mar	0.05	1,233,631	0.26	4,918	0.51	676	0.69	820	0.21	536,136	0.31	49,493
Apr	0.05	1,253,497	0.19	4,926	0.37	729	0.63	741	0.21	536,260	0.31	49,013
May	0.05	1,258,523	0.20	4,718	0.43	719	0.87	726	0.21	536,046	0.30	48,646

Reporting period	Non-financial corporations' deposits							
	Overnight		with an agreed maturity of					
			up to 1 year		over 1 year and up to 2 years		over 2 years	
	Effective interest rate **1** % pa	Volume **2** € million	Effective interest rate **1** % pa	Volume **7** € million	Effective interest rate **1** % pa	Volume **7** € million	Effective interest rate **1** % pa	Volume **7** € million
2016 May	0.01	380,942	– 0.02	9,700	0.18	694	0.52	1,123
June	0.01	376,365	– 0.02	10,619	0.16	689	0.46	858
July	0.01	378,718	– 0.02	9,596	0.14	569	0.25	476
Aug	0.01	388,519	– 0.06	9,727	0.19	451	0.39	286
Sep	0.01	389,701	– 0.08	15,158	0.14	598	0.30	792
Oct	0.00	399,216	– 0.03	10,736	0.14	577	0.36	521
Nov	– 0.00	400,064	– 0.11	13,017	0.24	951	0.39	1,490
Dec	– 0.00	401,493	– 0.12	15,159	0.22	1,205	0.36	538
2017 Jan	– 0.00	400,475	– 0.05	11,356	0.22	754	0.40	314
Feb	– 0.00	397,363	– 0.07	10,802	0.13	631	0.54	336
Mar	– 0.01	395,640	– 0.09	12,614	0.19	450	0.79	309
Apr	– 0.01	397,203	– 0.07	9,275	0.08	899	0.33	1,039
May	– 0.01	401,648	– 0.05	10,212	0.13	912	0.30	837

Reporting period	Loans to households															
	Loans for other purposes to households with an initial rate fxation of **5**															
	Total		*of which* renegotiated loans **9, 10**		floating rate or up to 1 year **9**		over 1 year and up to 5 years		over 5 years		*of which* loans to sole proprietors					
											floating rate or up to 1 year **9**		over 1 year and up to 5 years		over 5 years	
	Effective interest rate **1** % pa	Volume **7** € million	Effective interest rate **1** % pa	Volume **7** € million	Effective interest rate **1** % pa	Volume **7** € million	Effective interest rate **1** % pa	Volume **7** € million	Effective interest rate **1** % pa	Volume **7** € million	Effective interest rate **1** % pa	Volume **7** € million	Effective interest rate **1** % pa	Volume **7** € million	Effective interest rate **1** % pa	Volume **7** € million
2016 May	2.00	5,898	1.92	1,926	1.77	2,921	2.71	876	2.03	2,101	2.01	1,859	2.97	647	1.97	1,372
June	2.02	6,820	1.93	2,359	1.84	3,200	2.58	1,134	1.98	2,486	2.09	1,953	2.67	898	1.89	1,769
July	1.89	6,818	1.73	2,543	1.69	3,394	2.66	936	1.89	2,488	1.88	2,323	2.82	724	1.85	1,614
Aug	2.02	5,949	1.95	1,989	1.94	2,699	2.80	793	1.85	2,457	1.99	1,789	2.96	589	1.89	1,569
Sep	1.89	6,462	1.76	2,153	1.76	3,266	2.69	807	1.81	2,389	1.88	2,013	2.89	610	1.78	1,638
Oct	1.89	6,445	1.72	2,522	1.70	3,408	2.63	928	1.87	2,109	1.86	2,096	2.78	728	1.82	1,403
Nov	1.92	6,305	1.89	2,070	1.79	3,051	2.71	837	1.81	2,417	2.00	1,920	2.78	647	1.76	1,572
Dec	1.93	7,774	1.89	2,343	1.86	3,262	2.61	1,085	1.79	3,427	1.98	2,257	2.71	881	1.76	2,255
2017 Jan	1.94	6,698	1.84	2,651	1.78	3,024	2.52	915	1.92	2,759	1.92	2,084	2.61	712	1.83	1,898
Feb	1.94	5,484	1.86	1,916	1.69	2,540	2.56	803	1.99	2,141	1.95	1,579	2.75	568	1.93	1,466
Mar	2.01	7,097	1.88	2,130	1.80	3,237	2.72	1,032	1.99	2,828	2.01	2,120	2.84	767	1.93	1,896
Apr	2.00	6,030	1.86	2,229	1.75	2,826	2.67	853	2.05	2,351	1.95	1,931	2.77	670	1.97	1,679
May	2.02	5,890	1.81	1,930	1.83	2,535	2.61	941	1.99	2,414	2.04	1,667	2.84	689	1.92	1,677

For footnotes * and 1 to 6, see p 44•. **+** In the case of deposits with an agreed maturity and all loans excluding revolving loans and overdrafts, credit card debt, new business covers all new agreements between households or non-financial corporations and the bank. The interest rates are calculated as volume-weighted average rates of all new agreements concluded during the reporting month. In the case of overnight deposits, deposits redeemable at notice, revolving loans and overdrafts, credit card debt, new business is collected in the same way as outstanding amounts for the sake of simplicity. This means that all outstanding deposit and lending business at the end of the month has to be incorporated in the calculation of average rates of interest. **7** Estimated. The volume of new business is extrapolated to form the underlying total using a grossing-up procedure. **8** Including non-financial corporations' deposits; including fidelity and growth premia. **9** Excluding overdrafts. **10** Collected from December 2014.

VI Interest rates

5 Interest rates and volumes for outstanding amounts and new business of German banks (MFIs) * (cont'd)
(b) New business +

Loans to households (cont'd)

Loans for consumption with an initial rate fixation of **4**

Reporting period	Total including charges) Annual percentage rate of charge **11** % pa	Total Effective interest rate **1** % pa	Total Volume **7** € million	*of which* renegotiated loans **9, 10** Effective interest rate **1** % pa	*of which* renegotiated loans **9, 10** Volume **7** € million	floating rate or up to 1 year **9** Effective interest rate **1** % pa	floating rate or up to 1 year **9** Volume **7** € million	over 1 year and up to 5 years Effective interest rate **1** % pa	over 1 year and up to 5 years Volume **7** € million	over 5 years Effective interest rate **1** % pa	over 5 years Volume **7** € million
Total loans											
2016 May	6.22	6.20	8,244	7.47	1,715	5.89	306	4.90	3,329	7.16	4,609
June	6.20	6.18	8,940	7.47	1,864	5.73	314	4.87	3,616	7.15	5,010
July	6.20	6.18	8,468	7.50	1,764	5.97	298	4.77	3,405	7.20	4,765
Aug	6.09	6.06	8,301	7.36	1,643	5.89	328	4.70	3,402	7.09	4,571
Sep	5.94	5.92	7,802	7.11	1,560	6.04	296	4.56	3,257	6.95	4,249
Oct	5.95	5.93	7,579	7.10	1,482	6.04	300	4.52	3,127	6.99	4,152
Nov	5.85	5.83	7,595	7.12	1,674	6.05	316	4.51	3,312	6.91	3,967
Dec	5.69	5.67	6,552	7.06	1,399	6.09	320	4.40	3,026	6.83	3,206
2017 Jan	6.06	6.04	8,603	7.16	1,886	6.15	330	4.59	3,242	6.97	5,031
Feb	5.82	5.80	8,187	6.92	1,619	6.15	273	4.37	3,094	6.69	4,820
Mar	5.62	5.60	9,849	6.88	1,761	6.12	341	4.15	4,041	6.64	5,467
Apr	5.66	5.65	8,222	6.91	1,544	6.17	287	4.32	3,415	6.61	4,520
May	5.89	5.87	9,373	7.22	1,814	6.41	337	4.49	3,846	6.87	5,190
of which: **collateralised loans** **12**											
2016 May	.	3.56	202	.	.	2.69	18	3.95	135	2.79	49
June	.	3.62	213	.	.	2.95	17	3.96	141	2.94	55
July	.	3.53	193	.	.	2.85	18	3.82	135	2.86	40
Aug	.	3.52	216	.	.	3.00	16	3.83	149	2.80	51
Sep	.	3.56	201	.	.	2.86	17	3.87	134	2.97	50
Oct	.	3.51	189	.	.	2.63	17	3.91	129	2.65	43
Nov	.	3.55	198	.	.	2.48	15	3.93	140	2.66	43
Dec	.	3.38	207	.	.	2.72	18	3.80	136	2.53	53
2017 Jan	.	3.51	169	.	.	2.85	13	3.78	118	2.92	38
Feb	.	3.65	188	.	.	2.92	14	3.87	139	3.08	35
Mar	.	3.53	230	.	.	2.83	14	3.85	163	2.74	53
Apr	.	3.58	189	.	.	2.99	11	3.84	135	2.89	43
May	.	3.68	204	.	.	3.31	13	3.90	151	2.96	40

Loans to households (cont'd)

Housing loans with an initial rate fixation of **3**

Reporting period	Total (including charges) Annual percentage rate of charge **11** % pa	Total Effective interest rate **1** % pa	Total Volume **7** € million	*of which* renegotiated loans **9,10** Effective interest rate **1** % pa	*of which* renegotiated loans **9,10** Volume **7** € million	floating rate or up to 1 year **9** Effective interest rate **1** % pa	floating rate or up to 1 year **9** Volume **7** € million	over 1 year and up to 5 years Effective interest rate **1** % pa	over 1 year and up to 5 years Volume **7** € million	over 5 years and up to 10 years Effective interest rate **1** % pa	over 5 years and up to 10 years Volume **7** € million	over 10 years Effective interest rate **1** % pa	over 10 years Volume **7** € million
Total loans													
2016 May	1.86	1.79	17,968	2.03	3,654	2.19	2,133	1.83	1,698	1.62	6,635	1.83	7,502
June	1.82	1.76	21,409	1.94	4,079	2.04	2,567	1.85	1,931	1.60	7,424	1.79	9,487
July	1.78	1.73	20,287	1.83	4,970	2.01	2,464	1.79	1,866	1.59	7,230	1.75	8,727
Aug	1.74	1.68	19,903	1.86	4,075	2.18	2,185	1.76	1,745	1.49	7,197	1.69	8,776
Sep	1.70	1.64	18,636	1.79	3,854	2.01	2,062	1.75	1,658	1.48	6,555	1.66	8,361
Oct	1.68	1.62	17,913	1.72	4,542	1.99	2,093	1.62	1,584	1.45	6,317	1.66	7,919
Nov	1.67	1.62	20,223	1.72	4,687	1.88	2,611	1.66	1,614	1.43	7,008	1.68	8,990
Dec	1.72	1.66	21,400	1.80	4,757	1.98	2,347	1.67	1,800	1.49	8,054	1.73	9,199
2017 Jan	1.82	1.77	19,804	1.84	5,711	2.08	2,283	1.66	1,780	1.59	7,454	1.86	8,287
Feb	1.87	1.81	17,838	1.89	4,291	2.17	1,784	1.65	1,567	1.64	6,556	1.90	7,931
Mar	1.87	1.82	22,196	1.86	4,945	2.08	2,428	1.69	1,932	1.67	7,609	1.89	10,227
Apr	1.91	1.85	18,087	1.89	4,620	2.10	2,001	1.73	1,672	1.71	6,456	1.92	7,958
May	1.88	1.83	20,484	1.92	4,136	2.17	2,288	1.77	1,731	1.66	7,308	1.88	9,157
of which: **collateralised loans** **12**													
2016 May	.	1.71	7,343	.	.	2.08	783	1.53	752	1.54	2,804	1.81	3,004
June	.	1.67	9,111	.	.	1.96	956	1.55	849	1.53	3,475	1.75	3,831
July	.	1.65	8,675	.	.	1.86	927	1.51	833	1.53	3,387	1.75	3,528
Aug	.	1.58	8,476	.	.	1.97	770	1.46	770	1.41	3,410	1.67	3,526
Sep	.	1.55	7,930	.	.	1.98	728	1.46	708	1.39	3,109	1.61	3,385
Oct	.	1.55	7,854	.	.	1.89	764	1.43	768	1.39	3,023	1.65	3,299
Nov	.	1.51	9,115	.	.	1.54	1,225	1.48	763	1.36	3,407	1.65	3,720
Dec	.	1.57	9,705	.	.	1.85	863	1.55	878	1.41	3,968	1.66	3,996
2017 Jan	.	1.67	8,932	.	.	1.90	835	1.50	925	1.52	3,632	1.81	3,540
Feb	.	1.71	7,964	.	.	2.06	643	1.50	796	1.57	3,181	1.82	3,344
Mar	.	1.72	9,905	.	.	1.96	855	1.53	939	1.59	3,565	1.82	4,546
Apr	.	1.75	8,413	.	.	1.98	795	1.53	838	1.60	3,204	1.89	3,576
May	.	1.73	9,110	.	.	2.09	843	1.59	900	1.58	3,370	1.80	3,997

For footnotes * and 1 to 6, see p 44•. For footnotes +, 7 to 10, see p 45•. For footnote 12, see p 47•. **11** Annual percentage rate of charge, which contains other related charges which may occur for enquiries, administration, preparation of the documents, guarantees and credit insurance.

VI Interest rates

5 Interest rates and volumes for outstanding amounts and new business of German banks (MFIs) * (cont'd)
(b) New business +

Reporting period	Loans to households (cont'd)						Loans to non-financial corporations			
	Revolving loans 13 and overdrafts 14 credit card debt 15		of which: Revolving loans 13 and overdrafts 14		of which: Extended credit card debt		Revolving loans 13 and overdrafts 14 credit card debt 15		of which: Revolving loans 13 and overdrafts 14	
	Effective interest rate 1 % pa	Volume 2 € million	Effective interest rate 1 % pa	Volume 2 € million	Effective interest rate 1 % pa	Volume 2 € million	Effective interest rate 1 % pa	Volume 2 € million	Effective interest rate 1 % pa	Volume 2 € million
2016 May	8.72	40,781	8.75	33,466	15.21	4,135	3.70	67,212	3.71	66,974
June	8.75	41,709	8.77	34,494	15.23	4,093	3.74	67,687	3.75	67,430
July	8.61	39,874	8.62	32,504	15.22	4,152	3.66	65,412	3.67	65,180
Aug	8.61	40,210	8.63	32,811	15.22	4,137	3.73	63,560	3.74	63,322
Sep	8.62	41,559	8.66	33,900	15.13	4,269	3.70	66,057	3.71	65,773
Oct	8.59	40,657	8.60	32,988	15.13	4,328	3.67	64,202	3.68	63,931
Nov	8.50	39,342	8.51	31,782	15.13	4,222	3.61	64,064	3.63	63,786
Dec	8.50	40,103	8.54	32,351	15.06	4,286	3.69	61,612	3.71	61,357
2017 Jan	8.55	39,784	8.54	32,190	15.12	4,309	3.61	64,182	3.63	63,925
Feb	8.65	39,345	8.62	31,953	15.14	4,291	3.68	65,697	3.70	65,431
Mar	8.66	40,215	8.61	32,949	15.13	4,273	3.67	65,990	3.68	65,698
Apr	8.50	38,972	8.49	31,353	15.13	4,295	3.64	65,154	3.66	64,865
May	8.46	39,394	8.50	31,647	15.13	4,259	3.53	65,353	3.54	65,067

Reporting period	Loans to non-financial corporations (cont'd)															
	Total		of which: renegotiated loans 9, 10		Loans up to €1 million with an initial rate fixation of 16: floating rate or up to 1 year 9		over 1 year and up to 5 years		over 5 years		Loans over €1 million with an initial rate fixation of 16: floating rate or up to 1 year 9		over 1 year and up to 5 years		over 5 years	
	Effective interest rate 1 % pa	Volume 7 € million	Effective interest rate 1 % pa	Volume 7 € million	Effective interest rate 1 % pa	Volume 7 € million	Effective interest rate 1 % pa	Volume 7 € million	Effective interest rate 1 % pa	Volume 7 € million	Effective interest rate 1 % pa	Volume 7 € million	Effective interest rate 1 % pa	Volume 7 € million	Effective interest rate 1 % pa	Volume 7 € million
Total loans																
2016 May	1.47	53,170	1.55	15,321	2.59	7,987	2.73	1,363	1.85	1,338	1.11	34,259	1.55	1,651	1.64	6,572
June	1.52	66,550	1.68	19,903	2.61	8,992	2.79	1,600	1.76	1,526	1.23	43,829	1.57	2,249	1.55	8,354
July	1.46	62,584	1.55	21,116	2.44	8,339	2.67	1,484	1.72	1,554	1.16	41,120	1.88	2,329	1.53	7,758
Aug	1.43	54,015	1.58	14,307	2.44	7,384	2.62	1,340	1.68	1,416	1.14	33,033	1.48	2,112	1.40	8,730
Sep	1.51	62,170	1.66	19,929	2.54	8,312	2.63	1,431	1.70	1,312	1.24	41,393	1.67	1,986	1.54	7,736
Oct	1.43	59,422	1.50	20,936	2.44	8,219	2.63	1,417	1.65	1,258	1.16	40,159	1.69	1,960	1.44	6,409
Nov	1.45	58,860	1.52	15,959	2.48	8,095	2.64	1,497	1.69	1,361	1.16	36,792	1.32	2,628	1.49	8,487
Dec	1.53	78,985	1.63	22,509	2.50	8,638	2.57	1,829	1.77	1,881	1.27	48,315	1.64	3,444	1.62	14,878
2017 Jan	1.33	64,819	1.54	18,857	2.42	8,119	2.60	1,328	1.86	1,423	1.01	43,339	1.40	2,830	1.57	7,780
Feb	1.33	56,958	1.55	13,746	2.55	7,309	2.58	1,326	1.83	1,209	0.99	37,140	1.29	2,001	1.54	7,973
Mar	1.50	71,530	1.60	22,647	2.51	9,245	2.59	1,733	1.85	1,665	1.20	45,163	1.41	2,977	1.67	10,747
Apr	1.43	57,323	1.46	19,903	2.44	7,699	2.54	1,493	1.81	1,371	1.14	38,649	1.41	2,188	1.67	5,923
May	1.35	65,180	1.53	18,708	2.54	8,000	2.58	1,661	1.82	1,424	0.99	41,639	1.55	3,072	1.58	9,384
of which: collateralised loans 12																
2016 May	1.58	5,951	.	.	2.03	479	2.60	134	1.65	406	1.47	2,864	1.57	364	1.55	1,704
June	1.58	10,056	.	.	1.91	601	2.51	159	1.64	468	1.56	4,885	1.72	1,003	1.46	2,940
July	1.53	10,322	.	.	1.87	681	2.38	161	1.53	544	1.35	5,526	1.95	929	1.61	2,481
Aug	1.54	7,519	.	.	2.01	523	2.54	119	1.51	410	1.40	3,645	1.71	452	1.57	2,370
Sep	1.59	9,002	.	.	1.93	550	2.49	104	1.46	379	1.53	5,125	2.18	614	1.45	2,230
Oct	1.49	8,746	.	.	1.85	652	2.40	149	1.48	401	1.40	5,352	1.90	560	1.44	1,632
Nov	1.49	8,480	.	.	2.00	494	2.41	159	1.57	401	1.29	4,031	2.04	610	1.50	2,785
Dec	1.55	16,083	.	.	1.91	662	2.46	176	1.57	569	1.39	8,076	1.96	1,310	1.62	5,290
2017 Jan	1.57	8,742	.	.	1.80	692	2.24	141	1.81	505	1.41	4,626	2.05	518	1.60	2,260
Feb	1.46	8,259	.	.	2.07	464	2.44	158	1.78	399	1.33	4,051	1.73	512	1.40	2,675
Mar	1.48	11,857	.	.	1.87	643	2.52	166	1.72	493	1.37	7,040	1.30	519	1.60	2,996
Apr	1.42	8,360	.	.	1.81	570	2.23	164	1.69	413	1.29	5,640	1.59	299	1.62	1,274
May	1.61	8,671	.	.	2.06	545	2.54	191	1.70	401	1.45	4,558	2.04	646	1.63	2,330

For footnotes * and 1 to 6, see p 44•. For footnotes + and 7 to 10, see p 45•. For footnote 11, see p 46•. **12** Collected from June 2010. For the purposes of the interest rate statistis, a loan is considered to be secured if collateral (among others financial collateral, real estate collateral, debt securities) in at leat the same value as the loan amount has been posted, pledged or assigned. **13** From June 2010 including revolving loans which have all the following features: (a) the borrower may use or withdraw the funds to a pre-approved credit limit without giving prior notice to the lender; (b) the amount of available credit can increase and decrease as funds are borrowed and repaid; (c) the loan may be used repeatedly; (d) there is no obligation of regular repayment of funds. **14** Overdrafts are defined as debit balances on current accounts. They include all bank overdrafts regardless of whether they are within or beyond the limits agreed between customers and the bank. **15** From June 2010 including convenience and extended credit card debt. Convenience credit is defined as the credit granted at an interest rate of 0% in the period between payment transactions effectuated with the card during one billing cycle and the date at which the debt balances from this specific billing cycle become due. **16** The amount category refers to the single loan transaction considered as new business.

VII Insurance corporations and pension funds

1 Assets *

€ billion

End of year/quarter	Assets									
	Total	Financial assets								Non-financial assets
		Total	Cash and deposits with banks (MFIs) 1	Debt securities (including financial derivatives)	Loans granted 2	Shares and other equity 3	Investment fund shares/units	Ceded share of insurance technical reserves	Other financial assets	
Insurance corporations and pension funds 4										
2007	1,838.3	1,779.8	558.3	155.1	248.2	275.3	409.6	70.2	63.1	58.5
2008	1,770.6	1,714.8	574.5	159.4	243.3	228.9	379.7	65.8	63.4	55.8
2009	1,836.8	1,779.6	588.9	173.9	259.8	210.5	426.9	58.6	61.2	57.1
2010	1,961.9	1,900.5	570.9	210.4	267.2	223.5	501.4	59.9	67.2	61.4
2011	2,011.2	1,947.8	576.3	226.2	271.9	221.9	522.1	62.2	67.1	63.4
2012	2,162.8	2,095.7	560.1	287.2	277.9	223.8	619.5	63.1	64.2	67.1
2013	2,236.7	2,165.2	540.6	310.5	284.7	224.1	678.5	64.2	62.7	71.5
2014	2,444.5	2,367.3	523.2	384.5	300.5	232.5	790.1	68.8	67.6	77.2
2015	2,536.5	2,454.1	488.7	421.6	309.2	246.9	841.7	77.0	69.0	82.4
2016	2,659.4	2,571.8	459.2	461.8	317.0	268.5	914.4	79.4	71.5	87.6
2015 Q2	2,489.5	2,410.8	509.4	396.7	304.8	238.9	819.2	72.6	69.2	78.6
Q3	2,507.3	2,427.5	498.0	412.5	308.0	241.6	823.8	74.7	68.9	79.8
Q4	2,536.5	2,454.1	488.7	421.6	309.2	246.9	841.7	77.0	69.0	82.4
2016 Q1	2,598.2	2,514.1	486.8	456.3	310.8	248.3	863.1	78.9	70.0	84.1
Q2	2,637.2	2,552.5	478.6	480.8	312.6	248.5	882.7	78.7	70.6	84.7
Q3	2,693.1	2,608.4	470.9	486.8	315.9	261.8	922.9	79.0	71.2	84.7
Q4	2,659.4	2,571.8	459.2	461.8	317.0	268.5	914.4	79.4	71.5	87.6
2017 Q1	2,644.3	2,557.9	453.6	463.7	312.3	261.7	913.6	81.6	71.4	86.4
Insurance corporations										
2007	1,526.2	1,485.5	432.5	130.7	226.4	267.1	304.0	68.2	56.6	40.7
2008	1,454.7	1,416.5	436.7	133.7	221.7	221.4	284.3	63.4	55.2	38.2
2009	1,490.3	1,452.2	440.4	146.2	236.4	202.7	317.6	55.6	53.2	38.1
2010	1,553.3	1,513.1	420.0	170.9	243.2	210.7	356.5	56.5	55.4	40.3
2011	1,584.6	1,542.9	419.8	191.3	246.0	210.4	361.4	58.4	55.5	41.7
2012	1,694.4	1,651.1	405.1	246.2	251.7	211.4	425.1	59.0	52.7	43.3
2013	1,742.1	1,695.7	386.3	268.0	257.1	211.1	462.3	59.8	51.0	46.4
2014	1,892.0	1,842.7	371.6	327.4	271.4	215.9	542.3	63.9	50.2	49.3
2015	1,953.4	1,901.7	336.3	357.3	278.7	228.7	578.3	71.6	50.7	51.8
2016	2,049.5	1,996.2	312.3	392.7	285.9	247.1	632.0	73.7	52.6	53.3
2015 Q2	1,925.8	1,875.9	357.5	337.9	275.3	221.6	564.6	67.5	51.5	49.9
Q3	1,938.2	1,887.7	347.5	350.0	278.1	224.0	567.7	69.5	51.0	50.5
Q4	1,953.4	1,901.7	336.3	357.3	278.7	228.7	578.3	71.6	50.7	51.8
2016 Q1	2,007.2	1,954.1	336.2	386.6	280.0	230.0	596.3	73.4	51.6	53.1
Q2	2,034.0	1,980.7	328.6	408.0	281.7	229.6	607.7	73.1	51.9	53.2
Q3	2,081.0	2,028.4	319.5	414.0	284.9	242.8	641.4	73.4	52.5	52.6
Q4	2,049.5	1,996.2	312.3	392.7	285.9	247.1	632.0	73.7	52.6	53.3
2017 Q1	2,028.3	1,976.6	305.0	396.7	280.6	239.8	626.3	75.8	52.4	51.7
Pension funds 4										
2007	312.1	294.3	125.8	24.4	21.9	8.2	105.6	1.9	6.6	17.8
2008	315.9	298.3	137.8	25.6	21.6	7.4	95.3	2.4	8.2	17.5
2009	346.5	327.4	148.4	27.7	23.3	7.7	109.3	3.0	8.0	19.1
2010	408.5	387.4	150.9	39.5	24.0	12.8	144.9	3.5	11.8	21.1
2011	426.6	404.9	156.5	34.9	25.9	11.5	160.8	3.8	11.6	21.7
2012	468.4	444.6	155.1	40.9	26.2	12.4	194.4	4.1	11.5	23.8
2013	494.6	469.6	154.3	42.5	27.6	13.0	216.2	4.4	11.7	25.1
2014	552.5	524.6	151.7	57.1	29.1	16.7	247.8	4.9	17.4	27.8
2015	583.0	552.4	152.4	64.3	30.4	18.2	263.3	5.4	18.3	30.6
2016	609.8	575.6	146.9	69.1	31.1	21.4	282.4	5.7	18.9	34.3
2015 Q2	563.7	534.9	151.8	58.8	29.6	17.3	254.7	5.1	17.7	28.8
Q3	569.2	539.9	150.6	62.5	29.9	17.7	256.0	5.3	17.9	29.3
Q4	583.0	552.4	152.4	64.3	30.4	18.2	263.3	5.4	18.3	30.6
2016 Q1	591.1	560.0	150.6	69.7	30.7	18.3	266.8	5.5	18.4	31.0
Q2	603.2	571.7	150.0	72.8	30.9	18.8	275.0	5.5	18.6	31.5
Q3	612.1	580.0	151.5	72.8	31.0	18.9	281.5	5.6	18.7	32.1
Q4	609.8	575.6	146.9	69.1	31.1	21.4	282.4	5.7	18.9	34.3
2017 Q1	616.0	581.3	148.6	67.1	31.6	21.9	287.3	5.8	19.0	34.7

Source: Bundesbank calculations based on supervisory data of the Federal Financial Supervisory Authority (BaFin). * Valuation of securities based on current market values; valuation of other items based on book values. Figures from 2016 Q4 on have been revised. **1** Including registered bonds, borrower's note loans and Pfandbriefe of monetary financial institutions. **2** Including deposits retained on assumed reinsurance. **3** Including participation certificates ("Genuss-Scheine"). **4** The term "pension funds" refers to the institutional sector "insurance corporations and pension funds" of the European System of Accounts. Pension funds thus comprise company pension schemes ("Pensionskassen", pension funds supervised by BaFin, Contractual Trust Arrangements (CTAs; included as from 2010) and public, church and municipal supplementary pension funds) and occupational pension schemes for the self-employed. Social security funds are not included.

VII Insurance corporations and pension funds

2 Liabilities *

€ billion

End of year/quarter	Liabilities								
					Insurance technical reserves				
	Total	Debt securities (including financial derivatives)	Loans received 1	Shares and other equity 2	Total	Net equity of households in life insurance and pension fund reserves 3	Unearned premiums and reserves for outstanding claims	Other liabilities	Net worth 4
	Insurance corporations and pension funds 5								
2007	1,838.3	11.7	88.9	214.8	1,377.9	1,119.2	258.7	78.2	66.9
2008	1,770.6	14.7	77.0	136.0	1,396.3	1,141.5	254.8	74.7	71.8
2009	1,836.8	16.2	71.6	136.2	1,460.5	1,211.6	249.0	73.1	79.2
2010	1,961.9	17.8	72.3	137.6	1,573.3	1,318.9	254.4	71.5	89.3
2011	2,011.2	17.0	72.1	111.8	1,625.0	1,360.3	264.7	71.5	113.8
2012	2,162.8	22.4	77.1	158.9	1,708.3	1,437.1	271.2	71.3	124.8
2013	2,236.7	16.9	81.8	197.7	1,794.1	1,514.4	279.7	71.7	74.5
2014	2,444.5	17.3	89.0	202.7	1,903.8	1,605.5	298.3	72.3	159.4
2015	2,536.5	18.3	96.6	226.0	1,995.9	1,683.2	312.8	71.9	127.8
2016	2,659.4	18.7	99.6	225.3	2,079.0	1,757.6	321.4	77.0	159.9
2015 Q2	2,489.5	17.9	91.9	206.2	1,958.3	1,649.6	308.7	72.5	142.7
Q3	2,507.3	17.5	94.3	208.4	1,976.5	1,665.6	311.0	72.2	138.4
Q4	2,536.5	18.3	96.6	226.0	1,995.9	1,683.2	312.8	71.9	127.8
2016 Q1	2,598.2	17.7	97.8	231.7	2,027.1	1,707.3	319.9	73.2	150.6
Q2	2,637.2	17.6	97.9	201.1	2,041.1	1,722.3	318.8	73.3	206.2
Q3	2,693.1	19.0	98.9	208.0	2,073.4	1,754.2	319.2	74.0	219.8
Q4	2,659.4	18.7	99.6	225.3	2,079.0	1,757.6	321.4	77.0	159.9
2017 Q1	2,644.3	20.3	101.7	237.8	2,071.8	1,736.9	335.0	77.5	135.2
	Insurance corporations								
2007	1,526.2	11.7	86.4	206.7	1,090.1	831.7	258.3	75.7	55.6
2008	1,454.7	14.7	74.2	130.6	1,095.7	841.3	254.4	72.3	67.2
2009	1,490.3	16.2	68.3	130.8	1,136.4	887.8	248.5	71.1	67.5
2010	1,553.3	17.8	68.7	131.8	1,191.3	937.3	254.0	69.4	74.4
2011	1,584.6	17.0	68.3	107.0	1,224.3	960.1	264.2	69.6	98.3
2012	1,694.4	22.4	73.1	152.0	1,280.0	1,009.2	270.8	69.5	97.4
2013	1,742.1	16.9	77.7	188.7	1,340.7	1,061.4	279.3	68.8	49.2
2014	1,892.0	17.3	84.3	193.0	1,411.6	1,113.8	297.8	70.5	115.3
2015	1,953.4	18.3	91.6	215.1	1,472.9	1,160.6	312.3	70.2	85.4
2016	2,049.5	18.7	94.4	213.9	1,536.0	1,215.1	320.9	72.5	114.0
2015 Q2	1,925.8	17.9	87.2	196.4	1,453.2	1,145.0	308.3	70.7	100.3
Q3	1,938.2	17.5	89.5	198.5	1,464.5	1,154.0	310.5	70.5	97.6
Q4	1,953.4	18.3	91.6	215.1	1,472.9	1,160.6	312.3	70.2	85.4
2016 Q1	2,007.2	17.7	92.8	220.6	1,499.3	1,179.8	319.4	71.4	105.4
Q2	2,034.0	17.6	92.9	191.3	1,506.7	1,188.4	318.3	71.5	154.0
Q3	2,081.0	19.0	93.8	197.9	1,534.3	1,215.6	318.7	72.2	163.8
Q4	2,049.5	18.7	94.4	213.9	1,536.0	1,215.1	320.9	72.5	114.0
2017 Q1	2,028.3	20.3	96.5	226.0	1,521.2	1,186.7	334.5	73.0	91.4
	Pension funds 5								
2007	312.1	–	2.4	8.1	287.8	287.5	0.3	2.5	11.2
2008	315.9	–	2.8	5.4	300.6	300.2	0.4	2.4	4.7
2009	346.5	–	3.2	5.4	324.2	323.7	0.4	1.9	11.7
2010	408.5	–	3.6	5.8	382.1	381.7	0.4	2.1	15.0
2011	426.6	–	3.8	4.8	400.6	400.2	0.5	1.9	15.5
2012	468.4	–	4.1	6.9	428.3	427.9	0.4	1.8	27.3
2013	494.6	–	4.2	8.9	453.4	452.9	0.5	2.9	25.3
2014	552.5	–	4.7	9.7	492.1	491.6	0.5	1.8	44.2
2015	583.0	–	4.9	11.0	523.0	522.6	0.5	1.7	42.4
2016	609.8	–	5.2	11.3	543.0	542.5	0.5	4.5	45.9
2015 Q2	563.7	–	4.8	9.8	505.1	504.6	0.5	1.7	42.4
Q3	569.2	–	4.8	9.9	512.0	511.6	0.5	1.7	40.7
Q4	583.0	–	4.9	11.0	523.0	522.6	0.5	1.7	42.4
2016 Q1	591.1	–	5.0	11.2	527.9	527.4	0.5	1.7	45.3
Q2	603.2	–	5.0	9.8	534.4	533.9	0.5	1.8	52.3
Q3	612.1	–	5.1	10.1	539.1	538.6	0.5	1.8	56.0
Q4	609.8	–	5.2	11.3	543.0	542.5	0.5	4.5	45.9
2017 Q1	616.0	–	5.2	11.7	550.6	550.2	0.5	4.5	43.8

Source: Bundesbank calculations based on supervisory data of the Federal Financial Supervisory Authority (BaFin). * Valuation of securities based on current market values; valuation of other items based on book values. Quarterly data and data as from 2015 are partially estimated. Figures from 2016 Q4 on have been revised. **1** Including deposits retained on ceded business. **2** Including participation certificates ("Genuss-Scheine"). **3** Including ageing provisions of health insurance schemes and premium reserves of accident insurance schemes with guaranteed premium refund. **4** As defined in the European System of Accounts (ESA 1995), net worth is the difference between total assets and the remaining liability items. Own funds are the sum of net worth and "shares and other equity". **5** The term "pension funds" refers to the institutional sector "insurance corporations and pension funds" of the ESA. Pension funds thus comprise company pension schemes ("Pensionskassen", pension funds supervised by BaFin, Contractual Trust Arrangements (CTAs; included as from 2010) and public, church and municipal supplementary pension funds) and occupational pension schemes for the self-employed. Social security funds are not included.

