



# Monthly Report

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### 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 Data unknown, not to be published or not meaningful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 likely to have grown moderately in Q1 buoyed by one-off effects*

The German economy is likely to have grown moderately in the first quarter of 2019. Domestic one-off effects were likely to have been a key factor here, however. The already booming construction sector benefited additionally from the favourable weather in February. Furthermore, private consumption has probably emerged from the weak spell seen in the second half of 2018. It was buoyed by the fiscal measures entering into force at the turn of the year which enhanced consumers' scope for spending. This is reflected in the recent significant rise in retail sales. Additional boosts to private consumption probably came from brisk passenger car sales. Consumers evidently caught up on new car purchases, which they had postponed in the autumn due to the limited range of models on offer. The automotive industry was hit by difficulties with the introduction of a new emissions test procedure (Worldwide Harmonised Light Vehicles Test Procedure: WLTP) at the time. However, not taking these one-off effects into consideration, the underlying trend of the German economy remains subdued. This is mainly due to the protracted downturn in industrial activity, with new orders plummeting towards the end of the period under review and sentiment among enterprises becoming even gloomier, according to the ifo Institute.

#### Industry

*Industrial output lacklustre*

Industrial output remained lacklustre in February 2019 and after seasonal adjustment was down slightly by ¼% on the month. The figure for January had been revised upwards distinctly but on an average of January and February industrial output was still perceptibly lower than the level of the previous quarter (-½%). There

was a relatively broad decline in industrial production but German manufacturers of machinery had to cope with particularly significant losses of output. Output in the automotive industry was also down distinctly on the fourth quarter of 2018. Data on the numbers of manufactured passenger cars (available to March) provided by the German Association of the Automotive Industry (VDA) indicated a contraction in the seasonally adjusted output of motor vehicles on an average of the first quarter of 2019 overall. This would mean no notable catch-up effects in the sector following extensive output losses in the second half of 2018 in the wake of the introduction of the WLTP test. The normalisation was obviously masked by weaker global demand for motor vehicles. Domestic passenger car production may also have recently been shifted to other European countries. Overall, the production of capital, intermediate and consumer goods declined fairly evenly across the board in January and February compared with the previous quarter.

German industrial orders suffered a strong setback in February 2019 and slumped by 4¼% on the previous month in seasonally adjusted terms. Looking at January and February in aggregate, incoming orders were also down substantially on the previous quarter (-3¾%). There was a particularly strong decline (-6½%) in demand for German products in non-euro area countries, with orders for motor vehicles especially hard hit (-13¼%). By contrast, motor vehicle orders in euro area countries (+6%) and in Germany (+3¼%) provided positive momentum. These increases are probably in connection with WLTP-related catch-up effects after motor vehicle orders were down significantly around the middle of 2018 as a result of the new EU-wide emissions tests. Nevertheless, German industrial enterprises reported a steep decline in orders from the euro area overall (-4½%). The decrease in domestic orders was

*Steep fall in industrial new orders*

## Economic conditions in Germany\*

Seasonally adjusted

Period	Orders received (volume); 2015 = 100			
	Industry			Main construction
	Total	of which:		
Domestic		Foreign		
2018 Q2	108.0	102.7	112.0	117.7
Q3	106.9	103.5	109.5	119.1
Q4	107.4	103.3	110.5	131.0
Dec.	107.9	104.5	110.4	142.7
2019 Jan.	105.6	103.0	107.5	131.4
Feb.	101.2	101.4	101.0	...
Period	Output; 2015 = 100			
	Industry			Construction
	Total	of which:		
Intermediate goods		Capital goods		
2018 Q2	107.3	106.3	107.7	112.4
Q3	105.6	105.3	104.7	108.0
Q4	104.5	104.6	104.9	108.9
Dec.	104.6	104.7	105.7	108.7
2019 Jan.	104.1	104.3	104.2	109.7
Feb.	103.9	103.7	104.8	117.2
Period	Foreign trade; € billion			Memo item: Current account balance in € billion
	Exports	Imports	Balance	
	2018 Q2	331.21	271.62	59.59
Q3	330.61	277.88	52.73	55.05
Q4	333.70	277.56	56.14	64.08
Dec.	112.35	92.50	19.85	20.92
2019 Jan.	112.42	93.82	18.60	23.19
Feb.	110.94	92.28	18.66	18.24
Period	Labour market			
	Employment	Vacancies <sup>1</sup>	Unemployment	Unemployment rate %
	Number in thousands			
2018 Q3	44,886	804	2,322	5.1
Q4	45,002	803	2,276	5.0
2019 Q1	...	806	2,243	5.0
Jan.	45,126	804	2,258	5.0
Feb.	45,165	805	2,238	5.0
Mar.	...	807	2,231	4.9
Period	Prices; 2015 = 100			
	Import prices	Producer prices of industrial products	Construction prices <sup>2</sup>	Harmonised consumer prices
	2018 Q3	103.6	104.2	111.0
Q4	103.7	105.0	112.0	104.8
2019 Q1	...	...	114.0	104.6
Jan.	102.1	105.2	.	104.5
Feb.	102.3	105.0	.	104.7
Mar.	...	...	.	104.7

\* 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.

Deutsche Bundesbank

smaller (-1%). With regard to the individual sectors, the capital goods sector saw the strongest contraction in orders (-4¾%). That said, intermediate and consumer goods producers received significantly fewer new orders, too (-2½% and -1½% respectively).

In February 2019, German industrial sales were significantly lower in terms of value, with nominal sales down by 1% on the month after seasonal adjustment. However, on an average of January and February, they did not match the lacklustre industrial output but rose steeply compared with the fourth quarter of 2018 (+1¼%). This was largely attributable to the strong growth in non-euro area countries. By contrast, sales in the euro area failed to surpass the level of the previous quarter. In Germany, sales rose to the same extent as the average of the various regions. With regard to the individual sectors, sales in the capital goods sector showed particularly strong growth against the background of brisk motor vehicle sales. Significantly more modest growth in sales was recorded by manufacturers of consumer goods. Sales in the intermediate goods sector were even down distinctly on the previous quarter. In line with the path followed by sales, nominal goods exports in February 2019 declined substantially on the month in seasonally adjusted terms (-1¼%). Looking at January and February together, however, they increased perceptibly (+½%) in quarter-on-quarter terms. After adjustment for price effects, there was a somewhat stronger rise (+¾%). In February, nominal imports of goods were also down steeply on the previous month's level in seasonally adjusted terms (-1¾%) but they rose distinctly in January and February compared with the previous quarter (+½%). At 2%, growth was much greater still when adjusted for price effects. This discrepancy is attributable to the decline in prices for energy imports at the turn of the year.

*Industrial sales and exports of goods down substantially in February*

## Construction industry

*Construction output up very sharply in February due to favourable weather*

Construction output rose very sharply in February 2019, and was up by 6¾% on the previous month in seasonally adjusted terms. However, a key reason for this increase is probably the particularly favourable weather in the reporting month. On an average of January and February, construction output was likewise up quite considerably on the previous quarter (+4¼%). Activity in the main construction sector and the finishing trades grew on a comparable scale (+4½% and +4% respectively). Even leaving aside the positive weather effects, the brisk construction activity in Germany is expected to continue. New orders received by the main construction sector in January 2019 – data are available up to this date – even rose slightly (+¼%) compared with the exceptionally strong previous quarter, which had been boosted by large orders. The excellent shape of construction activity is also reflected in equipment utilisation in the sector which, according to the ifo Institute, climbed to a new record high in March.

expansionary, although the ifo employment barometer relinquished its very high level in March. This was mainly attributable to the economic downturn in the manufacturing sector. At the same time, the macroeconomic indicators for labour market tightness remain very high.

Registered unemployment showed only a slight decline in March. The Federal Employment Agency reported 2.23 million unemployed persons after seasonal adjustment, 7,000 fewer than in February. The unemployment rate fell by 0.1 percentage point to 4.9%. The number of unemployed persons was down by 157,000 on the same month last year. Almost all of this decline is attributable to unemployed persons receiving the basic welfare allowance, who benefit from the low probability of being long-term unemployed. By contrast, the inflows and outflows amongst unemployed persons claiming insurance benefits largely balanced each other out. The unemployment barometer of the Institute for Employment Research (IAB) continued to fall and is in neutral territory, which suggests unemployment will remain unchanged overall in the next three months.

*Only slight decline in unemployment*

## Labour market

*Further significant employment growth*

The labour market is so far proving to be very robust in the face of the slowdown in economic activity. Employment growth was less strong in February than in the previous month, but still considerable. After seasonal adjustment, the total number of persons in work in February overall rose by 39,000 on the month. Employment was up by 482,000 persons, or 1.1%, in comparison to the same month in the previous year. The increase is largely a result of the continued steep expansion in the number of employees subject to social security contributions which, according to data as at January 2019, was up by as much as 660,000 compared to the same month of the previous year. By contrast, the number of self-employed persons and persons working exclusively in low-paid part-time jobs continued to go down. The leading indicators of labour demand are still

## Prices

Crude oil prices continued to rise in March due to supply cutbacks made by the OPEC nations and production outages in Venezuela. They were 3½% higher than in February, matching the previous year's level again. As this report went to press, the price of a barrel of Brent crude oil stood at US\$71. The discount on crude oil futures was US\$1¾ for deliveries six months ahead and US\$3¼ for deliveries 12 months ahead.

*Crude oil prices continue to rise*

Import prices rose slightly in February. Energy prices, which are strongly geared to the crude oil price, were a driving force here, while they had a dampening effect on industrial producer prices in domestic sales due to energy produced in Germany playing an increasingly im-

*Higher import prices, lower producer prices*

portant role. Industrial producer prices therefore declined somewhat overall but continued their slight upward trend when excluding energy. The year-on-year increase grew to 1½% in the case of import prices and held steady at just above 2½% in the case of producer prices.

*Consumer prices unchanged*

In March, consumer prices (HICP) remained unchanged in seasonally adjusted terms, after having risen slightly in the previous month. While energy and services including rents became more expensive, food prices went down somewhat. Prices for industrial goods excluding energy declined perceptibly due to the fact that price inflation for clothing was weaker than it usually is in March. Annual headline HICP inflation decreased from +1.7% to +1.4% (CPI +1.3% from +1.5%), and the rate excluding energy and food was down from +1.6% to +1.0%. As this decline was partly due to the date of Easter falling later this year than last and to the development of the volatile component of clothing, it is likely to be temporary.

## ■ Public finances

### Local government finances

*Surplus high again in 2018 amid continued dynamic growth in tax revenue ...*

In 2018, local government core budgets and off-budget entities posted a surplus of just under €10 billion, down by €1 billion on the very high level from the previous year. Overall, revenue went up by 4½%. Dynamic growth in tax revenue amounted to 5½% and was in line with local business tax, which is a particularly large revenue item. Furthermore, shares in income tax and in turnover tax – the latter being increased by a transfer from central government – gave revenue a notable boost. Receipts from fees likewise shot up. By contrast, overall, transfers from state government grew at a slightly slower pace than total revenue. On the whole, state government refunded less for various items of current expenditure, also as a result of declining benefits for asylum seekers.

At 5%, expenditure grew somewhat faster than revenue, with the large expenditure items – staff costs (+5%) and other operating expenditure (+4½%) – making a notable contribution. The rise in staff costs was driven by a distinct increase in negotiated wages and evidently a further stepping up of staffing levels. Investment in fixed assets even climbed by 13%. This is likely due to catch-up effects following a stagnation in construction investment last year. However, there was virtually no change in spending on social benefits. While payments of social assistance to persons who are unable to work continued to rise considerably, this was offset by another sharp decline in benefits for asylum seekers and a fall in the accommodation costs for recipients of unemployment benefit II. Interest expenditure plummeted again.

Surpluses are expected to continue falling this year and in the years thereafter. This is due to two factors. First, the expected cyclical slowdown will rein in growth in tax revenue. However, this will be counterbalanced when the increased share of local business tax (€4 billion) no longer has to be transferred to state government as of next year. These payments from western German municipalities were introduced to co-finance the costs of reunification. Second, expenditure growth is likely to remain dynamic, driven by measures to improve transport infrastructure, schools and childcare. Such measures will only be co-financed in part by central and state government. Moreover, burdens arising from social benefits are set to increase again in the future.

In 2018, local government debt fell considerably, by €7½ billion to just under €135 billion. This is mainly attributable to the fact that the “Hessenkasse” fund established by the federal state of Hesse has assumed almost all cash advances accrued by the state’s municipalities (€5 billion). Cash advances are actually intended to bridge liquidity shortfalls over the course of the year but have also been used for permanent financing. Overreliance on cash

*... and, overall, a steep increase in expenditure on staff, other operating expenditure and, in particular, investment*

*Surpluses to fall further in the medium term due to a slowdown in revenue growth amid a continued increase in expenditure*

*“Hessenkasse” fund responsible for sharp debt reduction in 2018; surplus mostly used to top up reserves*



advances shows that many local governments have highly strained budgets. In addition to the impact of the "Hessenkasse" fund, outstanding cash advances fell by a further €1½ billion to just over €37 billion. Despite downward trends, local governments in Saarland, Rhineland-Palatinate and North Rhine-Westphalia, however, still recorded high per capita levels of cash advances. Credit market debt (€94 billion) and public sector debt (€3½ billion) contracted only slightly. On balance, only around one-quarter of the cash surplus has been used to repay debt. Many local governments therefore appear to have used the remaining amount to significantly top up reserves, making provisions for tougher times.

## ■ Securities markets

### Bond market

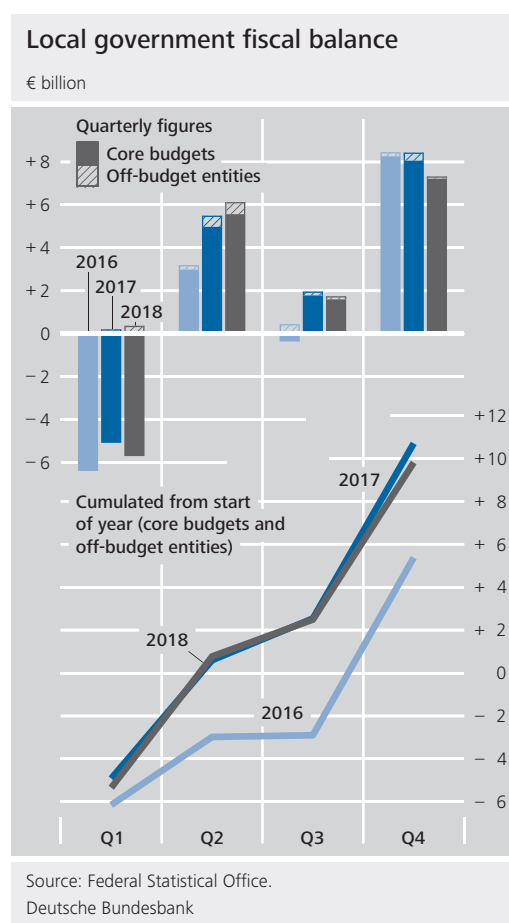
*Net issuance in the German bond market*

At €127.3 billion, gross issuance in the German bond market in February 2019 came in slightly below the January figure (€129.8 billion). After deducting redemptions, which were down on the previous month, and taking account of changes in issuers' holdings of their own debt securities, the outstanding volume of domestic bonds grew by €13.7 billion. Foreign debt securities worth €12.8 billion net were placed in the German market, causing the outstanding volume of debt securities in Germany to rise by €26.5 billion on balance.

*Rise in credit institutions' capital market debt*

In the month under review, credit institutions issued debt securities worth €16.8 billion net, compared with €8.4 billion one month earlier. On balance, these mostly took the form of debt securities issued by specialised credit institutions, the outstanding volume of which rose by €8.6 billion. Moreover, a net €5.2 billion worth of other bank debt securities and a net €2.9 billion worth of mortgage Pfandbriefe were also placed in the market.

Domestic enterprises augmented their capital market debt by €2.0 billion in February, up



from €1.3 billion in the previous month. On balance, this exclusively involved bonds with a maturity of more than one year being issued, the majority of which emanated from non-financial corporations.

*Net issuance by enterprises*

By contrast, the public sector reduced its holdings of bond market liabilities by €5.2 billion net in the reporting month, down from a net issuance of €10.6 billion in January. While central government primarily redeemed five-year Federal notes (Bobs) worth €11.7 billion net, it also redeemed Treasury discount paper (Bubills), though to a lesser extent (€3.3 billion). This contrasted with net issuance of two-year Federal treasury notes (Schätze, €5.2 billion) and of ten-year and 30-year Federal bonds (Bunds, €3.1 billion and €2.2 billion respectively). State and local governments issued securities with a net value of €2.4 billion.

*Fall in public sector capital market debt*

Foreign investors were the main purchasers in February, adding domestic debt securities with

*Purchases of debt securities*

Sales and purchases of debt securities			
€ billion			
Item	2018	2019	
	February	January	February
Sales			
Domestic debt securities <sup>1</sup>	5.3	20.3	13.7
of which:			
Bank debt securities	12.7	8.4	16.8
Public debt securities	-9.5	10.6	-5.2
Foreign debt securities <sup>2</sup>	-1.9	14.0	12.8
Purchases			
Residents	-4.8	9.3	14.1
Credit institutions <sup>3</sup>	-5.0	1.5	7.2
Deutsche Bundesbank	5.7	-1.7	-2.0
Other sectors <sup>4</sup>	-5.5	9.5	8.9
of which:			
Domestic debt securities	-3.9	-3.3	1.2
Non-residents <sup>2</sup>	3.7	25.0	12.4
Total sales/purchases	3.3	34.3	26.5

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.  
 Deutsche Bundesbank

## Mutual funds

In February, the inflows recorded by domestic mutual funds exceeded those seen in January (€8.7 billion, compared with €7.7 billion). The bulk of these fresh funds benefited specialised funds reserved for institutional investors (€7.5 billion). Among the various asset classes, mixed securities-based funds and bond-based funds were the key beneficiaries of inflows (€3.5 billion and €2.7 billion respectively), though open-end real estate funds and funds of funds also saw new funds injected (€0.9 billion each). The volume of foreign investment fund shares in the German market rose by €3.4 billion in February. German non-banks were almost the sole net buyers of investment fund shares (€13.4 billion). In net terms, domestic credit institutions purchased shares for €0.7 billion, while foreign investors offloaded €2.0 billion worth of German shares.

*German mutual funds record inflows*

a net value of €12.4 billion to their portfolios. Domestic non-banks and German credit institutions acquired bonds to the tune of €8.9 billion and €7.3 billion net respectively, their chief focus being on foreign securities in both instances. The Bundesbank's bond portfolio, on the other hand, shrank by a net €2.0 billion, owing to operational reasons.

## Equity market

In the month under review, new shares worth €1.3 billion were issued in the German equity market. Over the same period, the outstanding volume of foreign shares in Germany increased by €1.2 billion. Domestic non-banks dominated the buyers' side of the market in February, acquiring shares worth €2.5 billion net. Conversely, non-resident investors and domestic credit institutions sold equities in the amount of €0.8 billion and €0.4 billion net respectively.

*Net issuance in German stock market*

## Balance of payments

Germany's current account recorded a surplus of €16.3 billion in February 2019, putting it €2.6 billion below the previous month's level. Although the surplus in the goods account expanded, the balance in invisible current transactions, which comprises the services account as well as primary and secondary income, narrowed to a much greater degree.

*Decrease in current account surplus*

In the reporting month, the surplus in the goods account increased by €3.2 billion on the month to €19.1 billion. While exports of goods contracted, not least as a result of lower net exports under merchanting, the decline in imports of goods was nonetheless more substantial.

*Increase in goods account surplus*

Germany recorded a deficit of €2.8 billion in invisible current transactions in February, compared with a surplus of €3.0 billion in January. This turnaround arose from declining balances in the primary and secondary income. Net receipts in the primary income account fell by

*Balance of invisible current transactions lower*

€2.9 billion to €6.2 billion, largely on the back of higher dividend payments on portfolio investments by non-residents. The deficit in the secondary income account widened by €2.9 billion to stand at €7.9 billion. The result in the primary income account was primarily generated by higher payments to the EU budget stemming from financing related to gross national income. By contrast, the deficit in the services account remained virtually unchanged at €1.1 billion, with both sides of the balance sheet becoming shortened in almost equal measure. Looking at the comparatively small shifts recorded in individual items, decreases dominated on both the revenue and the expenditure side, notably in the area of other business related services and transport.

*Net capital exports in portfolio investment and ...*

In February 2019, the international financial markets were influenced, on the one hand, by a reduced sense of uncertainty – not least with respect to the trade dispute between the United States and China – and, on the other hand, by heightened expectations of a continued accommodative monetary policy stance in the euro area. Against this backdrop, Germany's cross-border portfolio investment generated net capital exports in the amount of €7.6 billion, compared with net capital imports of €1.1 billion in January. This resulted mainly from the fact that domestic investors acquired foreign securities to the tune of €16.6 billion net, with a special appetite for investment fund shares (€3.4 billion) and bonds (€12.5 billion), particularly those denominated in euro. On a lesser scale, they also purchased foreign shares (€0.4 billion) and money market paper (€0.3 billion). Meanwhile, foreign investors invested a net €9.0 billion in German securities, focusing on – for the most part, private – bonds (€17.0 billion). Conversely, they parted with money market paper (€4.6 billion), investment fund shares (€2.0 billion) and shares (€1.4 billion).

*... in direct investment*

Direct investment generated net capital exports of €5.3 billion in February, down from €12.3 billion one month earlier. German enterprises

## Major items of the balance of payments

€ billion

Item	2018		2019	
	Feb.	Jan.	Jan.	Feb.P
<b>I. Current account</b>	+ 19.5	+ 18.8	+ 16.3	
1. Goods <sup>1</sup>	+ 19.1	+ 15.8	+ 19.1	
Exports (f.o.b.)	103.7	109.2	107.7	
Imports (f.o.b.)	84.6	93.4	88.6	
Memo item:				
Foreign trade <sup>2</sup>	+ 18.3	+ 14.6	+ 17.9	
Exports (f.o.b.)	104.7	108.9	108.8	
Imports (c.i.f.)	86.5	94.3	90.9	
2. Services <sup>3</sup>	- 0.8	- 1.1	- 1.1	
Receipts	20.9	23.2	21.8	
Expenditure	21.6	24.3	22.9	
3. Primary income	+ 6.5	+ 9.1	+ 6.2	
Receipts	16.9	17.4	16.5	
Expenditure	10.4	8.3	10.3	
4. Secondary income	- 5.3	- 5.0	- 7.9	
<b>II. Capital account</b>	+ 0.3	+ 2.1	+ 0.3	
<b>III. Financial account</b>				
(increase: +)	+ 13.9	+ 15.2	+ 29.2	
1. Direct investment	+ 4.0	+ 12.3	+ 5.3	
Domestic investment abroad	+ 14.1	+ 16.0	+ 12.8	
Foreign investment in the reporting country	+ 10.1	+ 3.7	+ 7.5	
2. Portfolio investment	- 5.7	- 1.1	+ 7.6	
Domestic investment in foreign securities	+ 2.2	+ 21.2	+ 16.6	
Shares <sup>4</sup>	+ 3.9	+ 3.3	+ 0.4	
Investment fund shares <sup>5</sup>	+ 0.2	+ 3.9	+ 3.4	
Long-term debt securities <sup>6</sup>	- 1.8	+ 8.6	+ 12.5	
Short-term debt securities <sup>7</sup>	- 0.1	+ 5.4	+ 0.3	
Foreign investment in domestic securities	+ 7.9	+ 22.4	+ 9.0	
Shares <sup>4</sup>	- 0.2	- 1.6	- 1.4	
Investment fund shares	- 0.0	- 1.1	- 2.0	
Long-term debt securities <sup>6</sup>	- 3.4	+ 15.3	+ 17.0	
Short-term debt securities <sup>7</sup>	+ 11.5	+ 9.7	- 4.6	
3. Financial derivatives <sup>8</sup>	+ 2.9	+ 0.8	+ 4.2	
4. Other investment <sup>9</sup>	+ 12.2	+ 3.2	+ 12.0	
Monetary financial institutions <sup>10</sup>	+ 8.4	- 29.5	- 9.8	
of which:				
Short-term	+ 5.3	- 33.3	- 13.8	
Enterprises and households <sup>11</sup>	- 0.9	- 6.1	+ 8.5	
General government	- 7.4	+ 4.7	- 7.2	
Bundesbank	+ 12.1	+ 34.1	+ 20.5	
5. Reserve assets	+ 0.6	+ 0.2	+ 0.1	
<b>IV. Errors and omissions<sup>12</sup></b>	- 5.9	- 5.7	+ 12.6	

<sup>1</sup> Excluding freight and insurance costs of foreign trade. <sup>2</sup> Special trade according to the official foreign trade statistics (source: Federal Statistical Office). <sup>3</sup> Including freight and insurance costs of foreign trade. <sup>4</sup> Including participation certificates. <sup>5</sup> Including reinvestment of earnings. <sup>6</sup> Long-term: original maturity of more than one year or unlimited. <sup>7</sup> Short-term: original maturity of up to one year. <sup>8</sup> Balance of transactions arising from options and financial futures contracts as well as employee stock options. <sup>9</sup> Includes, in particular, loans and trade credits as well as currency and deposits. <sup>10</sup> Excluding the Bundesbank. <sup>11</sup> Includes the following sectors: financial corporations (excluding monetary financial institutions) as well as non-financial corporations, households and non-profit institutions serving households. <sup>12</sup> 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.

channelled funds to their foreign affiliates totalling €12.8 billion net, on the one hand by means of intra-group lending (€7.6 billion), particularly via short-term loans, and, on the other, by bolstering their equity capital abroad by €5.2 billion, of which €2.9 billion took the form of reinvested earnings. Alongside this, foreign enterprises stepped up their direct investment in Germany by €7.5 billion, with intra-group lending accounting for more than half of the total amount (€4.6 billion). This stemmed chiefly from financial credits granted by foreign subsidiaries to their German parent companies (reverse flows), which came to €7.6 billion. On top of this, foreign enterprises boosted their equity capital in Germany by €2.9 billion.

*Other investment also records capital outflows*

Other statistically recorded investment, comprising loans and trade credits (where these do not constitute direct investment), bank deposits

and other investment, saw capital in the amount of €12.0 billion net flow abroad in February (€3.2 billion in January), caused by net capital exports on the part of the banking system totalling €10.8 billion. In this connection, the Bundesbank's net claims rose by €20.5 billion, with a decline in deposits held by non-euro area residents playing a significant role. TARGET2 claims were up by €4.6 billion in February, whereas monetary financial institutions (MFIs) posted inflows in the amount of €9.8 billion, doing so by scaling back their external assets. General government likewise experienced inflows of funds (€7.2 billion), while enterprises and individuals saw capital outflows (€8.5 billion).

The Bundesbank's reserve assets grew slightly by €0.1 billion (at transaction values) in February.

*Reserve assets*

## Household wealth and finances in Germany: results of the 2017 survey

*Every three years, the Bundesbank conducts a survey of German households' wealth and debt entitled the "Panel on Household Finances (PHF)". The collected data feed into studies of monetary and financial stability policy and form the basis of research projects and analyses both within and outside of the Bundesbank. Almost 5,000 households participated in the 2017 survey. Around two-thirds of these households were taking part for the second or third time.*

*The results for 2017 show that household wealth increased on a broad front between 2014 and 2017. Both average net wealth and the median value increased significantly. The net wealth of real estate owners, in particular, has risen owing to higher real estate prices. However, the wealth of many tenant households and households in the poorer half of the distribution has also grown. Higher incomes, in particular, are contributing to the positive wealth developments of these households by putting them in a position to save more money and reducing their need to take out new consumer loans.*

*Although some metrics of the inequality of wealth distribution declined slightly compared with the previous survey, overall, no clear trend is evident in relation to earlier surveys.*

*The share of indebted households and the percentage of households with negative net wealth changed only marginally between 2010 and 2017. The pressure on households from interest on loans decreased during the same period. A much smaller share of indebted households' income was consumed by interest payments on loans in 2017 than in 2010.*

*This article describes the composition and distribution of household wealth and debt in Germany. Other factors such as public finances, public pension provision, and access to education or the healthcare system, to name just a few, also play a role when it comes to forming a more comprehensive assessment of the financial situation or indeed the welfare of households.*

## ■ Introduction

This article presents selected results of the 2017 survey on household wealth and finances in Germany in 2017. As the Bundesbank had already conducted surveys on the wealth, debt and income of households in Germany as well as their saving and investment behaviour back in 2010 and 2014, a comparison can also be drawn across the years.

The present article limits itself to describing the distribution and composition of households' wealth. As a general rule, these statistics alone do not allow any conclusions to be drawn about possible causal relationships. Further analysis is required for this. The study "Panel on Household Finances (PHF)" was therefore designed from the outset with a view to academic research both within and outside of the Bundesbank. The anonymised microdatasets may be requested from the Bundesbank's Research Data and Service Centre for academic research projects. They are currently being used by over 200 researchers in more than 140 projects.

## ■ Wealth distribution in Germany in 2017

Wealth distribution can be characterised using various statistical parameters. These include, for example, the relationships between the mean and median, Gini coefficients and wealthy households' share of total net wealth.

In order to calculate the ratio between mean and median wealth, average (mean) wealth must first be determined. In 2017, according to the PHF study, households in Germany possessed average gross wealth of €262,500<sup>1</sup> and average net wealth of €232,800 following deduction of debt.

If households are grouped in ascending order according to their net wealth, the median can be determined, amongst other things. This value divides households into a wealthier half

and a poorer half.<sup>2</sup> At €86,400 for gross wealth and €70,800 for net wealth, the median values were significantly lower than the average values in 2017.

Examining the relationship between the median and mean values, it emerges that average net wealth is more than three times as high as median net wealth. This high value is already an indication that net wealth is unevenly distributed in Germany.<sup>3</sup>

The cut-off point at which a household can be counted among the wealthiest 10% in Germany can also be determined by ranking households according to net wealth. This limit, known as the 90th percentile, stood at €621,000 for gross wealth and €555,400 for net wealth.

Another measure of inequality in a distribution is the ratio of the 90th percentile to the median. The higher the value, the more steeply the net wealth of households in the middle of the distribution would have to rise in order for them to rank among the wealthiest 10% of households. In terms of net wealth, the cut-off between the wealthiest 10% and all other households is roughly eight times higher than the median. By way of comparison, this ratio for the euro area as a whole was five in 2014, the last year for which data are available.

Similarly, the Gini coefficient<sup>4</sup> for net wealth – a classic measure of inequality – also indicates a

*Net wealth unevenly distributed*

*Median net wealth totals €70,800 in 2017*

<sup>1</sup> These and all other values in this article are expressed in nominal terms unless stated otherwise; i.e. they have not been adjusted for inflation.

<sup>2</sup> Based on the sequence of the households sorted according to wealth, further parameters can be deduced (known as quantiles). A breakdown into ten equal parts yields the deciles.

<sup>3</sup> Mean net wealth is strongly influenced by extreme values. A high ratio between the median and the mean therefore suggests that wealth in the upper part of the distribution is considerably greater than in the middle.

<sup>4</sup> The Gini coefficient generally assumes values between 0% and 100%, with 0% representing a perfectly even distribution and 100% signifying maximum inequality. The closer the figure is to 100%, the more uneven the distribution. If negative values are also included in the calculation, the Gini coefficient can also assume a value of over 100%.

## The definition of wealth in the “Panel on household finances” (PHF)

The PHF study aims to compile and present detailed information on households’ wealth<sup>1</sup> in Germany. The PHF’s definition of wealth is therefore designed to capture both the assets and liabilities on households’ balance sheets. The assets side (gross wealth) consists of non-financial assets and financial assets. On the liabilities side, assets are contrasted with liabilities, i.e. loans secured by real estate and unsecured loans. Net wealth is calculated as the difference between gross wealth and debt.

The depth of information on the types of wealth captured in the PHF goes beyond other surveys on the subject of wealth. Under non-financial assets, for example, the value of vehicles, collections and jewellery is recorded alongside property and business ownership. There is also comprehensive coverage of financial assets. These consist of balances with banks, such as savings banks and building and loan associations, securities, long-term equity investment and assets under management. The positive balances from private pension and life insurance policies are also included.<sup>2</sup> Not included are any statutory pension claims that lie in the distant future. As a

<sup>1</sup> The PHF defines households as groups of persons whose centre of life is at a shared address and who share daily expenses. Persons who temporarily do not live at that address but regularly return there are also considered part of the household. Persons or groups of persons who live in a shared residence without having a family or partnership relationship, or domestic staff residing at that address, constitute households in their own right. People in collective households (e.g. retirement homes or refugee homes) and institutions (e.g. monasteries) do not constitute households.

<sup>2</sup> Households’ wealth includes private pension and life insurance policies in the accumulation phase or where contributions have been suspended. They are removed from the households’ balance sheets once payouts from the policies are commenced; the relevant flows of income are then taken into account when calculating income.

pay-as-you-go system exists in Germany, a variety of assumptions would first be needed to recalculate (capitalise) future pension entitlements as assets. Moreover, these are only claims and not savings.

The households evaluate their assets themselves. This is mainly relevant for property and business ownership. In both cases, households are asked what price could be achieved for their property or business if it were to be sold.

Assets held abroad are also included in the calculation of a household’s total assets, if the respondents report them.

### Balance sheet of a household – a schematic overview

Assets	Liabilities
<b>Non-financial assets</b> <ul style="list-style-type: none"> <li>– Owner-occupied housing</li> <li>– Other real estate and property</li> <li>– Established businesses (net value)</li> <li>– Vehicles, collections, jewellery, etc.</li> </ul>	<b>Liabilities</b> <ul style="list-style-type: none"> <li>– Mortgages</li> <li>– Consumer credit (incl. credit card debt, current account credit, unpaid invoices, student loan debt)</li> <li>– Loans for business activity</li> </ul>
<b>Financial assets</b> <ul style="list-style-type: none"> <li>– Savings and current accounts, savings under building loan contracts</li> <li>– Mutual fund shares, assets under management, debt securities, shares, derivatives and certificates</li> <li>– Positive balances from private pension and life insurance policies</li> <li>– Long-term equity investment</li> </ul>	
<b>Total assets</b>	<b>Total assets</b>
	<b>Net wealth</b>

persistently uneven distribution of wealth, standing at 74% in 2017.<sup>5</sup>

*Wealthiest 10% possess 55% of net wealth*

Over the past few years, the academic literature describing income and wealth distribution has increasingly looked at (very) wealthy households' share of total wealth.<sup>6</sup> On this basis, just how uneven the distribution is can also be deduced from the share of wealth held by the top 10% in the net wealth distribution. In 2017, this group possessed around 55% of total net wealth in Germany.<sup>7</sup> Values for a comparable period are currently only available for the United States, Italy and Austria. In 2016, roughly 44% and 77% of total net wealth belonged to this group in Italy and the United States respectively, whereas the figure for Austria stood at 56% in 2017. It amounted to 51% for the euro area as a whole in 2014.<sup>8</sup>

Alongside the overall measures of the distribution of net wealth, the distribution of wealth amongst individual groups of households, such as those who own real estate, is also of interest.<sup>9</sup>

*Real estate ownership indicates high net wealth*

Real estate ownership is a good indicator for a household's level of wealth. Households living in a property they own have considerably higher net wealth than tenant households.<sup>10</sup> The median net wealth of owner households amounted to €277,000 in 2017. For tenant households, conversely, the median value is only around €10,400. Similar structures can be found in other countries both throughout Europe and worldwide. The highlighted differences are not only the result of whether a household owns real estate or not, but are also at least partly due to the differing household structures of owners and tenants, for example with regard to age, household size, marital status of household members, and income.<sup>11</sup> In addition, rising real estate prices in the last few years have had a significant impact on the development of property-owning households' wealth.

The well-documented differences between eastern and western Germany with regard to income and other economic indicators<sup>12</sup> are also apparent when examining wealth. The median household in eastern Germany had wealth of €23,400 in 2017; the median household in western Germany, by contrast, had approximately four times as much wealth, at €92,500. The lower proportion of home owners in the eastern states presumably plays a role here. The distribution of wealth as measured by the Gini coefficient is still somewhat more uneven in the eastern states (77%) than in the western states (72%).

*Marked differences between eastern and western Germany*

Differences can also be identified in terms of socio-demographic characteristics. The PHF study captures a household's wealth as a whole rather than recording that of the individual members of that household. The size and composition of a household are therefore significant when determining the average and median wealth of certain household groups. At €141,800, the average net wealth of single person households in 2017 amounted to slightly less than half of that of couple house-

*Single parents possess little wealth*

5 The latest available Gini coefficient for the euro area dates back to the year 2014, when it amounted to 68.5%. 2014 figures for individual euro area countries can be found in Household Finance and Consumption Network (2016a).

6 See Piketty (2014); and Saez and Zucman (2016).

7 The share of wealth attributable to the top 10% of the distribution is probably underestimated (see Vermeulen (2018)). The approach behind the study "Panel on household finances (PHF)" is to over-represent the wealthy households in the (unweighted) sample (see the box on p. 17). This goal has generally been achieved. However, as in all other comparable surveys, very wealthy households are missing from the PHF. None of the households surveyed in the PHF have assets amounting to €100 million or more. This under-recording is not offset through the weighting of the data.

8 For Italy, see Banca d'Italia (2018); for the United States, Federal Reserve Bank (2017); for Austria, Oesterreichische Nationalbank (2019); for the euro area, Household Finance and Consumption Network (2016b).

9 Only a few methods of breaking down households into different groups can be outlined here. Further breakdowns can be found in the tables on pp. 30 ff.

10 In Germany, only 44% of households own their main residence. Of all the other euro area countries, only Austria has a similarly low share (46% in 2017). By way of comparison, home ownership levels in Italy and Spain stood at around 70% and 80% respectively in 2014.

11 See also p. 18.

12 See Brenke (2014).



## PHF study 2017: methodological design of the third survey

Between March and October 2017, 4,942 households comprising 9,710 persons aged 16 and over participated in the PHF study in Germany. Some of the households (3,335) took part in a PHF survey for the second or third time. For the remaining 1,607 households, it was their first survey. There was a response rate of 33% for successfully contacted households. The response rate was around 70% for households that had already participated in the survey (panel households) and only 16% for those approached for the first time. The response rate for the panel households is comparable to other surveys conducted in Germany, but the figure for households included in the study for the first time is relatively low, which to some extent is likely due to the general decline in willingness to participate in surveys.

The methodology used in the third PHF survey in 2017 is largely based on that of the previous surveys in 2010/2011 and 2014. As before, computer-assisted personal interviews (CAPI) were carried out face-to-face at the interviewee's home. The just under 300 trained interviewers required a little over an hour on average to complete an interview.

In 2017, the target population again also included households with at least one person over 18, but did not include people living in collective households (e.g. retirement homes, student halls of residence and refugee homes) or institutions (e.g. monasteries or prisons).

Addresses of households approached for the first time were selected randomly from lists provided by residence registration of-

fices. An oversampling feature was implemented at this point, which means that wealthy households are overrepresented in the sample chosen.<sup>1</sup> The higher selection probability was taken into account in the weighting, so that the results shown can be regarded as being representative for households in Germany.

In order to ensure comparability across the individual surveys, only minor modifications were made to the PHF questionnaire for the third wave. The questionnaire was expanded in some areas to include questions on households' expectations regarding house prices, for example.

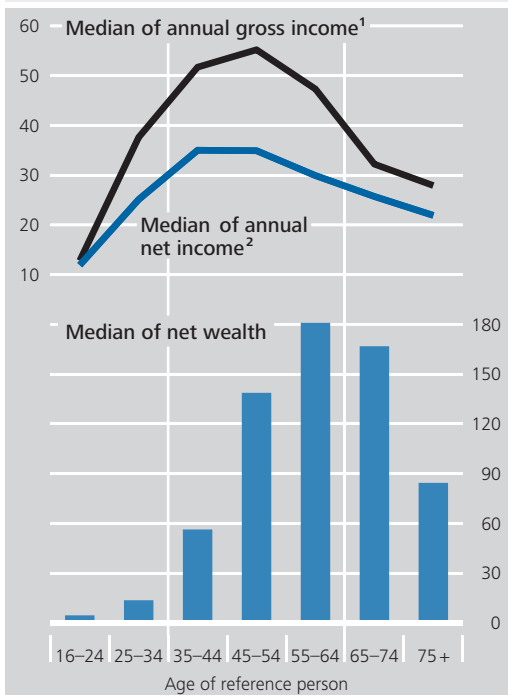
Further information on the methodology and background of the PHF survey can be found at <https://www.bundesbank.de/en/bundesbank/research/panel-on-household-finances>.

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<sup>1</sup> Income tax statistics are used in sampling to divide smaller municipalities with less than 100,000 residents into "rich municipalities" and "other municipalities". In cities with 100,000 residents and more, wealthy street sections are identified using micro-geographic information on residential area and purchasing power. Finally, the proportion of households in the sample is selected such that households in wealthy municipalities and wealthy street sections are oversampled compared with their numbers in the population.

### Net wealth and income of households broken down by age of reference person

€ thousand, as at March 2019



Source: PHF 2017. <sup>1</sup> Calculated using components. <sup>2</sup> Self-assessment.  
 Deutsche Bundesbank

holds (€319,000). By contrast, the median value for couple households is almost seven times higher than that of people living alone. As has also become evident in recent years, single-parent households, in particular, have little wealth. In 2017, half of these households possessed less than €5,200 gross or €3,900 net wealth.

*Life-cycle pattern for income and wealth*

Households can also be grouped by personal characteristics, represented by a reference person.<sup>13</sup> One such characteristic might be the age of the reference person. Households in which the reference person is between 16 and 24 years of age have the lowest net wealth (see the above chart). Median net wealth rises with the age of the reference person until the age group 55-64, and only starts to decline in the over-65s age group, as this is when households begin to dissave and monetary gifts become more prevalent. By contrast, households' median net income already starts decreasing in the age group 55-64.<sup>14</sup> Viewed in isolation,

however, age is of limited usefulness when it comes to explaining wealth structures. The composition of the household and the employment status of its members are only two of many factors that change with age and which may thus have a bearing on the volume and composition of asset holdings measured in the survey.

### Wealth distribution in 2017 compared with 2010 and 2014<sup>15</sup>

The mean and the median values for households' net wealth increased between 2014 and 2017, as had been the case between 2010 and 2014 (see the chart on p. 21). Overall, between 2014 and 2017, average net wealth grew by €18,300 (+9%), while the median rose by €10,400 (+17%).<sup>16</sup> Few households who own real estate or stocks are found in the middle and the bottom part of the wealth distribution. Increased household income, which allows households to save more money and at the same time reduces their need to take out new consumer loans, is therefore more significant for developments in the median. On the other

*Mean and median values of net wealth continue to rise*

<sup>13</sup> Generally, the reference person is the person with the highest income in the household. If two or more members of a household have an equally high income, one person is selected at random.

<sup>14</sup> Possible reasons for this include (early) retirement and a general decline in labour market participation.

<sup>15</sup> Although the survey was conducted for the third time, it is unable to accurately depict certain events, such as the increased influx of refugees, from one survey to the next. Consequently, the impact of migration on the survey results cannot be examined on the basis of data from the PHF study. The number of migrants in the sample is too low for this.

<sup>16</sup> Unless stated otherwise, the analysis is performed on the basis of nominal values over time. Calculating inflation-adjusted wealth measures is not without its problems as there is no generally accepted price index for wealth. As a rule, therefore, consumer price inflation has been used, or inflation-adjusted values have not been given at all. Since the cumulative inflation rate as measured by the consumer price index stood at only around 2.7% between 2014 and 2017, adjustment for inflation barely impacts on the 2014/2017 comparison and does not alter the trend statements. Between 2010 and 2014, consumer prices rose by 6.7% in cumulative terms. Adjusted for inflation, i.e. at 2010 prices, growth compared with 2014 stood at €10,800 for the mean and €7,700 for the median value.

## Selected research results based on PHF data

The study “Panel on household finances” (PHF) not only provides important results for advising policy makers, it is also used for academic research on the behaviour and financial situation of German households. More than 200 researchers in Germany and abroad are now using the anonymised data for research projects. The empirical and theoretical projects cover a large range of subjects.

In recent years, central banks around the world have dropped their policy rates to historical lows and pursued non-standard policy measures such as extensive programmes to purchase government bonds. Drawing on microdata from the PHF and similar household surveys by other central banks, a number of current research projects are addressing the question regarding the extent to which monetary policy influences the distribution of households’ wealth and income in Germany and other European countries.<sup>1</sup>

Tzamourani (2019) analyses the unhedged interest rate exposure<sup>2</sup> of households in the euro area. This indicator captures the extent to which households respond to changes in real interest rates and reflects the direct gains and losses in their net interest income after such changes. On the whole, households in individual countries are exposed to very different types of interest rate risk. These national differences are mainly caused by the heterogeneous distribution of adjustable-rate mortgages. In countries where the prevalence of adjustable-rate mortgages issued is high, households’ interest rate exposure is negative on average, i.e. where inflation is constant, households would be impacted negatively on average by an interest rate hike. In Germany and other countries where the number of people with adjustable-rate mortgages is low, households would initially benefit on average from a hike in interest rates (where inflation remains constant).

Given the importance of housing wealth to the distribution of wealth within individual

countries and across euro area countries, the differences in the investment behaviour of owner households and tenant households have been the focus of a number of ongoing research projects. Le Blanc and Schmidt (2019a) investigate differences in owners’ and tenants’ savings behaviour, noting that households do not cut back on their active savings flows despite passive saving in the form of mortgage repayments, but rather save on top of their pre-existing contracts.

While this article focuses on the distribution of wealth, the financial situation of households is multidimensional and characterised by the joint distribution of consumption, income and wealth.<sup>3</sup> In an ongoing research project, Le Blanc and Schmidt (2019b) estimate the joint distribution of consumption, income and wealth in Germany. One provisional result of this project is that consumption and income are more evenly distributed than net wealth.

Inherited assets also play a major role in wealth distribution and inequality. Pasteau and Zhu (2018) analyse inherited wealth as an additional potential factor in explaining the choice of partner. One of the main findings of their analysis is that prospects of an inheritance are more than twice as important than income in explaining marriage choice. As the number of inheritances is expected to rise in the coming years, this will also have implications on the dynamics of wealth inequality.

In addition to the detailed information on the components of wealth, the PHF also provides information on households’ expectations, which are crucial to consumption and investment behaviour.

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<sup>1</sup> See Deutsche Bundesbank (2016a); Casiraghi et al. (2016); Ampudia et al. (2018); Lenza and Slacalek (2019).

<sup>2</sup> Auclert (2019) defines unhedged interest rate exposure as the difference between maturing assets and liabilities.

<sup>3</sup> See Fisher et al. (2018).

Goldfayn-Frank and Wohlfart (2018) analyse the inflation expectations of households in eastern and western Germany. They document the fact that the inflation expectations of households that were located in East Germany before German reunification are one percentage point higher than the inflation expectations of western German households. The authors cite the surprisingly high inflation that eastern German households experienced after 1989 as a reason for their significantly higher inflation expectations. The differing inflation expectations are still seen today in the investment behaviour of people born in eastern Germany.

In an ongoing research project, Kindermann et al. (2019) studied the expectations of households regarding the development of house prices over the following twelve months. Two clear patterns can be identified when it comes to households that provide information on how house prices will evolve in their area in the following twelve months.

First, households tend to underestimate future house price developments.<sup>4</sup> Second, a difference emerges between tenant households and owner households. Tenants expect higher inflation than owner households, especially those that intend to purchase property.

Interested researchers may apply for access to the PHF's anonymised data (scientific use files) for academic projects. More information and forms to apply for access to the data can be downloaded from the Bundesbank's website at [www.bundesbank.de/phf-data](http://www.bundesbank.de/phf-data).

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<sup>4</sup> These results cannot be generalised, however, as the underlying data only recognise the upturn in house prices.

hand, increases in real estate and share prices are likely to have played a key role in the rise in net wealth in the upper range of the distribution, where real estate and share ownership are widespread.

The values breaking down net wealth distribution<sup>17</sup> into ten equal parts increased across the board. While the cut-offs for the bottom four deciles were lower in 2014 than in 2010, they rebounded to 2010 levels in 2017.<sup>18</sup> In absolute terms, however, these increases are small and amounted to between €100 and €4,200 in these deciles. Measured in euro terms, upward shifts in the top part of the wealth distribution are greater, as expected. In order to rank among the wealthiest 10% of households in Germany, around €442,000 was needed in 2010, roughly €468,000 in 2014 and just over €555,400 in 2017.<sup>19</sup> However, even relative to the figure determined in the preceding study, the percentage increases in the upper half of

the distribution were more pronounced than in the lower half of the distribution.

The major significance of real estate in terms of household wealth and its distribution was already apparent in the first two waves of the PHF study.<sup>20</sup> It is therefore hardly surprising that wealth has risen especially sharply, in both absolute terms and relative to the values for 2014, for those deciles of the net wealth distribution in which property-owning households are especially common, i.e. the wealthiest 40% of households.<sup>21</sup>

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<sup>17</sup> The discussion in this article focuses on net wealth distribution. Corresponding analyses of gross wealth distribution can be carried out using the tables in the annex on pp. 30 ff.

<sup>18</sup> These figures provide only limited information on changes in individual households' net wealth, as households' position in the distribution may change.

<sup>19</sup> At 2010 prices, the values are €436,600 for 2014 and €503,500 for 2017.

<sup>20</sup> See Deutsche Bundesbank (2013) and Deutsche Bundesbank (2016b).

<sup>21</sup> In these parts of the net wealth distribution, more than 60% of households own real estate.

*Increase in absolute gap between distribution tails and median*

As a result of these developments, indicators focusing on the range between certain parts of the wealth distribution have risen since 2010.

For example, the difference between the top and bottom quartiles of the net wealth distribution (“interquartile range”) increased from around €203,000 to €262,000. This corresponds to growth of almost 30% between 2010 and 2017.<sup>22</sup>

*Real estate important for wealth dynamics in upper part of wealth distribution*

Looking at the gaps between the deciles of the distribution and the median as the midpoint of the distribution, it is striking that both the top and bottom deciles have moved further away from the median. The gap between the median and the first decile is now around €19,400 greater than it was in 2010. The gap between the ninth decile and the median rose by around €93,600 compared with 2010. The part of the distribution with a high proportion of property owners (see the chart on p. 23), in particular, became further removed from the median in relative terms between 2010 and 2017. This development also reflects the fact that the percentage of households in Germany who are homeowners is below 50%. In other words, the median household does not own its own home and is therefore not benefiting from the rise in real estate prices.

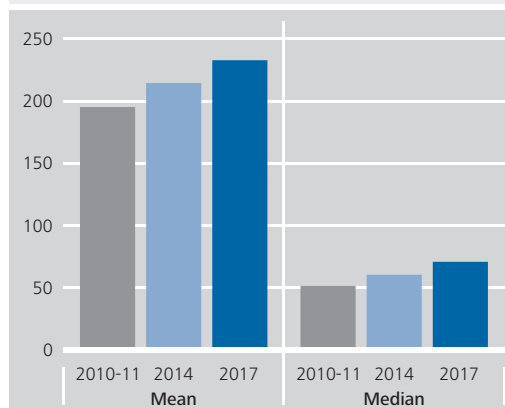
*Slight fall in standard indicators for measuring inequality*

The widening gaps between individual parts of the net wealth distribution tend to point towards an increase in inequality. By contrast, other indicators measuring inequality in the distribution of household net wealth, which are listed in the table on page 23, fell slightly over time or remained unchanged.

The Gini coefficient and the share of total net wealth held by the wealthiest 10% of households decreased by 2 and 5 percentage points respectively. The ratio of the mean to the median and the gap between the wealthiest 10% of households and the median changed only slightly. As before, the lower half of the distribution of wealth accounts for around 3% of total net wealth (see the chart on p. 25). The

### Mean and median values of German households’ net wealth distribution

€ thousand, as at March 2019



Sources: PHF 2010-11, PHF 2014, PHF 2017.

Deutsche Bundesbank

share of total wealth held by the top 10% of households fell from about 60% in 2014 to 55% in 2017. In return, the share held by the group between the 90th percentile and the median rose from 38% to 42% over the same period.

Similar, smaller changes in these indicators were revealed in the past in other wealth surveys for Germany and other countries without resulting in a revised assessment of inequality.<sup>23</sup>

The declines in the Gini coefficient and the share of total net wealth held by the top 10% of households should not be overstated, in part due to the known issues related to recording wealth in the top tail.<sup>24</sup> In the 2017 survey

*Under-recording of wealth in top tail affects measures of inequality*

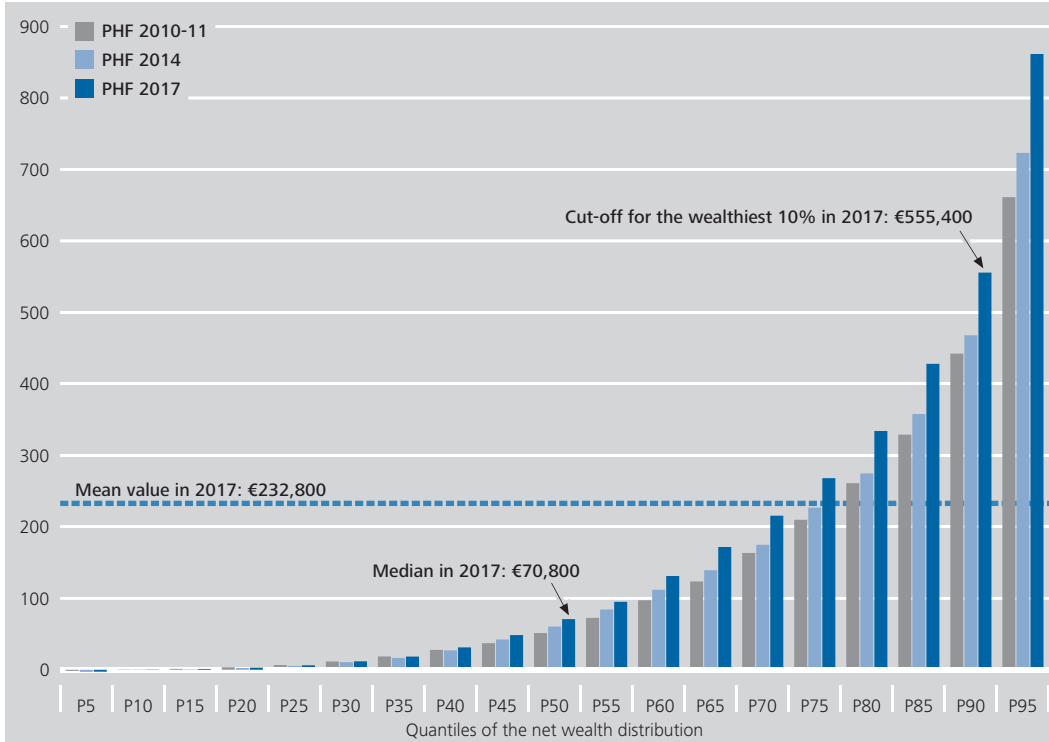
<sup>22</sup> The interquartile range is a measure of statistical dispersion. When interpreting the data, it is important to note that the interquartile range would increase even if the wealth of all households rose by the same factor. At 2010 prices, the interquartile range was around €237,200 in 2017 (+17% compared with 2010).

<sup>23</sup> In Italy, the Gini coefficient for net wealth has hovered between 60% and 64% since the mid-1990s (Banca d’Italia (2018)), whilst in Austria it has fluctuated between 76% and 73% since 2010 (Oesterreichische Nationalbank (2019)). For Germany, too, data from the Socio-Economic Panel (SOEP) and the sample survey of income and expenditure (EVS) show that the Gini coefficient has, in the past, tended to fluctuate slightly by between 1 and 2 percentage points (see Deutsche Bundesbank (2016a), pp. 18-20 and the chart on p. 17; and Grabka and Westermeier (2014)).

<sup>24</sup> See Vermeulen (2016); Grabka and Westermeier (2014); Deutsche Bundesbank (2013); and Chakraborty and Walt (2018).

### Distribution of German households' net wealth\* in 2010, 2014 and 2017

€ thousand, as at March 2019



Sources: PHF 2010-11, PHF 2014 and PHF 2017. \* Minimum values for each quantile.  
 Deutsche Bundesbank

wave, it appears, in particular, that business assets in the top tail of the distribution were under-recorded. In addition, fewer very wealthy households participated in the survey compared with the survey waves in 2010 and 2014. Both of these factors may be the reason behind the slight decrease in some of the distribution measures.

*Inequality remains high*

Overall, it is not possible to discern any clear trend from the figures in relation to the evolution of inequality in terms of net wealth distribution. Household net wealth in Germany remains unequally distributed.

### The structure of household wealth in 2017 compared with 2014 and 2010

From a macroeconomic perspective, the past few years in Germany were characterised by high employment, rising share prices, low de-

posit and lending rates and, in many regions, rising real estate prices. These developments have also had an impact on households' wealth and investment behaviour, as already indicated by the structures mentioned above. Taking a closer look at individual assets and parts of the wealth distribution provides further evidence.

For example, the rise in real estate prices is reflected in higher real estate wealth for households who own their main residence, as measured by both the mean value (+€27,400) and the median (+€37,200).<sup>25</sup>

*Wealth gains for property owners ...*

Rising house prices may also have an indirect impact on the size of mortgage loans – for example, if households need to take on more

<sup>25</sup> In the survey, the current hypothetical (resale) value of a property is estimated by the households themselves. In addition to the current value according to the self-assessment, households also state the price they originally paid, often quite a long time ago. The difference between the two prices is subjected to plausibility checks.

debt in order to be able to afford a property, or if properties are more heavily leveraged in view of low lending rates. Median mortgage debt was €81,000 in 2017, compared with €76,400 in 2014. Not only has median mortgage debt increased, the mean value of outstanding mortgage debt for households with mortgage debt also rose by around €14,000.<sup>26</sup> However, this debt is backed by real estate assets that have appreciated even more. The, relatively speaking, largest increases in mortgage debt were recorded by the wealthiest 10% of households in terms of net wealth.<sup>27</sup> The unconditional mean value for mortgage debt rose by around €28,700 in this part of the distribution. These households usually have sufficient financial resources to meet the capital requirements for a mortgage loan. As described in the section below entitled “Households’ debt situation”, debt service as a share of income has declined for indebted households as a whole.

... and households with shareholdings

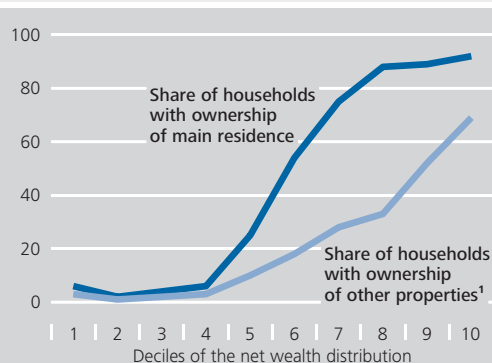
Changes in holdings of shares and funds reflect the rise in share prices between 2014 and 2017. On average, the value of shares for those households with direct shareholdings rose by around €5,000, or 13%; by contrast, the median remained virtually unchanged at just under €10,000. The German stock market index increased by almost 30% between mid-April 2014 and mid-April 2017. As a result, the increase measured in the PHF study is lower. However, the data do not allow for a separate analysis of the changes in the value of possible acquisitions and sales. Furthermore, changes in the composition of the shareholders cannot be taken into account. If, for example, households with large share portfolios sell part of them and other households invest smaller amounts in the equity market, this can affect the mean value as well as the median, despite the fact that the percentage of households with shareholdings does not change. This could also be a reason for the lower values for fund holdings.

Fewer households with longer-term financial assets

In terms of financial assets, the increase in assets on current accounts is striking. Compared with 2014, the average current account

### Real estate ownership along the net wealth distribution

Share of households as a percentage, as at March 2019



Source: PHF 2017. 1 In this context, ownership of other properties includes only those properties which are not used for business purposes.

Deutsche Bundesbank

### Indicators of net wealth distribution in 2010-11, 2014 and 2017

Item	2010-11	2014	2017
Interquartile range P90-P10	€203,000 €442,000	€221,000 €468,000	€262,000 €555,000
Mean value/median P90/P50	3.8 8.6	3.6 7.8	3.3 7.8
Gini coefficient	76%	76%	74%
Share of total net wealth held by wealthiest 10%	59%	60%	55%

Source: PHF 2017 – data as at March 2019.

Deutsche Bundesbank

balance increased by 65%, with the median rising to a similar extent. This development suggests that households in Germany continue to have a preference for liquid forms of investment that are perceived as low-risk.

<sup>26</sup> When interpreting these figures, it should be borne in mind that reference is made to the current outstanding loan amount, and that loans taken out some time ago and new loans are therefore analysed together.

<sup>27</sup> For this group of very wealthy households, the share of households who own property in addition to their main residence rose by 5 percentage points. Part of the growth in mortgage lending is therefore probably attributable to new builds or purchases of additional properties.

## Self-assessment of position in the distribution of wealth

In the PHF study for 2017, households were surveyed for the first time on where they would assign themselves within the distribution of wealth. In theory, each decile covers 10% of the households. However, at the upper end of the distribution, the responses reveal a clear trend towards households underestimating their own wealth position (see the chart below). Less than 3% of the households surveyed put themselves in one of the top two deciles, while around 20% of households saw themselves as belonging to each of the three centre deciles.<sup>1</sup> At the lower end of the distribution, just over 10% assigned themselves to the corresponding deciles.

A comparison of the self-assessments with the actual position in the distribution reveals that as net wealth as measured in the survey rises, not only does the number of households that assign themselves to the wrong decile increase, the average deviation of the estimated decile from the actual decile widens as well. On the other hand, it is also true that households' aver-

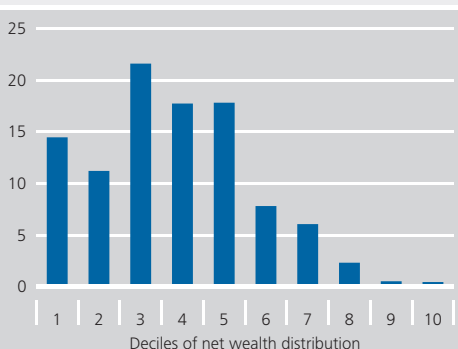
age wealth is higher the further up they classify themselves in the distribution.

To be able to make a proper classification, a household would have to be aware of the actual distribution of wealth and be able to make a correct assessment of the entirety of its net wealth. As net wealth increases, the degree of complexity in the wealth structures generally rises with it and it becomes more difficult for a household to make an ad hoc estimation of its total wealth.<sup>2</sup> In addition, it may be assumed that only very few households are aware of the actual distribution of wealth. Nevertheless, given that fact, it is surprising that it is primarily the households at the lower end of the distribution, where it is still quite flat, that were able to give a more precise estimation of their wealth position.

Further analysis is required to determine whether the self-assessment (compared with the actual position in the distribution of wealth) has an impact on households' consumption and savings behaviour.

### Self-assessment of households regarding their own position in the distribution of wealth

Percentage of households, as at March 2019



Source: PHF 2017.  
 Deutsche Bundesbank

<sup>1</sup> A similar structure can also be seen in Austria in 2014 and 2016. For more information on this, see Oesterreichische Nationalbank (2019).

<sup>2</sup> This is one of the reasons why values for individual types of wealth and debt are gathered in the PHF study and used to calculate the household's net wealth.



As before, almost every household in Germany has a current account. By contrast, there was a slight decline in the percentage of households who own longer-term financial assets, such as private retirement provision products<sup>28</sup> from which no payments are yet being received, whole life insurance policies or savings accounts.

*Changes in financial assets in PHF study understate dynamics*

Overall, the average level of financial assets reported in the PHF study rose only slightly between 2014 and 2017 (+5%) – that is to say, the sum of the balances on current and savings accounts, the value of funds and shares, private retirement provision products (including whole life insurance policies) and other financial assets. The financial accounts<sup>29</sup> show a far higher increase in gross financial assets between 2014 and 2017 (+€313.2 billion, or +15.6%). However, the concepts and definitions of assets used in the PHF study and the financial accounts are not identical. It is also known from previous studies that financial assets tend to be under-recorded in surveys.<sup>30</sup>

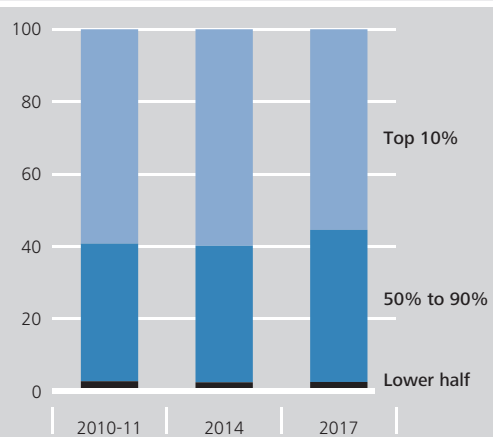
Comparing the results of the PHF study and the financial accounts nevertheless appears useful. The value of sight deposits rose in both balance sheets between 2014 and 2017, whereas the value of savings deposits fell. The rise in shareholdings and the value of funds can likewise be observed in both the PHF study and the financial accounts. Overall, the increases and decreases in these wealth components are smaller in the PHF study than in the financial accounts.<sup>31</sup>

*Business assets in top tail not fully captured*

Businesses in which the household plays an active role are counted as real assets in the PHF study and are valued at the hypothetical resale value estimated by the household.<sup>32</sup> The PHF study from 2017 shows that the percentage of households with business ownership has not changed. The mean value for business assets decreased, while the median increased. This structure points to a problem related to recording households with very large business assets.<sup>33</sup> Just like shareholdings, business assets

### Households' share in total net wealth

%, as at March 2019



Sources: PHF 2010-11, PHF 2014 and PHF 2017.

Deutsche Bundesbank

are held largely by wealthy households in the upper part of the distribution and are one of the most unequally distributed asset types.<sup>34</sup> Individual extremely high values can therefore have a major impact on measured averages and inequality, not only for this asset type but also for net wealth as a whole.

In terms of the liabilities side of household balance sheets, mortgage loans saw increases, as

<sup>28</sup> A comparable development is shown by data from the insurance industry (see German Insurance Association (*Gesamtverband der Deutschen Versicherungswirtschaft e.V.*) (2018)).

<sup>29</sup> A comparison with the financial accounts can only be made for the (unconditional) mean values. The financial accounts do not provide any information on the percentage of households who own certain assets, nor do they provide any information on distribution.

<sup>30</sup> See Deutsche Bundesbank (2013), pp. 26 f.

<sup>31</sup> An increase in cash holdings of around €63 billion also contributed to growth in the financial accounts. This item is not taken into account in the wealth concept used in the PHF study. In addition, insurance claims rose significantly in the macroeconomic accounting systems; these are not captured in the PHF study to the same extent or using the same definitions as in the financial accounts and are therefore not comparable.

<sup>32</sup> The exact wording of the question: "How much is the business or the company worth after the deduction of liabilities? Here I mean: for what amount could you sell your stake if you take into account the company's assets and deduct the liabilities?" The question has remained the same in all waves of the PHF survey.

<sup>33</sup> However, due to problems of definition and differing valuations, it is not easy to find comparable figures (see Chakraborty and Wältl (2018)).

<sup>34</sup> Even if only business owners are taken into account, the Gini coefficient is around 85%.

## German households' portfolio structure

Item	Percentages of households			Mean value (conditional) in €			Median (conditional) in €		
	2010	2014	2017	2010	2014	2017	2010	2014	2017
Real assets	80	81	83	218,600	229,500	249,100	89,200	90,900	106,900
Ownership of main residence	44	44	44	205,800	231,400	258,800	168,000	162,000	199,200
Vehicles and valuables	73	75	78	13,000	13,300	13,600	7,080	7,000	8,000
Business assets	10	10	10	333,600	338,800	309,900	20,000	21,600	26,600
Financial assets	99	99	99	47,400	54,200	56,800	17,100	16,500	16,900
Current accounts	99	99	99	3,400	4,300	7,100	1,200	1,100	1,800
Savings accounts (excl. private retirement provision)	78	72	70	22,500	29,400	27,600	9,700	8,900	9,900
Private retirement provision (incl. life insurance policies)	47	46	43	27,200	28,300	33,200	11,400	13,500	15,400
Mutual fund shares (excl. private retirement provision)	17	13	16	29,000	39,800	37,500	10,000	14,800	12,900
Shares	11	10	11	29,100	38,700	43,700	8,600	9,800	9,900
Debt	47	45	45	56,900	57,000	65,200	12,600	15,200	19,800
Mortgage debt	21	20	21	110,200	111,100	125,100	80,000	76,400	81,000
Unsecured loans	35	33	33	9,600	9,500	10,800	3,200	3,500	4,900

Sources: PHF 2010-11, PHF 2014 and PHF 2017 – data as at March 2019.  
 Deutsche Bundesbank

*Amounts outstanding on loans rising*

discussed above. The outstanding amount of unsecured loans also rose in 2017, with the median now standing at €4,900, compared with €3,500 in 2014 and €3,200 in 2010. The percentage of households with unsecured loans remained stable between 2014 and 2017 at 33%, however. On a related note, the share of households with negative net wealth, i.e. households whose debt exceeds their assets, fell slightly from 8.7% in 2014 to 7.5% in 2017.<sup>35</sup>

*Composition of wealth along wealth distribution unchanged*

The structure of portfolios along the net wealth distribution barely changed between 2010 and 2017. Whilst, in the upper range of the distribution, real assets and real estate make up the bulk of wealth, in the lower half of the distribution households' wealth consists almost exclusively of financial assets (see the chart on p. 27). Levels of outstanding debt increase as net wealth rises.

## ■ Saving and wealth

Upward and downward movements in particular asset prices are not the only factors that may alter the structure of asset holdings described above; it is also shaped, in part, by households' saving and investment behaviour. While changes in saving and investment patterns generally only start having an impact on wealth composition over the long run, they are nevertheless relevant when it comes to the effect of monetary policy measures.

Looking at 2016, analyses on the basis of a special survey conducted as part of the PHF study show that households modify their savings behaviour in response to low interest rates to a certain extent.<sup>36</sup> There appears to be a ten-

<sup>35</sup> Counting households with a net wealth of €0 as well produces shares of 10% for 2010 and 9% for 2014.

<sup>36</sup> See Marek (2017).

gency towards both reduced saving efforts and an adjustment in terms of saving objectives.

*More than half of households save on a regular basis*

Measured in terms of the share of households who claim to regularly save, the data collected in 2017 show no evidence of a decline in saving efforts. Around 63% of the households report that they put aside a set amount of money every month, meaning there has even been a 4 percentage point rise in that share since 2014. At the same time, the proportion of households who say they are unable to save because they lack the financial means has fallen by 4 percentage points. The favourable conditions on the labour market are likely to be a factor in this.

*Motives for saving changing*

Over the three waves, the PHF study also provides insights into why households save. Motives for saving have evidently changed over time. The proportion of households citing buying property as their main motive for saving grew between 2010 and 2017. An increase was apparent between 2010 and 2014 especially among younger households, for whom this motive is traditionally particularly important (see the chart on p. 28), while a slight fall in the share can be seen between 2014 and 2017.

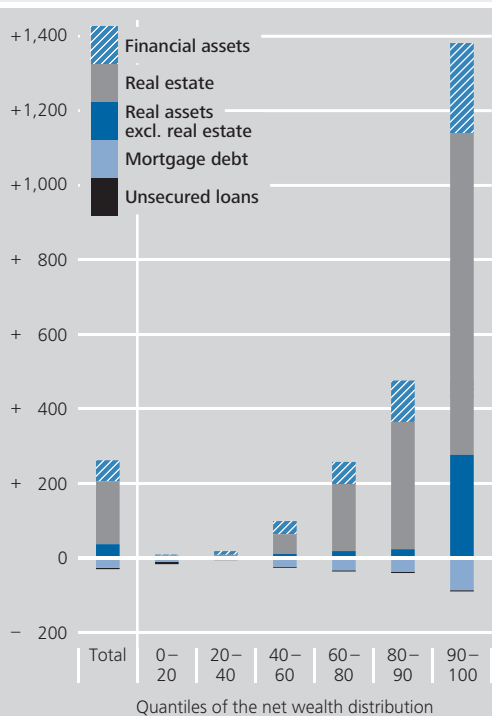
Over the last three years, the share of households for whom renovating, refurbishing or extending a property is the main reason for saving has also increased,<sup>37</sup> with around 9% citing it as their most important motivation in 2017. Rising property prices seem to be acting as incentives to invest in maintaining and upgrading real estate. Low interest rates are also making it possible for borrowers to obtain loans for renovating an owner-occupied property at favourable conditions.

*Fewer households saving with retirement provision in mind*

The proportion of households citing "retirement provision" as their most important motive for saving, meanwhile, has dropped from 22% in 2010 to 17% in 2017. This decline is consistent with the reduced share of households possessing long-term savings deposits and contracts for private retirement provision described

### Breakdown of households' wealth by size\*

Assets and/or debt in € thousand, as at March 2019



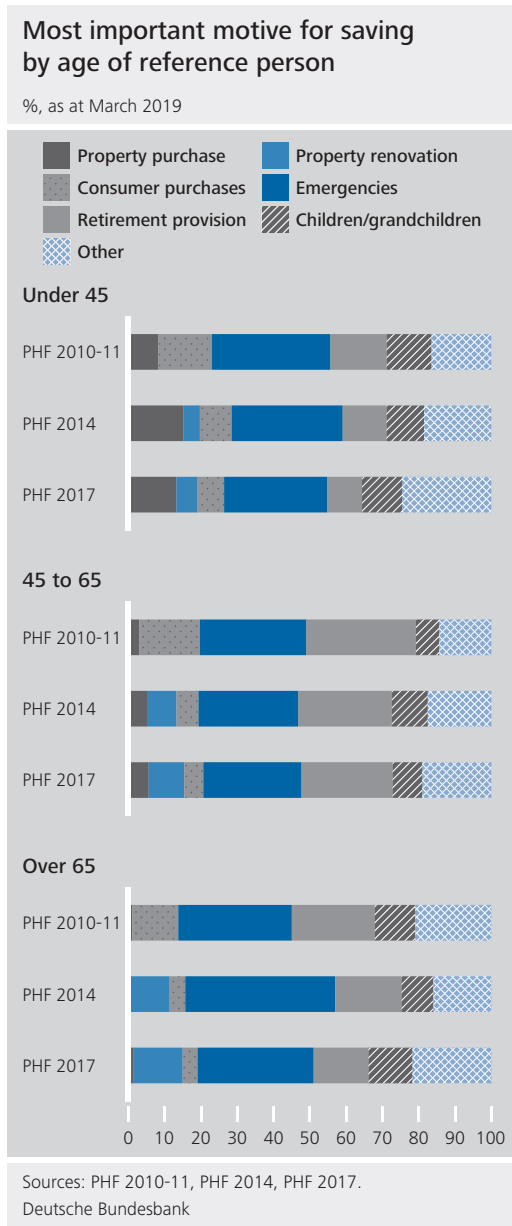
Source: PHF 2017. \* Mean values (unconditional).  
 Deutsche Bundesbank

above. The waning significance of this motive for saving was already apparent between 2010 and 2014 and can be seen across all age groups, but is particularly pronounced among the older households over 65 years of age. For that group, saving is increasingly motivated by supporting children and grandchildren and by legacy and gifting purposes.

### ■ Households' debt situation

The primary focus of this article so far has been households' wealth and how that wealth is structured. For central banks, however, it is not just households' investment behaviour that is of interest but also the decisions households make when it comes to borrowing. The household debt situation can be ascertained by refer-

<sup>37</sup> The year 2014 was the first time participants were asked about this particular motive for saving.



ence to various indicators. These include, for instance, the proportion of indebted households, the level of debt and measures of households' debt sustainability.

*Share of indebted households unchanged*

According to the PHF study, there has been barely any change in the share of indebted households between 2010 and 2017: the percentage of households with some kind of outstanding debt<sup>38</sup> still stands at roughly 45%. Very little has changed with respect to the underlying structures, too. Fewer households have mortgage loans than have unsecured types of credit but, as is to be expected, the amounts owed on mortgage loans are far

higher (median: €81,000) than outstanding amounts for other loans (median: €4,900). Both values are higher than in 2014; in particular, the outstanding amounts for unsecured loans are still low.

More important than the absolute amount of outstanding debt is debt sustainability, in other words the interplay between income, indebtedness and debt service. The ratio of debt service, i.e. interest and principal repayments, to net income frequently figures in analyses related to issues of financial stability and in a monetary policy context.<sup>39</sup>

Moving up the income scale, both the share of households with outstanding debt and the amount owed by this group of households rises. Out of the households with an annual net income of up to around €13,200, roughly 32% had debts outstanding in 2017; in the group of households with an annual net income of over €37,200, meanwhile, the figure was slightly greater than 60%.

*Share of indebted households rises with income*

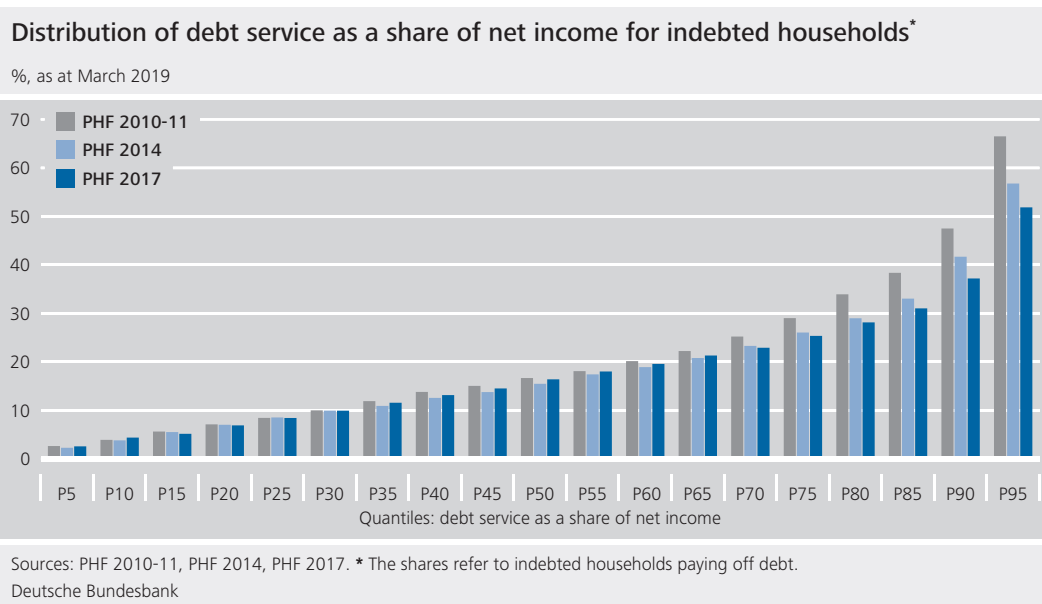
Interest and principal repayments as a share of net income fell from an average of 23% to 20% between 2010 and 2017. As the chart on page 29 shows, the top tail of the distribution in particular saw changes compared with 2014. From about the seventh decile, we start to see a decrease. The ninth decile starts out at 37% of net income in 2017; in 2010 that figure was 47% and in 2014 it stood at 42%. Households with high interest and principal repayments in 2017 were thus also needing to use a smaller portion of their income to cover them.

*Debt service as a share of net income lower*

There are two factors which likely play a role in this change: the increase in households' net income and the persistently low lending rates. Looking at purely the interest element of debt service as a proportion of income, there was a very strong decrease of 4 percentage points

*Interest burden as a share of income lower*

<sup>38</sup> In the context of the PHF study, this covers mortgage loans as well as unsecured loans including overdrawn current accounts and money owed to other households.  
<sup>39</sup> See Deutsche Bundesbank (2019).



between 2010 and 2017 to an average of 6% for indebted households. A significant part of the reduction in debt service relative to net income can thus be attributed to lower interest payments for new loans or loans where the fixed interest rate has expired.

## ■ Summary

The PHF study provides an overview of the financial situation of households in Germany in 2017. It shows that both the average wealth of households and the median increased significantly between 2014 and 2017. Net wealth rose particularly in those sections of the distribution containing a high proportion of property owners. The findings thus again highlight the important role played by real estate in households' asset holdings.

Compared with the results for 2014 and 2010, it is also evident that households in Germany remain hesitant to invest in securities, and hold a substantial portion of their wealth in liquid forms of investment that are perceived as low risk, despite the fact that these are currently only yielding low returns. There are initial indications that fewer households are investing in longer-term assets such as voluntary private pension plans or whole life insurance policies.

When it comes to debt, households are benefiting from low lending rates.

Measures of inequality exhibited only minor changes between 2014 and 2017 and no clear trend is discernible. While the standard indicators used to measure inequality – such as the Gini coefficient and the share of total net wealth held by the wealthiest households – fell slightly, the gap between the upper and lower part of the distribution widened. Germany remains a country in which wealth is distributed unequally.

The PHF study testifies to the fact that wealth distribution and the underlying portfolio structures of Germany's households are changing only slowly. Even against a backdrop of strong asset price hikes, sustained low interest rates and a healthy economy, there were no major shifts so far as measured inequality and portfolio structures were concerned.

## ■ Table appendix

Only a small selection of the figures on German household finances could be presented in the main article on the PHF survey findings. The following appendix contains further tables. Each table shows the percentage of households

who own a particular asset or are in debt (participation rates), the conditional mean value and the conditional median. "Conditional" in this context means that the mean values and medians are all computed only for those households who possess a given asset or have a particular type of debt. Where no participation rate is stated, it is 100% and the mean values and medians refer to all households. The aforementioned values are shown in total as well as broken down by the age, nationality, labour market status and education of the reference

person,<sup>40</sup> the type of household, the region in which a household lives and its homeownership status. In addition, the households are also differentiated according to where they lie in the distributions of net wealth and gross income.

<sup>40</sup> In this context, the reference person is always the person with the highest income in the household. If two or more members of a household have an equally high income, one person is selected at random.

### Participation rate, mean value and conditional distribution of gross and net wealth, financial and real assets, debt and annual gross and net income

Figures in €

Item	Gross wealth	Net wealth	Debt	Real assets (gross)	Financial assets (gross)	Gross income (annual)	Net income (annual, self-assessment)
<b>Participation rate in %</b>	100	100	45	83	99	100	100
<b>Mean value (conditional)</b>	262,500	232,800	65,200	249,100	56,800	53,000	36,700
<b>Conditional distribution</b>							
5th percentile	300	-2,800	300	500	0	7,900	8,900
10th percentile	1,100	100	600	1,400	300	12,200	11,900
20th percentile	6,000	3,000	2,400	4,900	2,000	19,300	15,600
30th percentile	15,500	11,800	5,600	10,900	4,900	26,300	19,800
40th percentile	38,100	31,200	10,000	37,100	9,500	32,900	24,000
50th percentile	86,400	70,800	19,800	106,900	16,900	40,100	27,600
60th percentile	167,100	131,000	36,500	175,500	29,500	47,800	32,300
70th percentile	260,000	215,400	63,500	249,900	49,000	58,700	38,200
80th percentile	379,800	334,000	101,900	346,600	79,500	73,800	44,400
90th percentile	621,000	555,400	174,100	540,300	147,000	100,600	59,600
95th percentile	969,100	861,600	265,500	898,400	224,400	137,300	72,000

## Gross and net wealth and debt, in total and by household characteristics

Figures in €

Item	Gross wealth		Net wealth		Debt		
	Mean value	Median	Mean value	Median	Participation rate in %	Conditional mean value	Conditional median
<b>All households</b>	262,500	86,400	232,800	70,800	45	65,200	19,800
<b>Region</b>							
east <sup>1</sup>	110,400	26,700	93,200	23,400	45	38,200	9,700
west	302,500	123,300	269,600	92,500	45	72,300	24,700
of which: region 1 <sup>2</sup>	313,600	88,500	281,100	74,300	47	69,800	29,100
region 2 <sup>3</sup>	349,000	165,900	314,000	139,800	42	82,500	28,700
region 3 <sup>4</sup>	236,000	74,500	205,600	60,300	49	62,300	16,900
<b>Homeowner status</b>							
Owner without mortgage	513,400	319,700	494,900	317,100	25	74,900	19,300
Owner with mortgage	527,300	316,800	406,000	218,400	100	121,300	85,400
Tenant	61,400	13,400	54,900	10,400	38	17,000	5,000
<b>Type of household</b>							
Single household	156,500	27,400	141,800	22,200	33	44,200	10,000
Single-parent household	80,300	5,200	58,000	3,900	51	43,500	7,300
Couple without children	360,700	194,700	330,800	167,300	44	67,500	26,900
Couple with children	361,500	196,300	295,100	115,300	76	88,000	39,500
Other	221,800	54,300	194,800	47,900	44	61,600	7,600
<b>Age of reference person</b>							
16-24	16,400	6,600	13,000	4,500	41	8,200	4,800
25-34	88,800	17,400	64,500	13,600	57	42,500	7,300
35-44	210,700	82,900	162,300	56,300	65	74,900	29,500
45-54	389,200	174,100	339,900	138,700	60	81,900	41,700
55-64	352,100	202,100	317,100	180,900	48	73,600	30,000
65-74	328,300	171,800	313,200	166,800	28	54,600	8,900
75+	227,500	84,800	223,600	84,400	10	40,800	9,900
<b>Labour market status of reference person</b>							
Self-employed	779,000	270,700	712,600	211,000	59	112,100	51,200
Civil servant	346,800	245,600	294,200	170,500	62	84,200	21,400
Employee	259,300	97,500	216,100	76,900	59	72,900	29,300
Worker <sup>5</sup>	143,500	42,600	114,900	26,900	58	48,900	22,600
Unemployed	40,400	1,500	35,000	600	37	14,700	1,200
Non-labour force member <sup>6</sup>	222,100	70,800	212,400	67,300	25	39,400	6,800
Pensioner	229,000	91,500	223,800	87,700	16	31,700	6,300
Retired civil servant	452,300	380,300	403,800	353,200	34	143,000	69,500
<b>School education of reference person</b>							
No school qualifications	39,800	1,500	36,400	1,000	36	9,200	800
Secondary general school	210,800	62,100	194,600	52,100	33	49,400	13,900
Intermediate secondary school <sup>7</sup>	242,300	82,700	212,100	65,700	53	56,700	19,700
Higher education entrance qualification	345,400	147,700	301,300	108,500	52	85,100	30,300
<b>Vocational training of reference person</b>							
No vocational qualifications	83,600	5,500	71,300	3,800	40	30,500	4,800
Apprenticeship <sup>8</sup>	220,000	72,400	196,100	59,800	45	52,800	17,700
Technical college degree	440,700	235,300	397,900	195,000	45	94,200	50,500
University of applied sciences degree <sup>9</sup>	315,100	88,300	280,300	78,500	49	71,100	15,400
University degree <sup>10</sup>	431,500	221,800	377,400	175,400	48	112,200	49,600
<b>Nationality of reference person</b>							
German	284,100	108,000	253,300	87,100	44	69,800	23,700
Other nationality	132,800	18,200	108,500	11,000	55	44,300	8,700
<b>Net wealth (quantile)</b>							
0- 20%	9,600	1,100	- 6,800	100	54	30,000	5,100
20- 40%	18,800	13,500	13,300	11,800	35	15,400	4,200
40- 60%	99,400	81,300	73,400	70,800	43	61,000	24,600
60- 80%	258,000	250,700	222,100	215,400	47	76,200	50,000
80- 90%	476,400	456,200	436,400	428,400	43	93,800	51,700
90-100%	1,381,500	955,800	1,292,100	861,600	53	170,100	92,600
<b>Gross income (quantile)</b>							
0- 20%	57,100	4,400	53,400	3,500	28	12,900	3,200
20- 40%	149,400	34,000	140,400	29,800	36	25,000	5,700
40- 60%	183,000	74,300	162,300	62,500	46	44,700	13,200
60- 80%	270,100	173,200	234,200	118,100	54	66,400	29,500
80- 90%	409,200	292,800	352,400	219,300	64	89,400	56,000
90-100%	897,900	523,600	796,900	456,100	60	167,100	99,400

1 Mecklenburg-West Pomerania, Saxony-Anhalt, Brandenburg, Berlin, Thuringia, Saxony. 2 Lower Saxony, Schleswig-Holstein, Hamburg, Bremen. 3 Bavaria, Baden-Württemberg, Hesse. 4 North Rhine-Westphalia, Rhineland-Palatinate, Saarland. 5 Including agriculture. 6 Including (early) pensioners/retired civil servants, school pupils, persons on national service, housewives, others. 7 Or equivalent qualifications/completed GDR standard school up to tenth grade. 8 Dual training programme. 9 Including bachelor's degree. 10 Or doctorate.

## Real assets (gross) and financial assets (gross), in total and by household characteristics

Figures in €

Item	Real assets (gross)			Financial assets (gross)		
	Participation rate in %	Conditional mean value	Conditional median	Participation rate in %	Conditional mean value	Conditional median
<b>All households</b>	83	249,100	106,900	99	56,800	16,900
<b>Region</b>						
east <sup>1</sup>	76	105,500	21,100	100	30,900	10,100
west	85	283,000	143,100	99	63,700	21,200
of which: region 1 <sup>2</sup>	82	319,400	144,600	99	53,400	15,900
region 2 <sup>3</sup>	88	308,100	164,000	100	77,200	30,600
region 3 <sup>4</sup>	81	226,100	118,800	99	52,200	15,400
<b>Homeowner status</b>						
Owner without mortgage	100	407,300	250,400	100	106,200	50,800
Owner with mortgage	100	462,400	264,200	100	65,100	31,600
Tenant	69	44,900	6,800	99	30,600	6,900
<b>Type of household</b>						
Single household	69	168,700	30,000	100	40,200	9,900
Single-parent household	63	99,600	8,300	94	18,300	2,700
Couple without children	96	298,100	158,700	100	76,000	30,700
Couple with children	94	313,900	171,600	99	67,900	21,100
Other	80	224,200	68,700	100	43,500	13,100
<b>Age of reference person</b>						
16-24	57	11,500	5,300	98	10,100	2,800
25-34	78	85,800	8,300	100	22,200	7,100
35-44	84	192,000	80,400	99	49,700	18,600
45-54	89	356,500	167,400	100	73,400	25,800
55-64	90	310,200	171,500	100	73,700	31,900
65-74	85	297,700	183,800	100	76,200	26,200
75+	76	230,800	113,100	100	53,200	16,700
<b>Labour market status of reference person</b>						
Self-employed	96	697,700	220,800	100	110,400	36,400
Civil servant	97	279,100	195,600	100	76,900	56,500
Employee	88	226,600	100,400	100	59,700	23,400
Worker <sup>5</sup>	86	136,400	50,800	100	25,800	9,300
Unemployed	48	45,000	2,700	97	19,300	600
Non-labour force member <sup>6</sup>	76	220,500	119,500	99	55,600	14,600
Pensioner	78	219,900	119,300	99	58,300	17,200
Retired civil servant	93	393,300	296,400	100	85,900	40,200
<b>School education of reference person</b>						
No school qualifications	35	94,400	3,700	95	7,200	500
Secondary general school	78	218,900	104,600	99	39,300	9,800
Intermediate secondary school <sup>7</sup>	87	222,800	84,400	99	47,900	15,800
Higher education entrance qualification	86	302,900	140,000	100	84,700	33,400
<b>Vocational training of reference person</b>						
No vocational qualifications	56	118,400	12,900	98	17,500	2,100
Apprenticeship <sup>8</sup>	84	208,000	85,500	100	44,500	13,700
Technical college degree	95	385,600	204,400	100	75,200	35,300
University of applied sciences degree <sup>9</sup>	89	264,500	73,300	100	79,400	30,700
University degree <sup>10</sup>	89	359,200	199,800	100	110,700	57,200
<b>Nationality of reference person</b>						
German	84	264,000	120,300	100	61,700	21,200
Other nationality	72	150,700	44,600	97	24,400	3,400
<b>Net wealth (quantile)</b>						
0- 20%	45	15,700	1,100	98	2,500	700
20- 40%	75	11,800	5,400	100	9,900	7,600
40- 60%	94	68,200	40,900	100	35,500	30,800
60- 80%	99	199,900	200,800	100	59,200	41,700
80- 90%	99	367,400	360,200	100	111,100	84,900
90-100%	100	1,140,300	774,100	100	241,200	165,600
<b>Gross income (quantile)</b>						
0- 20%	50	84,500	5,000	98	14,700	2,700
20- 40%	81	147,000	33,300	99	30,700	7,400
40- 60%	89	160,600	48,400	100	40,700	14,500
60- 80%	95	220,900	141,600	100	59,900	28,300
80- 90%	98	330,100	238,600	100	86,200	52,000
90-100%	99	719,300	384,400	100	188,400	112,700

1 Mecklenburg-West Pomerania, Saxony-Anhalt, Brandenburg, Berlin, Thuringia, Saxony. 2 Lower Saxony, Schleswig-Holstein, Hamburg, Bremen. 3 Bavaria, Baden-Württemberg, Hesse. 4 North Rhine-Westphalia, Rhineland-Palatinate, Saarland. 5 Including agriculture. 6 Including (early) pensioners/retired civil servants, school pupils, persons on national service, housewives, others. 7 Or equivalent qualifications/completed GDR standard school up to tenth grade. 8 Dual training programme. 9 Including bachelor's degree. 10 Or doctorate.



## Owner-occupied housing and other properties, in total and by household characteristics

Figures in €

Item	Owner-occupied housing			Other properties		
	Participation rate in %	Conditional mean value	Conditional median	Participation rate in %	Conditional mean value	Conditional median
<b>All households</b>	44	258,800	199,200	22	244,700	115,800
<b>Region</b>						
east <sup>1</sup>	34	149,700	105,000	14	143,800	61,800
west	47	279,500	217,700	25	259,700	120,300
of which: region 1 <sup>2</sup>	48	286,000	201,200	22	247,400	125,400
region 2 <sup>3</sup>	49	314,300	249,100	29	262,700	119,100
region 3 <sup>4</sup>	43	224,300	178,700	21	261,900	108,500
<b>Homeowner status</b>						
Owner without mortgage	100	239,800	195,300	39	288,300	124,000
Owner with mortgage	100	287,900	217,700	35	235,700	119,200
Tenant	–	–	–	11	176,300	98,600
<b>Type of household</b>						
Single household	28	205,300	152,100	18	182,600	99,600
Single-parent household	16	240,100	187,400	8	202,300	62,400
Couple without children	60	270,200	199,900	30	257,900	116,200
Couple with children	54	304,500	247,100	23	300,200	145,900
Other	45	230,700	181,900	13	450,600	134,800
<b>Age of reference person</b>						
16-24	–	–	–	–	–	–
25-34	15	213,600	167,000	9	195,400	95,500
35-44	39	246,700	195,600	17	210,600	118,100
45-54	55	293,900	241,100	28	255,400	124,800
55-64	60	256,600	199,300	32	261,300	106,600
65-74	54	253,800	197,800	30	283,200	125,800
75+	48	237,200	173,600	22	213,300	83,100
<b>Labour market status of reference person</b>						
Self-employed	54	438,800	294,700	39	454,700	195,400
Civil servant	56	313,700	245,100	24	238,600	176,100
Employee	45	257,100	201,800	23	237,400	133,700
Worker <sup>5</sup>	40	206,700	162,900	17	80,500	45,200
Unemployed	9	176,300	116,700	5	64,000	47,600
Non-labour force member <sup>6</sup>	45	230,200	179,400	22	221,900	103,400
Pensioner	48	225,100	171,900	23	211,400	98,100
Retired civil servant	74	268,000	222,300	49	308,600	154,600
<b>School education of reference person</b>						
No school qualifications	14	180,100	141,900	–	–	–
Secondary general school	44	222,500	171,200	22	181,000	77,400
Intermediate secondary school <sup>7</sup>	45	254,100	196,800	19	216,000	99,300
Higher education entrance qualification	45	300,000	245,500	27	312,100	160,100
<b>Vocational training of reference person</b>						
No vocational qualifications	20	199,600	161,700	12	175,000	72,700
Apprenticeship <sup>8</sup>	45	224,800	180,000	19	206,600	99,500
Technical college degree	63	322,300	225,900	37	233,700	98,700
University of applied sciences degree <sup>9</sup>	43	258,000	199,000	23	301,600	181,800
University degree <sup>10</sup>	49	335,700	268,400	33	343,900	164,900
<b>Nationality of reference person</b>						
German	47	261,500	199,500	23	254,600	117,900
Other nationality	24	212,900	147,800	22	147,300	73,500
<b>Net wealth (quantile)</b>						
0- 20%	4	107,700	82,100	2	65,900	17,400
20- 40%	5	74,500	43,800	3	9,000	4,400
40- 60%	40	110,500	94,000	15	61,800	44,700
60- 80%	81	186,400	177,400	31	90,500	62,500
80- 90%	89	291,900	295,600	52	155,700	141,500
90-100%	92	515,800	426,300	71	551,800	347,600
<b>Gross income (quantile)</b>						
0- 20%	16	178,400	145,900	6	116,800	58,900
20- 40%	35	182,100	143,600	18	112,800	56,000
40- 60%	43	214,000	155,900	20	170,600	95,900
60- 80%	56	230,900	198,400	24	227,000	125,300
80- 90%	66	294,200	246,200	35	227,200	164,800
90-100%	74	429,900	337,500	52	453,600	209,000

<sup>1</sup> Mecklenburg-West Pomerania, Saxony-Anhalt, Brandenburg, Berlin, Thuringia, Saxony. <sup>2</sup> Lower Saxony, Schleswig-Holstein, Hamburg, Bremen. <sup>3</sup> Bavaria, Baden-Württemberg, Hesse. <sup>4</sup> North Rhine-Westphalia, Rhineland-Palatinate, Saarland. <sup>5</sup> Including agriculture. <sup>6</sup> Including (early) pensioners/retired civil servants, school pupils, persons on national service, housewives, others. <sup>7</sup> Or equivalent qualifications/completed GDR standard school up to tenth grade. <sup>8</sup> Dual training programme. <sup>9</sup> Including bachelor's degree. <sup>10</sup> Or doctorate.

## Business assets as well as vehicles and valuables, in total and by household characteristics

Figures in €

Item	Business assets			Vehicles and valuables		
	Participation rate in %	Conditional mean value	Conditional median	Participation rate in %	Conditional mean value	Conditional median
<b>All households</b>	10	309,900	26,600	78	13,600	8,000
<b>Region</b>						
east <sup>1</sup>	7	51,100	17,100	69	9,300	5,000
west	10	356,500	28,900	80	14,600	8,000
of which: region 1 <sup>2</sup>	9	753,100	72,600	77	14,400	7,900
region 2 <sup>3</sup>	12	284,200	28,800	84	15,700	8,800
region 3 <sup>4</sup>	10	257,100	24,200	76	13,300	7,800
<b>Homeowner status</b>						
Owner without mortgage	11	400,300	22,100	91	18,200	9,900
Owner with mortgage	17	498,200	47,400	93	16,300	10,400
Tenant	7	98,500	14,400	66	9,500	4,900
<b>Type of household</b>						
Single household	7	287,300	27,200	62	10,400	4,900
Single-parent household	–	–	–	57	10,900	1,900
Couple without children	10	339,600	30,100	92	15,700	9,500
Couple with children	15	335,500	21,900	91	15,400	9,500
Other	6	130,200	7,700	77	11,700	5,600
<b>Age of reference person</b>						
16-24	–	–	–	55	7,000	3,900
25-34	8	145,100	22,400	74	9,300	5,800
35-44	10	195,600	18,500	80	13,400	8,000
45-54	18	447,500	40,800	83	14,500	8,500
55-64	12	272,000	9,500	86	14,700	8,500
65-74	6	269,400	27,800	81	17,300	8,900
75+	2	327,300	36,500	66	13,700	5,300
<b>Labour market status of reference person</b>						
Self-employed	79	315,200	23,700	83	24,400	10,600
Civil servant	5	501,300	170,100	96	16,400	11,500
Employee	7	341,100	27,000	84	13,100	8,000
Worker <sup>5</sup>	4	272,200	46,300	82	10,800	6,900
Unemployed	–	–	–	47	6,300	1,900
Non-labour force member <sup>6</sup>	3	176,000	21,300	70	13,300	7,000
Pensioner	2	160,400	13,300	71	13,600	7,000
Retired civil servant	2	184,900	155,000	86	17,200	9,100
<b>School education of reference person</b>						
No school qualifications	–	–	–	35	3,400	1,700
Secondary general school	7	415,000	25,700	72	11,200	6,000
Intermediate secondary school <sup>7</sup>	9	299,100	27,500	83	13,800	8,000
Higher education entrance qualification	13	263,800	26,000	81	16,000	8,800
<b>Vocational training of reference person</b>						
No vocational qualifications	4	82,700	23,000	54	6,700	3,600
Apprenticeship <sup>8</sup>	9	290,400	26,100	79	12,800	8,000
Technical college degree	15	451,600	37,900	91	18,400	10,000
University of applied sciences degree <sup>9</sup>	8	772,300	37,300	85	12,300	6,900
University degree <sup>10</sup>	14	209,300	12,600	83	17,600	9,000
<b>Nationality of reference person</b>						
German	9	341,200	27,600	80	14,200	8,000
Other nationality	14	151,000	20,000	64	9,300	4,600
<b>Net wealth (quantile)</b>						
0- 20%	2	14,800	100	44	3,400	1,000
20- 40%	3	5,300	1,600	73	6,700	4,800
40- 60%	8	23,100	17,900	89	10,700	7,700
60- 80%	12	49,200	26,100	89	15,200	9,800
80- 90%	10	84,900	36,600	92	17,700	12,200
90-100%	35	786,200	213,000	95	32,600	17,600
<b>Gross income (quantile)</b>						
0- 20%	3	167,300	23,400	45	5,800	2,100
20- 40%	8	371,400	26,800	74	8,200	4,300
40- 60%	8	109,000	17,000	85	11,300	8,000
60- 80%	9	177,200	11,900	91	14,200	9,600
80- 90%	14	242,700	23,000	93	19,700	13,200
90-100%	27	541,400	66,100	94	27,000	16,000

1 Mecklenburg-West Pomerania, Saxony-Anhalt, Brandenburg, Berlin, Thuringia, Saxony. 2 Lower Saxony, Schleswig-Holstein, Hamburg, Bremen. 3 Bavaria, Baden-Württemberg, Hesse. 4 North Rhine-Westphalia, Rhineland-Palatinate, Saarland. 5 Including agriculture. 6 Including (early) pensioners/retired civil servants, school pupils, persons on national service, housewives, others. 7 Or equivalent qualifications/completed GDR standard school up to tenth grade. 8 Dual training programme. 9 Including bachelor's degree. 10 Or doctorate.

## Current accounts, savings accounts (excluding private retirement provision) and building loan contracts, in total and by household characteristics

Figures in €

Item	Current accounts			Savings accounts (incl. savings under building loan accounts, excl. private retirement provisions)			of which: building loan contracts		
	Participation rate in %	Conditional mean value	Conditional median	Participation rate in %	Conditional mean value	Conditional median	Participation rate in %	Conditional mean value	Conditional median
<b>All households</b>	99	7,100	1,800	70	27,600	9,900	31	9,800	5,000
<b>Region</b>									
east <sup>1</sup>	99	4,200	1,400	61	18,000	5,900	24	7,000	4,500
west	99	7,900	2,000	72	29,700	10,100	33	10,400	5,700
of which: region 1 <sup>2</sup>	99	7,600	1,600	71	23,200	8,300	28	7,100	4,500
region 2 <sup>3</sup>	100	9,500	2,300	76	35,100	15,000	39	12,800	7,100
region 3 <sup>4</sup>	99	5,900	1,300	67	26,000	7,800	28	7,900	5,000
<b>Homeowner status</b>									
Owner without mortgage	100	11,500	3,100	83	46,700	22,000	42	12,100	7,900
Owner with mortgage	100	9,300	2,500	82	18,800	9,600	47	9,900	5,400
Tenant	99	4,300	1,000	59	18,500	4,900	21	7,600	4,000
<b>Type of household</b>									
Single household	99	6,000	1,400	62	22,500	7,100	22	8,200	4,700
Single-parent household	91	3,200	300	54	8,200	1,900	16	5,600	3,100
Couple without children	100	8,600	2,400	77	35,200	13,900	38	9,400	5,800
Couple with children	99	8,000	1,800	75	25,500	9,600	40	13,400	6,000
Other	99	5,100	1,100	70	23,000	9,700	36	8,000	4,400
<b>Age of reference person</b>									
16-24	98	2,600	1,000	60	4,200	1,200	17	5,000	2,000
25-34	98	5,100	1,400	67	13,600	4,100	33	6,200	2,800
35-44	98	7,000	1,500	71	22,900	7,500	35	11,100	4,900
45-54	99	9,400	2,000	68	25,300	8,200	38	9,800	5,100
55-64	100	6,000	1,900	69	36,200	18,400	36	12,600	6,900
65-74	99	8,900	1,900	73	43,600	18,900	26	10,500	7,100
75+	100	7,100	2,000	72	30,400	14,000	21	8,400	5,600
<b>Labour market status of reference person</b>									
Self-employed	99	18,800	3,000	60	40,400	9,900	23	23,500	7,100
Civil servant	100	8,600	3,200	86	38,600	20,200	53	12,300	7,000
Employee	99	6,900	2,000	77	23,300	7,900	40	9,500	4,800
Worker <sup>5</sup>	99	3,600	1,100	64	13,000	5,400	37	6,100	4,200
Unemployed	97	2,000	100	27	14,600	1,900	9	4,600	2,000
Non-labour force member <sup>6</sup>	99	6,600	1,900	67	34,500	13,100	23	9,400	6,600
Pensioner	99	6,900	2,000	71	35,800	15,100	23	10,000	7,000
Retired civil servant	100	9,800	3,200	79	42,700	22,100	27	12,200	8,900
<b>School education of reference person</b>									
No school qualifications	95	1,100	100	35	8,700	4,100	–	–	–
Secondary general school	99	5,300	1,200	64	25,300	9,700	25	8,200	5,000
Intermediate secondary school <sup>7</sup>	99	5,300	1,500	70	21,100	7,000	35	7,800	4,700
Higher education entrance qualification	100	10,800	2,800	77	35,000	12,700	36	12,600	5,900
<b>Vocational training of reference person</b>									
No vocational qualifications	98	2,500	400	50	12,600	3,000	14	7,500	3,400
Apprenticeship <sup>8</sup>	99	5,100	1,500	69	22,000	7,900	33	8,900	5,000
Technical college degree	100	9,000	2,300	79	35,300	16,400	40	10,100	5,800
University of applied sciences degree <sup>9</sup>	100	10,500	2,900	78	39,000	15,700	37	11,600	4,800
University degree <sup>10</sup>	100	15,700	4,700	78	41,500	18,400	34	12,300	7,800
<b>Nationality of reference person</b>									
German	99	7,700	2,000	72	29,200	10,000	33	10,000	5,700
Other nationality	97	3,300	400	48	15,600	4,600	18	9,900	3,200
<b>Net wealth (quantile)</b>									
0- 20%	97	700	100	35	1,600	500	8	2,400	1,100
20- 40%	99	2,500	1,400	63	5,500	3,900	22	3,500	2,600
40- 60%	100	5,300	2,100	79	17,700	9,900	37	8,000	4,900
60- 80%	100	7,100	2,300	85	28,900	16,600	43	10,000	7,500
80- 90%	100	12,100	4,300	90	46,500	24,500	49	10,000	6,700
90-100%	100	27,100	8,700	83	78,400	37,300	43	21,700	9,700
<b>Gross income (quantile)</b>									
0- 20%	97	2,900	500	46	15,400	3,400	10	7,200	3,900
20- 40%	99	4,700	1,000	61	19,400	7,500	21	6,700	5,800
40- 60%	99	4,400	1,500	74	22,700	9,900	34	6,900	3,900
60- 80%	100	6,700	2,000	81	26,000	9,700	44	8,500	4,900
80- 90%	100	10,200	3,600	84	36,600	17,000	45	10,800	7,800
90-100%	100	23,000	7,300	88	54,200	24,300	49	19,000	7,900

<sup>1</sup> Mecklenburg-West Pomerania, Saxony-Anhalt, Brandenburg, Berlin, Thuringia, Saxony. <sup>2</sup> Lower Saxony, Schleswig-Holstein, Hamburg, Bremen. <sup>3</sup> Bavaria, Baden-Württemberg, Hesse. <sup>4</sup> North Rhine-Westphalia, Rhineland-Palatinate, Saarland. <sup>5</sup> Including agriculture. <sup>6</sup> Including (early) pensioners/retired civil servants, school pupils, persons on national service, housewives, others. <sup>7</sup> Or equivalent qualifications/completed GDR standard school up to tenth grade. <sup>8</sup> Dual training programme. <sup>9</sup> Including bachelor's degree. <sup>10</sup> Or doctorate.

## Mutual fund shares (excluding private retirement provision), shares and bonds, in total and by household characteristics

Figures in €

Item	Mutual fund shares (excl. private retirement provision)			Shares			Bonds		
	Participation rate in %	Conditional mean value	Conditional median	Participation rate in %	Conditional mean value	Conditional median	Participation rate in %	Conditional mean value	Conditional median
<b>All households</b>	16	37,500	12,900	11	43,700	9,900	3	43,200	15,100
<b>Region</b>									
east <sup>1</sup>	10	36,000	14,100	5	27,400	7,700	1	32,500	17,300
west	17	37,800	12,900	13	45,300	9,900	4	44,000	14,400
of which: region 1 <sup>2</sup>	13	31,000	8,200	11	46,500	11,500	4	43,100	20,400
region 2 <sup>3</sup>	21	37,700	14,900	15	45,600	10,100	5	43,300	11,400
region 3 <sup>4</sup>	15	41,400	10,000	9	43,700	9,800	3	46,200	19,600
<b>Homeowner status</b>									
Owner without mortgage	23	54,500	20,800	17	69,800	16,400	6	62,800	26,400
Owner with mortgage	19	22,300	7,400	15	23,800	5,700	4	20,500	5,400
Tenant	11	29,300	9,800	7	24,800	9,500	2	28,400	10,900
<b>Type of household</b>									
Single household	14	38,800	13,100	9	39,600	9,800	2	28,700	6,300
Single-parent household	–	–	–	–	–	–	–	–	–
Couple without children	20	43,400	15,000	14	46,300	12,300	4	57,900	27,000
Couple with children	14	24,900	7,100	12	48,600	7,800	4	27,100	5,800
Other	15	11,200	4,000	8	38,400	13,800	4	39,400	9,900
<b>Age of reference person</b>									
16-24	–	–	–	–	–	–	–	–	–
25-34	11	13,500	5,800	9	7,500	2,800	2	7,300	4,800
35-44	16	19,900	5,500	8	51,200	4,800	4	30,600	7,300
45-54	18	26,000	10,500	16	25,400	8,100	3	26,900	6,000
55-64	19	38,900	14,800	10	50,300	11,400	3	42,200	23,700
65-74	19	68,500	25,700	13	53,300	15,100	5	70,100	21,800
75+	11	69,500	32,400	12	79,500	27,600	3	66,900	27,900
<b>Labour market status of reference person</b>									
Self-employed	21	47,200	14,600	14	41,800	6,800	4	32,800	3,500
Civil servant	27	17,900	8,900	18	22,300	8,700	4	12,000	8,800
Employee	20	24,700	7,700	12	32,900	9,600	4	31,700	9,700
Worker <sup>5</sup>	7	20,500	9,300	4	3,500	1,100	–	–	–
Unemployed	6	27,500	3,400	–	–	–	–	–	–
Non-labour force member <sup>6</sup>	13	61,300	24,800	11	63,100	16,300	3	63,100	23,800
Pensioner	13	70,200	29,100	12	62,900	21,000	3	78,100	26,900
Retired civil servant	24	48,400	32,500	17	95,400	36,100	6	40,000	17,600
<b>School education of reference person</b>									
No school qualifications	–	–	–	–	–	–	–	–	–
Secondary general school	8	50,900	19,000	6	37,200	15,700	2	40,400	22,400
Intermediate secondary school <sup>7</sup>	15	32,600	10,000	10	35,100	8,300	2	48,500	11,100
Higher education entrance qualification	25	35,600	12,100	17	49,900	9,700	5	42,200	11,500
<b>Vocational training of reference person</b>									
No vocational qualifications	5	62,700	21,100	4	46,500	8,700	–	–	–
Apprenticeship <sup>8</sup>	12	38,500	10,000	8	33,800	9,900	3	38,200	19,700
Technical college degree	18	29,500	10,000	13	49,400	10,100	2	25,000	6,600
University of applied sciences degree <sup>9</sup>	24	27,500	8,500	17	25,600	8,600	5	58,900	13,900
University degree <sup>10</sup>	32	38,200	17,100	22	61,500	13,400	8	49,100	14,300
<b>Nationality of reference person</b>									
German	17	38,000	14,900	12	43,400	9,900	4	42,700	15,600
Other nationality	8	38,700	5,900	2	88,300	61,900	0	119,100	16,200
<b>Net wealth (quantile)</b>									
0- 20%	–	–	–	–	–	–	–	–	–
20- 40%	6	4,700	2,600	2	5,800	1,900	–	–	–
40- 60%	17	13,500	8,100	9	13,400	5,400	2	13,700	10,300
60- 80%	19	23,700	9,900	12	16,400	5,800	4	11,800	3,800
80- 90%	34	41,000	21,600	26	28,400	10,600	6	39,000	24,200
90-100%	39	79,100	38,600	36	93,700	23,500	12	82,400	38,400
<b>Gross income (quantile)</b>									
0- 20%	4	21,300	7,600	3	21,200	10,700	1	15,400	4,200
20- 40%	9	50,200	18,000	4	30,300	20,400	1	69,800	24,500
40- 60%	15	34,100	13,700	10	30,400	8,000	2	23,600	11,100
60- 80%	19	29,100	9,700	11	35,500	9,800	3	30,900	12,300
80- 90%	25	25,000	9,100	18	31,400	5,900	7	35,900	5,300
90-100%	36	54,500	19,400	34	70,800	14,200	11	58,100	24,900

1 Mecklenburg-West Pomerania, Saxony-Anhalt, Brandenburg, Berlin, Thuringia, Saxony. 2 Lower Saxony, Schleswig-Holstein, Hamburg, Bremen. 3 Bavaria, Baden-Württemberg, Hesse. 4 North Rhine-Westphalia, Rhineland-Palatinate, Saarland. 5 Including agriculture. 6 Including (early) pensioners/retired civil servants, school pupils, persons on national service, housewives, others. 7 Or equivalent qualifications/completed GDR standard school up to tenth grade. 8 Dual training programme. 9 Including bachelor's degree. 10 Or doctorate.

## Other financial assets\* and money owed to the household, in total and by household characteristics

Figures in €

Item	Other financial assets			Money owed to the household		
	Participation rate in %	Conditional mean value	Conditional median	Participation rate in %	Conditional mean value	Conditional median
<b>All households</b>	15	7,800	1,500	13	9,400	1,900
<b>Region</b>						
east <sup>1</sup>	12	4,000	1,400	15	5,900	1,500
west	16	8,500	1,500	12	10,600	2,000
of which: region 1 <sup>2</sup>	18	10,800	1,800	13	9,700	2,500
region 2 <sup>3</sup>	20	8,800	1,500	12	9,000	2,300
region 3 <sup>4</sup>	11	5,500	1,500	12	13,300	1,800
<b>Homeowner status</b>						
Owner without mortgage	21	9,600	1,900	9	19,200	5,600
Owner with mortgage	16	11,000	1,800	8	17,200	5,000
Tenant	12	4,900	1,300	16	5,600	1,400
<b>Type of household</b>						
Single household	15	6,600	1,500	17	6,100	1,500
Single-parent household	4	3,000	600	15	5,900	2,800
Couple without children	19	8,000	1,500	9	16,900	3,000
Couple with children	12	11,400	2,500	11	9,000	1,700
Other	9	3,600	1,500	13	16,800	8,600
<b>Age of reference person</b>						
16-24	4	12,000	1,400	19	1,600	500
25-34	12	1,900	900	22	2,400	1,000
35-44	14	6,300	1,700	14	4,000	1,900
45-54	14	11,400	2,400	11	13,700	4,800
55-64	21	8,900	1,400	12	12,700	2,900
65-74	18	9,600	1,900	11	20,400	6,500
75+	15	5,400	1,500	5	21,100	3,800
<b>Labour market status of reference person</b>						
Self-employed	26	12,900	3,700	23	14,300	4,600
Civil servant	20	6,600	2,700	11	6,700	900
Employee	15	7,100	1,200	13	7,300	1,500
Worker <sup>5</sup>	9	9,600	1,100	15	3,300	1,600
Unemployed	–	–	–	16	6,100	1,200
Non-labour force member <sup>6</sup>	16	6,500	1,500	9	14,600	2,900
Pensioner	17	5,900	1,600	7	20,300	4,900
Retired civil servant	20	19,600	4,200	12	15,800	4,500
<b>School education of reference person</b>						
No school qualifications	–	–	–	–	–	–
Secondary general school	15	4,300	1,300	10	11,400	1,900
Intermediate secondary school <sup>7</sup>	14	7,800	1,200	13	11,100	2,400
Higher education entrance qualification	17	10,900	2,600	15	7,100	1,700
<b>Vocational training of reference person</b>						
No vocational qualifications	7	3,900	1,500	12	2,800	1,000
Apprenticeship <sup>8</sup>	15	6,600	1,200	12	10,500	2,400
Technical college degree	21	6,800	1,100	12	18,400	4,400
University of applied sciences degree <sup>9</sup>	20	6,500	1,900	16	5,900	1,200
University degree <sup>10</sup>	19	13,500	3,800	15	8,500	1,700
<b>Nationality of reference person</b>						
German	17	7,800	1,500	13	10,200	2,000
Other nationality	–	–	–	11	4,400	1,300
<b>Net wealth (quantile)</b>						
0- 20%	4	1,300	900	13	4,000	900
20- 40%	11	1,400	900	16	3,400	1,400
40- 60%	16	3,100	1,600	14	8,200	1,900
60- 80%	17	6,000	1,100	9	8,900	2,800
80- 90%	26	9,800	2,800	10	15,000	5,500
90-100%	32	18,600	4,000	15	30,400	7,200
<b>Gross income (quantile)</b>						
0- 20%	11	3,300	1,300	14	3,200	1,000
20- 40%	14	6,700	1,000	11	10,500	2,000
40- 60%	12	5,900	1,300	14	6,800	1,400
60- 80%	17	5,700	1,800	13	12,700	2,400
80- 90%	21	7,700	1,700	10	9,300	4,500
90-100%	25	17,800	4,500	13	19,400	5,900

\* Including gold, derivatives, shares in cooperatives, certificates. **1** Mecklenburg-West Pomerania, Saxony-Anhalt, Brandenburg, Berlin, Thuringia, Saxony. **2** Lower Saxony, Schleswig-Holstein, Hamburg, Bremen. **3** Bavaria, Baden-Württemberg, Hesse. **4** North Rhine-Westphalia, Rhineland-Palatinate, Saarland. **5** Including agriculture. **6** Including (early) pensioners/retired civil servants, school pupils, persons on national service, housewives, others. **7** Or equivalent qualifications/completed GDR standard school up to tenth grade. **8** Dual training programme. **9** Including bachelor's degree. **10** Or doctorate.

## Private retirement provision and whole life insurance policies as well as Riester/Rürup retirement provision products, in total and by household characteristics

Figures in €

Item	Private retirement provision (incl. whole life insurance policies)			of which: Riester/Rürup retirement provision products		
	Participa- tion rate in %	Conditional mean value	Conditional median	Participa- tion rate in %	Conditional mean value	Conditional median
<b>All households</b>	43	33,200	15,400	21	13,800	7,100
<b>Region</b>						
east <sup>1</sup>	37	21,100	10,800	20	10,100	5,400
west	45	35,800	17,500	21	14,800	7,600
of which: region 1 <sup>2</sup>	42	29,000	17,000	20	11,400	6,400
region 2 <sup>3</sup>	48	39,200	19,300	23	16,400	9,100
region 3 <sup>4</sup>	42	34,800	15,100	19	14,300	5,800
<b>Homeowner status</b>						
Owner without mortgage	43	49,300	31,700	19	21,800	11,400
Owner with mortgage	66	41,900	24,100	37	14,900	7,900
Tenant	36	19,100	8,100	16	8,600	5,000
<b>Type of household</b>						
Single household	32	26,400	11,200	10	14,900	5,500
Single-parent household	37	13,600	4,200	22	6,100	4,000
Couple without children	46	38,500	20,800	22	15,000	8,600
Couple with children	63	37,300	17,800	40	13,400	7,400
Other	52	24,800	10,500	28	9,700	5,200
<b>Age of reference person</b>						
16-24	35	3,400	1,900	13	2,200	1,100
25-34	44	10,500	4,700	23	6,500	2,900
35-44	57	26,000	16,000	35	11,000	6,600
45-54	63	47,400	26,600	34	18,600	9,700
55-64	54	43,900	27,200	21	16,500	9,600
65-74	19	34,500	19,000	5	15,500	5,000
75+	13	18,400	9,400	1	23,800	14,900
<b>Labour market status of reference person</b>						
Self-employed	57	64,100	35,000	22	27,400	11,600
Civil servant	71	32,900	22,900	42	11,900	6,800
Employee	61	33,400	16,700	32	14,200	7,200
Worker <sup>5</sup>	52	20,900	9,600	28	8,600	5,400
Unemployed	29	25,000	6,400	14	6,700	6,200
Non-labour force member <sup>6</sup>	19	28,000	12,800	5	11,900	7,600
Pensioner	15	25,300	11,000	2	13,100	7,000
Retired civil servant	24	25,700	12,900	6	22,000	11,800
<b>School education of reference person</b>						
No school qualifications	–	–	–	–	–	–
Secondary general school	31	27,000	10,000	11	10,300	6,700
Intermediate secondary school <sup>7</sup>	50	29,400	14,000	26	10,000	5,900
Higher education entrance qualification	52	40,300	20,800	26	18,700	9,700
<b>Vocational training of reference person</b>						
No vocational qualifications	23	11,500	5,000	10	8,000	3,600
Apprenticeship <sup>8</sup>	44	29,200	12,700	20	10,500	6,000
Technical college degree	45	40,200	21,800	21	13,700	8,500
University of applied sciences degree <sup>9</sup>	54	32,800	18,600	28	14,900	8,900
University degree <sup>10</sup>	54	48,700	26,800	26	24,300	13,600
<b>Nationality of reference person</b>						
German	45	34,800	17,100	21	14,500	7,700
Other nationality	28	18,600	9,100	10	9,900	6,000
<b>Net wealth (quantile)</b>						
0- 20%	16	3,600	1,500	7	3,300	1,600
20- 40%	37	7,200	5,500	20	5,000	3,800
40- 60%	53	19,700	14,300	23	9,800	6,400
60- 80%	51	35,700	24,700	24	16,000	9,600
80- 90%	54	49,800	33,500	28	18,600	10,900
90-100%	64	82,300	59,500	29	28,400	17,500
<b>Gross income (quantile)</b>						
0- 20%	17	11,800	5,900	7	5,700	2,700
20- 40%	27	18,300	7,400	10	7,700	5,600
40- 60%	44	19,300	8,500	19	8,600	4,200
60- 80%	56	30,800	15,900	28	11,900	6,500
80- 90%	67	39,000	22,800	39	15,200	10,200
90-100%	76	67,800	47,500	40	25,800	16,500

1 Mecklenburg-West Pomerania, Saxony-Anhalt, Brandenburg, Berlin, Thuringia, Saxony. 2 Lower Saxony, Schleswig-Holstein, Hamburg, Bremen. 3 Bavaria, Baden-Württemberg, Hesse. 4 North Rhine-Westphalia, Rhineland-Palatinate, Saarland. 5 Including agriculture. 6 Including (early) pensioners/retired civil servants, school pupils, persons on national service, housewives, others. 7 Or equivalent qualifications/completed GDR standard school up to tenth grade. 8 Dual training programme. 9 Including bachelor's degree. 10 Or doctorate.

## Mortgage loans for owner-occupied and other properties and unsecured loans\*, in total and by household characteristics

Figures in €

Item	Mortgage loans for owner-occupied properties			Mortgage loans for other properties			Unsecured loans		
	Participation rate in %	Conditional mean value	Conditional median	Participation rate in %	Conditional mean value	Conditional median	Participation rate in %	Conditional mean value	Conditional median
<b>All households</b>	17	99,400	76,200	6	151,500	80,100	33	10,800	4,900
<b>Region</b>									
east <sup>1</sup>	12	91,500	65,500	3	92,500	61,200	39	10,800	4,100
west	19	100,600	78,000	7	157,500	86,100	31	10,800	4,900
of which: region 1 <sup>2</sup>	22	86,600	69,200	7	162,900	119,800	31	10,000	4,100
region 2 <sup>3</sup>	17	110,500	81,200	7	177,200	93,600	27	12,900	5,400
region 3 <sup>4</sup>	19	98,900	79,300	6	125,200	55,300	36	9,200	4,700
<b>Homeowner status</b>									
Owner without mortgage	–	–	–	8	193,800	69,200	18	17,400	7,000
Owner with mortgage	100	99,400	76,200	13	132,900	86,900	40	9,900	4,500
Tenant	–	–	–	3	118,300	86,800	37	9,500	4,600
<b>Type of household</b>									
Single household	8	77,500	59,000	4	125,600	79,300	27	11,400	4,500
Single-parent household	14	114,200	107,200	–	–	–	46	5,500	2,200
Couple without children	19	91,000	67,700	7	124,100	72,100	31	11,100	5,000
Couple with children	37	119,100	97,900	9	192,100	94,700	47	11,300	5,400
Other	10	77,200	76,400	–	–	–	35	7,400	4,700
<b>Age of reference person</b>									
16-24	–	–	–	–	–	–	41	8,200	4,900
25-34	8	184,300	166,100	2	202,500	130,100	51	10,200	5,100
35-44	27	116,000	105,400	6	176,600	103,800	45	11,500	4,100
45-54	33	97,500	72,600	9	133,700	89,600	38	12,600	5,800
55-64	22	73,700	58,900	10	157,100	67,700	30	11,400	4,300
65-74	9	72,800	60,300	5	158,000	42,500	18	5,100	2,000
75+	3	38,800	23,200	2	97,600	65,400	6	10,900	3,400
<b>Labour market status of reference person</b>									
Self-employed	27	105,200	72,200	17	197,600	109,200	36	14,200	6,700
Civil servant	31	128,500	87,300	4	147,000	93,300	36	18,500	8,500
Employee	25	106,900	83,800	7	150,100	79,300	41	11,700	5,500
Worker <sup>5</sup>	23	77,000	69,000	5	107,900	62,500	47	10,900	4,200
Unemployed	–	–	–	–	–	–	36	4,600	1,100
Non-labour force member <sup>6</sup>	6	69,200	45,400	3	130,600	52,800	19	7,600	2,500
Pensioner	5	51,300	29,200	2	79,400	47,600	11	6,900	2,100
Retired civil servant	18	74,600	70,300	14	257,700	99,200	9	3,200	1,600
<b>School education of reference person</b>									
No school qualifications	–	–	–	–	–	–	33	5,100	700
Secondary general school	11	75,600	65,800	4	125,800	59,300	24	9,500	4,000
Intermediate secondary school <sup>7</sup>	21	94,700	70,100	5	120,200	69,800	41	9,800	4,000
Higher education entrance qualification	21	116,900	97,100	9	179,700	96,000	33	13,000	6,300
<b>Vocational training of reference person</b>									
No vocational qualifications	8	88,800	68,900	2	174,600	121,800	36	6,600	2,500
Apprenticeship <sup>8</sup>	18	84,100	69,300	4	125,300	64,900	34	10,300	4,000
Technical college degree	22	112,500	92,100	9	145,400	96,400	28	13,500	5,200
University of applied sciences degree <sup>9</sup>	19	113,500	95,000	6	126,000	104,800	32	14,200	7,000
University degree <sup>10</sup>	21	130,100	99,500	12	186,900	91,000	27	15,200	7,500
<b>Nationality of reference person</b>									
German	18	99,700	79,000	6	152,700	75,900	31	11,200	4,900
Other nationality	16	90,500	63,400	4	127,700	85,800	45	9,700	4,500
<b>Net wealth (quantile)</b>									
0- 20%	3	154,300	139,200	2	349,600	180,300	53	11,300	4,900
20- 40%	3	88,000	72,700	–	–	–	33	6,900	3,700
40- 60%	20	96,100	77,600	3	105,600	96,200	33	8,500	5,300
60- 80%	31	86,700	65,100	7	76,900	49,200	24	13,400	6,700
80- 90%	27	100,400	84,300	9	98,300	87,900	20	17,000	5,300
90-100%	30	121,500	87,900	24	203,600	98,600	20	16,800	2,500
<b>Gross income (quantile)</b>									
0- 20%	2	76,600	47,200	–	–	–	27	6,200	2,700
20- 40%	7	62,800	39,400	2	91,800	69,000	31	8,900	3,500
40- 60%	15	82,700	62,700	3	122,200	55,600	37	10,800	5,300
60- 80%	25	91,900	76,800	7	114,600	56,600	37	12,500	6,900
80- 90%	37	102,500	78,600	11	129,600	106,100	36	11,200	4,600
90-100%	37	136,600	103,500	21	211,400	98,400	26	19,900	7,800

\* Including consumer loans, student loan debt, revolving credit card debt. **1** Mecklenburg-West Pomerania, Saxony-Anhalt, Brandenburg, Berlin, Thuringia, Saxony. **2** Lower Saxony, Schleswig-Holstein, Hamburg, Bremen. **3** Bavaria, Baden-Württemberg, Hesse. **4** North Rhine-Westphalia, Rhineland-Palatinate, Saarland. **5** Including agriculture. **6** Including (early) pensioners/retired civil servants, school pupils, persons on national service, housewives, others. **7** Or equivalent qualifications/completed GDR standard school up to tenth grade. **8** Dual training programme. **9** Including bachelor's degree. **10** Or doctorate.

## Gross and net income,\* in total and by household characteristics

Figures in €

Item	Gross income (annual, calculated from components)		Net income (annual, self-assessment)	
	Mean value	Median	Mean value	Median
<b>All households</b>	53,000	40,100	36,700	27,600
<b>Region</b>				
east <sup>1</sup>	42,000	32,200	30,200	23,800
west	56,000	42,400	38,500	29,800
of which: region 1 <sup>2</sup>	51,000	40,900	35,500	26,200
region 2 <sup>3</sup>	63,400	46,700	42,000	31,500
region 3 <sup>4</sup>	49,300	38,900	35,700	27,200
<b>Homeowner status</b>				
Owner without mortgage	62,300	46,200	44,100	32,200
Owner with mortgage	81,800	66,900	48,700	41,600
Tenant	39,800	30,200	29,500	22,200
<b>Type of household</b>				
Single household	31,800	25,000	26,000	18,600
Single-parent household	32,200	25,200	22,200	20,900
Couple without children	67,000	52,700	46,200	35,700
Couple with children	80,200	61,700	47,000	41,200
Other	48,700	37,300	31,900	28,200
<b>Age of reference person</b>				
16-24	20,000	12,800	16,000	11,900
25-34	42,300	37,600	29,400	25,100
35-44	61,500	51,700	38,400	35,000
45-54	74,900	55,200	41,800	34,900
55-64	60,900	47,300	41,800	29,900
65-74	43,900	32,200	39,900	25,700
75+	34,400	27,900	33,100	21,900
<b>Labour market status of reference person</b>				
Self-employed	81,600	55,300	56,300	33,400
Civil servant	78,900	67,300	59,700	47,700
Employee	67,300	53,100	39,300	34,700
Worker <sup>5</sup>	45,400	42,000	31,400	28,600
Unemployed	25,100	19,500	14,600	12,800
Non-labour force member <sup>6</sup>	36,500	28,200	32,500	22,700
Pensioner	35,500	27,800	34,800	22,700
Retired civil servant	54,000	47,900	40,600	34,500
<b>School education of reference person</b>				
No school qualifications	20,000	17,200	22,900	12,700
Secondary general school	40,000	30,700	30,300	22,700
Intermediate secondary school <sup>7</sup>	51,600	42,000	35,500	29,800
Higher education entrance qualification	69,300	54,100	45,000	34,700
<b>Vocational training of reference person</b>				
No vocational qualifications	28,000	21,900	21,000	17,300
Apprenticeship <sup>8</sup>	48,200	37,600	33,400	25,100
Technical college degree	60,100	49,500	37,600	32,000
University of applied sciences degree <sup>9</sup>	66,900	50,200	40,300	34,900
University degree <sup>10</sup>	81,700	68,300	60,000	38,100
<b>Nationality of reference person</b>				
German	54,500	41,400	37,900	28,800
Other nationality	45,100	34,400	28,700	22,800
<b>Net wealth (quantile)</b>				
0- 20%	25,800	20,300	18,900	15,200
20- 40%	34,200	31,600	29,800	22,700
40- 60%	50,100	44,100	34,500	29,800
60- 80%	63,700	50,900	43,500	33,000
80- 90%	73,600	60,500	47,300	38,800
90-100%	109,600	85,100	66,900	50,000
<b>Gross income (quantile)</b>				
0- 20%	11,400	12,200	14,700	12,000
20- 40%	26,100	26,300	23,600	20,400
40- 60%	40,100	40,100	32,800	26,800
60- 80%	59,400	58,700	38,100	36,800
80- 90%	86,100	85,100	57,300	47,800
90-100%	170,800	137,300	92,000	65,800

\* Gross income is the sum of the income components included in the survey. By contrast, net income is the respondent's self-assessment of the total. When respondents are asked to give net income as an aggregate, aggregation bias may arise; this means that incomes are understated as certain income components are more likely to be forgotten than when they are specifically asked about. **1** Mecklenburg-West Pomerania, Saxony-Anhalt, Brandenburg, Berlin, Thuringia, Saxony. **2** Lower Saxony, Schleswig-Holstein, Hamburg, Bremen. **3** Bavaria, Baden-Württemberg, Hesse. **4** North Rhine-Westphalia, Rhineland-Palatinate, Saarland. **5** Including agriculture. **6** Including (early) pensioners/retired civil servants, school pupils, persons on national service, housewives, others. **7** Or equivalent qualifications/completed GDR standard school up to tenth grade. **8** Dual training programme. **9** Including bachelor's degree. **10** Or doctorate.



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## Interest rate pass-through in the low interest rate environment

*The Governing Council of the European Central Bank (ECB) responded to the financial and sovereign debt crisis by reducing key policy rates in the euro area to historical lows. June 2014 saw it shift the interest rate on the deposit facility into negative territory for the first time. Other non-standard monetary policy measures such as the public sector purchase programme (PSPP) and forward guidance aimed, amongst other things, to drive down market rates in the longer-term segment. Monetary policy accommodation caused banks to substantially loosen their lending policies, slashing their lending rates since 2014 to what are now unprecedented lows. Euro area credit institutions were far more hesitant in reducing the interest rates they pay on customer deposits, however. Most of them did not follow money market rates into negative territory, leaving their rates instead marginally above the zero mark.*

*To date, the negative interest rate environment seen over the past four years has not impacted on long-term interest rate pass-through to bank lending rates. Indeed, the findings of a cointegration analysis indicate that changes in the EURIBOR are being passed through almost in full to bank rates for loans to enterprises over the long run. As for the short-term impact of the non-standard monetary policy measures and the way in which the negative interest rate environment is affecting interest rate pass-through, a more flexible model framework that incorporates time variability into the empirical analysis tends to provide better insights.*

*Empirical analyses which the Bundesbank has carried out using just such a model framework suggest that interest rate pass-through has been supported by the non-standard monetary policy measures taken since 2011. We find that the changes in monetary policy were passed through in full to bank lending rates up until 2016. The persistence of the period of negative interest rates caused interest rate pass-through to weaken somewhat in 2016, since which time it has been roughly at the same level as it was back in 2011. Bank deposit rates have been anchored just above zero since the middle of 2016, and this will probably have been one major obstacle to further significant cuts in lending rates.*

*The more protracted the spell of negative rates, the greater the likelihood that the weakening of interest rate pass-through in the short-term segment might, at some point, spill over into the long-term parameters as well. Bear in mind, however, that a weakened pass-through of accommodative monetary policy impulses is taking place against a backdrop of historically low lending rates and that the estimates at the current juncture are implying that interest rate pass-through, though weaker, is still almost complete. Therefore, the level of lending rates is arguably still having a significantly accommodative impact on lending activity.*

## ■ Introduction

*Banks play key role in monetary policy transmission process*

Central banks use their monetary policy toolkit to exert influence over variables including general interest rate levels in order to achieve their monetary policy objectives. The primary objective of the Eurosystem is to safeguard price stability in the euro area. Monetary policy measures are transmitted to prices through a variety of transmission channels, and credit institutions play a key role in this regard. For one thing, they are the monetary policy counterparties of the Eurosystem, putting them at the very outset of the transmission process. For another, bank loans still represent a significant source of finance for many non-banks in the euro area, even if funding structures have diversified over recent years to make greater use of equity capital and alternative debt instruments.

*Interest rate channel works by influencing the price of loans*

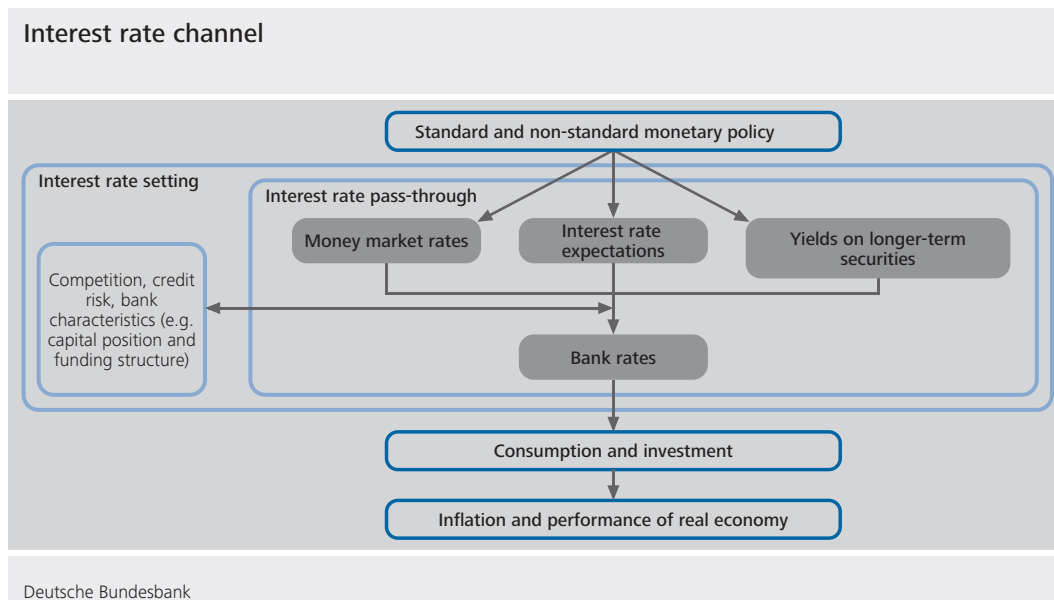
Monetary policy is transmitted through the banking system to influence financing conditions for firms and households. The interest rate channel works on the assumption that monetary policy measures affect market rates directly and banks' lending and deposit rates indirectly.<sup>1</sup> The latter is what is known as interest rate pass-through (see the chart below). This channel is used to transmit interest rate impulses to loan dynamics, economic activity and ultimately the price level. The effectiveness

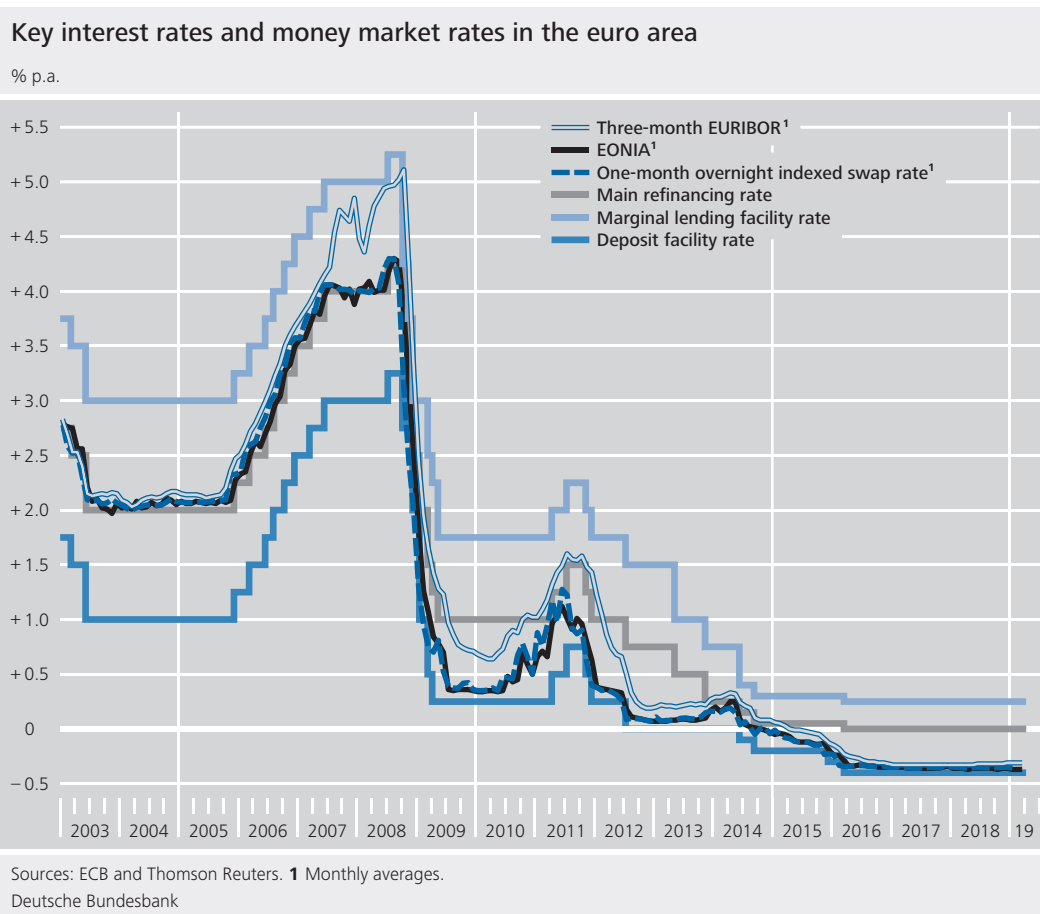
of this channel depends on whether changes in monetary policy rates are passed through in full and without much of a delay.

The Governing Council of the ECB responded to the financial crisis of 2008-09 and the European sovereign debt crisis of 2010-12 by cutting key interest rates to historical lows. June 2014 saw it shift the interest rate on the deposit facility into negative territory. Short-term market rates in the euro area moved in tandem with the stepwise reduction of the policy rate level before likewise dropping below zero for the most part. The looming zero lower bound made it increasingly difficult to perceptibly increase the degree of monetary policy accommodation any further by means of policy rate cuts. In an effort to nonetheless achieve continued policy easing, the Governing Council decided to augment its action on the policy rate front by adding a raft of non-standard monetary policy measures so as to exert direct and indirect influence on longer-term market rates

*Euro area interest rate level very low – short-term rates even negative for the most part since 2014*

<sup>1</sup> See Beyer et al. (2017).





(see the literature cited on p. 55).<sup>2</sup> What is more, a number of these measures were designed to directly address banks' funding costs.<sup>3</sup>

*Low rates  
 affecting banks'  
 rate-setting  
 behaviour*

Persistently low interest rates are an unusual backdrop for the euro area's banking system. The introduction of negative rates, especially, saw monetary policymakers embark on a journey into what was largely uncharted territory. Indeed, lacking past experience, they had barely any theoretical or empirical insights into how monetary policy impulses are transmitted through the banking system in periods of negative rates. Because banks adapt their business policy in response to a variety of factors, it is not necessarily the case that the exceptional interest rate setting is a reason, let alone the sole cause, for changes in their business strategy. The financial crisis and the uncertainty and disruption it caused are likely to have left their mark on the transmission process. Much the same can be said for the reform of banking

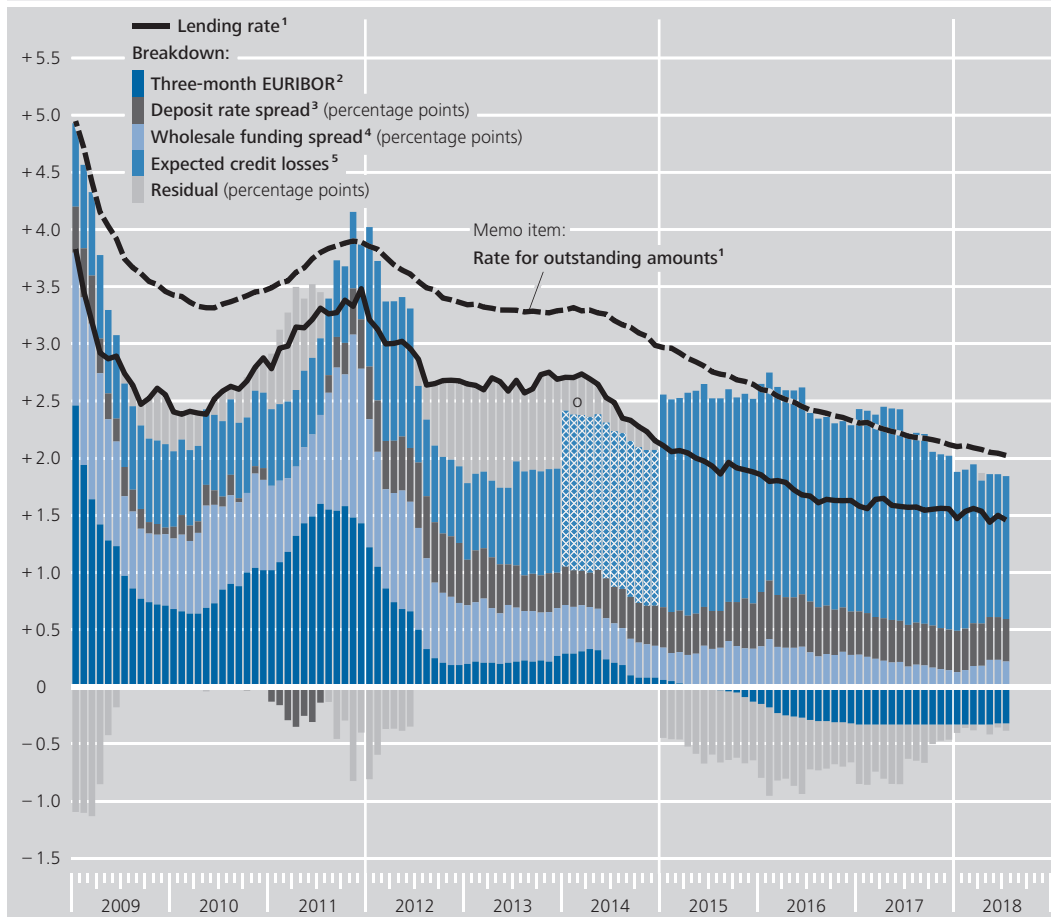
regulations and the prudential regime as part of the implementation of Basel III and the launch of the European banking union. That said, the findings gleaned from the Bundesbank's empirical analyses suggest that rates which persist in low but positive territory, but above all a backdrop of negative rates, have so far not impacted on interest rate pass-through over the long term, even if changes are certainly evident over the short term.

<sup>2</sup> These measures included the securities markets programme (SMP) introduced in 2010, the announcement of outright monetary transactions (OMTs) in July 2012, the adoption of forward guidance in July 2013, and the public sector purchase programme as part of the expanded asset purchase programme (APP), which was adopted in January 2015. Details on the individual asset purchase programmes are available at <https://www.ecb.europa.eu/mopo/implement/omt/html/index.en.html>

<sup>3</sup> These include, amongst others, the targeted longer-term refinancing operations (TLTRO-I and TLTRO-II) offered from 2014 and 2016, respectively.

## Breakdown of the lending rate for new loans to non-financial corporations

% p. a.



Sources: ECB, EBA (Risk Dashboard), Thomson Reuters and Bundesbank calculations. **1** According to the MFI interest rate statistics. **2** Monthly average. **3** Computed as the difference between the aggregated rate on deposits by the private non-financial sector and the one-year overnight indexed swap rate, weighted by the share of customer deposits relative to total borrowing. **4** Computed as the difference between yields on senior bank debt securities (iBOXX) and the five-year overnight indexed swap rate, weighted by the share of bank debt securities used for financing relative to total borrowing. **5** Non-financial corporate sector. Expected credit losses are probability of default (PD) multiplied by loss given default (LGD) for euro area banks (excluding Lithuania, Latvia and Estonia). **6** No EBA data available for 2014. Chart shows the mean between December 2013 and January 2015. As from 2015, EBA data are based on the common reporting framework (COREP) for financial institutions in the EU for the first time.

Deutsche Bundesbank

## Banks' rate-setting behaviour in the low interest rate environment

*Interest rate setting before the low interest rate phase: lending rate above a reference rate, deposit rate below*

Differently structured though the national banking systems in the euro area may be, they nonetheless share striking similarities in terms of how bank loans and customer deposits are priced. Banks generally gear the rates they set to a certain market rate (reference interest rate).<sup>4</sup> When interest rates are at normal levels, the rate they pay on customer deposits is this reference interest rate less a markdown.<sup>5</sup> This is what usually makes deposits a cheaper means of finance for banks than any other source of

funds with a similar maturity. The bank lending rate, by contrast, is usually computed by applying a mark-up to the chosen reference interest rate.<sup>6</sup> This way, banks try to at least cover their business expenses on average. These are made up of items including the cost of capital, expected credit losses, funding costs and operat-

<sup>4</sup> EONIA or EURIBOR, for example.

<sup>5</sup> This approach to pricing is based on the Monti-Klein model, for example. See Klein (1971); and Monti (1971).

<sup>6</sup> See Rousseas (1985); Klein (1971); and Monti (1971).

ing expenses.<sup>7</sup> While a bank's mark-up on capital and expected credit losses will tend to be higher for debtors which are more likely to default, its funding costs and business expenses will depend not on its borrowers' credit quality but above all on the business model it runs.

ting their lending rates for loans to enterprises too low in the negative interest rate environment, meaning that, by rights, their net interest income<sup>10</sup> from traditional corporate lending business ought to be negative.

*Key components of lending rates: bank funding costs, credit risk, reference interest rate*

Using a model to arithmetically break down the composite lending rate, it is possible to illustrate how each of the cost components affect the lending rates set by banks (see the chart on p. 46). This decomposition process is based on the assumption that banks set their rates for loans to non-financial corporations based not only on a reference interest rate<sup>8</sup> but also on other cost components:

- their funding costs;<sup>9</sup>
- credit risk, measured in terms of expected credit losses in the non-financial corporate sector;
- unexpected credit losses and other costs including, for example, equity costs, which are shown in the chart as the residual, or intermediation margin. This is calculated as the spread between the lending rate and the sum of the cost components (including the reference interest rate).

According to the results actually reported by banks in the euro area as a whole, net interest income has been declining since 2015, but it has not turned negative. This is primarily due to the costs associated with expected credit losses. The customary method of calculation (which is also used here) assumes that banks write off the entire loan if a borrower defaults (exposure at default).<sup>11</sup> Given the scope permitted by banking regulations, this is not necessarily how the banks themselves account for credit losses.<sup>12</sup> An exposure at default of less than 100% reduces the size of the bars representing expected credit losses in the chart on page 46, which means it would lower the costs.<sup>13</sup> In other words, less income would be needed to cover the costs. The optimistic view which banks take when measuring their credit risk is evident both in the empirical literature and, say,

*... mainly because the mark-up for expected credit losses in corporate lending business is too small*

However, just as this kind of breakdown offers scant insights into the underlying causalities, so, too, would it be wrong to say that the description applies to specific individual banks. Since the breakdown considers lending business to be the sole source of interest income, the findings of this analysis apply primarily to banks running traditional business models.

What the breakdown reveals for credit institutions engaged predominantly in classic credit business is that the interest income they earn from loans to enterprises, when viewed from the customary perspective, was insufficient to cover the cost of granting loans, not only during the years of crisis but in and after 2014 as well. It would appear, then, that banks are set-

*Bank rates charged for loans to enterprises have not been covering costs since 2014, ...*

<sup>7</sup> In a business-accounting sense, this is how a bank calculates its minimum margins. Banks use this approach as part of their internal accounting operations to set prices in interest-based business which cover their costs. Other sources of bank revenue, such as net commission income, do not feature in this calculation. For euro area banks, net interest income is the chief source of earnings, accounting for roughly 60% of operating profit or loss. See European Central Bank (2017a), pp. 40 f.

<sup>8</sup> Three-month EURIBOR is used for the purpose of breaking down the composite interest rate.