VIII Capital market

1 Sales and purchases of debt securities and shares in Germany

€ million

Period	Debt securities											
		Sales					Purchases					
		Domestic debt securities [1]					Residents					
	Sales = total purchases	Total	Bank debt securities	Corporate bonds (non-MFIs) [2]	Public debt securities [3]	Foreign debt securities [4]	Total [5]	Credit institutions including building and loan associations [6]	Deutsche Bundesbank	Other sectors [7]	Non-residents [8]
2005	252,658	110,542	39,898	2,682	67,965	142,116	94,718	61,740	.	32,978	157,940
2006	242,006	102,379	40,995	8,943	52,446	139,627	125,423	68,893	.	56,530	116,583
2007	217,798	90,270	42,034	20,123	28,111	127,528	– 26,762	96,476	.	– 123,238	244,560
2008	76,490	66,139	– 45,712	86,527	25,322	10,351	18,236	68,049	.	– 49,813	58,254
2009	70,208	– 538	– 114,902	22,709	91,655	70,747	90,154	12,973	8,645	77,181	– 19,945
2010	146,620	– 1,212	– 7,621	24,044	– 17,635	147,831	92,682	– 103,271	22,967	172,986	53,938
2011	33,649	13,575	– 46,796	850	59,521	20,075	– 23,876	– 94,793	36,805	34,112	57,526
2012	51,813	– 21,419	– 98,820	– 8,701	86,103	73,231	– 3,767	– 42,017	– 3,573	41,823	55,580
2013	– 15,969	– 101,616	– 117,187	153	15,415	85,646	16,409	– 25,778	– 12,708	54,895	– 32,380
2014	64,027	– 31,962	– 47,404	– 1,330	16,776	95,988	53,068	– 12,124	– 11,951	77,143	10,961
2015	31,809	– 36,010	– 65,778	26,762	3,006	67,819	123,820	– 66,330	121,164	68,986	– 92,012
2016	69,798	27,069	19,177	17,905	– 10,012	42,728	173,193	– 58,012	187,500	43,705	– 103,395
2016 July	– 30,480	– 26,603	– 16,263	1,055	– 11,394	– 3,878	– 1,224	– 9,959	18,064	– 9,329	– 29,257
Aug	19,190	18,041	7,011	– 942	11,972	1,149	11,826	– 10,241	13,001	9,066	7,364
Sep	17,625	12,468	6,106	3,712	2,650	5,157	23,838	– 4,025	17,786	10,077	– 6,214
Oct	– 8,977	– 6,357	640	3,347	– 10,344	– 2,619	10,962	– 7,635	17,287	1,310	– 19,939
Nov	– 193	2,417	– 5,172	– 377	7,966	– 2,611	6,331	– 2,469	18,652	– 9,852	– 6,524
Dec	– 30,541	– 21,892	– 10,590	1,125	– 12,426	– 8,649	557	– 9,459	13,554	– 3,538	– 31,098
2017 Jan	24,212	22,588	12,008	4,673	5,908	1,624	20,521	– 7,443	18,146	9,818	3,692
Feb	4,188	– 2,177	12,413	1,756	– 16,346	6,365	21,814	– 5,044	16,715	10,143	– 17,626
Mar	9,225	8,713	1,179	– 131	7,665	512	17,676	– 8,293	17,769	8,200	– 8,451
Apr	– 12,590	– 15,170	– 5,909	– 276	– 8,985	2,580	3,520	– 5,737	12,817	– 3,560	– 16,110
May	39,116	28,463	10,800	1,096	16,567	10,654	17,789	3,906	12,751	1,132	21,327

€ million

Period	Shares						
		Sales		Purchases			
				Residents			
	Sales = total purchases	Domestic shares [9]	Foreign shares [10]	Total [11]	Credit institutions [6]	Other sectors [12]	Non-residents [13]
2005	32,364	13,766	18,597	1,036	10,208	– 9,172	31,329
2006	26,276	9,061	17,214	7,528	11,323	– 3,795	18,748
2007	– 5,009	10,053	– 15,062	– 62,308	– 6,702	– 55,606	57,299
2008	– 29,452	11,326	– 40,778	2,743	– 23,079	25,822	– 32,194
2009	35,980	23,962	12,018	30,496	– 8,335	38,831	5,484
2010	37,767	20,049	17,719	36,406	7,340	29,066	1,361
2011	25,833	21,713	4,120	40,804	670	40,134	– 14,971
2012	15,061	5,120	9,941	14,405	10,259	4,146	656
2013	20,187	10,106	10,081	17,336	11,991	5,345	2,851
2014	39,903	18,778	21,125	34,148	17,203	16,945	5,755
2015	40,293	7,668	32,625	26,058	– 5,421	31,479	14,235
2016	33,504	4,409	29,095	32,324	– 5,143	37,467	1,180
2016 July	2,882	464	2,418	2,620	– 2,128	4,748	262
Aug	4,804	1,063	3,741	3,191	2,256	935	1,613
Sep	5,438	229	5,209	6,092	503	5,589	– 654
Oct	1,984	204	1,780	– 1,464	– 221	– 1,243	3,448
Nov	3,866	681	3,185	3,772	728	3,044	94
Dec	3,021	861	2,160	– 12	1,291	– 1,303	3,033
2017 Jan r	2,154	148	2,006	1,369	– 247	1,616	785
Feb r	2,436	852	1,584	2,985	1,866	1,119	– 549
Mar r	13,985	10,136	3,849	11,531	506	11,025	2,454
Apr	– 1,261	95	– 1,356	– 3,599	– 2,589	– 1,010	2,338
May	3,317	107	3,210	2,053	476	1,577	1,264

1 Net sales at market values plus/minus changes in issuers' portfolios of their own debt securities. **2** Including cross-border financing within groups from January 2011. **3** Including Federal Railways Fund, Federal Post Office and Treuhand agency. **4** Net purchases or net sales (–) of foreign debt securities by residents; transaction values. **5** Domestic and foreign debt securities. **6** Book values; statistically adjusted. **7** Residual; also including purchases of domestic and foreign securities by domestic mutual funds. Up to end-2008, data comprise Deutsche Bundesbank. **8** Net purchases or net sales (–) of domestic debt securities by non-residents; transaction values. **9** Excluding shares of public limited investment companies; at issue prices. **10** Net purchases or net sales (–) of foreign shares (including direct investment) by residents; transaction values. **11** Domestic and foreign shares. **12** Residual; also including purchases of domestic and foreign securities by domestic mutual funds. **13** Net purchases or net sales (–) of domestic shares (including direct investment) by non-residents; transaction values. — The figures for the most recent date are provisional; revisions are not specially marked.

VIII Capital market

2 Sales of debt securities issued by residents *

€ million nominal value

Period	Total	Bank debt securities [1]					Corporate bonds (non-MFIs) [2]	Public debt securities [3]
		Total	Mortgage Pfandbriefe	Public Pfandbriefe	Debt securities issued by special purpose credit institutions	Other bank debt securities		
	Gross sales [4]							
2005	988,911	692,182	28,217	103,984	160,010	399,969	24,352	272,380
2006	925,863	622,055	24,483	99,628	139,193	358,750	29,975	273,834
2007	1,021,533	743,616	19,211	82,720	195,722	445,963	15,043	262,872
2008	1,337,337	961,271	51,259	70,520	382,814	456,676	95,093	280,974
2009	1,533,616	1,058,815	40,421	37,615	331,566	649,215	76,379	398,423
2010	1,375,138	757,754	36,226	33,539	363,828	324,160	53,654	563,731
2011	1,337,772	658,781	31,431	24,295	376,876	226,180	86,615	592,376
2012	1,340,568	702,781	36,593	11,413	446,153	208,623	63,259	574,529
2013	1,433,628	908,107	25,775	12,963	692,611	176,758	66,630	458,891
2014	1,362,056	829,864	24,202	13,016	620,409	172,236	79,873	452,321
2015	1,359,422	852,045	35,840	13,376	581,410	221,417	106,676	400,700
2016 [5]	1,206,483	717,002	29,059	7,621	511,222	169,103	73,370	416,110
2016 Oct	93,470	58,255	1,559	785	42,270	13,642	7,593	27,621
Nov	72,858	40,706	2,017	211	29,840	8,639	2,842	29,309
Dec	56,403	32,710	340	48	23,727	8,595	9,060	14,634
2017 Jan	123,462	82,622	4,569	2,909	62,057	13,088	6,115	34,725
Feb	99,851	70,911	2,669	733	48,391	19,118	4,105	24,835
Mar	95,842	47,729	3,548	756	31,244	12,182	4,691	43,421
Apr	87,097	55,296	2,170	58	45,233	7,836	2,707	29,094
May	88,568	55,536	1,700	238	41,685	11,913	5,015	28,016
	***of which:* Debt securities with maturities of more than four years [6]**							
2005	425,523	277,686	20,862	63,851	49,842	143,129	16,360	131,479
2006	337,969	190,836	17,267	47,814	47,000	78,756	14,422	132,711
2007	315,418	183,660	10,183	31,331	50,563	91,586	13,100	118,659
2008	387,516	190,698	13,186	31,393	54,834	91,289	84,410	112,407
2009	361,999	185,575	20,235	20,490	59,809	85,043	55,240	121,185
2010	381,687	169,174	15,469	15,139	72,796	65,769	34,649	177,863
2011	368,039	153,309	13,142	8,500	72,985	58,684	41,299	173,431
2012	421,018	177,086	23,374	6,482	74,386	72,845	44,042	199,888
2013	372,805	151,797	16,482	10,007	60,662	64,646	45,244	175,765
2014	420,006	157,720	17,678	8,904	61,674	69,462	56,249	206,037
2015	414,593	179,150	25,337	9,199	62,237	82,379	68,704	166,742
2016 [5]	375,859	173,900	24,741	5,841	78,859	64,460	47,818	154,144
2016 Oct	32,702	14,677	1,559	785	4,690	7,644	6,327	11,698
Nov	23,848	11,083	2,004	211	5,122	3,746	1,368	11,397
Dec	19,429	7,699	137	48	3,777	3,737	6,592	5,138
2017 Jan	41,887	26,101	3,344	1,861	15,975	4,921	4,857	10,929
Feb	31,566	17,827	2,220	733	11,542	3,332	2,843	10,896
Mar	34,636	15,895	2,772	462	6,186	6,474	3,396	15,345
Apr	27,201	15,693	2,055	23	11,781	1,834	1,547	9,962
May	29,215	12,669	1,165	136	6,045	5,322	3,142	13,404
	Net sales [7]							
2005	141,715	65,798	– 2,151	– 34,255	37,242	64,962	10,099	65,819
2006	129,423	58,336	– 12,811	– 20,150	44,890	46,410	15,605	55,482
2007	86,579	58,168	– 10,896	– 46,629	42,567	73,127	– 3,683	32,093
2008	119,472	8,517	15,052	– 65,773	25,165	34,074	82,653	28,302
2009	76,441	– 75,554	858	– 80,646	25,579	– 21,345	48,508	103,482
2010	21,566	– 87,646	– 3,754	– 63,368	28,296	– 48,822	23,748	85,464
2011	22,518	– 54,582	1,657	– 44,290	32,904	– 44,852	– 3,189	80,289
2012	– 85,298	– 100,198	– 4,177	– 41,660	– 3,259	– 51,099	– 6,401	21,298
2013	– 140,017	– 125,932	– 17,364	– 37,778	– 4,027	– 66,760	1,394	– 15,479
2014	– 34,020	– 56,899	– 6,313	– 23,856	– 862	– 25,869	10,497	12,383
2015	– 65,147	– 77,273	9,271	– 9,754	– 2,758	– 74,028	25,300	– 13,174
2016 [5]	21,951	10,792	2,176	– 12,979	16,266	5,327	18,177	– 7,020
2016 Oct	– 4,225	425	286	– 1,680	105	1,714	4,024	– 8,675
Nov	4,577	– 6,635	1,095	– 1,855	– 3,251	– 2,625	175	11,037
Dec	– 26,763	– 10,987	– 1,766	– 428	– 5,419	– 3,374	1,714	– 17,490
2017 Jan	5,954	13,059	2,874	788	6,724	2,673	1,848	– 8,953
Feb	– 2,582	13,750	1,628	138	1,366	10,618	221	– 16,553
Mar	11,887	4,049	1,520	– 839	3,038	330	– 705	8,543
Apr	– 15,906	– 5,239	1,191	– 1,613	– 1,034	– 3,781	– 1,836	– 8,832
May	26,524	10,344	– 1,329	– 1,105	13,027	– 250	– 226	16,406

***** For definitions, see the explanatory notes in the Statistical Supplement 2 Capital market statistics on p 21 ff. **1** Excluding registered bank debt securities. **2** Including cross-border financing within groups from January 2011. **3** Including Federal Railways Fund, Federal Post Office and Treuhand agency. **4** Gross sales means only initial sales of newly issued securities. **5** Sectoral reclassification of debt securities. e. **6** Maximum maturity according to the terms of issue. **7** Gross sales less redemptions.

VIII Capital market

3 Amounts outstanding of debt securities issued by residents *

€ million nominal value

End of year or month/ Maturity in years	Total	Bank debt securities					Corporate bonds (non-MFIs)	Public debt securities
		Total	Mortgage Pfandbriefe	Public Pfandbriefe	Debt securities issued by special purpose credit institutions	Other bank debt securities		
2005	2,914,723	1,751,563	157,209	519,674	323,587	751,093	83,942	1,079,218
2006	3,044,145	1,809,899	144,397	499,525	368,476	797,502	99,545	1,134,701
2007	3,130,723	1,868,066	133,501	452,896	411,041	870,629	95,863	1,166,794
2008	3,250,195	1,876,583	150,302	377,091	490,641	858,550	178,515	1,195,097
2009	3,326,635	1,801,029	151,160	296,445	516,221	837,203	227,024	1,298,581
2010	3,348,201	1 1,570,490	147,529	232,954	544,517	1 645,491	250,774	1 1,526,937
2011	3,370,721	1,515,911	149,185	188,663	577,423	600,640	247,585	1,607,226
2012	3,285,422	1 1,414,349	145,007	147,070	574,163	1 548,109	1 220,456	1 1,650,617
2013	3,145,329	1,288,340	127,641	109,290	570,136	481,273	221,851	1,635,138
2014	3,111,308	1,231,445	121,328	85,434	569,409	455,274	232,342	1,647,520
2015	3,046,162	1,154,173	130,598	75,679	566,811	381,085	257,612	1,634,377
2016 1	3,068,111	1,164,965	132,775	62,701	633,578	335,910	275,789	1,627,358
2016 Nov	3,094,875	1,175,952	134,541	63,129	638,998	339,284	274,075	1,644,848
Dec	3,068,111	1,164,965	132,775	62,701	633,578	335,910	275,789	1,627,358
2017 Jan	3,074,066	1,178,024	135,649	63,489	640,303	338,583	277,637	1,618,405
Feb	3,071,484	1,191,774 1	139,719	63,627	641,669	1 346,760	277,858	1,601,851
Mar	3,083,371	1,195,823	141,239	62,787	644,707	347,090	277,153	1,610,395
Apr	3,067,464	1,190,584 1	142,097	61,174	1 644,126	343,188	275,317	1,601,563
May	3,093,988	1,200,928	140,768	60,069	657,153	342,938	275,091	1,617,969
Breakdown by remaining period to maturity 2							**Position at end-May 2017**	
less than 2	1,036,938	469,928	39,895	22,337	283,173	124,524	51,840	515,169
2 to less than 4	649,670	283,675	41,437	14,767	151,650	75,821	49,575	316,421
4 to less than 6	459,514	182,610	26,174	8,633	98,506	49,300	39,970	236,934
6 to less than 8	312,016	103,444	18,717	5,857	53,489	25,382	23,774	184,798
8 to less than 10	217,927	74,926	11,357	5,920	35,593	22,054	11,930	131,071
10 to less than 15	124,299	31,210	2,498	1,217	13,574	13,922	14,746	78,343
15 to less than 20	78,769	16,078	152	1,241	11,817	2,867	8,185	54,506
20 and more	214,855	39,056	538	100	9,350	29,069	75,071	100,728

* Including debt securities temporarily held in the issuers' portfolios. **1** Sectoral reclassification of debt securities. **2** Calculated from month under review until final maturity for debt securities falling due en bloc and until mean maturity of the residual amount outstanding for debt securities not falling due en bloc.

4 Shares in circulation issued by residents *

€ million nominal value

Period	Share capital = circulation at end of period under review	Net increase or net decrease (–) during period under review	Change in domestic public limited companies' capital due to							*Memo item* Share circulation at market values (market capitalisation) level at end of period under review 2
			cash payments and exchange of convertible bonds 1	issue of bonus shares	contribution of claims and other real assets	contribution of shares, GmbH shares, etc	merger and transfer of assets	change of legal form	reduction of capital and liquidation	
2005	163,071	– 1,733	2,470	1,040	694	268	– 1,443	– 3,060	– 1,703	1,058,532
2006	163,764	695	2,670	3,347	604	954	– 1,868	– 1,256	– 3,761	1,279,638
2007	164,560	799	3,164	1,322	200	269	– 682	– 1,847	– 1,636	1,481,930
2008	168,701	4,142	5,006	1,319	152	0	– 428	– 608	– 1,306	830,622
2009	175,691	6,989	12,476	398	97	–	– 3,741	– 1,269	– 974	927,256
2010	174,596	– 1,096	3,265	497	178	10	– 486	– 993	– 3,569	1,091,220
2011	177,167	2,570	6,390	552	462	9	– 552	– 762	– 3,532	924,214
2012	178,617	1,449	3,046	129	570	–	– 478	594	– 2,411	1,150,188
2013	171,741	– 6,879	2,971	718	476	–	– 1,432	– 619	– 8,992	1,432,658
2014	177,097	5,356	5,332	1,265	1,714	–	– 465	– 1,044	– 1,446	1,478,063
2015	177,416	319	4,634	397	599	–	– 1,394	– 1,385	– 2,535	1,614,442
2016	176,355	– 1,062	3,272	319	337	–	– 953	– 2,165	– 1,865	1,676,397
2016 Nov	176,793	60	120	2	–	–	–	– 5	– 56	1,571,446
Dec	176,355	– 439	747	8	–	–	0	– 1,164	– 29	1,676,397
2017 Jan	176,328	– 28	38	–	8	–	– 34	– 21	– 18	1,716,525
Feb	176,382	54	112	–	–	–	0	– 6	– 52	1,731,415
Mar	178,273	1,891	2,229	1	0	–	– 105	– 94	– 140	1,794,735
Apr	178,328	54	93	20	2	–	0	– 13	– 47	1,828,445
May	178,326	– 2	78	48	50	–	0	– 17	– 162	1,845,930

* Excluding shares of public limited investment companies. **1** Including shares issued out of company profits. **2** All marketplaces. Source: Bundesbank calculations based on data of the Herausgebergemeinschaft Wertpapier-Mitteilungen and the Deutsche Börse AG.

VIII Capital market

5 Yields and indices on German securities

Period	Yields on debt securities outstanding issued by residents [1]							Price indices [2,3]			
		Public debt securities			Bank debt securities			Debt securities		Shares	
			Listed Federal securities								
	Total	Total	Total	With a residual maturity of 9 and including 10 years [4]	Total	With a residual maturity of more than 9 and including 10 years	Corporate bonds (non-MFIs)	German bond index (REX)	iBoxx € Germany price index	CDAX share price index	German share index (DAX)
	% per annum							Average daily rate	End-1998 = 100	End-1987 = 100	End-1987 = 1000
2005	3.1	3.2	3.2	3.4	3.1	3.5	3.7	120.92	101.09	335.59	5,408.26
2006	3.8	3.7	3.7	3.8	3.8	4.0	4.2	116.78	96.69	407.16	6,596.92
2007	4.3	4.3	4.2	4.2	4.4	4.5	5.0	114.85	94.62	478.65	8,067.32
2008	4.2	4.0	4.0	4.0	4.5	4.7	6.3	121.68	102.06	266.33	4,810.20
2009	3.2	3.1	3.0	3.2	3.5	4.0	5.5	123.62	100.12	320.32	5,957.43
2010	2.5	2.4	2.4	2.7	2.7	3.3	4.0	124.96	102.95	368.72	6,914.19
2011	2.6	2.4	2.4	2.6	2.9	3.5	4.3	131.48	109.53	304.60	5,898.35
2012	1.4	1.3	1.3	1.5	1.6	2.1	3.7	135.11	111.18	380.03	7,612.39
2013	1.4	1.3	1.3	1.6	1.3	2.1	3.4	132.11	105.92	466.53	9,552.16
2014	1.0	1.0	1.0	1.2	0.9	1.7	3.0	139.68	114.37	468.39	9,805.55
2015	0.5	0.4	0.4	0.5	0.5	1.2	2.4	139.52	112.42	508.80	10,743.01
2016	0.1	0.0	0.0	0.1	0.3	1.0	2.1	142.50	112.72	526.55	11,481.06
2017 Jan	0.2	0.1	0.1	0.3	0.4	1.0	2.0	141.33	110.45	530.99	11,535.31
Feb	0.2	0.1	0.1	0.3	0.4	1.0	1.9	143.32	112.08	543.02	11,834.41
Mar	0.3	0.2	0.1	0.4	0.5	1.0	1.9	141.93	110.93	562.80	12,312.87
Apr	0.2	0.1	0.1	0.2	0.4	1.0	1.8	141.87	111.03	570.29	12,438.01
May	0.3	0.2	0.2	0.3	0.5	0.9	1.7	141.95	110.90	572.60	12,615.06
June	0.2	0.1	0.1	0.3	0.4	0.9	1.7	140.79	109.60	557.50	12,325.12

1 Bearer debt securities with maximum maturities according to the terms of issue of over 4 years if their mean residual maturities exceed 3 years. Convertible debt securities, etc. debt securities with unscheduled redemption, zero-coupon bonds, floating-rate notes and bonds not denominated in euro are not included. Group yields for the various categories of securities are weighted by the amounts outstanding of the debt securities included in the calculation. Monthly figures are calculated on the basis of the yields on all the business days in a month. The annual figures are the unweighted means of the monthly figures. **2** End of year or month. **3** Source: Deutsche Börse AG. **4** Only debt securities eligible as underlying instruments for futures contracts; calculated as unweighted averages.

6 Sales and purchases of mutual fund shares in Germany

€ million

Period	Sales								Purchases					
		Open-end domestic mutual funds [1] (sales receipts)							Residents					
			Mutual funds open to the general public							Credit institutions including building and loan associations [2]		Other sectors [3]		
				of which										
	Sales = total purchases	Total	Total	Money market funds	Securities-based funds	Real estate funds	Specialised funds	Foreign funds [4]	Total	Total	*of which* Foreign mutual fund shares	Total	*of which* Foreign mutual fund shares	Non-residents [5]
2005	85,268	41,718	6,400	– 124	7,001	– 3,186	35,317	43,550	79,252	21,290	7,761	57,962	35,789	6,016
2006	47,264	19,535	– 14,257	490	– 9,362	– 8,814	33,791	27,729	39,006	14,676	5,221	24,330	22,508	8,258
2007	55,778	13,436	– 7,872	– 4,839	– 12,848	6,840	21,307	42,342	51,309	– 229	4,240	51,538	38,102	4,469
2008	2,598	– 7,911	– 14,409	– 12,171	– 11,149	799	6,498	10,509	11,315	– 16,625	– 9,252	27,940	19,761	– 8,717
2009	49,929	43,747	10,966	– 5,047	11,749	2,686	32,780	6,182	38,132	– 14,995	– 8,178	53,127	14,361	11,796
2010	106,190	84,906	13,381	– 148	8,683	1,897	71,345	21,284	102,591	3,873	6,290	98,718	14,994	3,598
2011	46,512	45,221	– 1,340	– 379	– 2,037	1,562	46,561	1,291	39,474	– 7,576	– 694	47,050	1,984	7,036
2012	111,236	89,942	2,084	– 1,036	97	3,450	87,859	21,293	114,676	– 3,062	– 1,562	117,738	22,855	– 3,438
2013	123,736	91,337	9,184	– 574	5,596	3,376	82,153	32,400	117,028	771	100	116,257	32,300	6,709
2014	139,768	97,711	3,998	– 473	862	1,000	93,713	42,057	143,560	819	– 1,745	142,741	43,802	– 3,790
2015	180,762	146,136	30,420	318	22,345	3,636	115,716	34,626	173,417	7,362	494	166,055	34,131	7,345
2016	155,955	119,369	21,301	– 342	11,131	7,384	98,068	36,586	162,883	2,877	– 3,172	160,006	39,757	– 6,928
2016 Nov	11,131	11,845	2,820	67	2,053	346	9,025	– 714	12,125	– 616	– 780	12,741	66	– 994
Dec	20,446	16,366	1,388	– 37	1,016	253	14,977	4,081	20,017	– 614	– 756	20,631	4,837	429
2017 Jan	18,658	10,107	1,518	– 65	583	1,001	8,589	8,551	19,191	1,383	502	17,808	8,049	– 533
Feb	14,721	11,872	2,730	– 62	1,782	603	9,141	2,849	14,854	1,263	452	13,591	2,397	– 133
Mar	12,841	7,318	3,636	– 64	2,626	704	3,682	5,523	12,039	133	– 176	11,906	5,699	802
Apr	10,284	6,496	2,607	– 51	1,878	450	3,890	3,788	11,594	302	– 193	11,292	3,981	– 1,309
May	6,097	5,658	3,113	– 12	2,492	238	2,545	439	5,456	421	250	5,035	189	642

1 Including public limited investment companies. **2** Book values. **3** Residual. **4** Net purchases or net sales (–) of foreign fund shares by residents; transaction values. **5** Net purchases or net sales (–) of domestic fund shares by non-residents; transaction values. — The figures for the most recent date are provisional; revisions are not specially marked.

IX Financial accounts

1 Acquisition of financial assets and external financing of non-financial corporations (non-consolidated)

€ billion

Item	2014	2015	2016	2015	2016				2017
				Q4	Q1	Q2	Q3	Q4	Q1
Acquisition of financial assets									
Currency and deposits	– 10.74	34.02	34.15	15.17	3.25	7.05	18.84	5.00	– 0.48
Debt securities	– 5.38	– 0.93	– 3.22	– 0.52	0.87	– 3.32	0.17	– 0.94	– 0.89
short-term debt securities	1.62	– 0.77	– 0.57	0.78	0.98	– 0.70	– 0.02	– 0.82	0.23
long-term debt securities	– 7.00	– 0.15	– 2.65	– 1.29	– 0.10	– 2.62	0.19	– 0.11	– 1.13
Memo item									
Debt securities of domestic sectors	– 1.88	0.73	– 2.60	– 0.38	0.51	– 2.54	– 0.04	– 0.52	– 0.52
Non-financial corporations	– 0.05	– 0.79	0.69	– 0.52	0.66	– 0.12	0.01	0.15	0.85
Financial corporations	– 1.26	1.93	– 2.49	0.58	0.31	– 1.80	– 0.53	– 0.47	– 0.34
General government	– 0.57	– 0.41	– 0.81	– 0.44	– 0.46	– 0.62	0.47	– 0.20	– 1.03
Debt securities of the rest of the world	– 3.50	– 1.66	– 0.62	– 0.14	0.37	– 0.78	0.21	– 0.41	– 0.38
Loans	18.52	27.00	10.37	– 0.25	4.88	– 8.00	– 0.62	14.11	27.62
short-term loans	33.19	25.81	6.66	1.47	– 0.08	– 2.49	– 4.65	13.88	16.97
long-term loans	– 14.67	1.20	3.71	– 1.72	4.96	– 5.51	4.03	0.23	10.65
Memo item									
to domestic sectors	14.15	8.78	– 3.69	– 3.43	4.09	– 6.53	– 2.90	1.64	9.65
Non-financial corporations	– 0.42	0.84	– 8.35	0.02	5.63	– 12.25	– 2.54	0.81	1.65
Financial corporations	14.46	7.88	4.47	– 3.46	– 1.59	5.67	– 0.40	0.78	7.99
General government	0.11	0.06	0.18	0.02	0.05	0.05	0.05	0.05	0.00
to the rest of the world	4.37	18.22	14.06	3.18	0.79	– 1.47	2.28	12.47	17.98
Equity and investment fund shares	– 1.82	44.50	60.98	20.55	9.56	4.15	12.22	35.06	15.49
Equity	8.56	28.16	55.16	19.05	9.11	4.90	8.13	33.02	16.74
Listed shares of domestic sectors	– 1.62	– 10.41	20.66	2.88	– 6.00	– 0.77	6.72	20.70	– 5.54
Non-financial corporations	– 5.39	– 8.04	20.34	2.86	– 6.17	– 0.94	6.83	20.62	– 5.45
Financial corporations	3.78	– 2.37	0.31	0.02	0.17	0.17	– 0.11	0.08	– 0.09
Listed shares of the rest of the world	– 4.85	12.45	10.13	3.02	0.66	– 0.59	1.37	8.69	3.23
Other equity [1]	15.02	26.12	24.37	13.15	14.45	6.26	0.04	3.63	19.05
Investment fund shares	– 10.38	16.35	5.82	1.50	0.45	– 0.75	4.08	2.04	– 1.25
Money market fund shares	0.23	0.21	0.36	0.35	– 0.30	– 0.10	– 0.03	0.79	– 0.28
Non-MMF investment fund shares	– 10.61	16.13	5.46	1.15	0.75	– 0.65	4.11	1.25	– 0.97
Insurance technical reserves	1.10	3.03	2.56	0.68	0.59	0.78	0.73	0.46	0.52
Financial derivatives	– 1.26	0.54	4.60	– 1.48	– 2.07	0.86	– 1.07	6.88	– 1.15
Other accounts receivable	– 78.15	31.02	– 23.24	14.86	6.87	– 7.00	– 6.05	– 17.05	75.55
Total	– 77.74	139.18	86.20	49.02	23.95	– 5.48	24.22	43.51	116.65
External financing									
Debt securities	1.26	7.78	23.71	– 1.17	10.40	4.60	2.88	5.82	7.57
short-term securities	– 11.63	1.96	– 0.15	– 0.27	2.04	0.18	– 0.57	– 1.79	5.47
long-term securities	12.89	5.82	23.85	– 0.89	8.36	4.43	3.45	7.61	2.11
Memo item									
Debt securities of domestic sectors	4.27	1.76	10.79	– 1.20	4.97	1.27	1.59	2.96	3.14
Non-financial corporations	– 0.05	– 0.79	0.69	– 0.52	0.66	– 0.12	0.01	0.15	0.85
Financial corporations	4.12	2.07	9.97	– 0.60	3.59	1.96	1.56	2.86	2.98
General government	0.00	0.02	0.01	0.01	– 0.00	0.00	0.01	0.00	– 0.01
Households	0.20	0.46	0.12	– 0.07	0.73	– 0.57	0.01	– 0.05	– 0.69
Debt securities of the rest of the world	– 3.01	6.02	12.92	0.03	5.43	3.33	1.29	2.87	4.44
Loans	– 7.26	47.58	49.71	– 2.60	29.87	6.50	16.42	– 3.09	29.90
short-term loans	0.55	29.91	14.52	2.92	15.01	– 2.47	2.77	– 0.80	4.00
long-term loans	– 7.81	17.67	35.19	– 5.53	14.86	8.97	13.65	– 2.30	25.90
Memo item									
from domestic sectors	10.90	20.72	26.30	– 9.61	25.70	– 7.68	10.51	– 2.24	10.92
Non-financial corporations	– 0.42	0.84	– 8.35	0.02	5.63	– 12.25	– 2.54	0.81	1.65
Financial corporations	22.78	26.86	25.92	1.42	12.51	4.08	15.67	– 6.34	12.21
General government	– 11.46	– 6.98	8.73	– 11.04	7.56	0.50	– 2.62	3.29	– 2.94
from the rest of the world	– 18.16	26.86	23.41	7.00	4.17	14.18	5.91	– 0.85	18.98
Equity	31.11	16.63	8.95	0.85	3.60	2.05	2.18	1.12	2.83
Listed shares of domestic sectors	– 0.34	7.36	21.96	11.39	– 2.67	3.30	4.33	17.00	– 6.76
Non-financial corporations	– 5.39	– 8.04	20.34	2.86	– 6.17	– 0.94	6.83	20.62	– 5.45
Financial corporations	2.22	11.75	– 2.31	5.09	– 1.14	3.22	– 2.25	– 2.13	– 0.88
General government	0.03	0.11	0.07	0.01	0.04	0.05	0.01	– 0.02	0.01
Households	2.80	3.55	3.85	3.43	4.61	0.98	– 0.26	– 1.47	– 0.44
Quoted shares of the rest of the world	9.09	– 1.34	– 20.44	– 10.04	2.71	– 2.89	– 4.10	– 16.16	7.09
Other equity [1]	22.37	10.61	7.43	– 0.50	3.56	1.64	1.95	0.29	2.51
Insurance technical reserves	6.41	5.06	5.06	1.27	1.27	1.27	1.27	1.27	1.27
Financial derivatives and employee stock options	– 0.21	– 10.81	– 0.13	– 3.90	5.34	– 5.71	8.05	– 7.81	0.67
Other accounts payable	– 0.79	15.79	31.24	– 7.75	6.65	0.70	– 0.80	24.69	28.71
Total	30.52	82.03	118.53	– 13.30	57.14	9.40	29.99	22.01	70.94

1 Including unlisted shares.

IX Financial accounts

2 Financial assets and liabilities of non-financial corporations (non-consolidated)

End-of-year level, end-of-quarter level; € billion

Item	2014	2015	2016	2015	2016				2017
				Q4	Q1	Q2	Q3	Q4	Q1
Financial assets									
Currency and deposits	406.3	463.4	514.8	463.4	456.1	466.5	502.9	514.8	516.6
Debt securities	49.6	47.8	44.8	47.8	48.8	45.7	46.0	44.8	43.9
short-term debt securities	6.8	6.0	5.5	6.0	7.0	6.3	6.3	5.5	5.8
long-term debt securities	42.9	41.7	39.3	41.7	41.7	39.3	39.6	39.3	38.1
Memo item									
Debt securities of domestic sectors	22.9	23.3	20.8	23.3	23.8	21.4	21.4	20.8	20.3
Non-financial corporations	4.6	3.6	4.4	3.6	4.3	4.2	4.3	4.4	5.3
Financial corporations	12.7	14.5	12.0	14.5	14.8	13.0	12.5	12.0	11.6
General government	5.7	5.2	4.4	5.2	4.8	4.2	4.6	4.4	3.4
Debt securities of the rest of the world	26.7	24.4	24.0	24.4	24.9	24.3	24.5	24.0	23.6
Loans	455.4	485.2	494.5	485.2	487.8	480.0	478.4	494.5	522.8
short-term loans	356.2	383.7	390.5	383.7	382.5	380.4	375.4	390.5	407.8
long-term loans	99.2	101.5	104.0	101.5	105.3	99.6	103.0	104.0	115.0
Memo item									
to domestic sectors	303.7	312.5	308.8	312.5	316.6	310.0	307.2	308.8	318.5
Non-financial corporations	212.4	213.3	204.9	213.3	218.9	206.7	204.1	204.9	206.6
Financial corporations	84.9	92.8	97.2	92.8	91.2	96.8	96.4	97.2	105.2
General government	6.4	6.4	6.6	6.4	6.5	6.5	6.6	6.6	6.6
to the rest of the world	151.7	172.7	185.7	172.7	171.2	170.0	171.2	185.7	204.3
Equity and investment fund shares	1,700.7	1,880.9	1,926.3	1,880.9	1,797.6	1,757.1	1,814.5	1,926.3	2,005.3
Equity	1,565.2	1,728.9	1,766.4	1,728.9	1,646.5	1,605.5	1,656.3	1,766.4	1,844.5
Listed shares of domestic sectors	262.2	273.0	292.3	273.0	248.1	239.4	265.1	292.3	304.1
Non-financial corporations	252.2	266.6	286.2	266.6	242.0	233.7	259.3	286.2	298.6
Financial corporations	10.0	6.3	6.1	6.3	6.1	5.7	5.8	6.1	5.5
Listed shares of the rest of the world	50.0	62.5	73.9	62.5	62.9	62.1	64.5	73.9	79.7
Other equity [1]	1,252.9	1,393.4	1,400.2	1,393.4	1,335.5	1,303.9	1,326.6	1,400.2	1,460.7
Investment fund shares	135.5	151.9	159.9	151.9	151.1	151.7	158.2	159.9	160.8
Money market fund shares	1.2	1.4	1.9	1.4	1.0	1.1	1.0	1.9	1.7
Non-MMF investment fund shares	134.4	150.6	158.0	150.6	150.1	150.6	157.2	158.0	159.1
Insurance technical reserves	47.3	50.0	52.9	50.0	50.7	51.4	52.2	52.9	53.6
Financial derivatives	22.7	24.0	26.9	24.0	23.2	25.3	22.0	26.9	23.4
Other accounts receivable	883.4	912.6	930.1	912.6	904.1	903.5	904.0	930.1	1,016.8
Total	3,565.4	3,863.9	3,990.4	3,863.9	3,768.4	3,729.6	3,819.9	3,990.4	4,182.3
Liabilities									
Debt securities	150.9	156.8	183.8	156.8	173.1	179.0	183.0	183.8	189.7
short-term securities	1.8	3.0	2.9	3.0	5.1	5.3	4.7	2.9	8.3
long-term securities	149.1	153.7	180.9	153.7	168.0	173.7	178.3	180.9	181.4
Memo item									
Debt securities of domestic sectors	60.2	58.7	72.0	58.7	65.9	68.2	71.2	72.0	74.7
Non-financial corporations	4.6	3.6	4.4	3.6	4.3	4.2	4.3	4.4	5.3
Financial corporations	39.8	40.0	51.7	40.0	46.0	49.1	50.9	51.7	54.3
General government	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Households	15.8	15.0	15.7	15.0	15.6	14.9	15.9	15.7	15.0
Debt securities of the rest of the world	90.7	98.1	111.8	98.1	107.2	110.8	111.8	111.8	115.0
Loans	1,388.2	1,436.9	1,481.6	1,436.9	1,461.5	1,464.2	1,481.7	1,481.6	1,510.9
short-term loans	486.6	515.7	529.2	515.7	528.9	526.5	530.4	529.2	533.1
long-term loans	901.7	921.2	952.5	921.2	932.6	937.7	951.2	952.5	977.9
Memo item									
from domestic sectors	1,091.5	1,108.9	1,129.3	1,108.9	1,131.8	1,119.6	1,130.2	1,129.3	1,139.5
Non-financial corporations	212.4	213.3	204.9	213.3	218.9	206.7	204.1	204.9	206.6
Financial corporations	819.7	843.9	862.8	843.9	854.9	855.3	869.8	862.8	875.1
General government	59.4	51.7	61.5	51.7	57.9	57.7	56.3	61.5	57.8
from the rest of the world	296.7	328.0	352.4	328.0	329.7	344.6	351.4	352.4	371.4
Equity	2,543.6	2,673.9	2,749.3	2,673.9	2,570.6	2,490.5	2,665.4	2,749.3	2,870.5
Listed shares of domestic sectors	570.8	626.4	664.0	626.4	585.2	569.6	616.9	664.0	696.5
Non-financial corporations	252.2	266.6	286.2	266.6	242.0	233.7	259.3	286.2	298.6
Financial corporations	134.7	150.1	154.7	150.1	140.3	139.2	147.8	154.7	161.3
General government	35.2	43.4	44.4	43.4	41.5	40.4	40.8	44.4	47.0
Households	148.7	166.2	178.7	166.2	161.5	156.3	168.9	178.7	189.7
Quoted shares of the rest of the world	719.1	756.3	803.7	756.3	724.7	684.7	782.2	803.7	865.4
Other equity [1]	1,253.7	1,291.2	1,281.6	1,291.2	1,260.8	1,236.2	1,266.4	1,281.6	1,308.5
Insurance technical reserves	250.3	255.4	260.4	255.4	256.6	257.9	259.2	260.4	261.7
Financial derivatives and employee stock options	51.8	42.0	38.2	42.0	49.6	46.5	50.4	38.2	35.4
Other accounts payable	978.1	999.2	1,033.1	999.2	980.2	982.8	991.3	1,033.1	1,057.4
Total	5,362.9	5,564.1	5,746.4	5,564.1	5,491.6	5,420.9	5,630.9	5,746.4	5,925.6