<sup>9</sup> The calculation used in the chart on p. 46 proxies funding costs as the spread between funding costs and a risk-free rate over a similar maturity. The exercise also assumes by implication that banks in the euro area use customer deposits and bank debt securities as their sole source of funding. These are by far the most important sources of funding for the aggregated banking system in the euro area. In 2018, bank funding in the euro area consisted, on average, of 40% of customer deposits and roughly 14% of bank debt securities.

<sup>10</sup> Interest income less interest paid.

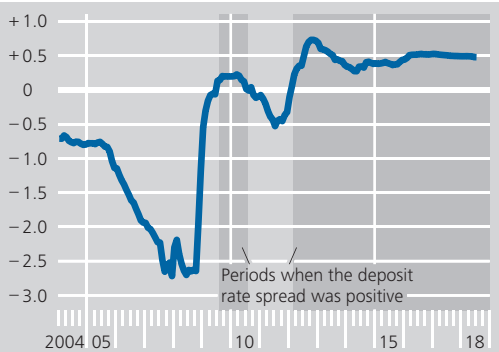
<sup>11</sup> See European Central Bank (2017b), p. 44.

<sup>12</sup> Exposure at default came to a euro area average of 30% in June 2013. See European Banking Authority (2014).

<sup>13</sup> Based on the following calculation: expected credit losses = loss given default x probability of default x exposure at default.

### Deposit rate spread\* in the euro area

Percentage points, monthly data



Sources: ECB, Thomson Reuters and Bundesbank calculations.  
 \* Computed as the difference between the rate for new business for deposits by households and non-financial corporations according to the harmonised MFI interest rate statistics and the three-month EURIBOR.  
 Deutsche Bundesbank

the results of the comprehensive assessment of banks in the euro area.<sup>14</sup>

*Deposit rates higher than short-term market rates for first time since 2012*

In a break from standard business practice, deposit rates have been set above rather than below short-term market rates ever since key interest rates were lowered in response to the financial crisis and particularly in the wake of the fresh round of rate cuts in 2012. In other words, banks are calculating their deposit rates by applying a mark-up, rather than a mark-down, to the reference rate (see the above chart).<sup>15</sup> As the rates paid on customer deposits approached zero, banks responded by making only minimal reductions to their deposit rates.<sup>16</sup> Only as from 2013 or thereabouts did the mark-up stop rising and stabilise at a relatively high level. Since 2016, both market and deposit rates have persisted at their respective levels: short-term market rates deep in negative territory and deposit rates still just above zero. The spread between deposit and market rates, having now turned positive, is a relevant cost factor primarily for banks engaged in traditional banking business.

*Deposit rate rigidity could impact on lending rates, ...*

The extent to which this structural change in the pricing of customer deposits (mark-up instead of markdown) impacts on bank lending rates depends on the individual bank's funding structure and business model.<sup>17</sup> Banks tend to

actively manage their net interest margin<sup>18</sup> with a view to keeping it as stable as possible over time (margin smoothing).<sup>19</sup> They do so by exercising their market power, but at the same time they are subject to a number of constraints (competition, business-accounting and regulatory requirements). Banks will thus adjust their conditions for loans and deposits so as to achieve their target margins. Hence, there is a long-term correlation between lending and deposit rates which can be proven empirically by means of cointegration analysis.<sup>20</sup>

The way in which margins were shaped altered upon entering a negative interest rate environment, however. Although lending and financing decisions were being taken continuously and simultaneously as before, there was a considerable weakening of the long-term relationship between lending and deposit rates.<sup>21</sup> This was the outcome of widely differing interest rate dynamics: while there was a marked and steady decline in lending rates between 2014 and 2016, sight and savings deposit rates underwent less and less change, the closer they came to the zero lower bound (see the

*... although there was a marked fall in lending rates between 2014 and 2016*

<sup>14</sup> The asset quality review component of the ECB's comprehensive assessment of 130 banks in 2014 resulted in additional provisions of €42.9 billion due to the revised valuation of loans. See ECB (2014a), p. 79. The costs of forbearance are discussed in Caballero et al. (2008). For the euro area, see Homar et al. (2015).

<sup>15</sup> Just how crucial a positive deposit rate spread is for German banks, at least, is also evident from the findings of the Bundesbank's survey on the low interest rate setting. See Drescher et al. (2016).

<sup>16</sup> See Darracq Pariès et al. (2014). A zero lower bound does not exist in all deposit categories, but it is a major feature for household deposits. Euro area banks certainly do charge negative rates on large-scale sight deposits by households or non-financial corporations. Overall, though, this is only the case in a handful of countries.

<sup>17</sup> See Heider et al. (2018).

<sup>18</sup> The net interest margin is net interest income relative to the amount of interest-earning assets.

<sup>19</sup> See Drechsler et al. (2018).

<sup>20</sup> See Sopp (2018).

<sup>21</sup> See Sopp (2018). Sopp investigates the interest rate pass-through for deposit rates and uses the borrowing rate as an explanatory variable instead of a reference interest rate. The author measures the change in the long-term relationship over time using rolling regressions.



adjacent chart).<sup>22</sup> The declining long-term relationship and the differing dynamics show that, in the euro area, the rigidity of deposit rates up to 2016 was not transmitted to lending rates. These differing developments in lending and deposit rates led to net interest income from banks' traditional lending business in the euro area undergoing a decline since 2014, in particular.

*Banks respond by expanding lending and stepping up their maturity transformation so as to offset the decline in net interest income*

Euro area banks attempted to counter declining net interest income by making various adjustments to their business policy. While the aggregate interest rate for new bank loans remained more or less constant since 2016 at an all-time low, particularly banks engaged predominantly in traditional deposit and lending business tried to generate additional earnings through a massive expansion of their business volume and increased maturity transform-

<sup>22</sup> Darracq Pariès et al. (2014) find a weakened interest rate pass-through between the three-month overnight indexed swap rate (OIS) and the interest rate for sight and savings deposits of the private non-financial sector in the euro area as early as the period of policy rate cuts between 2011 and 2013.

<sup>23</sup> Loans granted by savings banks and credit cooperatives to the private non-financial sector between 2014 and 2018 grew at an average annual rate of 3.1% and 4.8%, respectively, while they increased on average by no more than 1.6% and 2.7% annually in the period from 2000 to 2013. As a percentage of total new business, loans to enterprises granted with an initial interest rate fixation period of over five years also saw an increase of 5 percentage points, and the share of loans to households for house purchase with an initial interest rate fixation period of over ten years went up by 15 percentage points. The share of short-term funding through sight and savings deposits rose in the same period by 8 percentage points.

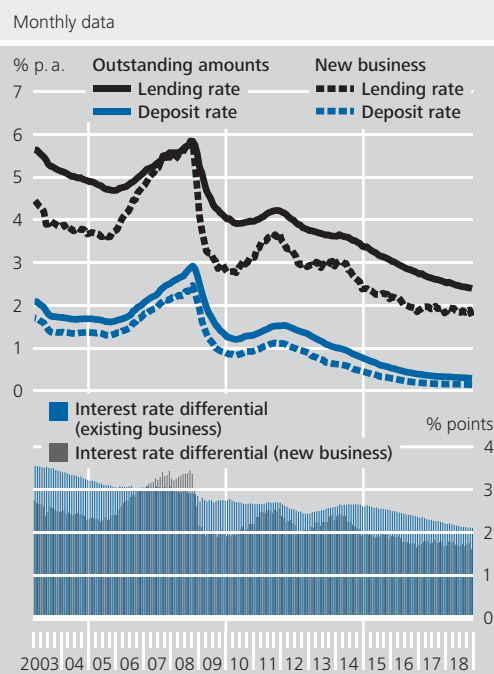
<sup>24</sup> See International Monetary Fund (2018), pp. 65 ff.

<sup>25</sup> Interest rate risk is assessed using a measure proposed by Drechsler et al. (2017):

$$\Delta NIM_t = \alpha + \sum_{s=0}^{s=12} \beta_s \Delta Euribor_{t-s} + \epsilon_t$$

The change in the net interest margin is regressed on the change in the three-month EURIBOR (number of lags = 12 months). For the period from January 2003 to December 2008, this gives a  $\beta_{NIM}$  of 0.1. Drechsler et al. (2017) calculate a  $\beta$  of 0.02 for larger US banks. Hoffmann et al. (2018) estimate a  $\beta$  of 0.04 for larger euro area banks. For the period from 2008, however, there is a  $\beta$  which is negative or close to zero. This means that euro area banks' interest income is reacting much less sensitively than they did as recently as before 2008, which points to heightened interest rate risk. It may be assumed that banks using more maturity transformation to stabilise their income do not hedge their interest rate risk because such hedging would negate the additional earnings.

### Lending rates, deposit rates, and interest rate differentials in the euro area\*



Source: ECB and Bundesbank calculations. \* Volume-weighted interest rates for loans and deposits vis-à-vis the private non-financial sector (according to the harmonised MFI interest rate statistics). Interest rate differential computed as the difference between the lending rate and the deposit rate.

Deutsche Bundesbank

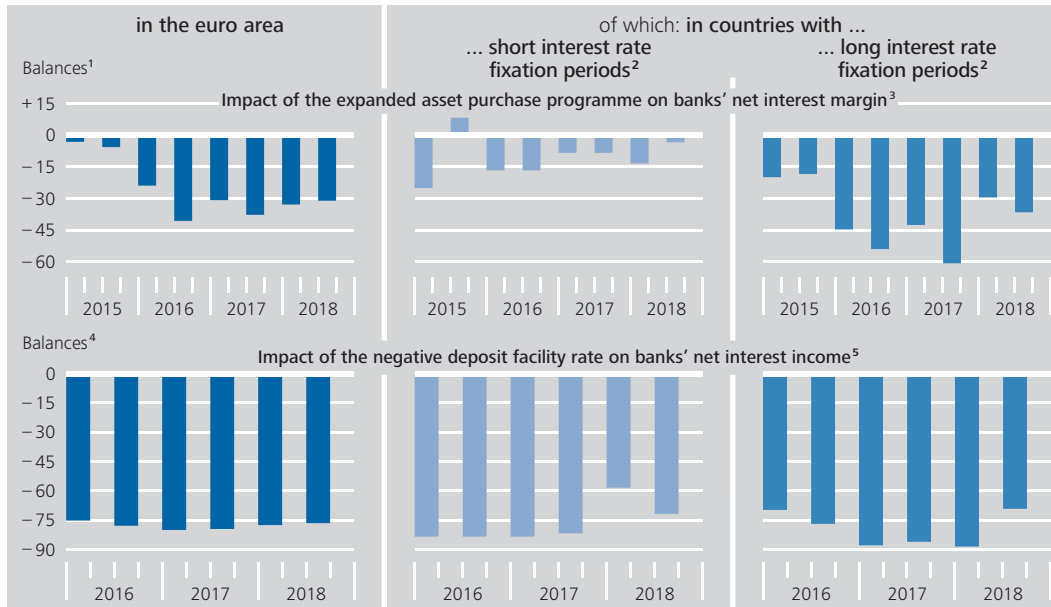
ation.<sup>23</sup> For banks, both involve higher risks. Growing credit volumes drive up credit risk, and increasing credit growth tends to reduce the average quality of borrowers.<sup>24</sup> Greater maturity transformation is reflected in higher interest rate risk.<sup>25</sup> The fact that banks assumed the described risks on a larger scale rather than raising the lending rate is likely to have been due to the intense competition in lending business. This is suggested by the results of the Eurosystem's Bank Lending Survey (BLS), which, from 2014 onwards, show the surveyed institutions stating that competition from other banks was the most important reason for the easing of their credit standards.

The BLS also asks explicitly about the impact of various monetary policy measures on net interest income. Around three-quarters of all the participating euro area banks stated that the negative deposit facility rate was weighing on their net interest income (see the chart on p. 50). This statement probably relates, above

*BLS: negative deposit facility rate placing a strain on banks' net interest income*

### Impact of monetary policy measures\*

As a percentage of all responding banks, end-of-quarter data



Source: ECB. Data according to the euro area Bank Lending Survey. \* Impact over the past six months, including direct or indirect effects. **1** Difference of the sum of responses "improved considerably" and "improved somewhat" and the sum of responses "deteriorated somewhat" and "deteriorated considerably" as a percentage of the responses given. **2** "Short (long) interest fixation periods" refers to the arithmetic mean of the responses of the three euro area countries which, according to the MFI balance sheet statistics, show the shortest (longest) interest rate fixation periods in their loan portfolio (short: ES, FI, PT; long: BE, DE, FR). **3** Interest income less interest paid, relative to the amount of interest-earning assets. **4** Balance of the sum of responses "contributed considerably/somewhat to an increase" and the sum of responses "contributed considerably/somewhat to a decrease" as a percentage of the responses given. **5** Difference between interest earned and interest paid by the bank on the outstanding amount of interest-bearing assets and liabilities.  
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all, to margin compression resulting from the lower general interest rate level due to the negative interest rate on deposits.<sup>26</sup> The isolated effect of this negative remuneration of excess liquidity is, from a quantitative perspective, of secondary importance for banks' profitability. With regard to the monetary policy asset purchase programmes, under which the Eurosystem has been buying securities on a major scale since spring 2015, only about one-third of banks stated that this was having negative effects on their net interest margin. The asset purchase programmes progressively lowered the longer-term market rates, leading to a marked flattening of the yield curve in the euro area. According to the BLS, this had a negative impact especially on the profitability of those banking systems in the euro area where long interest rate fixation periods have been predominant in the loan portfolio (see the above chart). This does not affect the banking systems of most euro area countries, however.

## ■ Interest rate pass-through

### Role of reference interest rates

Interest rate pass-through assumes that monetary policy interest rate changes impact on banks' lending and deposit rates through the market rates. Before the financial crisis, the Eurosystem steered the short-term money market rates by regularly providing liquidity at the main refinancing rate. As the short-term money market rates reflect not only the current level of policy rates but also expectations about their future level, they are typically used as a proxy for the monetary policy stance.<sup>27</sup> Besides this, however, the level of money market rates is

*Short-term money market rates can still be used as a proxy for the Eurosystem's interest rate policy*

<sup>26</sup> Specifically, the BLS asks about the direct and indirect effects of the ECB's negative deposit facility rate on net interest income, irrespective of whether or not the bank concerned holds excess liquidity.

<sup>27</sup> Money market rates with maturities over one day as well as swap rates like the overnight index swap rate (OIS) typically contain expectations about future monetary policy.

also affected by risk premia, the degree of segmentation in the money market, as well as the liquidity situation in the banking system. These factors became much more important in the financial crisis, resulting in the EURIBOR, for example, containing a non-negligible risk premium for a time. Heightened risk perception in the money market led, in turn, to banks having a greatly increased demand for central bank liquidity, which was met by full allotment<sup>28</sup> in the refinancing operations. The abundant supply of liquidity resulted in short-term money market rates falling below the level of the main refinancing rate and, at times, even closely approaching the deposit rate. Even so, they can still be used in principle as a proxy for the current and expected monetary policy rate. The EONIA, in particular, may still be regarded as the optimum proxy for the Eurosystem's interest rate policy.<sup>29</sup>

*Owing to the non-standard measures, the shadow interest rate is used as a proxy for the overall degree of monetary policy easing*

The large-scale non-standard measures mean that the overall degree of monetary policy easing, however, can no longer be measured solely by a single money market rate. Along with interest rate policy, these non-standard monetary policy measures determine the monetary policy stance. For that reason, instead of a money market rate or a derivative from it, an artificial interest rate, the shadow rate, has been used for some years now as a proxy for monetary policy.<sup>30</sup>

*EURIBOR, in particular, used by banks as a reference interest rate for banking transactions*

The choice of the reference interest rate is of particular importance for the analysis of interest rate pass-through. It should, ideally, be a good proxy for monetary policy, on the one hand, and, on the other, be as close as possible to the reference interest rate used by the banks. Up to the financial crisis, the EURIBOR fulfilled both criteria to an adequate extent. Using it made it possible to predict movements in lending rates with a high degree of precision. EURIBOR with a maturity between 3 and 12 months, in particular, is used as a reference interest rate by euro area banks.<sup>31</sup> It has a vital anchor function for the banks' funding. Many financial transactions are linked to it, with high

market liquidity in the transactions being a major criterion.<sup>32</sup> EURIBOR with maturities of up to one year is used, for example, in quotes for capital market instruments and as a basic rate of interest for bank bonds with a variable nominal rate of interest. That is why banks use EURIBOR as a reference interest rate for calculating both their funding costs and their lending rates.<sup>33</sup>

## Role of market power

For lending rates in the euro area, empirical studies find an almost complete interest rate pass-through at least up to the financial crisis, while the pass-through to deposit rates appears to be incomplete.<sup>34</sup> An incomplete pass-through of changes in reference interest rates might be an indication of oligopolistic structures in the European banking market. Such structures probably tended to become stronger following the financial crisis, especially in national banking sectors that were less concentrated up to that point. This is suggested by calculations of customary measures of concentration in a number of euro area countries.<sup>35</sup> From a theoretical standpoint, such an explanation could be supported by the oligopolistic version of the Monti-Klein model, which shows that the lower the intensity of competition in

*Degree of interest rate pass-through determined by competitive intensity in the financial system and banks' market power, ...*

<sup>28</sup> Beginning with the operation on 15 October 2008.

<sup>29</sup> Its short maturity (overnight) scarcely permits substantial risks to be priced in.

<sup>30</sup> See Deutsche Bundesbank (2017). For more information on the shadow rate, see pp. 61 ff.

<sup>31</sup> See European Central Bank (2019).

<sup>32</sup> Market liquidity for hedging transactions is highest with the three-month EURIBOR.

<sup>33</sup> See Kirti (2017).

<sup>34</sup> Before the financial crisis, an average of 36% (10%) of a reference rate change was passed through to euro area lending rates (sight and savings deposit rates) within the first month. The degree of long-term interest rate pass-through in the euro area prior to the financial crisis was close to 100% on average for lending rates, compared with around 33% in the case of sight and savings deposit rates. See European Central Bank (2009); as well as Bernhofer and van Treeck (2013).

<sup>35</sup> The increase in the Herfindahl concentration index and in the relative importance of the five largest national credit institutions was probably due to resolutions and mergers of banks in the wake of the financial and sovereign debt crisis.

the banking market, the more the degree of interest rate pass-through will decline.<sup>36</sup> This seems plausible, as imperfect competition gives banks substantial market power over their customers. Besides this effect, yet more factors strengthen the market power of the banks.<sup>37</sup> These include the costs of switching to another bank or customers being dependent on a stable bank-customer relationship, say, in the case of small enterprises. Given their strong preference for liquidity, demand for sight deposits is especially high among depositors. Such factors reduce the interest rate elasticity of demand for bank products. The empirical finding that the interest rate pass-through is less strongly marked in the case of deposit rates than it is for lending rates suggests that banks are likely to have greater market power over their depositors than they do over their creditors.<sup>38</sup>

*... but cost accounting, interest rate volatility and interest rate expectations also play a part*

In addition, banks' cost calculations influence movements in bank interest rates. This may be due to the costs of adjusting prices (menu costs)<sup>39</sup> if banks are slow to adjust their interest rates or do so incompletely following changes to the reference rates. Costs are reduced if interest rates are not adjusted continuously, but rather in stages whenever the change in the reference rate and, therefore, the deviation from interest rates on existing loan agreements has reached a certain magnitude.<sup>40</sup> Moreover, the stickiness of bank interest rates depends positively on the volatility of the market and policy rates.<sup>41</sup> Firmly anchored interest rate expectations and a well-communicated monetary policy therefore encourage a rapid interest rate pass-through.

## Implications of a change in the mark-up for interest rate pass-through

In the empirical literature,<sup>42</sup> both a widening of the spread between the bank interest rate and the reference interest rate (the mark-up) and weaker correlation between the two variables

are often interpreted as indicators of weaker interest rate pass-through.<sup>43</sup> In the euro area, the mark-up between the lending rate<sup>44</sup> and the three-month EURIBOR has indeed risen considerably since the end of 2008, having shown an almost continuous decline prior to this (see the chart on p. 53).<sup>45</sup>

However, such a rise does not directly indicate a change in interest rate pass-through. First, in the context of an incomplete<sup>46</sup> pass-through, the mark-up is not necessarily constant, but varies over the interest rate cycle: when interest rates go up, the lending rate rises less sharply than the reference interest rate. The two interest rates thus converge, meaning that the mark-up becomes smaller. Conversely, when interest rates go down, the mark-up increases because a decline in the reference interest rate is likewise not fully passed through to the bank

*Spread between lending rate and reference interest rate considerably wider since end-2008, ...*

*... which does not necessarily imply a change in pass-through because, first, the lending rate does not mirror increases in the reference interest rate immediately and in full, ...*

<sup>36</sup> See Freixas and Rochet (2008). For an empirical analysis for the euro area, see van Leuvensteijn et al. (2008).

<sup>37</sup> See van Leuvensteijn et al. (2008); as well as Klemperer (1987).

<sup>38</sup> With regard to the market power of banks over their depositors, see Drechsler et al. (2018); Drechsler et al. (2017); as well as Borio et al. (2017). On the stickiness of deposit rates, see, for example, Hannan and Berger (1991); Driscoll and Judson (2013); as well as Sander and Kleimeier (2004).

<sup>39</sup> These might be the costs of preparing new price lists, as well as information and organisational costs.

<sup>40</sup> See Hofmann and Mizen (2004); as well as de Bondt et al. (2005).

<sup>41</sup> See Borio and Fritz (1995).

<sup>42</sup> See the overview of the literature on pp. 67 f. for a summary of the short and long-term pass-through in the euro area.

<sup>43</sup> See, inter alia, Hristov et al. (2014); Illes et al. (2015). From a monetary policy perspective, it is the pass-through estimations for lending rates that are particularly interesting since they translate directly into consumption and investment decisions. As a key component of the cost of borrowing, deposit rates influence how banks decide to set their interest rates. The analyses presented in the literature and in this article therefore focus on lending rates.

<sup>44</sup> Aggregate interest rate for new bank loans across all loan segments according to the harmonised MFI interest rate statistics.

<sup>45</sup> The banks participating in the BLS mainly attributed the decrease in the spread between the lending rate and the market rate since 2013 to the intense competition in lending business in the euro area.

<sup>46</sup> The way in which the mark-up is calculated means it can only be considered as the degree to which interest rates are passed through in the short term, i.e. the change in the bank interest rate in the month in which the reference interest rate changed. As explained in footnote 34, this pass-through was also incomplete before the financial crisis.

lending rate. This was demonstrated clearly when, after interest rates were slashed in the wake of the financial crisis, the lending rate followed suit to only a limited extent.

*... second, the mark-up between the lending rate and funding costs did not show an unusual degree of expansion, ...*

Second, the development of the mark-up looks different if it is calculated using the average funding costs<sup>47</sup> of banks rather than the reference interest rate (see the adjacent chart). When calculating the mark-up between the lending rate and the funding costs, no increase is evident after the financial crisis as opposed to before it. On the contrary, after the financial crisis, the mark-up first declined strongly and then recovered gradually until coming to rest at more or less its pre-crisis level from around 2015. In the context of banks' average funding costs, it was the zero lower bound on interest rates, in particular, that prevented the mark-up from increasing more sharply. The evidence that the mark-up expanded therefore seems to be based purely on the choice of the reference interest rate as the reference variable for the calculation.

*... and, third, increased risk in a cyclical downturn counteracts the decline in lending rates*

Third, if a period of low interest rates coincides with a period of weak economic activity, the increased risk on the borrower side counteracts a drop in bank lending rates.<sup>48</sup> In line with this, the results of the BLS indicate that between 2008 and the end of 2013, borrower-side risks were the main reason for the euro area banks' more restrictive lending policies (see the top chart on p. 54).

*Error correction models based on a reference interest rate alone no longer appear to adequately capture pass-through*

For these reasons, an expansion in the mark-up would be compatible with both a change and no change in interest rate pass-through. Besides this, it is reasonable to assume that the mark-up is influenced by additional factors beyond those listed above. Interpreting the findings in relation to pass-through therefore requires empirical methods that allow this to be estimated. For example, ex post projections produced using a simple error correction model suggest that models specified in this way may not adequately reflect pass-through at the present time. Prior to the financial crisis, move-

### Mark-up for lending rates in the euro area\*

Percentage points, three-month moving averages



Sources: ECB, Thomson Reuters and Bundesbank calculations. **1** Volume-weighted interest rate for new business for loans to the euro area private non-financial sector according to the harmonised MFI interest rate statistics. **2** Volume-weighted composite cost-of-borrowing indicator for euro area banks. This comprises deposits by the private non-financial sector (new business), deposits by the public sector, deposits by other financial institutions, bank debt securities, and liabilities to the central bank and to other MFIs.  
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ments in lending rates could be predicted with a high degree of precision using a pass-through model of this kind with just one explanatory variable – the three-month EURIBOR. From 2009 onwards, however, the forecast shows that the actual lending rate increased more strongly than the model for the pre-crisis period implied (see the bottom chart on p. 54). Since the outbreak of the financial crisis, it is evident that the development of bank lending rates can no longer be explained using this reference interest rate alone.

The loss of confidence and increased uncertainty in the interbank market together with the surge in money market rates during the financial crisis meant that banks around the world faced financing difficulties. Banks' funding costs decoupled from movements in the

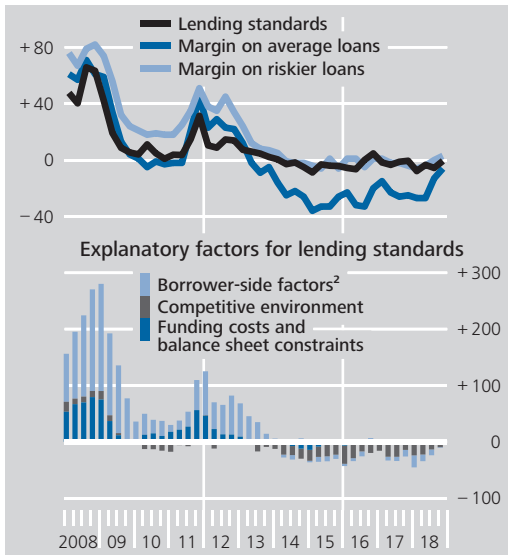
*Banks' funding costs decoupled from reference interest rate since the financial crisis*

<sup>47</sup> Calculated from all funding sources excluding equity capital, weighted by the respective volume of loans and the respective interest rate for new bank loans.

<sup>48</sup> See Borio and Fritz (1995).

### Changes in standards and margins for loans to euro area enterprises

Net percentages<sup>1</sup>

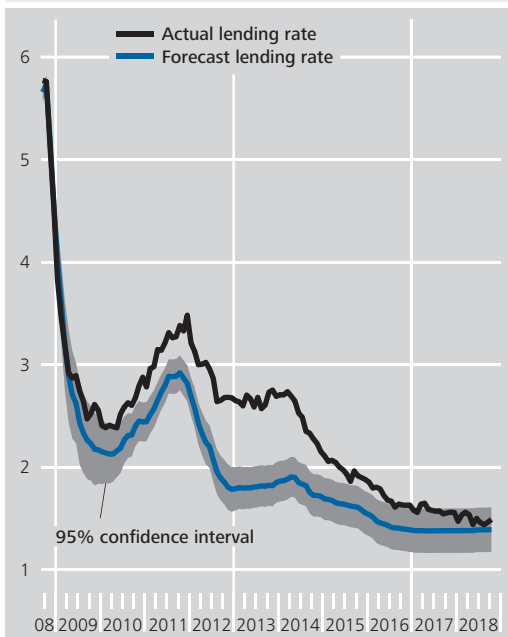


Source: ECB. **1** Data according to the Bank Lending Survey; differences of the sum of responses “tightened considerably” and “tightened somewhat” and the sum of responses “eased somewhat” and “eased considerably” as a percentage of the responses given. Net percentages for responses to questions related to explanatory factors are defined as the difference between the percentage of banks reporting that the given factor contributed to a tightening/easing. **2** Included in the BLS questionnaire as “risk perception”.

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### Forecast and actual lending rate for euro area non-financial corporations\*

% p.a., monthly data



Sources: ECB and Bundesbank calculations. \* Out-of-sample forecasts. Forecast lending rate based on an error-correction model with one explanatory variable – the three-month EURIBOR (for more details, see box on pp. 56 ff.). Estimation period: January 2003 to August 2008.

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EURIBOR during the financial crisis. Monetary policymakers thus began to focus on the average funding costs of banks.<sup>49</sup> This prompted Illes et al. (2015) to use the average funding costs of banks, rather than a reference interest rate, as an explanatory variable in their empirical analysis of pass-through. In contrast to the estimation using the three-month EURIBOR, the authors find that the lending rates developed as would have been expected on the basis of this indicator prior to the financial crisis, too. This finding suggests that the relationship between the reference interest rate and the funding costs of banks changed during the crisis and this had an impact on the pricing of loans.<sup>50</sup> Although the EURIBOR thus appears to remain an important reference interest rate for banks, it no longer seems to capture all the information that determines banks’ funding costs and, ultimately, the lending rate.

A cointegration analysis performed as part of an error correction model that includes a reference interest rate as an explanatory variable produces a similar result. It shows no significant long-term relationship between the interest rate for new bank loans to enterprises and the three-month EURIBOR in the entire period spanning the last 15 years. Empirical tests for the existence of a structural break point to such a break during the sovereign debt crisis. However, if a measure of risk is added to the model – in this case, the sovereign risk premium<sup>51</sup> – a significant long-term relationship between the three relevant variables becomes evident for the entire period (see the box on pp. 56 ff.).

*Long-term relationship between lending rate and reference interest rate only evident when risk measure is added*

<sup>49</sup> For example, amongst other things, two series of targeted longer-term refinancing operations (TLTRO-I and TLTRO-II) were introduced in 2014 and 2016 to improve funding conditions for euro area banks. See European Central Bank (2017c).

<sup>50</sup> See Holton and Rodriguez d’Acri (2015).

<sup>51</sup> The sovereign risk premium is calculated as the difference between the yield on a ten-year government bond and a risk-free interest rate (overnight indexed swap rate) for the same maturity. It includes country-specific credit risk, “flight-to-quality” effects and liquidity premiums. See European Central Bank (2013), p. 90. A similar approach using a sovereign risk premium as an additional explanatory variable in an error correction model can be found in European Central Bank (2017b), p. 17 and in European Central Bank (2013), p. 90.

The coefficient of the long-term pass-through of changes in the reference interest rate is just over 80% for lending rates for enterprises. Pass-through is thus almost complete. By contrast, this long-term relationship cannot be proven empirically until 2010. By including the sovereign risk premium, the model would be misspecified until the start of the sovereign debt crisis.

*Risk influences pass-through, especially in times of crisis*

Certain risks appear to affect pass-through, especially in times of crisis, while they are less significant in other phases. During the financial and sovereign debt crisis, these risks were mainly liquidity and counterparty risk (of banks as well as sovereigns, enterprises and households). This was compounded by price drops in individual real estate markets and the crisis of confidence in the banking system. These risks had an impact on the level of lending rates, which monetary policymakers factored into their decisions.

*Analyses of pass-through at current end require estimation methods containing time-varying parameters*

The results of such cointegration analyses, which have been expanded to include a risk measure, provide valuable insights into the long-term equilibrium relationship between the reference interest rate used by the banks and the bank lending rate. Conversely, if the focus is on the impact of non-standard monetary policy measures and the repercussions of the negative interest rate environment, it makes sense to adopt a more flexible model framework that allows for time variability in economic interrelationships.<sup>52</sup>

## Pass-through in periods of non-standard monetary policy

*At the outset of the financial crisis, the Governing Council of the ECB introduced various non-standard monetary policy measures, ...*

Since the financial crisis broke out in 2008, the Governing Council of the ECB has adopted a raft of new monetary policy measures. Among these measures were negative interest rates for the deposit facility and various non-standard monetary policy programmes, not to mention the increasing use of forward guidance. Amongst other things, the Governing Council

attempted to push down yields at the long end of the yield curve using non-standard monetary policy measures.<sup>53</sup> These included, in particular, the public sector purchase programme (PSPP) as part of the expanded asset purchase programme (APP), which was adopted in January 2015 (see the chart on p. 60). The empirical literature suggests that the announcements about the programme alone had a direct impact on the market.<sup>54</sup> According to estimations by Altavilla et al. (2015) and Andrade et al. (2016), announcements regarding the APP, which saw the purchase of government bonds with maturities of between 2 and 30 years, lowered yields on ten-year government bonds in the euro area by 30 to 50 basis points. Eser et al. (2019) identify similar effects. They also look at the impact of the net purchases under the PSPP up to the end of 2018 and estimate that these purchases reduced the yield on ten-year euro area government bonds by 100 basis points.

The fact that the yield curve shifted downwards repeatedly, as well as flattening out, was due in large part to the Eurosystem's non-standard monetary policy measures. In 2016, yields on bonds of the Member States with the highest credit rating (AAA), even including those with a maturity of up to 10 years, were in negative territory (see the chart on p. 60). Since then, they have increased again somewhat. Nonetheless, they still remain close to their historical lows. Other factors such as political events undoubtedly also affect the yield curve.<sup>55</sup>

*... which increasingly saw the yield curve shift downwards and flatten out*

<sup>52</sup> The error correction model already provides initial indications of changes in pass-through in the recent past. Estimates with rolling ten-year windows throughout the whole observation period show that short-term pass-through of changes in the reference interest rate has dwindled of late. <sup>53</sup> See Deutsche Bundesbank (2016).

<sup>54</sup> See Krishnamurthy et al. (2017); Georgiadis and Gräb (2016); Altavilla et al. (2014).

<sup>55</sup> For example, the Brexit referendum in the United Kingdom on 23 June 2016 is likely to have been accompanied by a decline in the yields on government bonds issued by euro area countries with the highest rating. See Deutsche Bundesbank (2018), p. 38.

## Long-term interest rate pass-through from the perspective of an error correction model

Single-equation error correction models (ECM) are well suited for an empirical analysis of long-term interest rate pass-through. These have been used time and again in the past due to their intuitive interpretability (see, inter alia, de Bondt (2005)). The ECM approach used is given, in general, as follows:

$$\Delta br_t = \sum_{j=0}^p \gamma_j \Delta mr_{t-j} + \sum_{k=1}^p \delta_k \Delta br_{t-k} - \alpha (br_{t-1} - \beta mr_{t-1} - \mu) + \varepsilon_t$$

$br_t$  denotes the interest rate for new bank loans and  $mr_t$  the reference interest rate.<sup>1</sup> The reference interest rate should approximate the banks' marginal funding costs.<sup>2</sup> The coefficient  $\gamma_0$  shows the degree to which a change in the reference interest rate in period zero is passed through to the

bank lending rate within the same period (immediate pass-through).<sup>3</sup> A highly positive value<sup>4</sup> for  $\gamma_0$  indicates a rapid pass-through. An ECM requires a long-term equilibrium relationship between the relevant variables in levels (term in brackets). This amounts to the same as having a cointegration relationship. Statistical significance tests on the ECM parameters can be used to check whether there is a cointegration relationship between the bank lending rate and the reference interest rate. If  $\alpha$  is positive in statistically significant terms, the integrated variables  $br_t$  and  $mr_t$  are cointegrated with the cointegration vector  $(\beta, \mu)$ .  $\beta$  represents the coefficient for the long-term interest rate pass-through. It shows the degree to which a change in the reference interest rate is passed through to the bank lending rate in the long-term equilibrium. If the pass-through is complete, there is a coefficient of one. The constant  $\mu$  denotes all of the time-invariable impacts that cannot be explicitly included in the equilibrium term. The adjustment coefficient  $\alpha$  demonstrates by how much a deviation

### Lending and reference interest rates

% p.a., monthly



Source: Thomson Reuters and Bundesbank calculations. <sup>1</sup> The ten-year spread is the difference between the average yield on ten-year sovereign bonds in the euro area and the ten-year overnight index swap rate (OIS).

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<sup>1</sup>  $\Delta br_t$  gives the change in the bank lending rate in comparison to the previous period. The model assumes that the lending rate and reference interest rate time series are integrated of order one. The results of the ADF test do not reject this hypothesis.

<sup>2</sup> Marginal funding costs are those costs that are incurred when taking on an additional unit of funding.

<sup>3</sup> As, later on, only the effects of the unlagged reference interest rates are to be interpreted from the results,  $\gamma_{j,j} > 0$  and  $\delta_k$  are not outlined in greater detail. Including lagged changes in the bank lending and reference interest rates in the model serves to eliminate potential autocorrelation in the disturbances. The relevant lag length is selected from all lags up to and including lag ten using the Schwarz criterion.

<sup>4</sup> A value of one means a 100%, i.e. a complete, pass-through. As the model contains additional time-lagged effects, it is also possible for these coefficients to have values of over one.



from the long-term equilibrium relationship reduces per month.<sup>5</sup>

In a first step, an ECM with the three-month EURIBOR<sup>6</sup> as the reference interest rate is estimated for both categories of lending rate (loans to non-financial corporations and loans to households for house purchase)<sup>7</sup> at euro area level. If no cointegration relationship can be found with this reference interest rate, it is substituted with a longer-term market interest rate.<sup>8</sup> In models for the interest rate pass-through for corporate loans, no cointegration relationship with lending rates can be found in this way, however (see the table on p. 58).<sup>9</sup> This may be due to the fact that these models do not consider a certain factor that is relevant to the interest rate pass-through, namely a risk measure. If the reference interest rate  $mr_t$  in the model for the interest rate pass-through for corporate loans is expanded by a spread<sup>10</sup>  $spr_t$  as a risk measure, a long-term equilibrium relationship can be found.<sup>11</sup> The expanded model is as follows:

$$\begin{aligned} \Delta br_t = & \sum_{j=0}^p \gamma_j \Delta mr_{t-j} + \sum_{l=0}^p \theta_l \Delta spr_{t-l} \\ & + \sum_{k=1}^p \delta_k \Delta br_{t-k} \\ & - \alpha (br_{t-1} - \beta mr_{t-1} - \beta^S spr_{t-1} - \mu) + \varepsilon_t \end{aligned}$$

Certain risks appear to affect the interest rate pass-through, especially in times of crisis, while they are less critical in other phases. It would seem that monetary policy has to consider the impact of such factors, expressed here as the risk measure, if it is to bring about a change in the lending rate level.

When modelling the interest rate pass-through for loans to households for house purchase, a reference interest rate with a longer term (12-month EURIBOR) is required. This reflects the fact that, in some countries, loans issued to households for

house purchase usually have a long interest rate fixation period.<sup>12</sup> However, a risk measure is not necessary for a significant long-

**5** The parameters of an ECM can be estimated in the expanded form of the model. Banerjee et al. (1986) show that, in particular for small samples, it is better to estimate all parameters simultaneously in one equation than to use the Engle-Granger method (Engle and Granger (1987)) as this two-step method entails a risk of distorting the estimate of the long-term relationship. The usual t statistic of the parameter  $\alpha$  can be used to check whether there is a cointegration relationship between the bank lending rate and the reference interest rate, both of which are integrated of order one. As, under the null hypothesis, the t statistic of  $\alpha$  is not t-distributed for finite samples or asymptotically, the adjusted critical values have to be used. Valid quantiles for the distribution of various sample sizes and the limit distribution can be found in Banerjee et al. (1998). The authors prove that this ECM test for cointegration is, in general, as precise as comparable cointegration tests. However, the latter are more susceptible to certain misspecifications that can have a negative impact on the quality of the test.

**6** Surveys of euro area banks revealed that the EURIBOR with a term of between three and 12 months, in particular, is used as a reference interest rate (see European Central Bank (2019)). These reference interest rates can be used as a proxy for banks' funding costs. Many loan contracts and hedging transactions reference the three-month EURIBOR as the underlying.

**7** The analysis is based on the lending rate time series from the MFI interest rate statistics which have been collected monthly since January 2003. The estimation period runs from January 2003 to November 2018.

**8** 12-month EURIBOR as well as yields on sovereign bonds with various residual maturities.

**9** Structural break tests indicate a break (during the sovereign debt crisis).

**10** A sovereign risk premium, i.e. the difference between the yield on a ten-year sovereign bond and a risk-free interest rate (OIS rate) for the same maturity, is selected here as a general measure of risk. This maturity is singled out because the market for ten-year sovereign bonds is the most liquid. However, the results do not vary greatly from those for spreads with a shorter-term underlying. A similar approach using a sovereign risk premium as an additional explanatory variable in an error correction model can be found in European Central Bank (2017b), p. 17 as well as in European Central Bank (2013), p. 90.

**11** Estimations with rolling ten-year windows within the overall observation period also show cointegration relationships between the three variables (bank lending rate, reference interest rate and risk measure) for all sub-periods.

**12** Germany and France, in particular, are a case in point.

### Results of the pass-through models

Reference interest rate $mr_t$	Risk measure $spr_t$	Number of lags in short-term dynamics	Immediate pass-through of reference interest rate $\gamma_0$	Immediate pass-through of risk measure $\gamma_0^s$	Adjustment speed $\alpha$ (sign. = cointegrated) <sup>1</sup>	Long-term constant <sup>2</sup> $\mu$	Long-term pass-through of reference interest rate <sup>2</sup> $\beta$	Long-term pass-through of risk measure <sup>2</sup> $\beta^s$	Adjusted R <sup>2</sup>
Aggregated interest on loans to non-financial corporations									
Three-month EURIBOR	.	<sup>3</sup> > 10	.	.	.	.	.	.	.
12-month EURIBOR	.	5	0.60***	.	No cointegration	.	.	.	0.71
Three-month EURIBOR	4 10 years	4	0.72***	-0.02	-0.18***	1.54***	0.84***	0.51***	0.85
Aggregated interest on loans to households for house purchase									
Three-month EURIBOR	.	1	0.16***	.	No cointegration	.	.	.	0.62
12-month EURIBOR	.	1	0.13***	.	-0.04***	2.03***	0.73***	.	0.68
12-month EURIBOR	4 10 years	1	0.18***	-0.07***	-0.06*	1.73***	0.79***	.	0.75

<sup>1</sup> Critical values from Banerjee et al. (1998). <sup>2</sup> As the constants and the long-term pass-through coefficients cannot be derived directly from the equation but only as ratios of other parameters, the level of significance is not given directly. In an alternative, direct estimate of these coefficients using the first step of the Engle-Granger method, in all cases shown above, the significance level is at least 1% (given in brackets). <sup>3</sup> If the number of lags required exceeds ten, it is no longer worthwhile estimating the model parameters due to autocorrelation. <sup>4</sup> Difference between the average yield on ten-year sovereign bonds in the euro area and the ten-year overnight index swap rate (OIS). Due to data restrictions, models with a risk measure have been estimated starting from September 2005.

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term relationship.<sup>13</sup> Evidently, in this credit segment, a risk measure is not as key a factor as it is for corporate loans. Either that, or for loans for house purchase, those euro area countries where the size of the risk measure and its variation are too small to have a notable impact on lending rates are predominant.

The long-term pass-through coefficient for the reference interest rate amounts to 0.84 for corporate loans and 0.73 for loans to households for house purchase.<sup>14</sup> The degree of the pass-through is thus high and, at least for corporate loans, almost complete.<sup>15</sup> The coefficient for the long-term pass-through of the risk measure in the model for corporate loans is also significantly different from zero and has an important magnitude. The speed of adjustment is higher for corporate loans than for loans to households for house purchase.

The immediate pass-through of changes in the reference interest rate in the first month amounts to 72% for corporate lending rates and only 13% for lending rates for house purchase. By contrast, changes in the risk measure are not passed on to corporate lending rates to a significant extent in the

<sup>13</sup> However, a model with a risk measure also has a significant adjustment speed (in this case, only a weak one) and thus shows a cointegration relationship between the bank lending rate, reference interest rate and risk measure. For estimates with rolling ten-year windows, there are sub-periods with and without a cointegration relationship in models with a risk measure as well as those without. Models for more recent time windows are more likely to find a cointegration relationship if they include a risk measure.

<sup>14</sup> The absolute size of the constant is not meaningful due to the varying reference interest rates.

<sup>15</sup> This finding is in line with the literature on the interest rate pass-through prior to the financial crisis. For loans both to financial corporations as well as for house purchase, the long-term interest rate pass-through is usually found to be high and almost complete (see, for example, de Bondt (2005); Kok Sørensen and Werner (2006); Gambacorta (2008); as well as Marotta (2009)).

same month. It is thus especially important to include a risk measure in order to find a long-term equilibrium relationship between the reference interest rate and the lending rate.

The results of separate estimates for loans with short and with longer interest rate fixation periods are generally consistent with the results on an aggregated level. A risk measure is required for both short-term and long-term corporate loans in order to demonstrate a cointegration relationship. However, it is not required for loans to households for house purchase. For loans with a longer interest rate fixation period, models with longer-term reference interest rates are suitable.<sup>16</sup>

In conclusion, a long-term equilibrium relationship between the bank lending rate and a reference interest rate can be found in the

model for the interest rate pass-through for corporate loans at euro area level only if the model is expanded to include a risk measure. In the model for the interest rate pass-through for loans for house purchase, however, a long-term equilibrium relationship exists only between the bank lending rate and a reference interest rate. The degree of the long-term pass-through of changes in the reference interest rate is high in both lending categories under observation and, at over 80%, is almost complete in the case of corporate loans.

<sup>16</sup> As loans to households for house purchase with a long interest rate fixation period are issued primarily in Germany and France, an average yield on long-term sovereign bonds of AAA-rated euro area countries is the best fit for the reference interest rate.

*Time-varying method needed to analyse short-term pass-through in the current interest rate environment*

The Governing Council of the ECB has repeatedly expressed concern that the monetary policy transmission mechanism in the euro area may be impaired.<sup>56</sup> These impairments, as well as the various new monetary policy measures, have probably influenced and also changed interest rate pass-through. Thus, a flexible modelling approach in which the parameters can vary over time is needed. Time-varying vector autoregressive models offer this option. They can be used to examine how interest rate pass-through has changed – during times of crisis, for instance, or also in a low or negative interest rate environment.

*Empirical literature suggests weaker pass-through in the aftermath of the financial crisis, ...*

Unlike cointegration analyses<sup>57</sup> (see p. 55 and the box on pp. 56 ff.), vector autoregressive (VAR) models tend to focus on short-term pass-through. Two papers that investigate possible changes in short-term pass-through over the course of the financial crisis are those by Aristei and Gallo (2014) and Hristov et al. (2014).<sup>58</sup> Both studies use VAR models and analyse the period

prior to the financial crisis (2003 to 2007) and immediately afterwards (2008 to 2011). They find that short-term pass-through of a monetary policy shock to bank interest rates is less complete in the wake of the financial crisis.<sup>59</sup>

Most studies use short-term money market rates as monetary policy indicators in order to analyse pass-through. However, these only reflect the changes and the level of the key interest rates. Non-standard monetary policy measures, which were mainly added to the Euro-

<sup>56</sup> See Draghi (2012); European Central Bank (2010a, 2010b, 2014b).

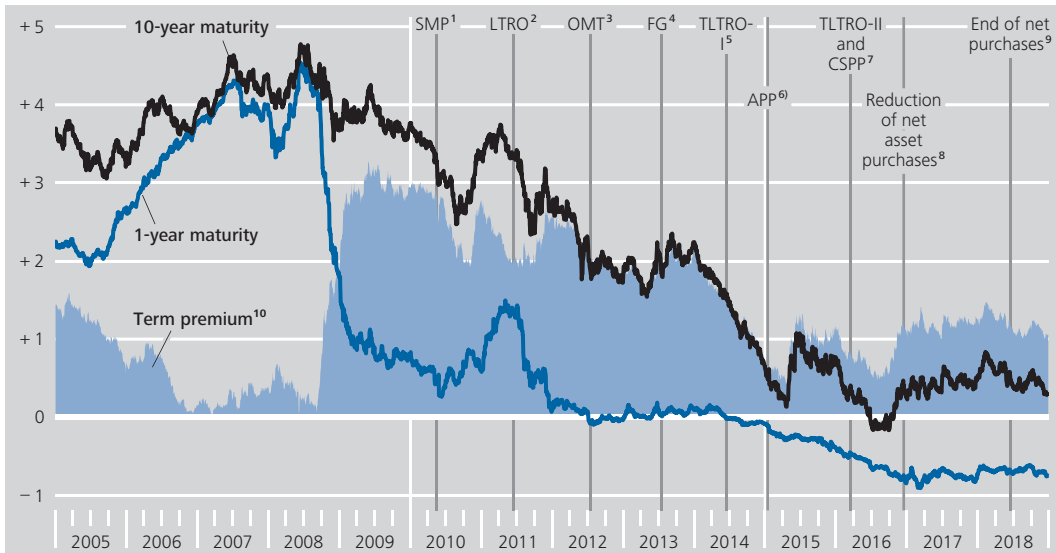
<sup>57</sup> These are based on single-equation error correction models, to which incorrectly assumed cointegration relationships pose problems. VAR models, on the other hand, avoid this potential misspecification (see de Bondt (2005) and von Borstel et al. (2016)).

<sup>58</sup> Aristei and Gallo (2014) employ a Markov-switching VAR and Hristov et al. (2014) use a panel VAR for the euro area.

<sup>59</sup> In both papers, the monetary policy indicator is proxied by short-term money market rates. Aristei and Gallo (2014) use the three-month EURIBOR and Hristov et al. (2014) use the EONIA.

### Short and long-term government bond yields\* in the euro area and selected monetary policy decisions

% p.a., monthly data



Sources: ECB and Bundesbank calculations. \* Spot rates based on AAA-rated government bonds. Calculated and defined as in <https://www.ecb.europa.eu/stats/money/yc/html/index.en.html> **1** May 2010: announcement of securities markets programme. **2** June 2011: announcement of longer-term refinancing operations. **3** July 2012: announcement of outright monetary transactions. **4** July 2013: start of forward guidance. **5** June 2014: announcement of first series of targeted longer-term refinancing operations. **6** January 2015: announcement of expanded asset purchase programme (APP); implementation from March 2015. **7** March 2016: announcement of second series of targeted longer-term refinancing operations and corporate sector purchase programme. **8** December 2016: announcement of reduction in monthly volume of net asset purchases under the APP from €80 billion to €60 billion as of April 2017. **9** June 2018: announcement that APP would end in December 2018. **10** Spread between 10-year and 1-year euro area government bond yields (AAA).

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... even following the introduction of the non-standard monetary policy measures during the European sovereign debt crisis

system's interest rate toolkit from 2011 onwards, have had only a limited impact on money market rates. That is why, for a few years now, a hypothetical interest rate referred to as the shadow interest rate has increasingly been used as a proxy for monetary policy. The shadow rate is used, for instance, by von Borstel et al. (2016),<sup>60</sup> who analyse the impact of both conventional and non-standard monetary policy measures.<sup>61</sup> Compared to conventional interest rate changes prior to the financial crisis, they estimate that pass-through of a non-standard monetary policy stimulus to lending rates was less complete during the European sovereign debt crisis. Their analysis covers the period up to 2013 and thus does not yet include the period of negative interest rates or the bulk of non-standard monetary policy measures taken by the Eurosystem.

To date, there have scarcely been any empirical studies on pass-through in a setting of negative market rates. The empirical study presented in

the box on page 61 ff. analyses short-term pass-through for the euro area using a Bayesian time-varying VAR model. It looks at how monetary policy stimuli have impacted on bank interest rates for loans to non-financial corporations in the euro area (hereinafter: bank rates). Monetary policy is represented by EONIA or the shadow interest rate. EONIA proxies monetary policy in the model until the first quarter of 2011, after which the shadow interest rate is used. Unlike EONIA, the shadow interest rate reflects not only interest rate policy, but also the announcements and implementation of non-standard monetary policy measures,<sup>62</sup> which became increasingly significant in the

The negative interest rate environment has barely been examined in pass-through literature to date

<sup>60</sup> They use a factor-augmented VAR model for the euro area and focus on the European sovereign debt crisis (2010 to 2013). They compare this to the period before the financial crisis (2000 to mid-2007).

<sup>61</sup> In the model, a conventional stimulus is based on the EONIA. The non-standard monetary policy measures are mapped using various proxies. However, the focus is on the shadow interest rate.

<sup>62</sup> For a detailed description of the shadow interest rate, see the box on pp. 61 ff.

## Short-term interest rate pass-through from the perspective of a BVAR

This box analyses whether the short-term pass-through of monetary policy shocks to the lending rates of euro area commercial banks has changed in recent years due to the low interest rate environment (see Michaelis (2019)). A monetary policy shock is understood to be a change in monetary policy stance (see, inter alia, Sims (1992); as well as Christiano et al. (1999)). The low interest environment in particular could have led to changes in the interest rate pass-through because bank lending rates gradually approached the zero line. That is, there could have been systematic changes in the variances of the shocks and/or in the dynamic effect of these shocks.

### Time-variable VAR with sign restrictions

For the purpose of the analysis, a Bayesian time-variable vector autoregression (VAR) model<sup>1</sup> is used for the euro area, in which three macroeconomic shocks are considered: a monetary policy shock as well as an aggregate demand and an aggregate supply shock. The shocks are identified with the help of sign restrictions. There are two

reasons why two cyclical shocks are identified besides the monetary policy shock. First, this prevents these disruptions from distorting the monetary policy shock. Second, the impact of these shocks on the endogenous variables can also be compared over time.

The model contains five variables: real gross domestic product (GDP), the Harmonised Index of Consumer Prices (HICP), a short-term interest rate which describes monetary policy (represented by EONIA or a shadow rate), the bank lending rate for new loans to non-financial corporations and a sovereign bond spread.<sup>2</sup> In the model, EONIA is used as a proxy for the ECB's monetary policy up until the first quarter of 2011. From the second quarter of 2011, EONIA is replaced by the shadow rate (SR) from Wu and Xia (2018) for the euro area.<sup>3</sup> From this point onwards, the two interest rates develop differently: the shadow rate falls by more than EONIA (see the chart below). Although the shadow rate is also a short-term rate,<sup>4</sup> unlike EONIA it covers not only inter-

<sup>1</sup> In the VAR model used, the coefficients and the variance-covariance matrices are time-variable.

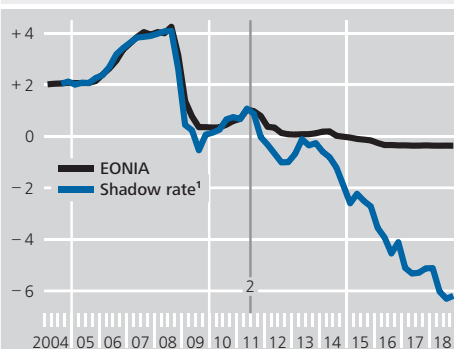
<sup>2</sup> The spread is calculated as the interest rate spread between the synthetic ten-year euro area bond and ten-year German Bunds. Thus, the interest rate spread reflects the movements of the average risk premium in European sovereign bonds. Strong fluctuations in these premia (as seen, for example, during the financial and European sovereign debt crisis) can have an impact on the interest rate pass-through. Thus, they have to be taken into consideration when determining the monetary policy shocks.

<sup>3</sup> The results do not change much if the switch from EONIA to the shadow rate takes place earlier (e.g. the first quarter of 2010) or a little later than the second quarter of 2011.

<sup>4</sup> The shadow rate is a hypothetical short-term interest rate which would attune without a nominal zero lower bound. It measures the pressure on longer-term interest rates as a result of non-standard monetary policy measures. See also Deutsche Bundesbank (2017).

**EONIA and the shadow rate**

% p. a., quarterly averages



Sources: Wu and Xia (2018), Thomson Reuters. <sup>1</sup> The shadow rate is based on calculations by Wu and Xia (2018). <sup>2</sup> From Q2 2011, the shadow rate is used instead of EONIA in the time-variable VAR model.

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### Sign restrictions\*

Shock	Real GDP	HICP	EONIA/SR	Lending rate	Sovereign bond spread
Monetary policy	↓	↓	↑	?	?
Supply (aggregate)	↓	↑	↑	?	?
Demand (aggregate)	↑	↑	↑	?	?

\* The sign restriction is imposed for two quarters. “↑” refers to a positive impact, “↓” to a negative impact and “?” to an unrestricted variable.

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est rate policy but also, implicitly, the many non-standard monetary policy measures taken by the ECB’s Governing Council.<sup>5</sup> This makes it a more suitable measure than EONIA for estimating the degree of monetary policy easing in the low interest rate environment. In the following, we interpret the monetary policy impulse from the second quarter of 2011 onwards as a non-standard monetary policy shock. The literature, too, refers increasingly to the shadow rate in order to estimate the easing of monetary policy.<sup>6</sup>

The estimation uses quarterly data<sup>7</sup> from the first quarter of 1998 to the fourth quarter of 2018.<sup>8</sup> Real GDP and the HICP are included in growth rates<sup>9</sup> (compared with the previous quarter) and the interest rates in first differences. For all the variables in the estimation the model contains a time lag of one quarter.<sup>10</sup>

The sign restrictions are set according to the usual assumptions in the literature<sup>11</sup> (see the table above).<sup>12</sup> Accordingly, a restrictive monetary policy shock reduces both GDP and the HICP in the short term and increases EONIA/SR. A negative aggregate supply shock lowers GDP and increases prices as well as EONIA/SR. It is assumed that a positive aggregate demand shock in-

creases GDP, the HICP and EONIA/SR. The lending rate and the sovereign bond spread remain unrestricted. Thus, the data determine the sign of these impulse responses. We are chiefly interested in the lending rate.

### Results

The impulse responses show that the effects of a monetary policy shock (increase in EONIA/SR by one percentage point)<sup>13</sup> changed over time. The instantaneous pass-through<sup>14</sup> of non-standard shocks to the lending rate appears to have weakened somewhat from the end of 2016 compared to the phase from mid-2013 to the beginning of 2016 (see the adjacent table). Thus, the “lower reliability band”, the 16th percentile of the posterior distribution of the

<sup>5</sup> Although the ECB Governing Council cut policy rates further between 2011 and 2016, it also rolled out far-reaching non-standard monetary policy measures at the same time. These include the announcement of longer-term refinancing operations in June 2011, the OMT in August 2012 and the APP in January 2015.

<sup>6</sup> See Lombardi and Zhu (2014); Wu and Xia (2016); Potjagailo (2017); as well as Filardo and Nakajima (2018).

<sup>7</sup> Quarterly values of the monthly time series (HICP and interest rates) are based on averages over the respective months.

<sup>8</sup> The training sample uses data from the first quarter of 1998 until the fourth quarter of 2003 and estimates the prior distribution of the model parameters. The actual estimation is based on data from the first quarter of 2004 until the fourth quarter of 2018.

<sup>9</sup> GDP and HICP are seasonally adjusted.

<sup>10</sup> The length of the time lags is based on the modified harmonic mean estimator proposed by Geweke (1999). An examination of the dynamic stability of the system reveals that none of the eigenvalues is close or equal to one.

<sup>11</sup> See Galí et al. (2003); Straub and Peersman (2006); Canova and Paustein (2010); as well as Hristov et al. (2014).

<sup>12</sup> The sign restrictions which the impulse response functions must fulfil over a stipulated time period (see the table above) are chosen such that they enable the shock to be attributed plausibly, and on sound economic foundations, to an exogenous monetary policy shock as well as separating it clearly from other shocks.

<sup>13</sup> The structural shocks are normalised, which ensures that the shocks remain comparable over time.

<sup>14</sup> Instantaneous pass-through is understood here as meaning a period of up to one year.

impulse responses, has been below zero since the end of 2016 and so points to an impulse response that is no longer distinguishable from zero. That said, the interest rate pass-through is roughly comparable with that in 2011. The non-standard monetary policy measures taken from 2011 likely amplified the interest rate pass-through until 2013. By contrast, the pass-through varied little between mid-2013 and the beginning of 2016. During this period, the impulse responses suggest a complete pass-through. It has to be taken into consideration, however, that the reliability bands around the estimated median of the impulse responses are fairly wide.<sup>15</sup>

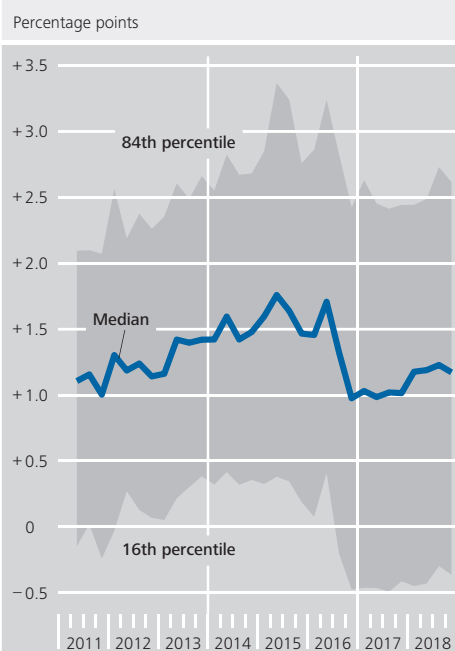
The calculation of posterior probabilities allows a statistical comparison of the differences in the impulse responses between different periods.<sup>16</sup> Values close to 50% imply only weak differences between the periods under review.<sup>17</sup> The analysis shows that there was actually little difference between the impulse responses of the lending rate from mid-2013 to the beginning of 2016 (see the adjacent table). This is particularly true at the time of the shock and in the subsequent quarter. By comparison, the impulse responses are considerably lower

<sup>15</sup> From mid-2013 until the beginning of 2016, these are between roughly 0.3 and 3.3 percentage points at the time of the shock in period zero. The reliability bands refer to the 16th and 84th percentile of the posterior distribution of the impulse responses.

<sup>16</sup> The ratio of the Markov Chain Monte Carlo drawings between two time periods is calculated. The points in time (fourth quarter of 2013, second quarter of 2014, etc.) are selected at random. They represent the different macroeconomic conditions. The comparative point in time is not chosen in 2018, as the points in time at the current end of a sample potentially suffer from somewhat higher estimation uncertainty.

<sup>17</sup> Values above (below) 50% imply lower (higher) impulse responses in the second quarter of 2014, for example, than in the second quarter of 2017.

### Impacts of a one percentage point increase in the shadow rate on the lending rate at the time of the shock\*



\* Impulse response based on a time-variable vector autoregressive model.  
 Deutsche Bundesbank

### Probability for the differences in impulse responses due to a monetary policy shock to the lending rate\*

Horizon	Q0	Q1	Q2	Q3
	compared with Q2 2016			
Q3 2011	66	58	53	52
Q4 2012	61	50	40	38
Q2 2013	51	48	47	44
Q2 2015	48	53	55	58
	compared with Q2 2017			
Q3 2011	48	55	66	67
Q4 2013	39	40	50	56
Q2 2014	38	48	59	65
Q2 2015	36	47	61	65
Q2 2016	39	46	58	61
Q4 2016	49	49	51	54

\* Posterior probability for differences in impulse responses between Q3 2011, Q4 2012, Q2 2013, Q4 2013, Q2 2014, Q2 2015, Q2 2016, Q4 2016 and Q2 2017 for 0 to 3 quarters in each case. Values above (below) 50% imply smaller (larger) impulse responses at the first point in time than at the comparative point in time (Q2 2016 or Q2 2017).

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from the end of 2016.<sup>18</sup> In addition, it can be seen that the impulse response in 2017 hardly differs from that in 2011 at the time of the shock and immediately thereafter. The values are close to 50%.

In order to analyse the quantitative importance of the respective shocks, the variances of the forecast errors are decomposed.<sup>19</sup> Demand shocks explain most of the variation of GDP. By contrast, supply shocks are most relevant for price variations. Monetary policy shocks in particular are the driving force behind the lending rate, although their importance for the lending rate changed over time. In 2017, this shock is far less important to the lending rate than in the preceding years. It already lost considerably in importance in the second half of 2016 compared with the first half of the year. On the other hand, the explanatory power of the unidentified shocks with re-

gard to the lending rate increased. These cover all the remaining structural shocks such as a risk premium shock.<sup>20</sup> Thus, the results of the variance decomposition also point to a weaker interest rate pass-through from the end of 2016.

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**18** This can be seen in the table from the fact that the values for the comparison of the fourth quarter of 2016 with the second quarter of 2017 are close to 50%, while the previous values of the comparisons (up to the fourth quarter of 2013) with the second quarter of 2017 are significantly lower.

**19** In contrast to the impulse responses, the decomposition takes account of the estimated standard deviations of the shocks.

**20** This is derived from the difference vis-à-vis the sum of the identified shocks. The shocks identified here include demand and supply shocks as well as the monetary policy shock.

euro area as of mid-2011.<sup>63</sup> Therefore, in the following, monetary policy stimulus is interpreted as a non-standard monetary policy shock from this point in time onwards.

*Estimates indicate pass-through was initially stronger, before weakening as of the end of 2016*

The model estimates show that pass-through has changed over recent years. From mid-2011 onwards, i.e. with the increasing use of non-standard monetary policy measures, pass-through initially increased. It rose until mid-2013 to a level indicative of complete pass-through. From mid-2013 until the beginning of 2016, pass-through remained virtually unchanged at this high level. The longer the negative interest rate environment has lasted, especially since the end of 2016, the weaker the effect of a non-standard monetary policy shock on the lending rate has been.<sup>64</sup> In parallel, at the start of 2017, the explanatory power of non-standard monetary policy shocks for bank rates also declined. By contrast, the explanatory power of unidentified shocks in the model increased. These include, inter alia,

shocks to risk premia. Taken together, this indicates that pass-through was supported by the implementation of non-standard monetary policy measures and that monetary policy shocks were passed through in full to bank lending rates. Approximately one and a half years after the launch of the PSPP at the beginning of 2015, pass-through then weakened somewhat. Nevertheless, it is roughly comparable to pass-through in 2011, i.e. when non-standard monetary policy measures were first introduced.

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**63** Examples of non-standard monetary policy measures announced by the ECB since mid-2011 include longer-term refinancing operations (LTROs) in June 2011, OMTs in August 2012, and the APP in January 2015. Furthermore, estimates show that the non-standard monetary policy measures since mid-2011 are likely to have increasingly influenced the shadow interest rate (see de Rezende and Ristinemi (2018)).

**64** These changes over time are evident, on the one hand, from the uncertainty bands of the impulse responses, and, on the other hand, from the calculation of the probability of statistical differences between the impulse responses at different points in time (see the box on pp. 61ff.).



*Analysis does not allow conclusions to be drawn on the necessity of the complete set of non-standard monetary policy measures taken by the Euro-system*

As the individual monetary policy measures are not modelled separately as shocks, and the shadow interest rate instead represents the entirety of the measures, the analysis does not allow conclusions to be drawn on whether the complete set of non-standard monetary policy measures was necessary to achieve this transmission of monetary policy stimulus. In the model specification used here, it is not possible to isolate and assess the impact of every single monetary policy decision.

*Deposit rates hovering at the zero mark may have contributed to banks not lowering their lending rates any further since 2016*

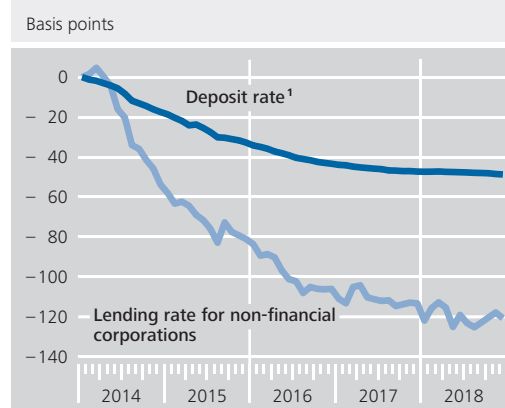
At first glance, it may be surprising that pass-through has weakened since the end of 2016 in spite of the continued extensive monetary policy measures. Although the ECB Governing Council announced at the end of 2016 that it did not intend to make its stance any more accommodative, its monetary policy stance has remained clearly expansionary. At roughly the same time, from around mid-2016, the protracted period of massive cuts in lending rates by banks that started in March 2014 came to an end (see the above chart). Bank deposit rates, which have also hovered marginally above the zero mark since the middle of 2016, may have been a major factor preventing further significant cuts in lending rates, which would have been accompanied by further falls in net interest income.<sup>65</sup>

## ■ Conclusion

*Risks have influenced pass-through since the financial crisis*

Before the financial crisis, the Eurosystem steered short-term money market rates by regularly providing liquidity at the main refinancing rate. Monetary policy stimuli were transmitted via the money market and capital market rates to the lending and deposit rates of banks. During the financial crisis, uncertainty and the loss of confidence in the interbank market were among the factors which led to the reference rates being biased upwards. As a result, it was no longer possible to identify any long-term relationship between the lending rate and the reference rate. Certain risks appear to affect pass-through in times of crisis in par-

**Cumulative change in euro area lending and deposit rates since the start of 2014\***



Sources: ECB and Bundesbank calculations. \* New business according to the harmonised MFI interest rate statistics. ¹ Interest rate on deposits by households and non-financial corporations. Deutsche Bundesbank

ticular, while being less significant in other periods. This was the case, for example, for the effect of liquidity risk and counterparty risk on bank lending rates in the euro area. Monetary policymakers appeared to factor this into their decisions. Empirical tests carried out by the Bundesbank confirm the impact of these risks on pass-through in the aftermath of the financial crisis. For example, since 2010 there has been a long-term correlation between the lending rate, the reference rate and a sovereign risk premium.

The Governing Council of the ECB responded to the financial and sovereign debt crisis by reducing key policy rates in the euro area to historical lows. June 2014 saw it shift the interest rate on the deposit facility into negative territory for the first time. Other non-standard monetary policy measures such as the PSPP and forward guidance aimed, amongst other things, to drive down market rates in the longer-term segment. Monetary policy accommodation caused banks to substantially loosen their lending policies, slashing their lending rates as of 2014 to what are now also unprecedented lows. However, euro area credit institutions were far more hesitant in reducing the

*Since 2012, deposit rates are no longer lower than money market rates, but higher*

<sup>65</sup> A similar line of reasoning is also taken by Eggertsson et al. (2019).

interest rates they pay on customer deposits. Most of them did not follow money market rates into negative territory, leaving their rates instead marginally above the zero mark.

*Despite static deposit rates, there is no demonstrable change in long-term pass-through*

The negative interest rate environment over the last four years has thus far not impacted on long-term pass-through to lending rates. Changes in the EURIBOR are being passed through almost in full to bank rates for loans to enterprises over the long run. By contrast, assessments of the short-term impact of non-standard monetary policy measures and the influence of the negative interest rate environment on pass-through are better made using a more flexible model framework that allows for time variability in economic interrelationships.

Time-variable empirical studies carried out by the Bundesbank using the shadow interest rate as a measure of the degree of monetary policy easing indicate that short-term pass-through has changed in recent years. According to these studies, pass-through was initially supported by the non-standard monetary policy

measures taken since 2011 and monetary policy shocks were therefore transmitted in full to bank lending rates. By contrast, during the period of negative interest rates, pass-through weakened somewhat and has since been roughly comparable to its level in 2011. Bank deposit rates persisting marginally above zero since the middle of 2016 may have been the predominant factor in preventing further significant cuts in lending rates.

The more protracted the spell of negative rates, the greater the likelihood that the weakening of pass-through in the short-term segment might, at some point, spill over into the long-term parameters as well. It should be noted, however, that a weakened pass-through of accommodative monetary policy measures is taking place against a backdrop of historically low lending rates and that the estimates at the current juncture imply that the interest rate pass-through, though weaker, is still almost complete. Therefore, the level of lending rates is likely to still have a significantly accommodative impact on lending activity.

*Short-term pass-through initially improved with non-standard monetary policy measures, but weakened again during the prolonged period of negative interest rates*

*Short-term pass-through weakening in an environment of historically low lending rates*

### Overview of the literature on interest rate pass-through since 2014\*

Authors	Countries	Observation period and level	Structural break	Method	Key findings
Altavilla et al. (2016)	Euro area	– July 2007 to Dec. 2015 – Macro	–	VAR	– Bank balance sheet characteristics (capital ratio, share of government bonds held) responsible for heterogeneity in pass-through of conventional monetary policy – Non-standard monetary policy measures lowered lending rates, especially at banks with a high NPL ratio and low capital ratio
Aristei and Gallo (2014)	Euro area	– Jan. 2003 to Sep. 2011 – Macro	Break: Sep. 2008	Markov-switching VAR	– Pass-through to lending rates lower when market rates are highly volatile – Lending rates for NFCs respond more strongly than lending rates for households to changes in market rates
Arnold and van Ewijk (2014)	AT, BE, DE, ES, FI, FR, GR, IE, IT, NL, PT	– Jan. 2003 to Nov. 2013 – Macro	Estimation periods: – Jan. 2003 to Aug. 2008 – Sep. 2008 to Nov. 2013	State space model	– Heterogeneity of government bond yields since financial crisis is the most important factor for heterogeneous lending and deposit rates across euro area countries
Avouyi-Dovi et al. (2017)	DE, ES, FR, IT, GR, PT	– Jan. 2003 to Oct. 2014 – Macro	One or two breaks per country	ECM with time dummies, stochastic volatility model, VAR	– Long-term relation in pass-through of interest rates on customer deposits to lending rates for NFCs weakened in the wake of the sovereign debt crisis – Heterogeneous results across countries – VAR model: deposit rate shock has had weaker impact on unexpected variance of lending rates since 2010
Blagov et al. (2015)	IT, ES, IE, PT	– Jan. 2004 to Dec. 2014 – Macro	–	Markov-switching VAR	– Global risk factors increased lending rates in ES and IT. ES: additional problems in banking sector. IT: additional fiscal problems and contagion effects
Blot and Labondance (2013)	AT, BE, DE, ES, FI, FR, GR, IE, IT, NL, PT	– Jan. 2003 to May 2010 – Macro	Break: Oct. 2008	SUR ECM	– Pass-through less complete since financial crisis – Increased homogeneity across euro area countries
von Borstel et al. (2016)	AT, BE, DE, ES, FI, FR, GR, IE, IT, NL, PT and euro area	– Jan. 2000 to Dec. 2013 – Macro	Estimation periods: – Jan. 2000 to June 2007 – 2010 to Dec. 2013	FAVAR	– Sovereign debt crisis changed transmission of conventional monetary policy, but not the components of pass-through: monetary policy lowered banks' funding costs, but not their mark-up – Non-standard monetary policy measures had effective impact on pass-through; lending rates fell
Camba-Mendez et al. (2016)	Euro area	– July 2007 to Oct. 2014 – Micro	–	Two-stage panel regression	– Monetary policy measures to reduce volatility in money market and to improve financing terms via covered bonds (CBPP) had positive impact on pass-through (more complete)

\* See the footnote on p. 68.

cont'd: Overview of the literature on interest rate pass-through since 2014\*

Authors	Countries	Observation period and level	Structural break	Method	Key findings
Darracq Pariès et al. (2014)	AT, BE, DE, ES, FI, FR, GR, IE, IT, LU, NL, PT	– Jan. 2003 to Dec. 2013 – Macro	Estimation periods: – Jan. 2003 to Aug. 2008 – Sep. 2008 to Dec. 2013	ECM, DSGE model	– Less complete pass-through in IT and ES owing to strained government bond markets and less favourable economic situation – Less complete pass-through for deposit rates in low interest rate environment
Eller and Reininger (2016)	Euro area, DK, HU, SE, GB, CZ, PL, RO	– Jan. 2003 to Dec. 2014 – Macro	–	Panel ECM, VECM for individual countries	– Yields on long-term government bonds influence interest rates for long-term loans – Non-standard monetary policy measures influence lending rates via this relationship
Gambacorta et al. (2014)	IT, ES, GB, US	– Jan. 1989 to June 2013 – Macro	Break: Sep. 2008	ECM	– Break in cointegration relationship between EONIA and lending rates in 2008 – Adding risk variable (NPL ratio and CDS) explains model change
Holton and Rodriguez d’Arci (2015)	Euro area	– Aug. 2007 to June 2012 – Micro	–	Panel ECM	– Incomplete pass-through of money market rates to lending rates since financial crisis: higher government bond yields drove up banks’ funding costs – Individual bank characteristics are of importance, especially those which reflect funding difficulties
Hristov et al. (2014)	AT, BE, DE, ES, FI, FR, GR, IE, IT, NL, PT	– Q1 2003 to Q4 2011 – Macro	Break: Q1 2008; estimation periods: – 2003 to 2007 – 2008 to 2011	Panel VAR, DSGE model (financial frictions)	– Pass-through less complete since financial crisis – Weakening of pass-through owing to changed structural parameters of the economic variables and greater structural shocks
Illes et al. (2015a)	AT, DE, ES, FI, FR, IE, IT, NL, PT, DK, GB	– Jan. 2003 to Apr. 2014 – Macro	Estimation periods: – Jan. 2003 to Aug. 2008 – Sep. 2008 to Apr. 2014	Panel ECM	– Misleading comparison between lending rates and monetary policy rates: banks have higher funding costs – Comparison between lending rates and composite cost-of-borrowing indicator: unchanged pass-through since financial crisis
Leroy and Lucotte (2015)	AT, BE, DE, ES, FI, FR, GR, IE, IT, NL, PT	– Jan. 2003 to Dec. 2011 – Macro	Estimation periods: – Jan. 2003 to Sep. 2008 – Aug. 2007 to Dec. 2011	Panel ECM and panel VAR	– Rise in heterogeneity across euro area countries in pass-through for lending rates since the financial crisis – Reasons: strained financial markets, weak economic situation and country-specific financial market structures (competition)

\* CBPP: covered bond purchase programme, CDS: credit default spread, DSGE: dynamic stochastic equilibrium model, ECM: error correction model, FAVAR: factor augmented vector autoregressive model, SUR: seemingly unrelated regression model, VAR: vector autoregressive model, NFCs: non-financial corporations, NIRP: negative interest rate policy, NPL: non-performing loan.

### Literature on the negative interest rate environment\*

Authors	Countries	Observation period and level	Structural break	Method	Key findings
Amzallag et al. (2019)	IT	– Jan. 2013 to Dec. 2015 – Micro	Dummy variable after June 2014	Difference-in-difference	– Banks' funding structure is an important factor in pass-through of negative interest rates to lending rates – Banks with higher share of deposits charge higher rates on fixed-interest loans for house purchase
Eggertsson et al. (2019)	Euro area, S, CH, DK, JP, DE	– As of 2014 – Macro and micro	–	Difference-in-difference, DSGE model (with ZLB)	– Pass-through impaired for both deposit rates and lending rates since start of NIRP in euro area – NIRP can have contractionary effect on GDP – Cause: NIRP negatively affects banks' profitability
Heider et al. (2018)	Euro area	– Jan. 2009 to Dec. 2015 – Micro	Estimation periods: – Jan. 2011 to Dez. 2015; – Jan. 2013 to Dez. 2015	Difference-in-difference	– Banks are reluctant to pass on negative interest rates to depositors, driving up funding costs (particularly for banks with high share of deposits) – NIRP increases risk taking and lowers lending at banks with a high share of deposits
Horvath et al. (2018)	AT, BE, CY, FI, FR, DE, IR, IT, NL, PT, SL, SK, ES	– Jan. 2008 to Oct. 2016 – Macro	–	Panel ECM	– Complete pass-through only for small-volume loans – Weaker pass-through in sovereign debt crisis; Eurosystem purchase programmes mitigated these adverse effects – Negative interest rate environment has no impact on pass-through
Sopp (2018)	DE	– Jan. 2003 to Dec. 2016 – Macro	–	ECM	– Weakening of pass-through of lending rates to deposit rates since start of NIRP

CBPP: covered bond purchase programme, CDS: credit default spread, DSGE: dynamic stochastic equilibrium model, ECM: error correction model, FAVAR: factor augmented vector autoregressive model, SUR: seemingly unrelated regression model, VAR: vector autoregressive model, NFCs: non-financial corporations, NIRP: negative interest rate policy, ZLB: zero lower bound.

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## European Stability and Growth Pact: individual reform options

*Sound public finances are of crucial importance for a stability-oriented monetary union. This should therefore be what the European budget rules aim to achieve. The rules have been amended on numerous occasions, and changes are currently once again under discussion.*

*Any reform should uphold the fundamental objectives of the budget rules. If the medium-term objectives (or MTOs) are achieved rapidly and maintained, the debt ratios will drop quickly from a high level. In order to render the quantitative targets more binding again, however, the rules have to be designed more transparently and implemented predictably. Therefore, large numbers of exceptions and scope for discretion should be dispensed with. Strict fiscal surveillance is also important. To this end, it would make sense to transfer the European Commission's tasks to an independent, less political institution with its focus on monitoring compliance with the rules.*

*Various other adjustments are currently also being discussed. These include a stronger focus on expenditure ceilings. This could streamline the rules in various places. However, expenditure rules are also difficult in practice, and they open up new loopholes. This would have to be taken into account when designing the rules. In any event, expenditure ceilings should take the existing structural fiscal objectives as their frame of reference. In addition, they should be specified only for the next financial year, and not for a number of years.*

*A frequent complaint is that strict quantitative requirements are too narrow. In order to have a buffer even where limits are strict, national rainy day funds could be created and utilised. It should be possible to fund them in advance to the amount by which the MTO is overachieved. This would help prevent undesirable additional borrowing. It would be advisable to use such buffers only in a rule-based manner to cover unexpected burdens. Proposals for a relatively complicated rainy day fund at the European level do not make a convincing case, however. It is difficult to reconcile its joint financing with continued national responsibility for fiscal policy. Key objectives being pursued with European funds could also be achieved through national funds.*

*Frequent calls are made, moreover, for a "golden rule" to protect public investment. The problems associated with such an approach became evident, for instance, with the previous German budget rule, which was replaced with good reason. If a golden rule were nevertheless considered for the European rules, the associated risks, at least, should be minimised. Thus, investment should not justify unlimited additional deficits. No compromises should be made regarding the objective of rapidly declining high debt ratios, meaning that the MTO should be relaxed, if at all, only if the debt ratio is significantly below 60%. Also, the definition of investment should be narrow and harmonised. Moreover, only the build-up of additional assets should be encompassed, while capital depletion (negative net investment) would call for more ambitious fiscal positions.*

*Credible and binding fiscal rules help to limit the risks to stability and build confidence. However, their success will ultimately be determined by the Member States, which are responsible for fiscal policy. It is therefore vital that they raise their own funding on the capital market and are compelled to present a convincing fiscal policy stance there.*

## Debate on the Stability and Growth Pact

*Sound public finances safeguard monetary policy*

Sound public finances are important for the stability of the monetary union. They ensure that the Member States are capable of fiscal policy action and safeguard a stability-oriented monetary policy. Monetary policy could come under pressure to assist fiscal policy if confidence in sound public finances is lost.

*Member States responsible for their fiscal policy*

Within the monetary union, Member States decide their own fiscal policy. The currently very low interest rates make it easier for them to shoulder their debt.<sup>1</sup> However, high debt levels remain a risk to the stability of the monetary union.<sup>2</sup> It would be risky to view the currently very low interest rates as permanent and therefore to pursue a strategy of high government debt levels. Rising interest rates might then quickly erode confidence in the soundness of public finances, with adverse effects on the Member State and the monetary union.

*Individually liable financing important*

Jointly agreed fiscal rules should set binding limits and create confidence in the sustainability of public finances. However, the fiscal rules can fulfil their purpose only if countries adhere to them. The European level cannot determine Member States' fiscal policy in order to enforce compliance with the rules. It is therefore vital that Member States raise their own funding on the capital market and are compelled to present a convincing fiscal policy stance there. Potential risk premia are a strong incentive for fiscal discipline.

*Reform discussion should be guided by existing quantitative budget ceilings*

Over time, the fiscal rules have been repeatedly modified, and reforms are currently being debated again. The aim should be to design the rules such that high debt ratios are brought down swiftly and a sound underlying position is achieved. And, indeed, the existing agreements do reflect this intention: the key objective is for the general government budget to be at least (close to) balanced in structural terms – in other words, after adjustment for cyclical and one-off effects. This is known as the

medium-term objective or MTO. Where debt ratios are higher, the MTO should not exceed -0.5% of gross domestic product (GDP). If this MTO is met, debt ratios will usually also decline rapidly. Only if the debt ratio is significantly below 60% may a less ambitious MTO be set. If Member States fail to meet their MTO, the rule is that they should generally lower their structural deficit ratio by 0.5 percentage point per year. By doing so, they would in most cases deviate from their budgetary objective for no more than a limited transitional period.<sup>3</sup>

At present, however, the common rules often allow deviations from these basic quantitative requirements. The aim should be to strengthen the rules again. Although a certain degree of flexibility in the budget rules is appropriate and some measure of complexity is therefore unavoidable, the rules and their implementation still have to be transparent and predictable. This is becoming less and less the case with the European rules. Their application is the result of a process of political negotiation, and instead of binding quantitative rules, there are moving targets. Wide areas of scope for discretion mean that it is possible to excuse even persistent gross failure to achieve the targets. It is, for instance, evidently possible to delay the reduction of even very high debt ratios again and again, while still remaining within the rules. In the meantime, neither the general public, nor politicians, nor academics can determine where the boundaries of a rule-consistent budgetary policy lie. Changes are necessary to reinforce the rules.<sup>4</sup>

*Fiscal rules are currently poorly designed and implemented*

<sup>1</sup> See Deutsche Bundesbank (2017a); Blanchard (2019).

<sup>2</sup> See ECB (2016), p. 59; Fuest and Gros (2019a).

<sup>3</sup> In addition to the MTO, there is the reference value of 3% of GDP for the (unadjusted) deficit and a figure of 60% for the debt ratio. These define the limit for what is known as the corrective arm of the Stability and Growth Pact (SGP), which will not be discussed in greater detail here. For information on the rules, see European Commission (2017a, 2019); Regulation (EU) 1175/2011; Council Regulation (EU) 1177/2011; Regulation (EU) 473/2013; OJ 2010 C83/99; OJ 2010 C83/279; Treaty (2012).

<sup>4</sup> For more information on the tasks and a criticism of the European fiscal rules, see also Deutsche Bundesbank (2017b).

*Discussion on more budgetary leeway*

Yet strict rules are also criticised for being too restrictive. The argument is that they allow too little room for macroeconomic stabilisation and government investment. However, the rules do allow some leeway in this context. For instance, the rules are designed to ensure that automatic stabilisers can operate. In addition, exceptions are made for severe downturns. Leeway is also available where safety margins vis-à-vis the normal limits were established. Nor do the rules prevent the provision of an efficient public infrastructure. Shortcomings there are, in fact, more often the result of political priorities being set differently.

*Taking on board criticisms without compromising the objective of sound finances*

The underlying quantitative objectives of the European budget rules are reasonable and appropriate. They safeguard sound government finances and allow sufficient room for manoeuvre. In that respect, they do not require an overhaul. Nonetheless, adjustments in individual areas could be examined without compromising the objective of sound public finances. The following areas will be looked at more closely: transferring fiscal surveillance to an independent institution, making the rules more transparent and more binding, introducing an expenditure rule, using control accounts and rainy day funds and, finally, the question of the extent to which a special role could be given to government investment.

## ■ Selected reform areas

### Transferring fiscal surveillance to an independent institution

*Independent fiscal surveillance advisable*

Limits are only effective if compliance is monitored and any breaches are reported and penalised. Independent bodies are better suited to monitoring than institutions which are themselves part of the political process. Policy decisions consistently give rise to strong incentives for excessive borrowing. The fiscal rules form a counterweight to such incentives, meaning that fiscal surveillance by bodies with close connections to the political sphere is disadvan-

tageous.<sup>5</sup> Consequently, the Member States agreed, with the Fiscal Compact, to establish independent national fiscal councils for the national level.

At the European level, by contrast, the European Commission is the key player in fiscal surveillance. However, the Commission sees itself as a political institution and has other tasks besides fiscal surveillance. It therefore weighs different policy objectives in the negotiation process with the Member States. The very high degree of flexibility and the wide scope for discretion, in particular, mean that there is a risk of the objectives of the fiscal rules receding into the background.

To offset this, it would make sense to transfer fiscal surveillance to an independent institution. The competent authority should have a clear and narrow mandate and should not, in particular, pursue conflicting objectives. It should monitor public finances and assess fiscal plans. Its tasks would be to flag up actual and imminent breaches of the rules, identify consolidation needs and recommend procedural steps and sanctions. Its leeway for discretion should be strictly limited. On the basis of this preparation, the Council would, as is currently the case, take the decisions (e.g. determining the existence of an excessive deficit). However, the preparatory work and submissions would be less political. One could, for example, consider transferring the task of surveillance to the European Stability Mechanism and enhancing its independence in this area.<sup>6</sup> By contrast, the recently established European Fiscal Board focuses on the fiscal stance of the euro area and has very close ties to the European Commission.<sup>7</sup>

*Rules at the European level must also ...*

*... be monitored in a focused and independent way*

<sup>5</sup> See, for example, Beetsma and Debrun (2016); Feld (2018).

<sup>6</sup> See Deutsche Bundesbank (2019).

<sup>7</sup> See OJ 2015 L 282/37.

## Making the rules more transparent and more binding

*Effective fiscal surveillance through clear and binding rules*

Fiscal rules should set concrete and transparent standards. This is the only way to ensure that fiscal developments are assessed and treated in a comparable manner over time and between Member States. The European rules do not meet these requirements.<sup>8</sup> Therefore, clear restrictions should be placed on possible ways of deviating from the basic quantitative objectives. This relates to exemptions to the rules, as these are often neither clearly defined nor coherently justified. It is also problematic that assessments are, in many instances, not rule-based and breaches are excused. The European Commission has very wide discretion and may give its approval even if quantitative requirements for all indicators are breached. The exceptions should be delimited strictly and clearly, and the relevant audit processes and components should be defined in advance.

## Any expenditure rules should be valid for one year at most and be tied to structural objectives

*Expenditure rules are under discussion*

A frequent proposal is that expenditure ceilings should feature more prominently in the rules.<sup>9</sup> This could, in fact, simplify the rules in some cases. However, expenditure rules are not easy in practice, and they also open up new loopholes. This would have to be taken into consideration when designing the rules. It is key that the expenditure ceilings should be based on the underlying requirement in terms of the structural balance and should not undermine it. This is another reason why it is not advisable to determine expenditure targets for multiple years.

*Objectives should continue to be defined as structural balances, ...*

Under the European rules, the MTO is defined as a structural balance. In addition, the amount by which the structural balance must be improved is specified if a country is on the adjustment path towards the MTO or must correct an excessive deficit. Structural balances (like all tar-

get variables for budget rules) have specific inherent problems. They are nonetheless sensible anchor points for budget rules and should therefore be retained. Structural goals, for instance, allow the automatic stabilisers to “breathe”. At the same time, the fiscal stance can be identified from the structural balances.

However, it is not always possible to unerringly achieve concrete structural balances. They may reflect unexpected developments, for instance. This applies, in particular, to revenues, or it might relate to a revised estimate of aggregate economic output, on which cyclical adjustment is based. If no safety margins were incorporated, such forecast errors could cause structural balance objectives to be missed, even though the budget plans have otherwise been implemented as planned. Where structural balance targets are to be met despite unexpected developments, implementation of the budget would have to be adjusted on an ad hoc basis. This could trigger a rather erratic fiscal path. In order to avoid this and take due account of such unintentional failures to achieve targets, complex corrections and special assessments are carried out at present. As a result, even experts can often find it nearly impossible to identify why a requirement is considered as having been met or missed.

An expenditure rule could simplify this assessment process. For instance, corresponding maximum expenditure growth could be calculated for the structural balance to be achieved in the coming financial year.<sup>10</sup> This ceiling

*... but they are subject to revisions ...*

*... and should therefore be put into operation using an expenditure rule*

<sup>8</sup> A detailed and concrete description of the current rules’ high degree of complexity and of starting points for simplification may be found in Deutsche Bundesbank (2017b).

<sup>9</sup> Proposals for an expenditure rule may be found, for example, in European Commission (2017b); European Fiscal Board (2018), pp. 70-88; Bénassy-Quéré et al. (2018), pp. 10-12; Christofzik et al. (2018), pp. 13-21; Andrieu et al. (2015), pp. 11-18; Darvas et al. (2018); Fuest and Gros (2019b).

<sup>10</sup> A lot of proposals meanwhile envisage an expenditure rule that is not tied to a structural budgetary objective for the balance. The evaluation of such proposals will depend largely on what the setting of the expenditure ceiling is targeted at. In this, how quickly high debt ratios come down should be of particular importance. In many proposals, however, this remains indeterminate.



would then be the benchmark for assessing compliance with the rules in the year in question. Deviations in other categories or revisions of the cyclical adjustment would not be relevant but would be excused.

structural terms, than forecast might cause considerable problems over a period of several years, because the response to the new development would be much too late.<sup>12</sup>

*Expenditure rule not trivial*

Nevertheless, an expenditure rule is not as simple as it seems at first sight. It is, for instance, likely to be difficult to implement and monitor such a rule in the individual government entities of a strongly decentralised or federal Member State. Moreover, the expenditure ceiling would have to be adjusted immediately if there were any measures on the revenue side: it would, for example, have to be reduced if taxes were subsequently lowered or sub-sectors of government with revenues and expenditure were to be spun off.<sup>11</sup> By contrast, subsequent tax increases could be used to fund additional expenditure.

## Control accounts an important addition

Budget objectives may be missed for a variety of reasons. Revenue forecasts may have been too high or too low, for example, or spending may have been higher or lower than the authorised levels. This becomes critical when, as a result, debt increases over time more rapidly than the upper limits were designed to permit. It would therefore make sense to establish a control account for failures to achieve targets. This would record the amounts by which budget objectives have been exceeded or undershot.<sup>13</sup> At the same time, a threshold for negative deviations from the target should be established to indicate when the cumulative rise in debt needs to be corrected. If the amounts recorded more or less cancel each other out over time, there would be no need for action. However, if the threshold were to be exceeded, the accumulated shortfall would have to be offset, in a rules-based manner, in the next few years.<sup>14</sup> To this end, the requirements for the annual budget objective would

*Control account for missed targets ...*

*Expenditure rule requires prudent forecasting*

For the expenditure rule to be effective, it is essential that its limits be based on realistic forecasts. This is particularly true of profit-related taxes, which are especially hard to estimate, changes in tax legislation, and tax enforcement. If revenue forecasts were too high, the permissible expenditure growth would be set too high. The objectives for the structural balance would then be exceeded. In order to address false incentives, independent surveillance authorities should validate all forecasts and plans.

*Expenditure ceiling should be laid down only for the coming year*

Moreover, it would be important for the maximum expenditure growth to be determined annually, i.e. only for the coming financial year. For the following financial year, it would then have to be newly derived from the current, rule-compliant structural balance or from the required improvement in the structural balance. By contrast, there are also some proposals to set expenditure targets spanning a number of years, such as for one legislative period. This would be problematic, as it would potentially allow deficits to rise over this period without any countermeasures being taken. Economic activity being significantly weaker, in

<sup>11</sup> This would also be the case, for instance, if usage fees were to be reduced (or collected less consistently) or if there were a cut in specific transfers linked to expenditure, say from the EU.

<sup>12</sup> However, it is sensible to continue to embed the annual budget in a medium-term plan, since corrective action is taken on an annual basis.

<sup>13</sup> In principle, the amounts of both positive and negative deviations from the MTO could be recorded in the control account. Alternatively, before the MTO is reached, only deviations from the adjustment path could be recorded.

<sup>14</sup> The main objective of the control account would be to prevent an unintentional build-up of debt. In principle, however, if entries are positive on balance and above a threshold, budgetary objectives could be made less ambitious for a while. That said, if this is at all possible, it should be on the basis of positive entries due to the MTO having previously been overachieved. By contrast, positive deviations from the adjustment path alone – i.e. if the MTO has not yet been met – should not be used to justify higher levels of new borrowing. Generally speaking, surplus funds from overachieving the MTO could also be used as a rainy day fund. This will be discussed in the following section.

have to be more ambitious for a certain period of time.<sup>15</sup>

*... and cyclical components*

There may be other reasons, too, for levels of debt being higher over time than is intended under the rules. This is especially true if the cyclical adjustment method is not symmetrical and shows negative output gaps on balance. This cannot be ruled out for the method which the European Commission applies to the European rules. As a control measure, the identified cyclical components could also be added up over time and any accumulated debt could be repaid.

## Incorporating national rainy day funds into fiscal rules

*Increase room for manoeuvre ...*

The quantitative requirements of the European fiscal rules are sometimes criticised for being too narrow. Critics argue, for instance, that Member States should avoid having to carry out procyclical consolidation in the event of an unexpected structural downturn. There are also calls for greater scope to be given to an active stabilisation policy, for example.

*... without jeopardising debt reduction: creation of rainy day funds where MTO is exceeded*

So as not to undermine the necessarily strict limits by making numerous exceptions, on the one hand, and to allow flexibility on the other, national rainy day funds could be utilised within the framework of the rules. The basic idea behind this type of fund is to build up a financial buffer in good times in order to prepare for “rainy days” ahead.<sup>16</sup> This concept could be added to the Stability and Growth Pact (SGP) without permitting additional debt. In other words, the targeted debt path under the MTO should, as a minimum, still be adhered to. Therefore, it should be possible to credit the fund only in the amount by which the MTO is over-achieved.<sup>17</sup> This reserve could then allow room for manoeuvre. The limit of the regular MTO could be exceeded at a later date by drawing on these funds.<sup>18</sup> As a result, the regular MTO would not be met in every single year but on average from the time the rainy day fund is established.<sup>19</sup>

Such funds could, in principle, be used for different purposes. However, it would be highly advisable to stipulate provisions for the rule-based use of such funds in national legislation.<sup>20</sup> Otherwise, funds could create new problems. For instance, they might be used to generate “political business cycles”. Moreover, large reserves might tempt policymakers to decide on permanent additional spending or tax cuts that are financed (only) temporarily from the fund. Structural difficulties would initially be masked and any need for consolidation would be shifted to future governments. In order to avoid this, it would be advisable to set out specific requirements for the use of the reserve in the medium-term fiscal plans. Therefore, the budget should be financed soundly and in full after the reserves have been used up. This would be ensured if the reserves were used to finance one-off expenses. This would also be the case if use of the buffers were tapered and had to be linked over time to specific matching fiscal consolidation measures. Provisions could also specify that the funds would, in general, be exclusively reserved for cushioning unexpected budgetary burdens. The aim of this would be to spread out any un-

*Rule-based utilisation of funds advisable*

<sup>15</sup> As in Christofzik et al. (2018), pp. 18-19. For details on the debt brake, see Deutsche Bundesbank (2011, 2012); Federal Ministry of Finance (2015).

<sup>16</sup> Almost all the US federal states have rainy day funds. See NASBO (2018).

<sup>17</sup> The buffers in the rainy day fund do not necessarily involve a build-up of assets. It is more of a notional account that adds up the amount by which the MTO has been over-achieved.

<sup>18</sup> The control accounts described above could be introduced in parallel. At all events, only financial resources arising from overachieving the MTO should be added to the rainy day fund.

<sup>19</sup> Government funds or reserves are unable to fulfil a similar purpose at present, since the MTO is fixed and the rules are linked to the public sector's national accounts balance. This balance is not altered by additions to or withdrawals from a government fund. Internal transactions such as these have a neutral effect on the balance. This means that higher expenditure or tax cuts have a detrimental effect on the balance even if they are financed from a government fund. Unlike in the EU rules, Germany's debt brake for central government is based on net borrowing (not on the fiscal balance). Therefore, with a view to net borrowing, the refugee reserve allows central government to apply a similar principle to that of a rainy day fund. It does not change the deficit as per the national accounts, however.

<sup>20</sup> For detailed information, see Deutsche Bundesbank (2018), p. 32.

expected need for fiscal adjustment further using resources from the funds. Although the current rules already make allowances should the structural budgetary position take an unexpected turn for the worse during the fiscal year in progress, the structural deterioration would need to be addressed over the next few years. Drawing on the funds would then allow the adjustments to be spread over a longer period of time.

*Rainy day funds: national rather than European*

Calls are sometimes made for the introduction of a European rainy day fund, which would be jointly financed. Its proponents often stress that additional borrowing opportunities and transfers between Member States are to be ruled out.<sup>21</sup> However, the stated objectives of such a European fund could be achieved more effectively using national rainy day funds. For example, these do not require complicated “claw-back” mechanisms to avoid permanent transfers between Member States. In the current regulatory framework of the monetary union, national solutions generally appear more appropriate given that the Member States are responsible for their own fiscal policy.

## Special protection for investment in budget rules?

### Golden rule under debate

*Debt-financed investment*

In the debate about the budget rules, there are often also calls for borrowing to be allowed to finance government investment expenditure (known as the “golden rule”).<sup>22</sup> The European fiscal rules make no provision for this.

*Arguments in favour of a golden rule*

On the one hand, supporters of a golden rule put forward the following arguments.

- Investment creates public assets. If additional assets are financed through borrowing, the debt level rises but the volume of net government assets remains unchanged. Seen in that light, the sustainability of public finances is not impaired, either.<sup>23</sup>

- Capital stock formed through government investment is a major prerequisite for macro-economic growth. Investment funds itself insofar as future government revenue is higher.
- A golden rule would enable the investment costs to be distributed more appropriately between generations. It would improve the balance between the costs and benefits of the additional capital stock – financing it solely from current revenue would place the burden on today’s taxpayers. Debt financing would allow the burden to be spread over a longer period corresponding to the assets’ useful life.
- If borrowing is not permitted, there is a risk that investment and the government capital stock will be too low. For instance, investment tends to be supported by stakeholders who are less assertive than those calling for different expenditure or tax cuts. Politically speaking, investment is therefore fairly dispensable. If no final contractual agreement is in place, it is also relatively easy to curtail investment in practice (e.g. by postponing it). Should the need for consolidation arise, it is often the first thing to be reversed.

Others, meanwhile, point out the problems associated with a golden rule.

*Arguments against a golden rule*

- Replacement investment is likely to make up the vast majority of government investment

<sup>21</sup> See Lenarčič and Korhonen (2018); Arnold et al. (2018).

<sup>22</sup> See, for example, Blanchard and Giavazzi (2004); Truger (2015); Melyn et al. (2016); Hüther (2019). For the pros and cons of taking investment into account, see Deutsche Bundesbank (1999, 2005); Expert Commission (2016); European Commission (2016); International Monetary Fund (2018a, 2018b).

<sup>23</sup> The European budgetary rules are based on the national accounts balance. Investment in financial assets does not affect the balance. It is considered to be purely a shifting of financial assets, and debt financing is therefore permitted. Such financial transactions include, say, loans issued or privatisation proceeds. However, there exists a limit for financial transactions through the provisions for the debt ratio (60%): if financial assets are acquired through additional borrowing, gross debt goes up. This is the main factor for the Maastricht debt level.

in advanced economies; this means that there is no increase, on balance, in the capital stock. Loan financing would be justifiable, if at all, only if the capital stock were to rise, however. This would mean having to take write-downs and other disposals into account.

- Problems can occur even if high levels of borrowing are balanced by a statistically high government capital stock. If there are doubts as to the sustainability of government debt, it is often very difficult to mobilise parts of the government capital stock in order to service the debt.<sup>24</sup>
- Whether or not government investment encourages growth depends on the specific investment projects. For example, net investment in what is already a very good infrastructure is likely to boost growth to only a very limited extent. Under these conditions, if there is any need for consolidation, it may well make sense to cut investment expenditure first. Ultimately, investment clauses in the budget rules are just as unsuitable as generalised targets for government investment ratios as a means of ensuring appropriate and efficient government investment.
- Credit financing as an easy option for policymakers could increase the risk of overinvestment and bad investments. Private investment might be crowded out, especially if aggregate capacity utilisation is high. There is also a danger that not enough effort would be made to check whether it would be better to obtain the corresponding service from private investors.
- Without further analysis, it is not possible to tell whether the costs and benefits of public investment are shared fairly between the generations. Preferences for individual investments can change, too, while the debt incurred in order to finance them has to be serviced under any circumstances. In addition, all other things being equal, a reduc-

tion or stagnation of the capital stock would seem reasonable given a decreasing population. A comprehensive review would ultimately be needed to evaluate the intergenerational distribution. For example, the pay-as-you-go statutory pension insurance scheme also has significant distributional effects in the context of demographic change. The golden rule does not take aspects such as these into account.

- There is a danger that, as a result of the golden rule, expenditure will be booked as investment where this was previously not the case. More generally, scope for bending and manipulating the rules would increase. The rules would also become more complex.

### No golden rules at present

In Germany, central and state governments were subject to investment-related budgetary rules for many years. However, these proved ineffective<sup>25</sup> and were replaced by the debt brake.<sup>26</sup> Thus far, the debt brake has been successful in terms of reversing the decades-long trend of rising debt ratios. Although government budgets have benefited from very favourable underlying conditions, the new, strict budget limits are likely to have played a key role in ensuring that relief from sources such as

*German debt brake a success thus far ...*

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<sup>24</sup> This applies, not least, to government investment in intellectual property.

<sup>25</sup> In Germany, rule-consistent borrowing was limited to the level of investment expenditure. Investment grants received had to be deducted. This upper limit could be exceeded only in order to avert a disruption to overall economic equilibrium. Among the points of criticism here were that investment was defined very broadly, no account was taken of write-downs and asset sales, the requirement had to be met only at the planning stage but not when implementing the budget, burdens in special funds were not taken into account, and the exception was not defined in detail. On balance, these rules did not halt the depletion of government assets. The general government debt ratio rose to well over 60% without being accompanied by a matching increase in assets. See Deutsche Bundesbank (2005).

<sup>26</sup> The debt brake under German Basic Law (*Grundgesetz*) will not apply fully to the state governments until 2020. Local governments can continue to finance investment through borrowing, but will have to furnish proof of their financial capacity.

interest expenditure or positive labour market developments was also used to reduce deficits.

*... and not the cause of inadequate infrastructure*

At the same time, Germany's infrastructure is still rated as above average in comparative international surveys.<sup>27</sup> Although it has shortcomings in various places, this can hardly be blamed on the new debt brake. Not least, there has been plenty of budgetary leeway even within these limits for some time now. Although other priorities have largely been set for using such scope, such as appreciably higher social benefits, investment budgets have nonetheless been topped up as well. The fact that infrastructural weaknesses are being remedied fairly slowly is probably also due to planning and capacity constraints, complex legal requirements, and lengthy approval procedures.

*Complying with the debt brake and ensuring good infrastructure*

All in all, introducing the debt brake was an important step for Germany. It again places sound public finances on a more reliable footing. The debt ratio will probably not reach the limit of 60% this year. However, the significant increase in demographic strains on the horizon means there are still major fiscal challenges ahead. This is one of the reasons why it is still advisable to apply the rules and, at the same time, ensure a very good public infrastructure within this framework.

*Keeping an eye on the down-sides of a golden rule in the European reform debate*

The problems associated with a golden rule have meant that the European fiscal rules have largely shied away from introducing it, too. When the monetary union was established, placing a limit on government debt was seen as a priority. As part of the reform debate there are now occasional calls for investment to be considered more specifically in the form of a golden rule.

#### **Requirements to limit risks of a potential golden rule and examples of design options**

*Important guidelines for potential special rules for investment*

There are substantial concerns about a golden rule. If, however, the outcome of the current European debate is that the potential benefits outweigh such concerns, the important thing

would be to narrow down the risks to a minimum. This would mean bearing in mind four principles.

First, it should be ensured that high debt ratios do not decline more slowly if the rules are complied with. In other words, the budgetary objective should not be less ambitious than the current MTO. An upper limit should therefore also be agreed for the additional deficits and debt resulting from investment (a "capped" golden rule). This cap would also limit the risks arising from undesirable interpretations and over-investment.<sup>28</sup>

*Rapid reduction of high debt ratios*

Second, the investment to be recognised would have to be clearly and narrowly defined. One possibility would be government investment according to the national accounts. The national accounts provide an internationally harmonised definition of investment based on the build-up of a government capital stock. This could at least limit the scope for defining the concept of investment.

*Only investment according to the national accounts to be included*

Third, countries should be able to run up additional debt only to the same extent that they accumulate additional assets. When calculating the deficit limit, the write-downs according to the national accounts would have to be deducted from gross investment – in other words, only net investment would be separated out.

*Additional debt only for positive net investment*

Fourth, a symmetrical approach should be taken. If higher deficits were allowed in the case of positive net investment, then in the case of negative net investment – i.e. the consumption of government capital stocks – more ambitious budgetary objectives would have to be set.

*Taking a symmetrical approach in the event of negative net investment*

In order to fulfil these requirements, a potential golden rule could be based on the existing

<sup>27</sup> See Jaramillo et al. (2018); World Economic Forum (2018).

<sup>28</sup> One of the things to be examined is whether only self-financed net investment is counted towards this limit. This would prevent, say, investment projects co-financed by the EU permitting a higher level of national debt.

*Taking current MTO as starting point and continuing ...*

limits for the MTO. The existing rules allow a structural deficit of up to 0.5% of GDP provided that the debt ratio is not “significantly below 60%”.<sup>29</sup> What counts as “significant” has not yet been quantified. Nonetheless, a debt ratio of below 50% could, as a rule, be considered to be an appropriate, quite sound basis for moderately easing the MTO.

*... to ensure budgetary objective is ...*

Therefore, for debt ratios above 50% (i.e. not significantly below 60%), the structural deficit could be as high as net investment in the national accounts – but no greater than 0.5% of GDP. The MTO ceiling would thus continue to apply, but only if net investment amounted to at least 0.5% of GDP. If net investment were between 0% and 0.5% of GDP, deficits of the same amounts could be permitted. If net investment were negative, the government would need to run surpluses.

*... differentiated by level of debt ratio*

For debt ratios significantly below 60%, under the current rules, a structural deficit ratio that is higher by 0.5 percentage point can be set as the MTO, thus reaching up to 1%. In line with the above-described approach, for debt ratios below 50% deficits of at most 1% of GDP would be permissible only if net investment amounts to at least 0.5% of GDP. Given relatively sound positions such as these, consideration might, under certain circumstances, be given to adding the amount of net investment to the 1% limit – again up to a maximum of 0.5% of GDP. In other words, a structural deficit ratio of up to 1.5% would be allowed as long as net investment is at least 0.5% of GDP. If net investment is lower than that, more ambitious fiscal targets would have to be met. The debt ratio would potentially drop less significantly below 50%. However, very low debt ratios thanks to persistently balanced budgets would still be possible, because the MTO is not a target figure but an upper limit.

*Investment protection on the adjustment path towards MTO, too*

Investment could also be factored into the adjustment path towards the MTO. For example, provision could be made for falling investment expenditure being regarded as a contribution to consolidation only if net investment still

comes to at least 0.5% of GDP. If net investment is lower than this, consolidation would have to be accomplished entirely through other expenditure categories or through revenue.<sup>30</sup>

If investment expenditure is taken into account by the rules, fiscal surveillance would also have to track the actual level of investment. Investment expenditure being lower ex post (without lower deficits) would constitute a breach.

This sample design of a strict capped golden rule would ensure that very high and high debt ratios decline swiftly given adherence to the rules. Due account would be taken of the risk that high debt ratios pose to monetary union. Only if debt ratios were significantly below the 60% threshold could thought be given to a somewhat greater easing of the MTO based on positive net investment.

At the same time, this would counteract incentives to make excessive cuts to investment in order to comply with the European fiscal rules. The deficit targets would become more ambitious, the further net investment falls below 0.5% of GDP. This would mean that countries would be unable to comply with the fiscal rules by reducing investment expenditure to below 0.5% of GDP. Even where there is a need for structural adjustment, government investment would, at most, face limited consolidation pressure. This pressure would then arise in other areas. If the amount of net investment that can be counted were capped at 0.5% of GDP, any misguided incentives would be limited, thus mitigating the risks of inefficient over-investment or improper structures. This would not make higher government net investment impossible – it would just not be permissible for it to be financed by additional borrowing.

*Target/actual comparison*

*High debt ratios would continue to drop swiftly*

*Counteracting incentives to reduce investment*

<sup>29</sup> See Treaty (2012), Article 3(1) letter (d).

<sup>30</sup> If net investment was previously lower than 0.5% of GDP, investment expenditure could in fact rise to this level without increasing consolidation pressure in other categories. Overall, this would slow down debt reduction, but only by a little. Alternatively, instead of net investment of 0.5% of GDP, a figure of 0% could also be set.

## ■ Conclusion

*There is a need for reform*

The way in which the European fiscal rules have evolved is unsatisfactory, and the way in which they are being applied has become somewhat incomprehensible. Even during the favourable times of the past few years, very high debt ratios, in particular, barely declined in many cases. Fiscal surveillance evidently failed to induce further steps towards consolidation, and even instances of structural loosening went unpunished. There is a need for reform. The medium-term objective of the structurally (close to) balanced budget should be more binding on fiscal policymakers. This would ensure that high debt ratios fall swiftly. Numerous exceptions and discretionary scope should therefore be dispensed with.

*Implement rules strictly*

Limits must be implemented strictly. National parliaments retain responsibility for setting fiscal policy, but the pressure to adopt a sound stance could be increased. Progress in this direction could be expected if fiscal surveillance were to be transferred to a clearly focused independent institution. If an expenditure rule were to be introduced, the structural fiscal balance should remain the key reference point and guidepost. It could be converted into an expenditure ceiling which would have to be complied with in the budget planning and execution phases. The expenditure ceiling would be set only for the year ahead, not for multiple years. For each subsequent fiscal year, it would be newly derived from the current, rule-compliant structural balance or the required improvement in the structural balance.

*Flexibility thanks to rainy day funds*

National rainy day funds could create flexibility for fiscal policymakers within the framework of the rules, even if quantitative objectives were more stringent. For this to work, such funds would have to be better integrated into the fiscal rules. The funds would be stocked in advance from overachieving the medium-term objective (MTO) and should not create additional scope for borrowing. It would be advisable to stipulate solely rule-based utilisation of

the funds, as a way of cushioning the impact of unexpected budget burdens, in particular. This would not require complex European mechanisms.

Swiftly reducing high debt ratios should be a key objective of the fiscal rules. This should also be at the heart of deliberations on any reforms. This also holds true if the rules were geared, say, to greater protection for government investment. Such golden rules have considerable inherent problems and risks, and have often proved unsuccessful in the past. If the European rulebook moves in this direction nonetheless, it has to be ensured that the rules do not make compromises on the objective of rapidly declining high debt ratios. They should refer to narrowly defined net investment. In the event of capital depletion (i.e. negative net investment), a more ambitious fiscal position than at present would be called for. For debt ratios significantly below 60%, positive net investment could permit limited additional deficits.

Each Member State in the monetary union is responsible for its own fiscal policy and hence must also answer for its repercussions. Quite apart from the specific fiscal rules, each Member State decides whether or not to comply with the joint agreements and uphold them. The European level cannot intervene in fiscal policy to ensure that limits are complied with or debts serviced. This means that the rejection of joint liability along with individually liable financing on the capital market have to remain key elements of the fiscal framework in monetary union. Thus, it remains necessary for each Member State to make sure that no doubts arise on the financial markets as to the servicing of government debt. Potentially increasing risk premia still constitute a material incentive to run a sound fiscal policy. Targeted fiscal rules that are perceived to be binding can play a crucial role in creating and maintaining trust. But to do so, they have to be implemented in an appropriate manner, and compliance must be monitored transparently and sanctioned if and when required.

*Reforms with debt reduction as their prime objective*

*Autonomous Member States – autonomous financing*

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## Germany's debt brake: surveillance by the Stability Council

*Since 2016, Germany's debt brake has limited the Federal Government's structural net borrowing to 0.35% of gross domestic product (GDP). From 2020, Germany's federal states will be generally forbidden from taking on new debt. The federal states have implemented this provision of the Basic Law in very different ways thus far. The key point is that debt ultimately remains limited in future. Furthermore, the debt brake also aims to ensure compliance with European budgetary rules for general government.*

*Comprehensive and transparent fiscal surveillance is a key factor in the binding force of budgetary rules. In Germany, the Stability Council is to carry out this surveillance, i.e. chiefly the Federal Minister of Finance and the state ministers of finance. From 2020, the Stability Council will also review the extent to which central government and the individual state governments are adhering to their debt brakes. In this context, the budgets are to be assessed against uniform criteria and the results of these assessments are to be published. At the same time, the Stability Council is tasked with ensuring that there are no conflicts with European budgetary rules. These are linked not to budgetary data, but to the budget balance according to the national accounts. Overall, the intention is to set up a new early warning system for breaches of budgetary rules. As the Stability Council is not an independent supervisory authority, a transparent and goal-oriented surveillance procedure is essential.*

*In December 2018, the Stability Council finalised its review criteria for monitoring the debt brakes. However, it is uncertain whether it will always be able to detect potential clashes with European budgetary rules, especially as deficits cannot be derived within the relevant definition. Moreover, it is not required that the agreed indicators be defined in an entirely harmonised manner, which makes it more difficult to draw comparisons between federal states. Together with the complex steps in the procedure, this also has an impact on transparency. Furthermore, it is intended that the results of the review will be published only with the consent of the relevant government entity.*

*Overall, the review process appears to be inadequate for assessing and comparing the respective financial situations and outlooks. It is difficult to ascertain whether a clash with the general government deficit ceiling is on the horizon. In order to gain a comprehensive and meaningful picture, it would be advisable, amongst other things, to use harmonised indicators that are closely oriented towards the rules of the national accounts. Alongside the off-budget entities that are to be taken into account, this also affects the delineation of deficit-relevant events. In any case, the results and their derivations should be made available to the public in full.*

## Current fiscal surveillance by the Stability Council

*Debt brake requires surveillance with early warning signal*

The debt brake was adopted in 2009 and will also apply to the federal states from 2020. Article 109(3) of the Basic Law sets out general rules for the debt brakes. The core point is that net borrowing is forbidden with only few exceptions. For the Federal Government, Article 115 stipulates additional key points that include repayment obligations if the rules have been breached. The federal states are requested to enshrine their debt brakes in state rules. Constitutional courts can review whether the requirements have been met. However, above and beyond this, it is crucial that unwelcome developments are detected and counteracted in good time. For this to happen, budgetary situations and developments must be assessed as comprehensively and – not least for the benefit of the general public – as transparently as possible.

*Fiscal surveillance by Stability Council comprised of ministers*

The Stability Council was created alongside the debt brake with the aim of monitoring German public finances. Instead of an independent body, the Federal and state finance ministers who sit on the Stability Council are responsible for their own supervision. Thus far, the Stability Council has reviewed whether the Federal Government or the individual states are at risk of a budgetary emergency. Furthermore, it assesses whether the federal states receiving consolidation assistance – Berlin, Bremen, Saarland, Saxony-Anhalt and Schleswig-Holstein – are adhering to their agreed deficit reduction paths. It also checks compliance with the general government deficit ceiling according to EU rules and, if necessary, makes proposals for corrective action. In order to take account of the European Fiscal Compact, the Stability Council is assisted by an independent advisory board.<sup>1</sup> This advisory board publishes its evaluations of the Stability Council's projections.

*Considerable weaknesses in current surveillance*

Harmonised, meaningful and up-to-date figures on budgetary situations and prospects are decisive for effective fiscal surveillance. Trans-

parency in this regard also makes it easier for the general public to work towards sound government finances.<sup>2</sup> This is especially important if those responsible for the budgets are also responsible for their own supervision. With this in mind, the current fiscal surveillance by the Stability Council exhibits considerable weaknesses. One example of these is the agreed indicator system for emerging budgetary emergencies.<sup>3</sup> In this context, high alert thresholds and the major importance attributed to the sluggish debt level prevent early warning signals that would facilitate gentler countermeasures. Furthermore, government entities that are off the core budget are not included. In addition, relatively old planned budget figures are used instead of current forecast figures in some cases.

## Future surveillance of the debt brakes

### Review based on the relevant requirements

In December 2018, the Stability Council decided to monitor the debt brakes using a new, two-step process from 2020.<sup>4</sup> In the first step of this process, the Stability Council conducts its review based on the criteria of the debt brake for the Federal Government or for the relevant federal state. The specific details of this step in the review process have not been made public.

*Details of review not made public*

The majority of the federal state debt brakes aim, at the very least, to balance the cyclically adjusted budget outturn. In this regard, however, the rules differ in a number of areas. This applies not only to the variety of procedures used for cyclical adjustment.<sup>5</sup> Shifts in financial

*Key differences in cyclical adjustment, application of national accounts rules and target variables*

<sup>1</sup> Amongst others, an expert delegated by the Bundesbank sits on the advisory board. For more information on the independent advisory board, see: [www.stabilitaetsrat.de/en](http://www.stabilitaetsrat.de/en).

<sup>2</sup> See Deutsche Bundesbank (2018a), pp. 32-37.

<sup>3</sup> See also Deutsche Bundesbank (2011).

<sup>4</sup> See Stability Council (2018).

<sup>5</sup> See Deutsche Bundesbank (2017).

assets (financial transactions) that do not affect the balance are also defined in different ways. Furthermore, the target variables differ. For the most part, they are not closely oriented towards the budget balance in the national accounts, which is essential to the general government deficit ceiling. In addition, withdrawals from and payments into reserves are often treated as revenue and expenditure, respectively. This means that the reported result changes even though the overall financial situation of the relevant government entity has remained the same.<sup>6</sup>

*Review according to relevant rules presumably of little benefit*

Overall, there are concerns that these reviews of the respective debt brakes will not be especially beneficial.<sup>7</sup> The information provided by each subject regarding its planned budget figures is expected to be highly difficult to verify and interpret in some cases. This applies especially to federal states that update their target figures on a comparatively infrequent basis. Up-to-date and transparent forecasts would be vital for effective supervision, however. It could also be helpful for the Stability Council to analyse any discrepancies between the results and the previously submitted forecasts.

## Harmonised review with regard to European requirements

*Mandate: harmonised review of federal states based on European requirements*

The review of the federal state debt brakes is important. However, it does not allow for meaningful comparisons between states. For this to be possible, there need to be uniformly defined budgetary indicators that also take account of government entities that are formally off the budget. The statutory provisions indicate that the second step in the review process should fulfil these requirements (see the adjacent overview). In addition, it appears that the

## Legal background to surveillance pursuant to the Stability Council Act

### Section 5a of the Stability Council Act (*Stabilitätsratsgesetz*): reviewing compliance with the constitutional debt rule

(1) In the autumn of each year, the Stability Council shall conduct a regular review of the Federal Government's and each individual federal state's compliance with the debt rule set out in Article 109(3) of the Basic Law for the previous, current and following year.

(2) The monitoring pursuant to subsection (1) above shall be based on the requirements and procedures for compliance with budgetary discipline as contained in legislation based on the Treaty on the Functioning of the European Union. A uniform cyclical adjustment method shall be used as a basis. The decisions and reports shall be published.

### Explanatory statement in the draft law (*Bundestagsdrucksache 18/11135*): number 2 (amendment to Section 5)

The newly introduced Section 5a specifies the expansion of the Stability Council's tasks under number 1. Accordingly, in the autumn of each year, the Stability Council shall conduct a regular review of the Federal Government's and each individual federal state's compliance with the debt rule set out in Article 109(3) of the Basic Law for the previous, current and following year. The surveillance is based on the provisions and procedures set out in statutory instruments on the basis of the Treaty on the Functioning of the European Union to ensure compliance with budgetary discipline. This expands the Stability Council's tasks also with regard to Germany's obligation to comply with the provisions of the preventive arm of the European Stability and Growth Pact as well as the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union (Fiscal Compact).

<sup>6</sup> For more information on reserves, see Deutsche Bundesbank (2016) and (2018b), pp. 71f.

<sup>7</sup> For more information on important elements of suitable fiscal surveillance, see also Deutsche Bundesbank (2018a), pp. 34 ff.

European requirements are intended to be the key criteria. In this context, the national accounts are the main reference framework, which should then also govern harmonised surveillance by the Stability Council. This is significant with regard to two aspects in particular: first, in terms of delineating sectors, i.e. selecting the off-budget entities that are to be taken into account (all off-budget entities); second, in terms of how budgetary events are specifically recorded, especially which transactions are to be recognised as being neutral to the balance.

*Assessment variables agreed upon*

The Stability Council agreed upon a number of anchor points for its harmonised review, which are described in greater detail below. The following have been determined:

- the underlying target variable;
- the reporting requirements regarding off-budget entities in the government sector;
- the events to be defined as financial transactions;
- the determination of cyclical effects.

In addition, the Stability Council decided on a threshold value which, if exceeded, will be used as an early warning signal for federal state budgets that deviate from a structural balance.

*Transparency necessitates publication*

The derivations and outcomes for a federal state are to be published only with that state's consent. However, it is not clear as to why the information should be withheld from the general public: transparency towards the public is an important component of budgetary surveillance. This is all the more applicable in this case as the members of the Stability Council are essentially responsible for their own government budgets and, to this extent, cannot constitute an independent surveillance authority. Transparency would also facilitate broader public discourse on budgetary trends – both for individual entities as well as when drawing comparisons between federal states.

The foreseeable differences in the quality of the data are also likely to have a negative impact on transparency as well as comparability. For example, planned budget figures may also be submitted for the budget assessment for the current and following year. However, planned budget figures may, for instance, include extensive global cuts in expenditure or increases in revenue in order to avoid revealing any breaches of the rules. To the extent that the budgetary relief does not materialise, the requirements would then be unfulfilled without any prior warning signal. Moreover, the planned budget figures of different federal states are typically based on different data vintages. This is especially important if different tax estimates are used as the basis or if changes in tax legislation that were only adopted at a later point in time are taken into account in different ways. For a meaningful comparison, the measures included but not yet adopted would need to be reported transparently including the relevant amounts. Measures that have since been adopted but not yet taken into account would likewise need to be reported with the relevant amounts. In general terms, a comparison of current forecasts of budgetary trends against the upper limit would be objectively warranted. In order to ensure the robustness of the estimates, regular ex post checks by the Stability Council would be worth considering.

### **Net borrowing as target variable**

The Stability Council specified that net borrowing should be the harmonised target variable for surveillance. Central government's debt brake is also based on this variable, as are the debt brakes of most federal state governments. It is, however, of limited use for monitoring the structural national accounts deficits, which are bound by the European rules. This is because resorting to (the currently high) reserves would reduce net borrowing in the budget, but not in the national accounts balance, as withdrawals from the reserves merely represent a regroup-

*Up-to-date estimates with ex post checks are more informative than planned budget figures, which are susceptible to distortion and sometimes outdated*

*Net borrowing as target variable permits deficits provided reserves are available*

ing within the government sector.<sup>8</sup> At any rate, changes in the reserves must be stated for the harmonised review. If the data are published, the (planned and actual) national accounts balances can be inferred to this extent.

### Inclusion of off-budget entities

If the relevant deficits are to be calculated, all government entities must be included in full in surveillance. However, the Stability Council includes dependent off-budget entities<sup>9</sup> alongside core budgets only if they received their own borrowing authorisations after 2011. As these entities will usually be banned from net new borrowing going forward, they are likely to play a negligible role, at least in the longer term. Meanwhile, the excluded off-budget entities with no borrowing authorisation, into which surpluses were ploughed in recent years, could become significant. The reserves formed there may be used to reduce the net borrowing relevant to the debt brake. However, like withdrawals from reserves, resorting to such reserves does not lower the deficit in the national accounts relevant to the European rules. Unlike withdrawals from reserves, such transactions are not evident from the specified data: neither financial flows between the core budget and these off-budget entities nor the planned fiscal balances for these special funds need to be reported.

### Adjusting budget balances for financial transactions

For the harmonised review, net borrowing is adjusted for the financial transactions “new borrowing and repayments” as well as “acquisitions and sales of participating interests”. This is in line with the rules specified in most federal states’ debt brakes. In a departure from the current procedure (in the surveillance of federal states receiving consolidation assistance), expenditure on calls on guarantees is in future to be recognised in the balance. In this respect, notable progress has been made.

However, in other instances, the definition of financial transactions continues to differ considerably from the European (national accounts) definition. For instance, capital injections are always recognised as financial transactions, meaning that they are not included in the relevant budget balance. This is not the case in the national accounts, however, if the capital injection is not used to acquire recoverable assets. If, for example, losses incurred by public transport companies are covered, a deficit-increasing capital transfer is booked there. Unlike under the EU framework, non-cash transactions with financial assets are also generally disregarded. For instance, the harmonised review ignores debt relief and debt assumption although they lead to a deterioration of the asset position and weigh on the national accounts balance. Harmonised fiscal surveillance by the Stability Council ought to follow the national accounts approach, also in order to produce a realistic picture of the budgetary situation. At the very least, deviations from reporting pursuant to the national accounts should be listed, which is not something that the Stability Council requires, however.<sup>10</sup>

Budgetary interest expenditure should likewise be adjusted for financial transactions in order to bring the figures more into line with the European accounting rules. This is true both of derivatives transactions and discounts and premiums when issuing debt instruments. However, under the harmonised review, no such correction is made, nor is the relevant information reported.

*... but discrepancies remain in terms of, for instance, capital injections and ...*

*... interest expenditure*

*Structural deficits not evident due to off-budget entities with no borrowing authorisation*

*Progress towards recognition of calls on guarantees in line with national accounts rules ...*

<sup>8</sup> One way of integrating changes in the reserves into the European rules in line with their objective is described in Deutsche Bundesbank (2019), pp. 82 f.

<sup>9</sup> Unincorporated state enterprises and special funds are dependent entities. Public-law entities, corporations (such as special-purpose associations) and foundations are therefore not included.

<sup>10</sup> For a similar demand in relation to the surveillance of the general government deficit limit, see Independent Advisory Board (2018), p. 2.

## Cyclical adjustment<sup>11</sup>

*Federal states have extensive options despite calls for harmonised cyclical adjustment*

According to Section 5a of the Stability Council Act, harmonised surveillance should include a uniform cyclical adjustment procedure. According to the Stability Council decision, central government is to apply its customary procedure, which is based on the EU approach. The overall review will therefore cause no alarm for central government as long as it adheres to its own rules. Several federal states obviously wanted their valuations to be closely based on their own rules. For instance, under the harmonised procedure, the states were granted options in terms of the cyclical adjustment procedure. A federal state may, for example, opt for the adjustment method used to monitor the federal states receiving consolidation assistance. The cyclical effects recognised can therefore deviate substantially from what is recognised under the central government procedure. The reason is that, under the consolidation assistance procedure, forecast errors are attributed solely to cyclical factors (where the budget spans two years, this may even be the case across several years). Several federal states' debt brakes allow net borrowing only when economic performance is extremely weak and only subsequently demand that such debt be repaid during an economic boom. These states have the option of not being flagged if they do not plan to repay debt despite the statistics indicating favourable cyclical factors. For this to be the case, a specific control account must show no increase in debt since the debt brake was implemented. Under this option, the harmonised method consequently also allows higher cyclical tax revenue to be spent rather than sending an alarm signal. In sum, all these options considerably limit both comparability and suitability as a tool for monitoring compliance with EU regulations. The results after cyclical adjustment as per the EU procedure should be stated at least as a memo item.

## Tolerance

Despite the leeway, outlined above, that the federal states have to mask budgetary shortfalls, the Stability Council does not wish to send an alarm signal every time it identifies structural new borrowing. In fact, a tolerance ("compensation component") of 0.15% of gross domestic product was agreed for the state governments as a whole. The amount is distributed across the federal states based on their population. For North Rhine-Westphalia, for instance, tolerated structural net new borrowing works out to just over €1 billion, while the figure for Hesse is almost €½ billion. This is justified mainly by specific issues in local government financial equalisation schemes. For instance, delays in final settlement are not reflected in cyclical adjustment. However, it would be possible to properly neutralise the effects through loans. The loosening of the actual budget target agreed in the form of the compensation component is therefore not convincing.

*Compensation component not convincing as loosening for all federal states*

The additional compensation component for above-average population growth agreed by the Stability Council is a sensible idea. Additional tax revenue as a result of population growth is, in the first instance, classified as cyclical, for instance when conducting cyclical adjustment using the consolidation assistance procedure. This means that it may not be used to cover additional expenditure. It should, however, be immediately available to cover the additional needs resulting from population growth. For city states, a population growth-related premium on the compensation component was agreed for this purpose. It is not logical why this should apply only to city states and why there should be no equivalent discounts for below-average population growth.

*Premiums for population growth should be combined with discounts when population shrinks*

The debt brake does not apply to local government. However, the local government level is automatically included for city states. For this

<sup>11</sup> For a general overview, see Deutsche Bundesbank (2017).



*Compensatory premiums for city states in case of higher local government debt not plausible*

reason, city states are, according to the Stability Council decision, to receive a premium on the new borrowing limit if local government debt in the non-city states has risen. This rule is not symmetrical, however, as a drop in local government debt in the non-city states does not mean higher requirements for city states. It would, in fact, be better for higher local government deficits in the non-city states to be recognised there than for them to justify additional leeway for city states. Ultimately, the impression conveyed is that the premiums aim to ease the budget rules for the already very highly indebted city states.

## ■ Conclusions

*Monitoring the respective debt brakes unlikely to be very effective*

In December 2018, the Stability Council decided how it would meet its legal mandate to monitor the debt brakes from 2020 onwards. This task is rendered more difficult by the fact that the federal states look set to have very different debt brake rules. The surveillance of the federal state-specific borrowing limits planned in the first stage of the review is ultimately not likely to provide enough information value. In particular, it will not allow comparisons between the individual states.

*Harmonised monitoring does not meet requirements for independent surveillance and comparability*

Though a more uniform review checklist was agreed for a second review step, it is fairly non-transparent and, moreover, the outcome is not required to be published for every federal state. Ultimately, therefore, it too fails to ensure that comprehensive comparisons can be made. This appears to be a major shortcoming, in particular as no independent body is tasked with monitoring the debt brakes. Surveillance is therefore likely to be non-transparent for the public.

*Major weaknesses: deviation from national accounts rules and lack of harmonised cyclical adjustment*

The standardised review checklist has a number of shortcomings. In particular, it is not possible to adequately assess whether the European rules are set to be breached. For instance, there is no way of deriving structural deficits on the basis of these rules. This is because the debt

brake surveillance rules do not consistently follow the classification requirements for transactions pursuant to the national accounts, which are key for the European budget rules. Unlike in the national accounts, some important off-budget entities at the state level are not captured, either. Various options for cyclical adjustment further severely limit comparability among federal states. On top of that, there is no requirement to update budget estimates for the budget years, meaning that these may be based on very different data vintages. Targeted remedial action would be recommendable in relation to these issues.

A general government structural deficit above the European limit may also emanate from the local government level. This level was left out of the debt brake on account of data and planning problems.<sup>12</sup> However, the Federal Government will continue to present an estimate for local authorities in aggregate in order to be able to calculate a general government deficit. It would have been desirable in this context for the federal states to forecast the financial results of their local governments. This could improve the aggregate Federal Government forecast, as the federal states have an information advantage. For instance, they manage important municipal tasks as well as large-scale transfers to their local governments. Furthermore, they set out, and are able to ensure compliance with, budget rules for local government. In addition, the federal states are likely to have to shoulder at least some of the burden of over-indebted local governments. Overall, it would therefore be appropriate for developments in local government finances to be included in fiscal surveillance at the federal state level.

In addition, the European budget rules correct for any larger one-off effects that could mask the underlying trend. Last year saw quite a number of such special effects at the federal state level: Lower Saxony and Bavaria were paid high fines by automobile producers, Ham-

*Inclusion of local government important when monitoring general government deficit*

*Reporting of one-off effects advisable*

<sup>12</sup> See Deutscher Bundestag (ed., 2009), pp. 10 f.

*Looking ahead, boost transparency of surveillance and involve the general public*

burg and Schleswig-Holstein, by contrast, had to pay for losses on portfolios of HSH Nordbank. To be able to compare budgets without such distortions, any major one-off effects would have to be listed with the respective figures.

Overall, the agreed review criteria do not guarantee transparent and meaningful fiscal surveillance. Over time, these criteria are to be reviewed and modified as appropriate. It would be important to achieve progress in the afore-

mentioned areas – not least in order to resolve the challenges presented by not having an independent surveillance authority. In any case, the federal states should make public the key data they calculate. These data should allow the public to correctly evaluate developments in the individual federal states. Sound public finances depend, not least, on public backing, which in turn requires comprehensive and transparent information on financial developments.

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## 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		
	M1	M2	M3 3		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	
				3-month moving average (centred)							
	Annual percentage change								% p.a. as a monthly average		
2017 June	9.6	5.2	4.9	4.8	4.1	2.8	- 1.2	- 0.36	- 0.33	1.0	
July	9.3	5.0	4.6	4.8	3.9	2.6	- 1.0	- 0.36	- 0.33	1.2	
Aug.	9.6	5.4	5.1	4.9	3.8	2.3	- 0.9	- 0.36	- 0.33	1.0	
Sep.	9.7	5.3	5.1	5.1	3.9	2.4	- 0.9	- 0.36	- 0.33	1.0	
Oct.	9.5	5.4	5.0	5.0	3.8	2.5	- 1.4	- 0.36	- 0.33	1.1	
Nov.	9.1	5.2	4.9	4.9	3.9	2.9	- 1.3	- 0.35	- 0.33	0.9	
Dec.	8.8	5.2	4.7	4.7	3.6	2.6	- 1.1	- 0.34	- 0.33	0.9	
2018 Jan.	8.8	5.2	4.6	4.5	3.5	2.9	- 0.6	- 0.36	- 0.33	1.1	
Feb.	8.4	4.8	4.2	4.2	3.3	2.6	- 1.0	- 0.36	- 0.33	1.2	
Mar.	7.5	4.3	3.6	3.9	2.8	2.4	- 0.6	- 0.36	- 0.33	1.1	
Apr.	7.1	4.2	3.8	3.8	2.8	2.7	- 0.5	- 0.37	- 0.33	1.0	
May	7.5	4.6	4.0	4.0	3.3	3.2	- 0.8	- 0.36	- 0.33	1.1	
June	7.4	4.7	4.3	4.1	3.1	2.8	- 0.9	- 0.36	- 0.32	1.1	
July	7.0	4.4	3.9	3.9	3.4	3.3	- 0.6	- 0.36	- 0.32	1.0	
Aug.	6.5	4.0	3.5	3.7	3.3	3.3	- 0.7	- 0.36	- 0.32	1.1	
Sep.	6.8	4.3	3.5	3.6	3.2	3.2	0.0	- 0.36	- 0.32	1.2	
Oct.	6.8	4.4	3.8	3.7	2.9	2.9	0.6	- 0.37	- 0.32	1.3	
Nov.	6.7	4.3	3.7	3.9	2.6	2.8	0.6	- 0.36	- 0.32	1.2	
Dec.	6.6	4.3	4.1	3.9	2.8	3.0	0.7	- 0.36	- 0.31	1.1	
2019 Jan.	6.2	4.0	3.8	4.1	2.7	2.9	0.8	- 0.37	- 0.31	1.0	
Feb.	6.6	4.5	4.3	...	3.0	3.1	1.4	- 0.37	- 0.31	0.9	
Mar.	...	...	...	...	...	...	...	- 0.37	- 0.31	0.8	

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						Dollar rate	Effective exchange rate 3	
	Balance	of which: Goods	Balance	Direct investment	Portfolio investment	Financial derivatives 2	Other investment	Reserve assets		Nominal	Real 4
	€ million								EUR 1 = USD ... Q1 1999 = 100		
2017 June	+ 32,311	+ 31,843	+ 74,257	- 6,220	+ 19,610	- 6,991	+ 66,285	+ 1,573	1.1229	96.3	91.0
July	+ 36,903	+ 29,503	+ 26,865	- 1,747	+ 25,725	- 1,180	+ 9,259	- 5,193	1.1511	97.6	92.2
Aug.	+ 34,357	+ 22,574	- 3,379	- 20,425	+ 67,631	- 4,607	- 45,304	- 674	1.1807	99.0	93.5
Sep.	+ 47,719	+ 31,894	+ 89,394	+ 57,928	+ 12,827	- 1,813	+ 14,040	+ 6,413	1.1915	99.0	93.5
Oct.	+ 38,522	+ 27,778	+ 24,605	+ 14,555	+ 54,152	+ 1,530	- 42,938	- 2,695	1.1756	98.6	93.0
Nov.	+ 39,121	+ 33,281	- 5,116	- 58,948	+ 24,346	+ 1,610	+ 21,712	+ 6,164	1.1738	98.5	92.9
Dec.	+ 46,006	+ 29,489	+ 104,577	+ 51,429	- 8,935	+ 2,518	+ 61,170	- 1,604	1.1836	98.8	93.2
2018 Jan.	+ 8,547	+ 9,504	+ 4,044	+ 38,113	+ 12,898	- 2,375	- 46,792	+ 2,201	1.2200	99.4	93.8
Feb.	+ 22,055	+ 22,408	+ 17,214	+ 2,229	+ 61,505	+ 1,046	- 47,518	- 49	1.2348	99.6	93.8
Mar.	+ 43,867	+ 34,210	+ 80,731	+ 81,831	- 62,274	- 3,169	+ 55,182	+ 9,160	1.2336	99.7	94.0
Apr.	+ 31,364	+ 23,023	- 11,062	+ 25,557	+ 30,285	+ 12,717	- 75,982	- 3,640	1.2276	99.5	93.8
May	+ 12,284	+ 22,909	+ 29,524	- 1,157	+ 57,043	+ 13,890	- 42,622	+ 2,369	1.1812	98.1	92.6
June	+ 29,445	+ 27,165	+ 24,523	- 6,342	- 35,666	+ 11,780	+ 46,880	+ 7,872	1.1678	97.9	92.4
July	+ 29,734	+ 24,072	- 4,463	- 3,920	+ 2,688	+ 13,200	- 12,139	- 4,292	1.1686	99.2	93.6
Aug.	+ 27,181	+ 17,271	+ 47,865	- 6,460	+ 76,752	+ 15,763	- 41,406	+ 3,215	1.1549	99.0	93.3
Sep.	+ 25,922	+ 18,200	+ 43,691	- 3,566	- 35,126	+ 6,465	+ 73,594	+ 2,323	1.1659	99.5	93.8
Oct.	+ 33,951	+ 23,958	- 27,510	+ 18,927	- 15,286	+ 7,007	- 37,409	- 750	1.1484	98.9	93.2
Nov.	+ 28,829	+ 27,629	+ 51,943	- 35,632	+ 14,132	+ 15,967	+ 54,019	+ 3,456	1.1367	98.3	92.8
Dec.	+ 41,494	+ 26,091	+ 61,091	- 56,946	+ 107,041	+ 6,565	+ 1,308	+ 3,124	1.1384	98.4	92.6
2019 Jan.	+ 9,327	+ 6,763	+ 8,464	- 12,180	- 1,226	+ 5,676	+ 18,900	- 2,706	1.1416	97.8	p 92.0
Feb.	...	...	...	...	...	...	...	...	1.1351	97.4	p 91.6
Mar.	...	...	...	...	...	...	...	...	1.1302	96.9	91.1

\* Source: ECB, according to the international standards of the International Monetary Fund's Balance of Payments Manual (sixth edition). 1 Monthly averages, see also

Tables XII.10 and 12, pp. 82-83. 2 Including employee stock options. 3 Against the currencies of the EER-19 group. 4 Based on consumer price indices.

## I. Key economic data for the euro area

### 3. General economic indicators

Period	Euro area	Belgium	Germany	Estonia	Finland	France	Greece	Ireland	Italy	Latvia
<b>Real gross domestic product <sup>1</sup></b>										
Annual percentage change										
2016	2.0	1.5	2.2	3.5	2.8	1.2	- 0.2	5.0	1.1	2.1
2017	2.4	1.7	2.2	4.9	2.7	2.2	1.5	7.2	1.6	4.6
2018	1.8	1.4	1.4	3.9	2.3	1.5	1.9	6.7	0.9	4.8
2017 Q3	2.8	1.4	2.2	3.9	2.0	2.5	2.4	13.2	1.4	5.5
Q4	2.7	1.9	2.2	4.8	2.4	2.8	2.1	6.5	1.4	4.3
2018 Q1	2.4	1.5	1.4	3.3	2.4	2.0	2.3	9.6	1.1	4.0
Q2	2.1	1.5	2.3	3.9	2.5	1.7	1.4	9.5	1.3	5.3
Q3	1.6	1.6	1.1	4.0	2.1	1.6	2.4	5.4	0.6	4.5
Q4	1.1	1.1	0.9	4.2	2.3	1.1	1.6	3.0	0.5	5.2
<b>Industrial production <sup>2</sup></b>										
Annual percentage change										
2016	1.6	4.5	1.1	3.0	4.3	0.5	2.6	1.8	1.9	4.9
2017	2.9	2.9	3.4	4.3	3.3	2.4	4.8	- 2.2	3.6	8.5
2018	1.0	1.2	<sup>p</sup> 1.1	4.1	2.7	0.4	1.2	- 0.1	0.7	2.0
2017 Q3	4.0	4.2	4.3	0.9	2.1	2.9	4.5	3.4	4.6	11.4
Q4	4.2	1.9	5.0	1.4	4.3	4.1	1.9	0.5	4.0	4.9
2018 Q1	3.1	2.7	4.0	5.2	5.3	2.4	- 0.5	- 2.2	3.4	4.4
Q2	2.3	1.3	3.1	2.4	1.7	0.6	1.7	4.1	1.8	0.1
Q3	0.6	- 0.5	- 0.1	3.7	2.4	0.3	1.8	5.9	- 0.2	3.0
Q4	- 1.9	1.3	<sup>p</sup> - 2.4	5.1	1.5	- 1.7	1.7	- 6.4	- 2.2	0.9
<b>Capacity utilisation in industry <sup>3</sup></b>										
As a percentage of full capacity										
2016	81.6	80.0	84.6	73.6	78.0	83.2	67.6	78.3	76.3	72.6
2017	83.0	81.8	86.6	74.9	82.3	84.7	70.0	79.5	76.8	74.5
2018	83.9	81.0	87.7	74.4	84.1	85.9	70.8	76.2	78.1	76.4
2017 Q4	83.8	82.9	87.7	74.8	83.6	85.2	71.2	78.9	77.6	74.2
2018 Q1	84.2	82.1	88.2	75.5	83.1	86.2	70.4	77.0	78.3	75.8
Q2	84.0	81.2	87.8	73.9	84.3	85.9	71.2	76.1	78.1	76.3
Q3	83.8	79.9	87.8	75.2	84.7	85.9	70.7	74.6	77.9	77.4
Q4	83.6	80.8	87.1	73.0	84.1	85.7	70.9	77.0	77.9	75.9
2019 Q1	83.6	81.5	86.3	75.2	83.2	85.4	70.2	80.3	78.4	77.0
<b>Standardised unemployment rate <sup>4</sup></b>										
As a percentage of civilian labour force										
2016	10.0	7.8	4.1	6.8	8.8	10.1	23.6	8.4	11.7	9.6
2017	9.1	7.1	3.8	5.8	8.6	9.4	21.5	6.7	11.2	8.7
2018	8.2	6.0	3.4	...	7.4	9.1	19.3	5.8	10.6	7.4
2018 Oct.	8.0	5.7	3.3	5.3	7.0	9.0	18.6	5.7	10.8	6.9
Nov.	7.9	5.8	3.3	4.6	6.9	8.9	18.3	5.6	10.6	6.9
Dec.	7.9	5.8	3.2	4.3	6.8	8.9	18.0	5.7	10.5	7.1
2019 Jan.	7.8	5.8	3.2	4.2	6.7	8.9	...	5.7	10.5	7.3
Feb.	7.8	5.7	2.9	...	6.7	8.8	...	5.6	10.7	7.2
Mar.	...	...	...	...	...	...	...	5.4	...	...
<b>Harmonised Index of Consumer Prices</b>										
Annual percentage change										
2016	0.2	1.8	0.4	0.8	0.4	0.3	0.0	- 0.2	- 0.1	0.1
2017	1.5	2.2	1.7	3.7	0.8	1.2	1.1	0.3	1.3	2.9
2018	1.8	2.3	1.9	3.4	1.2	2.1	0.8	0.7	1.2	2.6
2018 Oct.	2.3	3.2	2.6	4.5	1.7	2.5	1.8	1.1	1.7	3.2
Nov.	1.9	2.9	2.2	3.2	1.4	2.2	1.1	0.8	1.6	2.9
Dec.	1.5	2.2	1.7	3.3	1.3	1.9	0.6	0.8	1.2	2.5
2019 Jan.	1.4	1.8	1.7	2.8	1.2	1.4	0.5	0.8	0.9	2.9
Feb.	1.5	2.0	1.7	1.9	1.3	1.6	0.8	0.7	1.1	2.8
Mar.	<sup>e</sup> 1.4	...	1.4	...	<sup>e</sup> 1.1	<sup>e</sup> 1.3	<sup>e</sup> 0.8	...	<sup>e</sup> 1.1	<sup>e</sup> 2.7
<b>General government financial balance <sup>5</sup></b>										
As a percentage of GDP										
2016	- 1.6	- 2.4	0.9	- 0.3	- 1.7	- 3.5	0.5	- 0.5	- 2.5	0.1
2017	- 1.0	- 0.9	1.0	- 0.4	- 0.7	- 2.7	0.8	- 0.2	- 2.4	- 0.6
2018	...	...	1.7	...	...	...	...	...	...	...
<b>General government debt <sup>5</sup></b>										
As a percentage of GDP										
2016	89.1	106.1	68.5	9.2	63.0	98.2	178.5	73.4	131.4	40.3
2017	86.8	103.4	64.5	8.7	61.3	98.5	176.1	68.4	131.2	40.0
2018	...	...	60.9	...	...	...	...	...	...	...

Sources: Eurostat, European Commission, European Central Bank, Federal Statistical Office, Bundesbank calculations. Latest data are partly based on press reports and

are provisional. **1** Euro area: quarterly data seasonally adjusted. **2** Manufacturing, mining and energy: adjusted for working-day variations. **3** Manufacturing: quarterly



I. Key economic data for the euro area

Lithuania	Luxembourg	Malta	Netherlands	Austria	Portugal	Slovakia	Slovenia	Spain	Cyprus	Period
<b>Real gross domestic product <sup>1</sup></b>										
Annual percentage change										
2.4	2.4	5.7	2.2	2.0	1.9	3.1	3.1	3.2	4.8	2016
4.1	1.5	6.7	2.9	2.6	2.8	3.2	4.9	3.0	4.5	2017
3.4	2.6	6.6	2.7	2.7	2.1	4.1	4.5	2.6	3.9	2018
3.7	0.6	7.4	2.8	2.5	2.7	3.0	4.2	2.7	4.7	2017 Q3
3.8	2.7	5.1	2.7	2.4	2.4	3.7	6.3	3.2	3.7	Q4
3.7	3.0	5.1	2.9	3.7	2.1	3.7	4.8	2.8	4.0	2018 Q1
3.8	3.0	6.6	3.2	2.7	2.6	4.5	4.1	2.6	4.0	Q2
2.6	2.9	7.1	2.4	2.2	2.1	4.6	5.0	2.3	3.8	Q3
3.7	1.6	7.2	2.2	2.4	1.7	3.6	4.1	2.6	3.8	Q4
<b>Industrial production <sup>2</sup></b>										
Annual percentage change										
2.7	0.1	- 7.3	1.3	2.8	2.4	4.6	7.7	1.7	9.1	2016
6.8	2.6	8.8	1.3	5.5	3.5	3.3	8.4	3.3	7.5	2017
5.2	- 0.8	1.3	0.6	3.7	- 0.2	4.4	4.5	0.4	6.9	2018
8.5	4.7	14.2	1.9	6.8	5.6	3.2	8.6	3.1	7.0	2017 Q3
7.1	5.3	8.6	2.3	6.6	2.4	3.7	11.0	5.4	6.9	Q4
7.1	2.6	2.1	2.5	5.0	2.0	1.2	8.2	2.9	5.1	2018 Q1
5.2	- 1.2	0.8	1.5	5.1	0.4	5.8	6.4	1.3	10.3	Q2
2.9	- 2.1	- 2.0	0.1	2.4	- 1.4	6.0	3.3	0.4	6.1	Q3
5.7	- 2.3	4.6	- 1.6	2.3	- 1.8	4.5	0.5	- 2.9	6.0	Q4
<b>Capacity utilisation in industry <sup>3</sup></b>										
As a percentage of full capacity										
75.9	76.9	79.1	81.7	84.3	80.2	84.5	83.5	78.6	59.8	2016
77.2	81.5	80.3	82.5	86.7	80.4	85.3	85.1	78.7	59.1	2017
77.5	81.2	80.3	84.0	88.7	81.6	85.4	85.3	79.5	61.4	2018
77.4	81.1	82.8	83.1	88.0	81.7	83.0	85.2	79.1	59.1	2017 Q4
77.8	83.1	81.1	83.9	88.8	81.6	83.7	85.0	79.7	60.4	2018 Q1
77.5	82.0	77.6	83.6	88.7	81.4	86.3	86.0	80.3	60.9	Q2
77.2	80.8	83.2	84.4	88.7	82.0	84.0	84.6	79.3	61.8	Q3
77.4	79.0	79.1	84.0	88.5	81.2	87.6	85.6	78.6	62.5	Q4
77.5	80.1	77.1	84.4	87.0	77.8	88.2	85.2	80.8	61.5	2019 Q1
<b>Standardised unemployment rate <sup>4</sup></b>										
As a percentage of civilian labour force										
7.9	6.3	4.7	6.0	6.0	11.2	9.7	8.0	19.6	13.0	2016
7.1	5.6	4.0	4.9	5.5	9.0	8.1	6.6	17.2	11.1	2017
6.2	5.4	3.7	3.8	4.9	7.0	6.5	5.1	15.3	8.4	2018
6.1	5.3	3.5	3.7	4.8	6.6	6.1	4.6	14.7	7.7	2018 Oct.
5.8	5.2	3.5	3.5	4.6	6.7	6.0	4.4	14.5	7.8	Nov.
5.8	5.1	3.4	3.6	4.6	6.6	5.9	4.3	14.3	7.4	Dec.
6.1	5.1	3.4	3.6	4.8	6.6	5.8	4.3	14.1	7.3	2019 Jan.
6.1	5.3	3.5	3.4	5.0	6.3	5.8	4.4	13.9	7.1	Feb.
...	...	...	...	...	...	...	...	...	...	Mar.
<b>Harmonised Index of Consumer Prices</b>										
Annual percentage change										
0.7	0.0	0.9	0.1	1.0	0.6	- 0.5	- 0.2	- 0.3	- 1.2	2016
3.7	2.1	1.3	1.3	2.2	1.6	1.4	1.6	2.0	0.7	2017
2.5	2.0	1.7	1.6	2.1	1.2	2.5	1.9	1.7	0.8	2018
2.8	2.8	2.1	1.9	2.4	0.8	2.5	2.3	2.3	1.9	2018 Oct.
2.4	2.6	1.4	1.8	2.3	0.9	2.0	2.1	1.7	1.6	Nov.
1.8	1.9	1.2	1.8	1.7	0.6	1.9	1.4	1.2	1.0	Dec.
1.6	1.6	1.0	2.0	1.7	0.6	2.2	1.2	1.0	2.1	2019 Jan.
2.0	2.1	1.3	2.6	1.4	0.9	2.3	1.3	1.1	0.8	Feb.
...	e 2.4	e 1.1	...	...	e 0.8	e 2.7	e 1.6	e 1.3	e 1.1	Mar.
<b>General government financial balance <sup>5</sup></b>										
As a percentage of GDP										
0.3	1.6	0.9	0.0	- 1.6	- 2.0	- 2.2	- 1.9	- 4.5	0.3	2016
0.5	1.4	3.5	1.2	- 0.8	- 3.0	- 0.8	0.1	- 3.1	1.8	2017
...	...	...	...	...	...	...	...	...	...	2018
<b>General government debt <sup>5</sup></b>										
As a percentage of GDP										
39.9	20.7	56.3	61.9	83.0	129.2	51.8	78.7	99.0	105.5	2016
39.4	23.0	50.9	57.0	78.3	124.8	50.9	74.1	98.1	96.1	2017
...	...	...	...	...	...	...	...	...	...	2018

data seasonally adjusted. Data collection at the beginning of the quarter. **4** Monthly data seasonally adjusted. Germany: Bundesbank calculation based on unadjusted

data from the Federal Statistical Office. **5** According to Maastricht Treaty definition.