1 Including unlisted shares.

IX Financial accounts

3 Acquisition of financial assets and external financing of households (non-consolidated)

€ billion

Item	2014	2015	2016	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1
Acquisition of financial assets									
Currency and deposits	85.82	96.56	114.97	38.97	8.72	29.08	24.73	52.45	12.47
Currency	15.64	25.40	21.30	7.73	3.03	4.82	7.09	6.36	3.76
Deposits	70.18	71.16	93.68	31.24	5.70	24.26	17.63	46.09	8.72
Transferable deposits	73.84	100.96	105.26	32.22	7.24	28.09	23.41	46.52	13.26
Time deposits	8.74	– 9.22	1.28	0.44	0.83	2.16	– 1.73	0.02	– 1.59
Savings deposits (including savings certifikates)	– 12.41	– 20.58	– 12.87	– 1.43	– 2.37	– 5.99	– 4.05	– 0.45	– 2.96
Debt securities	– 18.00	– 17.40	– 12.20	– 3.07	– 1.76	– 4.10	– 3.16	– 3.18	– 1.19
short-term debt securities	– 0.67	0.75	– 0.10	– 0.13	0.10	– 0.62	0.10	0.33	0.38
long-term debt securities	– 17.33	– 18.16	– 12.10	– 2.95	– 1.86	– 3.48	– 3.26	– 3.50	– 1.57
Memo item									
Debt securities of domestic sectors	– 15.08	– 9.34	– 3.81	– 1.45	1.08	– 1.57	– 1.74	– 1.58	0.11
Non-financial corporations	0.02	0.39	0.02	– 0.07	0.67	– 0.59	0.03	– 0.09	– 0.65
Financial corporations	– 12.52	– 6.80	– 2.22	– 0.78	0.74	– 0.36	– 1.29	– 1.31	1.08
General government	– 2.58	– 2.93	– 1.61	– 0.60	– 0.33	– 0.63	– 0.48	– 0.18	– 0.33
Debt securities of the rest of the world	– 2.93	– 8.06	– 8.39	– 1.62	– 2.84	– 2.53	– 1.42	– 1.60	– 1.30
Equity and investment fund shares	36.87	46.39	42.23	14.48	15.67	11.57	10.20	4.79	10.61
Equity	12.17	15.03	18.16	6.69	10.26	5.22	3.35	– 0.67	1.84
Listed Shares of domestic sectors	4.61	4.06	6.49	2.79	6.59	2.69	0.25	– 3.03	– 0.70
Non-financial corporations	2.69	3.77	3.22	2.76	4.52	0.69	– 0.30	– 1.69	– 0.36
Financial corporations	1.93	0.28	3.28	0.03	2.07	2.00	0.55	– 1.33	– 0.33
Quoted shares of the rest of the world	3.70	6.75	6.83	2.30	1.65	1.21	2.08	1.88	1.77
Other equity [1]	3.86	4.22	4.83	1.60	2.02	1.32	1.02	0.47	0.77
Investment fund shares	24.70	31.36	24.07	7.79	5.41	6.35	6.86	5.46	8.76
Money market fund shares	– 0.34	– 0.57	– 0.52	– 0.30	– 0.30	– 0.15	0.10	– 0.17	– 0.22
Non-MMF investment fund shares	25.04	31.93	24.60	8.09	5.71	6.50	6.76	5.63	8.98
Non-life insurance technical reserves and provision for calls under standardised guarantees	22.97	20.08	17.36	5.12	4.67	4.18	4.32	4.18	3.38
Life insurance and annuity entitlements	31.89	31.36	40.02	7.19	19.65	7.58	9.01	3.78	13.13
Pension entitlement, claims of pension funds on pension managers, entitlements to non-pension benefits	36.84	30.32	27.01	6.79	3.09	6.55	5.69	11.68	7.76
Financial derivatives and employee stock options	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other accounts receivable [2]	– 34.57	– 23.28	– 34.46	– 25.15	10.53	– 7.38	– 8.83	– 28.78	13.45
Total	161.82	184.03	194.93	44.33	60.57	47.49	41.95	44.92	59.60
External financing									
Loans	20.59	39.06	47.17	9.39	5.99	15.83	15.99	9.36	6.38
short-term loans	– 1.98	– 3.17	– 4.31	– 1.40	– 0.42	– 0.91	– 0.93	– 2.05	– 0.35
long-term loans	22.57	42.23	51.48	10.79	6.41	16.74	16.92	11.41	6.73
Memo item									
Mortage loans	24.87	36.49	41.64	10.44	4.27	12.14	14.31	10.92	4.59
Consumer loans	1.21	5.44	9.78	0.32	2.11	3.93	2.86	0.88	2.41
Entrepreneurial loans	– 5.49	– 2.88	– 4.24	– 1.38	– 0.38	– 0.24	– 1.17	– 2.44	– 0.62
Memo item									
Loans from monetary financial institutions	18.87	39.35	42.87	9.38	5.24	13.81	15.74	8.08	7.10
Loans from other financial institutions	1.72	– 0.29	4.31	0.01	0.75	2.02	0.25	1.28	– 0.72
Loans from general government and rest of the world	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Financial derivatives	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other accounts payable	0.78	– 1.14	0.34	– 0.25	0.19	0.03	0.11	0.01	– 0.16
Total	21.37	37.92	47.51	9.14	6.18	15.86	16.10	9.37	6.22

1 Including unlisted shares. **2** Including accumulated interest-bearing surplus shares with insurance corporations.

IX Financial accounts

4 Financial assets and liabilities of households (non-consolidated)

End-of-year level, end-of-quarter level; € billion

Item	2014	2015	2016	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1
Financial assets									
Currency and deposits	1,998.1	2,094.7	2,208.8	2,094.7	2,103.5	2,132.6	2,157.5	2,208.8	2,222.0
Currency	127.7	153.1	174.4	153.1	156.1	160.9	168.0	174.4	178.1
Deposits	1,870.4	1,941.6	2,034.4	1,941.6	1,947.4	1,971.6	1,989.5	2,034.4	2,043.8
Transferable deposits	981.4	1,082.4	1,188.0	1,082.4	1,089.8	1,117.9	1,141.5	1,188.0	1,201.2
Time deposits	256.4	246.8	248.7	246.8	248.3	250.4	248.7	248.7	247.9
Savings deposits (including savings certifikates)	632.7	612.4	597.7	612.4	609.3	603.4	599.3	597.7	594.7
Debt securities	162.2	139.8	127.4	139.8	137.1	133.5	130.6	127.4	126.7
short-term debt securities	2.1	2.9	2.7	2.9	2.9	2.3	2.4	2.7	3.1
long-term debt securities	160.1	136.9	124.7	136.9	134.2	131.2	128.3	124.7	123.6
Memo item									
Debt securities of domestic sectors	102.4	89.4	85.6	89.4	89.6	87.8	87.1	85.6	86.1
Non-financial corporations	14.1	13.4	13.9	13.4	13.9	13.1	14.1	13.9	13.3
Financial corporations	78.7	69.5	66.7	69.5	69.4	69.0	67.8	66.7	68.2
General government	9.6	6.5	5.0	6.5	6.3	5.7	5.2	5.0	4.6
Debt securities of the rest of the world	59.8	50.3	41.8	50.3	47.6	45.7	43.5	41.8	40.6
Equity and investment fund shares	951.4	1,040.7	1,108.3	1,040.7	1,023.0	1,028.9	1,069.2	1,108.3	1,155.9
Equity	508.9	555.9	590.4	555.9	543.7	541.2	564.1	590.4	615.0
Listed Shares of domestic sectors	169.7	188.9	200.8	188.9	181.8	174.6	187.9	200.8	213.0
Non-financial corporations	142.1	158.7	169.8	158.7	154.1	148.6	160.6	169.8	180.4
Financial corporations	27.6	30.3	31.0	30.3	27.6	26.0	27.3	31.0	32.6
Quoted shares of the rest of the world	64.0	74.8	86.8	74.8	73.1	76.8	80.7	86.8	93.1
Other equity [1]	275.3	292.2	302.9	292.2	288.9	289.7	295.5	302.9	308.8
Investment fund shares	442.5	484.8	517.8	484.8	479.3	487.8	505.1	517.8	540.9
Money market fund shares	4.0	3.4	2.8	3.4	3.1	3.0	3.0	2.8	2.7
Non-MMF investment fund shares	438.5	481.4	515.0	481.4	476.3	484.7	502.1	515.0	538.2
Non-life insurance technical reserves and provision for calls under standardised guarantees	307.3	324.4	337.8	324.4	327.7	331.1	334.5	337.8	341.1
Life insurance and annuity entitlements	885.6	919.5	963.2	919.5	940.4	948.8	958.6	963.2	976.3
Pension entitlement, claims of pension funds on pension managers, entitlements to non-pension benefits	752.1	783.4	810.4	783.4	786.5	793.0	798.7	810.4	818.2
Financial derivatives and employee stock options	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other accounts receivable [2]	35.8	37.1	35.6	37.1	36.8	36.5	36.0	35.6	35.3
Total	5,092.6	5,339.5	5,591.4	5,339.5	5,355.1	5,404.3	5,485.1	5,591.4	5,675.5
Liabilities									
Loans	1,570.5	1,607.5	1,655.3	1,607.5	1,613.9	1,629.7	1,645.9	1,655.3	1,661.7
short-term loans	64.6	60.9	56.6	60.9	60.5	59.6	58.6	56.6	56.3
long-term loans	1,505.9	1,546.6	1,598.7	1,546.6	1,553.4	1,570.1	1,587.2	1,598.7	1,605.4
Memo item									
Mortage loans	1,118.0	1,154.7	1,196.4	1,154.7	1,159.0	1,171.2	1,185.5	1,196.4	1,201.0
Consumer loans	188.9	191.9	201.8	191.9	194.0	197.8	200.9	201.8	204.2
Entrepreneurial loans	263.6	260.9	257.0	260.9	260.9	260.7	259.5	257.0	256.4
Memo item									
Loans from monetary financial institutions	1,477.6	1,514.9	1,558.3	1,514.9	1,520.5	1,534.3	1,550.2	1,558.3	1,565.4
Loans from other financial institutions	92.9	92.7	97.0	92.7	93.4	95.4	95.7	97.0	96.2
Loans from general government and rest of the world	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial derivatives	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other accounts payable	16.4	14.9	15.6	14.9	15.8	15.9	16.3	15.6	16.5
Total	1,586.9	1,622.4	1,670.9	1,622.4	1,629.7	1,645.5	1,662.1	1,670.9	1,678.1

1 Including unlisted shares. **2** Including accumulated interest-bearing surplus shares with insurance corporations.

X Public finances in Germany

1 General government: deficit/surplus and debt level as defined in the Maastricht Treaty

Period	General government	Central government	State government	Local government	Social security funds	General government	Central government	State government	Local government	Social security funds
	€ billion					as a percentage of GDP				
	Deficit/surplus[1]									
2010	– 108.9	– 84.1	– 20.6	– 8.1	+ 3.8	– 4.2	– 3.3	– 0.8	– 0.3	+ 0.1
2011	– 25.9	– 29.4	– 11.4	– 0.3	+ 15.3	– 1.0	– 1.1	– 0.4	– 0.0	+ 0.6
2012	– 0.9	– 16.1	– 5.5	+ 2.2	+ 18.4	– 0.0	– 0.6	– 0.2	+ 0.1	+ 0.7
2013 p	– 5.4	– 8.1	– 2.7	+ 0.2	+ 5.3	– 0.2	– 0.3	– 0.1	+ 0.0	+ 0.2
2014 p	+ 8.6	+ 8.6	– 0.5	– 2.5	+ 3.0	+ 0.3	+ 0.3	– 0.0	– 0.1	+ 0.1
2015 p	+ 20.9	+ 10.0	+ 4.6	+ 4.2	+ 2.1	+ 0.7	+ 0.3	+ 0.2	+ 0.1	+ 0.1
2016 pe	+ 26.4	+ 6.9	+ 5.9	+ 5.5	+ 8.0	+ 0.8	+ 0.2	+ 0.2	+ 0.2	+ 0.3
2015 H1 p	+ 14.4	+ 2.4	+ 3.7	+ 5.6	+ 2.6	+ 1.0	+ 0.2	+ 0.2	+ 0.4	+ 0.2
H2 p	+ 6.6	+ 7.7	+ 0.9	– 1.4	– 0.5	+ 0.4	+ 0.5	+ 0.1	– 0.1	– 0.0
2016 H1 pe	+ 16.4	+ 4.3	+ 3.2	+ 2.4	+ 6.4	+ 1.1	+ 0.3	+ 0.2	+ 0.2	+ 0.4
H2 pe	+ 10.0	+ 2.6	+ 2.7	+ 3.1	+ 1.6	+ 0.6	+ 0.2	+ 0.2	+ 0.2	+ 0.1
	Debt level[2]									End of year or quarter
2010	2,088.8	1,334.0	629.6	143.1	1.3	81.0	51.7	24.4	5.5	0.1
2011	2,128.3	1,344.1	657.0	143.6	1.3	78.7	49.7	24.3	5.3	0.0
2012	2,204.9	1,387.9	685.5	148.2	1.2	79.9	50.3	24.9	5.4	0.0
2013 p	2,189.8	1,390.5	664.1	151.3	1.3	77.5	49.2	23.5	5.4	0.0
2014 p	2,189.6	1,396.5	657.0	152.5	1.4	74.9	47.8	22.5	5.2	0.0
2015 p	2,158.8	1,372.7	653.1	152.5	1.4	71.2	45.3	21.5	5.0	0.0
2016 p	2,140.4	1,366.9	637.0	152.7	1.1	68.3	43.6	20.3	4.9	0.0
2015 Q1 p	2,195.0	1,398.0	665.0	152.8	1.4	74.5	47.4	22.6	5.2	0.0
Q2 p	2,160.8	1,380.6	644.6	152.6	1.4	72.6	46.4	21.7	5.1	0.0
Q3 p	2,162.5	1,374.8	652.1	153.4	1.5	72.0	45.8	21.7	5.1	0.0
Q4 p	2,158.8	1,372.7	653.1	152.5	1.4	71.2	45.3	21.5	5.0	0.0
2016 Q1 p	2,166.4	1,382.5	645.8	154.9	1.2	70.9	45.2	21.1	5.1	0.0
Q2 p	2,169.3	1,391.2	642.1	154.4	1.1	70.2	45.0	20.8	5.0	0.0
Q3 p	2,162.2	1,381.1	642.5	155.1	1.0	69.4	44.4	20.6	5.0	0.0
Q4 p	2,140.4	1,366.9	637.0	152.7	1.1	68.3	43.6	20.3	4.9	0.0
2017 Q1 p	2,114.8	1,352.8	625.6	152.0	1.2	66.9	42.8	19.8	4.8	0.0

Sources: Federal Statistical Office and Bundesbank calculations. **1** The deficit/surplus in accordance with ESA 2010 corresponds to the Maastricht definition. **2** Quarterly GDP ratios are based on the national output of the four preceding quarters.

2 General government: revenue, expenditure and deficit/surplus as shown in the national accounts*

Period	Revenue				Expenditure							Deficit/ surplus	*Memo item* Total tax burden [1]
		of which				*of which*							
	Total	Taxes	Social contributions	Other	Total	Social benefits	Compensation of employees	Intermediate consumption	Gross capital formation	Interest	Other		
	€ billion												
2010	1,110.3	556.2	426.2	127.9	1,219.2	634.5	203.5	118.0	59.4	63.9	139.9	– 108.9	986.5
2011	1,182.7	598.8	442.3	141.7	1,208.6	633.9	208.6	124.1	61.4	67.5	113.1	– 25.9	1,045.6
2012	1,220.9	624.9	454.3	141.7	1,221.8	645.5	212.3	126.5	61.5	63.1	112.8	– 0.9	1,083.7
2013 p	1,258.4	650.6	465.0	142.8	1,263.7	666.5	217.9	133.1	60.7	56.0	129.4	– 5.4	1,119.9
2014 p	1,306.8	674.0	482.0	150.7	1,298.2	692.5	224.1	134.3	60.9	52.0	134.3	+ 8.6	1,160.7
2015 p	1,354.8	706.3	500.8	147.8	1,333.9	723.4	228.6	139.5	64.3	47.3	130.8	+ 20.9	1,212.5
2016 pe	1,414.7	738.8	523.3	152.7	1,388.4	755.4	236.7	150.1	66.3	43.2	136.7	+ 26.4	1,269.0
	as a percentage of GDP												
2010	43.0	21.6	16.5	5.0	47.3	24.6	7.9	4.6	2.3	2.5	5.4	– 4.2	38.2
2011	43.8	22.2	16.4	5.2	44.7	23.4	7.7	4.6	2.3	2.5	4.2	– 1.0	38.7
2012	44.3	22.7	16.5	5.1	44.3	23.4	7.7	4.6	2.2	2.3	4.1	– 0.0	39.3
2013 p	44.5	23.0	16.5	5.1	44.7	23.6	7.7	4.7	2.1	2.0	4.6	– 0.2	39.6
2014 p	44.7	23.1	16.5	5.2	44.4	23.7	7.7	4.6	2.1	1.8	4.6	+ 0.3	39.7
2015 p	44.7	23.3	16.5	4.9	44.0	23.9	7.5	4.6	2.1	1.6	4.3	+ 0.7	40.0
2016 pe	45.1	23.6	16.7	4.9	44.3	24.1	7.6	4.8	2.1	1.4	4.4	+ 0.8	40.5
	Percentage growth rates												
2010	+ 1.8	+ 0.3	+ 2.5	+ 6.1	+ 4.2	+ 1.5	+ 2.9	+ 5.7	+ 1.9	– 1.7	+ 23.9	.	+ 1.3
2011	+ 6.5	+ 7.7	+ 3.8	+ 10.7	– 0.9	– 0.1	+ 2.5	+ 5.1	+ 3.3	+ 5.7	– 19.2	.	+ 6.0
2012	+ 3.2	+ 4.4	+ 2.7	+ 0.0	+ 1.1	+ 1.8	+ 1.8	+ 2.0	+ 0.2	– 6.5	– 0.3	.	+ 3.6
2013 p	+ 3.1	+ 4.1	+ 2.4	+ 0.8	+ 3.4	+ 3.3	+ 2.6	+ 5.2	– 1.3	– 11.2	+ 14.8	.	+ 3.3
2014 p	+ 3.8	+ 3.6	+ 3.7	+ 5.5	+ 2.7	+ 3.9	+ 2.8	+ 0.9	+ 0.4	– 7.2	+ 3.8	.	+ 3.6
2015 p	+ 3.7	+ 4.8	+ 3.9	– 1.9	+ 2.7	+ 4.5	+ 2.0	+ 3.9	+ 5.4	– 9.1	– 2.6	.	+ 4.5
2016 pe	+ 4.4	+ 4.6	+ 4.5	+ 3.3	+ 4.1	+ 4.4	+ 3.5	+ 7.6	+ 3.1	– 8.6	+ 4.5	.	+ 4.7

Source: Federal Statistical Office. * Figures in accordance with ESA 2010. **1** Taxes and social contributions plus customs duties and levies from banks to the Single Resolution Fund established at the European level.

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3 General government: budgetary development (as per government's financial statistics)

€ billion

	Central, state and local government [1]									Social security funds [2]			General government, total		
	Revenue			Expenditure											
		of which			*of which* [3]										
Period	Total [4]	Taxes	Financial transactions [5]	Total [4]	Personnel expenditure	Current grants	Interest	Fixed asset formation	Financial transactions [5]	Deficit / surplus	Revenue [6]	Expenditure	Deficit / surplus	Revenue	Expenditure	Deficit / surplus
2010	634.7	530.6	7.9	713.6	190.7	308.5	57.7	39.7	11.4	– 78.9	516.5	512.9	+ 3.7	1,033.7	1,108.9	– 75.2
2011	689.6	573.4	22.8	711.6	194.3	301.3	56.8	38.5	13.7	– 22.0	526.3	511.3	+ 15.0	1,104.2	1,111.2	– 7.0
2012 **p**	745.0	600.0	14.7	770.2	218.8	285.2	69.9	42.6	25.5	– 25.2	536.2	518.9	+ 17.3	1,171.1	1,179.0	– 7.9
2013 **p**	761.8	619.7	14.7	773.6	225.3	286.9	65.7	42.8	23.5	– 11.8	536.7	532.0	+ 4.7	1,198.1	1,205.2	– 7.0
2014 **p**	791.8	643.6	11.3	786.7	236.0	292.9	57.1	45.9	17.6	+ 5.1	554.4	551.1	+ 3.2	1,245.1	1,236.8	+ 8.4
2015 **p**	832.4	673.3	10.4	802.8	243.6	302.2	49.7	46.4	12.5	+ 29.7	574.2	572.5	+ 1.7	1,303.2	1,271.9	+ 31.3
2014 Q1 **p**	188.2	153.6	2.0	193.9	56.7	77.9	20.0	7.8	2.3	– 5.7	132.8	136.1	– 3.3	296.0	305.0	– 9.0
Q2 **p**	193.1	157.4	2.2	188.1	56.9	71.8	9.8	9.8	8.2	+ 5.0	136.4	135.8	+ 0.6	304.5	299.0	+ 5.6
Q3 **p**	192.2	157.5	3.4	193.5	57.1	71.2	17.7	11.3	4.0	– 1.4	136.3	137.4	– 1.1	303.1	305.5	– 2.4
Q4 **p**	219.0	174.9	3.5	211.8	65.4	73.5	9.5	16.5	3.1	+ 7.2	148.3	141.5	+ 6.8	341.6	327.6	+ 14.0
2015 Q1 **p**	196.0	160.9	2.4	198.8	58.5	80.5	18.4	7.7	2.5	– 2.8	137.3	142.8	– 5.4	307.6	315.8	– 8.2
Q2 **p**	208.4	167.7	1.5	185.2	59.5	72.8	7.2	9.1	3.0	+ 23.1	142.4	142.3	+ 0.1	325.0	301.8	+ 23.2
Q3 **p**	202.8	166.5	3.8	198.0	62.3	71.3	16.6	11.6	3.4	+ 4.7	141.2	143.4	– 2.1	318.1	315.5	+ 2.6
Q4 **p**	221.5	178.2	2.6	219.3	63.4	77.4	7.3	17.3	3.5	+ 2.2	152.7	145.3	+ 7.4	348.4	338.8	+ 9.6
2016 Q1 **p**	204.8	169.9	1.4	205.7	60.2	81.5	17.7	8.4	2.2	– 0.8	143.0	146.6	– 3.6	320.9	325.4	– 4.5
Q2 **p**	217.5	176.6	2.4	194.8	60.7	77.7	5.4	10.4	2.4	+ 22.7	148.7	147.0	+ 1.7	339.2	314.9	+ 24.3
Q3 **p**	204.1	169.3	2.9	207.9	62.0	79.3	14.5	12.3	2.4	– 3.8	148.3	149.7	– 1.4	325.3	330.4	– 5.1

Source: Bundesbank calculations based on Federal Statistical Office data. **1** Annual figures based on the calculations of the Federal Statistical Office. Bundesbank supplementary estimations for the reporting years after 2011 that are not yet available. The quarterly figures contain numerous off-budget entities which are assigned to the general government sector as defined in the national accounts but are not yet included in the annual calculations. From 2012, also including the bad bank FMSW. **2** The annual figures do not tally with the sum of the quarterly figures, as the latter are all provisional. The quarterly figures for some insurance sectors are estimated. **3** The development of the types of expenditure recorded here is influenced in part by statistical changeovers. **4** Including discrepancies in clearing transactions between central, state and local government. **5** On the revenue side, this contains proceeds booked as disposals of equity interests and as loan repayments. On the expenditure side, this contains the acquisition of equity interests and loans granted. **6** Including central government liquidity assistance to the Federal Employment Agency.

4 Central, state and local government: budgetary development (as per government's financial statistics)

€ billion

	Central government			State government [2,3]			Local government [3]		
Period	Revenue [1]	Expenditure	Deficit / surplus	Revenue	Expenditure	Deficit / surplus	Revenue	Expenditure	Deficit / surplus
2010	288.7	333.1	– 44.4	266.8	287.3	– 20.5	175.4	182.3	– 6.9
2011	307.1	324.9	– 17.7	286.5	295.9	– 9.4	183.9	184.9	– 1.0
2012 **p**	312.5	335.3	– 22.8	311.0	316.1	– 5.1	200.0	198.5	+ 1.5
2013 **p**	313.2	335.6	– 22.4	324.3	323.9	+ 0.4	207.6	206.3	+ 1.3
2014 **p**	322.9	323.3	– 0.3	338.3	336.1	+ 2.1	218.7	218.7	– 0.1
2015 **p**	338.3	326.5	+ 11.8	355.1	350.6	+ 4.5	232.7	229.1	+ 3.6
2016 **p**	344.7	338.4	+ 6.2	381.8	372.4	+ 9.5	248.9	243.1	+ 5.8
2014 Q1 **p**	69.8	80.4	– 10.6	80.3	81.0	– 0.7	45.1	50.0	– 4.8
Q2 **p**	77.7	76.7	+ 0.9	82.3	80.4	+ 1.9	54.8	52.0	+ 2.8
Q3 **p**	82.5	85.3	– 2.9	82.7	80.4	+ 2.3	53.9	54.4	– 0.5
Q4 **p**	92.9	80.8	+ 12.2	92.0	94.0	– 2.0	63.0	61.0	+ 2.0
2015 Q1 **p**	74.4	81.6	– 7.1	84.2	84.5	– 0.3	46.3	52.1	– 5.8
Q2 **p**	86.5	72.6	+ 13.9	87.0	83.6	+ 3.4	58.1	53.4	+ 4.7
Q3 **p**	85.9	89.0	– 3.2	87.8	84.2	+ 3.6	57.5	56.3	+ 1.2
Q4 **p**	91.5	83.4	+ 8.1	94.1	96.8	– 2.8	69.0	65.9	+ 3.0
2016 Q1 **p**	81.1	83.6	– 2.5	90.5	88.2	+ 2.4	49.0	55.1	– 6.1
Q2 **p**	87.5	73.6	+ 13.8	92.7	88.2	+ 4.4	61.1	57.9	+ 3.2
Q3 **p**	85.2	88.6	– 3.5	91.5	90.0	+ 1.5	60.7	60.7	+ 0.1
Q4 **p**	90.9	92.5	– 1.6	105.0	104.4	+ 0.6	76.3	68.0	+ 8.3

Source: Bundesbank calculations based on Federal Statistical Office data. **1** Any amounts of the Bundesbank's profit distribution exceeding the reference value that were used to repay parts of the debt of central government's special funds are not included here. **2** Including the local authority level of the city-states Berlin, Bremen and Hamburg. **3** Quarterly data of core budgets and off-budget entities which are assigned to the general government sector. Annual figures up to and including 2011: excluding off-budget entities, but including special accounts and special purpose associations based on the calculations of the Federal Statistical Office. For the following years, Bundesbank supplementary estimations.

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5 Central, state and local government: tax revenue

€ million

Period	Total	Central and state government and European Union				Local government [3]	Balance of untransferred tax shares [4]	*Memo item* Amounts deducted in the federal budget [5]
		Total	Central government [1]	State government [1]	European Union [2]			
2010	530,587	460,230	254,537	181,326	24,367	70,385	– 28	28,726
2011	573,352	496,738	276,598	195,676	24,464	76,570	+ 43	28,615
2012	600,046	518,963	284,801	207,846	26,316	81,184	– 101	28,498
2013	619,708	535,173	287,641	216,430	31,101	84,274	+ 262	27,775
2014	643,624	556,008	298,518	226,504	30,986	87,418	+ 198	27,772
2015	673,276	580,485	308,849	240,698	30,938	93,003	– 212	27,241
2016	705,791	606,965	316,854	260,837	29,273	98,679	+ 148	27,836
2015 Q1	161,068	137,183	68,215	57,237	11,731	15,722	+ 8,163	6,433
Q2	167,763	143,248	76,762	59,298	7,188	24,814	– 299	6,633
Q3	166,468	143,854	79,783	59,551	4,520	23,006	– 392	7,558
Q4	177,978	156,200	84,089	64,613	7,499	29,461	– 7,684	6,618
2016 Q1	170,358	144,841	74,113	61,972	8,755	17,121	+ 8,396	6,488
Q2	176,879	152,042	82,184	64,684	5,175	25,205	– 368	6,512
Q3	169,374	145,700	76,638	61,573	7,489	23,839	– 165	7,584
Q4	189,180	164,382	83,920	72,608	7,855	32,513	– 7,715	7,253
2017 Q1	...	154,154	85,256	66,704	2,194	...	...	6,606
2016 Apr	.	43,471	23,512	18,425	1,533	.	.	2,171
May	.	45,092	24,614	18,341	2,138	.	.	2,171
2017 Apr	.	45,841	23,674	19,826	2,341	.	.	2,268
May	.	45,515	24,364	18,876	2,276	.	.	2,275

Sources: Federal Ministry of Finance, Federal Statistical Office and Bundesbank calculations. **1** Before deducting or adding supplementary central government grants, shares in energy tax revenue, compensation for the transfer of motor vehicle tax to central government and consolidation aid, which central government remits to state government. See the last column for the volume of these amounts which are deducted from tax revenue in the federal budget. **2** Custom duties and shares in VAT and gross national income accruing to the EU from central government tax revenue. **3** Including local government taxes in the city-states Berlin, Bremen and Hamburg. Including revenue from offshore wind farms. **4** Difference between local government's share in the joint taxes received by the state government cash offices in the period in question (see Table X. 6) and the amounts passed on to local government in the same period. **5** Volume of the positions mentioned under footnote 1.

6 Central and state government and European Union: tax revenue, by type

€ million

Period	Total [1]	Joint taxes								Local business tax transfers [6]	Central government taxes [7]	State government taxes [7]	EU customs duties	*Memo item* Local government share in joint taxes
		Income taxes [2]					Turnover taxes [5]							
		Total	Wage tax [3]	Assessed income tax	Corporation tax	Investment income tax [4]	Total	Turnover tax	Turnover tax on imports					
2010	488,731	192,816	127,904	31,179	12,041	21,691	180,042	136,459	43,582	5,925	93,426	12,146	4,378	28,501
2011	527,255	213,534	139,749	31,996	15,634	26,155	190,033	138,957	51,076	6,888	99,133	13,095	4,571	30,517
2012	551,785	231,555	149,065	37,262	16,934	28,294	194,635	142,439	52,196	7,137	99,794	14,201	4,462	32,822
2013	570,213	245,909	158,198	42,280	19,508	25,923	196,843	148,315	48,528	7,053	100,454	15,723	4,231	35,040
2014	593,039	258,875	167,983	45,613	20,044	25,236	203,110	154,228	48,883	7,142	101,804	17,556	4,552	37,031
2015	620,287	273,258	178,891	48,580	19,583	26,204	209,921	159,015	50,905	7,407	104,204	20,339	5,159	39,802
2016	648,310	291,492	184,826	53,833	27,442	25,391	217,090	165,932	51,157	7,831	104,441	22,342	5,113	41,345
2015 Q1	146,924	66,225	41,557	13,134	5,438	6,097	51,852	40,050	11,803	143	22,268	5,207	1,228	9,741
Q2	153,155	69,728	44,267	12,323	5,851	7,287	50,754	38,063	12,691	1,760	24,892	4,838	1,183	9,907
Q3	153,307	66,010	43,251	10,666	4,452	7,640	53,203	40,029	13,174	2,019	25,637	5,029	1,409	9,453
Q4	166,901	71,295	49,816	12,457	3,842	5,180	54,111	40,873	13,238	3,484	31,407	5,265	1,339	10,701
2016 Q1	154,892	70,790	42,583	14,569	8,433	5,204	54,408	42,268	12,141	173	22,553	5,673	1,294	10,051
Q2	162,096	74,489	45,311	12,943	7,329	8,905	52,705	40,195	12,510	1,957	25,783	5,952	1,210	10,054
Q3	155,524	68,137	44,656	11,898	5,546	6,037	53,906	40,877	13,029	2,046	24,857	5,263	1,316	9,824
Q4	175,797	78,076	52,275	14,422	6,134	5,245	56,071	42,593	13,478	3,656	31,247	5,454	1,293	11,415
2017 Q1	165,352	76,990	45,309	17,009	8,511	6,161	57,502	44,196	13,306	438	23,364	5,834	1,224	11,198
2016 Apr	46,346	17,704	15,408	947	– 345	1,694	16,490	12,248	4,242	1,700	8,187	1,833	432	2,875
May	47,661	17,922	13,734	329	1,141	2,717	18,530	14,366	4,164	256	8,862	1,716	375	2,569
2017 Apr	49,018	20,035	16,149	1,389	551	1,946	17,302	12,328	4,975	1,772	7,789	1,669	450	3,177
May	48,352	18,182	14,788	292	280	2,822	19,062	14,434	4,628	294	8,579	1,850	385	2,837

Source: Federal Ministry of Finance and Bundesbank calculations. **1** This total, unlike that in Table X. 5, does not include the receipts from the equalisation of burdens levies, local business tax (less local business tax transfers to central and state government), real property taxes and other local government taxes, or the balance of untransferred tax shares. **2** Respective percentage share of central, state and local government in revenue: wage tax and assessed income tax 42.5:42.5:15, corporation tax and non-assessed taxes on earnings 50:50:-, final withholding tax on interest income and capital gains, non-assessed taxes on earnings 44:44:12. **3** After deducting child benefit and subsidies for supplementary private pension plans. **4** Final withholding tax on interest income and capital gains, non-assessed taxes on earnings. **5** The allocation of revenue to central, state and local government, which is adjusted at more regular intervals, is regulated in section 1 of the Revenue Adjustment Act. Respective percentage share of central, state and local government in revenue for 2016: 49.4:48.3:2.2. The EU share is deducted from central government's share. **6** Respective percentage share of central and state government for 2016: 22.4:77.6. **7** For the breakdown, see Table X. 7.