## 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				
	Total	Enterprises and households		General government		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) <sup>2</sup>	Capital and reserves <sup>3</sup>
		Total	of which: Securities	Total	of which: Securities								
2017 July	7.1	- 0.1	15.2	7.2	9.6	6.9	105.9	99.0	- 6.9	- 7.7	- 0.9	- 2.7	4.4
Aug.	11.8	- 20.7	- 15.9	32.4	38.5	- 26.9	- 2.8	24.0	6.8	- 6.1	- 0.8	- 3.0	16.7
Sep.	55.9	44.0	- 12.6	11.8	17.3	5.3	- 35.6	- 40.9	- 24.1	- 11.8	- 0.9	- 30.0	18.6
Oct.	63.6	52.0	- 10.2	11.7	11.5	- 68.6	87.8	156.4	- 30.0	- 27.0	- 0.6	- 7.2	4.8
Nov.	127.5	98.8	21.8	28.7	34.8	18.4	- 1.0	- 19.4	5.5	4.4	- 0.8	- 1.5	3.4
Dec.	- 107.5	- 89.3	- 8.8	- 18.2	- 8.6	17.0	- 151.8	- 168.9	- 2.0	11.4	- 0.6	- 7.9	- 4.9
2018 Jan.	124.7	83.9	26.4	40.8	27.6	- 43.9	152.4	196.3	11.6	- 8.5	- 0.1	22.0	- 1.8
Feb.	7.6	3.4	- 0.3	4.2	20.8	- 11.4	46.9	58.3	- 16.3	- 0.8	- 0.5	- 13.4	- 1.7
Mar.	65.8	60.9	1.5	4.9	6.9	81.5	- 66.0	- 147.5	13.2	- 5.9	- 0.4	1.9	17.6
Apr.	66.3	65.2	52.5	1.1	- 0.7	- 75.3	42.0	117.3	- 5.5	- 1.2	- 0.5	- 2.5	- 1.3
May	122.3	88.1	11.0	34.2	39.9	- 35.5	120.6	156.1	- 4.5	- 7.4	- 0.4	1.2	2.1
June	- 5.6	- 23.0	- 22.3	17.3	20.5	77.3	- 67.6	- 144.9	- 8.4	- 4.8	- 0.4	- 7.7	4.6
July	67.7	66.9	19.9	0.8	3.4	- 25.3	41.6	66.9	10.4	6.1	- 0.6	- 8.3	13.1
Aug.	- 2.2	- 13.6	- 4.8	11.4	22.7	- 27.3	- 1.3	26.0	4.1	- 8.3	- 0.4	1.4	11.4
Sep.	25.2	22.3	- 11.2	2.9	7.1	65.6	- 26.5	- 92.1	23.8	- 12.5	- 0.5	22.3	14.6
Oct.	12.1	18.2	3.7	- 6.1	- 7.9	- 11.9	73.4	85.4	7.9	- 6.5	- 0.2	3.8	10.9
Nov.	92.0	91.1	11.7	0.9	2.4	70.9	35.0	- 35.9	3.6	- 4.2	- 1.0	4.0	4.9
Dec.	- 89.0	- 69.5	- 21.1	- 19.6	- 21.5	0.7	- 162.8	- 163.4	7.1	16.3	0.1	- 7.8	- 1.5
2019 Jan.	125.8	68.5	14.9	57.2	44.2	7.7	193.3	185.6	20.6	- 8.6	0.1	26.1	3.1
Feb.	52.2	40.6	17.4	11.6	25.2	21.8	- 22.9	- 44.8	18.6	0.4	- 0.1	25.3	- 7.0

### 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				
	Total	Enterprises and households		General government		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) <sup>2</sup>	Capital and reserves <sup>3</sup>
		Total	of which: Securities	Total	of which: Securities								
2017 July	18.1	12.8	1.8	5.3	3.5	- 10.3	- 23.0	- 12.7	- 4.0	- 1.3	- 0.8	- 1.4	- 0.5
Aug.	13.6	10.2	- 0.6	3.4	8.3	14.7	- 13.8	- 28.5	4.5	0.1	- 0.8	3.5	1.7
Sep.	17.8	14.1	- 1.8	3.7	8.0	- 22.3	9.2	31.5	- 5.9	- 0.2	- 0.6	- 7.3	2.3
Oct.	15.9	8.6	0.4	7.3	6.5	6.1	- 11.4	- 17.5	- 11.4	- 1.0	- 0.8	- 9.5	- 0.1
Nov.	27.2	16.7	6.4	10.5	11.2	23.1	- 2.6	- 25.7	2.6	3.3	- 0.6	0.1	- 0.1
Dec.	- 5.4	- 3.5	4.3	- 1.8	1.0	- 48.9	- 8.1	40.8	2.6	- 0.3	- 0.6	- 1.9	5.3
2018 Jan.	19.1	21.3	2.0	- 2.2	- 1.3	10.1	28.1	18.0	4.9	- 3.0	- 0.7	14.2	- 5.6
Feb.	5.1	10.7	- 1.7	- 5.6	- 0.2	- 20.7	11.6	32.4	- 5.3	- 0.9	- 0.6	- 1.0	- 2.9
Mar.	7.2	9.7	- 2.2	- 2.5	- 0.6	7.9	- 5.2	- 13.1	3.1	- 2.6	- 0.4	4.0	2.2
Apr.	7.3	7.2	0.9	0.1	- 0.7	- 5.0	- 13.9	- 8.9	- 2.3	- 0.6	- 0.5	- 3.1	1.9
May	19.2	21.2	5.0	- 2.1	2.4	- 10.7	29.8	40.6	- 0.1	0.6	- 0.2	4.1	- 4.6
June	16.7	17.9	2.1	- 1.1	1.3	- 18.2	- 20.4	- 2.1	2.3	- 2.2	- 0.5	- 3.1	8.1
July	12.7	9.7	0.0	2.9	0.9	26.0	- 0.3	- 26.3	2.4	- 0.4	- 0.5	- 2.7	5.9
Aug.	4.1	5.7	- 8.7	- 1.6	2.8	- 8.5	- 11.6	- 3.1	- 3.5	- 3.2	- 0.4	- 1.7	1.8
Sep.	19.3	18.3	1.8	1.0	4.1	- 4.1	7.9	12.0	12.0	- 3.1	- 0.3	7.6	7.8
Oct.	7.0	8.7	1.4	- 1.7	- 5.0	34.2	2.8	- 31.4	1.6	0.1	- 0.5	4.1	- 2.0
Nov.	20.0	18.5	0.9	1.5	2.5	15.1	- 3.7	- 18.8	0.8	- 0.2	- 0.6	3.0	- 1.4
Dec.	- 5.6	- 1.5	- 0.4	- 4.0	- 0.7	- 33.5	3.6	37.1	- 1.1	0.7	- 0.3	- 9.1	7.5
2019 Jan.	16.3	15.0	0.3	1.3	- 1.3	67.9	21.1	- 46.8	2.1	- 5.7	- 0.5	14.0	- 5.7
Feb.	12.4	16.4	- 0.3	- 3.9	- 1.4	24.2	- 15.4	- 39.5	6.7	- 0.8	0.1	12.6	- 5.2

\* 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 1 to the Monthly Report, 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			VI. Money stock M3 (balance I plus II less III less IV less V)										Period
	Total 4	of which: Intra-Eurosystem liability/claim related to banknote issue	Total	Money stock M2						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		
				Total	Money stock M1			Deposits with an agreed maturity of up to 2 years 5	Deposits at agreed notice of up to 3 months 5,6					
					Total	Currency in circulation	Overnight deposits 5							
- 7.7	- 15.2	-	43.8	31.5	35.8	6.0	29.8	- 6.2	1.9	- 24.1	12.9	- 2.5	2017 July	
- 18.3	- 59.5	-	55.9	45.5	30.9	- 2.3	33.3	8.1	6.4	2.6	9.4	- 5.3	Aug.	
41.3	23.5	-	20.4	23.3	47.8	0.9	47.0	- 21.5	- 3.0	7.0	- 4.1	10.4	Sep.	
- 43.4	53.0	-	15.4	12.0	22.7	1.9	20.8	- 8.0	- 2.7	19.8	9.0	- 7.8	Oct.	
- 8.8	71.7	-	77.4	73.2	81.7	0.9	80.7	- 7.6	- 0.8	17.2	- 3.8	0.1	Nov.	
- 21.4	- 89.3	-	22.2	63.8	66.3	16.1	50.2	- 6.6	4.1	- 31.8	- 26.5	- 7.1	Dec.	
40.9	20.0	-	8.3	- 2.4	- 19.6	- 15.2	- 4.5	5.6	11.7	- 7.8	20.1	- 12.7	2018 Jan.	
13.8	11.1	-	- 12.4	- 9.4	5.3	0.3	5.0	- 17.4	2.7	- 4.8	- 11.3	4.9	Feb.	
13.9	49.3	-	70.9	67.5	64.7	8.7	56.0	- 3.6	6.3	8.2	- 1.4	8.3	Mar.	
- 19.8	- 32.6	-	48.9	29.9	48.6	4.2	44.4	- 20.7	2.0	- 3.8	11.3	0.8	Apr.	
7.1	15.5	-	68.6	93.1	95.8	4.9	90.9	- 10.0	7.2	24.9	- 12.3	- 6.7	May	
21.4	- 43.4	-	102.1	108.7	91.1	11.4	79.6	14.2	3.4	- 5.6	- 8.9	4.8	June	
7.6	34.1	-	- 9.6	- 9.5	- 6.1	6.7	- 12.8	- 8.1	4.7	6.7	10.3	- 7.1	July	
2.9	- 41.1	-	4.6	- 1.4	- 0.0	2.9	- 2.9	- 6.7	5.2	3.8	- 1.6	1.2	Aug.	
40.6	5.8	-	20.5	45.4	69.3	2.1	67.1	- 20.8	- 3.2	- 10.7	- 19.5	1.1	Sep.	
- 38.9	- 5.3	-	36.4	13.3	8.0	1.8	6.3	8.3	- 3.0	- 10.2	23.8	- 0.8	Oct.	
7.3	64.8	-	87.3	88.2	97.7	5.3	92.4	- 11.6	2.2	31.5	0.3	- 3.8	Nov.	
- 59.7	- 89.5	-	53.8	50.3	49.3	18.0	31.4	- 4.4	5.3	- 14.2	0.6	8.0	Dec.	
66.1	64.5	-	- 17.8	- 22.4	- 39.6	- 13.1	- 26.5	3.3	13.9	15.6	8.1	- 7.2	2019 Jan.	
18.7	- 2.2	-	38.8	46.0	40.3	3.2	37.1	- 0.7	6.4	0.2	- 6.8	- 1.5	Feb.	

### b) German contribution

IV. Deposits of central governments	V. Other factors			VI. Money stock M3 (balance I plus II less III less IV less V) 10										Period
	Total	of which: Intra-Eurosystem liability/claim related to banknote issue 9,11	Currency in circulation	Total	Components of the money stock						Debt securities with maturities of up to 2 years (incl. money market paper)(net) 7			
					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					
2.5	14.8	2.1	2.1	- 5.6	- 3.0	- 3.0	- 0.4	1.4	- 0.1	- 0.6	2017 July			
7.4	5.1	3.7	- 1.3	11.2	14.7	- 2.9	- 0.3	0.1	0.2	- 0.5	Aug.			
9.6	- 14.2	3.5	- 0.3	5.9	5.6	0.8	0.0	0.8	0.0	0.3	Sep.			
- 14.2	43.1	2.1	0.8	4.5	14.3	- 9.3	0.5	- 0.3	- 0.3	- 0.5	Oct.			
6.2	8.7	1.2	- 0.0	32.7	33.8	- 1.7	0.2	0.3	0.3	0.2	Nov.			
10.0	- 58.0	3.8	2.0	- 8.8	- 10.1	0.4	2.4	0.7	- 0.3	- 1.8	Dec.			
- 24.3	35.5	- 0.0	- 2.8	13.1	11.5	2.4	0.2	1.0	- 0.0	- 2.0	2018 Jan.			
9.2	- 21.2	2.0	- 0.3	1.7	5.2	- 4.4	0.3	- 0.5	0.3	0.7	Feb.			
8.3	0.6	6.9	- 1.5	3.1	- 0.5	6.0	- 0.5	- 0.9	0.2	- 1.1	Mar.			
- 15.2	14.5	1.3	1.9	5.3	14.7	- 8.6	- 0.3	- 0.5	- 0.0	- 0.0	Apr.			
11.7	- 42.5	5.4	- 0.1	39.3	38.8	- 0.5	- 0.1	- 0.8	- 0.2	2.1	May			
17.7	- 26.3	3.6	2.5	4.8	- 6.4	14.6	- 0.5	- 0.3	0.1	- 2.6	June			
- 21.0	57.8	3.1	2.2	- 0.5	6.6	- 6.1	- 0.6	0.6	- 0.1	- 0.9	July			
13.7	- 14.2	5.3	0.5	- 0.4	2.4	- 3.5	- 0.2	- 0.6	- 0.0	1.7	Aug.			
12.2	- 32.9	3.9	- 0.3	23.8	27.3	- 2.1	0.0	0.1	- 0.1	- 1.5	Sep.			
- 17.8	43.5	3.8	0.1	13.8	11.1	- 0.8	0.2	1.0	0.0	2.3	Oct.			
9.7	- 8.2	2.5	1.0	32.8	38.6	- 4.1	0.5	- 1.0	0.4	- 1.5	Nov.			
- 5.4	- 27.6	4.0	2.8	- 5.0	- 1.3	- 3.3	2.0	- 0.6	- 0.0	- 1.8	Dec.			
- 18.5	103.9	- 9.6	7.5	- 3.4	- 14.3	9.6	0.3	0.9	0.0	0.0	2019 Jan.			
- 2.7	20.2	2.9	0.4	12.4	8.3	3.6	1.0	0.3	- 0.0	- 0.8	Feb.			

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

Liabilities											
Currency in circulation <sup>4</sup>	Deposits of non-banks (non-MFIs) in the euro area										
	Total	of which: in euro <sup>5</sup>	Enterprises and households					At agreed notice of <sup>6</sup>		End of year/month	
			Total	Overnight	With agreed maturities of			up to 3 months	over 3 months		
					up to 1 year	over 1 year and up to 2 years	over 2 years				
<b>Euro area (€ billion) <sup>1</sup></b>											
1,075.6	11,985.3	11,191.8	11,306.6	5,823.9	914.2	286.6	2,034.7	2,182.1	65.0	2017 Jan.	
1,078.5	11,994.0	11,210.5	11,330.1	5,849.1	919.5	284.5	2,028.8	2,183.6	64.6	Feb.	
1,082.9	12,103.6	11,279.9	11,422.6	5,945.0	912.9	284.5	2,027.9	2,188.3	64.1	Mar.	
1,089.7	12,140.9	11,322.9	11,456.1	6,022.2	888.7	278.2	2,013.3	2,190.1	63.7	Apr.	
1,090.2	12,151.7	11,338.9	11,444.1	6,044.1	862.7	272.6	2,003.3	2,199.3	62.0	May	
1,099.7	12,214.1	11,384.0	11,483.6	6,113.3	854.2	265.6	1,986.7	2,201.9	61.9	June	
1,105.6	12,209.8	11,392.9	11,476.5	6,123.4	848.8	262.8	1,976.5	2,206.6	58.4	July	
1,103.3	12,226.5	11,422.5	11,504.8	6,146.4	857.8	260.6	1,969.4	2,213.0	57.7	Aug.	
1,104.2	12,271.6	11,432.3	11,519.7	6,196.5	843.3	256.2	1,956.5	2,210.4	56.8	Sep.	
1,106.2	12,217.1	11,420.3	11,507.4	6,216.9	846.4	250.5	1,929.6	2,207.7	56.2	Oct.	
1,107.1	12,249.2	11,471.4	11,544.6	6,291.1	832.2	245.9	1,912.7	2,207.2	55.5	Nov.	
1,123.2	12,286.2	11,543.2	11,618.1	6,349.3	834.7	242.2	1,925.2	2,211.7	54.9	Dec.	
1,108.0	12,318.5	11,528.3	11,610.5	6,348.3	840.6	236.7	1,915.0	2,214.1	55.8	2018 Jan.	
1,108.3	12,329.8	11,524.6	11,603.3	6,352.3	831.3	232.1	1,915.9	2,216.5	55.1	Feb.	
1,117.0	12,393.9	11,580.6	11,660.8	6,416.6	831.5	226.4	1,909.0	2,222.6	54.8	Mar.	
1,121.2	12,401.6	11,611.1	11,680.7	6,454.5	817.7	222.3	1,907.2	2,224.6	54.4	Apr.	
1,126.1	12,502.7	11,691.0	11,763.4	6,548.1	810.6	217.7	1,900.9	2,232.1	54.0	May	
1,137.6	12,613.8	11,777.2	11,845.2	6,623.7	821.4	214.9	1,895.2	2,236.3	53.7	June	
1,145.3	12,606.1	11,760.9	11,827.3	6,603.9	817.3	212.1	1,899.9	2,241.0	53.1	July	
1,148.3	12,595.5	11,753.5	11,804.8	6,594.2	812.2	208.9	1,890.4	2,246.4	52.7	Aug.	
1,150.4	12,662.3	11,780.4	11,833.5	6,657.4	796.4	205.9	1,877.8	2,243.7	52.3	Sep.	
1,152.2	12,639.6	11,788.7	11,848.8	6,669.1	812.9	203.6	1,872.0	2,239.2	52.1	Oct.	
1,157.5	12,719.4	11,862.2	11,912.8	6,750.9	801.7	200.7	1,866.8	2,241.5	51.3	Nov.	
1,175.4	12,713.5	11,926.7	11,989.8	6,803.3	800.9	200.7	1,888.3	2,245.0	51.5	Dec.	
1,162.4	12,764.6	11,908.5	11,974.3	6,782.0	798.4	199.4	1,885.0	2,258.2	51.3	2019 Jan.	
1,165.5	12,829.1	11,956.4	12,002.4	6,809.9	795.3	196.8	1,885.4	2,263.7	51.2	Feb.	
<b>German contribution (€ billion)</b>											
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	167.5	40.2	624.1	536.4	48.7	May	
249.5	3,590.5	3,482.0	3,339.9	1,928.7	165.5	40.3	621.4	535.7	48.3	June	
251.6	3,583.1	3,472.8	3,333.0	1,927.8	162.6	40.3	619.5	537.9	44.9	July	
250.4	3,600.7	3,483.1	3,338.6	1,938.3	159.0	40.3	619.3	537.5	44.1	Aug.	
250.1	3,616.3	3,486.8	3,345.9	1,945.0	162.3	39.6	617.9	537.5	43.5	Sep.	
250.9	3,606.4	3,490.8	3,352.9	1,958.5	158.8	38.6	616.2	538.0	42.7	Oct.	
250.9	3,646.8	3,521.5	3,383.7	1,990.6	157.1	37.4	618.2	538.3	42.1	Nov.	
252.9	3,647.9	3,515.8	3,378.5	1,976.2	162.0	37.7	620.4	540.7	41.5	Dec.	
250.1	3,632.5	3,522.3	3,390.7	1,994.6	161.5	36.4	616.5	539.5	42.2	2018 Jan.	
249.8	3,642.4	3,523.0	3,388.4	1,995.9	160.2	35.3	615.5	540.0	41.5	Feb.	
248.3	3,652.2	3,524.1	3,389.6	1,998.1	164.6	34.2	612.1	539.4	41.0	Mar.	
250.3	3,641.8	3,529.8	3,395.0	2,013.5	157.6	33.6	610.6	539.1	40.6	Apr.	
250.2	3,693.8	3,568.4	3,425.0	2,048.0	154.6	33.0	610.2	539.0	40.3	May	
252.7	3,716.5	3,574.0	3,423.0	2,039.4	165.5	32.6	607.2	538.5	39.8	June	
256.0	3,694.1	3,571.0	3,429.7	2,053.1	161.2	32.2	605.8	538.0	39.4	July	
256.4	3,703.1	3,568.1	3,417.3	2,051.8	153.7	34.0	601.1	537.7	38.9	Aug.	
256.1	3,737.2	3,588.3	3,437.1	2,076.9	153.2	33.2	597.4	537.8	38.6	Sep.	
256.3	3,730.6	3,595.8	3,453.9	2,092.2	155.1	33.6	596.9	538.0	38.1	Oct.	
257.2	3,774.2	3,632.0	3,482.3	2,127.4	149.8	33.2	595.9	538.5	37.4	Nov.	
260.0	3,766.4	3,629.3	3,481.1	2,120.4	152.5	33.7	596.7	540.6	37.2	Dec.	
267.6	3,737.2	3,622.2	3,471.2	2,113.7	154.3	33.5	592.1	540.9	36.7	2019 Jan.	
268.0	3,747.2	3,634.2	3,474.2	2,117.5	153.9	33.2	591.0	541.8	36.7	Feb.	

volume 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"). <sup>5</sup> Excluding central governments' deposits. <sup>6</sup> In Germany, only savings deposits.









II. Overall monetary survey in the euro area

Flows

Liquidity-providing factors					Liquidity-absorbing factors					Credit institutions' current account balances (including minimum reserves) <b>7</b>	Base money <b>8</b>	Reserve maintenance period ending in <b>1</b>
Net assets in gold and foreign currency	Monetary policy operations of the Eurosystem				Deposit facility	Other liquidity-absorbing operations <b>4</b>	Banknotes in circulation <b>5</b>	Central government deposits	Other factors (net) <b>6</b>			
	Main refinancing operations	Longer-term refinancing operations	Marginal lending facility	Other liquidity-providing operations <b>3</b>								
<b>Eurosystem <sup>2</sup></b>												
+ 2.8	- 6.1	+ 19.8	+ 0.1	+ 107.3	+ 32.2	± 0.0	- 1.5	+ 30.5	+ 34.0	+ 28.6	+ 59.2	2016 Oct.
- 0.4	- 3.4	+ 8.3	+ 0.1	+ 123.2	+ 52.1	± 0.0	+ 8.4	- 8.6	+ 29.6	+ 46.5	+ 106.9	Nov.
- 12.7	+ 0.6	+ 37.1	± 0.0	+ 100.6	- 5.0	± 0.0	+ 16.0	- 16.6	+ 36.0	+ 95.1	+ 106.3	Dec.
- 12.3	- 5.6	+ 5.4	+ 0.1	+ 116.7	+ 44.8	± 0.0	- 8.3	+ 17.2	+ 8.6	+ 41.9	+ 78.3	2017 Jan.
+ 16.2	- 10.5	+ 153.1	± 0.0	+ 117.8	+ 70.8	± 0.0	+ 7.6	+ 21.7	+ 56.6	+ 120.2	+ 198.5	Feb.
+ 4.5	- 4.8	+ 60.0	- 0.1	+ 89.7	+ 43.7	± 0.0	+ 7.6	- 18.4	+ 18.6	+ 97.6	+ 149.1	Mar.
- 26.2	- 4.3	± 0.0	± 0.0	+ 81.1	+ 1.6	± 0.0	+ 10.3	+ 66.2	- 18.0	- 9.5	+ 2.3	Apr.
- 17.9	- 3.9	+ 1.2	+ 0.1	+ 74.1	+ 16.1	± 0.0	+ 6.2	- 48.0	+ 5.7	+ 73.5	+ 95.9	May
- 4.0	+ 1.2	- 3.3	- 0.1	+ 89.0	+ 36.7	± 0.0	+ 0.3	+ 36.5	- 1.2	+ 10.6	+ 47.5	June
- 0.5	- 3.7	- 1.6	± 0.0	+ 94.3	+ 34.4	± 0.0	+ 3.8	- 29.8	+ 23.7	+ 56.4	+ 94.6	July
+ 1.2	- 0.1	- 3.1	± 0.0	+ 64.7	+ 6.7	± 0.0	+ 11.6	- 0.4	+ 79.4	- 34.5	- 16.3	Aug.
- 4.8	- 1.4	- 0.1	- 0.2	+ 37.3	- 2.9	± 0.0	- 10.0	+ 15.5	- 12.1	+ 40.4	+ 27.6	Sep.
- 3.8	+ 0.4	- 1.0	+ 0.1	+ 41.3	- 18.3	± 0.0	+ 10.8	+ 43.9	+ 20.7	- 20.3	- 27.8	2018 Jan.
- 1.9	- 0.1	- 2.2	± 0.0	+ 43.1	- 8.5	± 0.0	+ 11.4	- 29.5	+ 6.9	+ 58.6	+ 61.5	Feb.
+ 9.9	+ 0.3	- 13.1	± 0.0	+ 38.5	- 7.3	± 0.0	+ 13.2	+ 45.4	+ 31.3	- 47.0	- 41.2	Mar.
+ 2.4	+ 0.9	- 4.3	± 0.0	+ 31.3	+ 19.0	± 0.0	+ 8.6	- 24.3	- 14.7	+ 41.8	+ 69.4	Apr.
- 12.3	+ 3.9	- 12.1	± 0.0	+ 33.1	- 39.4	± 0.0	+ 2.1	+ 44.0	- 14.7	+ 20.3	- 16.9	May
- 0.1	- 0.1	- 1.4	± 0.0	+ 19.5	+ 4.1	± 0.0	+ 8.1	- 42.9	+ 38.5	+ 10.4	+ 22.6	June
+ 30.7	+ 1.1	- 2.6	± 0.0	+ 10.5	+ 4.1	± 0.0	+ 16.4	- 8.9	+ 75.3	- 47.3	- 26.8	July
+ 9.7	- 1.9	- 0.7	± 0.0	- 7.0	- 2.4	± 0.0	- 9.6	+ 26.0	- 46.8	+ 32.7	+ 20.8	Aug.
<b>Deutsche Bundesbank</b>												
+ 0.4	- 0.5	+ 6.6	+ 0.0	+ 23.7	+ 14.4	± 0.0	- 0.1	+ 14.3	- 12.6	+ 14.2	+ 28.5	2016 Oct.
- 0.9	- 0.5	+ 3.3	+ 0.0	+ 27.3	+ 24.4	± 0.0	+ 1.7	- 6.8	- 16.7	+ 26.5	+ 52.6	Nov.
- 4.0	- 0.1	+ 8.1	- 0.0	+ 22.3	+ 3.0	± 0.0	+ 3.9	- 8.3	- 4.3	+ 31.9	+ 38.8	Dec.
- 4.4	- 0.0	+ 1.4	+ 0.0	+ 25.1	+ 21.0	± 0.0	- 1.9	- 12.2	- 23.6	+ 39.0	+ 58.1	2017 Jan.
+ 4.9	+ 0.1	+ 22.6	+ 0.0	+ 25.9	+ 27.7	± 0.0	+ 1.8	+ 6.6	- 15.6	+ 33.0	+ 62.5	Feb.
+ 1.5	- 0.7	+ 9.0	- 0.1	+ 19.4	- 0.2	± 0.0	+ 2.1	+ 2.6	- 19.6	+ 44.0	+ 45.9	Mar.
- 6.2	+ 0.2	+ 0.0	+ 0.0	+ 16.1	- 11.1	± 0.0	+ 2.8	+ 20.3	+ 3.3	- 5.3	- 13.6	Apr.
- 4.4	- 0.2	- 0.1	+ 0.0	+ 15.4	- 4.6	± 0.0	+ 0.9	- 0.2	+ 9.0	+ 5.8	+ 2.1	May
- 0.4	- 0.1	- 0.1	- 0.0	+ 18.3	+ 5.5	± 0.0	- 0.5	+ 13.5	- 5.0	+ 4.2	+ 9.2	June
- 0.6	+ 0.2	- 0.0	- 0.0	+ 19.9	+ 16.5	± 0.0	+ 0.9	- 9.9	- 21.0	+ 33.1	+ 50.4	July
+ 1.3	+ 0.4	- 1.6	- 0.0	+ 13.3	+ 16.9	± 0.0	+ 2.5	- 1.1	+ 26.4	- 31.3	- 11.9	Aug.
- 4.0	- 0.3	+ 0.1	+ 0.0	+ 8.2	+ 3.5	± 0.0	- 1.7	+ 1.9	- 29.1	+ 29.4	+ 31.1	Sep.
- 0.8	+ 0.5	- 0.0	+ 0.0	+ 7.7	- 17.0	± 0.0	+ 2.8	+ 4.2	+ 30.0	- 13.0	- 27.3	2018 Jan.
- 0.6	+ 0.0	- 0.2	- 0.0	+ 10.0	+ 9.5	± 0.0	+ 3.6	- 1.8	- 26.6	+ 25.1	+ 38.1	Feb.
+ 1.8	- 0.6	- 1.3	+ 0.0	+ 7.0	- 3.5	± 0.0	+ 2.6	+ 10.2	+ 23.9	- 26.4	- 27.2	Mar.
+ 0.2	+ 0.0	- 0.3	- 0.0	+ 8.6	- 3.9	± 0.0	+ 2.0	- 4.2	+ 15.2	- 0.6	- 2.5	Apr.
- 4.0	+ 0.0	- 3.0	+ 0.0	+ 7.3	- 32.9	± 0.0	+ 0.6	+ 16.1	- 4.5	+ 21.1	- 11.2	May
- 1.1	+ 0.1	- 0.5	+ 0.0	+ 6.6	- 12.0	± 0.0	+ 1.1	- 11.7	- 1.8	+ 29.5	+ 18.5	June
+ 8.8	+ 1.2	- 0.4	+ 0.0	+ 0.4	+ 5.0	± 0.0	+ 9.7	- 9.2	+ 40.2	- 35.9	- 21.1	July
+ 2.5	- 1.1	- 0.1	- 0.1	- 0.9	+ 10.3	± 0.0	+ 1.0	- 11.2	- 12.0	+ 12.3	+ 23.6	Aug.

allocated to the ECB on a monthly basis. 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 share of the euro banknotes issued corresponding 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 balances".

### III. Consolidated financial statement of the Eurosystem

#### 1. Assets \*

€ billion

As at reporting date	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	
<b>Eurosystem <sup>1</sup></b>										
2018 Sep.	14	4,638.8	373.2	317.8	74.0	243.8	20.7	19.3	19.3	-
	21	4,645.8	373.2	318.1	73.9	244.2	20.3	18.4	18.4	-
	28	4,619.8	355.5	319.4	73.8	245.6	18.4	20.0	20.0	-
Oct.	5	4,625.0	355.5	320.0	73.8	246.2	18.5	17.7	17.7	-
	12	4,632.9	355.5	320.7	73.8	246.9	18.2	19.4	19.4	-
	19	4,628.3	355.5	320.0	73.8	246.2	19.6	18.7	18.7	-
	26	4,624.8	355.5	318.7	73.8	244.9	19.4	19.5	19.5	-
Nov.	2	4,622.2	355.5	318.7	74.9	243.9	20.2	19.1	19.1	-
	9	4,626.2	355.5	319.8	74.8	245.0	20.0	19.8	19.8	-
	16	4,638.3	355.5	321.4	74.9	246.5	19.6	19.5	19.5	-
	23	4,646.9	355.5	323.1	74.9	248.2	18.5	20.6	20.6	-
	30	4,660.3	355.5	324.7	74.9	249.8	17.7	22.2	22.2	-
Dec.	7	4,663.0	355.5	326.1	74.9	251.2	17.2	22.2	22.2	-
	14	4,668.1	355.5	325.4	73.8	251.5	17.5	20.9	20.9	-
	21	4,674.9	355.5	328.4	76.2	252.2	20.7	20.9	20.9	-
	28	4,669.0	355.5	329.2	76.3	252.8	20.6	20.3	20.3	-
2019 Jan.	4	4,694.4	389.8	329.0	76.9	252.0	16.3	20.9	20.9	-
	11	4,703.4	389.8	327.9	76.9	250.9	17.2	19.3	19.3	-
	18	4,705.9	389.8	327.6	76.9	250.7	18.8	18.1	18.1	-
	25	4,708.9	389.8	327.9	77.0	251.0	20.8	19.0	19.0	-
	Feb.	1	4,695.5	389.8	326.9	76.9	250.0	21.7	22.3	22.3
	8	4,696.5	389.8	328.2	76.8	251.4	21.3	20.2	20.2	-
	15	4,702.8	389.8	329.0	76.9	252.1	20.8	23.0	23.0	-
	22	4,692.1	389.8	328.8	76.9	251.9	20.4	19.1	19.1	-
Mar.	1	4,686.3	389.8	327.7	76.9	250.8	20.9	21.8	21.8	-
	8	4,691.3	389.8	328.5	76.9	251.6	21.0	23.6	23.6	-
	15	4,680.6	389.8	329.3	76.9	252.4	19.5	19.7	19.7	-
	22	4,677.0	389.8	331.2	76.8	254.4	19.0	18.6	18.6	-
	29	4,695.8	402.3	340.2	78.1	262.1	20.2	19.0	19.0	-
<b>Deutsche Bundesbank</b>										
2018 Sep.	14	1,739.5	116.3	50.4	19.2	31.3	0.0	3.5	3.5	-
	21	1,753.9	116.3	50.6	19.2	31.4	0.0	3.1	3.1	-
	28	1,817.3	116.3	50.3	19.2	31.1	0.0	4.4	4.4	-
Oct.	5	1,762.5	110.8	51.3	19.1	32.1	0.0	2.1	2.1	-
	12	1,749.4	110.8	51.3	19.1	32.2	0.0	3.3	3.3	-
	19	1,763.5	110.8	51.2	19.1	32.1	0.0	3.0	3.0	-
	26	1,766.4	110.8	50.6	19.1	31.5	0.0	3.5	3.5	-
Nov.	2	1,769.2	110.8	51.0	19.4	31.6	0.0	2.2	2.2	-
	9	1,783.8	110.8	51.1	19.5	31.6	0.0	2.5	2.5	-
	16	1,790.8	110.8	51.3	19.5	31.9	0.0	2.1	2.1	-
	23	1,784.2	110.8	50.8	19.5	31.4	0.0	3.5	3.5	-
	30	1,807.8	110.8	50.9	19.5	31.4	0.0	4.1	4.1	-
Dec.	7	1,785.4	110.8	50.8	19.5	31.3	0.0	4.3	4.3	-
	14	1,797.0	110.8	50.4	19.1	31.3	0.0	2.5	2.5	-
	21	1,808.6	110.8	50.9	19.7	31.1	1.6	2.7	2.7	-
	28	1,822.3	110.8	50.9	19.7	31.1	1.6	1.1	1.1	-
2019 Jan.	4	1,794.5	121.4	51.6	19.9	31.7	0.0	2.4	2.4	-
	11	1,766.7	121.4	51.6	19.9	31.8	0.0	1.9	1.9	-
	18	1,772.0	121.4	51.6	19.9	31.8	0.0	1.1	1.1	-
	25	1,737.6	121.4	52.1	19.9	32.2	0.0	2.8	2.8	-
	Feb.	1	1,745.8	121.4	51.9	19.8	32.0	0.0	6.5	6.5
	8	1,753.1	121.4	51.7	19.8	31.9	0.0	4.1	4.1	-
	15	1,773.9	121.4	51.7	19.9	31.9	0.0	6.5	6.5	-
	22	1,745.1	121.4	51.6	19.9	31.8	0.0	2.7	2.7	-
Mar.	1	1,741.6	121.4	52.0	19.9	32.1	0.0	4.7	4.7	-
	8	1,742.8	121.4	52.3	19.9	32.4	0.0	6.9	6.9	-
	15	1,745.6	121.4	52.0	19.9	32.2	0.0	3.2	3.2	-
	22	1,751.0	121.4	51.7	19.9	31.8	0.0	2.0	2.0	-
	29	1,812.7	125.3	52.8	20.2	32.6	0.0	2.9	2.9	-

\* 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 the end of the quarter. <sup>1</sup> Source: ECB.

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 deno- minated in euro	Other assets	As at reporting date	
Total	Main re- financing opera- tions	Longer- term re- financing opera- tions	Fine- tuning reverse opera- tions	Structural reverse opera- tions	Marginal lending facility	Credits related to margin calls		Total	Securities held for monetary policy purposes	Other securities				
														Total
<b>Eurosystem <sup>1</sup></b>														
743.3	4.2	739.0	-	-	0.1	-	31.5	2,863.2	2,607.7	255.5	24.5	245.4	2018 Sep.	14
744.0	5.0	739.0	-	-	0.0	-	33.7	2,868.7	2,613.6	255.1	24.5	244.8		21
732.1	6.4	725.5	-	-	0.1	-	29.8	2,869.2	2,615.1	254.1	24.4	251.0		28
732.8	7.2	725.5	-	-	0.1	-	28.4	2,877.5	2,623.2	254.2	24.4	250.4	Oct.	5
732.8	7.3	725.5	-	-	0.1	-	29.6	2,879.5	2,625.9	253.6	24.4	252.7		12
733.4	7.9	725.5	-	-	0.0	-	34.2	2,877.3	2,626.2	251.1	24.4	245.3		19
733.4	7.7	725.5	-	-	0.2	-	30.8	2,879.8	2,630.0	249.8	24.4	243.4		26
734.3	8.0	726.2	-	-	0.1	-	26.9	2,878.7	2,629.9	248.8	24.4	244.3	Nov.	2
732.8	6.6	726.2	-	-	0.0	-	21.8	2,883.3	2,634.3	249.0	24.4	248.8		9
733.0	6.7	726.2	-	-	0.1	-	27.8	2,888.7	2,639.5	249.2	24.4	248.5		16
732.9	6.4	726.2	-	-	0.4	-	25.1	2,892.4	2,642.9	249.5	24.4	254.4		23
733.5	6.5	726.7	-	-	0.3	-	26.0	2,892.8	2,643.8	249.1	24.4	263.5		30
733.3	6.6	726.7	-	-	0.0	-	25.0	2,899.1	2,650.8	248.3	24.0	260.8	Dec.	7
733.8	7.1	726.7	-	-	0.1	-	25.2	2,903.5	2,655.6	247.9	24.0	262.4		14
733.5	9.6	723.8	-	-	0.0	-	25.4	2,909.0	2,660.0	249.0	24.0	257.6		21
733.5	9.6	723.8	-	-	0.1	-	19.9	2,907.4	2,658.5	248.9	24.0	258.7		28
732.1	8.2	723.8	-	-	0.1	-	29.1	2,892.6	2,645.7	246.9	23.9	260.8	2019 Jan.	4
731.2	7.3	723.8	-	-	0.0	-	33.6	2,898.4	2,651.3	247.2	23.9	262.0		11
730.2	6.3	723.8	-	-	0.1	-	35.0	2,898.0	2,651.2	246.8	23.9	264.5		18
730.5	6.6	723.8	-	-	0.0	-	38.5	2,899.1	2,651.9	247.3	23.9	259.3		25
730.0	6.6	723.3	-	-	0.1	-	35.5	2,890.2	2,644.5	245.7	23.9	255.3	Feb.	1
728.8	5.4	723.3	-	-	0.1	-	33.9	2,892.7	2,646.8	245.9	23.9	257.9		8
729.3	5.9	723.3	-	-	0.1	-	35.3	2,895.3	2,649.5	245.8	23.9	256.6		15
729.3	5.9	723.2	-	-	0.1	-	35.4	2,891.7	2,646.3	245.4	23.9	253.6		22
729.1	6.5	722.6	-	-	-	-	32.6	2,879.3	2,639.7	239.6	23.9	261.3	Mar.	1
728.5	5.8	722.6	-	-	0.1	-	37.7	2,883.1	2,643.2	240.0	23.9	255.3		8
728.7	6.1	722.6	-	-	0.0	-	36.1	2,878.1	2,639.1	239.0	23.9	255.4		15
728.2	5.6	722.6	-	-	-	-	38.2	2,877.0	2,637.1	239.9	23.9	251.1		22
725.3	6.1	718.7	-	-	0.5	-	39.1	2,868.5	2,629.7	238.8	23.9	257.2		29
<b>Deutsche Bundesbank</b>														
92.2	0.7	91.5	-	-	-	-	5.7	558.9	558.9	-	4.4	908.1	2018 Sep.	14
92.0	0.5	91.5	-	-	0.0	-	6.9	561.1	561.1	-	4.4	919.4		21
88.5	0.5	87.9	-	-	0.1	-	3.5	564.4	564.4	-	4.4	985.3		28
88.5	0.5	87.9	-	-	-	-	5.0	564.7	564.7	-	4.4	935.7	Oct.	5
88.6	0.6	87.9	-	-	-	-	6.7	562.3	562.3	-	4.4	922.0		12
88.5	0.5	87.9	-	-	0.0	-	7.3	562.7	562.7	-	4.4	935.5		19
88.2	0.3	87.9	-	-	0.0	-	6.8	564.9	564.9	-	4.4	937.1		26
88.4	0.3	88.1	-	-	0.0	-	5.8	566.8	566.8	-	4.4	939.8	Nov.	2
88.4	0.4	88.1	-	-	-	-	6.1	567.9	567.9	-	4.4	952.6		9
88.5	0.4	88.1	-	-	0.0	-	6.9	569.1	569.1	-	4.4	957.7		16
88.3	0.3	88.1	-	-	-	-	7.2	569.6	569.6	-	4.4	949.5		23
88.6	0.5	88.1	-	-	-	-	7.0	569.8	569.8	-	4.4	972.1		30
88.8	0.7	88.1	-	-	-	-	6.2	573.4	573.4	-	4.4	946.7	Dec.	7
89.5	1.4	88.1	-	-	0.0	-	6.4	571.9	571.9	-	4.4	961.0		14
89.6	1.9	87.6	-	-	0.0	-	4.3	573.3	573.3	-	4.4	971.1		21
89.6	1.9	87.6	-	-	0.1	-	0.6	573.3	573.3	-	4.4	989.9		28
90.3	2.6	87.6	-	-	-	-	6.2	567.2	567.2	-	4.4	951.0	2019 Jan.	4
89.8	2.1	87.6	-	-	0.0	-	6.6	568.9	568.9	-	4.4	921.9		11
88.4	0.8	87.6	-	-	0.0	-	7.5	570.2	570.2	-	4.4	927.1		18
88.8	1.2	87.6	-	-	0.0	-	7.7	569.4	569.4	-	4.4	890.8		25
88.2	0.6	87.6	-	-	0.0	-	6.8	569.6	569.6	-	4.4	896.9	Feb.	1
88.2	0.5	87.6	-	-	0.0	-	5.9	570.5	570.5	-	4.4	906.9		8
88.2	0.6	87.6	-	-	0.0	-	7.9	571.4	571.4	-	4.4	922.2		15
88.2	0.7	87.6	-	-	0.0	-	6.3	567.8	567.8	-	4.4	902.6		22
88.3	0.7	87.6	-	-	-	-	7.3	567.4	567.4	-	4.4	896.9	Mar.	1
88.1	0.5	87.6	-	-	-	-	7.6	568.6	568.6	-	4.4	893.4		8
88.2	0.6	87.6	-	-	0.0	-	7.0	565.2	565.2	-	4.4	904.1		15
88.2	0.6	87.6	-	-	-	-	5.9	563.5	563.5	-	4.4	913.7		22
87.3	0.7	86.2	-	-	0.5	-	5.5	562.2	562.2	-	4.4	972.3		29



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 <sup>2</sup>	Intra-Eurosystem liability related to euro banknote issue <sup>1</sup>	Revaluation accounts	Capital and reserves	As at reporting date
		Total	Deposits, balances and other liabilities	Liabilities arising from the credit facility under ERM II						
<b>Eurosystem <sup>3</sup></b>										
265.7	6.8	11.0	11.0	–	56.1	237.6	–	360.4	104.4	2018 Sep. 14
258.3	6.2	11.3	11.3	–	56.1	239.4	–	360.4	104.4	21
301.8	4.4	11.0	11.0	–	56.0	237.0	–	342.3	104.4	28
256.7	4.7	11.8	11.8	–	56.0	237.0	–	342.3	104.4	Oct. 5
255.9	5.4	11.5	11.5	–	56.0	237.7	–	342.3	104.4	12
255.6	5.4	11.8	11.8	–	56.0	234.3	–	342.3	104.4	19
263.4	5.5	10.1	10.1	–	56.0	231.4	–	342.3	104.4	26
269.6	5.2	10.0	10.0	–	56.0	235.9	–	342.3	104.4	Nov. 2
274.9	5.9	10.1	10.1	–	56.0	235.4	–	342.3	104.4	9
288.5	5.3	10.4	10.4	–	56.0	239.1	–	342.3	104.4	16
291.7	5.3	10.3	10.3	–	56.0	242.4	–	342.3	104.4	23
299.0	5.0	10.9	10.9	–	56.0	249.6	–	342.3	104.4	30
301.2	4.5	11.2	11.2	–	56.0	246.1	–	342.3	104.4	Dec. 7
311.9	4.7	11.0	11.0	–	56.0	247.9	–	342.3	104.4	14
364.0	4.8	11.1	11.1	–	56.0	247.6	–	342.3	104.4	21
412.3	4.3	10.8	10.8	–	56.0	249.2	–	342.3	104.4	28
364.1	4.3	10.4	10.4	–	56.5	248.1	–	376.2	104.4	2019 Jan. 4
317.6	4.5	10.2	10.2	–	56.5	250.1	–	376.1	104.5	11
305.6	5.1	10.2	10.2	–	56.5	253.8	–	376.1	104.3	18
296.0	6.0	11.1	11.1	–	56.5	254.7	–	376.1	104.2	25
298.2	7.2	9.7	9.7	–	56.5	254.6	–	376.1	104.2	Feb. 1
290.6	7.8	9.9	9.9	–	56.5	255.6	–	376.1	104.2	8
291.8	8.0	9.4	9.4	–	56.5	256.8	–	376.1	104.2	15
279.2	7.6	9.3	9.3	–	56.5	258.1	–	376.1	104.8	22
270.9	6.6	9.5	9.5	–	56.5	259.1	–	376.1	104.9	Mar. 1
262.2	6.9	9.8	9.8	–	56.5	258.0	–	376.1	104.9	8
255.5	5.6	10.1	10.1	–	56.5	256.9	–	376.1	106.2	15
245.3	6.3	9.6	9.6	–	56.5	256.0	–	376.1	106.2	22
302.5	5.6	9.8	9.8	–	57.5	256.6	–	397.5	106.8	29
<b>Deutsche Bundesbank</b>										
165.8	0.0	0.2	0.2	–	14.6	29.5	386.9	112.9	5.7	2018 Sep. 14
160.7	0.0	0.4	0.4	–	14.6	29.8	386.9	112.9	5.7	21
191.2	0.0	0.2	0.2	–	14.6	29.8	390.8	112.9	5.7	28
160.3	0.0	1.0	1.0	–	14.5	29.4	390.8	107.5	5.7	Oct. 5
162.0	0.0	0.9	0.9	–	14.5	29.6	390.8	107.5	5.7	12
160.5	0.0	0.7	0.7	–	14.5	29.7	390.8	107.5	5.7	19
165.9	0.0	0.0	0.0	–	14.5	29.8	390.8	107.5	5.7	26
172.2	0.0	0.1	0.1	–	14.5	30.1	394.6	107.5	5.7	Nov. 2
176.6	0.0	0.2	0.2	–	14.5	30.1	394.6	107.5	5.7	9
175.5	0.0	0.4	0.4	–	14.5	30.1	394.6	107.5	5.7	16
177.7	0.0	0.3	0.3	–	14.5	30.2	394.6	107.5	5.7	23
178.8	0.0	0.3	0.3	–	14.5	30.6	397.1	107.5	5.7	30
177.3	0.0	0.1	0.1	–	14.5	30.5	397.1	107.5	5.7	Dec. 7
188.1	0.0	– 0.0	– 0.0	–	14.5	30.6	397.1	107.5	5.7	14
209.7	0.0	– 0.0	– 0.0	–	14.5	30.9	397.1	107.5	5.7	21
250.2	0.0	– 0.0	– 0.0	–	14.5	30.9	397.1	107.5	5.7	28
211.7	0.0	–	–	–	14.7	31.2	391.9	118.5	5.7	2019 Jan. 4
186.2	0.0	0.0	0.0	–	14.7	31.2	391.9	118.5	5.7	11
171.6	0.0	0.0	0.0	–	14.7	31.2	391.9	118.5	5.7	18
166.4	0.0	0.6	0.6	–	14.7	31.7	392.0	118.5	5.7	25
171.9	0.0	0.4	0.4	–	14.7	31.9	391.5	118.5	5.7	Feb. 1
168.2	0.0	0.4	0.4	–	14.7	31.9	391.5	118.5	5.7	8
170.9	0.0	0.3	0.3	–	14.7	31.9	391.5	118.5	5.7	15
159.1	0.0	0.2	0.2	–	14.7	32.3	391.5	118.5	5.7	22
150.6	0.0	0.4	0.4	–	14.7	29.8	394.4	118.5	5.7	Mar. 1
142.8	0.0	0.7	0.7	–	14.7	29.8	394.4	118.5	5.7	8
134.0	0.0	0.4	0.4	–	14.7	30.1	394.4	118.5	5.7	15
126.7	0.0	0.1	0.1	–	14.7	30.2	394.4	118.5	5.7	22
172.9	0.0	0.1	0.1	–	14.9	29.4	396.9	123.1	5.7	29

basis, to the NCBs, with each NCB showing in its balance sheet the share of the euro banknotes issued corresponding 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 procedure and the value of euro banknotes put

into circulation is also disclosed as an "Intra-Eurosystem claim/liability related to banknote issue". <sup>2</sup> For the Deutsche Bundesbank: including DEM banknotes still in circulation. <sup>3</sup> Source: ECB.









IV. Banks

in other Member States 2				Deposits of central governments		Liabilities arising from repos with non-banks in the euro area	Money market fund shares issued 3	Debt securities issued 3		Liabilities to non-euro area residents	Capital and reserves	Other Liabilities 1	Period
With agreed maturities		At agreed notice		Total	of which: domestic central governments			Total	of which: with maturities of up to 2 years 3				
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		
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
63.2	19.7	2.9	2.6	9.4	8.7	3.3	2.1	994.5	37.8	603.4	686.0	658.8	2017
56.7	15.8	2.8	2.5	11.3	10.5	0.8	2.4	1,034.0	31.9	575.9	695.6	610.7	2018
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	2017 May
59.3	20.1	3.0	2.6	8.6	7.9	1.8	2.2	1,039.2	44.8	689.8	610.2	793.5	June
58.8	19.1	3.0	2.6	10.0	7.9	3.3	2.2	1,029.2	43.9	684.2	606.2	782.9	July
57.8	18.3	3.0	2.6	9.4	7.9	3.4	2.4	1,024.7	42.6	643.1	608.1	796.7	Aug.
61.0	20.5	2.9	2.6	8.7	8.0	2.6	2.4	1,015.2	42.2	669.5	612.4	758.2	Sep.
59.9	18.3	2.9	2.6	8.6	7.9	2.3	2.2	1,008.9	40.7	667.9	612.7	753.9	Oct.
58.6	16.7	2.9	2.6	11.8	8.3	2.6	2.2	1,004.7	40.1	664.4	609.8	747.9	Nov.
63.2	19.7	2.9	2.6	9.4	8.7	3.3	2.1	994.5	37.8	603.4	686.0	658.8	Dec.
61.3	18.9	2.9	2.6	10.0	8.9	4.3	2.1	1,002.6	35.4	682.4	666.5	670.0	2018 Jan.
59.7	18.2	2.9	2.6	10.7	8.8	3.8	2.1	1,006.3	36.0	690.3	678.6	625.9	Feb.
63.8	22.6	2.9	2.6	9.1	8.3	2.9	2.3	1,014.0	35.2	641.0	675.0	635.6	Mar.
59.2	18.0	2.9	2.5	11.7	8.4	2.4	2.2	1,016.6	34.7	672.9	677.3	624.6	Apr.
58.8	16.8	2.9	2.5	10.4	8.8	1.6	2.0	1,031.1	36.4	707.2	679.7	646.6	May
62.2	21.7	2.9	2.5	10.2	9.3	1.3	2.1	1,022.2	33.7	670.8	680.2	620.5	June
61.5	19.0	2.9	2.5	12.4	10.0	1.8	2.0	1,016.9	33.1	681.9	682.2	586.7	July
58.9	16.4	2.8	2.5	13.9	10.6	1.2	2.0	1,021.2	35.0	690.5	684.5	603.8	Aug.
57.8	17.4	2.8	2.5	11.5	9.2	1.3	2.0	1,034.7	33.9	681.7	687.2	578.7	Sep.
58.6	17.2	2.8	2.5	11.4	9.7	2.4	2.0	1,044.7	36.2	666.9	687.8	600.0	Oct.
56.3	15.0	2.8	2.5	12.5	10.0	1.3	2.4	1,048.3	34.6	643.3	688.1	607.3	Nov.
56.7	15.8	2.8	2.5	11.3	10.5	0.8	2.4	1,034.0	31.9	575.9	695.6	610.7	Dec.
56.2	15.3	2.8	2.5	11.5	10.1	1.7	2.4	1,048.1	32.1	636.9	688.3	640.1	2019 Jan.
55.9	14.9	2.8	2.5	11.7	10.0	2.0	2.3	1,067.8	32.1	621.9	685.0	639.4	Feb.

**Changes 4**

- 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
10.8	4.2	- 0.1	- 0.0	- 0.0	- 0.0	1.1	- 0.3	- 3.3	- 8.5	- 16.1	34.1	- 162.3	2017
- 6.4	- 4.1	- 0.1	- 0.1	2.1	2.1	- 2.6	0.3	30.0	- 5.9	- 36.0	7.4	10.3	2018
4.0	2.9	- 0.0	- 0.0	- 0.5	0.1	- 0.6	0.1	1.0	0.3	- 31.9	8.9	- 56.0	2017 June
- 0.5	- 0.9	- 0.0	- 0.0	1.4	- 0.0	1.4	- 0.0	- 3.1	- 0.7	- 0.1	- 1.9	- 10.6	July
- 0.9	- 0.8	- 0.0	- 0.0	- 0.6	- 0.1	0.1	0.2	- 1.7	- 1.2	- 39.0	2.7	- 13.0	Aug.
3.2	2.2	- 0.0	- 0.0	- 0.8	0.0	- 0.7	0.0	- 10.2	- 0.5	25.3	4.7	- 25.6	Sep.
- 1.2	- 2.2	- 0.0	- 0.0	- 0.1	- 0.2	- 0.3	- 0.3	- 9.6	- 1.6	- 3.8	- 0.5	- 2.6	Oct.
- 1.3	- 1.5	- 0.0	- 0.0	3.0	0.3	0.3	0.0	- 0.2	- 0.5	- 0.6	- 1.5	- 7.1	Nov.
4.7	3.0	0.0	0.0	- 2.4	0.3	0.7	- 0.0	- 7.3	- 2.3	- 59.2	5.6	- 16.1	Dec.
- 1.5	- 0.8	- 0.0	- 0.0	0.6	0.2	1.0	- 0.0	15.8	- 2.2	84.0	- 17.5	11.0	2018 Jan.
- 1.7	- 0.8	- 0.0	- 0.0	0.6	- 0.1	- 0.5	- 0.0	- 0.5	0.6	5.0	10.8	- 1.0	Feb.
4.1	4.4	- 0.0	- 0.0	- 1.6	- 0.4	- 0.9	0.2	9.4	- 0.8	- 48.1	- 3.0	12.1	Mar.
- 4.6	- 4.6	- 0.0	- 0.0	2.7	0.1	- 0.5	- 0.1	- 0.9	- 0.3	28.0	1.7	- 8.4	Apr.
- 0.5	- 1.4	- 0.0	- 0.0	- 1.4	0.3	- 0.8	- 0.2	7.3	1.4	29.3	0.1	23.6	May
3.3	4.9	- 0.0	- 0.0	- 0.1	0.5	- 0.4	0.1	- 9.2	- 2.7	- 36.6	0.4	- 24.3	June
- 0.6	- 2.7	- 0.0	- 0.0	2.2	0.7	- 0.6	- 0.1	- 3.6	- 0.6	12.3	2.6	- 32.6	July
- 2.6	- 2.6	- 0.0	- 0.0	1.4	0.6	- 0.6	- 0.0	2.8	1.9	7.5	2.3	17.3	Aug.
- 1.2	0.9	- 0.0	- 0.0	- 2.4	- 1.3	0.1	- 0.0	11.8	- 1.1	- 10.0	2.2	- 23.7	Sep.
- 0.8	- 0.3	- 0.0	- 0.0	- 0.0	0.5	1.0	0.1	5.5	2.2	- 18.1	- 0.7	24.1	Oct.
- 2.3	- 2.2	- 0.0	- 0.0	1.2	0.5	- 1.0	0.3	4.4	- 1.6	- 23.1	0.5	7.6	Nov.
0.5	0.9	- 0.0	- 0.0	- 1.2	0.5	- 0.6	0.0	- 12.7	- 2.6	- 66.2	8.0	4.7	Dec.
- 0.6	- 0.5	- 0.0	- 0.0	0.2	- 0.4	0.9	- 0.0	13.9	0.2	- 61.2	- 7.3	31.7	2019 Jan.
- 0.3	- 0.4	- 0.0	- 0.0	0.5	0.2	0.3	- 0.1	20.3	0.5	- 15.0	- 3.9	1.4	Feb.

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 <sup>1</sup>	Cash in hand and credit balances with central banks	Lending to banks (MFIs)			Lending to non-banks (non-MFIs)				Participating interests	Other assets <sup>1</sup>	
				Total	of which:		Total	of which:					
					Balances and loans	Securities issued by banks		Loans		Bills			Securities issued by non-banks
						for up to and including 1 year	for more than 1 year						
<b>All categories of banks</b>													
2018 Sep.	1,591	7,848.1	518.2	2,377.8	1,893.6	480.6	4,126.4	355.9	3,079.5	0.5	683.4	110.6	715.1
Oct.	1,583	7,893.2	560.9	2,336.7	1,854.7	478.4	4,156.9	367.3	3,104.8	0.5	677.7	110.6	728.0
Nov.	1,581	7,928.3	550.1	2,358.2	1,873.0	482.3	4,173.7	368.0	3,124.0	0.6	674.6	110.1	736.0
Dec.	1,583	7,823.7	464.0	2,337.6	1,855.6	480.2	4,156.4	348.6	3,130.8	0.6	671.9	113.2	752.4
2019 Jan.	1,578	7,949.9	497.6	2,378.0	1,894.5	481.4	4,189.6	373.7	3,140.5	0.5	667.9	112.6	772.1
Feb.	1,579	7,984.1	516.1	2,393.6	1,904.1	487.0	4,195.5	367.4	3,150.9	0.5	670.6	112.8	766.2
<b>Commercial banks <sup>6</sup></b>													
2019 Jan.	263	3,225.2	318.5	969.0	886.6	81.9	1,327.2	215.2	904.7	0.4	204.0	51.7	558.8
Feb.	264	3,226.0	314.2	973.9	890.3	83.2	1,331.1	212.8	909.2	0.4	206.4	51.8	554.9
<b>Big banks <sup>7</sup></b>													
2019 Jan.	4	1,874.3	132.8	566.7	535.9	30.8	627.6	124.0	395.1	0.1	106.2	45.1	502.2
Feb.	4	1,871.7	134.1	567.9	536.7	31.2	627.4	120.9	397.2	0.1	107.6	45.2	497.0
<b>Regional banks and other commercial banks</b>													
2019 Jan.	150	948.4	89.5	202.2	153.2	48.8	602.2	60.8	450.3	0.3	90.4	5.5	49.0
Feb.	150	953.8	85.6	208.3	158.6	49.7	603.8	59.8	452.1	0.3	91.4	5.6	50.5
<b>Branches of foreign banks</b>													
2019 Jan.	109	402.5	96.2	200.1	197.5	2.3	97.5	30.4	59.3	0.1	7.4	1.1	7.6
Feb.	110	400.4	94.5	197.7	195.1	2.3	99.9	32.1	60.0	0.1	7.4	1.1	7.3
<b>Landesbanken</b>													
2019 Jan.	6	782.7	50.6	250.8	190.2	60.2	394.6	49.2	296.9	0.0	46.7	9.0	77.7
Feb.	6	789.2	60.8	253.5	191.9	61.2	390.8	45.8	296.1	0.0	47.2	9.0	75.1
<b>Savings banks</b>													
2019 Jan.	385	1,284.3	47.3	189.0	70.2	118.6	1,014.2	51.7	799.3	0.0	163.0	14.1	19.8
Feb.	385	1,289.5	48.1	189.7	70.0	119.6	1,017.6	52.1	802.4	0.0	162.9	14.1	20.0
<b>Credit cooperatives</b>													
2019 Jan.	875	932.1	19.8	173.1	65.8	107.0	702.6	34.2	556.5	0.0	111.8	17.2	19.4
Feb.	875	936.4	21.0	172.7	65.0	107.4	706.0	34.6	558.8	0.0	112.4	17.2	19.4
<b>Mortgage banks</b>													
2019 Jan.	11	231.6	4.2	29.9	19.7	10.2	190.8	2.7	166.7	-	21.3	0.2	6.6
Feb.	11	233.6	4.9	30.6	20.3	10.3	191.4	2.6	167.6	-	21.1	0.2	6.6
<b>Building and loan associations</b>													
2019 Jan.	20	233.6	1.0	54.1	38.2	15.9	173.9	1.1	147.0	.	25.7	0.3	4.3
Feb.	20	234.3	1.1	54.1	38.2	15.9	174.5	1.1	147.6	.	25.8	0.3	4.2
<b>Banks with special, development and other central support tasks</b>													
2019 Jan.	18	1,260.3	56.2	712.1	623.9	87.6	386.3	19.6	269.3	-	95.3	20.3	85.4
Feb.	18	1,275.0	65.9	719.0	628.4	89.4	384.0	18.2	269.1	-	94.7	20.2	85.9
<b>Memo item: Foreign banks <sup>8</sup></b>													
2019 Jan.	143	1,117.2	145.0	373.7	338.3	35.0	500.8	78.1	336.3	0.4	85.1	3.6	94.0
Feb.	144	1,125.7	144.9	379.9	344.2	35.4	503.1	78.4	338.0	0.4	85.9	3.6	94.3
<b>of which: Banks majority-owned by foreign banks <sup>9</sup></b>													
2019 Jan.	34	714.7	48.8	173.6	140.8	32.7	403.4	47.8	277.0	0.3	77.7	2.6	86.4
Feb.	34	725.3	50.4	182.3	149.1	33.1	403.2	46.3	278.0	0.3	78.5	2.6	87.0

\* 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. <sup>1</sup> 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 (*Handels-*

*gesetzbuch*) read in conjunction with Section 35(1) number 1a of the Credit Institution Accounting Regulation (*Verordnung über die Rechnungslegung der Kredit-institute*) are classified under "Other assets and liabilities" as of the December 2010 reporting date. Trading portfolio derivatives are listed separately in Statistical Supplement 1 to the Monthly Report – Banking statistics, in Tables I.1 to I.3. <sup>2</sup> For building and loan associations: including deposits under savings and loan contracts (see Table IV.12). <sup>3</sup> Included in time deposits. <sup>4</sup> Excluding deposits under savings and

IV. Banks

Deposits of banks (MFIs)			Deposits of non-banks (non-MFIs)								Bearer debt securities outstanding 5	Capital including published reserves, participation rights capital, funds for general banking risks	Other liabilities 1	End of month
Total	of which:		Total	Sight deposits	Time deposits 2		Memo item: Liabilities arising from repos 3	Savings deposits 4						
	Sight deposits	Time deposits			for up to and including 1 year	for more than 1 year 2		Total	of which: At 3 months' notice	Bank savings bonds				
<b>All categories of banks</b>														
1,745.1	543.8	1,201.3	3,752.1	2,155.7	283.9	685.3	66.8	584.3	544.6	43.0	1,126.6	526.3	698.0	2018 Sep.
1,735.3	524.9	1,210.5	3,775.0	2,174.5	286.9	687.1	72.3	584.0	544.8	42.5	1,140.4	526.5	715.8	Oct.
1,739.4	526.0	1,213.5	3,795.6	2,212.2	269.6	688.1	61.7	583.9	545.3	41.8	1,143.7	527.1	722.5	Nov.
1,664.0	476.1	1,187.8	3,769.1	2,190.3	260.8	691.2	38.8	585.6	547.3	41.2	1,130.3	531.3	729.0	Dec.
1,714.0	520.3	1,193.6	3,809.3	2,212.1	284.4	686.8	70.9	585.4	547.6	40.6	1,143.3	531.3	752.0	2019 Jan.
1,744.9	549.0	1,195.8	3,796.2	2,199.0	285.3	685.4	49.5	586.5	548.7	40.0	1,159.7	533.6	749.8	Feb.
<b>Commercial banks 6</b>														
830.1	369.6	460.5	1,552.0	976.1	179.7	280.9	64.3	98.8	92.5	16.4	174.9	190.9	477.3	2019 Jan.
842.3	388.7	453.6	1,536.5	964.1	178.2	278.6	45.5	99.6	93.0	16.1	178.2	193.0	475.9	Feb.
<b>Big banks 7</b>														
437.1	173.0	264.0	779.1	468.0	107.7	117.6	64.2	82.3	77.0	3.5	123.9	109.8	424.5	2019 Jan.
446.9	188.5	258.4	765.9	454.8	108.1	116.4	45.5	83.1	77.5	3.5	128.1	109.6	421.2	Feb.
<b>Regional banks and other commercial banks</b>														
171.8	64.8	106.9	611.8	395.9	46.3	140.4	0.0	16.3	15.3	12.9	50.5	71.0	43.4	2019 Jan.
175.4	67.0	108.3	610.5	397.0	45.6	139.1	0.1	16.3	15.3	12.5	49.5	73.4	45.0	Feb.
<b>Branches of foreign banks</b>														
221.3	131.7	89.6	161.1	112.2	25.7	23.0	–	0.2	0.2	0.0	0.5	10.0	9.5	2019 Jan.
220.1	133.2	86.9	160.1	112.2	24.5	23.1	–	0.2	0.2	0.0	0.6	10.1	9.6	Feb.
<b>Landesbanken</b>														
241.7	60.5	181.3	230.9	105.7	39.8	77.8	4.9	7.4	7.2	0.3	184.4	42.3	83.3	2019 Jan.
248.5	66.3	182.2	231.5	103.1	41.9	78.8	3.3	7.4	7.2	0.3	185.4	42.3	81.6	Feb.
<b>Savings banks</b>														
133.3	4.9	128.4	970.2	627.9	16.9	15.7	–	292.4	269.5	17.2	19.0	117.1	44.7	2019 Jan.
133.5	5.1	128.5	974.8	633.5	16.1	15.7	–	292.5	269.7	17.0	19.0	117.1	45.1	Feb.
<b>Credit cooperatives</b>														
117.3	1.5	115.8	694.8	456.2	33.3	13.9	–	186.3	178.0	5.0	9.8	79.4	30.8	2019 Jan.
117.8	1.3	116.6	698.2	459.4	33.2	13.9	–	186.6	178.3	5.0	9.8	79.5	31.1	Feb.
<b>Mortgage banks</b>														
47.2	4.1	43.1	74.7	2.2	3.1	69.4	–	–	–	–	91.8	10.6	7.3	2019 Jan.
48.1	4.8	43.3	74.2	2.2	3.1	68.9	0.0	–	–	–	93.4	10.6	7.3	Feb.
<b>Building and loan associations</b>														
23.0	3.2	19.8	184.7	3.3	2.1	178.8	–	0.5	0.4	0.1	3.3	11.7	11.0	2019 Jan.
23.1	2.7	20.4	185.2	3.2	2.0	179.4	–	0.5	0.5	0.1	3.2	11.7	11.0	Feb.
<b>Banks with special, development and other central support tasks</b>														
321.3	76.6	244.7	101.9	40.6	9.5	50.3	1.7	–	–	–	660.0	79.3	97.8	2019 Jan.
331.4	80.3	251.1	95.7	33.4	10.8	50.0	0.6	–	–	–	670.7	79.4	97.8	Feb.
<b>Memo item: Foreign banks 8</b>														
393.9	205.5	188.3	552.9	396.8	50.2	80.0	6.4	19.9	19.5	5.9	27.4	53.9	89.2	2019 Jan.
398.1	214.2	183.9	551.6	393.8	53.0	79.1	1.8	19.9	19.5	5.8	28.3	55.7	92.0	Feb.
<b>of which: Banks majority-owned by foreign banks 9</b>														
172.6	73.8	98.8	391.8	284.6	24.6	57.0	6.4	19.7	19.3	5.9	26.8	43.8	79.7	2019 Jan.
178.0	81.1	96.9	391.5	281.6	28.4	56.0	1.8	19.7	19.3	5.8	27.8	45.6	82.4	Feb.