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7 Central, state and local government: individual taxes

€ million

Period	Central government taxes [1]								State government taxes [1]				Local government taxes		
														of which	
	Energy tax	Solidarity surcharge	Tobacco tax	Insurance tax	Motor vehicle tax	Electricity tax	Spirits tax	Other	Tax on the acquisition of land and buildings	Inheritance tax	Betting and lottery tax	Other	Total	Local business tax [2]	Real property taxes
2010	39,838	11,713	13,492	10,284	8,488	6,171	1,990	1,449	5,290	4,404	1,412	1,039	47,780	35,712	11,315
2011	40,036	12,781	14,414	10,755	8,422	7,247	2,149	3,329	6,366	4,246	1,420	1,064	52,984	40,424	11,674
2012	39,305	13,624	14,143	11,138	8,443	6,973	2,121	4,047	7,389	4,305	1,432	1,076	55,398	42,345	12,017
2013	39,364	14,378	13,820	11,553	8,490	7,009	2,102	3,737	8,394	4,633	1,635	1,060	56,549	43,027	12,377
2014	39,758	15,047	14,612	12,046	8,501	6,638	2,060	3,143	9,339	5,452	1,673	1,091	57,728	43,763	12,691
2015	39,594	15,930	14,921	12,419	8,805	6,593	2,070	3,872	11,249	6,290	1,712	1,088	60,396	45,752	13,215
2016	40,091	16,855	14,186	12,763	8,952	6,569	2,070	2,955	12,408	7,006	1,809	1,119	65,313	50,097	13,654
2015 Q1	4,704	3,783	2,223	5,825	2,454	1,806	570	904	2,760	1,668	426	353	14,288	10,912	2,982
Q2	9,512	4,278	3,683	2,187	2,361	1,465	470	937	2,561	1,617	433	227	16,368	12,383	3,636
Q3	10,159	3,714	3,981	2,436	2,108	1,643	496	1,102	3,021	1,335	401	272	15,180	11,118	3,697
Q4	15,220	4,155	5,034	1,972	1,883	1,678	534	930	2,906	1,670	452	236	14,561	11,339	2,899
2016 Q1	4,620	3,979	2,722	5,946	2,489	1,685	565	547	3,217	1,668	451	336	15,639	12,090	3,121
Q2	9,860	4,470	4,139	2,269	2,366	1,515	473	691	2,952	2,283	451	267	16,740	12,635	3,715
Q3	10,149	3,938	3,010	2,510	2,198	1,641	499	911	3,050	1,501	446	266	15,896	11,699	3,794
Q4	15,461	4,468	4,315	2,038	1,899	1,728	532	806	3,189	1,554	460	251	17,039	13,673	3,024
2017 Q1	4,812	4,324	2,637	6,178	2,536	1,746	578	553	3,359	1,641	490	343	...	...	...
2016 Apr	3,094	1,036	1,599	719	817	579	142	203	974	627	146	86	.	.	.
May	3,352	1,230	1,691	927	772	514	179	197	975	503	153	85	.	.	.
2017 Apr	2,994	1,138	1,218	751	756	582	140	211	926	503	158	82	.	.	.
May	3,583	1,226	1,146	944	774	516	182	208	1,130	472	159	90	.	.	.

Sources: Federal Ministry of Finance, Federal Statistical Office and Bundesbank calculations. **1** For the sum total, see Table X. 6. **2** Including revenue from offshore wind farms.

8 German pension insurance scheme: budgetary development and assets*

€ million

Period	Revenue [1,2]			Expenditure [1,2]			Deficit/ surplus	Assets [1,4]					*Memo item*
		of which			*of which*								
	Total	Contributions [3]	Payments from central government	Total	Pension payments	Pensioners' health insurance		Total	Deposits [5]	Securities	Equity interests, mortgages and other loans [6]	Real estate	Administrative assets
2010	250,133	172,767	76,173	248,076	211,852	14,343	+ 2,057	19,375	18,077	1,120	73	105	4,464
2011	254,968	177,424	76,200	250,241	212,602	15,015	+ 4,727	24,965	22,241	2,519	88	117	4,379
2012	259,700	181,262	77,193	254,604	216,450	15,283	+ 5,096	30,481	28,519	1,756	104	102	4,315
2013	260,166	181,991	77,067	258,268	219,560	15,528	+ 1,898	33,114	29,193	3,701	119	100	4,250
2014	269,115	189,080	78,940	265,949	226,204	15,978	+ 3,166	36,462	32,905	3,317	146	94	4,263
2015	276,129	194,486	80,464	277,717	236,634	16,705	– 1,588	35,556	32,795	2,506	167	88	4,228
2016	286,399	202,249	83,154	288,641	246,118	17,387	– 2,242	34,088	31,529	2,315	192	53	4,161
2014 Q1	64,138	44,355	19,534	64,615	55,266	3,897	– 477	32,669	28,668	3,781	121	99	4,251
Q2	66,857	47,145	19,453	64,697	55,085	3,891	+ 2,160	35,181	31,167	3,791	126	97	4,260
Q3	66,129	45,992	19,865	66,801	56,909	3,991	– 672	33,678	30,264	3,191	129	94	4,256
Q4	71,927	51,577	20,096	69,548	59,225	4,192	+ 2,379	36,442	32,901	3,317	129	94	4,275
2015 Q1	65,923	45,653	20,025	68,435	58,671	4,125	– 2,512	34,084	31,583	2,262	148	92	4,255
Q2	68,700	48,483	19,945	68,443	58,390	4,113	+ 257	34,319	31,797	2,276	152	93	4,254
Q3	67,538	47,280	20,006	70,165	59,931	4,228	– 2,627	32,246	29,722	2,276	156	92	4,259
Q4	73,393	53,096	19,971	70,326	59,963	4,233	+ 3,067	35,574	32,794	2,506	158	117	4,242
2016 Q1	68,182	47,397	20,665	70,076	60,143	4,239	– 1,894	33,865	31,194	2,406	179	86	4,223
Q2	71,291	50,372	20,548	70,418	60,097	4,238	+ 873	34,427	31,892	2,265	183	87	4,220
Q3	70,218	49,333	20,670	73,782	63,081	4,453	– 3,564	31,412	28,776	2,365	187	84	4,213
Q4	76,136	55,171	20,733	74,016	63,117	4,450	+ 2,120	34,088	31,529	2,315	192	53	4,161
2017 Q1	71,301	49,388	21,715	73,731	63,263	4,460	– 2,430	31,660	29,133	2,270	205	52	4,140

Sources: Federal Ministry of Labour and Social Affairs and German pension insurance scheme. * Excluding the German pension insurance scheme for the mining, railway and maritime industries. **1** The final annual figures do not tally with the quarterly figures, as the latter are all provisional. **2** Including financial compensation payments. Excluding investment spending and proceeds. **3** Including contributions for recipients of government cash benefits. **4** Largely corresponds to the sustainability reserves. End of year or quarter. **5** Including cash. **6** Excluding loans to other social security funds.

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9 Federal Employment Agency: budgetary development*

€ million

Period	Revenue				Expenditure							Deficit/ surplus	Deficit offsetting grant or loan from central government
		of which				*of which*							
	Total 1	Contributions	Insolvency compensation levy	Central government subscriptions	Total	Unemployment benefit 2	Short-time working benefits 3	Job promotion 4	Reintegration payment 5	Insolvency benefit payment	Administrative expenditure 6		
2010	37,070	22,614	2,929	7,927	45,213	16,602	4,125	9,297	5,256	740	5,322	– 8,143	5,207
2011	37,563	25,433	37	8,046	37,524	13,776	1,324	8,369	4,510	683	5,090	+ 40	–
2012	37,429	26,570	314	7,238	34,842	13,823	828	6,699	3,822	982	5,117	+ 2,587	–
2013	32,636	27,594	1,224	245	32,574	15,411	1,082	6,040	.	912	5,349	+ 61	–
2014	33,725	28,714	1,296	–	32,147	15,368	710	6,264	.	694	5,493	+ 1,578	–
2015	35,159	29,941	1,333	–	31,439	14,846	771	6,295	.	654	5,597	+ 3,720	–
2016	36,352	31,186	1,114	–	30,889	14,435	749	7,035	.	595	5,314	+ 5,463	–
2014 Q1	7,844	6,696	299	–	8,693	4,379	311	1,605	.	199	1,239	– 849	–
Q2	8,352	7,143	331	–	8,036	3,902	197	1,593	.	211	1,259	+ 316	–
Q3	8,249	6,991	318	–	7,551	3,641	123	1,458	.	163	1,313	+ 698	–
Q4	9,280	7,884	347	–	7,868	3,446	79	1,609	.	122	1,682	+ 1,412	–
2015 Q1	8,209	6,969	310	–	8,599	4,267	387	1,586	.	165	1,287	– 390	–
Q2	8,758	7,467	326	–	7,856	3,758	214	1,591	.	172	1,318	+ 902	–
Q3	8,573	7,285	329	–	7,319	3,501	82	1,455	.	164	1,368	+ 1,254	–
Q4	9,619	8,220	367	–	7,665	3,320	87	1,662	.	152	1,624	+ 1,954	–
2016 Q1	8,376	7,271	261	–	7,984	4,083	395	1,739	.	150	984	+ 393	–
Q2	8,991	7,737	278	–	7,807	3,648	203	1,847	.	147	1,288	+ 1,184	–
Q3	8,877	7,609	276	–	7,349	3,428	74	1,608	.	165	1,399	+ 1,529	–
Q4	10,108	8,569	299	–	7,750	3,276	77	1,841	.	134	1,642	+ 2,358	–
2017 Q1	8,859	7,564	204	–	8,834	3,973	478	1,772	.	146	1,749	+ 26	–

Source: Federal Employment Agency. * Including transfers to the civil servants' pension fund. **1** Excluding central government deficit offsetting grant or loan. **2** Unemployment benefit in case of unemployment. **3** Including seasonal short-time working benefits and restructuring short-time working benefits, restructuring measures and refunds of social security contributions. **4** Vocational training, measures to encourage job take-up, rehabilitation, compensation top-up payments and promotion of business start-ups. **5** Until 2012. From 2005 to 2007: compensatory amount. **6** Including collection charges to other statutory social security funds, excluding administrative expenditure within the framework of the basic allowance for job seekers.

10 Statutory health insurance scheme: budgetary development

€ million

Period	Revenue 1			Expenditure 1								Deficit/ surplus
		of which			*of which*							
	Total	Contributions 2	Central government funds 3	Total	Hospital treatment	Pharmaceuticals	Medical treatment	Dental treatment 4	Therapeutical treatment and aids	Sickness benefits	Administrative expenditure 5	
2010	179,529	160,797	15,700	175,804	56,697	30,147	28,432	11,419	10,609	7,797	9,554	+ 3,725
2011	189,049	170,875	15,300	179,599	58,501	28,939	29,056	11,651	11,193	8,529	9,488	+ 9,450
2012	193,314	176,388	14,000	184,289	60,157	29,156	29,682	11,749	11,477	9,171	9,711	+ 9,025
2013	196,405	182,179	11,500	194,537	62,886	30,052	32,799	12,619	12,087	9,758	9,979	+ 1,867
2014	203,143	189,089	10,500	205,589	65,711	33,093	34,202	13,028	13,083	10,619	10,063	– 2,445
2015	210,147	195,774	11,500	213,727	67,979	34,576	35,712	13,488	13,674	11,227	10,482	– 3,580
2016	223,692	206,830	14,000	222,936	70,450	35,981	37,300	13,790	14,256	11,677	11,032	+ 757
2014 Q1	49,164	45,113	3,500	50,990	16,868	8,097	8,582	3,262	3,029	2,693	2,313	– 1,827
Q2	49,290	46,757	1,769	51,332	16,463	8,234	8,600	3,304	3,282	2,651	2,404	– 2,042
Q3	49,992	46,637	2,634	51,035	16,335	8,266	8,392	3,152	3,313	2,607	2,391	– 1,043
Q4	54,604	50,593	2,597	52,017	15,997	8,496	8,642	3,347	3,444	2,665	2,907	+ 2,588
2015 Q1	50,407	46,846	2,875	53,255	17,532	8,554	8,961	3,379	3,216	2,935	2,360	– 2,848
Q2	51,850	48,371	2,875	53,351	17,157	8,661	8,976	3,385	3,376	2,730	2,433	– 1,501
Q3	51,888	48,472	2,875	52,884	16,899	8,621	8,808	3,262	3,398	2,732	2,508	– 996
Q4	55,872	52,085	2,875	54,124	16,553	8,773	8,998	3,449	3,618	2,834	3,102	+ 1,747
2016 Q1	53,320	49,292	3,500	55,424	18,044	8,879	9,374	3,470	3,419	2,955	2,458	– 2,104
Q2	54,988	51,009	3,500	55,603	17,686	9,005	9,362	3,478	3,528	2,963	2,599	– 615
Q3	55,632	51,377	3,500	55,114	17,421	8,929	9,166	3,399	3,585	2,842	2,628	+ 517
Q4	59,552	55,146	3,500	56,832	17,342	9,194	9,351	3,526	3,698	2,912	3,291	+ 2,720
2017 Q1	55,809	51,632	3,625	57,716	18,643	9,215	9,807	3,559	3,516	3,173	2,514	– 1,907

Source: Federal Ministry of Health. **1** The final annual figures do not tally with the sum of the quarterly figures, as the latter are all provisional. Excluding revenue and expenditure as part of the risk structure compensation scheme. **2** Including contributions from subsidised low-paid part-time employment. **3** Federal grant and liquidity assistance. **4** Including dentures. **5** Net, ie after deducting reimbursements for expenses for levying contributions incurred by other social insurance funds.

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11 Statutory long-term care insurance scheme: budgetary development*

€ million

Period	Revenue 1		Expenditure 1						Deficit/ surplus	
				of which						
	Total	*of which* Contributions 2	Total	Non-cash care benefits	In-patient care	Nursing benefit	Contributions to pension insurance scheme 3	Administrative expenditure		
2010	21,864	21,659	21,539	2,933	9,567	4,673	869	1,028	+	325
2011	22,294	22,145	21,962	3,002	9,700	4,735	881	1,034	+	331
2012	23,082	22,953	22,988	3,135	9,961	5,073	881	1,083	+	95
2013	24,972	24,891	24,405	3,389	10,058	5,674	896	1,155	+	567
2014	25,974	25,893	25,457	3,570	10,263	5,893	946	1,216	+	517
2015	30,825	30,751	29,101	3,717	10,745	6,410	960	1,273	+	1,723
2016	32,171	32,100	30,936	3,846	10,918	6,673	983	1,422	+	1,235
2014 Q1	6,168	6,141	6,290	871	2,542	1,463	229	315	–	123
Q2	6,404	6,386	6,260	848	2,554	1,466	236	309	+	144
Q3	6,405	6,386	6,442	932	2,577	1,481	237	299	–	37
Q4	6,933	6,918	6,462	907	2,590	1,529	238	288	+	471
2015 Q1	7,252	7,228	6,906	906	2,655	1,571	236	333	+	346
Q2	7,611	7,592	7,139	902	2,666	1,591	239	311	+	472
Q3	7,626	7,609	7,390	930	2,701	1,613	239	326	+	236
Q4	8,198	8,180	7,571	966	2,722	1,682	240	295	+	626
2016 Q1	7,600	7,578	7,587	941	2,703	1,613	238	389	+	13
Q2	7,918	7,901	7,659	949	2,724	1,665	244	331	+	259
Q3	7,958	7,942	7,810	961	2,746	1,682	247	373	+	147
Q4	8,550	8,535	7,941	975	2,741	1,877	250	322	+	608
2017 Q1	8,558	8,538	9,092	1,046	3,194	2,261	289	405	–	534

Source: Federal Ministry of Health. * Including transfers to the long-term care provident fund. **1** The final annual figures do not tally with the sum of the quarterly figures, as the latter are all provisional. **2** Since 2005 including special contributions for childless persons (0.25% of income subject to insurance contributions). **3** For non-professional carers.

12 Central government: borrowing in the market

€ million

Period	Total new borrowing 1		*of which* Change in money market loans	*of which* Change in money market deposits 3
	Gross 2	Net		
2010	+ 302,694	+ 42,397	– 5,041	+ 1,607
2011	+ 264,572	+ 5,890	– 4,876	– 9,036
2012	+ 263,334	+ 31,728	+ 6,183	+ 13,375
2013	+ 246,781	+ 19,473	+ 7,292	– 4,601
2014	+ 192,540	– 2,378	– 3,190	+ 891
2015	+ 167,655	– 16,386	– 5,884	– 1,916
2016	+ 182,486	– 11,331	– 2,332	– 16,791
2014 Q1	+ 43,862	– 3,551	– 9,267	– 9,556
Q2	+ 58,444	+ 9,500	+ 6,281	+ 10,589
Q3	+ 47,215	– 8,035	– 2,111	– 10,817
Q4	+ 43,018	– 292	+ 1,907	+ 10,675
2015 Q1	+ 52,024	– 3,086	+ 4,710	– 7,612
Q2	+ 36,214	– 5,404	– 12,133	+ 6,930
Q3	+ 46,877	– 1,967	– 806	– 1,091
Q4	+ 32,541	– 5,929	+ 2,344	– 142
2016 Q1	+ 61,598	+ 10,650	+ 8,501	– 19,345
Q2	+ 60,691	+ 4,204	+ 3,694	+ 4,084
Q3	+ 33,307	– 13,887	– 18,398	– 4,864
Q4	+ 26,890	– 12,297	+ 3,872	+ 3,333
2017 Q1	+ 47,749	– 5,700	+ 6,178	– 2,428

Source: Federal Republic of Germany – Finance Agency. **1** Including the Financial Market Stabilisation Fund, the Investment and Repayment Fund and the Restructuring Fund for Credit Institutions. **2** After deducting repurchases. **3** Excluding the central account balance with the Deutsche Bundesbank.

13 General government: debt by creditor*

€ million

Period (End of year or quarter)	Total	Banking system		Domestic non-banks		Foreign creditors pe
		Bundesbank	Domestic MFIs pe	Other domestic financial corporations pe	Other domestic creditors 1	
2010	2,088,785	4,440	691,401	207,062	133,351	1,052,532
2011	2,128,324	4,440	641,685	206,631	123,064	1,152,505
2012	2,204,943	4,440	643,884	199,132	143,883	1,213,603
2013	2,189,775	4,440	634,669	190,555	145,785	1,214,327
2014	2,189,564	4,440	619,838	190,130	134,670	1,240,486
2015	2,158,813	77,220	606,481	186,661	150,966	1,137,486
2016 p	2,140,368	196,320	572,527	179,755	175,358	1,016,408
2014 Q1	2,178,713	4,440	631,241	190,306	130,966	1,221,760
Q2	2,185,126	4,440	628,341	189,569	131,976	1,230,800
Q3	2,186,288	4,440	629,604	188,907	129,636	1,233,701
Q4	2,189,564	4,440	619,838	190,130	134,670	1,240,486
2015 Q1	2,195,020	12,335	625,817	189,048	142,040	1,225,780
Q2	2,160,801	34,310	612,663	187,280	141,307	1,185,241
Q3	2,162,548	54,990	616,499	188,165	142,763	1,160,130
Q4	2,158,813	77,220	606,481	186,661	150,966	1,137,486
2016 Q1 p	2,166,362	100,051	607,793	183,160	144,155	1,131,204
Q2 p	2,169,346	133,297	595,070	181,372	158,883	1,100,724
Q3 p	2,162,250	163,636	590,349	179,359	158,991	1,069,914
Q4 p	2,140,368	196,320	572,527	179,755	175,358	1,016,408
2017 Q1 p	2,114,849	230,505	554,222	178,219	173,785	978,117

Source: Bundesbank calculations based on data from the Federal Statistical Office. * As defined in the Maastricht Treaty. **1** Calculated as a residual.

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14 Central, state and local government: debt by category*

€ million

Period (End of year or quarter)	Total	Treasury discount paper (Bubills) 1	Treasury notes 2,3	Five-year Federal notes (Bobls) 2	Federal savings notes	Federal bonds (Bunds) 2	Day-bond	Direct lending by credit institutions 4	Loans from non-banks		Old debt	
									Social security funds	Other 4	Equalisation claims 5	Other 5,6
Central, state and local government												
2010	1,732,851	87,042	391,851	195,534	8,704	628,957	1,975	302,716	21	111,609	4,440	2
2011	1,752,903	60,272	414,250	214,211	8,208	644,894	2,154	292,606	102	111,765	4,440	2
2012	1,791,672	57,172	417,469	234,355	6,818	667,198	1,725	289,225	70	113,198	4,440	2
2013	1,816,557	50,128	423,441	245,372	4,488	684,951	1,397	291,969	46	110,323	4,440	2
2014	1,817,587	27,951	429,633	259,186	2,375	703,812	1,187	277,296	42	111,664	4,440	2
2015 Q1	1,821,890	28,317	425,257	250,432	2,271	707,905	1,155	290,509	42	111,561	4,440	2
Q2	1,807,271	29,575	421,582	243,299	2,031	722,562	1,133	271,661	42	110,944	4,440	2
Q3	1,811,599	26,213	424,534	256,613	1,677	715,763	1,106	270,467	42	110,741	4,440	2
Q4	1,805,314	19,431	429,818	246,940	1,305	725,285	1,070	263,992	59	112,972	4,440	2
2016 Q1 p	1,814,572	21,804	427,090	240,281	1,205	730,533	1,051	279,084	59	109,023	4,440	2
Q2 p	1,812,750	29,543	427,813	235,389	1,108	727,922	1,033	277,672	59	107,769	4,440	2
Q3 p	1,804,565	31,237	433,493	245,945	922	717,358	1,021	262,894	59	107,194	4,440	2
Q4 p	1,786,779	24,509	430,701	236,136	737	724,328	1,010	258,084	59	106,772	4,440	2
2017 Q1 p	1,773,085	16,098	424,930	227,906	619	730,531	995	260,835	56	106,673	4,440	2
Central government 7,8												
2010	1,075,415	85,867	126,220	195,534	8,704	628,582	1,975	13,349	–	10,743	4,440	2
2011	1,081,304	58,297	130,648	214,211	8,208	644,513	2,154	9,382	–	9,450	4,440	2
2012	1,113,032	56,222	117,719	234,355	6,818	666,775	1,725	16,193	–	8,784	4,440	2
2013	1,132,505	50,004	110,029	245,372	4,488	684,305	1,397	23,817	–	8,652	4,440	2
2014	1,130,128	27,951	103,445	259,186	2,375	702,515	1,187	20,509	–	8,518	4,440	2
2015 Q1	1,127,042	26,495	102,203	250,432	2,271	706,308	1,155	25,289	–	8,448	4,440	2
Q2	1,121,637	27,535	101,090	243,299	2,031	720,715	1,133	13,021	–	8,373	4,440	2
Q3	1,119,670	24,157	98,087	256,613	1,677	713,766	1,106	11,776	–	8,046	4,440	2
Q4	1,113,741	18,536	96,389	246,940	1,305	723,238	1,070	13,825	–	7,996	4,440	2
2016 Q1	1,124,391	20,526	98,232	240,281	1,205	728,457	1,051	22,533	–	7,664	4,440	2
Q2	1,128,595	28,369	99,417	235,389	1,108	725,469	1,033	26,236	–	7,133	4,440	2
Q3	1,114,708	30,626	102,053	245,945	922	714,903	1,021	7,794	–	7,002	4,440	2
Q4	1,102,410	23,609	95,727	236,136	737	722,124	1,010	11,761	–	6,866	4,440	2
2017 Q1	1,096,711	14,910	95,148	227,906	619	727,887	995	17,829	–	6,976	4,440	2
State government												
2010	528,696	1,176	265,631	.	.	.	.	167,429	1	94,459	.	1
2011	537,870	1,975	283,601	.	.	.	.	154,844	62	97,387	.	1
2012	541,254	950	299,750	.	.	.	.	139,116	52	101,386	.	1
2013	546,354	125	313,412	.	.	.	.	134,439	35	98,343	.	1
2014	544,992	0	326,188	.	.	.	.	120,101	5	98,697	.	1
2015 Q1	547,487	1,821	323,055	.	.	.	.	123,943	5	98,662	.	1
Q2	538,594	2,040	320,492	.	.	.	.	117,935	5	98,121	.	1
Q3	544,260	2,056	326,447	.	.	.	.	117,506	5	98,245	.	1
Q4	543,999	895	333,429	.	.	.	.	110,674	5	98,996	.	1
2016 Q1 p	542,715	1,278	328,858	.	.	.	.	117,194	5	95,379	.	1
Q2 p	536,884	1,173	328,397	.	.	.	.	112,651	6	94,657	.	1
Q3 p	541,819	611	331,441	.	.	.	.	115,550	6	94,212	.	1
Q4 p	538,755	900	334,975	.	.	.	.	108,948	6	93,927	.	1
2017 Q1 p	531,334	1,188	329,782	.	.	.	.	106,644	3	93,718	.	1
Local government 9												
2010	128,740	.	–	.	.	375	.	121,938	20	6,407	.	.
2011	133,730	.	–	.	.	381	.	128,380	40	4,929	.	.
2012	137,386	.	–	.	.	423	.	133,916	18	3,029	.	.
2013	137,697	.	–	.	.	646	.	133,713	11	3,328	.	.
2014	142,468	.	–	.	.	1,297	.	136,686	37	4,448	.	.
2015 Q1	147,362	.	–	.	.	1,597	.	141,278	37	4,450	.	.
Q2	147,039	.	–	.	.	1,847	.	140,705	37	4,450	.	.
Q3	147,669	.	–	.	.	1,997	.	141,185	37	4,450	.	.
Q4	147,573	.	–	.	.	2,047	.	139,493	54	5,980	.	.
2016 Q1 p	147,466	.	–	.	.	2,076	.	139,356	54	5,980	.	.
Q2 p	147,271	.	–	.	.	2,453	.	138,785	54	5,980	.	.
Q3 p	148,038	.	–	.	.	2,455	.	139,550	54	5,980	.	.
Q4 p	145,614	.	–	.	.	2,204	.	137,376	54	5,980	.	.
2017 Q1 p	145,040	.	–	.	.	2,645	.	136,362	54	5,980	.	.

Source: Bundesbank calculations based on data from the Federal Statistical Office. * Excluding direct intergovernmental borrowing. **1** Including Treasury financing paper. **2** Excluding issuers' holdings of their own securities. **3** Treasury notes issued by state government include long-term notes. **4** Mainly loans against borrowers' notes and cash advances. Including loans raised abroad. Other loans from non-banks, including loans from public supplementary pension funds and liabilities arising from the investment assistance levy. **5** Excluding offsets against outstanding claims. **6** Old debt mainly denominated in foreign currency, in accordance with the London Debts Agreement, old liabilities arising from housing construction and liabilities arising from housing construction by the former GDR's armed forces and from housing construction in connection with the return of the troops of the former USSR stationed in eastern Germany to their home country; excluding debt securities in own portfolios. **7** In contrast to the capital market statistics, the debt incurred through the joint issuance of Federal securities is recorded here under central government and its special funds in accordance with the agreed allocation ratios. **8** From January 2011, including debt of the Restructuring Fund for Credit Institutions. **9** Including debt of municipal special purpose associations. Data other than year-end figures have been estimated.

XI Economic conditions in Germany

1 Origin and use of domestic product, distribution of national income

Item	2014	2015	2016	2014	2015	2016	2015 Q3	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1
	Index 2010=100			Annual percentage change									
At constant prices, chained													
I Origin of domestic product													
Production sector (excluding construction)	110.0	111.8	113.3	5.0	1.6	1.4	1.7	1.9	0.9	4.0	0.7	0.1	3.8
Construction	101.6	101.4	103.5	1.4	– 0.2	2.1	– 0.8	2.4	1.6	5.6	1.8	– 0.5	4.0
Wholesale/retail trade, transport and storage, hotel and restaurant services	106.6	108.6	111.0	0.4	1.9	2.2	1.6	1.9	1.2	4.3	1.5	2.0	3.0
Information and communication	125.9	129.1	132.7	4.8	2.5	2.8	2.5	3.0	2.4	3.4	3.1	2.2	3.7
Financial and insurance activities	105.8	106.5	109.1	– 4.8	0.7	2.4	1.6	– 0.4	2.2	1.4	2.4	3.8	1.6
Real estate activities	101.8	102.6	103.4	– 1.5	0.9	0.7	0.9	1.2	0.7	1.0	0.5	0.6	1.1
Business services [1]	106.6	109.0	111.6	2.4	2.3	2.4	2.1	3.0	1.7	3.8	2.2	2.0	3.8
Public services, education and health	103.1	105.2	107.4	0.7	2.0	2.1	2.1	1.6	1.5	2.4	2.3	2.4	2.3
Other services	97.3	97.6	99.0	– 0.5	0.3	1.4	0.2	0.9	0.2	2.2	1.6	1.7	2.6
Gross value added	106.3	107.9	109.9	1.5	1.6	1.8	1.6	1.8	1.2	3.2	1.5	1.4	2.9
Gross domestic product [2]	106.4	108.2	110.2	1.6	1.7	1.9	1.8	2.1	1.5	3.2	1.6	1.3	2.9
II Use of domestic product													
Private consumption [3]	104.4	106.5	108.7	0.9	2.0	2.1	2.2	2.1	2.1	2.9	1.9	1.6	1.6
Government consumption	104.5	107.4	111.7	1.2	2.7	4.0	2.6	3.4	4.7	4.9	3.9	2.7	1.5
Machinery and equipment	106.8	110.7	111.9	5.5	3.7	1.1	4.4	6.4	3.9	4.4	– 0.5	– 2.6	2.0
Premises	109.5	109.8	112.9	1.9	0.3	2.8	0.1	3.1	3.1	5.5	2.1	0.4	4.7
Other investment [4]	111.4	113.5	116.5	4.0	1.9	2.6	1.8	2.1	2.4	2.7	2.7	2.5	2.5
Changes in inventories [5, 6]	.	.	.	– 0.1	– 0.5	– 0.2	– 0.2	– 0.3	– 0.5	– 0.5	0.0	0.1	0.3
Domestic demand	104.5	106.2	108.6	1.4	1.6	2.3	2.0	2.5	2.3	3.2	2.1	1.5	2.2
Net exports [6]	.	.	.	0.3	0.2	– 0.2	– 0.1	– 0.3	– 0.6	0.3	– 0.5	– 0.1	0.9
Exports	118.0	124.1	127.4	4.1	5.2	2.7	4.9	3.6	1.3	4.6	1.4	3.3	6.6
Imports	114.8	121.0	125.6	4.0	5.5	3.8	6.0	5.0	3.1	5.0	2.7	4.3	5.6
Gross domestic product [2]	106.4	108.2	110.2	1.6	1.7	1.9	1.8	2.1	1.5	3.2	1.6	1.3	2.9
At current prices (€ billion)													
III Use of domestic product													
Private consumption [3]	1,594.4	1,636.0	1,681.5	1.8	2.6	2.8	2.7	2.8	2.6	3.3	2.5	2.8	3.2
Government consumption	561.1	583.7	615.3	3.5	4.0	5.4	3.8	4.9	6.4	6.3	5.2	4.0	3.4
Machinery and equipment	191.5	200.2	204.4	6.1	4.6	2.1	5.3	7.4	5.1	5.4	0.5	– 1.6	2.7
Premises	288.7	295.0	308.7	4.2	2.2	4.7	1.9	4.9	4.6	7.4	4.1	2.5	7.5
Other investment [4]	105.0	108.6	112.9	5.5	3.5	3.9	3.3	3.7	3.8	4.0	4.0	3.9	3.8
Changes in inventories [5]	– 7.4	– 20.2	– 27.6	.	.	.	.	.	.	.	.	.	.
Domestic use	2,733.2	2,803.3	2,895.3	2.8	2.6	3.3	2.9	3.6	3.1	4.0	3.1	2.9	3.9
Net exports	190.7	229.5	238.8	.	.	.	.	.	.	.	.	.	.
Exports	1,334.8	1,418.8	1,442.2	3.9	6.3	1.7	6.2	4.2	0.7	2.7	0.1	3.0	8.3
Imports	1,144.1	1,189.3	1,203.5	2.5	3.9	1.2	4.7	2.8	0.1	0.8	0.1	3.9	9.7
Gross domestic product [2]	2,923.9	3,032.8	3,134.1	3.5	3.7	3.3	3.7	4.2	3.2	4.7	2.9	2.6	3.7
IV Prices (2010=100)													
Private consumption	105.6	106.2	106.9	1.0	0.6	0.7	0.5	0.6	0.5	0.4	0.6	1.2	1.7
Gross domestic product	106.6	108.7	110.2	1.8	2.0	1.4	1.9	2.1	1.7	1.5	1.3	1.3	0.8
Terms of trade	99.5	102.0	103.6	1.3	2.6	1.5	2.5	2.6	2.4	2.3	1.3	0.1	– 2.3
V Distribution of national income													
Compensation of employees	1,485.5	1,539.9	1,598.4	3.9	3.7	3.8	3.8	3.9	4.2	3.4	3.8	3.9	4.1
Entrepreneurial and property income	694.1	723.4	740.8	2.4	4.2	2.4	4.1	5.3	1.6	9.8	0.4	– 1.6	1.8
National income	2,179.5	2,263.2	2,339.2	3.4	3.8	3.4	3.9	4.3	3.3	5.3	2.6	2.3	3.3
Memo item: Gross national income	2,988.9	3,098.8	3,198.7	3.3	3.7	3.2	3.7	4.2	3.4	4.8	2.6	2.2	3.4

Source: Federal Statistical Office; figures computed in May 2017. **1** Professional, scientific, technical, administration and support service activities. **2** Gross value added plus taxes on products (netted with subsidies on products). **3** Including non-profit institutions serving households. **4** Intellectual property rights (inter alia, computer software and entertainment, literary or artistic originals) and cultivated assets. **5** Including net increase in valuables. **6** Contribution of growth to GDP.

XI Economic conditions in Germany

2 Output in the production sector*

Adjusted for working-day variations **o**

	Production sector, total	of which: Construction	of which: Energy	Industry: Total	of which: by main industrial grouping: Intermediate goods	Capital goods	Durable goods	Non-durable goods	of which: by economic sector: Manufacture of basic metals and fabricated metal products	Manufacture of computers, electronic and optical products and electrical equipment	Machinery and equipment	Motor vehicles, trailers and semi-trailers
2010=100												
% of total **1**	100.00	11.24	10.14	78.62	31.02	33.31	2.49	11.80	10.41	10.37	12.17	11.62
Period												
2013	106.4	106.4	96.4	107.7	104.4	114.0	100.1	100.6	108.3	106.0	113.7	114.7
2014	108.1	109.5	92.7	109.8	106.2	116.6	100.5	102.2	111.3	108.7	115.1	119.5
2015	108.6	107.0	97.5	110.3	106.1	117.6	102.8	101.9	111.4	109.4	114.8	119.3
2016	109.8	109.6	96.2	111.7	107.3	119.3	105.9	103.0	113.0	111.4	114.8	121.6
2016 Q1	107.2	89.0	102.4	110.4	107.7	116.6	106.7	100.7	113.0	108.9	109.1	125.0
Q2	109.2	110.9	89.0	111.5	108.2	118.9	104.2	101.1	114.5	109.2	112.9	124.2
Q3	110.1	117.9	91.8	111.4	108.3	117.6	103.0	104.1	112.6	113.5	113.2	119.3
Q4	112.9	120.5	101.6	113.3	104.8	124.1	109.6	106.1	111.7	114.1	124.1	117.7
2017 Q1 **r**	108.4	90.8	101.8	111.7	109.3	117.7	110.0	101.9	115.3	112.9	110.6	125.4
2016 May	106.5	109.3	89.9	108.2	107.0	112.8	97.2	101.0	112.3	105.5	107.2	115.7
June	112.4	114.8	86.0	115.5	109.8	125.9	110.6	102.3	117.2	115.1	121.5	128.6
July **2**	110.4	120.7	91.7	111.4	109.2	117.5	99.3	102.7	113.6	111.9	111.1	121.7
Aug **2**	104.5	113.6	90.6	105.1	104.2	107.8	94.1	102.5	107.0	108.2	105.8	104.6
Sep	115.4	119.5	93.1	117.7	111.5	127.5	115.7	107.0	117.3	120.3	122.6	131.7
Oct	115.7	122.4	99.5	116.8	111.9	124.0	114.5	109.9	118.6	116.7	114.2	132.1
Nov	118.7	123.6	102.2	120.2	111.8	131.6	115.9	111.3	121.8	120.4	127.3	131.0
Dec	104.3	115.4	103.1	102.9	90.6	116.7	98.4	97.2	94.6	105.3	130.9	90.1
2017 Jan **r**	99.8	68.9	108.2	103.1	104.3	103.8	102.7	98.2	108.3	106.0	94.9	112.6
Feb **r**	106.1	90.7	97.2	109.5	106.1	116.8	108.8	98.0	112.4	109.5	110.1	126.0
Mar **r**	119.2	112.7	100.0	122.6	117.5	132.4	118.5	109.4	125.1	123.1	126.7	137.7
Apr **x**	111.6	116.0	93.3	113.3	111.9	119.1	110.0	101.4	117.8	114.6	112.3	127.0
May **x,p**	111.8	116.3	92.2	113.6	111.2	120.2	107.8	102.7	117.9	113.6	114.5	125.3
Annual percentage change												
2013	+ 0.1	± 0.0	− 1.0	+ 0.3	− 0.2	+ 0.6	− 0.4	+ 0.8	+ 0.9	− 1.7	− 1.3	+ 1.8
2014	+ 1.6	+ 2.9	− 3.8	+ 1.9	+ 1.7	+ 2.3	+ 0.4	+ 1.6	+ 2.8	+ 2.5	+ 1.2	+ 4.2
2015	+ 0.5	− 2.3	+ 5.2	+ 0.5	− 0.1	+ 0.9	+ 2.3	− 0.3	+ 0.1	+ 0.6	− 0.3	− 0.2
2016	+ 1.1	+ 2.4	− 1.3	+ 1.3	+ 1.1	+ 1.4	+ 3.0	+ 1.1	+ 1.4	+ 1.8	± 0.0	+ 1.9
2016 Q1	+ 1.7	+ 4.0	− 2.2	+ 1.9	+ 1.4	+ 2.4	+ 2.5	+ 1.4	+ 2.3	+ 1.2	+ 1.7	+ 1.9
Q2	+ 0.6	+ 1.8	− 2.5	+ 0.8	+ 0.5	+ 1.1	+ 2.6	+ 0.4	+ 1.0	+ 1.1	− 2.6	+ 3.2
Q3	+ 0.9	+ 2.7	− 1.4	+ 0.9	+ 0.8	+ 0.9	+ 2.8	+ 0.9	+ 0.4	+ 2.3	− 0.3	+ 1.6
Q4	+ 1.4	+ 1.3	+ 0.9	+ 1.5	+ 1.5	+ 1.2	+ 4.0	+ 1.7	+ 1.8	+ 2.6	+ 1.4	+ 1.0
2017 Q1 **r**	+ 1.1	+ 2.0	− 0.6	+ 1.2	+ 1.5	+ 0.9	+ 3.1	+ 1.2	+ 2.0	+ 3.7	+ 1.3	+ 0.3
2016 May	− 0.4	+ 1.0	+ 0.7	− 0.6	+ 0.6	− 2.0	− 2.7	+ 1.1	+ 0.3	− 0.7	− 4.5	− 3.7
June	+ 1.3	+ 2.5	− 3.8	+ 1.6	± 0.0	+ 3.3	+ 7.9	− 1.2	+ 1.7	+ 1.5	− 1.5	+ 7.0
July **2**	− 1.3	+ 3.1	− 2.7	− 1.8	− 0.6	− 2.8	+ 2.2	− 2.0	− 1.0	+ 0.3	− 4.3	− 3.9
Aug **2**	+ 2.3	+ 2.2	− 0.1	+ 2.6	+ 1.7	+ 3.9	+ 3.5	+ 1.7	+ 1.0	+ 2.9	+ 0.2	+ 7.9
Sep	+ 1.8	+ 2.8	− 1.5	+ 1.9	+ 1.5	+ 1.9	+ 2.7	+ 3.0	+ 1.1	+ 3.5	+ 3.1	+ 2.2
Oct	+ 1.6	+ 2.2	+ 0.5	+ 1.6	+ 1.6	+ 0.8	+ 4.8	+ 3.1	+ 0.9	+ 3.8	− 1.6	+ 1.5
Nov	+ 2.5	+ 1.6	+ 0.9	+ 2.8	+ 2.1	+ 3.6	+ 2.2	+ 2.4	+ 4.0	+ 4.0	+ 4.9	+ 1.2
Dec	± 0.0	+ 0.1	+ 1.4	− 0.2	+ 0.4	− 0.9	+ 5.4	− 0.6	+ 0.2	− 0.3	+ 0.6	+ 0.2
2017 Jan **r**	− 0.4	− 5.2	+ 0.7	− 0.1	+ 1.3	− 1.1	+ 3.3	− 1.1	+ 1.0	+ 4.3	− 0.3	− 2.1
Feb **r**	+ 1.4	+ 4.3	± 0.0	+ 1.4	+ 0.7	+ 1.7	+ 3.0	+ 2.0	+ 1.9	+ 2.6	+ 3.7	+ 0.6
Mar **r**	+ 2.1	+ 5.1	− 2.3	+ 2.3	+ 2.4	+ 2.0	+ 3.0	+ 2.6	+ 3.0	+ 4.1	+ 0.6	+ 2.1
Apr **x**	+ 2.8	+ 6.9	+ 2.3	+ 2.2	+ 3.7	+ 0.9	+ 5.1	+ 1.5	+ 3.2	+ 7.0	+ 2.2	− 1.1
May **x,p**	+ 5.0	+ 6.4	+ 2.6	+ 5.0	+ 3.9	+ 6.6	+ 10.9	+ 1.7	+ 5.0	+ 7.7	+ 6.8	+ 8.3

Source of the unadjusted figures: Federal Statistical Office. * For explanatory notes, see Statistical Supplement Seasonally adjusted business statistics, Tables II.10 to II.12. **o** Using the Census X-12-ARIMA method, version 0.2.8. **1** Share of gross value added at factor cost of the production sector in the base year 2010. **2** Influenced by a change in holiday dates. **x** Provisional; adjusted in advance by the Federal Statistical Office, by way of estimates, to the results of the Quarterly Production Survey or the Quarterly Survey in the specialised construction industry, respectively.

XI Economic conditions in Germany

3 Orders received by industry *

Adjusted for working-day variations **o**

Period	Industry		of which: Intermediate goods		Capital goods		Consumer goods		of which: Durable goods		Non-durable goods	
	2010=100	Annual percentage change	2010=100	Annual percentage change	2010=100	Annual percentage change	2010=100	Annual percentage change	2010=100	Annual percentage change	2010=100	Annual percentage change
Total												
2012	106.9	– 2.7	104.2	– 4.5	109.2	– 1.8	103.8	± 0.0	99.4	– 5.6	105.3	+ 1.9
2013	109.4	+ 2.3	103.2	– 1.0	114.3	+ 4.7	105.9	+ 2.0	101.8	+ 2.4	107.4	+ 2.0
2014	112.4	+ 2.7	103.9	+ 0.7	118.6	+ 3.8	110.8	+ 4.6	102.4	+ 0.6	113.7	+ 5.9
2015	114.8	+ 2.1	103.0	– 0.9	123.2	+ 3.9	114.3	+ 3.2	106.7	+ 4.2	116.9	+ 2.8
2016	115.7	+ 0.8	102.1	– 0.9	125.3	+ 1.7	115.3	+ 0.9	112.6	+ 5.5	116.2	– 0.6
2016 May	111.9	– 1.6	101.5	– 3.0	119.2	– 1.1	111.5	+ 0.5	100.7	– 1.0	115.3	+ 0.9
June	118.7	– 3.9	103.0	– 3.5	130.4	– 4.5	114.1	– 0.2	111.1	+ 2.8	115.2	– 1.0
July	114.1	– 2.1	102.1	– 2.8	122.1	– 1.9	117.3	– 1.2	110.0	+ 2.0	119.9	– 2.0
Aug	103.2	+ 0.5	92.9	– 0.5	109.0	+ 0.6	114.5	+ 4.3	101.9	+ 2.4	119.0	+ 4.8
Sep	113.9	+ 1.8	100.5	+ 0.5	123.3	+ 2.7	115.4	+ 1.1	119.2	+ 2.4	114.1	+ 0.6
Oct	118.7	+ 4.4	105.0	+ 2.2	128.4	+ 6.6	117.9	– 1.8	129.5	+ 12.9	113.8	– 6.6
Nov	119.0	+ 2.1	107.5	+ 2.1	127.1	+ 1.8	118.3	+ 2.5	119.1	+ 8.7	118.0	+ 0.5
Dec	121.2	+ 9.6	93.6	+ 3.7	143.0	+ 13.9	104.1	– 2.1	103.6	+ 5.0	104.2	– 4.4
2017 Jan	115.1	+ 1.1	107.0	+ 2.6	120.7	+ 1.1	116.9	– 4.1	115.6	– 0.6	117.4	– 5.2
Feb	119.0	+ 6.0	111.8	+ 10.4	123.8	+ 3.7	121.7	+ 4.1	116.6	+ 11.9	123.4	+ 1.7
Mar	133.6	+ 4.3	119.5	+ 10.0	143.8	+ 0.8	131.1	+ 8.2	135.0	+ 14.8	129.8	+ 6.0
Apr	119.4	+ 5.5	111.0	+ 5.9	125.3	+ 4.9	118.7	+ 7.8	120.9	+ 2.3	117.9	+ 10.0
May **p**	118.3	+ 5.7	109.3	+ 7.7	124.8	+ 4.7	116.4	+ 4.4	119.4	+ 18.6	115.3	± 0.0
From the domestic market												
2012	103.9	– 5.3	103.3	– 5.8	105.4	– 4.9	99.1	– 4.3	101.9	– 7.5	98.2	– 2.9
2013	104.4	+ 0.5	101.9	– 1.4	107.6	+ 2.1	100.4	+ 1.3	102.8	+ 0.9	99.5	+ 1.3
2014	105.6	+ 1.1	100.8	– 1.1	110.9	+ 3.1	102.4	+ 2.0	102.8	± 0.0	102.2	+ 2.7
2015	107.4	+ 1.7	99.0	– 1.8	116.3	+ 4.9	105.2	+ 2.7	102.1	– 0.7	106.3	+ 4.0
2016	107.4	± 0.0	96.8	– 2.2	118.7	+ 2.1	103.4	– 1.7	105.6	+ 3.4	102.6	– 3.5
2016 May	105.0	– 0.8	95.8	– 5.2	114.6	+ 3.0	102.5	+ 1.7	95.1	+ 3.1	105.1	+ 1.2
June	108.4	+ 1.1	97.0	– 3.7	121.1	+ 5.8	100.7	– 1.2	101.4	+ 1.4	100.4	– 2.1
July	105.6	– 6.0	97.6	– 3.8	113.6	– 8.0	105.1	– 5.1	102.9	– 1.6	105.9	– 6.1
Aug	99.7	+ 0.8	91.0	– 2.3	107.8	+ 4.2	103.0	– 3.5	101.3	+ 1.6	103.6	– 5.1
Sep	104.4	– 0.9	92.8	– 3.5	116.0	+ 1.5	104.0	– 3.5	115.8	+ 0.7	99.8	– 5.1
Oct	111.0	+ 3.1	100.5	+ 1.8	122.2	+ 4.7	107.0	– 1.1	120.6	+ 6.8	102.2	– 4.1
Nov	111.3	+ 0.8	102.4	+ 0.4	120.9	+ 1.4	107.5	– 0.7	114.6	+ 5.7	105.0	– 3.0
Dec	107.4	+ 9.7	86.5	+ 2.9	131.0	+ 16.1	91.0	+ 0.2	88.9	+ 6.3	91.7	– 1.8
2017 Jan	106.2	+ 0.5	100.8	+ 2.1	112.0	– 1.0	103.6	+ 0.2	104.6	+ 1.6	103.2	– 0.4
Feb	113.5	+ 7.5	108.4	+ 13.9	119.3	+ 3.2	109.9	+ 1.9	104.3	+ 3.8	111.9	+ 1.4
Mar	122.5	+ 4.9	111.5	+ 9.2	135.3	+ 1.9	111.2	+ 2.0	117.6	+ 1.0	109.0	+ 2.4
Apr	111.8	+ 3.2	104.8	+ 2.7	120.7	+ 4.0	99.9	+ 0.6	106.3	+ 0.1	97.7	+ 0.9
May **p**	107.9	+ 2.8	102.8	+ 7.3	114.0	– 0.5	101.8	– 0.7	103.2	+ 8.5	101.3	– 3.6
From abroad												
2012	109.2	– 0.7	105.2	– 3.0	111.6	+ 0.2	107.7	+ 3.5	97.3	– 3.7	111.3	+ 5.8
2013	113.5	+ 3.9	104.8	– 0.4	118.4	+ 6.1	110.7	+ 2.8	100.8	+ 3.6	114.1	+ 2.5
2014	117.9	+ 3.9	107.4	+ 2.5	123.4	+ 4.2	118.0	+ 6.6	102.0	+ 1.2	123.5	+ 8.2
2015	120.7	+ 2.4	107.7	+ 0.3	127.4	+ 3.2	122.1	+ 3.5	110.7	+ 8.5	126.0	+ 2.0
2016	122.4	+ 1.4	108.3	+ 0.6	129.4	+ 1.6	125.5	+ 2.8	118.8	+ 7.3	127.8	+ 1.4
2016 May	117.5	– 2.2	108.2	– 0.5	122.1	– 3.2	119.2	– 0.5	105.5	– 4.1	124.0	+ 0.7
June	127.1	– 7.0	110.1	– 3.2	136.2	– 9.3	125.6	+ 0.6	119.6	+ 3.9	127.7	– 0.4
July	121.0	+ 0.7	107.4	– 1.6	127.4	+ 1.8	127.7	+ 1.8	116.2	+ 5.1	131.8	+ 0.9
Aug	106.1	+ 0.3	95.1	+ 1.4	109.8	– 1.3	124.4	+ 10.6	102.4	+ 3.1	132.0	+ 12.7
Sep	121.7	+ 3.8	109.5	+ 4.8	127.8	+ 3.3	125.1	+ 4.6	122.2	+ 3.9	126.2	+ 4.9
Oct	124.9	+ 5.4	110.3	+ 2.6	132.3	+ 7.7	127.2	– 2.3	137.2	+ 18.0	123.7	– 8.3
Nov	125.2	+ 2.9	113.6	+ 4.0	130.9	+ 1.9	127.6	+ 5.0	123.1	+ 11.2	129.1	+ 3.1
Dec	132.4	+ 9.4	102.0	+ 4.5	150.4	+ 12.7	115.3	– 3.6	116.4	+ 4.1	114.9	– 6.1
2017 Jan	122.4	+ 1.7	114.3	+ 3.2	126.0	+ 2.2	128.3	– 6.8	125.1	– 2.2	129.4	– 8.2
Feb	123.5	+ 4.9	115.9	+ 6.8	126.6	+ 4.0	131.7	+ 5.6	127.4	+ 18.5	133.2	+ 2.1
Mar	142.6	+ 3.9	129.0	+ 10.9	149.1	+ 0.2	148.2	+ 12.5	150.2	+ 26.5	147.5	+ 8.4
Apr	125.5	+ 7.2	118.2	+ 9.4	128.2	+ 5.4	134.8	+ 13.0	133.6	+ 3.8	135.1	+ 16.4
May **p**	126.7	+ 7.8	117.0	+ 8.1	131.5	+ 7.7	128.8	+ 8.1	133.5	+ 26.5	127.2	+ 2.6

Source of the unadjusted figures: Federal Statistical Office. * At current prices; for explanatory notes, see Statistical Supplement Seasonally adjusted business statistics, Tables II.14 to II.16. **o** Using the Census X-12-ARIMA method, version 0.2.8.

XI Economic conditions in Germany

4 Orders received by construction *

Adjusted for working-day variations o

Period	Total		Breakdown by type of construction										Breakdown by client 1			
			Building								Civil engineering		Industry		Public sector 2	
			Total		Housing construction		Industrial construction		Public sector construction							
	2010 = 100	Annual percentage change	2010 = 100	Annual percentage change	2010 = 100	Annual percentage change	2010 = 100	Annual percentage change	2010 = 100	Annual percentage change	2010 = 100	Annual percentage change	2010 = 100	Annual percentage change	2010 = 100	Annual percentage change
2012	114.7	+ 7.1	121.4	+ 8.2	132.3	+ 9.7	124.2	+ 9.3	91.7	+ 0.2	107.9	+ 5.8	118.8	+ 5.4	103.4	+ 7.8
2013	119.2	+ 3.9	126.5	+ 4.2	140.6	+ 6.3	128.1	+ 3.1	93.9	+ 2.4	111.9	+ 3.7	121.9	+ 2.6	107.7	+ 4.2
2014	118.5	– 0.6	127.2	+ 0.6	146.6	+ 4.3	126.8	– 1.0	90.6	– 3.5	109.9	– 1.8	121.7	– 0.2	104.0	– 3.4
2015	124.2	+ 4.8	133.6	+ 5.0	165.4	+ 12.8	124.3	– 2.0	98.5	+ 8.7	114.8	+ 4.5	122.6	+ 0.7	109.3	+ 5.1
2016	142.2	+ 14.5	153.7	+ 15.0	193.4	+ 16.9	143.0	+ 15.0	107.5	+ 9.1	130.7	+ 13.9	137.1	+ 11.8	126.9	+ 16.1
2016 Apr	151.0	+ 18.9	155.2	+ 16.6	195.6	+ 14.1	142.3	+ 20.0	114.1	+ 13.1	146.7	+ 21.3	140.3	+ 18.7	143.9	+ 21.7
May	157.4	+ 18.5	176.2	+ 27.4	209.7	+ 24.7	173.7	+ 32.6	117.6	+ 16.3	138.7	+ 9.0	156.0	+ 19.4	137.9	+ 14.2
June	165.1	+ 19.8	180.9	+ 24.3	223.0	+ 27.6	174.6	+ 25.4	117.0	+ 9.6	149.3	+ 14.8	161.4	+ 20.4	145.6	+ 15.0
July	152.7	+ 15.7	163.7	+ 17.4	195.1	+ 5.8	158.6	+ 31.8	117.2	+ 9.2	141.7	+ 13.7	144.2	+ 19.5	144.4	+ 17.9
Aug	138.9	+ 12.1	148.5	+ 14.1	184.0	+ 16.7	141.5	+ 14.9	99.7	+ 3.1	129.2	+ 9.9	132.3	+ 10.9	127.5	+ 11.0
Sep	144.4	+ 7.5	161.5	+ 6.7	225.4	+ 11.5	133.1	– 0.5	120.3	+ 16.6	127.4	+ 8.6	129.6	+ 1.0	127.1	+ 12.3
Oct	145.4	+ 23.5	157.1	+ 22.8	194.5	+ 22.9	148.1	+ 27.3	110.2	+ 7.1	133.6	+ 24.4	144.9	+ 20.3	126.1	+ 27.9
Nov	127.0	+ 6.9	139.6	+ 1.8	189.3	+ 24.3	121.7	– 15.9	95.1	+ 12.0	114.5	+ 13.9	124.3	– 11.5	104.8	+ 26.0
Dec	131.1	+ 6.2	150.0	+ 10.9	171.8	+ 2.8	153.8	+ 22.6	95.6	– 5.5	112.2	+ 0.4	141.0	+ 22.8	104.6	– 8.7
2017 Jan	113.5	+ 4.6	124.9	+ 6.1	154.5	+ 4.6	122.4	+ 14.8	74.4	– 19.0	102.1	+ 2.8	124.4	+ 11.6	85.9	– 4.2
Feb	130.2	+ 7.9	144.3	+ 14.6	176.0	+ 11.6	139.1	+ 20.5	97.3	+ 2.6	116.2	+ 0.7	127.4	+ 16.3	114.8	– 2.0
Mar	179.0	+ 8.7	190.3	+ 12.9	243.5	+ 7.0	172.1	+ 17.3	139.8	+ 19.5	167.6	+ 4.2	165.1	+ 10.1	167.3	+ 8.3
Apr	165.3	+ 9.5	170.6	+ 9.9	204.6	+ 4.6	166.9	+ 17.3	114.5	+ 0.4	160.0	+ 9.1	154.1	+ 9.8	160.9	+ 11.8

Source of the unadjusted figures: Federal Statistical Office. * At current prices; values exclusive of value-added tax; for explanatory notes, see Statistical Supplement Seasonally adjusted business statistics, Table II.21. o Using the Census X-12-ARIMA method, version 0.2.8. 1 Excluding housing construction orders. 2 Including road construction.

5 Retail trade turnover *

Adjusted for calendar variations o

Period	Total				*of which*											
					in stores by enterprises main product range										Retail sale via mail order houses or via internet as well as other retail sale 2	
					Food, beverages, tobacco 1		Textiles, clothing, foodwear and leather goods		Information and communications equipment		Construction and flooring materials, household appliances, furniture		Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles			
	At current prices		At prices in year 2010		At current prices											
	2010 = 100	Annual percentage change	2010 = 100	Annual percentage change	2010 = 100	Annual percentage change	2010 = 100	Annual percentage change	2010 = 100	Annual percentage change	2010 = 100	Annual percentage change	2010 = 100	Annual percentage change	2010 = 100	Annual percentage change
2012	104.5	+ 1.8	100.8	– 0.3	105.2	+ 2.6	102.3	+ 0.7	99.0	– 0.4	104.5	+ 0.8	100.7	+ 0.4	116.5	+ 8.4
2013	106.2	+ 1.6	101.3	+ 0.5	109.0	+ 3.6	103.0	+ 0.7	95.4	– 3.6	102.3	– 2.1	103.4	+ 2.7	123.5	+ 6.0
2014	108.2	+ 1.9	102.7	+ 1.4	111.6	+ 2.4	104.9	+ 1.8	94.6	– 0.8	101.9	– 0.4	110.7	+ 7.1	126.2	+ 2.2
2015	3 112.2	+ 3.7	3 106.7	+ 3.9	114.8	+ 2.9	105.2	+ 0.3	95.5	+ 1.0	104.6	+ 2.6	116.6	+ 5.3	3 151.5	+ 20.0
2016 4	115.0	+ 2.5	108.9	+ 2.1	117.1	+ 2.0	104.8	– 0.4	95.6	+ 0.1	106.1	+ 1.4	121.5	+ 4.2	166.4	+ 9.8
2016 May	114.8	+ 1.7	108.1	+ 1.5	118.6	+ 0.9	108.5	+ 0.8	79.3	– 2.0	109.6	+ 1.4	118.6	+ 5.1	157.3	+ 6.0
June	112.0	+ 1.9	106.0	+ 1.8	116.1	+ 1.7	103.1	– 2.2	85.2	+ 4.3	103.1	+ 0.9	117.3	+ 3.3	153.2	+ 6.3
July	115.5	+ 2.1	109.8	+ 1.8	119.1	+ 2.9	107.2	– 0.6	89.7	– 1.1	106.3	+ 2.9	124.4	+ 4.0	150.1	+ 0.9
Aug	111.1	+ 1.7	105.7	+ 1.5	115.8	+ 0.5	96.6	+ 0.7	84.5	– 1.6	101.4	+ 2.4	118.2	+ 5.9	152.9	+ 4.2
Sep	110.6	+ 0.6	104.4	+ 0.1	112.2	+ 2.0	100.3	– 10.6	87.8	– 5.6	101.2	– 0.9	119.8	+ 5.3	156.9	– 0.7
Oct	120.0	+ 3.5	112.7	+ 2.9	118.6	+ 2.7	127.7	+ 6.2	101.1	+ 3.3	112.5	+ 1.6	124.4	+ 4.2	179.1	+ 9.4
Nov	120.6	+ 2.2	113.4	+ 1.3	118.6	+ 1.9	107.6	+ 3.4	109.1	– 1.3	112.4	– 1.8	126.6	+ 3.3	198.7	+ 7.0
Dec	138.5	+ 2.8	130.6	+ 1.2	137.6	+ 2.8	125.2	+ 0.7	153.1	+ 3.2	115.8	+ 2.1	135.7	+ 3.7	214.5	+ 5.0
2017 Jan	107.3	+ 1.8	101.3	– 0.1	108.5	+ 0.4	86.5	– 5.0	114.2	+ 15.8	91.0	– 2.0	119.4	+ 2.7	170.5	+ 8.6
Feb	105.4	+ 3.6	98.6	+ 1.3	108.9	+ 3.0	80.5	+ 0.4	93.7	+ 9.3	93.0	– 1.1	116.7	+ 2.6	160.4	+ 4.1
Mar	121.6	+ 5.4	113.1	+ 3.4	121.6	+ 3.8	108.4	+ 10.7	103.8	+ 14.1	116.7	+ 3.7	127.2	+ 2.7	180.8	+ 4.7
Apr	119.3	+ 4.2	110.6	+ 2.6	123.5	+ 5.5	106.3	– 5.5	95.4	+ 16.1	112.2	+ 0.7	123.5	+ 3.7	172.8	+ 15.0
May	119.5	+ 4.1	110.8	+ 2.5	123.4	+ 4.0	107.0	– 1.4	91.1	+ 14.9	110.1	+ 0.5	122.9	+ 3.6	171.8	+ 9.2

Source of the unadjusted figures: Federal Statistical Office. * Excluding value-added tax; For explanatory notes, see Statistical Supplement Seasonally adjusted business statistics, Table II.24. o Using the Census X-12-ARIMA method, version 0.2.8. 1 Including stalls and markets. 2 Not in stores, stalls or markets. 3 As of May 2015, integration of a larger online retail sales based enterprise that founded a business establishment in Germany in May 2015. 4 As of January 2016 figures are provisional, in some cases revised, and particularly uncertain in recent months due to estimates for missing reports.

XI Economic conditions in Germany

6 Labour market *

Period	Employment [1]		Employment subject to social contributions [2,3]					Solely jobs exempt from social contributions [2]	Short time workers [4]		Unemployment [5]		Unemployment rate [5,6] in %	Vacancies, [5,7] thousands
			Total		of which:					of which:		of which:		
	Thousands	Annual percentage change	Thousands	Annual percentage change	Production sector	Services excluding temporary employment	Temporary employment		Total	Cyclically induced	Total	Recipients of insured unemployment benefits		
					Thousands									
2012	42,062	+ 1.2	29,341	+ 2.3	8,739	19,604	773	4,981	171	67	2,897	902	6.8	478
2013	42,327	+ 0.6	29,713	+ 1.3	8,783	19,958	743	5,017	191	77	2,950	970	6.9	457
2014	42,662	+ 0.8	30,197	+ 1.6	8,860	20,332	770	5,029	134	49	2,898	933	6.7	490
2015	43,057	+ 0.9	30,822	+ 2.1	8,937	20,839	806	4,856	130	44	2,795	859	6.4	569
2016	43,594	+ 1.2	p 31,485	p + 2.2	p 9,022	p 21,390	p 834	p 4,805	128	42	2,691	822	6.1	655
2014 Q2	42,626	+ 0.9	30,080	+ 1.7	8,829	20,255	753	5,043	72	56	2,886	900	6.6	487
Q3	42,849	+ 0.8	30,284	+ 1.7	8,896	20,344	800	5,065	50	37	2,860	909	6.6	512
Q4	42,958	+ 0.7	30,614	+ 1.6	8,956	20,625	796	5,018	110	46	2,738	846	6.3	510
2015 Q1	42,512	+ 0.7	30,360	+ 1.8	8,833	20,551	756	4,863	310	51	2,993	1,011	6.9	515
Q2	42,985	+ 0.8	30,671	+ 2.0	8,895	20,740	792	4,863	61	47	2,772	822	6.3	560
Q3	43,272	+ 1.0	30,927	+ 2.1	8,974	20,864	840	4,868	47	33	2,759	827	6.3	595
Q4	43,457	+ 1.2	31,329	+ 2.3	9,049	21,201	837	4,828	101	46	2,655	775	6.0	604
2016 Q1	43,060	+ 1.3	31,064	+ 2.3	8,927	21,120	793	4,786	312	50	2,892	932	6.6	610
Q2	43,497	+ 1.2	p 31,326	p + 2.1	p 8,983	p 21,279	p 820	p 4,824	59	47	2,674	782	6.1	653
Q3	43,789	+ 1.2	p 31,536	p + 2.0	p 9,039	p 21,391	p 858	p 4,827	46	35	2,651	808	6.0	682
Q4	44,032	+ 1.3	32,015	+ 2.2	9,137	21,772	866	4,782	93	36	2,547	766	5.8	677
2017 Q1	8 43,698	8 + 1.5	9 31,789	9 + 2.3	9 9,039	9 21,698	9 830	9 4,724	...	9 52	2,734	10 987	6.2	671
Q2	...	...	...	...	...	...	...	...	...	...	2,513	822	11 5.6	717
2014 Feb	42,183	+ 0.8	29,784	+ 1.5	8,750	20,088	729	4,976	355	57	3,138	1,105	7.3	456
Mar	42,296	+ 0.9	29,932	+ 1.7	8,797	20,162	742	4,990	202	55	3,055	1,026	7.1	476
Apr	42,486	+ 0.9	30,060	+ 1.7	8,826	20,244	749	5,030	77	60	2,943	938	6.8	485
May	42,643	+ 0.8	30,125	+ 1.6	8,836	20,292	751	5,060	72	56	2,882	893	6.6	481
June	42,748	+ 0.8	30,175	+ 1.9	8,854	20,295	779	5,087	66	52	2,833	869	6.5	495
July	42,780	+ 0.8	30,121	+ 1.8	8,860	20,219	800	5,100	54	40	2,871	909	6.6	502
Aug	42,804	+ 0.8	30,312	+ 1.6	8,904	20,362	802	5,046	44	32	2,902	934	6.7	515
Sep	42,964	+ 0.8	30,663	+ 1.7	8,992	20,608	813	5,013	51	39	2,808	885	6.5	518
Oct	43,053	+ 0.8	30,676	+ 1.6	8,980	20,645	808	5,021	61	49	2,733	836	6.3	517
Nov	43,010	+ 0.7	30,636	+ 1.6	8,960	20,645	798	5,020	63	52	2,717	834	6.3	515
Dec	42,810	+ 0.8	30,398	+ 1.7	8,864	20,565	753	5,012	204	39	2,764	867	6.4	498
2015 Jan	42,443	+ 0.7	30,276	+ 1.8	8,815	20,498	747	4,846	327	50	3,032	1,043	7.0	485
Feb	42,464	+ 0.7	30,342	+ 1.9	8,819	20,546	756	4,821	352	52	3,017	1,034	6.9	519
Mar	42,630	+ 0.8	30,528	+ 2.0	8,865	20,651	777	4,829	251	50	2,932	955	6.8	542
Apr	42,820	+ 0.8	30,645	+ 1.9	8,895	20,723	784	4,850	67	54	2,843	868	6.5	552
May	43,002	+ 0.8	30,718	+ 2.0	8,901	20,776	794	4,875	57	44	2,762	815	6.3	557
June	43,134	+ 0.9	30,771	+ 2.0	8,915	20,788	819	4,902	59	45	2,711	782	6.2	572
July	43,177	+ 0.9	30,744	+ 2.1	8,934	20,724	840	4,908	49	35	2,773	830	6.3	589
Aug	43,232	+ 1.0	30,986	+ 2.2	8,993	20,899	846	4,841	40	26	2,796	851	6.4	597
Sep	43,408	+ 1.0	31,330	+ 2.2	9,076	21,150	850	4,810	51	39	2,708	799	6.2	600
Oct	43,492	+ 1.0	31,365	+ 2.2	9,067	21,203	846	4,813	61	47	2,649	764	6.0	612
Nov	43,526	+ 1.2	31,384	+ 2.4	9,059	21,243	842	4,845	66	52	2,633	764	6.0	610
Dec	43,353	+ 1.3	31,145	+ 2.5	8,963	21,163	798	4,843	177	39	2,681	798	6.1	591
2016 Jan	42,978	+ 1.3	30,967	+ 2.3	8,904	21,060	784	4,775	343	48	2,920	961	6.7	581
Feb	43,022	+ 1.3	31,055	+ 2.3	8,921	21,116	793	4,771	343	50	2,911	947	6.6	614
Mar	43,180	+ 1.3	31,195	+ 2.2	8,951	21,205	804	4,783	252	52	2,845	888	6.5	635
Apr	43,329	+ 1.2	31,299	+ 2.1	8,980	21,267	809	4,808	67	55	2,744	817	6.3	640
May	43,516	+ 1.2	31,395	+ 2.2	8,997	21,324	826	4,839	57	45	2,664	774	6.0	655
June	43,645	+ 1.2	p 31,374	p + 2.0	p 8,991	p 21,289	p 846	p 4,864	54	42	2,614	754	5.9	665
July	43,637	+ 1.1	p 31,258	p + 1.7	p 8,974	p 21,188	p 852	p 4,861	43	31	2,661	805	6.0	674
Aug	43,766	+ 1.2	31,658	+ 2.2	9,070	21,475	864	4,805	50	38	2,684	830	6.1	685
Sep	43,963	+ 1.3	32,009	+ 2.2	9,157	21,731	869	4,770	46	35	2,608	787	5.9	687
Oct	44,057	+ 1.3	32,046	+ 2.2	9,154	21,775	871	4,768	50	39	2,540	756	5.8	691
Nov	44,100	+ 1.3	32,070	+ 2.2	9,147	21,809	876	4,795	52	40	2,532	756	5.7	681
Dec	43,939	+ 1.4	31,849	+ 2.3	9,062	21,732	835	4,795	178	30	2,568	785	5.8	658
2017 Jan	43,615	+ 1.5	9 31,703	9 + 2.4	9 9,016	9 21,645	9 825	9 4,712	...	9 42	2,777	10 1,010	6.3	647
Feb	43,662	+ 1.5	9 31,777	9 + 2.3	9 9,032	9 21,694	9 828	9 4,705	...	9 46	2,762	1,014	6.3	675
Mar	8 43,818	8 + 1.5	9 31,924	9 + 2.3	9 9,077	9 21,774	9 837	9 4,713	...	9 67	2,662	935	6.0	692
Apr	8 43,981	8 + 1.5	9 32,026	9 + 2.3	9 9,104	9 21,841	9 839	9 4,737	...	9 32	2,569	861	5.8	706
May	8 44,164	8 + 1.5	...	...	...	...	...	...	...	...	2,498	810	11 5.6	714
June	...	...	...	...	...	...	...	...	...	...	2,473	796	5.5	731

Sources: Federal Statistical Office; Federal Employment Agency. * Annual and quarterly figures: averages; calculated by the Bundesbank; deviations from the official figures are due to rounding. **1** Workplace concept; averages. **2** Monthly figures: end of month. **3** From January 2012, excluding all persons taking up federal voluntary service or a year of social or ecological work. **4** Number within a given month. **5** Mid-month level. **6** Relative to the total civilian labour force. **7** Excluding government-assisted forms of employment and seasonal jobs, including jobs located abroad. **8** Initial preliminary estimate by the Federal Statistical Office. **9** Unadjusted figures estimated by the Federal Employment Agency. In 2015 and 2016, the estimated values for Germany deviated from the final data by a maximum of 1.1 % for employees subject to social contributions, by a maximum of 0.5 % for persons solely in jobs exempt from social contributions, and by a maximum of 33.9 % for cyclically induced short-time work. **10** From January 2017, persons receiving additional income assistance (unemployment benefit and unemployment benefit II at the same time) shall be assigned to the legal category of the Third Book of the Social Security Code (SGB III). **11** From May 2017 calculated on the basis of new labour force figures.