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

	Equalisation claims <b>2</b>	Memo item: Fiduciary loans	Participating interests in domestic banks and enterprises	Deposits of domestic banks (MFIs) <sup>3</sup>					Deposits of domestic non-banks (non-MFIs)					Memo item: Fiduciary loans	Period
				Total	Sight deposits <b>4</b>	Time deposits <b>4</b>	Redis-counted bills <b>5</b>	Memo item: Fiduciary loans	Total	Sight de-posits <b>6</b>	Time deposits <b>6</b>	Savings de-posits <b>7</b>	Bank savings bonds <b>8</b>		
<b>End of year or month *</b>															
-	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
-	19.1		88.1	1,048.2	110.7	937.4	0.0	5.1	3,420.9	1,941.0	853.2	582.9	43.7	30.0	2017
-	18.0		90.9	1,020.9	105.5	915.4	0.0	4.7	3,537.6	2,080.1	841.5	578.6	37.3	33.9	2018
-	19.5		88.1	1,071.5	120.2	951.3	0.0	5.3	3,380.7	1,891.7	861.9	581.8	45.3	30.0	2017 Sep.
-	19.4		87.9	1,081.0	122.8	958.2	0.0	5.3	3,396.5	1,916.8	853.4	581.5	44.8	29.9	Oct.
-	19.4		88.1	1,079.8	125.9	953.9	0.0	5.3	3,426.8	1,944.0	857.5	581.0	44.3	30.1	Nov.
-	19.1		88.1	1,048.2	110.7	937.4	0.0	5.1	3,420.9	1,941.0	853.2	582.9	43.7	30.0	Dec.
-	18.9		88.2	1,060.1	116.0	944.1	0.0	5.0	3,428.9	1,949.3	854.1	582.4	42.9	30.4	2018 Jan.
-	19.0		88.5	1,056.6	110.3	946.4	0.0	5.0	3,425.8	1,949.6	851.6	582.2	42.3	30.9	Feb.
-	18.9		88.5	1,056.3	118.6	937.7	0.0	5.0	3,421.8	1,948.0	850.7	581.3	41.8	31.5	Mar.
-	18.8		89.2	1,052.8	118.2	934.6	0.0	5.0	3,439.5	1,971.4	846.3	580.5	41.3	31.9	Apr.
-	18.8		93.8	1,035.9	107.1	928.9	0.0	5.0	3,471.4	2,002.6	847.7	580.2	40.9	32.4	May
-	18.7		94.0	1,034.3	122.0	912.2	0.0	4.9	3,473.1	1,996.6	856.7	579.3	40.6	32.6	June
-	18.5		94.4	1,041.4	118.8	922.6	0.0	4.9	3,473.2	2,002.6	852.3	578.2	40.0	32.8	July
-	18.4		88.0	1,042.8	117.3	925.5	0.0	4.8	3,485.0	2,020.0	847.9	577.6	39.5	33.1	Aug.
-	18.3		87.9	1,033.4	117.1	916.2	0.0	4.8	3,482.9	2,022.5	844.0	577.3	39.1	33.9	Sep.
-	17.9		87.9	1,032.9	111.3	921.6	0.0	4.8	3,504.0	2,044.7	843.7	577.0	38.6	33.7	Oct.
-	17.9		87.7	1,045.8	115.5	930.3	0.0	4.7	3,537.4	2,079.6	843.0	576.9	37.9	33.7	Nov.
-	18.0		90.9	1,020.9	105.5	915.4	0.0	4.7	3,537.6	2,080.1	841.5	578.6	37.3	33.9	Dec.
-	17.8		90.8	1,039.4	114.9	924.6	0.0	4.7	3,540.8	2,079.4	846.3	578.5	36.7	33.8	2019 Jan.
-	17.8		90.8	1,045.6	118.2	927.4	0.0	4.7	3,554.5	2,088.8	850.1	579.5	36.1	34.0	Feb.
<b>Changes *</b>															
-	- 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	
-	- 0.0	- 1.6	+ 11.0	- 18.4	+ 29.4	- 0.0	- 0.5	+ 103.1	+ 142.8	- 27.5	- 5.6	- 6.7	+ 0.4	2017	
-	- 1.0	+ 3.1	- 25.0	- 3.1	- 21.9	+ 0.0	- 0.4	+ 117.7	+ 139.3	- 10.8	- 4.3	- 6.5	+ 3.9	2018	
-	- 0.1	- 0.3	- 3.3	- 1.0	- 2.3	-	- 0.1	+ 4.3	+ 7.5	- 2.5	- 0.6	- 0.1	- 0.1	2017 Sep.	
-	- 0.1	- 0.1	+ 9.5	+ 2.6	+ 6.9	-	+ 0.0	+ 15.7	+ 25.1	- 8.5	- 0.3	- 0.5	- 0.0	Oct.	
-	- 0.0	+ 0.1	- 1.0	+ 3.1	- 4.2	-	+ 0.0	+ 30.3	+ 27.2	+ 4.0	- 0.5	- 0.5	+ 0.1	Nov.	
-	- 0.3	+ 0.5	- 27.3	- 15.0	- 12.2	- 0.0	- 0.2	- 5.9	- 3.0	- 4.2	+ 1.9	- 0.6	- 0.1	Dec.	
-	- 0.1	- 0.0	+ 11.9	+ 5.2	+ 6.7	+ 0.0	- 0.1	+ 7.6	+ 8.0	+ 0.9	- 0.4	- 0.8	+ 0.4	2018 Jan.	
-	- 0.0	+ 0.4	- 3.5	- 5.8	+ 2.3	-	+ 0.0	- 3.1	+ 0.3	- 2.5	- 0.3	- 0.6	+ 0.5	Feb.	
-	- 0.1	+ 0.0	- 0.3	+ 8.3	- 8.7	+ 0.0	- 0.0	- 4.0	- 1.7	- 0.9	- 0.9	- 0.5	+ 0.5	Mar.	
-	- 0.1	+ 0.7	- 3.0	+ 0.3	- 3.2	- 0.0	- 0.0	+ 18.6	+ 23.4	- 3.5	- 0.8	- 0.5	+ 0.4	Apr.	
-	+ 0.0	+ 4.6	- 16.9	- 11.2	- 5.7	+ 0.0	- 0.0	+ 31.9	+ 31.3	+ 1.4	- 0.3	- 0.5	+ 0.5	May	
-	- 0.1	+ 0.2	- 1.6	+ 15.0	- 16.6	-	- 0.1	+ 1.8	- 6.0	+ 9.1	- 0.9	- 0.4	+ 0.3	June	
-	- 0.2	+ 0.4	+ 7.7	- 2.7	+ 10.4	+ 0.0	- 0.1	+ 0.1	+ 6.1	- 4.4	- 1.0	- 0.6	+ 0.2	July	
-	+ 0.0	- 6.0	+ 2.8	- 1.5	+ 4.2	- 0.0	- 0.0	+ 11.9	+ 17.3	- 4.3	- 0.6	- 0.5	+ 0.5	Aug.	
-	- 0.1	- 0.0	- 9.5	- 0.2	- 9.3	-	- 0.0	- 1.9	+ 2.7	- 3.9	- 0.3	- 0.4	+ 0.6	Sep.	
-	- 0.4	- 0.1	- 0.5	- 5.8	+ 5.3	+ 0.0	- 0.0	+ 21.2	+ 22.2	- 0.2	- 0.3	- 0.5	- 0.2	Oct.	
-	- 0.0	- 0.2	+ 13.0	+ 4.2	+ 8.8	+ 0.0	- 0.0	+ 33.4	+ 34.8	- 0.5	- 0.1	- 0.7	- 0.0	Nov.	
-	+ 0.1	+ 3.2	- 24.9	- 8.9	- 16.1	- 0.0	- 0.0	+ 0.2	+ 0.8	- 1.8	+ 1.7	- 0.6	+ 0.2	Dec.	
-	- 0.2	- 0.0	+ 18.6	+ 9.4	+ 9.2	- 0.0	- 0.0	+ 3.2	- 0.7	+ 4.7	- 0.2	- 0.6	- 0.0	2019 Jan.	
-	-	- 0.0	+ 5.9	+ 3.3	+ 2.6	+ 0.0	+ 0.0	+ 13.6	+ 9.3	+ 3.8	+ 1.1	- 0.6	+ 0.1	Feb.	

operations 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		
<b>End of year or month *</b>														
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
2017	0.3	963.8	738.2	441.0	297.2	0.7	225.0	2.3	723.9	442.2	93.3	348.9	4.2	277.5
2018	0.2	1,014.1	771.9	503.8	268.1	1.0	241.3	3.0	762.0	489.6	99.9	389.7	4.3	268.1
2017 Sep.	0.3	1,007.0	780.1	484.7	295.4	1.9	225.1	2.1	743.3	457.8	107.9	349.9	6.7	278.8
Oct.	0.3	996.7	769.4	473.5	295.9	1.9	225.3	2.1	739.9	457.9	104.8	353.1	6.5	275.6
Nov.	0.3	988.3	761.0	467.6	293.4	1.4	225.9	2.2	736.5	454.9	105.5	349.3	6.4	275.2
Dec.	0.3	963.8	738.2	441.0	297.2	0.7	225.0	2.3	723.9	442.2	93.3	348.9	4.2	277.5
2018 Jan.	0.3	985.4	758.1	466.7	291.4	1.8	225.5	2.2	735.1	450.6	105.6	345.0	5.5	279.1
Feb.	0.3	999.3	770.8	477.7	293.1	2.1	226.3	2.3	742.5	459.1	111.5	347.7	6.2	277.2
Mar.	0.3	993.3	759.8	469.7	290.0	2.2	231.3	2.4	736.2	456.1	108.7	347.4	6.5	273.6
Apr.	0.3	1,003.7	769.6	478.3	291.3	2.3	231.8	2.4	730.1	453.9	105.2	348.7	6.8	269.4
May	0.3	1,030.6	796.6	501.0	295.6	2.3	231.7	2.5	749.9	470.2	112.9	357.2	5.3	274.4
June	0.3	1,027.1	792.4	501.1	291.2	2.3	232.4	2.5	732.4	454.6	97.7	356.9	5.9	271.8
July	0.2	1,031.9	795.4	502.7	292.7	2.3	234.2	2.6	740.4	464.1	103.9	360.2	6.1	270.2
Aug.	0.2	1,027.9	789.8	496.9	292.9	2.3	235.8	2.6	748.7	469.5	107.6	362.0	6.5	272.7
Sep.	0.3	1,028.7	787.7	496.7	291.1	2.3	238.6	2.7	742.5	464.0	102.4	361.6	5.3	273.2
Oct.	0.3	1,013.0	772.7	492.7	280.0	2.1	238.1	2.8	772.5	495.4	115.8	379.6	6.0	271.1
Nov.	0.3	1,007.9	765.4	491.4	274.0	1.5	241.0	2.9	776.4	500.3	117.6	382.7	5.9	270.2
Dec.	0.2	1,014.1	771.9	503.8	268.1	1.0	241.3	3.0	762.0	489.6	99.9	389.7	4.3	268.1
2019 Jan.	0.2	1,031.6	787.8	518.2	269.6	1.3	242.5	3.1	784.3	511.1	119.4	391.8	6.0	267.2
Feb.	0.2	1,031.8	785.3	511.5	273.7	1.7	244.8	3.2	782.0	504.5	110.6	393.9	5.9	271.5
<b>Changes *</b>														
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
2017	+ 0.0	- 57.2	- 48.7	- 61.5	+ 12.8	+ 0.0	- 8.5	+ 0.6	- 4.7	+ 13.0	+ 8.6	+ 4.4	+ 0.7	- 18.4
2018	+ 0.0	+ 49.6	+ 34.0	+ 57.7	- 23.7	+ 0.2	+ 15.3	+ 0.7	+ 18.3	+ 28.3	+ 3.2	+ 25.2	- 0.4	- 9.7
2017 Sep.	+ 0.1	+ 5.0	+ 6.5	+ 5.6	+ 0.8	- 0.4	- 1.1	- 0.0	- 0.8	+ 2.1	+ 3.4	- 1.4	+ 0.7	- 3.5
Oct.	+ 0.0	- 13.4	- 13.6	- 12.3	- 1.3	+ 0.1	+ 0.2	+ 0.0	- 5.3	- 1.5	- 3.4	+ 2.0	- 0.2	- 3.6
Nov.	- 0.0	- 3.2	- 3.4	- 3.4	- 0.1	- 0.5	+ 0.7	+ 0.0	- 0.8	- 0.9	+ 1.0	- 1.9	- 0.0	+ 0.1
Dec.	- 0.0	- 21.1	- 19.6	- 25.1	+ 5.5	- 0.7	- 0.8	+ 0.1	- 10.7	- 11.1	- 11.9	+ 0.8	- 2.2	+ 2.5
2018 Jan.	+ 0.0	+ 30.6	+ 28.8	+ 29.7	- 0.9	+ 1.1	+ 0.7	- 0.1	+ 15.8	+ 12.3	+ 12.8	- 0.6	+ 1.3	+ 2.3
Feb.	- 0.0	+ 8.4	+ 7.4	+ 8.2	- 0.8	+ 0.3	+ 0.7	+ 0.1	+ 4.9	+ 6.5	+ 5.4	+ 1.1	+ 0.7	- 2.3
Mar.	- 0.0	- 3.1	- 8.3	- 6.3	- 2.0	+ 0.0	+ 5.1	+ 0.1	- 5.1	- 2.1	- 2.6	+ 0.5	+ 0.4	- 3.4
Apr.	+ 0.0	+ 6.0	+ 5.4	+ 6.6	- 1.2	+ 0.2	+ 0.5	+ 0.0	- 8.2	- 4.1	- 3.9	- 0.3	+ 0.2	- 4.3
May	- 0.0	+ 16.9	+ 17.3	+ 17.3	- 0.0	- 0.0	- 0.4	+ 0.0	+ 14.7	+ 12.1	+ 7.0	+ 5.1	- 1.5	+ 4.2
June	+ 0.0	- 4.0	- 4.7	- 0.0	- 4.7	- 0.0	+ 0.8	+ 0.1	- 17.4	- 15.4	- 15.2	- 0.3	+ 0.6	- 2.6
July	- 0.0	+ 7.0	+ 5.1	+ 2.7	+ 2.4	+ 0.0	+ 1.8	+ 0.1	+ 9.2	+ 10.4	+ 6.4	+ 4.0	+ 0.1	- 1.4
Aug.	- 0.0	- 6.4	- 7.9	- 7.2	- 0.8	+ 0.0	+ 1.6	+ 0.1	+ 7.3	+ 4.7	+ 3.5	+ 1.1	+ 0.4	+ 2.3
Sep.	+ 0.0	- 1.2	- 3.9	- 1.2	- 2.8	- 0.0	+ 2.8	+ 0.1	- 7.6	- 6.8	- 5.5	- 1.3	- 1.1	+ 0.3
Oct.	- 0.0	- 7.7	- 6.9	- 4.5	- 2.4	- 0.2	- 0.6	+ 0.0	+ 12.8	+ 14.8	+ 10.5	+ 4.3	+ 0.6	- 2.6
Nov.	+ 0.0	- 4.9	- 6.5	- 0.9	- 5.6	- 0.6	+ 2.1	+ 0.1	+ 5.3	+ 5.4	+ 2.0	+ 3.5	- 0.1	- 0.0
Dec.	- 0.0	+ 8.0	+ 8.2	+ 13.2	- 4.9	- 0.6	+ 0.3	+ 0.1	- 13.4	- 9.5	- 17.4	+ 7.9	- 2.0	- 2.0
2019 Jan.	- 0.0	+ 17.6	+ 16.1	+ 14.5	+ 1.6	+ 0.3	+ 1.2	+ 0.1	+ 22.2	+ 21.4	+ 19.4	+ 2.0	+ 1.7	- 0.9
Feb.	+ 0.0	- 1.8	- 4.5	- 7.7	+ 3.3	+ 0.4	+ 2.2	+ 0.1	- 4.3	- 8.3	- 9.2	+ 0.9	- 0.1	+ 4.2

\* 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.

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		
<b>End of year or month *</b>														
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
12.1	24.3	659.0	389.6	269.4	182.4	87.0	0.0	241.2	109.4	131.8	68.1	63.8	0.3	2017
11.8	22.1	643.1	370.6	272.5	185.6	86.8	0.0	231.5	110.2	121.3	63.7	57.6	0.1	2018
12.4	24.8	691.5	430.5	261.0	176.6	84.3	0.0	279.1	133.5	145.7	84.3	61.4	0.5	2017 Sep.
12.3	24.8	687.6	433.6	254.0	169.4	84.7	0.0	282.8	132.3	150.5	87.9	62.6	0.4	Oct.
12.4	24.7	694.2	428.8	265.4	179.7	85.7	0.0	284.4	140.6	143.8	81.7	62.1	0.4	Nov.
12.1	24.3	659.0	389.6	269.4	182.4	87.0	0.0	241.2	109.4	131.8	68.1	63.8	0.3	Dec.
12.0	24.2	711.8	450.8	261.0	172.7	88.3	0.0	275.0	130.5	144.6	82.2	62.3	0.3	2018 Jan.
12.1	23.7	715.7	441.2	274.5	185.5	89.0	0.0	279.6	134.8	144.8	85.5	59.3	0.3	Feb.
12.2	24.0	668.6	385.6	283.0	196.4	86.5	0.0	272.9	126.3	146.6	87.8	58.8	0.3	Mar.
12.3	23.6	685.3	410.6	274.7	188.3	86.4	0.0	282.6	138.4	144.2	85.2	59.0	0.3	Apr.
12.2	23.7	730.1	452.6	277.4	188.0	89.4	0.0	285.8	140.5	145.4	86.9	58.5	0.3	May
12.1	23.7	713.1	432.8	280.3	187.1	93.1	0.0	259.1	123.3	135.8	78.9	56.9	0.3	June
11.9	23.0	708.4	420.2	288.2	197.2	91.0	0.0	273.1	129.4	143.7	84.1	59.6	0.3	July
11.9	23.1	709.8	404.3	305.5	217.7	87.8	0.0	278.8	129.5	149.2	90.1	59.1	0.3	Aug.
11.8	22.4	711.7	426.7	285.0	197.3	87.7	0.0	269.3	133.2	136.1	79.2	56.9	0.1	Sept.
11.8	22.5	702.4	413.6	288.9	200.1	88.8	0.0	271.0	129.8	141.2	82.8	58.4	0.1	Oct.
11.8	22.3	693.6	410.5	283.1	194.4	88.7	0.0	258.1	132.6	125.5	67.7	57.8	0.2	Nov.
11.8	22.1	643.1	370.6	272.5	185.6	86.8	0.0	231.5	110.2	121.3	63.7	57.6	0.1	Dec.
11.7	21.5	674.5	405.5	269.1	182.9	86.1	0.0	268.4	132.7	135.8	77.9	57.9	0.1	2019 Jan.
11.8	21.7	699.2	430.9	268.3	181.1	87.3	0.0	241.7	110.2	131.5	73.6	57.8	0.1	Feb.
<b>Changes *</b>														
+ 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
- 1.0	- 4.1	- 15.5	+ 25.3	- 40.8	- 43.2	+ 2.4	± 0.0	+ 31.8	+ 11.0	+ 20.8	+ 15.6	+ 5.2	- 0.4	2017
- 0.2	- 2.2	- 23.9	- 23.4	- 0.4	+ 2.1	- 2.6	- 0.0	- 11.9	- 0.2	- 11.8	- 5.7	- 6.0	- 0.2	2018
- 0.0	+ 0.4	+ 42.4	+ 41.0	+ 1.5	+ 2.1	- 0.7	-	- 7.2	+ 0.2	- 7.4	- 8.4	+ 0.9	+ 0.0	2017 Sep.
- 0.1	- 0.0	- 5.9	+ 2.4	- 8.3	- 8.3	+ 0.0	-	+ 3.0	- 1.4	+ 4.4	+ 3.4	+ 1.1	- 0.1	Oct.
+ 0.1	- 0.0	+ 9.4	- 3.6	+ 13.0	+ 11.6	+ 1.4	-	+ 2.3	+ 8.6	- 6.2	- 5.9	- 0.4	- 0.0	Nov.
- 0.3	- 0.4	- 33.3	- 38.4	+ 5.1	+ 3.5	+ 1.5	-	- 42.5	- 31.0	- 11.6	- 13.4	+ 1.8	- 0.1	Dec.
- 0.1	- 0.0	+ 57.4	+ 63.5	- 6.1	- 5.0	- 1.1	-	+ 35.0	+ 21.4	+ 13.6	+ 14.4	- 0.8	- 0.0	2018 Jan.
+ 0.1	- 0.5	+ 1.1	- 10.9	+ 12.0	+ 11.7	+ 0.3	- 0.0	+ 3.9	+ 4.0	- 0.2	+ 3.0	- 3.2	+ 0.0	Feb.
+ 0.1	+ 0.3	- 45.8	- 55.0	+ 9.1	+ 11.5	- 2.3	-	- 6.4	- 8.3	+ 1.9	+ 2.3	- 0.4	- 0.0	Mar.
+ 0.1	- 0.5	+ 13.1	+ 22.9	- 9.8	- 9.3	- 0.5	+ 0.0	+ 9.1	+ 11.9	- 2.8	- 2.9	+ 0.0	+ 0.0	Apr.
- 0.0	+ 0.1	+ 39.7	+ 40.1	- 0.4	- 2.7	+ 2.3	-	+ 1.9	+ 1.4	+ 0.5	+ 1.2	- 0.7	+ 0.0	May
- 0.2	-	- 17.3	- 19.9	+ 2.7	- 1.0	+ 3.7	-	- 26.8	- 17.2	- 9.6	- 8.0	- 1.6	-	June
- 0.1	- 0.6	- 3.0	- 12.2	+ 9.2	+ 9.1	+ 0.1	-	+ 13.9	+ 6.3	+ 7.6	+ 5.4	+ 2.2	-	July
- 0.1	+ 0.1	- 0.1	- 16.4	+ 16.3	+ 20.0	- 3.7	-	+ 5.7	- 0.1	+ 5.8	+ 5.8	- 0.1	- 0.0	Aug.
- 0.0	- 0.7	+ 0.9	+ 22.1	- 21.2	- 20.9	- 0.3	-	- 9.8	+ 3.6	- 13.3	- 11.2	- 2.2	- 0.2	Sept.
+ 0.0	+ 0.0	- 12.5	- 14.5	+ 2.0	+ 1.4	+ 0.6	-	+ 0.7	- 3.8	+ 4.5	+ 3.1	+ 1.4	+ 0.0	Oct.
- 0.0	- 0.2	- 8.2	- 2.8	- 5.4	- 5.4	- 0.0	-	- 12.7	+ 2.9	- 15.6	- 15.0	- 0.6	+ 0.0	Nov.
+ 0.0	- 0.1	- 49.1	- 40.2	- 8.9	- 7.2	- 1.7	- 0.0	- 26.5	- 22.3	- 4.1	- 4.0	- 0.1	- 0.0	Dec.
- 0.1	- 0.6	+ 31.6	+ 34.9	- 3.3	- 2.6	- 0.7	-	+ 36.9	+ 22.5	+ 14.5	+ 14.2	+ 0.2	+ 0.0	2019 Jan.
+ 0.0	+ 0.1	+ 23.6	+ 24.8	- 1.2	- 2.2	+ 1.0	-	- 27.2	- 22.6	- 4.6	- 4.6	- 0.1	+ 0.0	Feb.

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				
	including negotiable money market paper, securities, equalisation claims	excluding negotiable money market paper, securities, equalisation claims	Total	to enterprises and households			to general government			Total	to enter-		
				Total	Loans and bills	Negotiable money market paper	Total	Loans	Treasury bills				
												<b>End of year or month *</b>	
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		
2017	3,332.6	2,894.4	241.7	210.9	210.6	0.3	30.7	30.3	0.4	3,090.9	2,640.0		
2018	3,394.5	2,990.4	249.5	228.0	227.6	0.4	21.5	21.7	- 0.2	3,145.0	2,732.8		
2017 Sep.	3,317.6	2,878.5	246.2	214.1	213.5	0.6	32.2	32.0	0.2	3,071.3	2,608.7		
Oct.	3,326.1	2,887.3	248.0	215.3	214.7	0.6	32.7	32.6	0.2	3,078.1	2,616.7		
Nov.	3,343.7	2,899.8	248.0	215.4	214.9	0.5	32.6	31.9	0.7	3,095.6	2,636.3		
Dec.	3,332.6	2,894.4	241.7	210.9	210.6	0.3	30.7	30.3	0.4	3,090.9	2,640.0		
2018 Jan.	3,339.3	2,905.2	249.7	217.4	216.8	0.6	32.3	31.9	0.4	3,089.6	2,645.2		
Feb.	3,338.3	2,910.8	247.6	219.8	219.3	0.6	27.8	27.1	0.6	3,090.7	2,650.4		
Mar.	3,342.5	2,919.9	253.5	225.6	224.9	0.7	27.9	27.6	0.2	3,089.0	2,653.3		
Apr.	3,348.5	2,926.9	254.0	223.0	222.1	0.9	31.0	30.3	0.7	3,094.5	2,664.6		
May	3,350.0	2,928.9	254.5	226.6	225.4	1.2	27.9	26.8	1.1	3,095.5	2,667.7		
June	3,361.8	2,942.2	257.0	229.8	228.9	0.9	27.2	26.3	0.9	3,104.7	2,681.4		
July	3,368.0	2,950.1	256.7	225.4	224.7	0.7	31.3	29.8	1.5	3,111.3	2,692.5		
Aug.	3,368.5	2,957.0	250.5	223.9	223.1	0.8	26.6	25.7	0.9	3,118.0	2,700.6		
Sep.	3,384.0	2,971.9	255.9	232.3	231.6	0.7	23.6	22.5	1.1	3,128.1	2,711.1		
Oct.	3,384.4	2,977.3	252.6	228.0	227.4	0.6	24.6	24.7	- 0.1	3,131.8	2,718.7		
Nov.	3,397.3	2,992.2	251.7	227.9	227.4	0.5	23.9	23.6	0.3	3,145.6	2,732.7		
Dec.	3,394.5	2,990.4	249.5	228.0	227.6	0.4	21.5	21.7	- 0.2	3,145.0	2,732.8		
2019 Jan.	3,405.3	3,003.5	255.8	230.8	230.3	0.5	25.0	24.5	0.5	3,149.4	2,738.4		
Feb.	3,413.6	3,014.2	257.6	235.4	234.9	0.5	22.2	22.4	- 0.2	3,156.0	2,746.3		
												<b>Changes *</b>	
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		
2017	+ 57.0	+ 70.2	+ 6.5	+ 5.6	+ 5.6	+ 0.0	- 12.1	- 12.4	+ 0.3	+ 63.5	+ 103.4		
2018	+ 71.5	+ 105.3	+ 6.6	+ 15.8	+ 15.7	+ 0.1	- 9.2	- 8.6	- 0.6	+ 65.0	+ 102.0		
2017 Sep.	+ 7.3	+ 8.9	+ 3.5	+ 6.5	+ 6.5	- 0.0	- 3.0	- 3.0	- 0.0	+ 3.9	+ 5.8		
Oct.	+ 8.6	+ 8.8	+ 1.8	+ 1.2	+ 1.2	+ 0.0	+ 0.6	+ 0.6	+ 0.0	+ 6.8	+ 8.0		
Nov.	+ 17.7	+ 12.6	+ 0.1	+ 0.2	+ 0.3	- 0.1	- 0.1	- 0.6	+ 0.5	+ 17.6	+ 17.8		
Dec.	- 11.1	- 5.5	- 6.4	- 4.5	- 4.3	- 0.2	- 1.9	- 1.6	- 0.3	- 4.7	+ 3.6		
2018 Jan.	+ 6.9	+ 11.0	+ 8.0	+ 6.5	+ 6.1	+ 0.3	+ 1.6	+ 1.6	- 0.1	- 1.2	+ 4.7		
Feb.	- 1.0	+ 5.5	- 2.1	+ 2.4	+ 2.5	- 0.1	- 4.5	- 4.8	+ 0.3	+ 1.1	+ 5.0		
Mar.	+ 4.2	+ 9.2	+ 5.9	+ 5.8	+ 5.7	+ 0.2	+ 0.1	+ 0.5	- 0.4	- 1.7	+ 2.9		
Apr.	+ 6.4	+ 7.0	+ 0.5	- 2.6	- 2.8	+ 0.2	+ 3.1	+ 2.6	+ 0.5	+ 5.9	+ 11.7		
May	+ 10.4	+ 10.8	+ 0.5	+ 3.6	+ 3.3	+ 0.3	- 3.1	- 3.5	+ 0.4	+ 9.9	+ 12.4		
June	+ 11.8	+ 13.3	+ 2.5	+ 3.2	+ 3.5	- 0.3	- 0.7	- 0.5	- 0.2	+ 9.3	+ 13.6		
July	+ 6.2	+ 7.9	- 0.3	- 4.5	- 4.3	- 0.2	+ 4.2	+ 3.6	+ 0.6	+ 6.5	+ 9.9		
Aug.	+ 0.7	+ 7.1	- 6.2	- 1.5	- 1.5	+ 0.0	- 4.7	- 4.1	- 0.6	+ 6.9	+ 8.2		
Sep.	+ 15.5	+ 14.9	+ 5.6	+ 8.6	+ 8.7	- 0.0	- 3.1	- 3.3	+ 0.2	+ 9.9	+ 10.3		
Oct.	+ 0.5	+ 5.3	- 4.8	- 5.8	- 5.7	- 0.1	+ 1.1	+ 2.2	- 1.1	+ 5.2	+ 9.1		
Nov.	+ 12.9	+ 14.9	- 0.9	+ 0.1	+ 0.0	- 0.1	- 0.8	- 1.1	+ 0.3	+ 13.8	+ 14.0		
Dec.	- 2.9	- 1.8	- 2.2	+ 0.1	+ 0.3	- 0.1	- 2.4	- 1.9	- 0.5	- 0.6	+ 0.1		
2019 Jan.	+ 10.8	+ 13.1	+ 6.3	+ 2.8	+ 2.7	+ 0.1	+ 3.5	+ 2.8	+ 0.7	+ 4.5	+ 5.6		
Feb.	+ 8.3	+ 10.7	+ 1.8	+ 4.6	+ 4.5	+ 0.0	- 2.8	- 2.1	- 0.7	+ 6.5	+ 8.0		

\* 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 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			Securities	Memo item: Fiduciary loans	Total	Loans			Securities 1	Equalisation claims 2	Memo item: Fiduciary loans	Period	
Total	Medium-term	Long-term				Total	Medium-term	Long-term					
End of year or month *													
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	
2,399.5	273.5	2,125.9	240.6	17.4	450.9	254.0	22.5	231.5	196.9	-	1.7	2017	
2,499.4	282.6	2,216.8	233.4	16.5	412.1	241.7	19.7	222.0	170.4	-	1.4	2018	
2,376.0	269.6	2,106.3	232.7	17.9	462.7	257.0	22.4	234.6	205.7	-	1.6	2017 Sep.	
2,383.4	270.9	2,112.5	233.2	17.8	461.4	256.6	22.7	234.0	204.8	-	1.6	Oct.	
2,397.7	274.4	2,123.3	238.6	17.8	459.3	255.4	22.8	232.6	204.0	-	1.6	Nov.	
2,399.5	273.5	2,125.9	240.6	17.4	450.9	254.0	22.5	231.5	196.9	-	1.7	Dec.	
2,405.7	274.8	2,130.8	239.5	17.4	444.4	250.9	22.0	228.9	193.6	-	1.5	2018 Jan.	
2,414.1	275.1	2,139.0	236.3	17.5	440.3	250.3	21.9	228.4	190.1	-	1.5	Feb.	
2,419.5	275.2	2,144.2	233.8	17.4	435.8	247.9	22.1	225.8	187.9	-	1.6	Mar.	
2,428.6	277.1	2,151.5	236.0	17.3	430.0	245.9	21.9	224.1	184.0	-	1.5	Apr.	
2,431.2	270.8	2,160.4	236.6	17.3	427.7	245.5	21.9	223.6	182.2	-	1.5	May	
2,443.3	275.3	2,168.0	238.1	17.2	423.4	243.7	21.0	222.7	179.7	-	1.5	June	
2,454.6	277.7	2,176.9	237.9	17.0	418.7	241.0	20.3	220.8	177.7	-	1.5	July	
2,467.5	279.3	2,188.2	233.1	17.0	417.4	240.6	21.1	219.5	176.8	-	1.3	Aug.	
2,476.9	280.1	2,196.8	234.1	16.9	417.1	241.0	20.5	220.5	176.1	-	1.3	Sep.	
2,484.5	279.7	2,204.9	234.1	16.6	413.1	240.7	20.2	220.5	172.5	-	1.3	Oct.	
2,500.3	284.2	2,216.1	232.4	16.6	412.9	240.9	20.0	220.9	171.9	-	1.3	Nov.	
2,499.4	282.6	2,216.8	233.4	16.5	412.1	241.7	19.7	222.0	170.4	-	1.4	Dec.	
2,507.3	283.1	2,224.2	231.1	16.5	411.1	241.4	19.3	222.0	169.7	-	1.3	2019 Jan.	
2,515.9	284.2	2,231.7	230.3	16.5	409.7	241.0	18.9	222.1	168.7	-	1.3	Feb.	
Changes *													
+ 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	
+ 87.6	+ 9.4	+ 78.2	+ 15.8	+ 0.1	- 39.9	- 10.6	- 1.3	- 9.3	- 29.4	-	- 0.1	2017	
+ 108.7	+ 19.3	+ 89.4	- 6.7	- 0.9	- 37.1	- 10.5	- 2.7	- 7.8	- 26.6	-	- 0.0	2018	
+ 6.6	+ 0.2	+ 6.4	- 0.8	- 0.1	- 2.0	- 1.2	- 0.4	- 0.8	- 0.8	-	- 0.0	2017 Sep.	
+ 7.4	+ 1.3	+ 6.1	+ 0.6	- 0.1	- 1.2	- 0.3	+ 0.2	- 0.5	- 0.9	-	- 0.0	Oct.	
+ 12.4	+ 3.5	+ 9.0	+ 5.4	- 0.0	- 0.3	+ 0.5	+ 0.1	+ 0.4	- 0.8	-	-	Nov.	
+ 1.7	- 0.9	+ 2.5	+ 2.0	- 0.4	- 8.3	- 1.3	- 0.3	- 1.0	- 7.1	-	+ 0.1	Dec.	
+ 5.7	+ 1.6	+ 4.2	- 1.0	- 0.0	- 5.9	- 2.5	- 0.5	- 2.0	- 3.4	-	- 0.1	2018 Jan.	
+ 8.2	+ 0.3	+ 8.0	- 3.2	- 0.0	- 3.9	- 0.4	- 0.1	- 0.3	- 3.5	-	- 0.0	Feb.	
+ 5.4	+ 0.2	+ 5.2	- 2.5	- 0.1	- 4.6	- 2.4	+ 0.1	- 2.5	- 2.2	-	+ 0.0	Mar.	
+ 9.1	+ 1.8	+ 7.3	+ 2.5	- 0.1	- 5.8	- 1.9	- 0.2	- 1.8	- 3.9	-	- 0.0	Apr.	
+ 11.8	+ 2.6	+ 9.3	+ 0.6	- 0.0	- 2.6	- 0.8	+ 0.1	- 0.8	- 1.8	-	+ 0.0	May	
+ 12.1	+ 4.5	+ 7.6	+ 1.5	- 0.1	- 4.3	- 1.8	- 0.9	- 0.8	- 2.6	-	- 0.1	June	
+ 10.1	+ 2.5	+ 7.6	- 0.2	- 0.2	- 3.4	- 1.4	- 0.7	- 0.7	- 1.9	-	- 0.0	July	
+ 13.1	+ 1.6	+ 11.5	- 4.9	- 0.0	- 1.3	- 0.4	+ 0.8	- 1.2	- 0.9	-	+ 0.0	Aug.	
+ 9.2	+ 0.5	+ 8.7	+ 1.1	- 0.1	- 0.4	+ 0.3	- 0.6	+ 0.9	- 0.7	-	- 0.0	Sep.	
+ 9.2	+ 1.0	+ 8.2	- 0.0	- 0.3	- 3.9	- 0.3	- 0.3	+ 0.0	- 3.6	-	- 0.0	Oct.	
+ 15.8	+ 4.6	+ 11.2	- 1.7	- 0.0	- 0.3	+ 0.3	- 0.1	+ 0.4	- 0.5	-	- 0.0	Nov.	
- 0.9	- 1.6	+ 0.7	+ 1.0	- 0.1	- 0.7	+ 0.8	- 0.3	+ 1.1	- 1.5	-	+ 0.2	Dec.	
+ 8.0	+ 0.5	+ 7.5	- 2.4	- 0.0	- 1.1	- 0.4	- 0.4	- 0.0	- 0.7	-	- 0.2	2019 Jan.	
+ 8.7	+ 1.1	+ 7.6	- 0.7	-	- 1.5	- 0.5	- 0.4	- 0.1	- 1.0	-	-	Feb.	

IV. Banks

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

€ billion

Lending to domestic enterprises and households (excluding holdings of negotiable money market paper and excluding securities portfolios) <sup>1</sup>														
Period	of which:													
	Total	Housing loans				Lending to enterprises and self-employed persons								
		Mortgage loans, total	Total	Mortgage loans secured by residential real estate	Other housing loans	Total	of which: Housing loans	Manu-facturing	Electricity, gas and water supply; refuse disposal, mining and quarrying	Construc-tion	Whole-sale and retail trade; repair of motor vehicles and motor-cycles	Agricul-ture, forestry, fishing and aqua-culture	Transpor-tation and storage; post and telecom-munica-tions	Financial interme-diation (excluding MFIs) and insurance com-panies
<b>Lending, total</b> <span style="float: right;">End of year or quarter *</span>														
2016	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 Dec.	2,610.1	1,304.3	1,326.6	1,053.0	273.6	1,403.1	368.5	131.3	112.6	67.3	133.3	50.2	51.5	147.9
2018 Mar.	2,644.4	1,317.6	1,338.2	1,061.5	276.7	1,429.5	373.4	136.0	115.2	69.4	137.5	50.1	51.2	151.4
June	2,672.2	1,333.8	1,357.5	1,074.2	283.3	1,445.5	380.1	139.2	114.2	71.9	136.5	50.5	51.0	152.8
Sep.	2,708.5	1,349.5	1,377.7	1,086.8	290.9	1,476.9	389.6	140.5	115.9	73.0	138.8	53.5	50.8	157.0
Dec.	2,727.0	1,382.2	1,391.2	1,116.4	274.8	1,483.6	392.7	139.3	116.5	71.9	138.7	53.2	50.6	157.3
<b>Short-term lending</b>														
2016	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 Dec.	210.6	–	6.5	–	6.5	180.8	3.6	32.3	4.0	13.6	45.2	3.4	4.0	27.4
2018 Mar.	224.9	–	6.8	–	6.8	195.3	3.8	36.6	5.0	14.9	48.4	3.5	4.2	29.1
June	228.9	–	7.1	–	7.1	199.2	4.0	36.7	4.8	16.6	47.3	3.9	4.2	28.5
Sep.	231.6	–	7.4	–	7.4	201.9	4.3	37.3	4.2	16.6	48.7	4.2	4.0	29.4
Dec.	227.6	–	7.2	–	7.2	195.9	4.1	35.5	4.9	14.7	48.3	3.7	4.9	28.0
<b>Medium-term lending</b>														
2016	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 Dec.	273.5	–	34.0	–	34.0	193.1	14.0	23.6	5.1	11.3	18.2	4.3	10.3	46.7
2018 Mar.	275.2	–	34.0	–	34.0	194.0	14.4	23.3	5.0	11.7	18.6	4.2	10.4	47.0
June	275.3	–	34.7	–	34.7	195.1	15.0	25.5	4.4	11.8	18.2	4.2	10.4	47.5
Sep.	280.1	–	35.6	–	35.6	199.4	15.6	24.9	4.4	12.2	18.3	4.4	11.1	48.0
Dec.	282.6	–	35.4	–	35.4	202.5	15.4	24.9	4.5	12.5	19.0	4.5	10.6	49.0
<b>Long-term lending</b>														
2016	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 Dec.	2,125.9	1,304.3	1,286.1	1,053.0	233.1	1,029.2	351.0	75.4	103.5	42.4	70.0	42.4	37.2	73.8
2018 Mar.	2,144.2	1,317.6	1,297.3	1,061.5	235.8	1,040.2	355.2	76.1	105.2	42.8	70.4	42.3	36.7	75.3
June	2,168.0	1,333.8	1,315.7	1,074.2	241.5	1,051.1	361.1	77.0	105.0	43.5	71.0	42.4	36.4	76.8
Sep.	2,196.9	1,349.5	1,334.6	1,086.8	247.8	1,075.6	369.7	78.4	107.4	44.2	71.8	44.9	35.7	79.6
Dec.	2,216.8	1,382.2	1,348.6	1,116.4	232.2	1,085.2	373.2	78.9	107.2	44.7	71.4	45.0	35.1	80.3
<b>Lending, total</b> <span style="float: right;">Change during quarter *</span>														
2017 Q4	+ 18.7	+ 9.7	+ 12.7	+ 7.8	+ 4.9	+ 8.9	+ 4.1	– 0.4	+ 1.0	+ 0.2	+ 0.2	– 0.6	– 1.5	+ 1.5
2018 Q1	+ 33.6	+ 10.6	+ 11.1	+ 8.1	+ 3.0	+ 26.0	+ 4.8	+ 4.7	+ 1.7	+ 2.0	+ 4.2	+ 0.3	– 0.3	+ 2.4
Q2	+ 37.0	+ 15.4	+ 17.8	+ 11.8	+ 6.0	+ 23.1	+ 6.6	+ 4.1	– 0.6	+ 2.9	– 0.6	+ 1.1	+ 0.1	+ 1.6
Q3	+ 35.2	+ 12.9	+ 19.4	+ 11.1	+ 8.3	+ 19.3	+ 6.0	+ 1.3	+ 0.3	+ 1.0	+ 2.3	+ 0.9	– 0.3	+ 4.1
Q4	+ 18.5	+ 10.8	+ 15.2	+ 8.9	+ 6.2	+ 6.8	+ 4.8	– 1.1	+ 0.7	– 1.0	+ 0.1	– 0.3	– 0.2	+ 0.0
<b>Short-term lending</b>														
2017 Q4	– 2.8	–	0.0	–	0.0	– 2.6	+ 0.0	– 1.4	– 0.0	– 0.4	– 0.0	– 0.4	– 0.3	– 0.8
2018 Q1	+ 14.3	–	0.3	–	0.3	+ 14.4	+ 0.3	+ 4.1	+ 0.9	+ 1.3	+ 3.3	+ 0.4	+ 0.1	+ 1.7
Q2	+ 4.0	–	0.3	–	0.3	+ 4.0	+ 0.1	+ 0.3	– 0.2	+ 1.7	– 1.3	+ 0.4	+ 0.1	– 0.6
Q3	+ 2.8	–	0.3	–	0.3	+ 2.3	+ 0.2	+ 0.5	– 0.7	+ 0.0	+ 1.7	+ 0.1	– 0.2	+ 0.9
Q4	– 5.5	–	0.1	–	0.1	– 6.2	– 0.1	– 1.7	+ 0.6	– 2.0	– 0.4	– 0.5	+ 0.9	– 1.4
<b>Medium-term lending</b>														
2017 Q4	+ 3.9	–	0.1	–	0.1	+ 2.8	+ 0.3	+ 0.5	– 0.1	+ 0.1	– 0.0	– 0.1	– 0.1	+ 1.1
2018 Q1	+ 2.0	–	0.0	–	0.0	+ 1.2	+ 0.4	– 0.2	– 0.1	+ 0.4	+ 0.4	– 0.0	– 0.1	+ 0.1
Q2	+ 8.9	–	0.6	–	0.6	+ 7.3	+ 0.6	+ 3.0	– 0.4	+ 0.4	+ 0.2	+ 0.1	+ 0.3	+ 0.6
Q3	+ 4.6	–	0.9	–	0.9	+ 3.6	+ 0.5	– 0.6	– 0.1	+ 0.3	– 0.2	+ 0.1	+ 0.6	+ 0.5
Q4	+ 3.9	–	0.6	–	0.6	+ 3.4	+ 0.6	+ 0.1	+ 0.2	+ 0.4	+ 0.9	+ 0.1	– 0.5	+ 0.9
<b>Long-term lending</b>														
2017 Q4	+ 17.6	+ 9.7	+ 12.6	+ 7.8	+ 4.8	+ 8.7	+ 3.8	+ 0.5	+ 1.1	+ 0.5	+ 0.3	– 0.1	– 1.1	+ 1.1
2018 Q1	+ 17.4	+ 10.6	+ 10.8	+ 8.1	+ 2.7	+ 10.3	+ 4.2	+ 0.7	+ 0.9	+ 0.4	+ 0.5	– 0.1	– 0.4	+ 0.6
Q2	+ 24.1	+ 15.4	+ 16.9	+ 11.8	+ 5.1	+ 11.7	+ 5.8	+ 0.8	+ 0.1	+ 0.7	+ 0.6	+ 0.6	– 0.3	+ 1.6
Q3	+ 27.8	+ 12.9	+ 18.2	+ 11.1	+ 7.1	+ 13.5	+ 5.3	+ 1.4	+ 1.1	+ 0.6	+ 0.8	+ 0.6	– 0.7	+ 2.7
Q4	+ 20.1	+ 10.8	+ 14.7	+ 8.9	+ 5.8	+ 9.6	+ 4.3	+ 0.6	– 0.1	+ 0.6	– 0.4	+ 0.2	– 0.6	+ 0.5

\* Excluding lending by foreign branches. Breakdown of lending by building and loan associations by areas and sectors estimated. Statistical breaks have been eliminated

from the changes. The figures for the latest date are always to be regarded as provisional; subsequent alterations, which appear in the following Monthly Report, are

IV. Banks

						Lending to employees and other individuals					Lending to non-profit institutions			
Services sector (including the professions)				Memo items:		Total	Housing loans	Other lending			Total	of which: Housing loans	Period	
Total	of which:			Lending to self-employed persons <sup>2</sup>	Lending to craft enterprises			Total	of which:					Debit balances on wage, salary and pension accounts
	Housing enterprises	Holding companies	Other real estate activities						Instalment loans <sup>3</sup>					
<b>End of year or quarter *</b>													<b>Lending, total</b>	
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	2016	
709.0	214.9	42.3	186.4	411.2	47.7	1,192.3	954.3	237.9	171.6	8.6	14.8	3.7	2017 Dec.	
718.8	217.2	44.1	188.5	414.4	48.2	1,200.0	961.1	239.0	173.3	8.4	14.9	3.7	2018 Mar.	
729.3	221.8	47.3	190.7	415.5	48.3	1,211.8	973.7	238.1	173.0	8.4	14.9	3.8	June	
747.4	231.0	48.2	194.9	430.6	48.6	1,216.6	984.4	232.2	172.2	8.4	15.0	3.7	Sep.	
756.0	237.0	47.3	196.9	432.6	48.0	1,228.4	994.8	233.7	172.9	8.3	15.0	3.7	Dec.	
													Short-term lending	
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	2016	
50.9	10.1	6.8	10.3	23.3	5.0	29.3	2.9	26.4	1.6	8.6	0.5	0.0	2017 Dec.	
53.5	10.2	7.9	10.7	23.7	5.8	29.0	3.0	26.1	1.5	8.4	0.6	-	2018 Mar.	
57.2	10.7	10.2	10.6	23.5	5.7	29.2	3.1	26.1	1.5	8.4	0.5	-	June	
57.4	11.6	10.3	10.2	24.0	5.7	29.2	3.2	26.0	1.5	8.4	0.5	0.0	Sep.	
55.9	12.0	8.1	10.4	24.0	5.2	31.2	3.1	28.2	1.5	8.3	0.5	-	Dec.	
													Medium-term lending	
72.1	11.1	8.2	19.3	32.9	3.6	77.3	21.1	56.2	51.0	-	0.5	0.0	2016	
73.5	12.1	9.3	18.3	32.7	3.6	79.9	20.0	59.9	55.2	-	0.6	0.0	2017 Dec.	
73.9	12.6	9.3	18.3	32.8	3.4	80.7	19.7	61.0	56.5	-	0.5	0.0	2018 Mar.	
73.0	13.0	9.7	19.2	31.0	3.4	79.6	19.7	59.9	55.4	-	0.5	0.0	June	
76.2	14.0	9.8	20.0	31.7	3.5	80.1	20.0	60.2	55.8	-	0.5	0.1	Sep.	
77.5	14.8	9.9	21.3	31.5	3.5	79.6	19.9	59.7	56.4	-	0.5	0.1	Dec.	
													Long-term lending	
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	2016	
584.6	192.6	26.2	157.8	355.3	39.2	1,083.1	931.4	151.6	114.8	-	13.7	3.7	2017 Dec.	
591.3	194.5	27.0	159.4	357.9	39.1	1,090.3	938.5	151.9	115.3	-	13.7	3.7	2018 Mar.	
599.1	198.1	27.4	160.9	361.1	39.2	1,103.0	950.9	152.1	116.0	-	13.9	3.7	June	
613.8	205.3	28.0	164.7	374.9	39.5	1,107.2	961.2	146.0	114.9	-	14.0	3.7	Sep.	
622.6	210.2	29.2	165.3	377.2	39.3	1,117.6	971.8	145.8	115.0	-	14.0	3.7	Dec.	
<b>Change during quarter *</b>													<b>Lending, total</b>	
+ 8.5	+ 3.7	+ 1.2	+ 1.0	+ 0.8	- 0.6	+ 9.8	+ 8.6	+ 1.1	+ 1.1	- 0.3	+ 0.1	- 0.0	2017 Q4	
+ 11.0	+ 2.5	+ 1.9	+ 2.9	+ 3.6	+ 0.5	+ 7.5	+ 6.3	+ 1.2	+ 1.8	- 0.2	+ 0.2	+ 0.0	2018 Q1	
+ 14.5	+ 4.8	+ 3.2	+ 2.2	+ 3.8	+ 0.1	+ 14.0	+ 11.1	+ 2.8	+ 3.2	- 0.0	- 0.0	+ 0.0	Q2	
+ 9.6	+ 3.9	+ 1.0	+ 2.0	+ 3.7	+ 0.3	+ 15.7	+ 13.4	+ 2.3	+ 2.3	+ 0.1	+ 0.1	- 0.0	Q3	
+ 8.4	+ 6.1	- 1.1	+ 2.3	+ 2.1	- 0.5	+ 11.7	+ 10.3	+ 1.4	+ 1.0	- 0.2	+ 0.1	+ 0.0	Q4	
													Short-term lending	
+ 0.7	+ 0.5	+ 0.1	+ 0.4	- 0.4	- 0.5	- 0.2	- 0.1	- 0.1	- 0.1	- 0.3	+ 0.0	+ 0.0	2017 Q4	
+ 2.6	+ 0.1	+ 1.0	+ 0.4	+ 0.4	+ 0.8	- 0.3	+ 0.1	- 0.4	- 0.1	- 0.2	+ 0.1	- 0.0	2018 Q1	
+ 3.7	+ 0.6	+ 2.3	- 0.2	- 0.2	- 0.1	+ 0.1	+ 0.1	+ 0.0	+ 0.0	- 0.0	- 0.2	-	Q2	
- 0.0	+ 0.6	+ 0.1	- 0.4	+ 0.1	- 0.0	+ 0.5	+ 0.1	+ 0.4	- 0.1	+ 0.1	+ 0.0	+ 0.0	Q3	
- 1.8	+ 0.3	- 2.1	+ 0.2	- 0.1	- 0.4	+ 0.8	- 0.1	+ 0.8	- 0.0	- 0.2	+ 0.0	- 0.0	Q4	
													Medium-term lending	
+ 1.4	+ 0.3	+ 0.2	- 0.0	- 0.3	+ 0.0	+ 1.0	- 0.2	+ 1.2	+ 1.2	-	+ 0.0	- 0.0	2017 Q4	
+ 0.8	+ 0.4	+ 0.1	+ 0.2	+ 0.1	- 0.2	+ 0.8	- 0.4	+ 1.2	+ 1.3	-	- 0.0	+ 0.0	2018 Q1	
+ 3.1	+ 0.7	+ 0.4	+ 1.0	+ 0.4	+ 0.0	+ 1.6	+ 0.0	+ 1.5	+ 1.5	-	- 0.0	+ 0.0	Q2	
+ 2.8	+ 0.8	+ 0.2	+ 0.8	+ 0.2	+ 0.0	+ 1.0	+ 0.3	+ 0.7	+ 0.6	-	- 0.0	+ 0.0	Q3	
+ 1.3	+ 0.8	+ 0.1	+ 1.3	- 0.2	+ 0.0	+ 0.5	- 0.0	+ 0.6	+ 0.5	-	+ 0.0	-	Q4	
													Long-term lending	
+ 6.5	+ 2.9	+ 0.9	+ 0.7	+ 1.5	- 0.1	+ 8.9	+ 8.9	- 0.0	- 0.1	-	+ 0.0	- 0.0	2017 Q4	
+ 7.7	+ 2.0	+ 0.8	+ 2.3	+ 3.0	- 0.1	+ 7.0	+ 6.6	+ 0.4	+ 0.6	-	+ 0.1	+ 0.0	2018 Q1	
+ 7.7	+ 3.6	+ 0.6	+ 1.4	+ 3.5	+ 0.1	+ 12.3	+ 11.0	+ 1.3	+ 1.6	-	+ 0.1	+ 0.0	Q2	
+ 6.9	+ 2.5	+ 0.7	+ 1.6	+ 3.4	+ 0.3	+ 14.2	+ 13.0	+ 1.2	+ 1.7	-	+ 0.1	- 0.0	Q3	
+ 8.9	+ 5.0	+ 0.9	+ 0.8	+ 2.4	- 0.2	+ 10.4	+ 10.4	+ 0.0	+ 0.4	-	+ 0.1	+ 0.0	Q4	

not specially marked. <sup>1</sup> Excluding fiduciary loans. <sup>2</sup> Including sole proprietors.  
<sup>3</sup> 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							
												End of year or month*		
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		
2017	3,420.9	1,941.0	853.2	207.6	645.6	57.3	588.3	582.9	43.7	30.0	16.3	1.6		
2018	3,537.6	2,080.1	841.5	203.4	638.2	56.8	581.4	578.6	37.3	33.9	14.9	0.5		
2018 Mar.	3,421.8	1,948.0	850.7	212.9	637.8	52.6	585.2	581.3	41.8	31.5	15.8	0.6		
Apr.	3,439.5	1,971.4	846.3	210.7	635.6	50.7	584.9	580.5	41.3	31.9	15.1	0.9		
May	3,471.4	2,002.6	847.7	210.8	636.9	51.9	585.0	580.2	40.9	32.4	14.8	0.7		
June	3,473.1	1,996.6	856.7	221.2	635.6	51.4	584.2	579.3	40.6	32.6	15.3	0.7		
July	3,473.2	2,002.6	852.3	218.3	634.0	52.0	582.1	578.2	40.0	32.8	14.9	1.5		
Aug.	3,485.0	2,020.0	847.9	215.1	632.8	53.8	579.0	577.6	39.5	33.1	14.9	0.5		
Sep.	3,482.9	2,022.5	844.0	210.9	633.0	54.7	578.3	577.3	39.1	33.9	14.8	0.3		
Oct.	3,504.0	2,044.7	843.7	210.3	633.4	55.1	578.3	577.0	38.6	33.7	14.9	0.7		
Nov.	3,537.4	2,079.6	843.0	208.1	635.0	55.8	579.2	576.9	37.9	33.7	14.9	0.4		
Dec.	3,537.6	2,080.1	841.5	203.4	638.2	56.8	581.4	578.6	37.3	33.9	14.9	0.5		
2019 Jan.	3,540.8	2,079.4	846.3	212.7	633.6	57.1	576.4	578.5	36.7	33.8	14.9	0.8		
Feb.	3,554.5	2,088.8	850.1	217.9	632.2	56.2	576.0	579.5	36.1	34.0	15.1	0.6		
												Changes*		
2017	+ 103.1	+ 142.8	- 27.5	- 24.7	- 2.8	+ 10.1	- 12.8	- 5.6	- 6.7	+ 0.4	- 2.0	+ 0.8		
2018	+ 117.7	+ 139.3	- 10.8	- 3.5	- 7.3	- 0.1	- 7.2	- 4.3	- 6.5	+ 3.9	- 1.4	- 1.2		
2018 Mar.	- 4.0	- 1.7	- 0.9	+ 3.0	- 3.9	- 1.8	- 2.1	- 0.9	- 0.5	+ 0.5	- 0.2	- 0.5		
Apr.	+ 18.6	+ 23.4	- 3.5	- 1.3	- 2.2	- 1.9	- 0.3	- 0.8	- 0.5	+ 0.4	- 0.6	+ 0.2		
May	+ 31.9	+ 31.3	+ 1.4	+ 0.1	+ 1.3	+ 1.3	+ 0.0	- 0.3	- 0.5	+ 0.5	- 0.3	- 0.2		
June	+ 1.8	- 6.0	+ 9.1	+ 10.3	- 1.2	- 0.5	- 0.7	- 0.9	- 0.4	+ 0.3	+ 0.5	- 0.0		
July	+ 0.1	+ 6.1	- 4.4	- 2.9	- 1.5	+ 0.6	- 2.1	- 1.0	- 0.6	+ 0.2	- 0.3	+ 0.8		
Aug.	+ 11.9	+ 17.3	- 4.3	- 3.2	- 1.1	+ 1.9	- 3.1	- 0.6	- 0.5	+ 0.5	- 0.0	- 1.0		
Sep.	- 1.9	+ 2.7	- 3.9	- 4.1	+ 0.2	+ 0.9	- 0.6	- 0.3	- 0.4	+ 0.6	- 0.1	- 0.1		
Oct.	+ 21.2	+ 22.2	- 0.2	- 0.6	+ 0.4	+ 0.4	- 0.0	- 0.3	- 0.5	- 0.2	+ 0.0	+ 0.4		
Nov.	+ 33.4	+ 34.8	- 0.5	- 2.3	+ 1.7	+ 0.7	+ 1.0	- 0.1	- 0.7	- 0.0	+ 0.0	- 0.3		
Dec.	+ 0.2	+ 0.8	- 1.8	- 4.7	+ 2.9	+ 1.0	+ 1.9	+ 1.7	- 0.6	+ 0.2	- 0.0	+ 0.1		
2019 Jan.	+ 3.2	- 0.7	+ 4.7	+ 9.3	- 4.6	+ 0.3	- 4.9	- 0.2	- 0.6	- 0.0	- 0.0	+ 0.4		
Feb.	+ 13.6	+ 9.3	+ 3.8	+ 5.2	- 1.4	- 0.9	- 0.4	+ 1.1	- 0.6	+ 0.1	+ 0.2	- 0.2		
												End of year or month*		
2016	199.8	57.9	133.5	79.5	54.0	16.6	37.4	3.9	4.5	27.1	2.5	-		
2017	201.7	58.9	134.7	65.8	69.0	27.4	41.5	3.6	4.4	25.7	2.3	-		
2018	218.9	62.7	148.2	67.9	80.3	28.5	51.8	3.7	4.2	25.3	2.2	-		
2018 Mar.	205.9	57.2	140.6	72.2	68.4	25.2	43.2	3.7	4.4	26.0	2.3	-		
Apr.	205.1	56.9	140.2	72.3	67.9	23.8	44.1	3.7	4.4	26.0	2.3	-		
May	215.9	62.8	145.0	74.7	70.3	25.1	45.2	3.8	4.3	26.0	2.2	-		
June	221.4	63.3	150.0	79.3	70.7	24.9	45.8	3.8	4.3	25.8	2.2	-		
July	214.9	57.0	149.9	77.3	72.6	25.8	46.8	3.8	4.3	25.7	2.2	0.7		
Aug.	223.9	62.7	153.2	79.1	74.0	25.7	48.3	3.8	4.3	25.7	2.2	-		
Sep.	221.1	60.4	152.7	76.9	75.9	27.1	48.8	3.8	4.3	25.6	2.2	-		
Oct.	216.5	57.5	151.1	73.8	77.3	27.3	50.0	3.7	4.2	25.3	2.2	-		
Nov.	224.6	62.6	154.0	74.8	79.1	27.9	51.2	3.8	4.2	25.3	2.2	-		
Dec.	218.9	62.7	148.2	67.9	80.3	28.5	51.8	3.7	4.2	25.3	2.2	-		
2019 Jan.	221.7	59.2	154.7	74.8	79.8	29.2	50.6	3.7	4.2	25.2	2.2	-		
Feb.	230.4	63.0	159.5	80.1	79.4	28.4	51.0	3.8	4.1	25.2	2.2	-		
												Changes*		
2017	- 1.0	+ 1.6	- 2.4	- 14.1	+ 11.7	+ 10.7	+ 0.9	- 0.3	+ 0.1	- 1.1	- 0.3	± 0.0		
2018	+ 16.9	+ 3.6	+ 13.5	+ 2.0	+ 11.5	+ 1.1	+ 10.3	+ 0.1	- 0.2	- 0.2	- 0.1	± 0.0		
2018 Mar.	+ 1.6	- 1.6	+ 3.2	+ 3.5	- 0.3	- 1.0	+ 0.7	+ 0.0	- 0.0	- 0.1	- 0.1	-		
Apr.	- 0.8	- 0.3	- 0.5	+ 0.0	- 0.5	- 1.4	+ 0.9	- 0.0	+ 0.0	-	- 0.0	-		
May	+ 10.8	+ 5.9	+ 4.8	+ 2.4	+ 2.4	+ 1.3	+ 1.1	+ 0.1	- 0.1	-	- 0.0	-		
June	+ 5.3	+ 0.5	+ 4.9	+ 4.5	+ 0.4	- 0.2	+ 0.6	+ 0.0	- 0.0	- 0.2	- 0.0	-		
July	- 6.4	- 6.3	- 0.1	- 2.0	+ 1.9	+ 0.9	+ 1.0	- 0.0	+ 0.0	- 0.0	- 0.0	+ 0.7		
Aug.	+ 9.1	+ 5.7	+ 3.3	+ 1.9	+ 1.4	- 0.1	+ 1.5	+ 0.0	- 0.0	+ 0.1	+ 0.0	- 0.7		
Sep.	- 2.9	- 2.5	- 0.4	- 2.3	+ 1.9	+ 1.3	+ 0.5	- 0.0	- 0.0	- 0.0	+ 0.0	-		
Oct.	- 4.7	- 2.9	- 1.7	- 3.0	+ 1.3	+ 0.2	+ 1.1	- 0.0	- 0.0	- 0.3	+ 0.0	-		
Nov.	+ 8.1	+ 5.1	+ 3.0	+ 1.0	+ 2.0	+ 0.7	+ 1.3	+ 0.0	- 0.0	+ 0.0	+ 0.0	-		
Dec.	- 5.7	+ 0.1	- 5.7	- 6.9	+ 1.2	+ 0.6	+ 0.6	- 0.0	- 0.0	- 0.0	+ 0.0	-		
2019 Jan.	+ 2.7	- 3.5	+ 6.3	+ 6.9	- 0.6	+ 0.6	- 1.2	- 0.1	- 0.0	- 0.1	+ 0.0	-		
Feb.	+ 8.7	+ 3.7	+ 4.9	+ 5.3	- 0.4	- 0.8	+ 0.4	+ 0.1	- 0.1	+ 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 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 <sup>1,2</sup>					Savings deposits <sup>3</sup>	Bank savings bonds <sup>4</sup>	Memo item:				
			for up to and including 1 year		for more than 1 year <sup>2</sup>					Fiduciary loans	Subordinated liabilities (excluding negotiable debt securities)	Liabilities arising from repos		
			Total	for up to and including 1 year	Total	for up to and including 2 years	for more than 2 years							
<b>Domestic enterprises and households</b>													<b>End of year or month*</b>	
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		
2017	3,219.2	1,882.1	718.5	141.9	576.6	29.9	546.8	579.3	39.3	4.3	14.0	1.6		
2018	3,318.7	2,017.4	693.3	135.4	557.9	28.3	529.6	574.9	33.1	8.6	12.7	0.5		
2018 Mar.	3,215.8	1,890.8	710.1	140.7	569.4	27.4	542.1	577.6	37.4	5.5	13.5	0.6		
Apr.	3,234.4	1,914.4	706.1	138.5	567.7	26.9	540.8	576.8	37.0	5.9	12.8	0.9		
May	3,255.5	1,939.8	702.7	136.1	566.6	26.8	539.7	576.4	36.6	6.4	12.6	0.7		
June	3,251.8	1,933.3	706.7	141.8	564.9	26.5	538.4	575.5	36.3	6.9	13.1	0.7		
July	3,258.2	1,945.7	702.4	141.0	561.4	26.1	535.3	574.5	35.7	7.0	12.8	0.8		
Aug.	3,261.1	1,957.3	694.7	135.9	558.8	28.1	530.7	573.8	35.3	7.4	12.7	0.5		
Sep.	3,261.8	1,962.1	691.2	134.1	557.1	27.6	529.5	573.5	34.8	8.2	12.6	0.3		
Oct.	3,287.5	1,987.2	692.6	136.5	556.1	27.8	528.3	573.3	34.4	8.4	12.7	0.7		
Nov.	3,312.8	2,017.0	689.1	133.3	555.8	27.8	528.0	573.1	33.7	8.4	12.7	0.4		
Dec.	3,318.7	2,017.4	693.3	135.4	557.9	28.3	529.6	574.9	33.1	8.6	12.7	0.5		
2019 Jan.	3,319.1	2,020.2	691.6	137.9	553.7	27.9	525.8	574.8	32.5	8.7	12.7	0.8		
Feb.	3,324.1	2,025.8	690.6	137.8	552.8	27.8	525.0	575.8	32.0	8.8	12.9	0.6		
<b>Changes*</b>													<b>End of year or month*</b>	
2017	+ 104.1	+ 141.3	- 25.1	- 10.6	- 14.4	- 0.7	- 13.8	- 5.3	- 6.7	+ 1.6	- 1.7	+ 0.8		
2018	+ 100.8	+ 135.7	- 24.3	- 5.5	- 18.8	- 1.3	- 17.5	- 4.3	- 6.3	+ 4.1	- 1.3	- 1.2		
2018 Mar.	- 5.6	- 0.1	- 4.1	- 0.5	- 3.6	- 0.8	- 2.8	- 1.0	- 0.5	+ 0.6	- 0.1	- 0.5		
Apr.	+ 19.4	+ 23.7	- 3.0	- 1.3	- 1.7	- 0.5	- 1.2	- 0.8	- 0.5	+ 0.4	- 0.6	+ 0.2		
May	+ 21.1	+ 25.3	- 3.4	- 2.3	- 1.1	- 0.0	- 1.1	- 0.4	- 0.4	+ 0.5	- 0.3	- 0.2		
June	- 3.6	- 6.5	+ 4.2	+ 5.8	- 1.6	- 0.3	- 1.3	- 0.9	- 0.4	+ 0.5	+ 0.5	- 0.0		
July	+ 6.6	+ 12.4	- 4.2	- 0.8	- 3.4	- 0.4	- 3.1	- 1.0	- 0.6	+ 0.2	- 0.3	+ 0.1		
Aug.	+ 2.8	+ 11.6	- 7.7	- 5.1	- 2.6	+ 2.0	- 4.6	- 0.7	- 0.5	+ 0.4	- 0.0	- 0.4		
Sep.	+ 1.0	+ 5.2	- 3.5	- 1.8	- 1.7	- 0.5	- 1.2	- 0.3	- 0.4	+ 0.6	- 0.1	- 0.1		
Oct.	+ 25.8	+ 25.1	+ 1.5	+ 2.4	- 1.0	+ 0.1	- 1.1	- 0.3	- 0.4	+ 0.1	+ 0.0	+ 0.4		
Nov.	+ 25.3	+ 29.8	- 3.6	- 3.3	- 0.3	+ 0.1	- 0.4	- 0.1	- 0.7	- 0.0	+ 0.0	- 0.3		
Dec.	+ 5.9	+ 0.8	+ 3.9	+ 2.2	+ 1.7	+ 0.4	+ 1.3	+ 1.8	- 0.6	+ 0.2	- 0.0	+ 0.1		
2019 Jan.	+ 0.5	+ 2.8	- 1.6	+ 2.4	- 4.0	- 0.3	- 3.7	- 0.1	- 0.6	+ 0.1	- 0.0	+ 0.4		
Feb.	+ 4.9	+ 5.6	- 1.1	- 0.1	- 0.9	- 0.1	- 0.8	+ 1.0	- 0.6	+ 0.1	+ 0.2	- 0.2		
<b>of which: Domestic enterprises</b>													<b>End of year or month*</b>	
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		
2017	1,039.6	558.9	461.0	92.9	368.2	17.2	351.0	6.8	12.8	2.7	11.6	1.6		
2018	1,035.4	584.0	432.9	86.0	346.9	17.2	329.7	7.0	11.4	2.8	10.3	0.5		
2018 Mar.	1,026.9	555.0	452.5	92.1	360.5	14.9	345.6	7.0	12.4	2.8	11.1	0.6		
Apr.	1,034.1	566.2	448.6	89.6	359.0	14.6	344.4	7.1	12.3	2.9	10.5	0.9		
May	1,042.4	578.3	444.6	87.0	357.7	14.6	343.0	7.2	12.3	2.9	10.2	0.7		
June	1,030.4	562.4	448.5	92.7	355.8	14.2	341.6	7.2	12.4	2.9	10.7	0.7		
July	1,033.0	569.8	444.0	91.5	352.5	14.0	338.5	7.2	12.1	2.6	10.4	0.8		
Aug.	1,028.5	573.1	436.2	86.3	349.9	16.3	333.6	7.2	12.0	2.5	10.3	0.5		
Sep.	1,021.9	570.3	432.5	84.5	348.0	16.0	332.0	7.2	11.9	2.6	10.3	0.3		
Oct.	1,039.7	586.7	434.0	86.6	347.4	16.4	331.0	7.1	11.8	2.6	10.3	0.7		
Nov.	1,040.8	590.9	431.3	84.2	347.1	16.5	330.6	7.1	11.6	2.6	10.3	0.4		
Dec.	1,035.4	584.0	432.9	86.0	346.9	17.2	329.7	7.0	11.4	2.8	10.3	0.5		
2019 Jan.	1,036.9	587.8	430.7	88.3	342.4	16.9	325.5	7.0	11.4	2.6	10.2	0.8		
Feb.	1,026.7	579.2	429.1	88.2	340.9	16.7	324.2	7.0	11.4	2.7	10.4	0.6		
<b>Changes*</b>													<b>End of year or month*</b>	
2017	+ 19.5	+ 40.2	- 20.0	- 4.7	- 15.4	- 0.2	- 15.2	- 0.0	- 0.6	+ 0.8	- 1.3	+ 0.8		
2018	- 3.2	+ 25.1	- 27.2	- 5.9	- 21.3	+ 0.3	- 21.7	+ 0.2	- 1.3	+ 0.1	- 1.3	- 1.2		
2018 Mar.	- 9.9	- 5.9	- 4.0	- 0.4	- 3.6	- 0.6	- 3.0	+ 0.0	- 0.1	+ 0.2	- 0.1	- 0.5		
Apr.	+ 8.1	+ 11.2	- 3.0	- 1.6	- 1.4	- 0.3	- 1.1	+ 0.1	- 0.1	+ 0.0	- 0.6	+ 0.2		
May	+ 8.3	+ 12.1	- 3.9	- 2.7	- 1.3	+ 0.1	- 1.3	+ 0.1	+ 0.0	+ 0.0	- 0.3	- 0.2		
June	- 11.9	- 15.9	+ 4.1	+ 5.8	- 1.8	- 0.4	- 1.4	- 0.0	- 0.0	+ 0.0	+ 0.5	- 0.0		
July	+ 2.7	+ 7.4	- 4.4	- 1.2	- 3.3	- 0.2	- 3.0	- 0.0	- 0.3	- 0.2	- 0.3	+ 0.1		
Aug.	- 4.5	+ 3.4	- 7.8	- 5.2	- 2.6	+ 2.3	- 4.9	+ 0.1	- 0.1	- 0.1	- 0.1	- 0.4		
Sep.	- 6.5	- 2.7	- 3.6	- 1.8	- 1.9	- 0.2	- 1.6	- 0.1	- 0.1	+ 0.1	- 0.1	- 0.1		
Oct.	+ 17.8	+ 16.4	+ 1.5	+ 2.1	- 0.5	+ 0.4	- 0.9	- 0.0	- 0.1	+ 0.0	- 0.0	+ 0.4		
Nov.	+ 1.1	+ 4.1	- 2.8	- 2.4	- 0.4	+ 0.1	- 0.5	- 0.0	- 0.2	- 0.0	+ 0.0	- 0.3		
Dec.	- 5.4	- 6.6	+ 1.3	+ 1.9	- 0.5	+ 0.6	- 1.2	- 0.1	- 0.1	+ 0.2	- 0.0	+ 0.1		
2019 Jan.	+ 1.6	+ 3.9	- 2.2	+ 2.2	- 4.4	- 0.2	- 4.2	- 0.0	- 0.1	- 0.1	- 0.0	+ 0.4		
Feb.	- 10.3	- 8.6	- 1.6	- 0.1	- 1.5	- 0.2	- 1.3	+ 0.0	- 0.0	+ 0.0	+ 0.2	- 0.2		

Table IV.12). <sup>3</sup> Excluding deposits under savings and loan contracts (see also footnote 2). <sup>4</sup> 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	Sight deposits						Time deposits 1,2					
	Total	by creditor group					Total	by creditor group				
		Domestic households						Domestic non-profit institutions				
		Total	Self-employed persons	Employees	Other individuals	Domestic non-profit institutions		Total	Self-employed persons	Employees	Other individuals	
<b>End of year or month*</b>												
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
2017	2,179.7	1,323.1	1,286.6	223.4	907.6	155.7	36.5	257.5	243.5	23.4	182.9	37.1
2018	2,283.4	1,433.5	1,396.1	248.4	991.3	156.4	37.4	260.4	246.7	21.3	188.6	36.7
2018 Sep.	2,239.8	1,391.8	1,353.8	239.8	961.9	152.1	38.0	258.7	244.6	21.3	186.8	36.6
Oct.	2,247.8	1,400.5	1,362.8	246.1	964.4	152.3	37.7	258.6	244.7	21.2	187.0	36.5
Nov.	2,272.0	1,426.1	1,388.9	248.6	985.1	155.3	37.2	257.8	244.3	21.2	186.7	36.4
Dec.	2,283.4	1,433.5	1,396.1	248.4	991.3	156.4	37.4	260.4	246.7	21.3	188.6	36.7
2019 Jan.	2,282.2	1,432.4	1,395.7	251.2	988.1	156.4	36.6	260.9	247.2	21.4	188.8	37.0
Feb.	2,297.4	1,446.6	1,408.9	252.6	999.8	156.5	37.7	261.5	247.7	21.5	189.3	36.9
<b>Changes*</b>												
2017	+ 84.7	+ 101.1	+ 99.8	+ 17.5	+ 77.8	+ 4.5	+ 1.3	- 5.0	- 5.1	- 1.8	- 2.1	- 1.3
2018	+ 104.0	+ 110.5	+ 109.7	+ 20.3	+ 83.1	+ 6.2	+ 0.9	+ 3.0	+ 3.2	- 2.3	+ 5.8	- 0.3
2018 Sep.	+ 7.5	+ 7.9	+ 7.6	- 3.4	+ 10.6	+ 0.4	+ 0.2	+ 0.2	+ 0.2	- 0.2	+ 0.5	- 0.2
Oct.	+ 8.0	+ 8.7	+ 8.9	+ 6.3	+ 2.4	+ 0.3	- 0.2	- 0.1	+ 0.1	- 0.0	+ 0.2	- 0.1
Nov.	+ 24.2	+ 25.6	+ 26.2	+ 2.5	+ 20.7	+ 3.0	- 0.5	- 0.8	- 0.4	- 0.0	- 0.3	- 0.1
Dec.	+ 11.3	+ 7.3	+ 7.2	- 0.2	+ 6.3	+ 1.1	+ 0.2	+ 2.6	+ 2.3	+ 0.1	+ 1.9	+ 0.3
2019 Jan.	- 1.1	- 1.1	- 0.3	+ 2.8	- 3.3	+ 0.1	- 0.7	+ 0.6	+ 0.5	+ 0.0	+ 0.2	+ 0.3
Feb.	+ 15.2	+ 14.2	+ 13.2	+ 1.4	+ 10.9	+ 0.8	+ 1.1	+ 0.5	+ 0.6	+ 0.1	+ 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 Including subordinated liabilities and liabilities arising from

#### 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		
<b>End of year or month*</b>													
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
2017	201.7	8.7	4.3	1.5	2.8	0.1	12.9	37.5	11.9	9.9	14.5	1.3	12.7
2018	218.9	10.5	4.7	1.7	4.1	0.1	12.2	39.0	13.4	11.5	13.0	1.2	13.0
2018 Sep.	221.1	9.2	5.1	1.4	2.6	0.1	12.7	48.3	11.2	21.4	14.5	1.2	12.9
Oct.	216.5	9.7	5.1	1.3	3.1	0.1	12.4	46.1	11.2	19.1	14.5	1.2	12.8
Nov.	224.6	10.0	4.9	1.4	3.7	0.1	12.4	40.6	11.2	14.1	14.2	1.2	12.9
Dec.	218.9	10.5	4.7	1.7	4.1	0.1	12.2	39.0	13.4	11.5	13.0	1.2	13.0
2019 Jan.	221.7	10.1	4.8	1.2	4.1	0.1	12.2	43.3	12.1	18.4	11.7	1.2	12.9
Feb.	230.4	10.0	5.0	1.0	4.0	0.1	12.2	49.9	12.7	24.0	12.1	1.2	13.0
<b>Changes*</b>													
2017	- 1.0	- 0.0	+ 0.7	- 1.0	+ 0.2	- 0.0	- 0.6	- 5.1	- 1.4	- 1.4	- 2.5	+ 0.2	- 0.5
2018	+ 16.9	+ 2.1	+ 0.4	+ 0.2	+ 1.4	- 0.0	- 0.7	+ 1.3	+ 1.3	+ 1.5	- 1.3	- 0.1	+ 0.5
2018 Sep.	- 2.9	- 1.3	- 1.0	- 0.3	+ 0.0	- 0.0	+ 0.0	+ 0.2	+ 0.5	- 0.0	- 0.3	- 0.0	- 0.0
Oct.	- 4.7	+ 0.5	+ 0.0	- 0.1	+ 0.5	- 0.0	- 0.3	- 2.2	- 0.0	- 2.2	+ 0.0	+ 0.0	- 0.0
Nov.	+ 8.1	+ 0.5	- 0.2	+ 0.0	+ 0.6	- 0.0	- 0.0	- 5.4	- 0.2	- 5.1	- 0.1	+ 0.0	+ 0.0
Dec.	- 5.7	+ 0.5	- 0.2	+ 0.3	+ 0.4	-	- 0.2	- 1.6	+ 2.2	- 2.6	- 1.2	- 0.0	+ 1.6
2019 Jan.	+ 2.7	- 0.4	+ 0.0	- 0.5	- 0.0	+ 0.0	+ 0.0	+ 4.2	- 1.3	+ 6.9	- 1.3	- 0.0	- 0.1
Feb.	+ 8.7	+ 0.2	+ 0.2	- 0.0	- 0.0	+ 0.0	- 0.0	+ 6.4	+ 0.7	+ 5.5	+ 0.3	- 0.0	+ 0.0

\* 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 <sup>3</sup>			Memo item:					Period
by maturity					Total	Domestic households	Domestic non-profit institutions	Bank savings bonds <sup>4</sup>	Fiduciary loans	Subordinated liabilities (excluding negotiable debt securities) <sup>5</sup>	Liabilities arising from repos		
Domestic non-profit institutions	up to and including 1 year	more than 1 year <sup>2</sup>		Total									
		up to and including 2 years	more than 2 years		of which:								
<b>End of year or month*</b>													
13.5	54.5	207.5	13.3	194.3	577.7	569.3	8.4	32.7	0.1	2.9	–	2016	
14.0	49.0	208.5	12.7	195.8	572.4	564.6	7.9	26.6	1.7	2.4	–	2017	
13.7	49.4	211.0	11.1	199.9	567.9	560.6	7.2	21.7	5.8	2.4	–	2018	
14.1	49.6	209.1	11.6	197.5	566.4	558.8	7.6	23.0	5.6	2.4	–	2018 Sep.	
13.9	49.9	208.7	11.4	197.3	566.1	558.6	7.5	22.6	5.8	2.4	–	Oct.	
13.5	49.1	208.7	11.3	197.4	566.0	558.7	7.3	22.1	5.8	2.4	–	Nov.	
13.7	49.4	211.0	11.1	199.9	567.9	560.6	7.2	21.7	5.8	2.4	–	Dec.	
13.8	49.6	211.3	11.1	200.3	567.8	560.5	7.3	21.1	6.0	2.4	–	2019 Jan.	
13.8	49.6	211.9	11.1	200.8	568.7	561.5	7.3	20.6	6.1	2.4	–	Feb.	
<b>Changes*</b>													
+ 0.1	– 5.9	+ 0.9	– 0.5	+ 1.4	– 5.3	– 4.7	– 0.6	– 6.1	+ 0.8	– 0.4	–	2017	
– 0.2	+ 0.4	+ 2.6	– 1.6	+ 4.2	– 4.5	– 3.9	– 0.6	– 5.0	+ 4.0	+ 0.0	–	2018	
+ 0.0	– 0.1	+ 0.2	– 0.2	+ 0.5	– 0.2	– 0.2	– 0.0	– 0.3	+ 0.5	– 0.0	–	2018 Sep.	
– 0.2	+ 0.4	– 0.4	– 0.2	– 0.2	– 0.3	– 0.1	– 0.1	– 0.3	+ 0.1	+ 0.0	–	Oct.	
– 0.4	– 0.9	+ 0.1	– 0.0	+ 0.1	– 0.1	+ 0.0	– 0.2	– 0.5	+ 0.0	– 0.0	–	Nov.	
+ 0.2	+ 0.3	+ 2.2	– 0.2	+ 2.5	+ 1.9	+ 2.0	– 0.1	– 0.4	+ 0.0	+ 0.0	–	Dec.	
+ 0.1	+ 0.2	+ 0.4	– 0.1	+ 0.4	– 0.1	– 0.1	+ 0.0	– 0.5	+ 0.2	+ 0.0	–	2019 Jan.	
– 0.0	– 0.0	+ 0.6	+ 0.1	+ 0.5	+ 1.0	+ 1.0	– 0.0	– 0.5	+ 0.1	+ 0.0	–	Feb.	

registered debt securities. <sup>2</sup> Including deposits under savings and loan contracts (see Table IV.12). <sup>3</sup> Excluding deposits under savings and loan contracts (see also

footnote 2). <sup>4</sup> Including liabilities arising from non-negotiable bearer debt securities. <sup>5</sup> Included in time deposits.