XI Economic conditions in Germany

7 Prices

Period	Harmonised Index of Consumer Prices: Total	HICP: of which 1: Food 2	HICP: Non-energy industrial goods	HICP: Energy 3	HICP: Services	HICP: of which: Housing rents 4	Memo item: Consumer price index (national concept)	Construction price index	Index of producer prices of industrial products sold on the domestic market 5	Index of producer-prices agricultural products 5	Indices of foreign trade prices: Exports	Indices of foreign trade prices: Imports	HWWI Index of World Market Prices of Raw Materials 6: Energy 7	HWWI: Other raw materials 8
	2015 = 100						2010 = 100						2015 = 100	
Index level														
2012	9 97.5	9 94.2	98.1	107.8	95.9	96.1	9 104.1	105.7	107.0	119.4	104.9	108.7	166.8	128.7
2013	99.1	97.4	98.7	109.8	97.4	97.3	105.7	107.9	106.9	120.7	104.3	105.9	160.2	117.6
2014	99.9	98.8	99.2	107.5	98.8	98.8	106.6	109.7	105.8	111.1	104.0	103.6	142.8	108.3
2015	100.0	100.0	100.0	100.0	100.0	100.0	106.9	111.3	103.9	106.9	104.9	100.9	100.0	100.0
2016	100.4	101.3	101.0	94.6	101.2	101.2	107.4	113.4	102.1	10 106.6	104.0	97.8	83.2	98.4
2015 Aug	100.3	99.7	99.6	100.2	101.0	100.1	107.2	111.5	103.9	102.1	104.9	100.3	91.5	96.0
Sep	100.1	100.0	100.7	98.4	100.1	100.2	107.0		103.5	107.4	104.6	99.6	90.8	94.1
Oct	100.1	100.4	101.2	97.6	100.0	100.3	107.0		103.1	108.9	104.4	99.3	91.6	93.4
Nov	100.1	100.5	101.0	97.7	100.1	100.4	107.1	111.8	102.9	107.6	104.5	99.1	89.6	92.7
Dec	100.1	100.2	100.4	95.0	101.2	100.4	107.0		102.4	107.3	104.1	97.9	77.5	89.4
2016 Jan	99.1	100.4	99.7	92.7	99.9	100.6	106.1		101.7	106.8	103.9	96.4	64.5	88.2
Feb	99.5	100.8	99.9	91.8	100.6	100.7	106.5	112.5	101.2	106.0	103.4	95.8	64.0	88.6
Mar	100.3	101.2	101.0	92.7	101.5	100.8	107.3		101.2	106.6	103.6	96.5	72.3	93.6
Apr	99.8	101.6	101.5	93.6	99.7	100.9	106.9		101.3	105.9	103.5	96.4	75.1	95.5
May	100.2	101.3	101.4	95.0	100.5	101.0	107.2	113.1	101.7	106.0	103.7	97.3	82.6	97.2
June	100.3	101.0	100.7	96.2	100.9	101.1	107.3		102.1	106.4	103.9	97.8	87.9	98.9
July	100.7	101.3	100.0	95.1	102.2	101.2	107.6		102.3	110.0	104.1	97.9	84.4	100.2
Aug	100.6	100.9	100.3	94.3	102.3	101.4	107.6	113.7	102.2	106.7	104.0	97.7	83.9	98.6
Sep	100.6	101.2	101.5	94.9	101.4	101.5	107.7		102.0	10 104.7	104.0	97.8	83.9	97.0
Oct	100.8	101.2	102.0	96.2	101.2	101.7	107.9		102.7	108.8	104.3	98.7	96.2	99.8
Nov	100.8	102.0	102.0	95.2	101.1	101.8	108.0	114.1	103.0	111.2	104.8	99.4	95.4	108.5
Dec	101.8	102.6	101.6	97.3	102.8	102.0	108.8		103.4	113.1	105.2	101.3	106.6	114.0
2017 Jan	101.0	103.2	100.7	98.2	101.0	102.2	108.1		104.1	114.8	105.8	102.2	108.9	115.9
Feb	101.7	104.6	101.0	98.4	101.9	102.3	108.8	115.5	104.3	116.2	106.0	102.9	110.2	118.9
Mar	101.8	103.4	102.6	97.5	102.0	102.4	109.0		104.3	117.6	106.0	102.4	99.7	116.4
Apr	101.8	103.4	102.7	98.3	101.5	102.6	109.0		104.7	119.9	106.2	102.3	100.4	110.1
May	101.6	103.5	102.7	96.9	101.5	102.8	108.8	116.6	104.5	120.9	106.0	101.3	93.1	104.2
June	101.8	103.6	102.0	96.1	102.5	102.9	109.0		104.5	...	...	...	85.7	100.4
Annual percentage change														
2012	9 + 2.1	9 + 3.2	+ 1.3	+ 5.6	+ 1.3	+ 1.2	9 + 2.0	+ 2.7	+ 1.6	+ 5.3	+ 1.5	+ 2.2	+ 7.5	– 5.3
2013	+ 1.6	+ 3.4	+ 0.7	+ 1.8	+ 1.5	+ 1.3	+ 1.5	+ 2.1	– 0.1	+ 1.1	– 0.6	– 2.6	– 4.0	– 8.6
2014	+ 0.8	+ 1.5	+ 0.5	– 2.1	+ 1.4	+ 1.6	+ 0.9	+ 1.7	– 1.0	– 8.0	– 0.3	– 2.2	– 10.9	– 7.9
2015	+ 0.1	+ 1.2	+ 0.8	– 7.0	+ 1.2	+ 1.2	+ 0.3	+ 1.5	– 1.8	– 3.8	+ 0.9	– 2.6	– 30.0	– 7.7
2016	+ 0.4	+ 1.3	+ 1.0	– 5.4	+ 1.2	+ 1.2	+ 0.5	+ 1.9	– 1.7	10 – 0.3	– 0.9	– 3.1	– 16.8	– 1.6
2015 Aug	+ 0.1	+ 1.4	+ 0.9	– 7.5	+ 1.1	+ 1.1	+ 0.2	+ 1.4	– 1.7	– 8.4	+ 0.8	– 3.1	– 35.5	– 10.4
Sep	– 0.1	+ 1.3	+ 0.9	– 9.2	+ 1.1	+ 1.2	± 0.0		– 2.1	– 0.5	+ 0.3	– 4.0	– 37.2	– 10.4
Oct	+ 0.2	+ 1.7	+ 1.5	– 8.7	+ 1.3	+ 1.1	+ 0.3		– 2.3	+ 5.0	+ 0.2	– 4.1	– 32.5	– 11.6
Nov	+ 0.2	+ 1.9	+ 1.1	– 7.6	+ 1.1	+ 1.1	+ 0.4	+ 1.5	– 2.5	+ 3.9	+ 0.3	– 3.5	– 29.3	– 13.1
Dec	+ 0.2	+ 1.4	+ 0.7	– 6.5	+ 1.1	+ 1.0	+ 0.3		– 2.3	+ 4.4	+ 0.2	– 3.1	– 28.4	– 14.8
2016 Jan	+ 0.4	+ 1.2	+ 1.2	– 5.7	+ 1.2	+ 1.1	+ 0.5		– 2.4	+ 4.3	– 0.5	– 3.8	– 30.0	– 17.4
Feb	– 0.2	+ 1.1	+ 1.0	– 8.6	+ 0.7	+ 1.1	± 0.0	+ 1.5	– 3.0	+ 1.1	– 1.2	– 5.7	– 40.7	– 16.3
Mar	+ 0.1	+ 1.4	+ 0.8	– 8.9	+ 1.6	+ 1.1	+ 0.3		– 3.1	+ 1.4	– 1.6	– 5.9	– 33.7	– 12.6
Apr	– 0.3	+ 1.2	+ 1.1	– 8.5	+ 0.5	+ 1.1	– 0.1		– 3.1	– 0.1	– 2.0	– 6.6	– 35.0	– 9.6
May	± 0.0	+ 0.9	+ 1.2	– 8.0	+ 1.1	+ 1.1	+ 0.1	+ 1.8	– 2.7	+ 1.1	– 1.6	– 5.5	– 29.3	– 7.2
June	+ 0.2	+ 0.9	+ 0.9	– 6.4	+ 1.4	+ 1.1	+ 0.3		– 2.2	+ 0.9	– 1.3	– 4.6	– 22.4	– 4.4
July	+ 0.4	+ 1.5	+ 0.9	– 7.0	+ 1.4	+ 1.1	+ 0.4		– 2.0	+ 5.3	– 1.2	– 3.8	– 20.4	– 1.4
Aug	+ 0.3	+ 1.2	+ 0.7	– 5.9	+ 1.3	+ 1.3	+ 0.4	+ 2.0	– 1.6	+ 4.5	– 0.9	– 2.6	– 8.3	+ 2.7
Sep	+ 0.5	+ 1.2	+ 0.8	– 3.6	+ 1.3	+ 1.3	+ 0.7		– 1.4	10 – 2.5	– 0.6	– 1.8	– 7.6	+ 3.1
Oct	+ 0.7	+ 0.8	+ 0.8	– 1.4	+ 1.2	+ 1.4	+ 0.8		– 0.4	– 0.1	– 0.1	– 0.6	+ 5.0	+ 6.9
Nov	+ 0.7	+ 1.5	+ 1.0	– 2.6	+ 1.0	+ 1.4	+ 0.8	+ 2.1	+ 0.1	+ 3.3	+ 0.3	+ 0.3	+ 6.5	+ 17.0
Dec	+ 1.7	+ 2.4	+ 1.2	+ 2.4	+ 1.6	+ 1.6	+ 1.7		+ 1.0	+ 5.4	+ 1.1	+ 3.5	+ 37.5	+ 27.5
2017 Jan	+ 1.9	+ 2.8	+ 1.0	+ 5.9	+ 1.1	+ 1.6	+ 1.9		+ 2.4	+ 7.5	+ 1.8	+ 6.0	+ 68.8	+ 31.4
Feb	+ 2.2	+ 3.8	+ 1.1	+ 7.2	+ 1.3	+ 1.6	+ 2.2	+ 2.7	+ 3.1	+ 9.6	+ 2.5	+ 7.4	+ 72.2	+ 34.2
Mar	+ 1.5	+ 2.2	+ 1.6	+ 5.2	+ 0.5	+ 1.6	+ 1.6		+ 3.1	+ 10.3	+ 2.3	+ 6.1	+ 37.9	+ 24.4
Apr	+ 2.0	+ 1.8	+ 1.2	+ 5.0	+ 1.8	+ 1.7	+ 2.0		+ 3.4	+ 13.2	+ 2.6	+ 6.1	+ 33.7	+ 15.3
May	+ 1.4	+ 2.2	+ 1.3	+ 2.0	+ 1.0	+ 1.8	+ 1.5	+ 3.1	+ 2.8	+ 14.1	+ 2.2	+ 4.1	+ 12.7	+ 7.2
June	+ 1.5	+ 2.6	+ 1.3	– 0.1	+ 1.6	+ 1.8	+ 1.6		+ 2.4	...	...	...	– 2.5	+ 1.5

Sources: Eurostat; Federal Statistical Office and Bundesbank calculation based on data from the Federal Statistical Office; for the Index of World Market Prices of Raw Materials: HWWI. **1** Differences from the official figures are due to rounding. **2** Including alcoholic beverages and tobacco. **3** Electricity, gas and other fuels well as transport fuels and lubricants. **4** Net rents. **5** Excluding value-added tax. **6** For the euro area, in euro. **7** Coal, crude oil (Brent) and natural gas. **8** Food, beverages and tobacco as well as industrial raw materials. **9** From January 2012, increase in tobacco tax. **10** From September 2016 onwards, provisional figures.

XI Economic conditions in Germany

8 Households' income *

Period	Gross wages and salaries [1]		Net wages and salaries [2]		Monetary social benefits received [3]		Mass income [4]		Disposable income [5]		Saving [6]		Saving ratio [7]
	€ billion	Annual percentage change	€ billion	Annual percentage change	€ billion	Annual percentage change	€ billion	Annual percentage change	€ billion	Annual percentage change	€ billion	Annual percentage change	As percentage
2009	1,009.5	0.1	672.6	0.3	380.7	6.9	1,053.3	2.6	1,569.2	– 0.8	156.2	– 5.9	10.0
2010	1,039.0	2.9	702.2	4.4	385.3	1.2	1,087.5	3.2	1,606.4	2.4	160.1	2.5	10.0
2011	1,088.6	4.8	729.4	3.9	380.4	– 1.3	1,109.8	2.0	1,653.7	2.9	158.2	– 1.2	9.6
2012	1,133.0	4.1	756.8	3.8	387.6	1.9	1,144.5	3.1	1,695.6	2.5	157.6	– 0.4	9.3
2013	1,167.5	3.0	778.4	2.9	389.1	0.4	1,167.5	2.0	1,719.8	1.4	154.1	– 2.2	9.0
2014	1,213.0	3.9	807.1	3.7	400.2	2.8	1,207.3	3.4	1,759.5	2.3	165.1	7.1	9.4
2015	1,260.6	3.9	836.6	3.6	415.5	3.8	1,252.0	3.7	1,811.2	2.9	175.2	6.1	9.7
2016	1,311.0	4.0	868.7	3.8	427.6	2.9	1,296.3	3.5	1,862.4	2.8	180.9	3.2	9.7
2015 Q4	348.7	4.2	231.6	4.5	103.5	3.1	335.1	4.0	459.3	3.0	38.4	5.7	8.4
2016 Q1	305.4	4.5	202.4	4.5	107.5	1.7	309.9	3.5	459.5	2.7	59.5	3.0	13.0
Q2	319.4	3.5	207.5	3.7	105.2	2.7	312.7	3.4	464.7	3.4	43.7	4.3	9.4
Q3	323.4	3.9	218.8	3.6	108.2	4.2	327.0	3.8	465.9	2.4	37.9	2.2	8.1
Q4	362.8	4.0	240.1	3.7	106.7	3.1	346.8	3.5	472.3	2.8	39.8	3.5	8.4
2017 Q1	318.1	4.2	210.5	4.0	111.3	3.5	321.8	3.8	476.3	3.7	63.4	6.4	13.3

Source: Federal Statistical Office; figures computed in May 2017. * Households including non-profit institutions serving households. **1** Residence concept. **2** After deducting the wage tax payable on gross wages and salaries and employees' contributions to the social security funds. **3** Social security benefits in cash from the social security funds, central, state and local government and foreign countries, pension payments (net), private funded social benefits, less social contributions on social benefits, consumption-related taxes and public charges. **4** Net wages and salaries plus monetary social benefits received. **5** Mass income plus operating surplus, mixed income, property income (net), other current transfers received, income of non-profit institutions serving households, less taxes (excluding wage tax and consumption-related taxes) and other current transfers paid. Including the increase in claims on company pension funds. **6** Including the increase in claims on company pension funds. **7** Saving as a percentage of disposable income.

9 Negotiated pay rates (overall economy)

Period	Index of negotiated wages [1]								*Memo item:* Wages and salaries per employee [3]	
	On an hourly basis		On a monthly basis							
			Total		Total excluding one-off payments		Basic pay rates [2]			
	2010=100	Annual percentage change	2010=100	Annual percentage change	2010=100	Annual percentage change	2010=100	Annual percentage change	2010=100	Annual percentage change
2009	98.4	2.0	98.3	2.0	98.4	2.3	98.2	2.5	97.6	– 0.1
2010	100.0	1.6	100.0	1.7	100.0	1.7	100.0	1.8	100.0	2.5
2011	101.7	1.7	101.7	1.7	101.8	1.8	101.8	1.8	103.4	3.4
2012	104.4	2.7	104.4	2.6	104.7	2.9	104.7	2.9	106.2	2.7
2013	107.0	2.5	107.0	2.5	107.3	2.5	107.3	2.5	108.4	2.0
2014	110.1	2.9	110.0	2.8	110.1	2.7	110.1	2.7	111.4	2.8
2015	112.6	2.2	112.4	2.2	112.6	2.2	112.7	2.3	114.4	2.7
2016	115.0	2.1	114.8	2.1	115.0	2.2	115.2	2.2	117.2	2.5
2015 Q4	125.6	2.3	125.3	2.3	125.7	2.2	113.5	2.3	125.1	2.7
2016 Q1	106.4	2.0	106.1	1.9	106.5	2.3	114.0	2.3	110.6	2.9
Q2	107.9	2.2	107.7	2.2	107.7	1.9	114.9	2.1	114.6	2.1
Q3	117.4	2.1	117.2	2.2	117.5	2.2	115.9	2.2	115.4	2.5
Q4	128.3	2.2	128.1	2.2	128.5	2.2	116.2	2.3	128.2	2.5
2017 Q1	109.0	2.4	108.7	2.4	109.0	2.4	116.7	2.4	113.2	2.4
2016 Nov	165.8	2.1	165.5	2.2	166.0	2.2	116.2	2.3	.	.
Dec	110.5	2.4	110.3	2.4	110.5	2.3	116.2	2.3	.	.
2017 Jan	108.8	2.5	108.6	2.4	108.7	2.3	116.4	2.3	.	.
Feb	108.9	2.6	108.7	2.6	109.0	2.6	116.8	2.7	.	.
Mar	109.1	2.2	108.9	2.2	109.2	2.2	117.0	2.2	.	.
Apr	110.2	2.4	110.0	2.4	110.3	2.5	117.4	2.5	.	.
May	110.0	1.9	109.8	1.9	110.1	2.0	117.5	2.2	.	.

1 Current data are normally revised on account of additional reports. **2** Excluding one-off payments and covenants (capital formation benefits, special payments, such as annual bonuses, holiday pay, Christmas bonuses (13th monthly salary payment) and retirement provisions). **3** Source: Federal Statistical Office; figures computed in May 2017.

XI Economic conditions in Germany

10 Assets, equity and liabilities of listed non-financial groups *

End-of-year/end-of-halfyear data

Period	Assets									Equity and liabilities						
			of which				*of which*				Liabilities					
												Long-term		Short-term		
															of which	
	Total assets	Non-current assets	Intangible assets	Tangible assets	Financial assets	Current assets	Inventories	Trade receivables	Cash 1	Equity	Total	Total	*of which* Financial debt	Total	Financial debt	Trade payables
	Total (€ billion)															
2013	1,902.2	1,171.1	385.0	485.2	232.4	731.1	187.5	175.8	136.5	569.6	1,332.6	706.0	377.5	626.6	191.0	163.1
2014	2,078.8	1,284.1	431.0	520.3	249.6	794.7	203.1	187.3	132.4	582.9	1,495.9	812.0	426.8	683.9	214.8	175.8
2015	2,226.6	1,394.6	470.7	565.2	273.1	832.0	215.6	190.6	136.2	633.8	1,592.8	860.8	465.4	732.0	233.1	180.3
2016 p	2,371.4	1,479.8	493.0	595.4	289.7	891.6	227.0	218.0	152.2	676.0	1,695.5	889.0	481.9	806.5	258.5	192.9
2015 H1	2,163.8	1,346.9	453.6	539.8	270.0	816.8	217.9	197.4	127.0	622.4	1,541.4	830.0	440.6	711.4	223.0	173.2
H2	2,226.6	1,394.6	470.7	565.2	273.1	832.0	215.6	190.6	136.2	633.8	1,592.8	860.8	465.4	732.0	233.1	180.3
2016 H1	2,256.6	1,381.0	462.4	549.8	272.0	875.6	226.7	195.2	140.5	607.4	1,649.2	895.4	464.6	753.8	243.9	174.9
H2 p	2,371.4	1,479.8	493.0	595.4	289.7	891.6	227.0	218.0	152.2	676.0	1,695.5	889.0	481.9	806.5	258.5	192.9
	as a percentage of total assets															
2013	100.0	61.6	20.2	25.5	12.2	38.4	9.9	9.2	7.2	29.9	70.1	37.1	19.8	32.9	10.0	8.6
2014	100.0	61.8	20.7	25.0	12.0	38.2	9.8	9.0	6.4	28.0	72.0	39.1	20.5	32.9	10.3	8.5
2015	100.0	62.6	21.1	25.4	12.3	37.4	9.7	8.6	6.1	28.5	71.5	38.7	20.9	32.9	10.5	8.1
2016 p	100.0	62.4	20.8	25.1	12.2	37.6	9.6	9.2	6.4	28.5	71.5	37.5	20.3	34.0	10.9	8.1
2015 H1	100.0	62.3	21.0	25.0	12.5	37.8	10.1	9.1	5.9	28.8	71.2	38.4	20.4	32.9	10.3	8.0
H2	100.0	62.6	21.1	25.4	12.3	37.4	9.7	8.6	6.1	28.5	71.5	38.7	20.9	32.9	10.5	8.1
2016 H1	100.0	61.2	20.5	24.4	12.1	38.8	10.1	8.7	6.2	26.9	73.1	39.7	20.6	33.4	10.8	7.8
H2 p	100.0	62.4	20.8	25.1	12.2	37.6	9.6	9.2	6.4	28.5	71.5	37.5	20.3	34.0	10.9	8.1
	Groups with a focus on the production sector (€ billion) 2															
2013	1,523.6	908.2	257.2	384.6	215.6	615.4	171.2	136.1	104.1	450.9	1,072.6	560.4	280.5	512.2	170.2	114.9
2014	1,655.6	989.4	276.5	411.9	236.0	666.2	185.7	140.3	98.9	451.4	1,204.2	644.0	318.6	560.2	193.3	122.4
2015	1,782.1	1,077.3	304.0	446.9	259.0	704.8	198.9	147.1	104.5	485.5	1,296.6	689.8	353.1	606.8	208.7	127.6
2016 p	1,909.6	1,146.4	322.1	473.4	270.8	763.3	209.8	170.1	115.6	514.5	1,395.1	715.3	369.4	679.8	232.5	141.0
2015 H1	1,743.3	1,047.8	293.3	432.1	257.1	695.4	201.0	151.7	103.6	487.1	1,256.2	670.0	336.1	586.2	194.9	127.3
H2	1,782.1	1,077.3	304.0	446.9	259.0	704.8	198.9	147.1	104.5	485.5	1,296.6	689.8	353.1	606.8	208.7	127.6
2016 H1	1,818.4	1,059.3	296.6	432.5	254.2	759.1	210.1	150.0	112.3	466.0	1,352.3	717.9	351.0	634.4	219.2	130.0
H2 p	1,909.6	1,146.4	322.1	473.4	270.8	763.3	209.8	170.1	115.6	514.5	1,395.1	715.3	369.4	679.8	232.5	141.0
	as a percentage of total assets															
2013	100.0	59.6	16.9	25.2	14.2	40.4	11.2	8.9	6.8	29.6	70.4	36.8	18.4	33.6	11.2	7.5
2014	100.0	59.8	16.7	24.9	14.3	40.2	11.2	8.5	6.0	27.3	72.7	38.9	19.2	33.8	11.7	7.4
2015	100.0	60.5	17.1	25.1	14.5	39.6	11.2	8.3	5.9	27.2	72.8	38.7	19.8	34.1	11.7	7.2
2016 p	100.0	60.0	16.9	24.8	14.2	40.0	11.0	8.9	6.1	26.9	73.1	37.5	19.3	35.6	12.2	7.4
2015 H1	100.0	60.1	16.8	24.8	14.8	39.9	11.5	8.7	5.9	27.9	72.1	38.4	19.3	33.6	11.2	7.3
H2	100.0	60.5	17.1	25.1	14.5	39.6	11.2	8.3	5.9	27.2	72.8	38.7	19.8	34.1	11.7	7.2
2016 H1	100.0	58.3	16.3	23.8	14.0	41.8	11.6	8.3	6.2	25.6	74.4	39.5	19.3	34.9	12.1	7.2
H2 p	100.0	60.0	16.9	24.8	14.2	40.0	11.0	8.9	6.1	26.9	73.1	37.5	19.3	35.6	12.2	7.4
	Groups with a focus on the services sector (€ billion)															
2013	378.6	262.9	127.8	100.6	16.8	115.7	16.3	39.7	32.3	118.6	260.0	145.6	97.0	114.4	20.8	48.2
2014	423.2	294.7	154.6	108.4	13.6	128.6	17.4	47.0	33.5	131.5	291.7	168.0	108.3	123.7	21.6	53.4
2015	444.5	317.3	166.7	118.3	14.1	127.2	16.7	43.5	31.6	148.3	296.2	171.0	112.2	125.2	24.4	52.7
2016 p	461.8	333.5	170.9	122.0	18.9	128.3	17.1	48.0	36.6	161.4	300.4	173.7	112.5	126.6	26.0	51.9
2015 H1	420.5	299.1	160.3	107.7	12.9	121.4	17.0	45.7	23.4	135.3	285.2	160.0	104.4	125.2	28.0	45.9
H2	444.5	317.3	166.7	118.3	14.1	127.2	16.7	43.5	31.6	148.3	296.2	171.0	112.2	125.2	24.4	52.7
2016 H1	438.3	321.7	165.8	117.3	17.8	116.6	16.6	45.3	28.2	141.4	296.9	177.4	113.6	119.4	24.7	45.0
H2 p	461.8	333.5	170.9	122.0	18.9	128.3	17.1	48.0	36.6	161.4	300.4	173.7	112.5	126.6	26.0	51.9
	as a percentage of total assets															
2013	100.0	69.5	33.8	26.6	4.5	30.6	4.3	10.5	8.5	31.3	68.7	38.5	25.6	30.2	5.5	12.7
2014	100.0	69.6	36.5	25.6	3.2	30.4	4.1	11.1	7.9	31.1	68.9	39.7	25.6	29.2	5.1	12.6
2015	100.0	71.4	37.5	26.6	3.2	28.6	3.8	9.8	7.1	33.4	66.6	38.5	25.3	28.2	5.5	11.9
2016 p	100.0	72.2	37.0	26.4	4.1	27.8	3.7	10.4	7.9	35.0	65.0	37.6	24.4	27.4	5.6	11.2
2015 H1	100.0	71.1	38.1	25.6	3.1	28.9	4.0	10.9	5.6	32.2	67.8	38.1	24.8	29.8	6.7	10.9
H2	100.0	71.4	37.5	26.6	3.2	28.6	3.8	9.8	7.1	33.4	66.6	38.5	25.3	28.2	5.5	11.9
2016 H1	100.0	73.4	37.8	26.8	4.1	26.6	3.8	10.3	6.4	32.3	67.7	40.5	25.9	27.3	5.6	10.3
H2 p	100.0	72.2	37.0	26.4	4.1	27.8	3.7	10.4	7.9	35.0	65.0	37.6	24.4	27.4	5.6	11.2

***** Non-financial groups admitted to the Prime Standard segment of the Frankfurt Stock Exchange which publish IFRS consolidated financial statements on a quarterly or half-yearly basis and make a noteworthy contribution to value added in Germany. In some cases revised. Excluding groups engaged in real estate activities. **1** Including cash equivalents. **2** Including groups in agriculture and forestry.

XI Economic conditions in Germany

11 Revenues and operating income of listed non-financial groups *

Period	Revenues		Operating income before depreciation and amortisation (EBITDA 1)		Operating income before depreciation and amortisation (EBITDA 1) as a percentage of revenues					Operating income (EBIT)		Operating income (EBIT) as a percentage of revenues				
					Weighted average		Distribution 2					Weighted average		Distribution 2		
							First quartile	Median	Third quartile					First quartile	Median	Third quartile
	€ billion	Annual change in % 3	€ billion	Annual change in % 3	%	Annual change in percentage points 3	%	%	%	€ billion	Annual change in % 3	%	Annual change in percentage points 3	%	%	%
	Total															
2009	1,158.6	– 10.7	135.6	– 16.9	11.7	– 0.9	3.9	9.4	15.7	55.9	– 29.2	4.8	– 1.3	– 0.1	4.9	9.3
2010	1,321.0	13.3	181.4	30.6	13.7	1.8	6.6	11.4	18.5	98.3	66.6	7.4	2.4	3.2	6.8	12.1
2011	1,414.4	8.5	175.9	0.5	12.4	– 1.0	5.4	10.9	17.4	93.9	– 4.1	6.6	– 0.9	2.7	6.6	12.0
2012	1,533.0	6.6	189.3	3.1	12.4	– 0.4	5.2	10.2	17.5	95.7	– 7.7	6.2	– 0.9	1.9	6.0	11.0
2013	1,541.1	– 0.6	187.1	– 2.8	12.1	– 0.3	5.1	10.3	18.3	99.5	5.5	6.5	0.4	1.9	5.8	10.9
2014	1,565.6	1.0	198.7	4.9	12.7	0.5	5.7	10.3	17.2	109.3	8.5	7.0	0.5	1.9	6.1	11.1
2015	1,636.2	6.9	196.4	– 1.0	12.0	– 1.0	6.1	10.6	17.6	91.6	– 16.3	5.6	– 1.5	1.7	6.5	11.3
2016 p	1,626.0	– 0.4	222.7	11.9	13.7	1.5	6.5	11.3	17.8	112.1	9.2	6.9	0.5	2.5	6.5	12.0
2012 H1	751.0	8.1	93.3	3.6	12.4	– 0.5	4.7	9.1	16.8	55.7	1.6	7.4	– 0.5	1.0	5.7	11.4
H2	782.2	5.2	95.9	2.6	12.3	– 0.3	4.7	11.0	17.9	39.9	– 19.2	5.1	– 1.4	1.4	6.8	11.7
2013 H1	762.8	– 0.2	93.4	– 3.5	12.2	– 0.4	3.4	9.3	16.5	53.8	– 7.6	7.1	– 0.6	0.6	4.9	10.7
H2	780.0	– 1.1	93.8	– 2.0	12.0	– 0.1	5.4	10.7	19.2	45.7	25.5	5.9	1.3	1.7	6.1	12.1
2014 H1	757.2	– 0.9	97.2	4.6	12.8	0.7	4.7	9.5	16.0	57.8	9.4	7.6	0.7	1.0	5.2	10.5
H2	808.7	2.9	101.5	5.2	12.6	0.3	5.4	10.8	19.1	51.5	7.6	6.4	0.3	1.7	7.1	12.0
2015 H1	815.7	8.7	102.9	5.7	12.6	– 0.4	4.8	10.1	17.6	59.1	1.4	7.3	– 0.5	1.1	5.9	10.9
H2	831.7	5.2	93.8	– 7.5	11.3	– 1.5	6.3	11.5	18.1	32.7	– 36.7	3.9	– 2.6	2.3	7.1	11.7
2016 H1	782.3	– 2.0	111.7	6.2	14.3	1.1	5.7	10.3	17.3	65.6	2.8	8.4	0.4	1.5	6.4	11.3
H2 p	843.8	1.1	110.9	18.3	13.2	1.9	6.1	11.8	18.8	46.4	21.2	5.5	0.8	2.9	7.5	12.5
	Groups with a focus on the production sector 4															
2009	837.7	– 11.8	94.9	– 20.6	11.3	– 1.3	2.5	9.0	14.0	40.0	– 32.6	4.8	– 1.5	– 1.4	4.3	8.8
2010	980.7	15.8	136.2	38.7	13.9	2.3	6.6	11.4	16.3	75.7	72.4	7.7	2.6	3.0	7.3	12.0
2011	1,079.0	10.6	130.0	– 1.7	12.1	– 1.5	5.5	11.3	16.4	74.1	– 4.9	6.9	– 1.1	2.1	6.8	11.5
2012	1,173.8	7.7	140.8	5.3	12.0	– 0.3	5.4	10.2	16.1	81.7	2.2	7.0	– 0.4	1.8	6.1	9.8
2013	1,179.0	– 0.8	138.7	– 2.6	11.8	– 0.2	4.4	10.3	15.5	74.5	– 5.8	6.3	– 0.3	1.3	5.7	10.0
2014	1,197.3	1.0	147.9	5.8	12.4	0.6	5.1	9.6	15.3	82.0	9.3	6.9	0.5	1.4	5.9	10.2
2015	1,283.3	7.0	144.0	– 2.7	11.2	– 1.1	6.1	10.4	15.5	65.2	– 20.2	5.1	– 1.8	1.8	6.5	10.0
2016 p	1,267.1	– 1.1	164.4	11.2	13.0	1.4	6.5	10.8	16.0	80.5	4.4	6.4	0.3	2.8	6.2	10.4
2012 H1	580.1	9.5	73.3	5.2	12.6	– 0.5	5.7	10.5	14.9	46.8	3.5	8.1	– 0.5	1.9	6.1	10.5
H2	593.9	6.1	67.5	5.3	11.4	– 0.1	4.4	10.5	15.9	34.9	0.2	5.9	– 0.3	0.6	6.2	10.2
2013 H1	588.8	– 0.1	71.7	– 4.8	12.2	– 0.6	3.1	9.3	15.0	43.1	– 10.9	7.3	– 0.9	0.6	5.3	9.7
H2	591.7	– 1.4	67.1	– 0.3	11.3	0.1	4.0	10.4	15.8	31.4	1.7	5.3	0.2	0.6	5.8	10.9
2014 H1	584.4	– 1.1	74.2	3.8	12.7	0.6	4.7	9.6	15.0	46.2	8.9	7.9	0.7	1.4	5.4	9.6
H2	613.1	3.0	73.7	7.8	12.0	0.5	4.4	9.8	15.8	35.8	9.8	5.8	0.4	0.7	6.3	10.7
2015 H1	636.8	8.8	80.1	7.9	12.6	– 0.1	5.1	10.0	15.4	48.8	4.9	7.7	– 0.3	2.1	6.1	10.0
H2	647.1	5.3	63.9	– 13.3	9.9	– 2.1	5.3	10.9	15.5	16.4	– 52.5	2.5	– 3.3	1.7	6.8	10.3
2016 H1	610.8	– 2.7	83.9	1.2	13.7	0.5	6.6	10.3	15.3	50.6	– 6.6	8.3	– 0.3	1.7	6.4	9.9
H2 p	656.4	0.5	80.5	23.8	12.3	2.3	6.1	11.0	16.8	29.9	35.1	4.6	0.9	2.7	6.3	10.4
	Groups with a focus on the services sector															
2009	321.0	– 7.4	40.7	– 4.9	12.7	0.3	4.7	10.7	20.3	16.0	– 16.3	5.0	– 0.5	1.7	5.7	12.7
2010	340.4	5.8	45.1	8.9	13.3	0.4	5.6	10.8	19.6	22.6	46.8	6.7	1.7	3.3	5.9	12.4
2011	335.5	1.7	45.9	7.6	13.7	0.8	5.4	10.1	20.7	19.7	– 0.7	5.9	– 0.1	3.2	6.1	13.8
2012	359.2	2.8	48.5	– 3.4	13.5	– 0.9	5.1	10.0	22.7	14.0	– 47.2	3.9	– 3.0	2.1	5.7	14.0
2013	362.2	– 0.1	48.4	– 3.3	13.4	– 0.4	5.1	9.9	21.1	25.0	84.4	6.9	3.0	2.5	5.9	12.2
2014	368.3	1.0	50.8	2.2	13.8	0.2	6.0	12.7	22.6	27.3	5.7	7.4	0.3	2.9	6.5	13.7
2015	352.9	6.4	52.4	4.8	14.9	– 0.2	6.1	11.4	22.1	26.4	– 1.6	7.5	– 0.6	1.4	6.7	14.1
2016 p	358.9	2.4	58.3	14.4	16.2	1.7	6.7	12.7	24.8	31.5	24.8	8.8	1.6	2.3	8.2	15.2
2012 H1	170.9	3.3	20.0	– 2.6	11.7	– 0.7	2.6	8.0	21.0	8.9	– 9.8	5.2	– 0.7	– 0.4	4.5	13.9
H2	188.3	2.3	28.5	– 4.0	15.1	– 1.0	5.2	11.2	23.7	5.1	– 73.2	2.7	– 5.2	2.7	7.4	15.3
2013 H1	174.0	– 0.5	21.7	1.4	12.5	0.2	3.9	8.0	19.2	10.7	12.8	6.2	0.7	0.9	4.6	12.8
H2	188.3	0.3	26.7	– 6.7	14.2	– 1.1	5.6	11.3	21.8	14.3	241.4	7.6	5.2	2.2	7.3	13.4
2014 H1	172.9	– 0.5	23.0	7.6	13.3	1.0	4.8	9.3	20.4	11.6	11.6	6.7	0.7	1.0	5.1	13.5
H2	195.6	2.4	27.8	– 2.2	14.2	– 0.7	6.4	13.5	23.8	15.7	1.4	8.1	– 0.1	3.6	8.1	18.0
2015 H1	178.9	8.4	22.8	– 2.2	12.7	– 1.5	4.4	10.9	21.5	10.3	– 15.7	5.8	– 1.6	– 0.5	4.5	14.2
H2	184.7	4.6	29.9	10.8	16.2	0.9	7.3	12.2	23.5	16.3	9.3	8.8	0.4	2.5	7.7	15.0
2016 H1	171.5	1.2	27.8	27.7	16.2	3.5	5.1	10.3	23.1	15.0	62.1	8.7	3.3	1.0	6.4	14.9
H2 p	187.4	3.5	30.4	4.4	16.2	0.1	6.9	13.2	24.2	16.5	2.8	8.8	– 0.1	4.0	8.9	16.9

***** Non-financial groups admitted to the Prime Standard segment of the Frankfurt Stock Exchange which publish IFRS consolidated financial statements on a quarterly or half-yearly basis and make a noteworthy contribution to value added in Germany. In some cases revised. Excluding groups engaged in real estate activities. **1** Earnings before interest, taxes, depreciation and amortisation. **2** Quantile data are based on the groups' unweighted return on sales. **3** Adjusted for substantial changes in the basis of consolidation of large groups and in the reporting sample. See the explanatory notes in the Statistical Supplement Seasonally adjusted business statistics. **4** Including groups in agriculture and forestry.

XII External sector

1 Major items of the balance of payments of the euro area *

€ million

Item	2014	2015	2016 r	2016 r Q3	2016 r Q4	2017 Q1 r	2017 Feb r	2017 Mar	2017 Apr p
A Current account	+ 250,091	+ 336,415	+ 372,933	+ 102,937	+ 100,493	+ 69,776	+ 25,133	+ 44,723	+ 21,473
1 Goods									
Exports	1,964,242	2,110,012	2,117,767	522,363	552,786	557,533	178,043	210,978	174,112
Imports	1,723,277	1,759,899	1,741,840	430,392	458,636	485,715	151,822	173,037	149,412
Balance	+ 240,964	+ 350,111	+ 375,924	+ 91,970	+ 94,149	+ 71,818	+ 26,221	+ 37,941	+ 24,700
2 Services									
Receipts	713,996	775,948	785,782	207,508	204,934	192,243	60,063	68,825	63,859
Expenditure	628,632	706,018	741,150	181,611	211,430	180,655	55,639	61,208	57,825
Balance	+ 85,363	+ 69,930	+ 44,633	+ 25,896	– 6,494	+ 11,587	+ 4,424	+ 7,616	+ 6,034
3 Primary income									
Receipts	630,047	640,729	633,740	146,548	179,093	158,025	50,072	57,775	51,582
Expenditure	564,244	590,557	543,468	126,935	132,491	133,434	42,774	47,760	45,656
Balance	+ 65,800	+ 50,174	+ 90,268	+ 19,612	+ 46,600	+ 24,592	+ 7,298	+ 10,015	+ 5,926
4 Secondary income									
Receipts	93,022	104,279	111,062	25,989	28,979	25,819	8,493	9,659	8,502
Expenditure	235,060	238,079	248,953	60,530	62,741	64,041	21,302	20,509	23,689
Balance	– 142,036	– 133,799	– 137,891	– 34,541	– 33,762	– 38,222	– 12,810	– 10,849	– 15,187
B Capital account	+ 14,167	– 13,251	– 2,224	+ 1,088	– 462	– 15,583	– 2,833	– 4,125	– 307
C Financial account (Increase: +)	+ 252,979	+ 299,560	+ 358,194	+ 131,009	+ 83,744	+ 53,066	+ 22,018	+ 43,523	+ 15,795
1 Direct investment	+ 61,184	+ 237,130	+ 180,588	+ 135,157	+ 17,260	+ 36,699	+ 32,437	+ 16,588	+ 24,124
By resident units abroad	+ 159,981	+ 847,353	+ 314,753	+ 55,767	+ 120,135	+ 147,157	+ 85,450	+ 9,250	+ 27,923
By non-resident units in the euro area	+ 98,799	+ 610,225	+ 134,164	– 79,392	+ 102,876	+ 110,458	+ 53,013	– 7,338	+ 3,798
2 Portfolio investment	+ 32,867	+ 122,107	+ 475,619	+ 112,726	+ 92,866	+ 76,509	+ 55,657	+ 9,313	+ 45,819
By resident units abroad	+ 459,120	+ 399,293	+ 389,539	+ 127,492	+ 14,644	+ 167,731	+ 82,513	+ 42,235	+ 42,739
Equity and Investment fund shares	+ 139,790	+ 18,716	+ 21,345	+ 14,875	+ 24,896	+ 29,379	+ 11,400	– 1,428	+ 22,200
Long-term debt securities	+ 226,811	+ 368,644	+ 369,848	+ 105,114	+ 15,676	+ 91,820	+ 49,770	+ 14,731	+ 41,870
Short-term debt securities	+ 92,520	+ 11,935	– 1,654	+ 7,503	– 25,927	+ 46,533	+ 21,343	+ 28,932	– 21,331
By non-resident units in the euro area	+ 426,255	+ 277,185	– 86,080	+ 14,766	– 78,222	+ 91,222	+ 26,856	+ 32,922	– 3,080
Equity and Investment fund shares	+ 318,092	+ 222,371	+ 126,388	+ 79,678	+ 25,314	+ 81,828	+ 36,559	+ 31,451	+ 29,807
Long-term debt securities	+ 127,440	+ 99,546	– 261,466	– 63,901	– 83,234	– 37,637	– 28,019	– 11,330	– 35,822
Short-term debt securities	– 19,277	– 44,733	+ 48,997	– 1,010	– 20,302	+ 47,032	+ 18,316	+ 12,801	+ 2,934
3 Financial derivatives and employee stock options	+ 45,722	+ 90,347	+ 22,630	+ 23,936	+ 15,168	+ 15,482	+ 8,057	+ 5,214	+ 1,347
4 Other investment	+ 108,848	– 160,593	– 336,099	– 148,536	– 46,128	– 73,091	– 76,114	+ 11,845	– 51,106
Eurosystem	+ 31,510	– 25,390	– 151,070	– 34,843	– 90,066	– 26,169	– 34,803	– 22,674	+ 30,916
General government	+ 11,832	+ 19,286	+ 4,059	– 652	– 2,678	+ 281	+ 4,093	– 2,829	– 2,230
MFIs (excluding the Eurosystem)	+ 99,280	– 122,527	– 152,878	– 87,784	+ 45,401	– 19,752	– 22,009	+ 23,770	– 48,071
Enterprises and households	– 33,775	– 31,964	– 36,210	– 25,256	+ 1,215	– 27,451	– 23,395	+ 13,578	– 31,721
5 Reserve assets	+ 4,361	+ 10,569	+ 15,458	+ 7,724	+ 4,580	– 2,533	+ 1,981	+ 563	– 4,390
D Net errors and omissions	– 11,277	– 23,604	– 12,515	+ 26,983	– 16,286	– 1,127	– 282	+ 2,925	– 5,371

* Source: ECB, according to the international standards of the Balance of Payments Manual in the 6th edition of the International Monetary Fund.

XII External sector

2 Major items of the balance of payments of the Federal Republic of Germany (balances)

€ million

Period	Current account						Balance of capital account [4]	Financial account (Net lending: + / net borrowing: -)		Errors and omissions [5]
	Total	Goods (fob/fob) [1]		Services (fob/fob) [3]	Primary income	Secondary income		Total	*of which* Reserve assets	
		Total	*of which* Supplementary trade items [2]							
2002	+ 41,655	+ 142,103	+ 6,008	– 45,440	– 25,596	– 29,413	– 4,010	+ 8,038	– 2,065	– 29,606
2003	+ 31,347	+ 130,021	– 2,105	– 48,708	– 18,920	– 31,047	+ 5,920	+ 47,559	– 445	+ 10,292
2004	+ 101,205	+ 153,166	– 6,859	– 38,713	+ 16,860	– 30,109	– 119	+ 112,834	– 1,470	+ 11,748
2005	+ 105,730	+ 157,010	– 6,068	– 40,600	+ 20,905	– 31,585	– 2,334	+ 96,436	– 2,182	– 6,960
2006	+ 135,959	+ 161,447	– 4,205	– 34,641	+ 41,453	– 32,300	– 1,328	+ 157,142	– 2,934	+ 22,511
2007	+ 169,636	+ 201,989	– 922	– 34,881	+ 36,332	– 33,804	– 1,597	+ 183,169	+ 953	+ 15,130
2008	+ 143,318	+ 184,521	– 3,586	– 31,467	+ 24,724	– 34,461	– 893	+ 121,336	+ 2,008	– 21,088
2009	+ 141,233	+ 141,167	– 6,064	– 19,648	+ 54,757	– 35,043	– 1,858	+ 129,693	+ 8,648	– 9,683
2010	+ 144,890	+ 161,146	– 5,892	– 27,041	+ 50,665	– 39,880	+ 1,219	+ 92,757	+ 1,613	– 53,351
2011	+ 165,078	+ 163,426	– 8,900	– 31,574	+ 68,235	– 35,010	+ 419	+ 120,857	+ 2,836	– 44,639
2012	+ 193,590	+ 200,401	– 10,518	– 32,775	+ 64,858	– 38,894	– 413	+ 151,417	+ 1,297	– 41,759
2013	+ 189,616	+ 212,662	– 3,663	– 41,376	+ 61,969	– 43,639	– 563	+ 225,360	+ 838	+ 36,307
2014	+ 218,026	+ 228,361	– 5,873	– 25,323	+ 56,177	– 41,188	+ 2,355	+ 238,630	– 2,564	+ 18,248
2015	+ 259,963	+ 261,182	– 2,668	– 18,602	+ 57,370	– 39,987	– 635	+ 234,603	– 2,213	– 24,725
2016 r	+ 262,402	+ 271,485	– 1,434	– 21,218	+ 52,136	– 40,001	+ 1,112	+ 235,623	+ 1,686	– 27,890
2014 Q2	+ 45,959	+ 54,885	– 1,426	– 4,811	+ 3,046	– 7,160	– 28	+ 57,793	– 610	+ 11,861
Q3	+ 55,457	+ 60,537	– 2,570	– 12,921	+ 15,683	– 7,843	+ 420	+ 52,796	+ 332	– 3,081
Q4	+ 66,413	+ 60,143	– 2,536	– 3,609	+ 21,123	– 11,244	– 216	+ 68,678	– 1,722	+ 2,481
2015 Q1	+ 59,401	+ 60,330	– 1,426	– 2,104	+ 17,030	– 15,855	+ 298	+ 29,421	– 21	– 30,277
Q2	+ 59,356	+ 68,659	– 1,737	– 2,871	+ 611	– 7,043	+ 505	+ 72,121	– 465	+ 12,260
Q3	+ 67,057	+ 67,516	+ 978	– 10,628	+ 16,866	– 6,697	+ 701	+ 67,337	– 1,455	– 421
Q4	+ 74,149	+ 64,676	– 483	– 2,999	+ 22,864	– 10,391	– 2,138	+ 65,723	– 272	– 6,287
2016 Q1 r	+ 64,331	+ 64,120	+ 621	– 3,363	+ 16,933	– 13,359	– 269	+ 36,937	+ 1,228	– 27,125
Q2 r	+ 70,047	+ 77,864	+ 242	– 4,009	+ 584	– 4,393	+ 1,092	+ 62,620	+ 761	– 8,518
Q3 r	+ 59,069	+ 67,878	– 126	– 11,696	+ 13,516	– 10,630	+ 228	+ 61,531	– 261	+ 2,233
Q4 r	+ 68,955	+ 61,622	– 2,171	– 2,150	+ 21,103	– 11,620	+ 61	+ 74,535	– 43	+ 5,520
2017 Q1	+ 65,811	+ 67,181	+ 2,419	– 3,315	+ 15,902	– 13,958	+ 457	+ 64,362	– 360	– 1,906
2014 Dec	+ 25,500	+ 18,852	– 1,090	+ 1,659	+ 10,091	– 5,101	– 222	+ 31,053	– 1,955	+ 5,775
2015 Jan	+ 14,983	+ 15,511	– 1,117	– 873	+ 4,580	– 4,236	+ 28	– 2,145	+ 372	– 17,156
Feb	+ 16,422	+ 19,540	– 767	– 993	+ 5,410	– 7,535	+ 65	+ 10,355	+ 266	– 6,132
Mar	+ 27,996	+ 25,280	+ 458	– 238	+ 7,039	– 4,084	+ 204	+ 21,211	– 660	– 6,989
Apr	+ 21,755	+ 22,266	– 1,084	– 514	+ 2,898	– 2,895	+ 377	+ 30,681	– 69	+ 8,549
May	+ 11,465	+ 20,915	– 690	– 1,177	– 6,268	– 2,005	+ 483	+ 16,041	– 78	+ 4,093
June	+ 26,136	+ 25,478	+ 38	– 1,180	+ 3,980	– 2,143	– 355	+ 25,400	– 318	– 382
July	+ 25,776	+ 25,151	– 896	– 3,062	+ 6,027	– 2,339	+ 448	+ 20,865	– 1,170	– 5,359
Aug	+ 14,760	+ 16,897	+ 661	– 4,616	+ 5,265	– 2,785	+ 44	+ 21,976	– 180	+ 7,171
Sep	+ 26,521	+ 25,469	+ 1,213	– 2,950	+ 5,575	– 1,573	+ 209	+ 24,497	– 105	– 2,233
Oct	+ 22,205	+ 23,927	+ 147	– 4,630	+ 6,013	– 3,105	– 85	+ 20,171	+ 154	– 1,949
Nov	+ 25,362	+ 22,542	+ 4	– 685	+ 6,368	– 2,863	+ 183	+ 24,896	– 548	– 649
Dec	+ 26,582	+ 18,207	– 634	+ 2,315	+ 10,483	– 4,423	– 2,236	+ 20,656	+ 123	– 3,689
2016 Jan r	+ 14,614	+ 13,864	– 3	– 1,527	+ 4,518	– 2,241	– 37	– 2,007	– 186	– 16,584
Feb r	+ 20,578	+ 22,729	+ 724	– 226	+ 5,600	– 7,525	+ 520	+ 18,706	+ 1,478	– 2,392
Mar r	+ 29,139	+ 27,528	– 99	– 1,610	+ 6,815	– 3,594	– 752	+ 20,238	– 64	– 8,149
Apr r	+ 28,093	+ 27,954	– 116	– 858	+ 2,726	– 1,730	+ 1,287	+ 25,738	+ 696	– 3,642
May r	+ 17,916	+ 23,371	+ 511	– 880	– 4,001	– 574	+ 268	+ 14,378	+ 776	– 3,806
June r	+ 24,038	+ 26,539	– 153	– 2,271	+ 1,859	– 2,089	– 463	+ 22,504	– 711	– 1,071
July r	+ 18,297	+ 20,755	+ 520	– 3,503	+ 4,494	– 3,449	– 139	+ 18,115	+ 342	– 43
Aug r	+ 17,016	+ 21,394	– 367	– 4,965	+ 5,092	– 4,504	– 126	+ 18,180	+ 93	+ 1,290
Sep r	+ 23,756	+ 25,730	– 279	– 3,227	+ 3,930	– 2,677	+ 493	+ 25,236	– 695	+ 987
Oct r	+ 18,832	+ 20,877	+ 163	– 3,551	+ 5,076	– 3,570	– 182	+ 27,769	– 145	+ 9,119
Nov r	+ 24,993	+ 23,683	– 385	– 339	+ 5,677	– 4,029	– 90	+ 23,140	+ 140	– 1,763
Dec r	+ 25,130	+ 17,062	– 1,949	+ 1,740	+ 10,349	– 4,021	+ 332	+ 23,626	– 38	– 1,836
2017 Jan	+ 13,979	+ 16,000	+ 278	– 1,271	+ 6,080	– 6,830	– 262	+ 16,099	– 124	+ 2,383
Feb	+ 20,702	+ 23,105	+ 993	– 777	+ 3,008	– 4,635	+ 271	+ 3,984	– 216	– 16,989
Mar	+ 31,130	+ 28,076	+ 1,148	– 1,268	+ 6,814	– 2,492	+ 448	+ 44,279	– 21	+ 12,700
Apr	+ 14,879	+ 19,695	– 43	– 769	+ 4,234	– 8,281	– 311	+ 18,894	– 2	+ 4,325
May p	+ 17,286	+ 24,423	+ 184	– 1,963	– 3,646	– 1,529	– 22	+ 5,256	– 47	– 12,008

1 Excluding freight and insurance costs of foreign trade. **2** For example, warehouse transactions for the account of residents, deductions of goods returned and deductions of exports and imports in connection with goods for processing. **3** Including freight and insurance costs of foreign trade. **4** Including net acquisition/disposal of non-produced non-financial assets. **5** Statistical errors and omissions, resulting from the difference between the balance on the financial account and the balances on the current account and the capital account.

XII External sector

3 Foreign trade (special trade) of the Federal Republic of Germany, by country and group of countries *

€ million

Ländergruppe/Land		2014	2015	2016	2016 Dec	2017 Jan	2017 Feb	2017 Mar	2017 Apr	2017 May p
All countries 1	Exports	1,123,746	1,193,555	1,206,857	97,388	98,760	102,398	118,227	101,029	110,603
	Imports	910,145	949,245	954,826	78,808	84,036	82,418	92,931	82,913	88,603
	Balance	+ 213,601	+ 244,310	+ 252,032	+ 18,581	+ 14,724	+ 19,980	+ 25,295	+ 18,116	+ 22,000
I European countries	Exports	761,914	803,425	821,179	62,701	68,394	70,684	79,292	70,555	...
	Imports	642,738	653,782	658,243	53,795	56,825	57,685	64,038	57,210	...
	Balance	+ 119,176	+ 149,643	+ 162,936	+ 8,906	+ 11,570	+ 12,999	+ 15,254	+ 13,345	...
1 EU member states (28)	Exports	648,446	692,493	707,695	54,113	58,732	61,268	67,961	60,851	...
	Imports	527,117	543,334	551,953	44,713	46,511	47,956	53,324	47,717	...
	Balance	+ 121,329	+ 149,159	+ 155,741	+ 9,400	+ 12,221	+ 13,312	+ 14,637	+ 13,135	...
Euro area (19)	Exports	413,753	434,075	442,467	34,409	37,051	38,252	42,488	38,392	...
	Imports	350,550	356,643	359,319	29,184	30,243	31,122	34,520	30,861	...
	Balance	+ 63,203	+ 77,432	+ 83,149	+ 5,225	+ 6,807	+ 7,130	+ 7,968	+ 7,531	...
of which										
Austria	Exports	55,807	58,217	59,796	4,532	4,722	5,016	5,579	5,216	...
	Imports	36,218	37,250	38,617	2,999	3,220	3,335	3,716	3,322	...
	Balance	+ 19,590	+ 20,967	+ 21,178	+ 1,533	+ 1,502	+ 1,681	+ 1,864	+ 1,895	...
Belgium and Luxembourg	Exports	47,345	46,196	47,086	3,721	3,950	4,159	4,617	4,149	...
	Imports	42,548	40,116	41,099	3,338	3,401	3,616	4,060	3,753	...
	Balance	+ 4,797	+ 6,079	+ 5,987	+ 382	+ 550	+ 543	+ 557	+ 396	...
France	Exports	100,580	102,762	101,390	7,794	8,610	8,677	9,335	8,660	...
	Imports	66,714	66,819	65,612	4,897	5,455	5,277	5,935	5,006	...
	Balance	+ 33,866	+ 35,943	+ 35,778	+ 2,897	+ 3,155	+ 3,400	+ 3,400	+ 3,654	...
Italy	Exports	54,240	57,987	61,429	4,596	5,082	5,344	5,975	5,207	...
	Imports	48,522	49,038	51,793	4,128	4,185	4,456	4,848	4,526	...
	Balance	+ 5,718	+ 8,949	+ 9,636	+ 468	+ 898	+ 888	+ 1,127	+ 681	...
Netherlands	Exports	72,736	79,191	78,983	6,569	6,828	6,823	7,736	6,885	...
	Imports	87,796	87,889	83,357	7,304	7,501	7,532	8,177	7,646	...
	Balance	– 15,060	– 8,697	– 4,375	– 734	– 673	– 709	– 441	– 760	...
Spain	Exports	34,820	38,715	40,617	3,113	3,403	3,621	4,068	3,399	...
	Imports	24,804	26,442	27,827	2,523	2,449	2,610	2,983	2,352	...
	Balance	+ 10,016	+ 12,273	+ 12,790	+ 590	+ 954	+ 1,011	+ 1,085	+ 1,046	...
Other EU member states	Exports	234,693	258,417	265,227	19,704	21,681	23,016	25,473	22,459	...
	Imports	176,567	186,691	192,635	15,529	16,268	16,835	18,804	16,856	...
	Balance	+ 58,126	+ 71,727	+ 72,592	+ 4,175	+ 5,413	+ 6,182	+ 6,669	+ 5,604	...
of which										
United Kingdom	Exports	79,163	89,018	86,145	6,047	6,765	7,370	8,193	6,649	...
	Imports	38,545	38,414	35,704	2,959	2,935	3,021	3,699	3,050	...
	Balance	+ 40,618	+ 50,604	+ 50,440	+ 3,089	+ 3,831	+ 4,349	+ 4,494	+ 3,600	...
2 Other European countries	Exports	113,468	110,932	113,484	8,587	9,663	9,416	11,331	9,703	...
	Imports	115,621	110,448	106,289	9,081	10,314	9,729	10,714	9,493	...
	Balance	– 2,153	+ 484	+ 7,195	– 494	– 651	– 313	+ 617	+ 210	...
of which										
Switzerland	Exports	46,202	49,070	50,331	3,848	4,431	4,303	5,138	4,306	...
	Imports	39,392	42,089	43,946	3,697	4,193	3,778	4,362	3,708	...
	Balance	+ 6,810	+ 6,981	+ 6,385	+ 151	+ 238	+ 525	+ 776	+ 597	...
II Non-European countries	Exports	358,337	387,398	382,941	34,469	30,121	31,508	38,731	30,173	...
	Imports	267,407	295,461	296,578	25,013	27,211	24,697	28,893	25,703	...
	Balance	+ 90,930	+ 91,936	+ 86,363	+ 9,456	+ 2,910	+ 6,811	+ 9,837	+ 4,469	...
1 Africa	Exports	22,505	23,897	24,504	2,174	1,894	2,345	2,385	2,606	...
	Imports	20,242	18,307	16,669	1,625	1,570	1,560	1,866	1,656	...
	Balance	+ 2,263	+ 5,590	+ 7,835	+ 549	+ 324	+ 785	+ 519	+ 950	...
2 America	Exports	135,293	156,982	147,703	11,995	12,029	12,208	15,288	11,375	...
	Imports	74,191	85,582	83,367	6,951	7,370	6,704	8,453	7,085	...
	Balance	+ 61,103	+ 71,400	+ 64,336	+ 5,044	+ 4,659	+ 5,504	+ 6,834	+ 4,290	...
of which										
United States	Exports	95,928	113,733	106,911	8,600	8,932	8,963	11,232	8,243	...
	Imports	49,207	60,217	57,933	4,689	4,938	4,613	5,998	4,913	...
	Balance	+ 46,721	+ 53,516	+ 48,977	+ 3,911	+ 3,994	+ 4,350	+ 5,233	+ 3,329	...
3 Asia	Exports	190,973	196,297	200,357	19,384	15,405	16,136	20,077	15,246	...
	Imports	170,050	188,621	193,541	16,203	17,927	16,067	18,231	16,507	...
	Balance	+ 20,923	+ 7,676	+ 6,816	+ 3,181	– 2,522	+ 69	+ 1,846	– 1,262	...
of which										
Middle East	Exports	35,462	39,518	36,785	4,330	2,319	2,727	3,459	2,177	...
	Imports	7,865	7,330	6,581	546	463	510	562	571	...
	Balance	+ 27,598	+ 32,188	+ 30,204	+ 3,785	+ 1,856	+ 2,217	+ 2,897	+ 1,606	...
Japan	Exports	16,910	16,968	18,344	1,570	1,576	1,521	1,844	1,474	...
	Imports	19,007	20,180	21,933	1,730	1,941	1,841	2,124	1,861	...
	Balance	– 2,097	– 3,213	– 3,589	– 160	– 366	– 320	– 280	– 387	...
People's Republic of China 2	Exports	74,369	71,284	76,088	7,251	6,277	6,297	7,885	6,097	...
	Imports	79,828	91,930	93,865	8,087	8,814	7,420	8,176	7,521	...
	Balance	– 5,459	– 20,646	– 17,777	– 836	– 2,537	– 1,123	– 290	– 1,424	...
New industrial countries and emerging markets of Asia 3	Exports	48,476	51,510	51,918	4,543	3,893	4,025	5,072	4,074	...
	Imports	38,782	42,478	42,875	3,631	4,097	3,787	4,574	4,117	...
	Balance	+ 9,695	+ 9,032	+ 9,042	+ 912	– 204	+ 237	+ 498	– 43	...
4 Oceania and polar regions	Exports	9,566	10,221	10,377	916	793	820	981	946	...
	Imports	2,924	2,951	3,001	234	344	367	343	455	...
	Balance	+ 6,641	+ 7,271	+ 7,376	+ 682	+ 448	+ 453	+ 639	+ 492	...

* Source: Federal Statistical Office. Exports (fob) by country of destination, imports (cif) by country of origin. Individual countries and groups of countries according to the current position. **1** Including fuel and other supplies for ships and aircraft and other data not classifiable by region. **2** Excluding Hong Kong. **3** Brunei Darussalam, Hong Kong, Indonesia, Malaysia, Philippines, Republic of Korea, Singapore, Taiwan and Thailand.

XII External sector

4 Services and Primary income of the Federal Republic of Germany (balances)

€ million

Period	Services									Primary income		
		of which										
	Total	Transport	Travel [1]	Financial services	Charges for the use of intellectual property	Telecommunications, computer and information services	Other business services	Government goods and services [2]	Compensation of employees	Investment income	Other primary income [3]
2012	– 32,775	– 10,189	– 35,422	+ 8,793	+ 3,030	+ 1,442	– 9,459	+ 3,103	+ 2,187	+ 61,666	+ 1,005
2013	– 41,376	– 9,881	– 37,713	+ 8,056	+ 3,656	– 870	– 5,518	+ 3,073	+ 541	+ 60,205	+ 1,223
2014	– 25,323	– 7,301	– 37,653	+ 7,008	+ 3,639	+ 2,785	– 1,418	+ 3,024	+ 451	+ 54,849	+ 877
2015	– 18,602	– 5,476	– 36,595	+ 9,331	+ 4,942	+ 4,037	– 3,116	+ 3,106	+ 783	+ 56,948	– 361
2016	– 21,218	– 5,962	– 38,266	+ 9,189	+ 6,450	+ 3,312	– 3,276	+ 3,119	+ 652	+ 53,196	– 1,712
2015 Q3	– 10,628	– 1,653	– 14,475	+ 2,501	+ 926	+ 321	– 364	+ 779	– 488	+ 18,557	– 1,203
Q4	– 2,999	– 1,865	– 8,595	+ 2,526	+ 1,662	+ 1,985	– 1,239	+ 585	+ 372	+ 19,476	+ 3,016
2016 Q1	– 3,363	– 1,660	– 6,286	+ 2,095	+ 1,215	+ 219	– 819	+ 852	+ 756	+ 16,817	– 640
Q2	– 4,009	– 1,080	– 8,654	+ 2,174	+ 1,190	+ 1,238	– 687	+ 831	– 107	+ 3,501	– 2,810
Q3	– 11,696	– 1,414	– 15,956	+ 1,892	+ 1,629	+ 483	– 173	+ 833	– 384	+ 15,089	– 1,190
Q4	– 2,150	– 1,808	– 7,371	+ 3,029	+ 2,416	+ 1,372	– 1,597	+ 604	+ 386	+ 17,788	+ 2,928
2017 Q1	– 3,315	– 1,260	– 5,956	+ 2,016	+ 1,223	+ 426	– 1,464	+ 723	+ 740	+ 16,280	– 1,118
2016 July	– 3,503	– 366	– 4,398	+ 706	+ 538	– 239	– 324	+ 288	– 158	+ 5,026	– 374
Aug	– 4,965	– 623	– 6,363	+ 621	+ 827	+ 51	– 207	+ 257	– 117	+ 5,612	– 404
Sep	– 3,227	– 424	– 5,195	+ 565	+ 264	+ 672	+ 357	+ 288	– 109	+ 4,451	– 413
Oct	– 3,551	– 480	– 5,301	+ 640	+ 1,081	– 14	– 166	+ 198	+ 175	+ 5,484	– 583
Nov	– 339	– 773	– 1,540	+ 1,321	+ 727	+ 29	– 728	+ 209	+ 151	+ 5,938	– 412
Dec	+ 1,740	– 555	– 529	+ 1,068	+ 609	+ 1,357	– 702	+ 197	+ 60	+ 6,366	+ 3,923
2017 Jan	– 1,271	– 470	– 1,575	+ 831	+ 289	– 317	– 660	+ 201	+ 271	+ 6,219	– 410
Feb	– 777	– 298	– 1,459	+ 478	+ 484	+ 62	– 498	+ 277	+ 272	+ 3,072	– 335
Mar	– 1,268	– 492	– 2,921	+ 707	+ 450	+ 681	– 307	+ 244	+ 197	+ 6,989	– 373
Apr	– 769	– 109	– 1,760	+ 881	+ 688	– 392	– 532	+ 262	– 42	+ 4,720	– 444
May p	– 1,963	– 80	– 3,049	+ 731	+ 212	+ 191	– 583	+ 247	– 15	– 2,231	– 1,399

1 Since 2001, the sample results of a household survey have been used on the expenditure side. **2** Domestic public authorities' receipts from and expenditure on services, not included elsewhere; including the receipts from foreign military bases. **3** Includes, inter alia, taxes on leasing, production and imports transferred to the EU as well as subsidies received from the EU.

5 Secondary income of the Federal Republic of Germany (balances)

€ million

Period		General government			All sectors excluding general government [2]		
			of which			*of which*	
	Total	Total	Current international cooperation [1]	Current taxes on income, wealth etc.	Total	Personal transfers between resident and nonresident households [3]	*of which* Workers' remittances
2012	– 38,894	– 25,446	– 5,167	+ 5,206	– 13,448	– 2,952	– 2,952
2013	– 43,639	– 28,923	– 4,733	+ 6,174	– 14,715	– 3,250	– 3,229
2014	– 41,188	– 28,106	– 5,972	+ 8,101	– 13,082	– 3,476	– 3,451
2015	– 39,987	– 24,925	– 6,648	+ 9,830	– 15,062	– 3,540	– 3,523
2016	– 40,001	– 26,227	– 8,376	+ 9,934	– 13,774	– 4,214	– 4,196
2015 Q3	– 6,697	– 3,781	– 1,197	+ 1,211	– 2,916	– 885	– 881
Q4	– 10,391	– 6,832	– 2,111	+ 1,002	– 3,560	– 885	– 881
2016 Q1	– 13,359	– 10,088	– 2,840	+ 1,307	– 3,271	– 1,052	– 1,049
Q2	– 4,393	– 836	– 1,567	+ 5,561	– 3,556	– 1,053	– 1,049
Q3	– 10,630	– 6,866	– 1,702	+ 1,772	– 3,763	– 1,053	– 1,049
Q4	– 11,620	– 8,437	– 2,267	+ 1,294	– 3,183	– 1,055	– 1,049
2017 Q1	– 13,958	– 7,816	– 2,668	+ 1,774	– 6,141	– 1,157	– 1,153
2016 July	– 3,449	– 2,305	– 451	+ 384	– 1,144	– 352	– 350
Aug	– 4,504	– 2,985	– 983	+ 264	– 1,519	– 350	– 350
Sep	– 2,677	– 1,576	– 268	+ 1,124	– 1,101	– 351	– 350
Oct	– 3,570	– 2,830	– 659	+ 329	– 740	– 352	– 350
Nov	– 4,029	– 2,910	– 451	+ 27	– 1,119	– 353	– 350
Dec	– 4,021	– 2,696	– 1,157	+ 937	– 1,325	– 351	– 350
2017 Jan	– 6,830	– 3,731	– 1,622	+ 189	– 3,099	– 386	– 384
Feb	– 4,635	– 2,699	– 699	+ 714	– 1,936	– 385	– 384
Mar	– 2,492	– 1,386	– 347	+ 871	– 1,106	– 386	– 384
Apr	– 8,281	– 1,856	– 398	+ 811	– 6,425	– 385	– 384
May p	– 1,529	+ 220	– 200	+ 2,608	– 1,749	– 387	– 384

1 Excluding capital transfers, where identifiable. Includes current international cooperation and other current transfers. **2** Includes insurance premiums and claims (excluding life insurance policies). **3** Transfers between resident and non-resident households.

6 Capital account of the Federal Republic of Germany (balances)

€ million

Period	Total	Non-produced non-financial assets	Capital transfers
2012	– 413	+ 1,745	– 2,158
2013	– 563	+ 1,105	– 1,668
2014	+ 2,355	+ 2,898	– 542
2015	– 635	+ 2,377	– 3,012
2016	+ 1,112	+ 3,324	– 2,212
2015 Q3	+ 701	+ 877	– 176
Q4	– 2,138	+ 279	– 2,418
2016 Q1	– 269	– 521	+ 253
Q2	+ 1,092	+ 2,219	– 1,127
Q3	+ 228	+ 887	– 659
Q4	+ 61	+ 739	– 679
2017 Q1	+ 457	+ 643	– 186
2016 July	– 139	+ 88	– 227
Aug	– 126	+ 145	– 271
Sep	+ 493	+ 653	– 160
Oct	– 182	– 11	– 170
Nov	– 90	+ 244	– 334
Dec	+ 332	+ 507	– 175
2017 Jan	– 262	– 85	– 178
Feb	+ 271	+ 8	+ 263
Mar	+ 448	+ 719	– 271
Apr	– 311	– 37	– 274
May p	– 22	+ 224	– 245

XII External sector

7 Financial account of the Federal Republic of Germany (net)

€ million

Item	2014	2015	2016	2016		2017			
				Q3	Q4	Q1	Mar	Apr	May p
I Net domestic investment abroad (Increase: +)	+ 301,030	+ 249,102	+ 380,469	+ 43,925	+ 30,612	+ 228,744	+ 67,879	– 8,337	+ 10,989
1 Direct investment	+ 83,960	+ 101,357	+ 69,323	+ 14,710	+ 21,373	+ 48,982	+ 31,153	+ 144	+ 9,211
Equity	+ 56,733	+ 67,801	+ 61,655	+ 13,456	+ 15,717	+ 16,835	+ 5,723	+ 6,160	+ 5,630
of which									
Reinvestment of earnings 1	+ 18,535	+ 9,711	+ 13,224	+ 5,960	– 79	+ 6,206	+ 2,805	+ 3,315	+ 1,951
Debt instruments	+ 27,227	+ 33,556	+ 7,668	+ 1,254	+ 5,655	+ 32,147	+ 25,431	– 6,017	+ 3,581
2 Portfolio investment	+ 146,979	+ 122,005	+ 96,602	+ 19,344	– 573	+ 30,952	+ 8,815	+ 979	+ 11,824
Shares 2	+ 8,935	+ 19,561	+ 17,288	+ 8,014	+ 3,383	+ 5,528	+ 2,780	– 5,389	+ 731
Investment fund shares 3	+ 42,057	+ 34,626	+ 36,586	+ 8,902	+ 9,923	+ 16,923	+ 5,523	+ 3,788	+ 439
Long-term debt securities 4	+ 95,025	+ 73,519	+ 48,826	+ 5,249	– 9,718	+ 5,347	+ 281	+ 2,370	+ 11,475
Short-term debt securities 5	+ 963	– 5,700	– 6,098	– 2,821	– 4,161	+ 3,155	+ 231	+ 210	– 821
3. Financial derivatives and employee stock options 6	+ 31,896	+ 26,202	+ 32,792	+ 10,523	+ 13,473	+ 0	– 2,704	+ 1,478	+ 1,171
4. Other investment 7	+ 40,759	+ 1,750	+ 180,067	– 392	– 3,617	+ 149,170	+ 30,635	– 10,937	– 11,170
Monetary financial institutions 8	+ 76,296	– 90,287	+ 18,747	– 29,468	– 1,411	+ 72,179	+ 10,023	– 13,312	– 20,487
Long-term	+ 21,139	– 2,803	+ 45,099	+ 7,704	+ 27,253	+ 12,896	+ 7,325	+ 1,659	+ 1,317
Short-term	+ 55,156	– 87,484	– 26,353	– 37,172	– 28,664	+ 59,283	+ 2,698	– 14,971	– 21,804
Enterprises and households 9	– 2,952	– 19,122	– 10,373	– 10,673	– 31,064	+ 794	+ 6,464	– 13,481	– 3,650
Long-term	+ 6,364	+ 12,513	+ 1,254	+ 979	+ 886	– 162	+ 275	+ 289	– 271
Short-term	– 9,316	– 31,635	– 11,627	– 11,652	– 31,950	+ 956	+ 6,189	– 13,770	– 3,379
General government	+ 17,295	– 12,205	+ 1,202	+ 4,693	– 9,717	– 567	– 1,480	+ 1,467	– 475
Long-term	– 405	– 7,557	– 5,331	– 1,157	– 447	– 1,253	+ 30	– 139	– 288
Short-term	+ 17,700	– 4,648	+ 6,533	+ 5,850	– 9,270	+ 686	– 1,510	+ 1,606	– 187
Bundesbank	– 49,880	+ 123,364	+ 170,491	+ 35,056	+ 38,574	+ 76,764	+ 15,629	+ 14,389	+ 13,442
5. Reserve assets	– 2,564	– 2,213	+ 1,686	– 261	– 43	– 360	– 21	– 2	– 47
II Net foreign investment in the reporting country (Increase: +)	+ 62,400	+ 14,499	+ 144,846	– 17,605	– 43,923	+ 164,383	+ 23,600	– 27,231	+ 5,732
1 Direct investment	+ 11,930	+ 47,284	+ 46,695	+ 7,072	– 7,520	+ 28,686	+ 18,072	– 5,214	+ 4,426
Equity	+ 23,558	+ 20,935	+ 12,126	+ 2,279	– 886	+ 5,627	+ 2,312	+ 1,580	– 2,314
of which									
Reinvestment of earnings 1	+ 3,325	+ 4,375	+ 5,905	+ 3,017	+ 378	+ 3,565	+ 1,150	+ 1,246	– 164
Debt instruments	– 11,628	+ 26,349	+ 34,569	+ 4,793	– 6,634	+ 23,059	+ 15,760	– 6,794	+ 6,740
2 Portfolio investment	+ 13,483	– 74,941	– 111,309	– 29,084	– 51,609	– 20,789	– 6,331	– 15,040	+ 23,232
Shares 2)	+ 6,314	+ 9,725	– 985	+ 1,198	+ 6,402	+ 1,460	+ 1,317	+ 2,380	+ 1,263
Investment fund shares 3	– 3,790	+ 7,345	– 6,928	– 2,175	– 449	+ 136	+ 802	– 1,309	+ 642
Long-term debt securities 4	+ 14,131	– 101,208	– 95,730	– 24,063	– 29,253	– 12,459	– 8,421	– 12,324	+ 12,877
Short-term debt securities 5	– 3,171	+ 9,197	– 7,666	– 4,044	– 28,308	– 9,926	– 29	– 3,786	+ 8,451
3. Other investment 7	+ 36,987	+ 42,156	+ 209,460	+ 4,407	+ 15,206	+ 156,485	+ 11,859	– 6,977	– 21,926
Monetary financial institutions 8	+ 32,480	– 41,166	+ 86,802	+ 884	– 23,705	+ 107,204	– 9,829	+ 21,277	– 14,179
Long-term	– 14,558	– 19,536	+ 5,834	+ 5,499	+ 7,425	+ 2,847	+ 4,021	– 1,494	– 478
Short-term	+ 47,039	– 21,630	+ 80,968	– 4,615	– 31,130	+ 104,357	– 13,850	+ 22,771	– 13,701
Enterprises and households 9	+ 16,355	+ 10,459	+ 1,988	– 24,742	– 3,712	+ 13,837	+ 8,266	– 12,927	– 4,924
Long-term	+ 2,960	+ 15,960	+ 6,716	+ 4,260	+ 1,142	+ 3,042	– 1,307	+ 326	+ 2,494
Short-term	+ 13,395	– 5,501	– 4,728	– 29,001	– 4,854	+ 10,795	+ 9,573	– 13,253	– 7,418
General government	– 5,575	– 11,521	+ 1,796	– 3,257	– 7,892	+ 1,161	– 2,117	+ 4,894	– 4,305
Long-term	– 931	– 3,942	– 2,847	– 242	– 1,041	– 2,850	– 347	– 42	– 1,175
Short-term	– 4,645	– 7,579	+ 4,642	– 3,015	– 6,850	+ 4,012	– 1,769	+ 4,936	– 3,130
Bundesbank	– 6,273	+ 84,383	+ 118,874	+ 31,521	+ 50,515	+ 34,282	+ 15,538	– 20,221	+ 1,483
III Net financial account (Net lending: + / net borrowing: -)	+ 238,630	+ 234,603	+ 235,623	+ 61,531	+ 74,535	+ 64,362	+ 44,279	+ 18,894	+ 5,256

1 Estimate based on data on direct investment stocks abroad and in the Federal Republic of Germany (see Special Statistical Publication 10). **2** Including participation certificates. **3** Including reinvestment of earnings. **4** Up to and including 2012, without accrued interest. Long-term: original maturity of more than one year or unlimited. **5** Short-term: original maturity up to one year. **6** Balance of transactions arising from options and financial futures contracts as well as employee stock options. **7** Includes in particular loans, trade credits as well as currency and deposits. **8** Excluding Bundesbank. **9** Includes the following sectors: financial corporations (excluding monetary financial institutions) as well as non-financial corporations, households and non-profit institutions serving households.