Local government and local government associations (including municipal special-purpose associations)						Social security funds						Period
Total	Sight deposits	Time deposits <sup>3</sup>		Savings deposits and bank savings bonds <sup>2,4</sup>	Memo item: Fiduciary loans	Total	Sight deposits	Time deposits		Savings deposits and bank savings bonds <sup>2</sup>	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			
<b>End of year or month*</b>												
56.0	31.5	8.7	10.1	5.7	0.4	93.6	9.4	57.6	25.1	1.5	–	2016
61.6	33.2	8.8	14.1	5.5	0.0	93.8	9.5	45.6	37.6	1.1	–	2017
65.4	35.1	9.8	14.9	5.7	0.0	103.9	9.5	45.0	48.4	1.0	–	2018
60.0	29.8	9.8	14.8	5.6	0.0	103.6	14.2	44.3	44.0	1.1	–	2018 Sep.
58.2	28.4	9.4	14.8	5.6	0.0	102.6	12.7	44.0	44.8	1.1	–	Oct.
62.8	32.5	9.7	14.9	5.7	0.0	111.1	14.0	49.7	46.3	1.1	–	Nov.
65.4	35.1	9.8	14.9	5.7	0.0	103.9	9.5	45.0	48.4	1.0	–	Dec.
57.7	28.0	9.2	14.9	5.6	0.0	110.6	14.4	46.1	49.1	1.0	–	2019 Jan.
61.6	31.5	9.6	14.9	5.7	0.0	108.8	13.7	45.6	48.5	1.0	–	Feb.
<b>Changes*</b>												
+ 4.5	+ 2.1	+ 0.1	+ 2.3	– 0.0	– 0.0	– 0.3	+ 0.2	– 11.8	+11.6	– 0.4	–	2017
+ 3.6	+ 1.9	+ 1.0	+ 0.6	+ 0.1	+ 0.0	+ 9.9	– 0.0	– 0.8	+10.8	– 0.1	–	2018
– 3.3	– 2.8	– 0.4	– 0.1	– 0.0	–	+ 1.5	+ 0.9	– 1.6	+ 2.2	+ 0.0	–	2018 Sep.
– 1.9	– 1.4	– 0.4	– 0.0	– 0.0	+ 0.0	– 1.1	– 1.5	– 0.3	+ 0.8	– 0.0	–	Oct.
+ 4.5	+ 4.1	+ 0.3	+ 0.1	+ 0.0	– 0.0	+ 8.5	+ 1.3	+ 5.7	+ 1.5	– 0.0	–	Nov.
+ 2.7	+ 2.6	+ 0.1	– 0.1	+ 0.0	+ 0.0	– 7.2	– 4.5	– 4.7	+ 2.1	– 0.0	–	Dec.
– 7.8	– 7.1	– 0.6	+ 0.0	– 0.1	– 0.0	+ 6.7	+ 4.9	+ 1.1	+ 0.7	– 0.0	–	2019 Jan.
+ 3.8	+ 3.5	+ 0.3	+ 0.0	+ 0.0	–	– 1.7	– 0.6	– 0.5	– 0.7	+ 0.0	–	Feb.

the following Monthly Report, are not specially marked. <sup>1</sup> Federal Railways Fund, Indemnification Fund, Redemption Fund for Inherited Liabilities, ERP Special Fund, German Unity Fund, Equalisation of Burdens Fund. <sup>2</sup> Including liabilities arising from

non-negotiable bearer debt securities. <sup>3</sup> Including deposits under savings and loan contracts. <sup>4</sup> 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 <sup>1</sup>								Memo item: Interest credited on savings deposits	Bank savings bonds, <sup>3</sup> sold to				
	of residents				of non-residents					non-banks, total	domestic non-banks		foreign non-banks	
	Total	Total	at 3 months' notice		at more than 3 months' notice		Total	of which: At 3 months' notice			Total	of which: With maturities of more than 2 years		
			Total	of which: Special savings facilities <sup>2</sup>	Total	of which: Special savings facilities <sup>2</sup>								
<b>End of year or month*</b>														
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	590.3	582.9	541.0	348.3	41.9	30.3	7.4	6.5	2.7	52.0	43.7	31.4	8.2	
2018	585.6	578.6	541.1	333.4	37.5	27.2	7.0	6.2	2.3	41.2	37.3	27.9	3.9	
2018 Oct.	584.0	577.0	538.6	335.5	38.4	27.7	7.0	6.2	0.1	42.5	38.6	28.6	3.9	
Nov.	583.9	576.9	539.1	332.2	37.8	27.4	7.0	6.2	0.1	41.8	37.9	28.2	3.9	
Dec.	585.6	578.6	541.1	333.4	37.5	27.2	7.0	6.2	1.0	41.2	37.3	27.9	3.9	
2019 Jan.	585.4	578.5	541.4	331.6	37.0	26.9	7.0	6.2	0.1	40.6	36.7	27.4	3.9	
Feb.	586.5	579.5	542.5	329.9	37.1	27.0	7.0	6.2	0.1	40.0	36.1	26.9	3.9	
<b>Changes*</b>														
2017	- 6.2	- 5.6	+ 1.5	- 13.1	- 7.1	- 7.4	- 0.6	- 0.4	.	- 7.2	- 6.7	- 4.4	- 0.5	
2018	- 4.7	- 4.3	+ 1.2	- 15.9	- 5.5	- 3.2	- 0.5	- 0.3	.	- 9.1	- 6.5	- 3.6	- 2.6	
2018 Oct.	- 0.3	- 0.3	+ 0.2	- 0.0	- 0.5	- 0.3	- 0.0	- 0.0	.	- 0.4	- 0.5	- 0.4	+ 0.0	
Nov.	- 0.1	- 0.1	+ 0.5	- 3.3	- 0.6	- 0.3	- 0.0	- 0.0	.	- 0.7	- 0.7	- 0.4	+ 0.0	
Dec.	+ 1.7	+ 1.7	+ 2.0	+ 1.2	- 0.3	- 0.3	- 0.0	- 0.0	.	- 0.6	- 0.6	- 0.4	- 0.0	
2019 Jan.	- 0.2	- 0.2	+ 0.3	- 1.7	- 0.5	- 0.2	- 0.0	- 0.0	.	- 0.6	- 0.6	- 0.5	+ 0.0	
Feb.	+ 1.1	+ 1.1	+ 1.0	- 1.7	+ 0.1	+ 0.1	- 0.0	- 0.0	.	- 0.6	- 0.6	- 0.4	+ 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. <sup>1</sup> Excluding deposits under savings and loan contracts, which are

classified as time deposits. <sup>2</sup> Savings deposits bearing interest at a rate which exceeds the minimum or basic rate of interest. <sup>3</sup> 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 <sup>6</sup>		Subordinated	
	Total	of which:				with maturities of					Total	of which: with maturities of more than 2 years	negotiable debt securities	non-negotiable debt securities
		Floating rate bonds <sup>1</sup>	Zero coupon bonds <sup>1,2</sup>	Foreign currency bonds <sup>3,4</sup>	Certificates of deposit	up to and including 1 year		more than 1 year up to and including 2 years		more than 2 years				
						Total	of which: without a nominal guarantee <sup>5</sup>	Total	of which: without a nominal guarantee <sup>5</sup>					
<b>End of year or month*</b>														
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	1,066.5	147.2	26.0	370.4	89.8	107.4	4.1	32.9	6.4	926.2	0.4	0.2	30.5	0.5
2018	1,099.7	139.4	27.5	355.9	88.3	106.2	3.1	22.0	6.1	971.5	0.6	0.1	30.6	0.4
2018 Oct.	1,109.6	140.8	27.2	363.7	89.2	108.1	3.7	23.8	7.0	977.7	0.9	0.1	30.8	0.4
Nov.	1,112.9	140.5	28.3	360.2	87.9	107.4	3.6	22.6	6.8	983.0	0.7	0.1	30.8	0.4
Dec.	1,099.7	139.4	27.5	355.9	88.3	106.2	3.1	22.0	6.1	971.5	0.6	0.1	30.6	0.4
2019 Jan.	1,112.4	138.1	30.0	358.3	84.6	105.8	3.2	21.6	5.8	985.1	0.7	0.1	30.9	0.4
Feb.	1,128.7	139.1	30.4	359.7	81.8	103.0	3.1	21.0	5.5	1,004.7	0.8	0.1	30.9	0.4
<b>Changes*</b>														
2017	- 30.8	- 29.7	- 2.1	- 36.7	- 0.5	- 3.9	- 0.0	- 4.6	+ 0.6	- 22.3	- 0.2	+ 0.0	- 3.2	- 0.0
2018	+ 33.6	- 7.8	+ 1.5	- 14.3	- 1.6	- 1.2	- 1.0	- 10.5	- 0.3	+ 45.3	+ 0.3	- 0.1	- 0.0	+ 0.0
2018 Oct.	+ 13.6	+ 0.3	+ 0.2	+ 12.2	+ 5.4	+ 5.8	- 0.4	+ 0.2	- 0.1	+ 7.6	+ 0.1	- 0.0	+ 0.2	- 0.0
Nov.	+ 3.3	- 0.3	+ 1.2	- 3.6	- 1.3	- 0.7	- 0.2	- 1.2	- 0.1	+ 5.2	- 0.1	- 0.0	- 0.0	-
Dec.	- 13.3	- 1.1	- 0.8	- 4.2	+ 0.4	- 1.2	- 0.5	- 0.6	- 0.8	- 11.5	- 0.1	- 0.0	- 0.1	-
2019 Jan.	+ 12.7	- 1.3	+ 2.5	+ 2.3	- 3.7	- 0.4	+ 0.1	- 0.4	- 0.3	+ 13.6	+ 0.1	+ 0.0	+ 0.2	-
Feb.	+ 16.3	+ 1.0	+ 0.4	+ 1.4	- 2.8	- 2.7	- 0.1	- 0.6	- 0.3	+ 19.7	+ 0.1	+ 0.0	+ 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. <sup>1</sup> Including debt securities denominated in foreign currencies. <sup>2</sup> Issue value when floated. <sup>3</sup> Including floating rate notes and zero

coupon bonds denominated in foreign currencies. <sup>4</sup> Bonds denominated in non-euro area currencies. <sup>5</sup> Negotiable bearer debt securities and money market paper with a nominal guarantee of less than 100%. <sup>6</sup> 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 <b>13</b>	Lending to banks (MFIs)			Lending to non-banks (non-MFIs)				Deposits of banks (MFIs) <b>5</b>		Deposits of non-banks (non-MFIs)		Bearer debt securities outstanding	Capital (including published reserves) <b>7</b>	Memo item: New contracts entered into in year or month <b>8</b>
			Credit balances and loans (excluding building loans) <b>1</b>	Building loans <b>2</b>	Bank debt securities <b>3</b>	Building loans			Securities (including Treasury bills and Treasury discount paper) <b>4</b>	Deposits under savings and loan contracts	Sight and time deposits	Deposits under savings and loan contracts	Sight and time deposits <b>6</b>			
						Loans under savings and loan contracts	Interim and bridging loans	Other building loans								
<b>All building and loan associations</b>																
2017	20	229.2	41.8	0.0	15.8	12.3	104.4	24.8	25.1	2.6	23.0	168.6	9.5	3.0	11.0	83.6
2018	20	233.4	39.4	0.0	15.7	11.9	110.2	25.7	25.8	2.8	20.4	174.3	10.0	3.3	11.7	86.6
2018 Dec.	20	233.4	39.4	0.0	15.7	11.9	110.2	25.7	25.8	2.8	20.4	174.3	10.0	3.3	11.7	8.3
2019 Jan.	20	233.6	39.2	0.0	15.9	11.9	110.4	25.9	25.7	2.8	20.2	174.8	9.9	3.3	11.7	6.9
Feb.	20	234.3	39.3	0.0	15.9	11.8	110.8	26.1	25.8	2.8	20.3	175.4	9.8	3.2	11.7	7.1
<b>Private building and loan associations</b>																
2018 Dec.	12	162.3	23.8	–	6.6	8.9	85.6	22.0	11.7	1.7	18.5	113.3	9.7	3.3	8.1	5.1
2019 Jan.	12	162.2	23.7	–	6.7	8.9	85.7	22.2	11.6	1.7	18.4	113.6	9.6	3.3	8.0	4.3
Feb.	12	162.7	23.7	–	6.6	8.9	86.0	22.4	11.6	1.7	18.7	113.9	9.5	3.2	8.0	4.6
<b>Public building and loan associations</b>																
2018 Dec.	8	71.2	15.6	0.0	9.2	3.0	24.7	3.6	14.1	1.1	1.9	61.0	0.3	–	3.7	3.2
2019 Jan.	8	71.4	15.6	0.0	9.2	3.0	24.7	3.7	14.1	1.1	1.8	61.3	0.3	–	3.7	2.7
Feb.	8	71.6	15.6	0.0	9.3	2.9	24.8	3.7	14.2	1.1	1.7	61.5	0.3	–	3.7	2.5

##### 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 <b>10</b>		Memo item: Housing bonuses received <b>12</b>	
	Amounts paid into savings and loan accounts <b>9</b>	Interest credited on deposits under savings and loan contracts	Repayments of deposits under cancelled savings and loan contracts	Total	of which: Net allocations <b>11</b>	Total	Allocations			Newly granted interim and bridging loans and other building loans	Total	of which: Under allocated contracts	Total	of which: Repayments during quarter		
							Deposits under savings and loan contracts		Loans under savings and loan contracts <b>9</b>							
							Total	of which: Applied to settlement of interim and bridging loans	Total							of which: Applied to settlement of interim and bridging loans
<b>All building and loan associations</b>																
2017	26.7	2.3	7.6	45.3	26.0	39.6	16.4	4.1	4.5	3.4	18.7	16.4	7.4	7.1	6.2	0.2
2018	27.0	2.1	7.4	45.2	25.1	40.2	15.9	4.3	4.8	3.7	19.5	16.6	6.8	6.6	5.5	0.2
2018 Dec.	2.3	1.9	0.5	3.3	1.9	3.1	1.2	0.3	0.4	0.3	1.5	16.6	6.8	0.5	1.4	0.0
2019 Jan.	2.5	0.0	0.6	3.8	2.2	3.4	1.3	0.4	0.5	0.4	1.7	16.7	6.9	0.6		0.0
Feb.	2.3	0.0	0.5	3.8	2.1	3.1	1.2	0.3	0.4	0.3	1.5	17.0	7.0	0.6		0.0
<b>Private building and loan associations</b>																
2018 Dec.	1.5	1.2	0.2	2.3	1.3	2.4	0.9	0.2	0.2	0.2	1.2	11.9	3.8	0.4	1.0	0.0
2019 Jan.	1.6	0.0	0.3	2.9	1.6	2.7	1.0	0.3	0.3	0.3	1.3	12.0	3.9	0.5		0.0
Feb.	1.5	0.0	0.3	2.8	1.4	2.4	0.9	0.3	0.3	0.2	1.2	12.1	3.8	0.5		0.0
<b>Public building and loan associations</b>																
2018 Dec.	0.9	0.7	0.3	1.0	0.6	0.7	0.3	0.1	0.1	0.1	0.3	4.8	3.0	0.1	0.3	0.0
2019 Jan.	0.9	0.0	0.3	0.9	0.6	0.8	0.3	0.1	0.1	0.1	0.3	4.7	3.0	0.1		0.0
Feb.	0.8	0.0	0.3	1.1	0.7	0.7	0.3	0.1	0.1	0.1	0.3	4.9	3.2	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		Balance sheet total <sup>7</sup>	Lending to banks (MFIs)					Lending to non-banks (non-MFIs)					Other assets <sup>7</sup>			
	German banks (MFIs) with foreign branches and/or foreign subsidiaries	foreign branches and/or foreign subsidiaries <sup>1</sup>		Total	Credit balances and loans			Money market paper, securities <sup>2,3</sup>	Total	Loans			Money market paper, securities <sup>2</sup>	Total	of which: Derivative financial instruments in the trading portfolio		
					Total	German banks	Foreign banks			Total	to German non-banks	to foreign non-banks					
<b>Foreign branches</b>																<b>End of year or month *</b>	
2016	51	192	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	52	188	1,647.8	493.9	484.1	197.1	287.0	9.8	528.8	443.2	13.1	430.1	85.6	625.1	402.9		
2018	49	183	1,401.2	403.8	392.8	192.1	200.7	11.0	516.8	427.7	20.0	407.7	89.1	480.5	309.0		
2018 Apr.	49	183	1,634.4	504.6	491.8	187.1	304.8	12.7	524.6	443.8	10.8	433.1	80.8	605.2	408.0		
May	48	182	1,612.2	497.1	484.2	190.3	293.9	12.8	531.9	452.8	14.5	438.3	79.1	583.2	364.2		
June	48	183	1,533.3	473.3	461.3	182.2	279.1	11.9	510.3	431.6	14.5	417.1	78.7	549.8	350.1		
July	48	183	1,523.3	472.0	459.9	186.8	273.1	12.1	523.2	443.2	23.6	419.6	80.0	528.1	328.8		
Aug.	48	182	1,501.4	450.4	438.8	183.2	255.6	11.6	524.4	442.6	22.5	420.1	81.8	526.6	328.2		
Sep.	48	183	1,494.1	452.1	441.2	185.4	255.8	10.8	541.6	456.5	21.9	434.7	85.1	500.5	318.4		
Oct.	49	184	1,487.3	439.9	428.6	205.9	222.7	11.3	535.8	448.0	20.3	427.8	87.8	511.6	336.0		
Nov.	49	184	1,456.1	454.1	443.4	206.9	236.5	10.8	519.7	433.1	20.7	412.4	86.6	482.2	313.7		
Dec.	49	183	1,401.2	403.8	392.8	192.1	200.7	11.0	516.8	427.7	20.0	407.7	89.1	480.5	309.0		
2019 Jan.	50	184	1,451.6	419.4	408.0	190.8	217.2	11.4	541.3	453.3	19.8	433.5	88.0	491.0	309.4		
																<b>Changes *</b>	
2017	+ 1	- 4	- 216.7	- 52.5	- 49.4	- 7.9	- 41.5	- 3.1	- 10.9	- 10.0	- 1.4	- 8.6	- 0.9	- 74.6	- 60.4		
2018	- 3	- 5	- 250.2	-101.0	-102.0	- 5.0	- 97.0	+ 1.0	- 24.8	- 27.1	+ 7.0	- 34.1	+ 2.4	- 148.2	- 102.6		
2018 May	- 1	- 1	- 24.6	- 15.2	- 15.1	+ 3.2	- 18.3	- 0.1	- 2.1	+ 0.6	+ 3.8	- 3.1	- 2.8	- 24.4	- 50.3		
June	-	+ 1	- 79.0	- 24.1	- 23.2	- 8.1	- 15.1	- 0.9	- 21.5	- 21.2	- 0.0	- 21.1	- 0.3	- 33.5	- 14.3		
July	-	-	- 9.5	+ 0.3	+ 0.1	+ 4.6	- 4.5	+ 0.2	+ 15.2	+ 13.5	+ 9.1	+ 4.4	+ 1.6	- 21.1	- 20.3		
Aug.	-	- 1	- 22.4	- 23.1	- 22.6	- 3.6	- 19.0	- 0.5	- 5.2	- 2.2	- 1.1	- 1.1	+ 1.7	- 2.0	- 1.5		
Sep.	-	+ 1	- 7.7	+ 0.6	+ 1.4	+ 2.3	- 0.9	- 0.8	+ 15.3	+ 12.3	- 0.6	+ 12.9	+ 3.0	- 26.6	- 10.6		
Oct.	+ 1	+ 1	- 8.5	- 16.3	- 16.7	+ 20.5	- 37.2	+ 0.4	- 12.1	- 14.1	- 1.6	- 12.5	+ 1.9	+ 9.5	+ 15.0		
Nov.	-	-	- 30.9	+ 14.9	+ 15.4	+ 1.0	+ 14.4	- 0.5	- 14.9	- 13.8	+ 0.5	- 14.3	- 1.1	- 29.1	- 21.8		
Dec.	-	- 1	- 54.5	- 49.4	- 49.7	- 14.8	- 34.9	+ 0.3	- 1.2	- 3.9	- 0.7	- 3.3	+ 2.8	- 1.3	- 3.9		
2019 Jan.	+ 1	+ 1	+ 50.5	+ 15.5	+ 15.2	- 1.3	+ 16.5	+ 0.3	+ 24.1	+ 25.4	- 0.2	+ 25.6	- 1.3	+ 10.5	+ 0.4		
<b>Foreign subsidiaries</b>																<b>End of year or month *</b>	
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	-		
2017	20	50	276.6	70.4	63.9	25.0	39.0	6.5	149.5	122.2	22.2	99.9	27.4	56.7	-		
2018	17	43	237.2	51.2	45.4	20.1	25.3	5.8	136.4	111.7	13.8	97.8	24.7	49.6	-		
2018 Apr.	20	50	267.7	64.4	58.0	23.6	34.3	6.4	147.7	120.7	21.7	99.0	27.0	55.7	-		
May	20	50	274.5	67.0	60.5	26.3	34.1	6.6	149.3	121.6	21.8	99.8	27.6	58.2	-		
June	20	48	269.1	64.2	57.9	24.5	33.4	6.3	148.8	122.5	21.9	100.5	26.3	56.1	-		
July	19	47	248.5	62.2	56.0	24.5	31.5	6.3	136.5	112.6	13.5	99.1	23.8	49.8	-		
Aug.	19	47	245.8	56.7	50.6	21.1	29.5	6.1	137.9	113.2	13.4	99.8	24.7	51.1	-		
Sep.	18	46	244.8	55.2	49.4	19.8	29.6	5.8	138.8	114.5	13.7	100.8	24.4	50.8	-		
Oct.	17	45	243.8	52.1	46.2	19.5	26.7	5.9	139.3	114.2	13.5	100.7	25.1	52.4	-		
Nov.	17	45	239.8	51.0	45.0	20.4	24.7	6.0	136.8	110.8	13.6	97.2	26.1	52.0	-		
Dec.	17	43	237.2	51.2	45.4	20.1	25.3	5.8	136.4	111.7	13.8	97.8	24.7	49.6	-		
2019 Jan.	16	42	234.8	49.0	42.8	18.1	24.6	6.2	135.4	109.4	13.9	95.4	26.0	50.5	-		
																<b>Changes *</b>	
2017	-	- 3	- 33.3	- 4.9	- 2.4	+ 3.5	- 6.0	- 2.5	- 8.2	- 4.4	- 0.4	- 4.0	- 3.8	- 20.2	-		
2018	- 3	- 7	- 42.2	- 20.9	- 19.9	- 4.9	- 15.1	- 1.0	- 14.2	- 11.6	- 8.4	- 3.2	- 2.6	- 7.0	-		
2018 May	-	-	+ 4.5	+ 1.2	+ 1.3	+ 2.7	- 1.4	- 0.1	+ 0.8	+ 0.1	+ 0.1	+ 0.0	+ 0.7	+ 2.5	-		
June	-	- 2	- 5.4	- 2.9	- 2.6	- 1.8	- 0.8	- 0.3	- 0.5	+ 0.8	+ 0.1	+ 0.7	- 1.3	- 2.1	-		
July	- 1	- 1	- 20.2	- 1.7	- 1.7	- 0.1	- 1.6	+ 0.0	- 12.2	- 9.7	- 8.4	- 1.3	- 2.5	- 6.4	-		
Aug.	-	-	- 3.4	- 6.0	- 5.7	- 3.3	- 2.4	+ 0.2	+ 1.2	+ 0.3	- 0.1	+ 0.4	+ 0.9	+ 1.4	-		
Sep.	- 1	- 1	- 1.3	- 1.7	- 1.5	- 1.3	- 0.1	- 0.3	+ 0.8	+ 1.1	+ 0.3	+ 0.8	- 0.3	- 0.4	-		
Oct.	- 1	- 1	- 2.1	- 3.8	- 3.6	- 0.3	- 3.3	- 0.1	+ 0.0	- 0.7	- 0.2	- 0.6	+ 0.7	+ 1.6	-		
Nov.	-	-	- 3.8	- 1.0	- 1.1	+ 0.9	- 2.0	+ 0.1	- 2.4	- 3.4	+ 0.1	- 3.4	+ 1.0	- 0.4	-		
Dec.	-	- 2	- 2.2	+ 0.4	+ 0.5	- 0.3	+ 0.8	- 0.1	- 0.3	+ 1.1	+ 0.2	+ 0.8	- 1.3	- 2.4	-		
2019 Jan.	- 1	- 1	- 2.2	- 2.1	- 2.5	- 2.0	- 0.5	+ 0.4	- 1.0	- 2.3	+ 0.1	- 2.4	+ 1.3	+ 0.8	-		

\* 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. <sup>1</sup> Several branches in a given

IV. Banks

Deposits										Money market paper and debt securities outstanding <sup>5</sup>	Working capital and own funds	Other liabilities <sup>6,7</sup>		Period
Total	of banks (MFIs)			of non-banks (non-MFIs)				Total	of which: Derivative financial instruments in the trading portfolio					
	Total	German banks	Foreign banks	Total	German non-banks <sup>4</sup>	Short-term	Medium and long-term					Foreign non-banks		
<b>End of year or month *</b>													<b>Foreign branches</b>	
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	
1,000.3	682.5	372.8	309.7	317.8	16.0	14.1	1.9	301.8	97.0	51.9	498.6	399.2	2017	
897.1	607.2	428.8	178.4	290.0	11.4	9.7	1.8	278.5	91.2	54.0	358.9	302.6	2018	
1,015.5	678.3	389.4	288.9	337.2	14.8	13.2	1.6	322.5	99.6	51.1	468.2	399.6	2018 Apr.	
1,034.4	685.7	411.6	274.1	348.7	13.5	11.9	1.5	335.2	104.5	51.7	421.6	358.5	May	
973.0	658.6	407.0	251.7	314.4	12.4	10.9	1.5	301.9	109.6	51.7	399.0	347.1	June	
972.2	662.1	405.8	256.3	310.1	10.8	9.3	1.5	299.3	101.5	53.1	396.5	323.8	July	
957.3	651.9	404.6	247.4	305.3	10.4	8.8	1.5	295.0	108.1	53.2	382.8	325.2	Aug.	
964.0	648.5	417.8	230.7	315.4	10.8	9.3	1.5	304.6	101.5	53.5	375.2	313.0	Sep.	
938.4	608.2	400.9	207.3	330.2	8.8	7.3	1.5	321.4	100.2	53.9	394.7	330.9	Oct.	
931.9	611.9	392.8	219.1	319.9	13.1	11.3	1.8	306.8	101.4	53.8	369.0	307.1	Nov.	
897.1	607.2	428.8	178.4	290.0	11.4	9.7	1.8	278.5	91.2	54.0	358.9	302.6	Dec.	
928.8	622.0	420.2	201.8	306.7	9.5	7.7	1.7	297.3	93.9	54.0	375.0	304.6	2019 Jan.	
<b>Changes *</b>													<b>Foreign subsidiaries</b>	
- 97.3	- 80.7	- 52.1	- 28.6	- 16.7	+ 0.6	+ 2.3	- 1.7	- 17.3	+ 5.2	+ 0.8	- 86.5	- 58.1	2017	
- 113.1	- 84.7	+ 56.0	-140.8	- 28.3	- 4.6	- 4.4	- 0.2	- 23.8	- 9.4	+ 2.0	- 139.7	- 105.7	2018	
+ 11.5	+ 0.3	+ 22.2	- 21.8	+ 11.2	- 1.3	- 1.3	- 0.0	+ 12.5	+ 2.5	+ 0.6	- 46.6	- 47.6	2018 May	
- 61.7	- 27.3	- 4.6	- 22.7	- 34.4	- 1.1	- 1.1	+ 0.0	- 33.3	+ 4.9	+ 0.1	- 22.5	- 11.6	June	
+ 0.6	+ 4.7	- 1.2	+ 6.0	- 4.1	- 1.6	- 1.6	- 0.0	- 2.6	- 7.5	+ 1.3	- 2.6	- 22.3	July	
- 16.4	- 11.5	- 1.2	- 10.3	- 4.8	- 0.5	- 0.5	+ 0.0	- 4.4	+ 6.1	+ 0.1	- 13.6	+ 0.4	Aug.	
+ 5.7	- 4.3	+ 13.2	- 17.6	+ 10.0	+ 0.4	+ 0.4	+ 0.0	+ 9.5	- 7.1	+ 0.4	- 7.7	- 13.1	Sep.	
- 29.3	- 43.9	- 16.9	- 26.9	+ 14.6	- 2.0	- 2.0	-	+ 16.6	- 2.9	+ 0.4	+ 19.5	+ 15.0	Oct.	
- 5.9	+ 4.3	- 8.0	+ 12.3	- 10.2	+ 4.3	+ 4.0	+ 0.3	- 14.5	+ 1.4	- 0.1	- 25.7	- 23.3	Nov.	
- 33.9	- 4.0	+ 36.0	- 40.0	- 29.9	- 1.7	- 1.6	- 0.1	- 28.2	- 9.8	+ 0.1	- 10.1	- 3.7	Dec.	
+ 31.7	+ 14.9	- 8.6	+ 23.5	+ 16.8	- 2.0	- 1.9	- 0.0	+ 18.7	+ 2.7	- 0.0	+ 16.1	+ 2.0	2019 Jan.	
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	
207.1	96.3	49.8	46.5	110.8	12.0	6.2	5.8	98.8	13.0	24.2	32.3	-	2017	
171.5	71.6	36.1	35.5	100.0	9.1	6.4	2.7	90.8	14.3	22.4	29.0	-	2018	
200.4	90.3	48.5	41.7	110.1	11.6	5.7	5.9	98.6	13.4	23.8	30.1	-	2018 Apr.	
206.7	95.4	49.8	45.6	111.2	12.3	6.4	5.9	98.9	13.4	23.9	30.5	-	May	
202.6	95.4	50.9	44.5	107.2	12.1	6.1	6.0	95.1	12.7	23.8	30.0	-	June	
184.1	77.4	40.3	37.2	106.7	12.3	6.3	5.9	94.4	12.7	22.9	28.8	-	July	
181.4	78.7	40.2	38.5	102.8	9.5	5.6	3.8	93.3	12.7	22.9	28.7	-	Aug.	
178.9	75.0	37.8	37.3	103.9	10.1	6.1	3.9	93.8	13.9	22.8	29.2	-	Sep.	
175.5	73.4	36.5	36.8	102.1	9.6	6.0	3.6	92.6	14.1	22.8	31.3	-	Oct.	
172.2	72.6	35.7	37.0	99.5	9.1	5.5	3.6	90.4	13.7	22.5	31.4	-	Nov.	
171.5	71.6	36.1	35.5	100.0	9.1	6.4	2.7	90.8	14.3	22.4	29.0	-	Dec.	
168.3	70.9	35.5	35.4	97.4	7.0	4.3	2.7	90.4	16.1	21.8	28.7	-	2019 Jan.	
<b>Changes *</b>													<b>Foreign subsidiaries</b>	
- 32.8	- 33.7	- 22.0	- 11.8	+ 0.9	- 0.2	- 0.5	+ 0.3	+ 1.1	- 0.6	+ 0.3	- 0.3	-	2017	
- 37.4	- 25.8	- 13.7	- 12.0	- 11.7	- 2.8	+ 0.2	- 3.0	- 8.8	+ 1.3	- 1.8	- 4.3	-	2018	
+ 4.9	+ 4.4	+ 1.3	+ 3.1	+ 0.5	+ 0.8	+ 0.7	+ 0.0	- 0.3	+ 0.1	+ 0.1	- 0.5	-	2018 May	
- 4.2	- 0.1	+ 1.0	- 1.1	- 4.0	- 0.2	- 0.3	+ 0.0	- 3.8	+ 0.7	- 0.1	- 0.5	-	June	
- 18.2	- 17.8	- 10.6	- 7.2	- 0.4	+ 0.2	+ 0.2	- 0.0	- 0.6	- 0.0	- 0.9	- 1.1	-	July	
- 3.0	+ 1.1	- 0.1	+ 1.2	- 4.0	- 2.8	- 0.7	- 2.1	- 1.3	+ 0.0	+ 0.0	- 0.5	-	Aug.	
- 2.8	- 3.8	- 2.4	- 1.4	+ 1.0	+ 0.6	+ 0.5	+ 0.1	+ 0.4	+ 1.2	- 0.1	+ 0.4	-	Sep.	
- 4.3	- 2.1	- 1.2	- 0.9	- 2.1	- 0.5	- 0.2	- 0.3	- 1.6	+ 0.2	+ 0.0	+ 1.9	-	Oct.	
- 3.2	- 0.7	- 0.8	+ 0.2	- 2.5	- 0.4	- 0.4	- 0.0	- 2.1	- 0.4	- 0.3	+ 0.1	-	Nov.	
- 0.3	- 0.9	+ 0.4	- 1.3	+ 0.6	+ 0.0	+ 0.9	- 0.9	+ 0.6	+ 0.6	- 0.1	- 2.4	-	Dec.	
- 3.2	- 0.6	- 0.6	- 0.0	- 2.5	- 2.1	- 2.1	-	- 0.4	+ 1.8	- 0.6	- 0.3	-	2019 Jan.	

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 <sup>1</sup>	Reserve base <sup>2</sup>	Required reserves before deduction of lump-sum allowance <sup>3</sup>	Required reserves after deduction of lump-sum allowance <sup>4</sup>	Current accounts <sup>5</sup>	Excess reserves <sup>6</sup>	Deficiencies <sup>7</sup>
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	12,415.8	124.2	123.8	1,275.2	1,151.4	0.0
2018	12,775.2	127.8	127.4	1,332.1	1,204.8	0.0
2019 Jan.	12,828.2	128.3	127.9	1,364.8	1,236.9	0.0
Feb.	.	.	.	.	.	.
Mar. <sup>P</sup>	12,884.9	128.8	128.4	...	...	...

### 2. Reserve maintenance in Germany

€ million

Maintenance period beginning in <sup>1</sup>	Reserve base <sup>2</sup>	German share of euro area reserve base as a percentage	Required reserves before deduction of lump-sum allowance <sup>3</sup>	Required reserves after deduction of lump-sum allowance <sup>4</sup>	Current accounts <sup>5</sup>	Excess reserves <sup>6</sup>	Deficiencies <sup>7</sup>
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	3,456,192	27.8	34,562	34,404	424,547	390,143	2
2018	3,563,306	27.9	35,633	35,479	453,686	418,206	1
2019 Jan.	3,580,966	27.9	35,810	35,656	466,005	430,348	1
Feb.	.	.	.	.	.	.	.
Mar. <sup>P</sup>	3,567,804	27.7	35,678	35,525	...	...	...

#### a) Required reserves of individual categories of banks

€ million

Maintenance period beginning in <sup>1</sup>	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
2012 <sup>3</sup>	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	6,366	5,678	3,110	11,163	6,256	132	1,699
2018	7,384	4,910	3,094	11,715	6,624	95	1,658
2019 Jan.	7,457	5,015	2,965	11,800	6,691	93	1,636
Feb.	.	.	.	.	.	.	.
Mar.	7,481	5,125	2,913	11,492	6,690	98	1,727

#### b) Reserve base by subcategories of liabilities

€ million

Maintenance period beginning in <sup>1</sup>	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
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	2,338,161	628	415,084	581,416	120,894
2018	2,458,423	1,162	414,463	576,627	112,621
2019 Jan.	2,489,543	1,335	402,626	576,645	110,815
Feb.	.	.	.	.	.
Mar.	2,496,551	1,227	382,972	578,521	108,534

<sup>1</sup> 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. <sup>2</sup> 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)). <sup>3</sup> 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 has stood at 1%. <sup>4</sup> Article 5(2) of the Regulation of the European Central Bank on the application of minimum reserves. <sup>5</sup> Average credit balances of credit institutions at national central banks. <sup>6</sup> Average credit balances less required reserves after deduction of the lump-sum allowance. <sup>7</sup> 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		Marginal lending facility	Applicable from	Deposit facility	Main refinancing operations		Marginal lending facility
		Fixed rate	Minimum bid rate				Fixed rate	Minimum bid rate	
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	Dec. 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	2013 Jan. 1	–0.13
July 1	1.13	July 1	–0.38
2005 Jan. 1	1.21	2014 Jan. 1	–0.63
July 1	1.17	July 1	–0.73
2006 Jan. 1	1.37	2015 Jan. 1	–0.83
July 1	1.95	2016 July 1	–0.88
2007 Jan. 1	2.70		
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		Variable rate tenders		Running for ... days
			Fixed rate	Minimum bid rate	Marginal rate 1	Weighted average rate	
<b>Main refinancing operations</b>							
2019 Mar. 13	6,093	6,093	0.00	–	–	–	7
Mar. 20	5,621	5,621	0.00	–	–	–	7
Mar. 27	6,095	6,095	0.00	–	–	–	7
Apr. 3	5,379	5,379	0.00	–	–	–	7
Apr. 10	5,335	5,335	0.00	–	–	–	7
<b>Long-term refinancing operations</b>							
2018 Jan. 31	952	952	2 0.00	–	–	–	84
2019 Feb. 28	1,319	1,319	2 0.00	–	–	–	91
Mar. 28	1,072	1,072	2 0.00	–	–	–	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
2018 Sep.	–0.36	–0.38	–0.37	–0.32	–0.27	–0.21	–0.17
Oct.	–0.37	–0.38	–0.37	–0.32	–0.26	–0.20	–0.15
Nov.	–0.36	–0.38	–0.37	–0.32	–0.26	–0.20	–0.15
Dec.	–0.36	–0.38	–0.37	–0.31	–0.24	3	–0.13
2019 Jan.	–0.37	–0.38	–0.37	–0.31	–0.24	.	–0.12
Feb.	–0.37	–0.37	–0.37	–0.31	–0.23	.	–0.11
Mar.	–0.37	–0.38	–0.37	–0.31	–0.23	.	–0.11

\* Averages are Bundesbank calculations. Neither the Deutsche Bundesbank nor anyone else can be held liable for any irregularity or inaccuracy of the EONIA or the EURIBOR. 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. 3 Discontinued as of 3 December 2018.

## VI. Interest rates

### 5. Interest rates and volumes for outstanding amounts and new business of German banks (MFIs) \*

#### a) Outstanding amounts °

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 % p.a.	Volume 2 € million	Effective interest rate 1 % p.a.	Volume 2 € million	Effective interest rate 1 % p.a.	Volume 2 € million	Effective interest rate 1 % p.a.	Volume 2 € million
2018 Feb.	0.28	65,984	1.31	216,585	0.04	75,362	1.03	26,887
Mar.	0.27	65,081	1.30	216,572	0.05	72,699	1.01	26,676
Apr.	0.27	64,883	1.29	216,237	0.04	69,677	0.99	26,913
May	0.27	64,743	1.28	216,238	0.06	68,665	0.97	26,848
June	0.26	64,554	1.27	216,143	0.03	68,825	0.94	26,966
July	0.26	64,623	1.26	215,907	0.03	67,013	0.93	26,859
Aug.	0.25	64,215	1.25	216,126	0.03	67,659	0.92	27,206
Sep.	0.24	63,849	1.25	216,273	0.03	66,871	0.90	27,188
Oct.	0.24	63,652	1.24	215,766	0.04	66,681	0.89	27,535
Nov.	0.24	62,369	1.23	215,502	0.03	68,118	0.88	28,176
Dec.	0.23	63,057	1.23	217,570	0.01	68,323	0.87	28,597
2019 Jan.	0.23	62,837	1.21	217,168	0.01	68,701	0.86	28,839
Feb.	0.23	62,576	1.20	217,250	0.01	69,389	0.85	28,815

End of month	Housing loans to households 3						Loans to households for consumption and other purposes 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 % p.a.	Volume 2 € million	Effective interest rate 1 % p.a.	Volume 2 € million	Effective interest rate 1 % p.a.	Volume 2 € million	Effective interest rate 1 % p.a.	Volume 2 € million	Effective interest rate 1 % p.a.	Volume 2 € million	Effective interest rate 1 % p.a.	Volume 2 € million
2018 Feb.	2.31	3,869	1.95	25,474	2.65	1,147,522	7.07	48,468	3.84	87,842	3.92	312,671
Mar.	2.31	3,983	1.94	25,497	2.62	1,153,724	7.03	49,131	3.82	88,481	3.91	311,587
Apr.	2.32	3,933	1.93	25,480	2.60	1,157,212	6.99	48,590	3.79	89,131	3.90	312,321
May	2.31	4,024	1.93	25,609	2.58	1,162,731	7.04	48,209	3.76	84,759	3.89	312,220
June	2.27	4,139	1.92	25,721	2.56	1,169,692	7.03	48,827	3.74	85,404	3.88	311,756
July	2.27	4,217	1.90	25,586	2.54	1,174,210	7.00	48,360	3.75	85,994	3.86	312,593
Aug.	2.28	4,215	1.89	25,643	2.52	1,180,809	7.00	48,053	3.75	86,634	3.85	313,801
Sep.	2.27	4,306	1.89	26,196	2.50	1,186,420	7.00	49,160	3.74	86,205	3.85	313,297
Oct.	2.25	4,311	1.87	26,171	2.48	1,191,048	7.17	50,033	3.54	85,254	3.83	313,604
Nov.	2.25	4,299	1.87	26,265	2.46	1,196,579	7.01	49,658	3.53	85,715	3.83	314,344
Dec.	2.27	4,242	1.86	26,203	2.44	1,199,525	7.10	51,196	3.53	85,387	3.81	312,896
2019 Jan.	2.27	4,379	1.85	25,867	2.42	1,200,982	7.19	49,709	3.52	85,499	3.79	314,143
Feb.	2.28	4,300	1.85	25,861	2.41	1,204,756	7.17	49,608	3.51	85,678	3.78	314,958

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 % p.a.	Volume 2 € million	Effective interest rate 1 % p.a.	Volume 2 € million	Effective interest rate 1 % p.a.	Volume 2 € million
2018 Feb.	2.39	142,819	1.88	138,735	2.19	672,403
Mar.	2.39	145,640	1.87	139,810	2.18	672,250
Apr.	2.33	145,705	1.86	140,823	2.16	675,236
May	2.26	149,325	1.78	138,956	2.15	678,530
June	2.29	149,189	1.76	140,052	2.13	680,131
July	2.20	148,897	1.74	142,697	2.12	684,893
Aug.	2.22	148,026	1.74	144,021	2.11	688,709
Sep.	2.22	150,891	1.74	144,942	2.10	691,969
Oct.	2.21	147,714	1.73	147,743	2.08	696,222
Nov.	2.20	148,399	1.72	151,603	2.07	702,286
Dec.	2.24	146,721	1.72	150,727	2.06	703,722
2019 Jan.	2.22	151,176	1.70	152,824	2.04	707,410
Feb.	2.22	154,912	1.70	154,061	2.03	712,053

\* 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 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 corporations, 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/Money and capital markets/Interest rates and yields/Interest rates on deposits and loans). ° 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 12 to 14 on 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 +

Households' deposits													
Overnight		with an agreed maturity of						redeemable at notice <sup>8</sup> of					
		up to 1 year		over 1 year and up to 2 years		over 2 years		up to 3 months		over 3 months			
Reporting period	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>2</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>2</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>2</sup> € million	
2018 Feb.	0.03	1,328,779	0.26	4,181	0.31	652	0.80	737	0.17	539,604	0.27	41,465	
Mar.	0.02	1,334,702	0.30	3,995	0.38	470	0.74	765	0.17	539,077	0.27	41,021	
Apr.	0.02	1,347,466	0.31	4,240	0.32	552	0.60	712	0.17	538,787	0.26	40,559	
May	0.02	1,360,605	0.36	4,235	0.42	446	0.62	587	0.16	538,616	0.27	40,277	
June	0.02	1,370,363	0.30	4,294	0.51	597	0.66	737	0.16	538,165	0.26	39,811	
July	0.02	1,375,299	0.27	5,005	0.40	626	0.63	693	0.16	537,703	0.26	39,331	
Aug.	0.01	1,383,683	0.30	5,135	0.43	516	0.67	677	0.15	537,459	0.26	38,903	
Sep.	0.01	1,391,356	0.31	4,831	0.40	476	0.64	645	0.15	537,477	0.25	38,579	
Oct.	0.01	1,399,998	0.28	4,853	0.38	772	0.70	803	0.15	537,728	0.25	38,051	
Nov.	0.02	1,425,632	0.30	4,599	0.39	752	0.65	752	0.15	538,222	0.25	37,420	
Dec.	0.02	1,432,861	0.28	5,439	0.26	642	0.65	702	0.14	540,271	0.25	37,155	
2019 Jan.	0.02	1,432,335	0.28	6,375	0.44	603	0.69	1,074	0.14	540,608	0.24	36,693	
Feb.	0.02	1,446,688	0.29	5,693	0.45	619	0.68	1,032	0.13	541,529	0.24	36,726	

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			
Reporting period	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>2</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	
2018 Feb.	- 0.02	419,428	- 0.09	8,751	0.11	186	0.32	932	
Mar.	- 0.02	418,683	- 0.08	10,133	0.13	347	0.31	427	
Apr.	- 0.03	430,412	- 0.11	8,954	0.06	314	0.35	815	
May	- 0.03	440,268	- 0.04	9,576	0.11	490	0.34	587	
June	- 0.03	424,633	- 0.10	11,185	0.06	240	0.23	447	
July	- 0.02	429,934	- 0.13	11,466	0.08	354	0.29	754	
Aug.	- 0.02	436,893	- 0.06	10,147	0.07	303	0.46	723	
Sep.	- 0.02	433,078	- 0.10	9,835	0.07	347	0.23	375	
Oct.	- 0.03	445,427	- 0.07	12,291	0.17	518	0.66	891	
Nov.	- 0.03	448,301	- 0.08	12,192	0.13	376	0.78	1,035	
Dec.	- 0.03	445,954	- 0.07	15,012	0.14	308	0.55	1,109	
2019 Jan.	- 0.03	443,971	0.01	16,527	0.08	549	0.40	545	
Feb.	- 0.03	439,935	0.02	15,774	0.11	277	0.31	238	

Loans to households												
Loans for consumption <sup>4</sup> with an initial rate fixation of												
Reporting period	Total (including charges)		of which: Renegotiated loans <sup>9</sup>				floating rate or up to 1 year <sup>9</sup>		over 1 year and up to 5 years		over 5 years	
	Annual percentage rate of charge <sup>10</sup> % p.a.	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	
2018 Feb.	5.70	5.68	8,315	7.09	1,451	6.15	258	4.28	3,497	6.72	4,560	
Mar.	5.44	5.43	9,545	7.04	1,732	5.97	287	4.10	4,259	6.53	4,999	
Apr.	5.66	5.64	9,413	7.17	1,772	6.14	290	4.27	3,912	6.64	5,211	
May	5.87	5.85	9,002	7.40	1,846	6.12	292	4.42	3,737	6.91	4,973	
June	5.87	5.85	9,052	7.39	1,870	6.25	279	4.39	3,737	6.92	5,036	
July	6.02	6.00	9,543	7.42	2,140	6.64	312	4.57	3,715	6.93	5,516	
Aug.	6.08	6.02	9,242	7.44	1,938	7.95	395	4.59	3,702	6.91	5,145	
Sep.	5.96	5.91	8,166	7.33	1,629	8.14	372	4.41	3,239	6.79	4,555	
Oct.	6.06	5.99	8,915	7.34	1,797	7.68	421	4.60	3,527	6.83	4,967	
Nov.	5.84	5.83	8,668	7.19	1,694	7.21	489	4.40	3,599	6.80	4,580	
Dec.	5.80	5.81	6,514	7.04	1,133	7.58	518	4.45	2,820	6.72	3,176	
2019 Jan.	5.98	5.98	9,985	7.13	2,196	8.08	544	4.53	3,696	6.72	5,745	
Feb.	5.80	5.83	9,354	6.98	1,934	7.98	486	4.44	3,556	6.55	5,312	

For footnotes \* and 1 to 6, see p. 44•. + For 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. For 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. <sup>7</sup> Estimated. The volume of new business is extrapolated to form the underlying total using a grossing-up procedure. <sup>8</sup> Including non-financial corporations' deposits; including fidelity and growth premiums. <sup>9</sup> Excluding overdrafts. <sup>10</sup> 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 +

Loans to households (cont'd)												
Loans to households for other purposes 5 with an initial rate fixation of												
Reporting period	Total		of which: Renegotiated loans 9		floating rate or up to 1 year 9		over 1 year and up to 5 years		over 5 years		Effective interest rate 1 % p.a.	Volume 7 € million
	Effective interest rate 1 % p.a.	Volume 7 € million	Effective interest rate 1 % p.a.	Volume 7 € million	Effective interest rate 1 % p.a.	Volume 7 € million	Effective interest rate 1 % p.a.	Volume 7 € million	Effective interest rate 1 % p.a.	Volume 7 € million		
<b>Loans to households</b>												
2018 Feb.	1.97	5,062	1.77	1,470	1.77	2,161	2.50	753	1.99	2,148		
Mar.	2.03	5,883	1.87	1,424	1.77	2,440	2.58	950	2.08	2,493		
Apr.	2.12	5,995	2.02	1,826	1.95	2,612	2.65	1,008	2.09	2,375		
May	2.04	5,257	1.84	1,476	1.87	2,165	2.48	737	2.07	2,355		
June	2.06	6,370	1.93	1,713	1.87	2,607	2.58	903	2.07	2,860		
July	2.06	6,380	1.88	2,123	1.94	2,532	2.35	910	2.08	2,938		
Aug.	2.07	5,365	1.83	1,452	1.99	2,124	2.51	756	2.00	2,485		
Sep.	2.08	4,952	1.76	1,425	1.98	2,265	2.51	634	2.05	2,053		
Oct.	2.11	5,549	1.84	1,952	2.01	2,413	2.48	810	2.08	2,326		
Nov.	1.96	5,394	1.75	1,743	1.76	2,263	2.51	720	1.98	2,411		
Dec.	1.89	5,777	1.79	1,716	1.76	2,554	2.42	717	1.87	2,506		
2019 Jan.	1.96	5,889	1.84	2,160	1.81	2,541	2.39	860	1.96	2,488		
Feb.	1.99	4,707	1.78	1,408	1.82	2,095	2.59	661	1.96	1,951		
<b>of which: Loans to sole proprietors</b>												
2018 Feb.	2.07	3,412	.	.	2.01	1,390	2.61	564	1.93	1,458		
Mar.	2.07	4,103	.	.	1.87	1,645	2.65	741	2.02	1,717		
Apr.	2.18	4,204	.	.	2.05	1,850	2.75	793	2.04	1,561		
May	2.11	3,558	.	.	2.09	1,373	2.50	560	2.00	1,625		
June	2.07	4,528	.	.	1.92	1,869	2.58	692	2.02	1,967		
July	2.13	4,266	.	.	2.09	1,755	2.46	647	2.05	1,864		
Aug.	2.13	3,553	.	.	2.12	1,431	2.56	563	1.98	1,559		
Sep.	2.04	3,403	.	.	1.91	1,586	2.52	491	2.02	1,326		
Oct.	2.11	3,858	.	.	2.04	1,691	2.49	597	2.04	1,570		
Nov.	1.96	3,869	.	.	1.81	1,526	2.50	561	1.93	1,782		
Dec.	1.96	4,139	.	.	1.94	1,777	2.42	546	1.83	1,816		
2019 Jan.	2.00	4,236	.	.	1.94	1,774	2.46	640	1.89	1,822		
Feb.	2.02	3,331	.	.	1.94	1,502	2.61	504	1.89	1,325		

Loans to households (cont'd)													
Housing loans 3 with an initial rate fixation of													
Reporting period	Total (including charges)	Total	of which: Renegotiated loans 9		floating rate or up to 1 year 9		over 1 year and up to 5 years		over 5 years and up to 10 years		over 10 years		
	Annual percentage rate of charge 10 % p.a.	Effective interest rate 1 % p.a.	Volume 7 € million	Effective interest rate 1 % p.a.	Volume 7 € million	Effective interest rate 1 % p.a.	Volume 7 € million	Effective interest rate 1 % p.a.	Volume 7 € million	Effective interest rate 1 % p.a.	Volume 7 € million	Effective interest rate 1 % p.a.	Volume 7 € million
<b>Total loans</b>													
2018 Feb.	1.90	1.84	18,839	1.95	3,687	2.07	2,090	1.73	1,624	1.68	6,400	1.92	8,725
Mar.	1.94	1.89	20,592	1.95	3,981	2.05	2,256	1.73	1,773	1.74	7,047	1.98	9,516
Apr.	1.94	1.89	21,351	1.92	4,645	2.09	2,369	1.72	1,895	1.77	7,418	1.96	9,669
May	1.96	1.91	19,514	1.97	3,803	2.09	2,193	1.74	1,735	1.77	6,847	2.00	8,739
June	1.95	1.90	21,464	1.98	4,691	2.07	3,226	1.76	1,882	1.75	6,771	1.97	9,585
July	1.94	1.88	22,177	1.94	4,907	2.16	2,675	1.74	1,994	1.73	7,666	1.95	9,842
Aug.	1.93	1.87	20,493	1.96	3,401	2.13	2,337	1.70	1,753	1.71	6,974	1.97	9,429
Sep.	1.92	1.86	17,864	1.96	3,046	2.11	1,973	1.71	1,544	1.69	5,923	1.94	8,424
Oct.	1.91	1.86	21,275	1.94	4,124	2.08	2,443	1.68	1,884	1.71	7,669	1.97	9,279
Nov.	1.94	1.88	20,357	1.94	3,423	2.02	2,313	1.74	1,779	1.72	6,738	1.98	9,527
Dec.	1.90	1.85	17,630	1.89	3,168	2.02	2,113	1.71	1,519	1.70	6,088	1.94	7,910
2019 Jan.	1.92	1.86	20,907	1.93	4,619	2.09	2,475	1.69	1,962	1.70	7,080	1.95	9,390
Feb.	1.84	1.78	19,352	1.84	3,469	2.04	2,163	1.65	1,749	1.63	6,344	1.85	9,095
<b>of which: Collateralised loans 11</b>													
2018 Feb.	.	1.76	8,579	.	.	2.02	702	1.53	803	1.61	2,946	1.86	4,128
Mar.	.	1.81	9,154	.	.	1.96	831	1.61	871	1.67	3,271	1.94	4,181
Apr.	.	1.82	9,782	.	.	2.08	866	1.55	907	1.71	3,606	1.91	4,403
May	.	1.84	8,392	.	.	2.02	733	1.55	834	1.71	3,043	1.96	3,782
June	.	1.83	9,040	.	.	2.00	1,087	1.61	901	1.71	3,025	1.94	4,027
July	.	1.83	9,622	.	.	2.06	914	1.60	960	1.69	3,575	1.94	4,173
Aug.	.	1.82	8,424	.	.	2.02	807	1.54	792	1.65	2,911	1.96	3,914
Sep.	.	1.82	7,495	.	.	2.13	664	1.51	715	1.65	2,604	1.95	3,512
Oct.	.	1.81	9,201	.	.	1.98	880	1.51	846	1.67	3,351	1.96	4,124
Nov.	.	1.83	8,504	.	.	1.95	750	1.53	771	1.67	2,910	1.98	4,073
Dec.	.	1.79	7,242	.	.	2.02	694	1.49	670	1.64	2,592	1.93	3,286
2019 Jan.	.	1.81	9,238	.	.	2.04	922	1.50	948	1.65	3,196	1.96	4,172
Feb.	.	1.72	8,040	.	.	2.07	682	1.45	859	1.56	2,709	1.84	3,790

For footnotes \* and 1 to 6, see p. 44\*. For footnotes + and 7 to 10, see p. 45\*. For footnote 11, see 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	Loans to households (cont'd)						Loans to non-financial corporations					
	Revolving loans <sup>12</sup> and overdrafts <sup>13</sup> Credit card debt <sup>14</sup>		of which:				Revolving loans <sup>12</sup> and overdrafts <sup>13</sup> Credit card debt <sup>14</sup>		of which:			
			Revolving loans <sup>12</sup> and overdrafts <sup>13</sup>		Extended credit card debt				Revolving loans <sup>12</sup> and overdrafts <sup>13</sup>		Extended credit card debt	
	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>2</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>2</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>2</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>2</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>2</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>2</sup> € million
2018 Feb.	8.36	39,233	8.39	31,380	14.92	4,334	3.40	70,798	3.42	70,488		
Mar.	8.31	39,818	8.36	31,844	14.87	4,340	3.41	71,713	3.43	71,381		
Apr.	8.29	39,308	8.35	31,176	14.85	4,408	3.29	72,449	3.30	72,100		
May	8.29	39,115	8.38	30,991	14.79	4,376	3.35	71,010	3.37	70,690		
June	8.26	39,717	8.34	31,627	14.77	4,370	3.30	74,485	3.32	74,136		
July	8.19	39,373	8.29	31,035	14.74	4,430	3.25	73,268	3.26	72,921		
Aug.	8.20	39,040	8.27	30,862	14.73	4,390	3.21	72,775	3.23	72,415		
Sep.	8.18	40,096	8.27	31,781	14.79	4,421	3.18	76,148	3.19	75,723		
Oct.	8.16	39,591	8.24	31,353	14.79	4,366	3.13	74,312	3.15	73,892		
Nov.	7.88	40,395	7.93	31,901	14.77	4,429	3.11	74,306	3.13	73,881		
Dec.	7.86	41,799	7.96	32,782	14.75	4,585	3.14	73,787	3.16	73,380		
2019 Jan.	8.01	40,499	7.96	32,586	14.78	4,389	3.09	76,006	3.10	75,622		
Feb.	7.99	40,394	7.99	32,324	14.76	4,384	3.09	78,104	3.10	77,717		

Reporting period	Loans to non-financial corporations (cont'd)															
	Total		of which:				Loans up to €1 million <sup>15</sup> with an initial rate fixation of				Loans over €1 million <sup>15</sup> with an initial rate fixation of					
			Renegotiated loans <sup>9</sup>		floating rate or up to 1 year <sup>9</sup>		over 1 year and up to 5 years		over 5 years		floating rate or up to 1 year <sup>9</sup>		over 1 year and up to 5 years		over 5 years	
	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million		
<b>Total loans</b>																
2018 Feb.	1.32	53,831	1.48	13,339	2.47	7,501	2.57	1,390	1.97	1,123	0.94	36,050	1.43	1,794	1.68	5,973
Mar.	1.42	69,102	1.52	18,706	2.48	8,966	2.52	1,744	1.93	1,470	1.09	44,944	1.50	3,379	1.74	8,599
Apr.	1.39	65,864	1.46	18,840	2.44	8,704	2.54	1,749	1.94	1,527	1.04	43,667	1.64	2,828	1.73	7,389
May	1.20	72,958	1.36	17,150	2.31	9,732	2.40	1,395	1.95	1,290	0.85	51,023	1.59	2,988	1.73	6,530
June	1.31	84,383	1.42	24,657	2.24	11,612	2.44	1,531	1.97	1,470	0.97	55,948	1.64	3,981	1.73	9,841
July	1.19	81,709	1.41	22,096	2.09	10,235	2.41	1,466	1.93	1,578	0.85	55,149	1.53	3,956	1.74	9,325
Aug.	1.18	66,072	1.41	16,124	2.05	9,274	2.44	1,316	1.86	1,311	0.85	44,950	1.73	2,130	1.64	7,091
Sep.	1.26	76,448	1.40	22,010	2.04	9,668	2.49	1,315	1.94	1,180	0.98	53,010	1.78	3,023	1.66	8,252
Oct.	1.28	78,085	1.39	21,850	2.04	10,699	2.50	1,580	1.92	1,403	0.98	52,918	1.64	3,158	1.72	8,327
Nov.	1.27	74,844	1.47	18,178	2.05	9,884	2.46	1,578	1.91	1,400	0.96	50,045	1.80	3,422	1.63	8,515
Dec.	1.29	96,525	1.46	25,307	2.06	10,205	2.40	1,480	1.85	1,434	1.02	62,907	1.72	5,156	1.60	15,343
2019 Jan.	1.24	74,566	1.42	20,900	2.01	10,992	2.43	1,491	1.94	1,376	0.96	50,703	1.46	2,676	1.58	7,328
Feb.	1.25	65,640	1.46	16,417	2.04	9,918	2.51	1,338	1.86	1,136	0.97	43,884	1.37	3,016	1.56	6,348
<b>of which: Collateralised loans <sup>11</sup></b>																
2018 Feb.	1.55	6,461	.	.	1.96	428	2.77	134	1.79	324	1.30	3,638	1.54	457	1.88	1,480
Mar.	1.62	11,118	.	.	1.92	608	2.46	160	1.78	396	1.44	6,583	1.68	1,010	1.93	2,361
Apr.	1.57	8,174	.	.	1.91	620	2.50	152	1.83	434	1.26	4,155	2.07	764	1.77	2,049
May	1.61	7,425	.	.	1.93	540	2.47	158	1.77	354	1.38	4,223	1.82	639	1.92	1,511
June	1.68	12,565	.	.	1.88	647	2.60	182	1.82	380	1.42	7,324	2.60	1,202	1.83	2,830
July	1.55	9,982	.	.	1.95	707	2.74	155	1.81	468	1.25	5,263	1.81	1,205	1.85	2,184
Aug.	1.56	7,174	.	.	2.10	507	2.74	151	1.76	302	1.32	4,296	2.50	348	1.68	1,570
Sep.	1.56	10,319	.	.	1.89	576	2.57	124	1.83	309	1.33	6,391	2.52	646	1.79	2,273
Oct.	1.55	9,237	.	.	1.96	640	2.64	138	1.84	376	1.32	5,296	1.77	627	1.80	2,160
Nov.	1.61	9,181	.	.	1.96	528	2.64	140	1.79	379	1.41	5,283	2.15	824	1.72	2,027
Dec.	1.50	16,695	.	.	1.90	607	2.55	122	1.68	411	1.37	8,845	2.04	1,266	1.51	5,444
2019 Jan.	1.42	9,732	.	.	1.83	630	2.46	149	1.84	429	1.20	5,503	1.90	464	1.57	2,557
Feb.	1.42	7,982	.	.	1.90	485	2.59	151	1.70	323	1.23	4,383	1.46	648	1.56	1,992

For footnotes \* and 1 to 6, see p. 44\*. For footnotes + and 7 to 10, see p. 45\*.  
**11** For the purposes of the interest rate statistics, a loan is considered to be secured if collateral (amongst others financial collateral, real estate collateral, debt securities) in at least the same value as the loan amount has been posted, pledged or assigned. **12** 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. **13** 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. **14** 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 effected with the card during one billing cycle and the date at which the debit balances from this specific billing cycle become due. **15** 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	Total	Currency and deposits <sup>1</sup>	Debt securities	Loans <sup>2</sup>	Shares and other equity	Investment fund shares/units	Financial derivatives	Insurance technical reserves	Non-financial assets	Remaining assets
<b>Insurance corporations</b>										
2016 Q3	2,219.9	378.7	397.3	387.3	280.2	613.9	5.3	46.1	31.4	79.9
Q4	2,189.4	361.5	371.0	374.6	308.6	623.2	3.3	44.1	32.4	70.6
2017 Q1	2,189.7	355.4	377.5	367.7	297.7	635.8	2.8	50.4	32.5	69.7
Q2	2,178.4	344.0	378.9	365.2	302.0	643.8	3.1	49.1	32.6	59.6
Q3	2,188.1	331.2	386.1	371.0	305.6	650.5	3.1	49.5	32.7	58.4
Q4	2,212.2	320.9	387.0	354.3	336.1	671.3	2.9	48.2	34.3	57.3
2018 Q1	2,217.9	344.3	394.6	327.1	343.3	663.1	2.3	50.7	33.9	58.5
Q2	2,226.3	347.5	400.2	320.1	347.1	668.0	2.2	53.6	34.1	53.6
Q3	2,224.8	327.3	401.2	328.7	350.5	675.0	2.0	52.9	35.7	51.6
Q4	2,211.9	320.8	400.8	329.9	351.0	662.0	2.0	55.7	36.8	53.0
<b>Life insurance</b>										
2016 Q3	1,247.0	242.9	203.0	241.2	47.0	445.8	4.0	10.2	18.7	34.0
Q4	1,197.3	231.3	182.7	223.0	50.7	456.9	2.1	9.6	19.1	21.9
2017 Q1	1,170.5	223.8	185.3	217.2	37.2	462.6	1.8	8.2	19.1	15.3
Q2	1,172.8	215.7	189.5	217.6	38.6	467.1	2.0	8.0	19.1	15.3
Q3	1,177.5	207.6	193.6	220.6	38.4	472.5	1.9	7.9	19.1	16.0
Q4	1,193.2	199.2	192.4	226.1	41.4	487.8	1.8	8.6	20.0	16.0
2018 Q1	1,187.6	213.0	199.0	207.0	43.1	480.9	1.2	8.5	19.4	15.5
Q2	1,195.2	216.2	202.0	201.1	46.3	486.1	1.1	8.8	19.5	14.2
Q3	1,194.1	201.0	202.2	209.8	47.4	491.2	1.0	8.8	19.3	13.4
Q4	1,184.9	196.3	201.3	209.3	50.5	481.1	1.0	11.6	20.3	13.5
<b>Non-life insurance</b>										
2016 Q3	592.3	123.8	103.2	93.6	50.8	154.4	0.5	28.5	8.6	28.8
Q4	583.5	118.9	98.6	91.8	56.8	152.0	0.5	26.8	9.0	29.0
2017 Q1	606.7	120.3	102.5	92.1	56.9	157.3	0.3	34.1	9.1	34.2
Q2	603.7	116.8	103.9	91.2	58.5	160.4	0.4	33.3	9.1	30.1
Q3	603.1	111.9	106.2	92.9	58.6	162.9	0.4	32.5	9.2	28.4
Q4	606.7	111.6	108.1	82.2	70.8	165.9	0.4	31.4	9.7	26.5
2018 Q1	623.1	120.1	112.5	75.1	72.3	166.9	0.3	34.6	9.8	31.4
Q2	621.6	120.0	115.3	72.9	73.4	167.4	0.3	35.6	9.8	27.0
Q3	618.0	116.2	115.6	72.9	74.4	168.8	0.2	34.9	9.8	25.1
Q4	614.8	114.0	116.6	73.1	74.2	167.2	0.2	33.8	10.8	24.8
<b>Reinsurance <sup>3</sup></b>										
2016 Q3	380.7	12.0	91.0	52.5	182.3	13.8	0.8	7.3	4.0	17.0
Q4	408.6	11.3	89.7	59.7	201.0	14.3	0.7	7.7	4.3	19.7
2017 Q1	412.5	11.4	89.8	58.4	203.6	15.9	0.8	8.1	4.3	20.2
Q2	401.9	11.6	85.5	56.5	204.8	16.3	0.8	7.9	4.4	14.2
Q3	407.5	11.7	86.3	57.5	208.6	15.1	0.9	9.2	4.4	13.9
Q4	412.3	10.2	86.5	45.9	223.9	17.6	0.7	8.2	4.7	14.7
2018 Q1	407.2	11.2	83.1	45.0	227.8	15.3	0.8	7.6	4.8	11.6
Q2	409.5	11.3	82.9	46.1	227.4	14.6	0.8	9.1	4.8	12.4
Q3	412.7	10.0	83.4	46.0	228.7	14.9	0.8	9.3	6.6	13.1
Q4	412.2	10.4	82.8	47.6	226.2	13.7	0.7	10.3	5.7	14.7
<b>Pension funds <sup>4</sup></b>										
2016 Q3	608.0	107.7	63.5	29.3	19.1	326.2	–	6.3	35.4	20.5
Q4	609.6	106.4	61.1	29.7	19.9	328.1	–	6.7	37.0	20.8
2017 Q1	617.0	103.4	60.3	30.1	20.3	337.7	–	6.7	37.5	20.9
Q2	624.5	102.7	60.6	30.3	20.7	344.3	–	6.8	38.1	21.1
Q3	633.7	100.6	61.7	30.3	21.2	353.1	–	7.0	38.6	21.3
Q4	645.5	96.0	63.5	30.6	21.6	364.5	–	7.1	40.3	21.8
2018 Q1	646.8	94.8	63.1	31.0	22.0	366.1	–	7.2	40.6	21.9
Q2	652.7	95.2	62.8	31.5	22.9	369.9	–	7.3	41.1	22.1
Q3	656.4	92.0	62.6	31.6	23.3	376.3	–	7.3	41.5	21.9
Q4	663.0	91.4	63.3	32.0	23.5	380.3	–	7.4	42.6	22.3

Sources: The calculations for the insurance sectors are based on supervisory data according to Solvency I and II. Pension funds data are compiled using Solvency I supervisory data, supplemented by voluntary reports and own calculations. \* Valuation of listed securities at the corresponding consistent price from the ESCB's securities database. <sup>1</sup> Accounts receivable to monetary financial institutions, including registered bonds, borrowers' note loans and registered Pfandbriefe. <sup>2</sup> Including deposits retain-

ed on assumed reinsurance as well as registered bonds, borrowers' note loans and registered Pfandbriefe. <sup>3</sup> Not including the reinsurance business conducted by primary insurers, which is included there. <sup>4</sup> The term "pension funds" refers to the institutional sector "pension funds" of the European System of Accounts. Pension funds thus comprise company pension schemes 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	Total	Debt securities issued	Loans <sup>1</sup>	Shares and other equity	Insurance technical reserves			Financial derivatives	Remaining liabilities	Net worth <sup>5</sup>
					Total	Life/ claims on pension fund reserves <sup>2</sup>	Non-life			
<b>Insurance corporations</b>										
2016 Q3	2,219.9	30.7	73.7	383.0	1,579.4	1,396.9	182.5	1.5	151.5	–
Q4	2,189.4	30.7	70.3	441.0	1,494.4	1,313.3	181.1	2.3	150.7	–
2017 Q1	2,189.7	30.5	57.2	448.6	1,511.9	1,309.6	202.3	1.8	139.6	–
Q2	2,178.4	28.6	57.0	450.8	1,505.5	1,308.5	197.0	2.1	134.3	–
Q3	2,188.1	28.5	58.4	455.6	1,513.1	1,317.2	195.9	2.3	130.2	–
Q4	2,212.2	28.3	62.6	466.0	1,521.6	1,334.2	187.4	2.2	131.6	–
2018 Q1	2,217.9	28.0	61.9	460.5	1,538.9	1,333.5	205.4	1.5	127.1	–
Q2	2,226.3	27.7	64.0	457.1	1,553.3	1,347.6	205.7	1.9	122.3	–
Q3	2,224.8	27.5	65.1	462.6	1,545.0	1,343.7	201.4	2.0	122.5	–
Q4	2,211.9	29.3	64.6	463.0	1,529.6	1,331.5	198.1	1.6	123.9	–
<b>Life insurance</b>										
2016 Q3	1,247.0	3.8	25.9	96.0	1,066.2	1,066.2	–	0.7	54.4	–
Q4	1,197.3	4.1	25.0	116.3	993.7	993.7	–	1.2	56.9	–
2017 Q1	1,170.5	4.1	12.5	116.3	991.8	991.8	–	0.9	44.8	–
Q2	1,172.8	4.0	12.1	119.8	989.6	989.6	–	1.0	46.2	–
Q3	1,177.5	4.1	12.3	121.5	994.0	994.0	–	1.1	44.5	–
Q4	1,193.2	4.1	12.8	122.2	1,007.1	1,007.1	–	1.1	45.9	–
2018 Q1	1,187.6	4.0	13.3	119.8	1,007.0	1,007.0	–	0.7	42.7	–
Q2	1,195.2	4.1	13.0	119.6	1,017.0	1,017.0	–	0.8	40.8	–
Q3	1,194.1	4.1	12.6	121.2	1,013.3	1,013.3	–	0.9	42.0	–
Q4	1,184.9	4.1	15.2	122.9	1,000.3	1,000.3	–	0.5	42.0	–
<b>Non-life insurance</b>										
2016 Q3	592.3	0.9	6.6	120.0	407.4	310.1	97.3	0.0	57.3	–
Q4	583.5	1.1	6.3	130.4	390.1	300.5	89.7	0.2	55.4	–
2017 Q1	606.7	1.1	7.3	134.1	409.0	300.8	108.2	0.1	55.1	–
Q2	603.7	1.1	6.8	135.7	406.8	302.5	104.3	0.1	53.1	–
Q3	603.1	1.1	6.9	137.5	406.8	305.8	101.1	0.1	50.7	–
Q4	606.7	1.1	6.7	141.2	405.7	309.7	96.0	0.1	51.9	–
2018 Q1	623.1	1.1	7.7	141.4	422.8	311.1	111.7	0.0	50.0	–
Q2	621.6	1.1	8.1	140.6	424.5	314.3	110.2	0.1	47.2	–
Q3	618.0	1.1	8.0	141.7	420.7	314.0	106.7	0.0	46.4	–
Q4	614.8	1.0	8.2	139.6	417.1	315.5	101.6	0.0	48.8	–
<b>Reinsurance <sup>3</sup></b>										
2016 Q3	380.7	26.0	41.3	167.0	105.8	20.5	85.3	0.8	39.8	–
Q4	408.6	25.5	39.0	194.3	110.5	19.1	91.4	0.9	38.3	–
2017 Q1	412.5	25.3	37.4	198.2	111.1	17.0	94.1	0.8	39.7	–
Q2	401.9	23.5	38.1	195.2	109.1	16.4	92.6	1.1	35.0	–
Q3	407.5	23.3	39.3	196.6	112.3	17.5	94.9	1.1	35.0	–
Q4	412.3	23.1	43.1	202.6	108.8	17.4	91.4	1.0	33.8	–
2018 Q1	407.2	22.9	40.8	199.3	109.0	15.4	93.7	0.8	34.4	–
Q2	409.5	22.5	43.0	196.9	111.7	16.2	95.5	1.1	34.3	–
Q3	412.7	22.4	44.4	199.7	111.0	16.4	94.7	1.1	34.1	–
Q4	412.2	24.1	41.2	200.6	112.2	15.7	96.5	1.1	33.2	–
<b>Pension funds <sup>4</sup></b>										
2016 Q3	608.0	–	6.4	6.7	536.0	536.0	–	–	3.3	55.6
Q4	609.6	–	6.8	6.9	546.0	546.0	–	–	2.4	47.5
2017 Q1	617.0	–	6.9	7.0	552.9	552.9	–	–	2.5	47.8
Q2	624.5	–	6.9	7.1	558.7	558.7	–	–	2.5	49.4
Q3	633.7	–	6.9	7.2	565.2	565.2	–	–	2.5	51.9
Q4	645.5	–	7.1	7.4	576.1	576.1	–	–	2.5	52.4
2018 Q1	646.8	–	7.2	7.4	579.5	579.5	–	–	2.6	50.0
Q2	652.7	–	7.3	7.5	585.7	585.7	–	–	2.6	49.6
Q3	656.4	–	7.4	7.7	587.7	587.7	–	–	2.6	51.0
Q4	663.0	–	7.6	7.8	597.2	597.2	–	–	2.6	47.8

Sources: The calculations for the insurance sectors are based on supervisory data according to Solvency I and II. Pension funds data are compiled using Solvency I supervisory data, supplemented by voluntary reports and own calculations. <sup>1</sup> Including deposits retained on ceded business as well as registered bonds, borrowers' note loans and registered Pfandbriefe. <sup>2</sup> Insurance technical reserves "life" taking account of transitional measures. Health insurance is also included in the "non-life insurance" sec-

tor. <sup>3</sup> Not including the reinsurance business conducted by primary insurers, which is included there. <sup>4</sup> The term "pension funds" refers to the institutional sector "pension funds" of the European System of Accounts. Pension funds thus comprise company pension schemes and occupational pension schemes for the self-employed. Social security funds are not included. <sup>5</sup> Own funds correspond to the sum of net worth and the liability item "Shares and other equity".