XII. External sector

8. External position of the Bundesbank °

€ million

End of reporting period	External assets									External-liabilities 3,4	Net external position (col 1 minus col 10)
		Reserve assets					Other investment				
	Total	Total	Gold and gold receivables	Special drawing rights	Reserve position in the IMF	Currency, deposits and securities	Total	*of which* Clearing accounts within the ESCB 1	Portfolio investment 2		
	1	2	3	4	5	6	7	8	9	10	11
1999 Jan 5	95,316	93,940	29,312	1,598	6,863	56,167	1,376	–	–	9,628	85,688
1999	141,958	93,039	32,287	1,948	6,383	52,420	48,919	26,275	–	7,830	134,128
2000	100,762	93,815	32,676	1,894	5,868	53,377	6,947	– 6,851	–	8,287	92,475
2001	76,147	93,215	35,005	2,032	6,689	49,489	– 17,068	– 30,857	–	10,477	65,670
2002	103,948	85,002	36,208	1,888	6,384	40,522	18,780	4,995	166	66,278	37,670
2003	95,394	76,680	36,533	1,540	6,069	32,538	18,259	4,474	454	83,329	12,065
2004	93,110	71,335	35,495	1,512	5,036	29,292	21,110	7,851	665	95,014	– 1,904
2005	130,268	86,181	47,924	1,601	2,948	33,708	43,184	29,886	902	115,377	14,891
2006	104,389	84,765	53,114	1,525	1,486	28,640	18,696	5,399	928	134,697	– 30,308
2007	179,492	92,545	62,433	1,469	949	27,694	84,420	71,046	2,527	176,569	2,923
2008	230,775	99,185	68,194	1,576	1,709	27,705	129,020	115,650	2,570	237,893	– 7,118
2009	323,286	125,541	83,939	13,263	2,705	25,634	190,288	177,935	7,458	247,645	75,641
2010	524,695	162,100	115,403	14,104	4,636	27,957	337,921	325,553	24,674	273,241	251,454
2011	714,662	184,603	132,874	14,118	8,178	29,433	475,994	463,311	54,065	333,730	380,932
2012	921,002	188,630	137,513	13,583	8,760	28,774	668,672	655,670	63,700	424,999	496,003
2013	721,741	143,753	94,876	12,837	7,961	28,080	523,153	510,201	54,834	401,524	320,217
2014	678,804	158,745	107,475	14,261	6,364	30,646	473,274	460,846	46,784	396,314	282,490
2015	800,709	159,532	105,792	15,185	5,132	33,423	596,638	584,210	44,539	481,801	318,907
2016	990,450	175,765	119,253	14,938	6,581	34,993	767,128	754,263	47,557	600,762	389,688
2014 Oct	681,790	154,133	101,929	14,125	7,628	30,450	481,136	468,708	46,521	396,338	285,452
Nov	682,969	155,424	103,245	14,045	7,520	30,615	480,294	467,866	47,250	400,642	282,327
Dec	678,804	158,745	107,475	14,261	6,364	30,646	473,274	460,846	46,784	396,314	282,490
2015 Jan	751,062	176,741	121,607	14,895	6,488	33,751	527,698	515,266	46,623	451,800	299,262
Feb	744,552	172,120	116,647	14,956	6,361	34,157	525,795	513,365	46,637	443,519	301,033
Mar	767,856	176,922	119,988	15,311	5,944	35,679	544,130	531,701	46,804	434,696	333,160
Apr	762,437	171,758	116,812	14,967	5,796	34,184	544,620	532,192	46,058	436,061	326,376
May	758,500	173,842	118,141	15,124	5,744	34,833	538,619	526,191	46,039	436,637	321,863
June	756,263	168,299	113,838	15,000	5,617	33,844	543,502	531,074	44,461	439,905	316,357
July	763,247	163,071	108,872	15,172	4,919	34,107	555,013	542,585	45,162	444,709	318,537
Aug	781,286	162,917	110,012	14,934	5,164	32,807	573,712	561,284	44,657	440,954	340,331
Sep	774,428	161,922	108,959	14,941	5,191	32,831	567,602	555,174	44,903	462,529	311,899
Oct	786,694	166,664	112,836	15,126	5,199	33,503	575,246	562,818	44,784	468,522	318,172
Nov	813,320	163,816	108,820	15,475	5,217	34,303	604,946	592,518	44,558	482,779	330,541
Dec	800,709	159,532	105,792	15,185	5,132	33,423	596,638	584,210	44,539	481,801	318,907
2016 Jan	807,971	164,656	111,126	15,055	5,197	33,278	599,427	587,000	43,888	473,127	334,844
Feb	839,336	177,917	122,535	15,109	6,899	33,374	617,434	605,006	43,985	489,497	349,839
Mar	837,375	171,266	117,844	14,730	6,730	31,962	621,617	609,190	44,491	492,161	345,214
Apr	856,266	175,738	121,562	14,793	6,759	32,623	638,201	625,774	42,327	495,599	360,667
May	884,887	173,927	118,133	14,970	6,839	33,984	667,972	655,544	42,988	501,617	383,270
June	922,232	184,628	128,963	14,746	6,780	34,139	693,498	681,070	44,106	518,466	403,766
July	904,044	186,300	130,417	14,698	6,736	34,449	672,748	660,320	44,996	518,921	385,124
Aug	918,692	183,951	128,171	14,685	6,642	34,452	689,906	677,479	44,834	525,322	393,370
Sep	957,860	183,796	128,795	14,657	6,605	33,738	728,554	715,738	45,510	549,884	407,976
Oct	947,718	181,623	126,245	14,708	6,631	34,039	720,795	708,029	45,300	545,661	402,057
Nov	991,108	177,348	121,032	14,917	6,572	34,826	766,905	754,057	46,855	557,911	433,198
Dec	990,450	175,765	119,253	14,938	6,581	34,993	767,128	754,263	47,557	600,762	389,688
2017 Jan	1,034,804	177,256	121,656	14,806	6,523	34,270	809,862	795,621	47,687	587,121	447,682
Feb	1,060,894	184,666	128,507	14,976	6,248	34,935	828,264	814,375	47,964	619,529	441,365
Mar	1,075,039	181,898	126,158	14,886	6,183	34,671	843,892	829,751	49,249	634,974	440,065
Apr	1,089,144	180,726	126,011	14,697	6,055	33,963	858,281	843,439	50,137	614,540	474,604
May	1,098,879	175,958	122,486	14,459	5,907	33,107	871,724	857,272	51,197	615,739	483,140
June	1,096,759	171,295	118,235	14,349	5,695	33,016	873,191	860,764	52,273	640,157	456,602

o Assets and liabilities vis-à-vis all countries within and outside the euro area. Up to December 2000, the levels at the end of each quarter are shown, owing to revaluations, at market prices; within each quarter, however, the levels are computed on the basis of cumulative transaction values. From January 2001, all end-of-month levels are valued at market prices. **1** Mainly net claims on TARGET2 balances (according to the respektive country designation), since November 2000 also balances with non-euro area central banks within the ESCB. **2** Mainly long-term debt securities from issuers within the euro area. **3** Including estimates of currency in circulation abroad. **4** See Deutsche Bundesbank, Monthly Report, October 2014, p 22. **5** Euro opening balance sheet of the Bundesbank as at 1 January 1999.

XII External sector

9 Assets and liabilities of enterprises in Germany (other than banks) vis-à-vis non-residents *

€ million

End of year or month	Claims on non-residents							Liabilities vis-à-vis non-residents						
			Claims on foreign non-banks							Liabilities vis-à-vis foreign non-banks				
					from trade credits							from trade credits		
	Total	Balances with foreign banks	Total	from financial operations	Total	Credit terms granted	Advance payments effected	Total	Loans from foreign banks	Total	from financial operations	Total	Credit terms used	Advance payments received
All countries														
2013	787,308	282,026	505,282	325,614	179,668	164,454	15,214	939,252	144,884	794,368	632,110	162,258	95,302	66,957
2014	833,644	279,559	554,085	365,230	188,856	174,058	14,798	959,833	154,566	805,267	636,328	168,939	102,126	66,813
2015	866,912	265,170	601,743	409,858	191,885	177,397	14,488	1,003,050	150,054	852,996	672,312	180,684	109,062	71,622
2016	855,814	241,683	614,131	412,871	201,260	187,086	14,174	1,025,815	128,831	896,984	708,734	188,250	115,808	72,443
2016 Dec	855,814	241,683	614,131	412,871	201,260	187,086	14,174	1,025,815	128,831	896,984	708,734	188,250	115,808	72,443
2017 Jan	861,809	239,100	622,710	422,879	199,831	185,609	14,222	1,027,892	123,897	903,995	723,238	180,757	107,842	72,916
Feb	859,012	232,639	626,372	421,305	205,068	190,478	14,590	1,038,330	125,004	913,326	724,197	189,129	113,847	75,282
Mar	887,996	232,783	655,213	438,025	217,189	202,812	14,377	1,068,018	128,102	939,916	743,702	196,214	121,734	74,480
Apr	864,608	220,308	644,300	433,207	211,093	196,561	14,532	1,046,984	122,302	924,682	732,879	191,803	117,103	74,700
May	860,765	215,845	644,920	434,992	209,928	195,283	14,645	1,044,043	119,113	924,930	734,001	190,930	115,513	75,416
Industrial countries [1]														
2013	697,475	278,723	418,753	296,675	122,077	108,620	13,458	852,420	143,577	708,843	594,623	114,220	79,543	34,676
2014	733,191	274,660	458,531	330,034	128,497	115,398	13,099	869,392	153,412	715,980	595,396	120,583	85,122	35,461
2015	761,648	261,267	500,381	368,033	132,348	119,309	13,038	906,968	145,136	761,832	635,205	126,627	90,716	35,911
2016	748,340	237,789	510,551	371,663	138,888	126,211	12,677	931,963	124,504	807,460	674,402	133,058	95,933	37,125
2016 Dec	748,340	237,789	510,551	371,663	138,888	126,211	12,677	931,963	124,504	807,460	674,402	133,058	95,933	37,125
2017 Jan	752,958	235,258	517,700	380,068	137,632	125,029	12,604	936,221	120,397	815,824	689,166	126,659	89,129	37,530
Feb	747,595	228,425	519,170	377,934	141,236	128,239	12,997	943,381	121,211	822,170	689,721	132,448	94,191	38,257
Mar	771,527	228,776	542,751	391,878	150,873	138,047	12,826	973,574	123,684	849,890	710,107	139,783	101,848	37,935
Apr	747,178	216,494	530,683	385,883	144,800	131,859	12,941	952,807	118,386	834,421	699,917	134,504	96,593	37,911
May	744,973	211,907	533,067	390,300	142,766	129,785	12,981	950,119	115,441	834,678	701,809	132,869	94,790	38,078
EU member states [1]														
2013	589,286	264,271	325,014	237,949	87,066	76,539	10,527	713,044	129,044	583,999	504,337	79,663	53,340	26,323
2014	617,489	259,516	357,973	266,777	91,196	80,585	10,611	724,674	138,894	585,780	502,054	83,726	56,580	27,147
2015	626,482	243,139	383,344	289,190	94,153	83,665	10,488	743,011	134,564	608,448	524,316	84,132	58,384	25,748
2016	605,613	219,938	385,675	288,730	96,945	86,930	10,016	757,649	114,258	643,390	555,414	87,976	61,160	26,817
2016 Dec	605,613	219,938	385,675	288,730	96,945	86,930	10,016	757,649	114,258	643,390	555,414	87,976	61,160	26,817
2017 Jan	609,464	217,258	392,206	294,482	97,723	87,860	9,863	761,687	107,975	653,712	567,612	86,100	58,805	27,295
Feb	605,236	210,465	394,771	293,345	101,426	91,179	10,248	767,240	110,276	656,963	567,253	89,710	62,133	27,577
Mar	618,618	209,900	408,718	301,027	107,691	97,616	10,075	793,285	109,512	683,773	588,420	95,353	68,002	27,351
Apr	596,286	197,208	399,078	296,736	102,341	92,078	10,264	780,830	107,987	672,842	581,525	91,317	64,010	27,307
May	590,758	192,957	397,801	296,972	100,829	90,535	10,294	779,969	105,530	674,439	583,553	90,886	63,397	27,490
of which: Euro-area [2]														
2013	428,179	197,430	230,749	174,605	56,143	49,968	6,175	603,366	101,722	501,645	448,142	53,502	36,671	16,832
2014	456,469	204,043	252,426	194,207	58,219	51,999	6,220	606,525	107,694	498,831	444,401	54,430	37,498	16,932
2015	465,919	195,751	270,168	208,862	61,305	54,730	6,575	598,884	93,947	504,937	452,298	52,639	37,994	14,644
2016	445,368	167,575	277,794	213,498	64,295	57,575	6,721	609,399	75,639	533,760	477,891	55,869	41,068	14,801
2016 Dec	445,368	167,575	277,794	213,498	64,295	57,575	6,721	609,399	75,639	533,760	477,891	55,869	41,068	14,801
2017 Jan	444,996	165,652	279,345	214,462	64,882	58,182	6,700	613,663	73,752	539,911	485,880	54,031	39,036	14,995
Feb	443,805	161,817	281,989	215,485	66,504	59,343	7,161	622,955	77,170	545,785	488,796	56,989	41,686	15,303
Mar	449,986	158,004	291,982	221,726	70,256	63,246	7,010	638,661	72,629	566,032	504,951	61,081	45,743	15,338
Apr	437,053	149,207	287,846	220,490	67,356	60,187	7,169	631,496	70,909	560,587	501,343	59,244	43,966	15,279
May	435,468	150,007	285,460	219,175	66,285	59,169	7,116	627,627	66,964	560,663	501,712	58,951	43,585	15,366
Emerging economies and developing countries [3]														
2013	89,826	3,303	86,523	28,937	57,586	55,829	1,757	86,829	1,307	85,522	37,487	48,035	15,755	32,280
2014	100,400	4,849	95,551	35,193	60,358	58,659	1,699	90,439	1,153	89,285	40,931	48,354	17,003	31,352
2015	104,276	3,094	101,182	41,825	59,358	57,908	1,450	91,912	947	90,964	36,908	54,057	18,346	35,711
2016	106,063	2,647	103,416	41,192	62,224	60,727	1,497	90,708	1,401	89,307	34,132	55,175	19,875	35,300
2016 Dec	106,063	2,647	103,416	41,192	62,224	60,727	1,497	90,708	1,401	89,307	34,132	55,175	19,875	35,300
2017 Jan	107,458	2,600	104,858	42,799	62,059	60,441	1,618	89,304	1,382	87,922	33,872	54,050	18,681	35,369
Feb	110,007	2,942	107,064	43,359	63,705	62,113	1,593	92,355	1,446	90,909	34,276	56,633	19,625	37,008
Mar	115,050	2,761	112,289	46,112	66,177	64,627	1,551	91,237	1,457	89,780	33,396	56,384	19,857	36,527
Apr	115,444	2,541	112,903	46,758	66,145	64,554	1,591	91,597	1,613	89,984	32,735	57,249	20,475	36,774
May	114,324	2,665	111,659	44,658	67,001	65,337	1,664	91,271	1,273	89,999	31,991	58,007	20,687	37,321

* The assets and liabilities vis-à-vis non-residents of banks (MFIs) in Germany are shown in Table 4 of Section IV, "Banks". Statistical increases and decreases have not been eliminated; to this extent, the changes in totals are not comparable with the figures shown in Table XI.7. **1** From July 2013 including Croatia. **2** From January 2014 including Latvia; from January 2015 including Lithuania. **3** All countries that are not regarded as industrial countries. Up to June 2013 including Croatia. **r** Corrected.

XII External sector

10 ECB's euro foreign exchange reference rates of selected currencies *

EUR 1 = currency units ...

Yearly or monthly average	Australia AUD	Canada CAD	China CNY [1]	Denmark DKK	Japan JPY	Norway NOK	Sweden SEK	Switzerland CHF	United Kingdom GBP	United States USD
1999	1.6523	1.5840	.	7.4355	121.32	8.3104	8.8075	1.6003	0.65874	1.0658
2000	1.5889	1.3706	[2] 7.6168	7.4538	99.47	8.1129	8.4452	1.5579	0.60948	0.9236
2001	1.7319	1.3864	7.4131	7.4521	108.68	8.0484	9.2551	1.5105	0.62187	0.8956
2002	1.7376	1.4838	7.8265	7.4305	118.06	7.5086	9.1611	1.4670	0.62883	0.9456
2003	1.7379	1.5817	9.3626	7.4307	130.97	8.0033	9.1242	1.5212	0.69199	1.1312
2004	1.6905	1.6167	10.2967	7.4399	134.44	8.3697	9.1243	1.5438	0.67866	1.2439
2005	1.6320	1.5087	10.1955	7.4518	136.85	8.0092	9.2822	1.5483	0.68380	1.2441
2006	1.6668	1.4237	10.0096	7.4591	146.02	8.0472	9.2544	1.5729	0.68173	1.2556
2007	1.6348	1.4678	10.4178	7.4506	161.25	8.0165	9.2501	1.6427	0.68434	1.3705
2008	1.7416	1.5594	10.2236	7.4560	152.45	8.2237	9.6152	1.5874	0.79628	1.4708
2009	1.7727	1.5850	9.5277	7.4462	130.34	8.7278	10.6191	1.5100	0.89094	1.3948
2010	1.4423	1.3651	8.9712	7.4473	116.24	8.0043	9.5373	1.3803	0.85784	1.3257
2011	1.3484	1.3761	8.9960	7.4506	110.96	7.7934	9.0298	1.2326	0.86788	1.3920
2012	1.2407	1.2842	8.1052	7.4437	102.49	7.4751	8.7041	1.2053	0.81087	1.2848
2013	1.3777	1.3684	8.1646	7.4579	129.66	7.8067	8.6515	1.2311	0.84926	1.3281
2014	1.4719	1.4661	8.1857	7.4548	140.31	8.3544	9.0985	1.2146	0.80612	1.3285
2015	1.4777	1.4186	6.9733	7.4587	134.31	8.9496	9.3535	1.0679	0.72584	1.1095
2016	1.4883	1.4659	7.3522	7.4452	120.20	9.2906	9.4689	1.0902	0.81948	1.1069
2016 July	1.4694	1.4428	7.3910	7.4390	115.25	9.3690	9.4742	1.0867	0.84106	1.1069
Aug	1.4690	1.4557	7.4537	7.4408	113.49	9.3030	9.4913	1.0881	0.85521	1.1212
Sep	1.4768	1.4677	7.4819	7.4475	114.22	9.1971	9.5655	1.0919	0.85228	1.1212
Oct	1.4470	1.4594	7.4198	7.4402	114.47	9.0009	9.7073	1.0887	0.89390	1.1026
Nov	1.4331	1.4519	7.3883	7.4406	116.93	9.0807	9.8508	1.0758	0.86894	1.0799
Dec	1.4356	1.4070	7.2983	7.4362	122.39	9.0252	9.7095	1.0750	0.84441	1.0543
2017 Jan	1.4252	1.4032	7.3189	7.4355	122.14	8.9990	9.5110	1.0714	0.86100	1.0614
Feb	1.3886	1.3942	7.3143	7.4348	120.17	8.8603	9.4762	1.0660	0.85273	1.0643
Mar	1.4018	1.4306	7.3692	7.4356	120.68	9.0919	9.5279	1.0706	0.86560	1.0685
Apr	1.4241	1.4408	7.3892	7.4376	118.29	9.1993	9.5941	1.0727	0.84824	1.0723
May	1.4878	1.5041	7.6130	7.4400	124.09	9.4001	9.7097	1.0904	0.85554	1.1058
June	1.4861	1.4941	7.6459	7.4376	124.58	9.4992	9.7538	1.0874	0.87724	1.1229

***** Averages: Bundesbank calculations based on the daily euro foreign exchange reference rates published by the ECB; for additional euro foreign exchange reference rates, see Statistical Supplement 5, Exchange rate statistics. **1** Up to March 2005, ECB indicative rates. **2** Average from 13 January to 29 December 2000.

11 Euro area countries and irrevocable euro conversion rates in the third stage of European Economic and Monetary Union

From	Country	Currency	ISO currency code	EUR 1 = currency units ...
1999 January 1	Austria	Austrian schilling	ATS	13.7603
	Belgium	Belgian franc	BEF	40.3399
	Finland	Finnish markka	FIM	5.94573
	France	French franc	FRF	6.55957
	Germany	Deutsche Mark	DEM	1.95583
	Ireland	Irish pound	IEP	0.787564
	Italy	Italian lira	ITL	1,936.27
	Luxembourg	Luxembourg franc	LUF	40.3399
	Netherlands	Dutch guilder	NLG	2.20371
	Portugal	Portuguese escudo	PTE	200.482
	Spain	Spanish peseta	ESP	166.386
2001 January 1	Greece	Greek drachma	GRD	340.750
2007 January 1	Slovenia	Slovenian tolar	SIT	239.640
2008 January 1	Cyprus	Cyprus pound	CYP	0.585274
	Malta	Maltese lira	MTL	0.429300
2009 January 1	Slovakia	Slovak koruna	SKK	30.1260
2011 January 1	Estonia	Estonian kroon	EEK	15.6466
2014 January 1	Latvia	Latvian lats	LVL	0.702804
2015 January 1	Lithuania	Lithuanian litas	LTL	3.45280

XII External sector

12 Effective exchange rates of the Euro and indicators of the German economy's price competitiveness *

1999 Q1=100

Period	Effective exchange rate of the Euro						Indicators of the German economy's price competitiveness						
	EER-19 1				EER-38 2		Based on the deflators of total sales 3				Based on consumer price indices		
							26 selected industrial countries 5						
	Nominal	In real terms based on consumer price indices	In real terms based on the deflators of gross domestic product 3	In real terms based on unit labour costs of national economy 3	Nominal	In real terms based on consumer price indices 4	Total	Euro area countries	Non-euro area countries	37 countries 6	26 selected industrial countries 5	37 countries 6	56 countries 7
1999	96.3	96.0	96.1	95.9	96.5	95.8	97.8	99.5	95.8	97.6	98.2	98.0	97.7
2000	87.1	86.5	85.9	85.2	87.9	85.8	91.7	97.3	85.1	90.7	92.9	91.9	90.8
2001	87.8	87.1	86.5	86.1	90.5	86.9	91.5	96.4	85.9	90.0	92.9	91.4	90.8
2002	90.1	90.2	89.5	89.6	95.0	90.5	92.2	95.4	88.5	90.5	93.5	91.9	91.7
2003	100.7	101.3	100.4	100.8	106.9	101.4	95.6	94.5	97.6	94.7	97.1	96.5	96.7
2004	104.5	105.0	103.3	104.2	111.5	105.1	95.9	93.2	99.9	95.0	98.5	98.0	98.3
2005	102.9	103.5	101.1	102.2	109.5	102.5	94.7	91.9	99.0	92.8	98.5	96.9	96.6
2006	102.8	103.5	100.4	101.0	109.4	101.8	93.5	90.3	98.4	91.1	98.6	96.5	95.8
2007	106.3	106.2	102.3	103.2	112.9	103.8	94.4	89.4	102.4	91.4	100.9	97.9	97.0
2008	109.4	108.3	103.7	106.5	117.1	105.8	94.5	88.0	105.4	90.4	102.2	97.8	97.1
2009	110.8	109.0	104.5	111.3	120.0	106.8	94.7	88.8	104.6	91.0	101.8	98.0	97.5
2010	103.6	101.3	96.2	103.1	111.5	97.8	92.2	88.5	98.2	87.1	98.8	93.6	92.0
2011	103.3	100.2	94.1	101.8	112.2	97.2	91.8	88.2	97.6	86.2	98.2	92.8	91.3
2012	97.6	95.0	88.6	95.6	107.0	92.4	90.0	88.2	92.6	83.6	95.9	89.8	88.3
2013	101.2	98.2	91.7	98.7	111.9	95.5	92.4	88.7	98.4	85.6	98.3	91.6	90.2
2014	101.8	97.9	91.9	99.7	114.7	96.1	93.2	89.6	98.9	86.5	98.5	91.8	91.0
2015	92.4	88.4	83.7	89.5	106.5	p 87.8	90.7	90.5	90.6	83.0	94.7	86.9	p 86.3
2016	94.8	90.1	85.8	p 90.4	110.4	p 90.0	91.5	91.1	91.8	84.4	p 95.2	p 87.8	p 87.4
2014 July	102.3	98.2			114.7	95.9					98.7	92.2	91.1
Aug	101.5	97.5	91.1	99.1	114.0	95.3	92.9	89.6	98.1	86.2	98.4	91.8	90.7
Sep	99.9	95.9			112.3	93.9					98.0	91.0	89.9
Oct	99.1	95.0			111.8	93.2					97.6	90.4	89.4
Nov	99.0	94.9	89.6	97.2	111.9	93.2	92.7	89.9	97.0	85.5	97.7	90.4	89.5
Dec	99.0	94.8			113.1	93.9					97.6	90.3	89.8
2015 Jan	95.2	91.0			108.9	90.1					95.7	88.2	87.5
Feb	93.3	89.5	84.2	91.2	107.0	88.7	90.7	90.3	91.0	83.0	95.3	87.6	86.9
Mar	90.6	86.9			103.8	85.9					94.2	86.1	85.2
Apr	89.7	86.1			102.4	84.7					94.0	85.7	84.5
May	91.6	87.8	82.5	88.2	104.7	86.5	90.3	90.4	89.8	82.4	94.6	86.6	85.6
June	92.3	88.5			106.0	87.5					94.7	86.9	86.1
July	91.3	87.5			105.1	86.6					94.3	86.3	85.6
Aug	93.0	88.9	84.0	89.6	108.1	88.9	90.8	90.6	90.9	83.3	94.9	87.2	87.0
Sep	93.8	89.7			109.6	90.1					95.1	87.6	87.7
Oct	93.6	89.6			109.0	89.6					95.1	87.6	87.4
Nov	91.1	87.1	84.1	89.2	106.0	p 86.9	90.9	90.8	90.8	83.4	94.1	86.3	p 85.9
Dec	92.5	88.3			108.0	p 88.4					94.3	86.7	p 86.5
2016 Jan	93.6	89.1			109.9	p 89.6					94.5	87.2	p 87.3
Feb	94.7	90.0	85.5	p 90.3	111.3	p 90.8	91.4	91.1	91.6	84.2	95.0	87.5	p 87.7
Mar	94.1	89.5			110.0	p 89.8					95.0	87.4	p 87.2
Apr	94.8	90.1			110.6	p 90.2					95.3	87.8	p 87.5
May	95.1	90.5	85.9	p 90.5	111.1	p 90.7	91.5	91.2	91.7	84.5	95.2	88.1	p 87.9
June	94.7	90.3			110.5	p 90.3					94.9	87.8	p 87.5
July	94.9	90.4			110.2	p 89.9					95.2	87.9	p 87.3
Aug	95.2	90.6	86.0	p 90.5	110.6	p 90.2	91.6	91.1	92.1	84.5	95.4	88.0	p 87.5
Sep	95.4	90.7			110.9	p 90.3					95.5	88.0	p 87.6
Oct	95.5	90.8			110.6	p 90.1					95.8	88.2	p 87.5
Nov	95.0	90.2	85.6	p 90.1	110.3	p 89.7	91.5	91.1	91.9	84.3	95.2	87.7	p 87.1
Dec	94.2	89.6			109.2	p 89.0					p 95.2	p 87.7	p 87.0
2017 Jan	94.4	89.8			109.7	p 89.1					p 95.1	p 87.5	p 86.8
Feb	93.9	89.5	84.2	p 89.0	108.8	p 88.5	p 91.0	p 90.8	91.2	p 83.6	p 94.9	p 87.4	p 86.5
Mar	94.4	89.8			109.2	p 88.6					p 95.1	p 87.5	p 86.5
Apr	94.1	p 89.6			108.8	p 88.3					p 94.9	p 87.4	p 86.3
May	96.0	p 91.2	...	...	111.1	p 90.0	...	...	...	...	p 95.8	p 88.3	p 87.4
June	96.8	p 91.8			112.1	p 90.6					p 96.3	p 88.7	p 87.8

* The effective exchange rate corresponds to the weighted external value of the currency concerned. The method of calculating the indicators of the German economy's price competitiveness is consistent with the procedure used by the ECB to compute the effective exchange rates of the euro (see Monthly Report, November 2001, pp 50-53, May 2007, pp 31-35 and August 2015, pp 40-42). For more detailed information on methodology see the ECB's Occasional Paper No 134 (www.ecb.eu). A decline in the figures implies an increase in competitiveness. **1** ECB calculations are based on the weighted averages of the changes in the bilateral exchange rates of the euro against the currencies of the following countries: Australia, Bulgaria, Canada, China, Croatia, Czech Republic, Denmark, Hong Kong, Hungary, Japan, Norway, Poland, Romania, Singapore, South Korea, Sweden, Switzerland, the United Kingdom and the United States. Where current price and wage indices were not available, estimates were used. **2** ECB calculations. Includes countries belonging to the EER-19 group (see footnote 1) and additional Algeria, Argentina, Brazil, Chile, Iceland, India, Indonesia, Israel, Malaysia, Mexico, Morocco, New Zealand, Philippines, Russian Federation, South Africa, Taiwan, Thailand, Turkey and Venezuela. **3** Annual and quarterly averages. **4** Data for Argentina are currently not available due to the state of emergency in the national statistical system declared by the government of Argentina on 7 January 2016. As a consequence, Argentina is not included in the calculation of the EER-38 CPI deflated series from February 2016. The policy regarding the inclusion of Argentina will be reconsidered in the future depending on further developments. **5** Euro area countries (from 2001 including Greece, from 2007 including Slovenia, from 2008 including Cyprus and Malta, from 2009 including Slovakia, from 2011 including Estonia, from 2014 including Latvia, from 2015 including Lithuania) as well as Canada, Denmark, Japan, Norway, Sweden, Switzerland, the United Kingdom and the United States. **6** Euro area countries (see footnote 5) and countries belonging to the EER-19 group. **7** Euro area countries and countries belonging to the EER-38 group (see footnote 2).

Overview of publications by the Deutsche Bundesbank

This overview provides information about selected recent economic and statistical publications by the Deutsche Bundesbank. Unless otherwise indicated, these publications are available in both English and German, in printed form and on the Bundesbank's website.

The publications are available free of charge from the External Communication Division. Up-to-date figures for some statistical datasets are also available on the Bundesbank's website.

Annual Report

Financial Stability Review

Monthly Report

For information on the articles published between 2000 and 2016 see the index attached to the January 2017 Monthly Report.

Monthly Report articles

July 2016
- Evolution of the Bank Lending Survey since the onset of the financial crisis
- Approaches to resolving sovereign debt crises in the euro area
- Bank recovery and resolution – the new TLAC and MREL minimum requirements

August 2016
- The current economic situation in Germany

September 2016
- Distributional effects of monetary policy
- Globalisation and the transmission of global financial shocks to the euro-area countries – implications for (national) economic policy
- The performance of German credit institutions in 2015

October 2016
- Local government finances: Development and selected aspects
- Significance and impact of high-frequency trading in the German capital market

November 2016
- The current economic situation in Germany

December 2016
- Outlook for the German economy – macroeconomic projections for 2017 and 2018 and an outlook for 2019
- Wage dynamics amid high euro-area unemployment
- German enterprises' profitability and financing in 2015

January 2017
- The Eurosystem's bond purchases and the exchange rate of the euro
- Recent developments in the indebtedness of the private non-financial sector in selected euro-area countries

February 2017
- The current economic situation in Germany

March 2017
- German balance of payments in 2016
- Federal states' cyclical adjustment in the context of the debt brake

April 2017
- The role of banks, non-banks and the central bank in the money creation process
- Demographic change, immigration and the potential output of the German economy

May 2017
- The current economic situation in Germany

June 2017
- Outlook for the German economy – macroeconomic projections for 2017 and 2018 and an outlook for 2019
- Design and implementation of the European fiscal rules

July 2017
- The market for corporate bonds in the low-interest-rate environment
- The development of government interest expenditure in Germany and other euro area countries
- Return on private financial assets taking into account inflation and taxes
- The danger posed to the global economy by protectionist tendencies
- Changes to the MFI interest rate statistics

Statistical Supplements to the Monthly Report

1 Banking statistics[1, 2]
2 Capital market statistics[1, 2]
3 Balance of payments statistics[1, 2]
4 Seasonally adjusted business statistics[1, 2]
5 Exchange rate statistics[2]

Special Publications

Makro-ökonometrisches Mehr-Länder-Modell, November 1996[3]

Europäische Organisationen und Gremien im Bereich von Währung und Wirtschaft, May 1997[3]

Die Zahlungsbilanz der ehemaligen DDR 1975 bis 1989, August 1999[3]

The market for German Federal securities, May 2000

Macro-Econometric Multi-Country Model: MEMMOD, June 2000

Bundesbank Act, September 2002

Weltweite Organisationen und Gremien im Bereich von Währung und Wirtschaft, March 2013[3]

Die Europäische Union: Grundlagen und Politikbereiche außerhalb der Wirtschafts- und Währungsunion, April 2005[3]

Die Deutsche Bundesbank – Aufgabenfelder, rechtlicher Rahmen, Geschichte, April 2006[3]

European economic and monetary union, April 2008

For footnotes, see p 86•.

Special Statistical Publications

1 Banking statistics guidelines, January 2017[2, 4]

2 Banking statistics customer classification, January 2017[2]

3 Aufbau der bankstatistischen Tabellen, July 2013[2, 3]

4 Financial accounts for Germany 2011 to 2016, May 2017[2]

5 Extrapolated results from financial statements of German enterprises 1997 to 2015, December 2016[2]

6 Verhältniszahlen aus Jahresabschlüssen deutscher Unternehmen von 2013 bis 2014, May 2017[2, 3]

7 Notes on the coding list for the balance of payments statistics, September 2013[2]

8 The balance of payments statistics of the Federal Republic of Germany, 2nd edition, February 1991[o]

9 Securities deposits, August 2005

10 Foreign direct investment stock statistics, April 2017[1, 2]

11 Balance of payments by region, July 2013

12 Technologische Dienstleistungen in der Zahlungsbilanz, June 2011[3]

Discussion Papers*

13/2017
Asymmetric arbitrage trading on offshore and onshore renminbi markets

14/2017
The effect of investing abroad on investment at home: On the role of technology, tax savings, and internal capital markets

15/2017
M-PRESS-CreditRisk: A holistic micro- and macroprudential approach to capital requirements

16/2017
CDS and credit: Testing the small bang theory of the financial universe with micro data

17/2017
Financial crises and the dynamic linkages between stock and bond returns

18/2017
Google data in bridge equation models for German GDP

19/2017
Banks' trading after the Lehman crisis – The role of unconventional monetary policy

20/2017
The Fisher paradox: A primer

21/2017
Interest-rate pegs, central bank asset purchases and the reversal puzzle

22/2017
The optimal conduct of central bank asset purchases

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o Not available on the website.
* As of 2000 these publications have been made available on the Bundesbank's website in German and English. Since the beginning of 2012, no longer subdivided into series 1 and series 2.
For footnotes, see p 86•.

Banking legislation

1 Bundesbank Act, July 2013, and Statute of the European System of Central Banks and of the European Central Bank, June 1998

2 Banking Act, July 2014[2]

2a Solvency Regulation, December 2006[2]
Liquidity Regulation, December 2006[2]

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1 Only the headings and explanatory notes to the data contained in the German originals are available in English.
2 Available on the website only.
3 Available in German only.
4 Only some parts of the Special Statistical Publications are provided in English. The date refers to the German issue, which may be of a more recent date than the English one.