## VIII. Capital market

### 1. Sales and purchases of debt securities and shares in Germany

€ million

Period	Debt securities											
	Sales = total pur- chases	Sales					Purchases					
		Domestic debt securities <sup>1</sup>					Residents					
		Total	Bank debt securities	Corporate bonds (non-MFIs) <sup>2</sup>	Public debt secur- ities	Foreign debt secur- ities <sup>3</sup>	Total <sup>4</sup>	Credit in- stitutions including building and loan associations <sup>5</sup>	Deutsche Bundesbank	Other sectors <sup>6</sup>	Non- residents <sup>7</sup>	
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	68,536	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	57,525	
2012	51,813	21,419	98,820	8,701	86,103	73,231	3,767	42,017	3,573	41,823	55,581	
2013	15,969	101,616	117,187	153	15,415	85,645	16,409	25,778	12,708	54,895	32,379	
2014	64,775	31,962	47,404	1,330	16,776	96,737	50,408	12,124	11,951	74,484	14,366	
2015	33,024	36,010	65,778	26,762	3,006	69,034	116,493	66,330	121,164	61,657	83,471	
2016	69,745	27,429	19,177	18,265	10,012	42,316	164,603	58,012	187,500	35,113	94,856	
2017	53,710	11,563	1,096	7,112	3,356	42,147	141,177	71,454	161,012	51,620	87,470	
2018	56,664	16,630	33,251	12,433	29,055	40,034	102,442	24,417	67,328	59,529	45,778	
2018 Apr.	9,497	12,541	469	7,199	19,271	3,044	8,911	2,582	5,172	6,321	18,408	
May	20,869	20,327	6,728	2,570	11,028	542	1,645	1,553	7,676	4,479	19,225	
June	13,186	12,897	10,982	2,030	115	289	6,121	7,009	6,353	6,777	19,307	
July	3,825	9,880	7,055	3,563	6,389	6,055	11,980	3,117	5,835	9,262	15,805	
Aug.	16,191	10,891	2,640	3,890	12,142	5,300	10,923	1,567	4,562	7,928	5,267	
Sep.	19,809	11,015	8,990	84	2,109	8,794	19,310	5,189	7,652	6,470	499	
Oct.	2,853	7,812	10,652	4,521	7,361	4,959	1,962	8,161	3,659	2,540	4,815	
Nov.	18,500	13,260	6,849	693	7,104	5,240	11,009	3,159	3,945	3,904	7,492	
Dec.	39,633	31,356	9,339	2,127	19,890	8,277	106	6,873	3,343	3,424	39,527	
2019 Jan.	34,314	20,326	8,377	1,319	10,630	13,988	9,297	1,486	1,700	9,511	25,018	
Feb.	26,493	13,718	16,833	2,035	5,150	12,775	14,110	7,239	1,984	8,855	12,384	

€ million

Period	Shares									
	Sales = total purchases	Sales			Purchases					
		Domestic shares <sup>8</sup>		Foreign shares <sup>9</sup>	Residents					
					Total <sup>10</sup>	Credit insti- tutions <sup>5</sup>	Other sectors <sup>11</sup>		Non- residents <sup>12</sup>	
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	32,195			
2009	35,980	23,962	12,018	30,496	8,335	38,831	5,485			
2010	37,767	20,049	17,718	36,406	7,340	29,066	1,360			
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	43,501	18,778	24,723	43,950	17,203	26,747	449			
2015	44,165	7,668	36,497	34,437	5,421	39,858	9,728			
2016	31,881	4,409	27,472	30,525	5,143	35,668	1,356			
2017	50,410	15,570	34,840	48,773	7,031	41,742	1,637			
2018	61,212	16,188	45,024	50,020	11,184	61,204	11,192			
2018 Apr.	4,580	3,219	1,361	915	2,546	3,461	3,665			
May	17,273	1,175	16,098	16,713	1,156	15,557	560			
June	8,677	6,593	2,084	8,537	2,250	6,287	140			
July	5,062	549	4,513	5,110	257	4,853	48			
Aug.	4,698	193	4,505	6,240	473	5,767	1,542			
Sep.	484	225	709	2,392	2,837	445	1,908			
Oct.	13,611	1,227	14,838	16,477	1,242	15,235	2,866			
Nov.	3,032	227	3,259	3,854	1,544	2,310	822			
Dec.	11,300	482	10,818	13,017	637	13,654	1,717			
2019 Jan.	4,206	671	3,535	5,804	55	5,859	1,598			
Feb.	1,330	122	1,208	2,112	436	2,548	782			

<sup>1</sup> Net sales at market values plus/minus changes in issuers' portfolios of their own debt securities. <sup>2</sup> Including cross-border financing within groups from January 2011. <sup>3</sup> Net purchases or net sales (–) of foreign debt securities by residents; transaction values. <sup>4</sup> Domestic and foreign debt securities. <sup>5</sup> Book values; statistically adjusted. <sup>6</sup> Residual; also including purchases of domestic and foreign securities by domestic mutual funds. Up to end-2008 including Deutsche Bundesbank. <sup>7</sup> Net purchases or net sales (–) of domestic debt securities by non-residents; transaction values.

<sup>8</sup> Excluding shares of public limited investment companies; at issue prices. <sup>9</sup> Net purchases or net sales (–) of foreign shares (including direct investment) by residents; transaction values. <sup>10</sup> Domestic and foreign shares. <sup>11</sup> Residual; also including purchases of domestic and foreign securities by domestic mutual funds. <sup>12</sup> 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 <sup>1</sup>				Debt securities issued by special-purpose credit institutions	Other bank debt securities	Corporate bonds (non-MFIs) <sup>2</sup>	Public debt securities
		Total	Mortgage Pfandbriefe	Public Pfandbriefe					
<b>Gross sales</b>									
2007	1,021,533	743,616	19,211	82,720	195,722	445,963	15,044	262,873	
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	398,421	
2010	1,375,138	757,754	36,226	33,539	363,828	324,160	53,653	563,730	
2011	1,337,772	658,781	31,431	24,295	376,876	226,180	86,614	592,375	
2012	1,340,568	702,781	36,593	11,413	446,153	208,623	63,258	574,530	
2013	1,433,628	908,107	25,775	12,963	692,611	176,758	66,630	458,892	
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	106,675	400,701	
2016 <sup>3</sup>	1,206,483	717,002	29,059	7,621	511,222	169,103	73,371	416,108	
2017 <sup>3</sup>	1,047,822	619,199	30,339	8,933	438,463	141,466	66,290	362,332	
2018	1,148,091	703,416	38,658	5,673	534,552	124,530	91,179	353,496	
2018 July	106,400	65,758	3,016	784	53,034	8,925	6,455	34,187	
Aug.	101,600	64,709	1,549	184	50,391	12,584	5,293	31,597	
Sep.	86,951	56,321	4,237	560	41,454	10,070	4,764	25,867	
Oct.	105,393	68,523	3,117	636	54,075	10,694	7,347	29,523	
Nov.	92,380	53,292	3,214	39	39,121	10,918	5,917	33,171	
Dec.	54,388	28,723	2,215	151	19,140	7,217	11,345	14,320	
2019 Jan.	127,454	77,489	6,215	3,057	58,545	9,672	5,380	44,585	
Feb.	123,547	81,698	5,742	1,909	57,017	17,030	5,091	36,758	
<b>of which: Debt securities with maturities of more than four years <sup>4</sup></b>									
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 <sup>3</sup>	375,859	173,900	24,741	5,841	78,859	64,460	47,818	154,144	
2017 <sup>3</sup>	357,506	170,357	22,395	6,447	94,852	46,663	44,891	142,257	
2018	375,906	173,995	30,934	4,460	100,539	38,061	69,150	132,760	
2018 July	28,315	10,970	3,016	604	5,273	2,078	4,707	12,638	
Aug.	27,181	12,138	1,305	133	4,488	6,212	2,962	12,081	
Sep.	35,433	19,654	3,047	558	13,354	2,694	3,847	11,932	
Oct.	24,646	9,564	2,567	636	3,609	2,751	4,924	10,158	
Nov.	32,905	15,498	2,686	39	9,850	2,924	5,015	12,391	
Dec.	16,845	5,192	1,542	20	1,905	1,725	8,650	3,003	
2019 Jan.	46,309	24,508	5,786	750	15,779	2,194	4,264	17,538	
Feb.	42,078	23,849	3,661	1,726	13,196	5,266	3,505	14,723	
<b>Net sales <sup>5</sup></b>									
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 <sup>3</sup>	21,951	10,792	2,176	12,979	16,266	5,327	18,177	7,020	
2017 <sup>3</sup>	2,669	5,954	6,389	4,697	18,788	14,525	6,828	10,114	
2018	2,758	26,648	19,814	6,564	18,850	5,453	9,738	33,630	
2018 July	9,530	6,298	1,570	107	7,834	73	3,562	6,794	
Aug.	11,892	2,687	886	481	1,396	3,679	3,774	12,979	
Sep.	11,957	8,528	2,319	42	5,728	438	714	2,715	
Oct.	2,584	7,796	2,226	359	3,035	2,894	3,318	8,529	
Nov.	13,993	3,367	1,184	662	1,476	1,370	574	11,200	
Dec.	30,192	11,122	966	1,558	7,164	3,366	593	18,478	
2019 Jan.	10,398	8,587	4,184	1,318	6,820	3,735	735	1,075	
Feb.	16,523	17,671	2,937	0	9,033	5,702	2,320	3,468	

\* For definitions, see the explanatory notes in Statistical Supplement 2 – Capital market statistics on pp. 23 ff. <sup>1</sup> Excluding registered bank debt securities. <sup>2</sup> Including cross-border financing within groups from January 2011. <sup>3</sup> Sectoral reclassification of debt securities. <sup>4</sup> Maximum maturity according to the terms of issue. <sup>5</sup> 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	Bank debt securities						Corporate bonds (non-MFIs)	Public debt securities
	Total	Total	Mortgage Pfandbriefe	Public Pfandbriefe	Debt securities issued by special-purpose credit institutions	Other bank debt securities		
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	1,570,490	147,529	232,954	544,517	645,491	250,774	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	1,414,349	145,007	147,070	574,163	548,109	220,456	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 <sup>1</sup>	3,068,111	1,164,965	132,775	62,701	633,578	335,910	275,789	1,627,358
2017 <sup>1</sup>	3,090,708	1,170,920	141,273	58,004	651,211	320,432	302,543	1,617,244
2018	3,091,303	1,194,160	161,088	51,439	670,062	311,572	313,527	1,583,616
2018 Aug.	3,092,960	1,185,591	154,392	53,976	666,987	310,236	310,662	1,596,707
Sep.	3,104,917	1,194,119	156,711	54,018	672,715	310,674	311,376	1,599,422
Oct.	3,107,502	1,201,915	158,937	53,659	675,750	313,569	314,694	1,590,893
Nov.	3,121,495	1,205,282	160,121	52,996	677,226	314,938	314,120	1,602,093
Dec.	3,091,303	1,194,160	161,088	51,439	670,062	311,572	313,527	1,583,616
2019 Jan.	3,101,701	1,202,748	165,272	52,757	676,882	307,837	314,262	1,584,691
Feb.	3,118,224	1,220,419	168,209	52,757	685,915	313,538	316,582	1,581,223

#### Breakdown by remaining period to maturity <sup>3</sup>

	less than 2	2 to less than 4	4 to less than 6	6 to less than 8	8 to less than 10	10 to less than 15	15 to less than 20	20 and more
1,008,355	445,019	44,749	17,859	276,147	106,263	60,818	502,518	
597,589	277,398	37,384	12,605	157,123	70,286	47,052	273,138	
501,327	207,048	41,315	7,008	113,948	44,778	48,012	246,267	
304,094	121,708	24,311	8,692	55,502	33,203	31,655	150,733	
254,186	87,291	15,227	3,865	48,373	19,825	17,185	149,710	
126,058	33,383	3,881	1,033	15,608	12,861	26,499	66,176	
81,714	18,948	486	1,248	13,584	3,630	6,226	56,539	
244,902	29,625	854	448	5,629	22,694	79,135	136,142	

#### Position at end-February 2019

\* Including debt securities temporarily held in the issuers' portfolios. <sup>1</sup> Sectoral reclassification of debt securities. <sup>2</sup> Adjustments due to change of domicile of issuers. <sup>3</sup> 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 capita- lisation) level at end of period under review <sup>2</sup>	
			cash payments and ex- change of convertible bonds <sup>1</sup>	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		
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	—	1,432	619	8,992	1,432,658	
2014	177,097	5,356	5,332	1,265	476	—	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	—	953	2,165	1,865	1,676,397	
2017	178,828	2,471	3,894	776	533	—	457	661	1,615	1,933,733	
2018	180,187	1,357	3,670	716	82	—	1,055	1,111	946	1,634,155	
2018 Aug.	180,004	47	171	112	13	—	89	13	147	1,898,601	
Sep.	180,260	256	189	195	1	—	51	36	43	1,856,858	
Oct.	180,431	170	284	3	2	—	2	91	29	1,759,237	
Nov.	180,307	—	106	19	3	—	0	0	252	1,729,978	
Dec.	180,187	—	317	22	6	—	13	423	29	1,634,155	
2019 Jan.	180,090	—	97	223	—	—	2	8	310	1,726,959	
Feb.	180,116	26	116	—	—	—	—	37	52	1,755,552	

\* Excluding shares of public limited investment companies. <sup>1</sup> Including shares issued out of company profits. <sup>2</sup> All marketplaces. Source: Bundesbank calculations based

on data of the Herausbergemeinschaft Wertpapier-Mitteilungen and Deutsche Börse AG.

## VIII. Capital market

### 5. Yields and indices on German securities

Period	Yields on debt securities outstanding issued by residents <sup>1</sup>								Price indices <sup>2,3</sup>			
	Public debt securities				Bank debt securities				Debt securities		Shares	
	Total	Total	Listed Federal securities		Total	Total	With a residual maturity of more than 9 years and up to 10 years	Corporate bonds (non-MFIs)	German bond index (REX)	iBoxx € Germany price index	CDAX share price index	German share index (DAX)
			Total	With a residual maturity of 9 to 10 years <sup>4</sup>								
% per annum												
								Average daily rate	End-1998 = 100	End-1987 = 100	End-1987 = 1,000	
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	0.3	0.2	0.2	0.3	0.4	0.9	1.7	140.53	109.03	595.45	12,917.64	
2018	0.4	0.3	0.3	0.4	0.6	1.0	2.5	141.84	109.71	474.85	10,558.96	
2018 Oct.	0.5	0.3	0.3	0.4	0.6	1.1	2.8	141.11	108.69	519.54	11,447.51	
2018 Nov.	0.4	0.3	0.2	0.3	0.6	1.0	3.0	141.47	109.14	509.46	11,257.24	
2018 Dec.	0.3	0.2	0.1	0.2	0.6	1.0	3.3	141.84	109.71	474.85	10,558.96	
2019 Jan.	0.3	0.2	0.1	0.1	0.5	0.9	3.3	142.15	110.01	505.55	11,173.10	
2019 Feb.	0.2	0.1	0.0	0.1	0.4	0.8	3.0	142.06	109.52	517.62	11,515.64	
2019 Mar.	0.2	0.0	0.0	0.0	0.4	0.6	2.7	143.19	111.35	516.84	11,526.04	

<sup>1</sup> 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 and similar, 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 out-

standing 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. <sup>2</sup> End of year or month. <sup>3</sup> Source: Deutsche Börse AG. <sup>4</sup> Only debt securities eligible as underlying instruments for futures contracts; calculated as unweighted averages.

### 6. Sales and purchases of mutual fund shares in Germany

Period	€ million													
	Sales								Purchases					
	Open-end domestic mutual funds <sup>1</sup> (sales receipts)								Residents					
	Sales = total purchases	Total	Mutual funds open to the general public						Foreign funds <sup>4</sup>	Total	Credit institutions including building and loan associations <sup>2</sup>		Other sectors <sup>3</sup>	
Total			Money market funds	of which:		Specialised funds	Total	of which: Foreign mutual fund shares			Total	of which: Foreign mutual fund shares		
	2008	2,598		- 7,911	- 14,409				- 12,171	- 11,149			799	6,498
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	1,290	39,474	- 7,576	- 694	47,050	1,984	7,035
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	- 3,437
2013	123,736	91,337	9,184	- 574	5,596	3,376	82,153	32,400	117,028	771	100	116,257	32,300	6,710
2014	140,233	97,711	3,998	- 473	862	1,000	93,713	42,521	144,075	819	- 1,745	143,256	44,266	- 3,840
2015	181,889	146,136	30,420	318	22,345	3,636	115,716	35,753	174,018	7,362	494	166,656	35,259	7,871
2016	157,068	119,369	21,301	- 342	11,131	7,384	98,068	37,698	163,998	2,877	- 3,172	161,121	40,870	- 6,931
2017	145,017	94,921	29,560	- 235	21,970	4,406	65,361	50,096	147,006	4,938	1,048	142,068	49,048	- 1,991
2018	122,353	103,694	15,279	377	4,166	6,168	88,415	18,660	128,170	2,979	- 2,306	125,191	20,966	- 5,821
2018 Aug.	8,547	8,402	1,519	- 27	783	407	6,884	144	8,610	- 215	- 324	8,825	468	- 63
2018 Sep.	7,531	5,836	937	25	- 285	797	4,899	1,695	8,132	1,126	249	7,006	1,446	- 601
2018 Oct.	4,731	6,658	649	80	- 713	820	6,009	- 1,927	5,704	180	- 758	5,524	- 1,169	- 974
2018 Nov.	11,824	11,097	1,729	378	542	580	9,368	727	11,966	- 1,338	- 718	13,304	1,445	- 143
2018 Dec.	17,639	16,880	- 1,797	6	- 2,620	511	18,676	759	17,176	- 697	- 574	17,873	1,333	462
2019 Jan.	11,660	7,739	1,569	56	43	1,336	6,170	3,921	12,727	- 1,334	423	14,061	3,498	- 1,067
2019 Feb.	12,093	8,702	1,188	- 107	127	965	7,514	3,391	14,085	692	1,228	13,393	2,163	- 1,991

<sup>1</sup> Including public limited investment companies. <sup>2</sup> Book values. <sup>3</sup> Residual. <sup>4</sup> Net purchases or net sales (-) of foreign fund shares by residents; transaction values. <sup>5</sup> 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	2015	2016	2017	2017			2018		
				Q2	Q3	Q4	Q1	Q2	Q3
<b>Acquisition of financial assets</b>									
Currency and deposits	30.93	37.18	48.20	16.74	0.02	25.72	15.64	0.05	12.22
Debt securities	- 1.20	- 3.40	- 5.65	- 0.65	- 1.05	- 3.01	0.65	0.55	1.46
Short-term debt securities	- 0.84	- 0.58	- 2.26	- 1.89	- 0.26	- 0.34	- 0.12	- 0.02	0.38
Long-term debt securities	- 0.36	- 2.81	- 3.39	1.24	- 0.78	- 2.67	0.77	0.57	1.09
Memo item:									
Debt securities of domestic sectors	0.64	- 2.68	- 2.80	- 0.04	- 1.07	- 1.15	0.11	0.47	- 0.02
Non-financial corporations	- 0.80	0.67	- 0.56	- 0.72	- 0.56	- 0.14	- 0.01	0.32	- 0.13
Financial corporations	1.86	- 2.53	- 0.41	0.67	- 0.14	- 0.59	0.19	0.31	0.08
General government	- 0.42	- 0.82	- 1.82	0.01	- 0.37	- 0.43	- 0.07	- 0.15	0.03
Debt securities of the rest of the world	- 1.83	- 0.72	- 2.85	- 0.61	0.02	- 1.86	0.54	0.08	1.48
Loans	22.33	18.11	52.64	8.08	7.52	1.67	- 2.46	- 9.92	- 0.59
Short-term loans	43.50	18.80	28.74	0.47	2.69	4.31	5.71	- 4.96	- 0.62
Long-term loans	- 21.17	- 0.70	23.90	7.60	4.83	- 2.63	- 8.17	- 4.96	0.03
Memo item:									
Loans to domestic sectors	1.04	0.67	21.78	2.89	2.42	7.47	- 0.75	- 3.75	4.64
Non-financial corporations	28.57	- 4.78	15.23	6.29	4.07	4.18	- 2.41	- 4.52	2.50
Financial corporations	- 27.73	5.25	6.26	- 3.47	- 1.72	3.22	1.60	0.72	2.10
General government	0.20	0.20	0.29	0.07	0.07	0.07	0.05	0.05	0.05
Loans to the rest of the world	21.28	17.44	30.86	5.19	5.10	- 5.80	- 1.71	- 6.17	- 5.23
Equity and investment fund shares	110.02	89.30	54.66	1.04	17.38	17.98	30.21	42.62	40.73
Equity	93.62	83.47	46.11	3.22	15.11	8.27	26.69	41.64	40.63
Listed shares of domestic sectors	- 10.40	22.91	- 3.82	- 2.05	1.91	0.65	21.74	- 2.70	- 1.34
Non-financial corporations	- 8.04	22.59	- 3.76	- 2.26	1.96	0.80	21.64	- 2.90	- 1.38
Financial corporations	- 2.36	0.31	- 0.06	0.21	- 0.04	- 0.14	0.10	0.20	0.04
Listed shares of the rest of the world	2.05	10.84	7.16	10.26	- 5.14	0.42	0.80	16.15	- 15.14
Other equity <sup>1</sup>	101.98	49.73	42.77	- 4.99	18.34	7.20	4.15	28.19	57.11
Investment fund shares	16.40	5.83	8.55	- 2.18	2.26	9.71	3.52	0.98	0.10
Money market fund shares	0.21	0.36	- 0.46	0.00	- 1.07	0.89	- 0.63	- 0.03	- 0.14
Non-MMF investment fund shares	16.19	5.47	9.01	- 2.19	3.34	8.83	4.15	1.01	0.24
Insurance technical reserves	2.94	1.15	3.92	1.31	1.26	0.51	0.96	1.36	1.33
Financial derivatives	- 1.42	22.74	12.68	3.57	2.85	2.86	2.57	- 2.68	1.37
Other accounts receivable	5.21	3.76	155.95	- 13.89	56.16	33.87	26.61	10.62	0.56
<b>Total</b>	<b>168.80</b>	<b>168.83</b>	<b>322.40</b>	<b>16.19</b>	<b>84.13</b>	<b>79.61</b>	<b>42.89</b>	<b>42.61</b>	<b>57.07</b>
<b>External financing</b>									
Debt securities	7.78	23.71	8.56	- 0.52	0.96	0.55	2.79	2.36	0.90
Short-term securities	1.96	- 0.15	0.60	- 0.42	- 2.62	- 1.83	2.54	1.48	0.38
Long-term securities	5.82	23.85	7.95	- 0.10	3.58	2.37	0.24	0.89	0.53
Memo item:									
Debt securities of domestic sectors	1.70	10.82	7.13	1.24	0.76	1.83	2.48	1.65	- 0.98
Non-financial corporations	- 0.80	0.67	- 0.56	- 0.72	- 0.56	- 0.14	- 0.01	0.32	- 0.13
Financial corporations	2.05	10.06	9.13	2.08	1.48	2.39	2.19	1.38	- 0.58
General government	0.02	0.01	0.01	0.02	0.00	0.00	0.01	- 0.01	0.00
Households	0.42	0.08	- 1.45	- 0.14	- 0.16	- 0.42	0.29	- 0.05	- 0.27
Debt securities of the rest of the world	6.08	12.89	1.42	- 1.76	0.20	- 1.28	0.31	0.71	1.88
Loans	70.25	41.74	97.41	16.68	23.95	14.83	40.15	46.92	33.60
Short-term loans	49.31	14.98	21.51	4.06	9.93	- 6.31	26.97	22.86	23.49
Long-term loans	20.94	26.76	75.91	12.61	14.02	21.14	13.18	24.06	10.11
Memo item:									
Loans from domestic sectors	39.10	20.78	55.94	11.29	14.94	10.82	27.94	19.87	23.77
Non-financial corporations	28.57	- 4.78	15.23	6.29	4.07	4.18	- 2.41	- 4.52	2.50
Financial corporations	17.37	22.35	40.62	5.36	13.16	4.12	30.50	23.61	20.14
General government	- 6.83	3.22	0.09	- 0.36	- 2.28	2.52	- 0.15	0.78	1.13
Loans from the rest of the world	31.15	20.95	41.47	5.38	9.00	4.01	12.21	27.05	9.83
Equity	23.71	16.09	13.41	6.26	5.76	- 2.67	2.40	11.38	- 1.03
Listed shares of domestic sectors	7.42	27.31	6.93	2.68	3.43	5.36	19.82	4.46	5.16
Non-financial corporations	- 8.04	22.59	- 3.76	- 2.26	1.96	0.80	21.64	- 2.90	- 1.38
Financial corporations	11.70	- 2.10	9.53	6.21	0.26	3.83	- 5.23	4.50	4.07
General government	0.11	0.07	0.51	0.13	0.16	0.15	0.16	0.15	0.09
Households	3.66	6.74	0.65	- 1.39	1.05	0.59	3.26	2.71	2.38
Listed shares of the rest of the world	- 1.40	- 25.79	- 2.59	- 1.28	- 1.47	- 4.71	8.91	6.20	- 4.78
Other equity <sup>1</sup>	17.69	14.57	9.07	4.86	3.80	- 3.32	- 26.33	0.71	- 1.42
Insurance technical reserves	5.60	3.60	7.25	1.81	1.81	1.81	1.81	1.81	1.81
Financial derivatives and employee stock options	- 10.81	- 0.13	3.69	2.23	1.00	- 2.12	1.50	3.27	3.72
Other accounts payable	17.41	37.62	57.05	- 17.89	25.29	15.71	18.30	19.82	5.60
<b>Total</b>	<b>113.94</b>	<b>122.62</b>	<b>187.37</b>	<b>8.57</b>	<b>58.76</b>	<b>28.11</b>	<b>66.95</b>	<b>85.55</b>	<b>44.60</b>

<sup>1</sup> Including unlisted shares.



IX. Financial accounts

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

End of year/quarter; € billion

Item	2015	2016	2017	2017			2018		
				Q2	Q3	Q4	Q1	Q2	Q3
<b>Financial assets</b>									
Currency and deposits	465.0	516.9	559.6	526.5	533.7	559.6	528.4	540.4	541.9
Debt securities	47.8	44.8	38.8	42.8	41.9	38.8	39.2	39.7	41.0
Short-term debt securities	6.0	5.5	3.3	3.9	3.6	3.3	3.1	3.1	3.5
Long-term debt securities	41.7	39.3	35.6	39.0	38.3	35.6	36.0	36.6	37.5
Memo item:									
Debt securities of domestic sectors	23.3	20.8	18.2	20.2	19.3	18.2	18.2	18.7	18.6
Non-financial corporations	3.6	4.4	3.9	4.6	4.1	3.9	3.8	4.1	4.0
Financial corporations	14.5	12.0	11.7	12.3	12.3	11.7	11.9	12.2	12.3
General government	5.2	4.4	2.5	3.3	3.0	2.5	2.4	2.3	2.3
Debt securities of the rest of the world	24.4	24.0	20.7	22.7	22.6	20.7	21.0	21.1	22.5
Loans	526.6	546.2	590.7	585.7	591.2	590.7	586.9	578.5	577.9
Short-term loans	432.0	450.7	475.0	470.6	472.3	475.0	480.1	476.0	475.5
Long-term loans	94.6	95.5	115.8	115.1	118.9	115.8	106.9	102.5	102.4
Memo item:									
Loans to domestic sectors	350.6	351.2	373.0	363.1	365.6	373.0	372.3	368.5	373.2
Non-financial corporations	287.3	282.6	297.8	289.5	293.6	297.8	295.4	290.9	293.4
Financial corporations	56.7	62.0	68.2	66.7	65.0	68.2	69.8	70.5	72.6
General government	6.5	6.7	7.0	6.9	7.0	7.0	7.1	7.1	7.2
Loans to the rest of the world	176.1	195.0	217.7	222.5	225.6	217.7	214.6	210.0	204.7
Equity and investment fund shares	1,959.8	2,013.5	2,155.5	2,083.2	2,112.5	2,155.5	2,152.2	2,202.8	2,232.2
Equity	1,807.9	1,853.6	1,985.5	1,925.1	1,951.1	1,985.5	1,981.3	2,030.0	2,058.4
Listed shares of domestic sectors	273.0	292.3	332.2	304.1	322.7	332.2	349.4	338.5	338.3
Non-financial corporations	266.6	286.2	325.3	297.9	315.9	325.3	342.2	330.9	330.4
Financial corporations	6.3	6.1	6.8	6.2	6.9	6.8	7.1	7.6	7.9
Listed shares of the rest of the world	32.3	44.4	48.5	56.3	47.8	48.5	49.3	64.8	49.7
Other equity <sup>1</sup>	1,502.6	1,516.8	1,604.8	1,564.6	1,580.6	1,604.8	1,582.6	1,626.7	1,670.3
Investment fund shares	151.9	159.9	170.1	158.2	161.4	170.1	170.9	172.8	173.9
Money market fund shares	1.4	1.9	1.5	1.7	0.6	1.5	0.9	0.9	0.7
Non-MMF investment fund shares	150.6	158.0	168.6	156.4	160.7	168.6	170.0	172.0	173.1
Insurance technical reserves	48.8	50.2	54.2	52.4	53.5	54.2	55.4	56.6	57.8
Financial derivatives	42.7	60.1	49.3	51.1	50.2	49.3	48.7	42.8	41.4
Other accounts receivable	930.9	974.2	1,081.3	1,017.8	1,075.4	1,081.3	1,137.0	1,150.5	1,145.9
<b>Total</b>	<b>4,021.7</b>	<b>4,205.9</b>	<b>4,529.5</b>	<b>4,359.4</b>	<b>4,458.3</b>	<b>4,529.5</b>	<b>4,547.8</b>	<b>4,611.4</b>	<b>4,638.2</b>
<b>Liabilities</b>									
Debt securities	156.8	183.8	210.6	188.1	210.2	210.6	185.4	189.0	185.8
Short-term securities	3.0	2.9	3.4	7.9	5.3	3.4	5.9	7.4	6.5
Long-term securities	153.7	180.9	207.2	180.2	205.0	207.2	179.4	181.6	179.2
Memo item:									
Debt securities of domestic sectors	58.7	72.1	82.8	75.4	80.0	82.8	79.6	80.1	78.9
Non-financial corporations	3.6	4.4	3.9	4.6	4.1	3.9	3.8	4.1	4.0
Financial corporations	40.0	51.9	64.3	55.9	61.0	64.3	61.2	61.5	60.7
General government	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Households	15.0	15.7	14.4	14.8	14.8	14.4	14.4	14.3	14.1
Debt securities of the rest of the world	98.1	111.7	127.8	112.7	130.3	127.8	105.8	108.9	106.9
Loans	1,477.0	1,514.1	1,610.8	1,566.5	1,586.2	1,610.8	1,648.0	1,693.2	1,721.2
Short-term loans	582.6	598.0	624.1	612.6	621.3	624.1	650.1	674.1	692.7
Long-term loans	894.4	916.1	986.8	953.9	964.9	986.8	997.9	1,019.1	1,028.5
Memo item:									
Loans from domestic sectors	1,144.3	1,160.2	1,211.4	1,188.5	1,201.0	1,211.4	1,237.4	1,253.3	1,276.1
Non-financial corporations	287.3	282.6	297.8	289.5	293.6	297.8	295.4	290.9	293.4
Financial corporations	798.6	817.2	854.2	839.1	849.7	854.2	883.0	903.0	922.4
General government	58.4	60.4	59.5	59.8	57.7	59.5	59.0	59.5	60.4
Loans from the rest of the world	332.7	353.9	399.4	378.0	385.2	399.4	410.6	439.9	445.1
Equity	2,702.8	2,785.3	3,062.0	2,929.4	3,014.5	3,062.0	2,957.4	2,978.5	2,942.3
Listed shares of domestic sectors	626.4	664.0	756.6	697.8	737.6	756.6	745.7	735.0	740.5
Non-financial corporations	266.6	286.2	325.3	297.9	315.9	325.3	342.2	330.9	330.4
Financial corporations	150.1	154.7	180.2	166.4	173.4	180.2	163.6	164.5	167.5
General government	43.4	44.4	51.8	46.7	51.0	51.8	48.7	49.0	52.1
Households	166.2	178.7	199.2	186.8	197.4	199.2	191.1	190.7	190.5
Listed shares of the rest of the world	756.3	803.7	925.3	879.1	906.1	925.3	881.6	907.0	875.0
Other equity <sup>1</sup>	1,320.1	1,317.6	1,380.1	1,352.4	1,370.8	1,380.1	1,330.2	1,336.5	1,326.8
Insurance technical reserves	255.9	259.5	266.7	263.1	264.9	266.7	268.6	270.4	272.2
Financial derivatives and employee stock options	42.0	38.2	26.9	32.7	31.3	26.9	26.7	28.2	30.1
Other accounts payable	1,013.6	1,056.9	1,103.8	1,051.6	1,091.6	1,103.8	1,128.7	1,147.9	1,158.4
<b>Total</b>	<b>5,648.1</b>	<b>5,837.8</b>	<b>6,280.8</b>	<b>6,031.5</b>	<b>6,198.8</b>	<b>6,280.8</b>	<b>6,214.7</b>	<b>6,307.2</b>	<b>6,310.0</b>

<sup>1</sup> Including unlisted shares.

## IX. Financial accounts

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

€ billion

Item	2015	2016	2017	2017			2018		
				Q2	Q3	Q4	Q1	Q2	Q3
<b>Acquisition of financial assets</b>									
Currency and deposits	96.67	114.85	106.17	30.14	22.25	41.37	14.00	40.39	27.25
Currency	25.51	21.18	19.73	5.55	6.67	3.81	3.67	7.57	7.00
Deposits	71.16	93.68	86.45	24.59	15.58	37.57	10.33	32.83	20.24
Transferable deposits	100.96	105.26	99.72	29.95	20.65	35.86	12.14	33.90	21.35
Time deposits	- 9.22	1.28	- 4.03	- 2.32	- 2.47	2.34	1.15	1.99	1.43
Savings deposits (including savings certificates)	- 20.58	- 12.87	- 9.24	- 3.04	- 2.61	- 0.64	- 2.95	- 3.06	- 2.53
Debt securities	- 18.40	- 12.80	- 8.14	- 1.49	- 2.28	- 3.01	- 1.00	0.52	1.71
Short-term debt securities	0.75	- 0.16	- 0.20	0.18	- 0.34	- 0.41	- 0.37	- 0.01	- 0.02
Long-term debt securities	- 19.15	- 12.63	- 7.93	- 1.67	- 1.94	- 2.60	- 0.63	0.53	1.72
Memo item:									
Debt securities of domestic sectors	- 10.06	- 4.14	- 5.09	- 0.67	- 1.88	- 2.56	- 0.01	0.16	1.18
Non-financial corporations	0.36	- 0.01	- 1.43	- 0.22	- 0.14	- 0.40	0.08	- 0.23	- 0.12
Financial corporations	- 7.42	- 2.48	- 2.68	- 0.17	- 1.55	- 1.97	0.07	0.61	1.36
General government	- 2.99	- 1.65	- 0.99	- 0.28	- 0.18	- 0.19	- 0.17	- 0.22	- 0.06
Debt securities of the rest of the world	- 8.34	- 8.66	- 3.05	- 0.82	- 0.41	- 0.45	- 0.98	0.36	0.53
Equity and investment fund shares	47.95	45.78	55.13	12.32	14.08	16.62	17.73	8.06	11.79
Equity	16.62	21.65	14.69	2.21	5.11	3.97	7.35	2.79	7.01
Listed shares of domestic sectors	4.17	9.37	0.90	- 0.18	0.89	0.04	4.27	2.55	2.63
Non-financial corporations	3.88	6.09	0.54	- 1.42	1.01	0.47	3.12	1.63	2.27
Financial corporations	0.28	3.28	0.36	1.24	- 0.12	- 0.43	1.15	0.92	0.37
Listed shares of the rest of the world	8.00	6.94	9.66	1.69	2.94	2.77	1.47	- 0.83	2.82
Other equity <sup>1</sup>	4.45	5.35	4.13	0.70	1.28	1.15	1.61	1.07	1.57
Investment fund shares	31.33	24.13	40.44	10.11	8.97	12.65	10.38	5.27	4.77
Money market fund shares	- 0.57	- 0.53	- 0.28	0.04	- 0.16	0.05	- 0.40	- 0.03	- 0.06
Non-MMF investment fund shares	31.90	24.66	40.72	10.08	9.12	12.60	10.79	5.29	4.83
Non-life insurance technical reserves and provision for calls under standardised guarantees	20.09	15.58	20.23	4.18	4.17	7.75	4.22	4.24	4.16
Life insurance and annuity entitlements	31.69	24.79	37.68	9.33	7.55	8.20	11.79	8.20	7.47
Pension entitlement, claims of pension funds on pension managers, entitlements to non-pension benefits	30.85	32.58	30.84	8.59	6.87	3.49	4.30	4.84	4.51
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 <sup>2</sup>	- 17.31	- 19.49	- 30.79	- 10.30	- 5.28	- 25.36	19.03	- 9.88	- 7.96
<b>Total</b>	<b>191.54</b>	<b>201.31</b>	<b>211.12</b>	<b>52.77</b>	<b>47.35</b>	<b>49.06</b>	<b>70.09</b>	<b>56.37</b>	<b>48.91</b>
<b>External financing</b>									
Loans	38.20	47.46	55.55	16.64	18.56	12.45	10.81	20.12	20.41
Short-term loans	- 3.17	- 4.31	- 2.19	- 0.34	- 1.09	- 0.40	- 0.02	0.11	1.83
Long-term loans	41.36	51.76	57.74	16.98	19.66	12.85	10.83	20.01	18.58
Memo item:									
Mortgage loans	35.63	41.92	47.41	13.31	15.84	12.15	9.00	15.79	17.50
Consumer loans	5.44	9.78	11.25	3.25	3.41	2.19	1.78	4.34	2.36
Entrepreneurial loans	- 2.88	- 4.24	- 3.11	0.07	- 0.68	- 1.89	0.04	- 0.01	0.55
Memo item:									
Loans from monetary financial institutions	39.35	42.87	49.99	15.54	16.93	10.42	11.00	17.65	19.41
Loans from other financial institutions	- 1.16	4.59	5.57	1.10	1.63	2.03	- 0.19	2.47	1.00
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	- 1.14	- 0.23	0.53	0.06	0.02	0.34	0.22	0.01	- 0.05
<b>Total</b>	<b>37.06</b>	<b>47.23</b>	<b>56.09</b>	<b>16.70</b>	<b>18.58</b>	<b>12.79</b>	<b>11.03</b>	<b>20.13</b>	<b>20.36</b>

<sup>1</sup> Including unlisted shares. <sup>2</sup> Including accumulated interest-bearing surplus shares with insurance corporations.

## IX. Financial accounts

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

End of year/quarter; € billion

Item	2015	2016	2017	2017			2018		
				Q2	Q3	Q4	Q1	Q2	Q3
<b>Financial assets</b>									
Currency and deposits	2,094.8	2,208.7	2,313.7	2,252.0	2,274.3	2,313.7	2,327.7	2,368.1	2,397.1
Currency	153.2	174.4	194.1	183.6	190.3	194.1	197.8	205.3	212.3
Deposits	1,941.6	2,034.4	2,119.6	2,068.4	2,084.0	2,119.6	2,130.0	2,162.8	2,184.8
Transferable deposits	1,082.4	1,188.0	1,287.7	1,231.2	1,251.8	1,287.7	1,299.8	1,333.7	1,354.9
Time deposits	246.8	248.7	245.4	245.6	243.1	245.4	246.6	248.6	250.2
Savings deposits (including savings certificates)	612.4	597.7	586.5	591.7	589.1	586.5	583.6	580.5	579.8
Debt securities	139.8	127.4	120.5	125.4	123.6	120.5	117.7	118.1	119.3
Short-term debt securities	2.9	2.7	2.5	3.2	2.9	2.5	2.1	2.0	2.0
Long-term debt securities	136.9	124.7	118.0	122.2	120.7	118.0	115.6	116.0	117.3
Memo item:									
Debt securities of domestic sectors	89.4	85.6	82.5	86.2	85.1	82.5	81.2	81.4	82.5
Non-financial corporations	13.4	13.9	12.5	13.0	12.9	12.5	12.4	12.1	12.1
Financial corporations	69.5	66.7	66.1	68.9	68.1	66.1	65.1	65.7	67.0
General government	6.5	5.0	3.9	4.3	4.1	3.9	3.7	3.5	3.4
Debt securities of the rest of the world	50.3	41.8	37.9	39.3	38.5	37.9	36.4	36.7	36.9
Equity and investment fund shares	1,040.7	1,105.7	1,215.8	1,156.1	1,190.9	1,215.8	1,196.1	1,214.9	1,239.8
Equity	555.9	587.9	639.7	609.0	630.2	639.7	624.0	628.5	644.2
Listed shares of domestic sectors	188.9	200.8	226.4	211.1	223.7	226.4	217.3	214.2	217.2
Non-financial corporations	158.7	169.8	190.3	177.5	188.4	190.3	182.5	180.8	180.8
Financial corporations	30.3	31.0	36.1	33.6	35.4	36.1	34.8	33.4	36.5
Listed shares of the rest of the world	74.8	86.8	101.0	92.7	96.5	101.0	97.7	102.9	111.4
Other equity <sup>1</sup>	292.2	300.3	312.3	305.2	309.9	312.3	309.0	311.5	315.6
Investment fund shares	484.8	517.8	576.2	547.2	560.7	576.2	572.1	586.3	595.7
Money market fund shares	3.4	2.8	2.7	2.8	2.6	2.7	2.3	2.3	2.1
Non-MMF investment fund shares	481.4	515.0	573.5	544.4	558.1	573.5	569.8	584.1	593.5
Non-life insurance technical reserves and provision for calls under standardised guarantees	324.3	339.9	360.1	348.2	352.3	360.1	364.3	368.6	372.7
Life insurance and annuity entitlements	919.5	947.8	991.4	973.2	981.9	991.4	1,003.6	1,012.2	1,020.1
Pension entitlement, claims of pension funds on pension managers, entitlements to non-pension benefits	786.6	819.2	849.8	832.1	839.7	849.8	854.1	859.0	863.5
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 <sup>2</sup>	37.1	32.6	31.1	32.2	31.7	31.1	31.5	31.8	31.8
<b>Total</b>	<b>5,342.8</b>	<b>5,581.4</b>	<b>5,882.5</b>	<b>5,719.3</b>	<b>5,794.4</b>	<b>5,882.5</b>	<b>5,895.1</b>	<b>5,972.6</b>	<b>6,044.4</b>
<b>Liabilities</b>									
Loans	1,606.6	1,654.7	1,711.9	1,680.5	1,699.1	1,711.9	1,722.6	1,737.9	1,758.7
Short-term loans	60.9	56.6	54.4	55.9	54.8	54.4	54.4	54.5	56.3
Long-term loans	1,545.8	1,598.1	1,657.5	1,624.6	1,644.3	1,657.5	1,668.2	1,683.4	1,702.4
Memo item:									
Mortgage loans	1,153.8	1,195.8	1,247.4	1,218.3	1,234.7	1,247.4	1,257.4	1,275.0	1,292.9
Consumer loans	191.9	201.8	211.8	207.4	210.6	211.8	212.8	213.4	215.5
Entrepreneurial loans	260.9	257.0	252.7	254.8	253.8	252.7	252.5	249.5	250.4
Memo item:									
Loans from monetary financial institutions	1,514.9	1,558.3	1,610.0	1,582.3	1,599.2	1,610.0	1,620.9	1,633.7	1,653.5
Loans from other financial institutions	91.8	96.4	101.9	98.3	99.9	101.9	101.8	104.2	105.2
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	15.1	15.4	16.3	16.4	16.7	16.3	17.6	17.2	17.4
<b>Total</b>	<b>1,621.7</b>	<b>1,670.1</b>	<b>1,728.3</b>	<b>1,697.0</b>	<b>1,715.8</b>	<b>1,728.3</b>	<b>1,740.3</b>	<b>1,755.1</b>	<b>1,776.1</b>

<sup>1</sup> Including unlisted shares. <sup>2</sup> 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				
	<b>Deficit/surplus<sup>1</sup></b>									
2012	- 0.9	- 16.1	- 5.5	+ 2.2	+ 18.4	- 0.0	- 0.6	- 0.2	+ 0.1	+ 0.7
2013	- 4.0	- 7.4	- 2.5	+ 0.5	+ 5.4	- 0.1	- 0.3	- 0.1	+ 0.0	+ 0.2
2014	+ 16.7	+ 13.7	+ 0.1	- 0.2	+ 3.1	+ 0.6	+ 0.5	+ 0.0	- 0.0	+ 0.1
2015 P	+ 23.9	+ 14.7	+ 2.2	+ 4.3	+ 2.7	+ 0.8	+ 0.5	+ 0.1	+ 0.1	+ 0.1
2016 P	+ 28.7	+ 11.5	+ 4.2	+ 4.8	+ 8.2	+ 0.9	+ 0.4	+ 0.1	+ 0.2	+ 0.3
2017 P	+ 34.0	+ 6.1	+ 8.3	+ 9.5	+ 10.1	+ 1.0	+ 0.2	+ 0.3	+ 0.3	+ 0.3
2018 P <sup>pe</sup>	+ 58.0	+ 17.9	+ 11.1	+ 14.0	+ 14.9	+ 1.7	+ 0.5	+ 0.3	+ 0.4	+ 0.4
2017 H1 P	+ 19.8	+ 1.5	+ 5.1	+ 6.2	+ 7.0	+ 1.2	+ 0.1	+ 0.3	+ 0.4	+ 0.4
H2 P	+ 14.2	+ 4.6	+ 3.2	+ 3.3	+ 3.1	+ 0.9	+ 0.3	+ 0.2	+ 0.2	+ 0.2
2018 H1 P <sup>pe</sup>	+ 48.2	+ 17.3	+ 14.5	+ 7.5	+ 9.0	+ 2.9	+ 1.0	+ 0.9	+ 0.4	+ 0.5
H2 P <sup>pe</sup>	+ 9.8	+ 0.6	- 3.3	+ 6.6	+ 6.0	+ 0.6	+ 0.0	- 0.2	+ 0.4	+ 0.3
	<b>Debt level<sup>2</sup></b>									
	<b>End of year or quarter</b>									
2012	2,225.2	1,387.9	684.1	169.8	1.2	80.7	50.3	24.8	6.2	0.0
2013	2,210.7	1,390.4	663.5	172.9	1.3	78.2	49.2	23.5	6.1	0.0
2014	2,212.3	1,396.5	657.8	174.5	1.4	75.3	47.5	22.4	5.9	0.0
2015 P	2,182.0	1,372.6	654.5	174.4	1.4	71.6	45.0	21.5	5.7	0.0
2016 P	2,165.9	1,366.8	637.5	175.8	1.1	68.5	43.3	20.2	5.6	0.0
2017 P	2,115.4	1,351.3	610.5	171.7	0.8	64.5	41.2	18.6	5.2	0.0
2018 P	2,063.2	1,323.0	595.5	162.6	0.7	60.9	39.1	17.6	4.8	0.0
2017 Q1 P	2,140.2	1,351.0	628.1	174.7	1.2	67.0	42.3	19.7	5.5	0.0
Q2 P	2,133.9	1,353.6	620.5	174.6	0.9	66.4	42.1	19.3	5.4	0.0
Q3 P	2,127.5	1,353.0	618.5	173.1	0.8	65.5	41.7	19.1	5.3	0.0
Q4 P	2,115.4	1,351.3	610.5	171.7	0.8	64.5	41.2	18.6	5.2	0.0
2018 Q1 P	2,092.5	1,338.6	599.8	171.2	1.0	63.4	40.5	18.2	5.2	0.0
Q2 P	2,076.9	1,329.3	595.9	169.8	0.9	62.2	39.8	17.9	5.1	0.0
Q3 P	2,077.1	1,335.5	594.8	164.5	0.8	61.8	39.7	17.7	4.9	0.0
Q4 P	2,063.2	1,323.0	595.5	162.6	0.7	60.9	39.1	17.6	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 <sup>1</sup>	
	Total	of which: Taxes	Social contributions Other	Total	of which: Social benefits	Compensation of employees	Intermediate consumption	Gross capital formation	Interest	Other			
	<b>€ billion</b>												
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	1,259.0	651.0	465.0	143.0	1,263.0	666.4	217.8	133.0	60.1	55.5	130.2	- 4.0	1,120.3
2014	1,308.5	673.6	482.0	153.0	1,291.8	691.1	224.4	137.7	60.1	47.0	131.6	+ 16.7	1,160.2
2015 P	1,356.5	704.2	500.8	151.5	1,332.6	721.7	229.8	143.8	64.1	42.3	130.9	+ 23.9	1,212.0
2016 P	1,415.5	738.7	523.9	152.9	1,386.8	755.2	237.8	150.1	68.2	37.4	138.0	+ 28.7	1,269.5
2017 P	1,473.8	772.5	548.6	152.8	1,439.8	784.5	246.7	156.3	72.4	33.8	146.1	+ 34.0	1,327.9
2018 P <sup>pe</sup>	1,543.6	807.8	571.7	164.0	1,485.5	806.5	256.3	161.8	78.1	31.0	151.9	+ 58.0	1,386.6
	<b>As a percentage of GDP</b>												
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	44.5	23.0	16.5	5.1	44.7	23.6	7.7	4.7	2.1	2.0	4.6	- 0.1	39.6
2014	44.5	22.9	16.4	5.2	44.0	23.5	7.6	4.7	2.0	1.6	4.5	+ 0.6	39.5
2015 P	44.5	23.1	16.4	5.0	43.7	23.7	7.5	4.7	2.1	1.4	4.3	+ 0.8	39.8
2016 P	44.8	23.4	16.6	4.8	43.9	23.9	7.5	4.8	2.2	1.2	4.4	+ 0.9	40.2
2017 P	45.0	23.6	16.7	4.7	43.9	23.9	7.5	4.8	2.2	1.0	4.5	+ 1.0	40.5
2018 P <sup>pe</sup>	45.6	23.9	16.9	4.8	43.9	23.8	7.6	4.8	2.3	0.9	4.5	+ 1.7	41.0
	<b>Percentage growth rates</b>												
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	+ 3.1	+ 4.2	+ 2.4	+ 1.0	+ 3.4	+ 3.2	+ 2.6	+ 5.1	- 2.2	- 12.0	+ 15.4	.	+ 3.4
2014	+ 3.9	+ 3.5	+ 3.6	+ 6.9	+ 2.3	+ 3.7	+ 3.1	+ 3.5	- 0.1	- 15.4	+ 1.1	.	+ 3.6
2015 P	+ 3.7	+ 4.5	+ 3.9	- 0.9	+ 3.2	+ 4.4	+ 2.4	+ 4.5	+ 6.6	- 9.9	- 0.6	.	+ 4.5
2016 P	+ 4.4	+ 4.9	+ 4.6	+ 0.9	+ 4.1	+ 4.6	+ 3.5	+ 4.4	+ 6.5	- 11.7	+ 5.5	.	+ 4.7
2017 P	+ 4.1	+ 4.6	+ 4.7	- 0.1	+ 3.8	+ 3.9	+ 3.8	+ 4.1	+ 6.2	- 9.5	+ 5.9	.	+ 4.6
2018 P <sup>pe</sup>	+ 4.7	+ 4.6	+ 4.2	+ 7.4	+ 3.2	+ 2.8	+ 3.9	+ 3.6	+ 7.9	- 8.5	+ 4.0	.	+ 4.4

Source: Federal Statistical Office. \* Figures in accordance with ESA 2010. **1** Taxes and social contributions plus customs duties and bank levies to the Single Resolution Fund.

## X. Public finances in Germany

### 3. General government: budgetary development (as per the government finance statistics)

€ billion

Period	Central, state and local government <sup>1</sup>									Social security funds <sup>2</sup>			General government, total			
	Revenue			Expenditure						Deficit/ surplus	Rev- enue <sup>6</sup>	Expend- iture	Deficit/ surplus	Rev- enue	Expend- iture	Deficit/ surplus
	Total <sup>4</sup>	of which:		Total <sup>4</sup>	of which: <sup>3</sup>											
		Taxes	Finan- cial transac- tions <sup>5</sup>		Person- nel expend- iture	Current grants	Interest	Fixed asset forma- tion	Finan- cial transac- tions <sup>5</sup>							
2012 P	745.0	600.0	14.7	770.2	218.8	285.2	69.9	42.6	25.5	- 25.2	536.2	518.8	+ 17.4	1,171.1	1,178.8	- 7.8
2013 P	761.8	619.7	14.7	773.6	225.3	286.9	65.7	42.8	23.5	- 11.8	536.7	531.9	+ 4.9	1,198.1	1,205.0	- 6.9
2014 P	791.8	643.6	11.3	786.7	236.0	292.9	57.1	45.9	17.6	+ 5.1	554.5	551.1	+ 3.5	1,245.3	1,236.7	+ 8.6
2015 P	829.5	673.3	10.4	804.1	244.1	302.6	49.8	46.4	12.5	+ 25.5	575.0	573.1	+ 1.9	1,300.8	1,273.4	+ 27.4
2016 P	862.1	705.8	9.0	843.4	251.3	320.5	43.4	49.0	11.8	+ 18.7	601.8	594.8	+ 7.1	1,355.0	1,329.2	+ 25.8
2017 P	900.0	734.5	7.9	872.1	261.6	325.9	42.0	52.3	13.8	+ 27.9	631.3	621.8	+ 9.5	1,417.0	1,379.7	+ 37.4
2016 Q1 P	206.1	169.9	1.4	205.5	60.0	81.2	17.7	8.4	2.2	+ 0.6	143.0	146.6	- 3.6	322.2	325.3	- 3.0
Q2 P	216.7	176.6	2.4	194.1	60.7	77.7	5.4	10.4	2.4	+ 22.7	148.7	147.0	+ 1.7	338.5	314.2	+ 24.3
Q3 P	207.1	169.3	2.9	210.9	62.0	79.3	14.5	12.3	2.4	- 3.8	148.3	149.7	- 1.4	328.2	333.4	- 5.2
Q4 P	232.6	189.2	2.1	233.2	68.1	82.6	7.7	17.2	4.8	- 0.6	160.1	152.2	+ 7.8	365.3	358.1	+ 7.2
2017 Q1 P	216.0	180.4	0.9	199.6	62.9	80.3	13.8	10.2	1.9	+ 16.4	150.3	155.1	- 4.8	338.0	326.4	+ 11.6
Q2 P	217.9	177.3	1.2	206.6	63.9	83.6	6.6	8.8	3.6	+ 11.3	156.4	154.3	+ 2.1	346.1	332.7	+ 13.4
Q3 P	219.6	180.4	3.5	215.9	64.4	78.6	14.5	13.4	4.2	+ 3.8	154.8	155.7	- 0.9	346.1	343.2	+ 2.8
Q4 P	243.8	196.3	2.1	244.4	69.8	84.7	6.9	19.2	4.1	- 0.6	168.2	158.0	+ 10.2	383.4	373.8	+ 9.6
2018 Q1 P	225.7	189.1	1.1	210.0	66.0	81.7	14.6	9.1	2.5	+ 15.7	156.1	160.8	- 4.7	352.7	341.7	+ 11.0
Q2 P	239.9	194.7	1.0	206.2	65.9	80.9	5.8	11.4	2.1	+ 33.7	162.4	160.1	+ 2.3	373.3	337.3	+ 36.1
Q3 P	228.8	189.0	1.8	223.6	67.0	84.6	13.4	14.4	1.9	+ 5.2	161.8	161.1	+ 0.7	361.3	355.5	+ 5.9

Source: Bundesbank calculations based on Federal Statistical Office data. <sup>1</sup> 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. <sup>2</sup> 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. <sup>3</sup> The development of the types of expenditure recorded here is influenced in part by statistical changeovers. <sup>4</sup> Including discrepancies in clearing transactions between central, state and local government. <sup>5</sup> 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. <sup>6</sup> Including central government liquidity assistance to the Federal Employment Agency.

### 4. Central, state and local government: budgetary development (as per the government finance statistics)

€ billion

Period	Central government			State government <sup>2,3</sup>			Local government <sup>3</sup>		
	Revenue <sup>1</sup>	Expenditure	Deficit/surplus	Revenue	Expenditure	Deficit/surplus	Revenue	Expenditure	Deficit/surplus
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	381.1	372.4	+ 8.8	248.9	243.1	+ 5.8
2017 P	357.8	352.8	+ 5.0	397.7	385.8	+ 11.8	260.3	249.1	+ 11.2
2016 Q1 P	81.1	82.2	- 1.1	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	93.9	- 3.0	104.3	104.4	- 0.1	76.3	68.0	+ 8.3
2017 Q1 P	88.2	82.9	+ 5.3	95.6	90.0	+ 5.6	52.7	57.7	- 4.9
Q2 P	81.5	80.0	+ 1.4	96.3	93.6	+ 2.7	65.0	59.5	+ 5.5
Q3 P	88.6	93.6	- 5.0	98.9	91.4	+ 7.5	63.4	61.5	+ 1.9
Q4 P	99.5	96.2	+ 3.3	104.7	109.2	- 4.5	77.2	69.1	+ 8.2
2018 Q1 P	87.9	83.9	+ 4.0	100.0	92.7	+ 7.3	54.9	60.3	- 5.3
Q2 P	94.5	79.8	+ 14.6	104.3	91.8	+ 12.5	68.5	62.4	+ 6.1
Q3 P	91.7	95.9	- 4.2	100.7	95.4	+ 5.3	66.0	64.3	+ 1.7

Source: Bundesbank calculations based on Federal Statistical Office data. <sup>1</sup> 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. <sup>2</sup> Including the local authority level of the city states Berlin, Bremen and Hamburg. <sup>3</sup> 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.

## X. Public finances in Germany

### 5. Central, state and local government: tax revenue

€ million

Period	Central and state government and European Union							Balance of untransferred tax shares 4	Memo item: Amounts deducted in the Federal budget 5
	Total	Total	Central government 1	State government 1	European Union 2	Local government 3			
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	705,797	606,965	316,854	260,837	29,273	98,648	+	186	27,836
2017	734,540	629,458	336,730	271,046	21,682	105,158	-	76	27,368
2018	...	665,005	349,134	287,282	28,589	...	...	...	26,775
2017 Q1	181,506	154,154	85,256	66,704	2,194	17,950	+	9,403	6,606
Q2	177,090	149,915	76,391	66,605	6,918	27,631	-	456	6,825
Q3	180,407	155,250	82,576	66,718	5,957	25,517	-	361	7,467
Q4	195,537	170,139	92,507	71,019	6,613	34,060	-	8,662	6,471
2018 Q1	189,457	159,974	83,370	69,413	7,191	19,173	+	10,310	6,398
Q2	194,715	166,191	88,450	71,995	5,745	29,064	-	540	6,592
Q3	189,015	161,683	84,952	69,414	7,317	27,579	-	248	7,579
Q4	...	177,157	92,363	76,459	8,335	...	...	...	6,206
2018 Jan.	.	44,363	23,285	20,388	691	.	.	.	2,133
Feb.	.	52,743	27,156	21,606	3,980	.	.	.	2,133
2019 Jan.	.	45,319	21,694	21,139	2,486	.	.	.	2,090
Feb.	.	51,841	23,568	21,883	6,391	.	.	.	2,090

Sources: Federal Ministry of Finance, Federal Statistical Office and Bundesbank calculations. **1** Before deducting or adding supplementary central government grants, regionalisation funds (local public transport), compensation for the transfer of motor vehicle tax to central government and consolidation assistance, 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** Customs 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
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	648,309	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
2017	674,598	312,462	195,524	59,428	29,259	28,251	226,355	170,498	55,856	8,580	99,934	22,205	5,063	45,141
2018	713,576	332,141	208,231	60,415	33,425	30,069	234,800	175,437	59,363	9,078	108,586	23,913	5,057	48,571
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
Q2	161,036	78,178	48,256	14,825	7,872	7,225	54,243	39,885	14,358	2,059	19,868	5,407	1,281	11,121
Q3	165,923	75,218	47,253	12,720	6,034	9,211	56,481	42,571	13,911	2,214	25,114	5,580	1,315	10,673
Q4	182,288	82,077	54,707	14,873	6,843	5,654	58,128	43,846	14,282	3,868	31,587	5,384	1,243	12,149
2018 Q1	172,111	81,713	48,059	17,640	9,418	6,595	59,248	45,272	13,977	291	23,752	5,836	1,271	12,136
Q2	178,102	86,322	51,395	14,889	9,302	10,736	55,801	41,220	14,581	2,215	26,474	6,170	1,119	11,912
Q3	173,202	78,105	50,368	12,683	7,192	7,862	59,169	43,951	15,218	2,315	26,424	5,797	1,391	11,519
Q4	190,161	86,001	58,409	15,204	7,513	4,876	60,581	44,994	15,587	4,257	31,936	6,109	1,276	13,004
2018 Jan.	47,874	21,863	17,305	985	773	2,800	19,073	14,865	4,207	85	4,552	1,959	343	3,511
Feb.	56,241	19,520	15,732	1,287	486	2,015	24,142	18,811	5,331	186	10,109	1,808	476	3,499
2019 Jan.	49,004	22,717	18,456	1,116	327	2,817	19,252	15,138	4,114	-	4,574	2,196	304	3,684
Feb.	55,324	18,356	16,611	442	33	1,335	24,937	19,272	5,665	149	9,327	2,054	500	3,482

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 2018: 49.6:47.2:3.2. The EU share is deducted from central government's share. **6** Respective percentage share of central and state government for 2018: 22.7:77.3. **7** For the breakdown, see Table X. 7.

## X. Public finances in Germany

### 7. Central, state and local government: individual taxes

€ million

Period	Central government taxes 1								State government taxes 1				Local government taxes		
	Energy tax	Solidarity surcharge	Tobacco tax	Insurance tax	Motor vehicle tax	Electricity tax	Alcohol tax	Other	Tax on the acquisition of land and buildings	Inheritance tax	Betting and lottery tax	Other	Total	of which:	
														Local business tax 2	Real property taxes
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	65,319	50,103	13,654
2017	41,022	17,953	14,399	13,269	8,948	6,944	2,094	-4,695	13,139	6,114	1,837	1,115	68,522	52,899	13,966
2018	40,882	18,927	14,339	13,779	9,047	6,858	2,133	2,622	14,083	6,813	1,894	1,122	...	...	...
2017 Q1	4,812	4,324	2,637	6,178	2,536	1,746	578	553	3,359	1,641	490	343	16,593	12,905	3,228
Q2	10,091	4,809	3,634	2,353	2,374	1,784	476	-5,652	3,129	1,538	474	265	18,113	13,881	3,832
Q3	10,497	4,144	3,867	2,669	2,132	1,628	502	-324	3,394	1,497	417	273	16,698	12,443	3,824
Q4	15,622	4,677	4,261	2,070	1,906	1,786	538	727	3,257	1,438	456	233	17,118	13,670	3,082
2018 Q1	4,865	4,587	2,425	6,388	2,602	1,725	591	569	3,576	1,431	479	350	17,638	13,880	3,291
Q2	10,158	5,127	3,485	2,442	2,360	1,805	466	631	3,270	2,166	470	264	18,827	14,548	3,853
Q3	10,423	4,353	3,886	2,752	2,128	1,677	531	674	3,592	1,463	464	278	18,128	13,764	3,919
Q4	15,436	4,860	4,543	2,197	1,956	1,650	545	749	3,645	1,752	481	231	...	...	...
2018 Jan.	279	1,222	332	834	905	586	221	174	1,223	486	174	76	.	.	.
Feb.	1,436	1,138	991	4,820	739	546	228	211	1,131	453	150	74	.	.	.
2019 Jan.	353	1,279	247	802	918	576	216	184	1,407	514	192	83	.	.	.
Feb.	1,314	1,081	843	4,359	766	531	217	214	1,276	557	150	71	.	.	.

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: Administrative assets
	Total	of which:		Total	of which:			Total	Deposits 5	Securities	Equity interests, mortgages and other loans 6	Real estate	
		Contributions 3	Payments from central government		Pension payments	Pensioners' health insurance							
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	34,094	31,524	2,315	203	52	4,147
2017	299,826	211,424	87,502	299,297	255,261	18,028	+ 529	35,366	33,740	1,335	238	53	4,032
2018 p	311,975	221,558	89,699	307,944	263,687	18,582	+ 4,031	40,353	38,332	1,713	252	56	4,018
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
Q2	74,581	52,739	21,632	73,785	63,016	4,440	+ 796	32,535	30,372	1,901	210	52	4,136
Q3	73,295	51,374	21,738	75,569	64,628	4,560	- 2,274	30,801	28,831	1,701	214	54	4,115
Q4	79,956	57,910	21,790	75,842	64,694	4,562	+ 4,114	35,362	33,750	1,335	224	53	4,045
2018 Q1	74,368	51,726	22,489	75,482	64,885	4,569	- 1,114	34,219	32,775	1,146	240	58	4,029
Q2	77,824	55,186	22,451	75,747	64,742	4,557	+ 2,077	36,244	34,963	983	241	57	4,033
Q3	76,831	54,085	22,575	78,284	67,017	4,727	- 1,453	35,344	34,104	936	248	57	4,019
Q4	82,953	60,561	22,185	78,432	67,042	4,729	+ 4,521	40,353	38,332	1,713	252	56	4,018

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 generally differ from the total of the reported provisional quarterly figures as the latter are not revised sub-

sequently. 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.

## X. Public finances in Germany

### 9. Federal Employment Agency: budgetary development\*

Period	Revenue				Expenditure						Deficit/ surplus	Deficit- offsetting grant or loan from central government	
	Total <sup>1</sup>	of which:			Total	of which:							
		Contri- butions	Insolvency compen- sation levy	Central government subscriptions		Unemploy- ment benefit <sup>2</sup>	Short-time working benefits <sup>3</sup>	Job promotion <sup>4</sup>	Re- integration payment <sup>5</sup>	Insolvency benefit payment			Admini- strative expendi- ture <sup>6</sup>
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	-
2017	37,819	32,501	882	-	31,867	14,055	769	7,043	.	687	6,444	+ 5,952	-
2018	39,335	34,172	622	-	33,107	13,757	761	6,951	.	588	8,129	+ 6,228	-
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	-
Q2	9,355	8,112	227	-	7,964	3,529	173	1,802	.	155	1,577	+ 1,391	-
Q3	9,159	7,897	210	-	7,281	3,360	63	1,646	.	171	1,402	+ 1,878	-
Q4	10,446	8,929	241	-	7,789	3,193	55	1,823	.	215	1,717	+ 2,657	-
2018 Q1	9,167	7,926	151	-	9,546	3,826	415	1,742	.	174	2,625	- 379	-
Q2	9,713	8,523	152	-	8,471	3,431	245	1,752	.	161	2,209	+ 1,243	-
Q3	9,515	8,355	152	-	7,288	3,296	50	1,623	.	114	1,514	+ 2,227	-
Q4	10,940	9,367	167	-	7,802	3,204	51	1,834	.	139	1,781	+ 3,138	-

Source: Federal Employment Agency. \* Including transfers to the civil servants' pension fund. <sup>1</sup> Excluding central government deficit-offsetting grant or loan. <sup>2</sup> Unemployment benefit in case of unemployment. <sup>3</sup> Including seasonal short-time working benefits and restructuring short-time working benefits, restructuring measures and refunds of social security contributions. <sup>4</sup> Vocational training, measures to

encourage job take-up, rehabilitation, compensation top-up payments and promotion of business start-ups. <sup>5</sup> Until 2012. From 2005 to 2007: compensatory amount. <sup>6</sup> Including collection charges to other social security funds, excluding administrative expenditure within the framework of the basic allowance for job seekers.

### 10. Statutory health insurance scheme: budgetary development

Period	Revenue <sup>1</sup>			Expenditure <sup>1</sup>								Deficit/ surplus
	Total	of which:		Total	Hospital treatment	Pharma- ceuticals	Medical treatment	Dental treatment <sup>4</sup>	Thera- peutical treatment and aids	Sickness benefits	Admini- strative expendi- ture <sup>5</sup>	
		Contri- butions <sup>2</sup>	Central govern- ment funds <sup>3</sup>									
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
2017	233,814	216,227	14,500	230,773	72,303	37,389	38,792	14,070	14,776	12,281	10,912	+ 3,041
2018 P	242,367	224,913	14,500	239,807	74,544	38,566	40,023	14,453	15,894	13,091	11,481	+ 2,560
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	18,632	9,215	9,807	3,559	3,516	3,173	2,514	- 1,907
Q2	57,801	53,621	3,625	57,502	17,973	9,239	9,822	3,614	3,748	3,043	2,589	+ 298
Q3	57,617	53,442	3,625	57,202	17,802	9,330	9,629	3,374	3,679	2,980	2,731	+ 415
Q4	62,391	57,526	3,625	58,527	17,878	9,627	9,712	3,566	3,792	3,080	3,095	+ 3,865
2018 Q1	57,788	53,670	3,625	59,854	19,028	9,569	10,045	3,656	3,763	3,370	2,614	- 2,067
Q2	59,796	55,571	3,625	60,060	18,677	9,591	10,049	3,639	3,904	3,294	2,821	- 264
Q3	60,138	55,778	3,625	59,204	18,302	9,600	9,862	3,481	4,070	3,155	2,810	+ 934
Q4	64,645	59,893	3,625	60,689	18,537	9,806	10,067	3,677	4,157	3,272	3,236	+ 3,956

Source: Federal Ministry of Health. <sup>1</sup> The final annual figures generally differ from the total of the reported provisional quarterly figures as the latter are not revised subsequently. Excluding revenue and expenditure as part of the risk structure compensation scheme. <sup>2</sup> Including contributions from subsidised low-paid part-time employ-

ment. <sup>3</sup> Federal grant and liquidity assistance. <sup>4</sup> Including dentures. <sup>5</sup> Net, i.e. after deducting reimbursements for expenses for levying contributions incurred by other social security funds.



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

€ million

Period	Revenue <sup>1</sup>		Expenditure <sup>1</sup>						Deficit/ surplus	
	Total	of which: Contributions <sup>2</sup>	Total	of which:						
				Non-cash care benefits	Inpatient care	Nursing benefit	Contributions to pension insur- ance scheme <sup>3</sup>	Administrative expenditure		
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
2017	36,305	36,248	38,862	4,609	13,014	10,010	1,611	1,606	-	2,557
2018 P	37,719	37,654	41,273	4,783	12,952	10,877	2,080	1,594	-	3,553
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
Q2	8,978	8,962	9,379	1,080	3,230	2,440	347	397	-	400
Q3	8,945	8,932	9,944	1,210	3,289	2,562	422	411	-	999
Q4	9,620	9,610	10,110	1,158	3,285	2,731	470	387	-	490
2018 Q1	8,961	8,948	10,146	1,192	3,233	2,603	496	424	-	1,185
Q2	9,338	9,322	10,118	1,160	3,217	2,658	509	389	-	780
Q3	9,349	9,334	10,428	1,202	3,251	2,781	515	397	-	1,079
Q4	10,071	10,050	10,581	1,229	3,251	2,835	561	384	-	510

Source: Federal Ministry of Health. \* Including transfers to the long-term care provident fund. <sup>1</sup> The final annual figures generally differ from the total of the reported provisional quarterly figures as the latter are not revised subsequently. <sup>2</sup> Since 2005

including special contributions for childless persons (0.25% of income subject to insurance contributions). <sup>3</sup> For non-professional carers.

### 12. Central government: borrowing in the market

€ million

Period	Total new borrowing <sup>1</sup>		of which: Change in money market loans	of which: Change in money market deposits <sup>3</sup>
	Gross <sup>2</sup>	Net		
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
2017	+ 171,906	+ 4,531	+ 11,823	+ 2,897
2018	+ 167,231	- 16,248	- 91	- 1,670
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
Q2	+ 42,941	+ 5,281	+ 318	+ 4,289
Q3	+ 44,338	+ 3,495	+ 587	+ 941
Q4	+ 36,878	+ 1,455	+ 4,741	+ 95
2018 Q1	+ 42,934	- 4,946	- 5,138	+ 3,569
Q2	+ 43,602	- 5,954	- 166	- 6,139
Q3	+ 46,500	+ 4,856	+ 1,688	+ 1,871
Q4	+ 34,195	- 10,205	+ 3,525	- 971

Source: Federal Republic of Germany – Finance Agency. <sup>1</sup> Including the Financial Market Stabilisation Fund, the Investment and Repayment Fund and the Restructuring Fund for Credit Institutions. <sup>2</sup> After deducting repurchases. <sup>3</sup> 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 €
		Bundes- bank	Domestic MFIs <sup>pe</sup>	Other do- mestic fi- nancial or- porations <sup>pe</sup>	Other domestic creditors <sup>1</sup>	
2012	2,225,204	12,126	652,393	199,132	60,157	1,301,397
2013	2,210,739	12,438	660,140	190,555	43,994	1,303,612
2014	2,212,280	12,774	630,752	190,130	44,949	1,333,675
2015	2,181,972	85,952	617,681	186,661	45,028	1,246,650
2016	2,165,891	205,391	594,765	179,755	41,737	1,144,243
2017 P	2,115,397	319,159	547,973	175,617	38,678	1,033,970
2018 P	2,063,172	364,731	493,533	181,077	39,043	984,788
2016 Q1	2,190,308	108,746	632,259	183,160	41,396	1,224,747
Q2	2,193,776	142,139	620,966	181,372	39,602	1,209,696
Q3	2,187,329	172,567	607,540	179,359	38,912	1,188,950
Q4	2,165,891	205,391	594,765	179,755	41,737	1,144,243
2017 Q1 P	2,140,165	239,495	581,651	178,219	39,561	1,101,239
Q2 P	2,133,921	265,130	567,962	176,810	39,008	1,085,011
Q3 P	2,127,477	290,214	555,881	176,646	39,276	1,065,460
Q4 P	2,115,397	319,159	547,973	175,617	38,678	1,033,970
2018 Q1 P	2,092,470	329,387	525,588	176,495	37,574	1,023,426
Q2 P	2,076,933	344,279	509,060	179,856	36,929	1,006,809
Q3 P	2,077,122	356,899	497,343	180,464	37,203	1,005,212
Q4 P	2,063,172	364,731	493,533	181,077	39,043	984,788

Source: Bundesbank calculations based on data from the Federal Statistical Office. \* As defined in the Maastricht Treaty. <sup>1</sup> Calculated as a residual.

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### 14. Maastricht debt by instrument

€ million

Period (end of year or quarter)	Currency and deposits <sup>1</sup>	Debt securities by original maturity		Loans by original maturity		Memo item: <sup>2</sup>	
		Short-term debt securities (up to one year)	Long-term debt securities (more than one year)	Short-term loans (up to one year)	Long-term loans (more than one year)	Debt vis-à-vis other government subsectors	Claims vis-à-vis other government subsectors
<b>Total</b>							
<b>General government</b>							
2012	2,225,204	9,742	106,945	1,441,406	124,389	542,722	.
2013	2,210,739	10,592	85,836	1,470,698	100,646	542,966	.
2014	2,212,280	12,150	72,618	1,501,494	95,945	530,073	.
2015	2,181,972	14,303	65,676	1,499,098	85,232	517,662	.
2016 Q1	2,190,308	11,976	69,372	1,491,129	104,397	513,434	.
Q2	2,193,776	12,181	76,710	1,485,041	111,107	508,737	.
Q3	2,187,329	15,370	77,249	1,491,971	98,090	504,648	.
Q4	2,165,891	15,845	69,715	1,484,378	91,406	504,547	.
2017 Q1 P	2,140,165	12,891	60,798	1,479,234	89,209	498,033	.
Q2 P	2,133,921	15,196	54,362	1,486,948	83,649	493,767	.
Q3 P	2,127,477	16,161	48,197	1,489,630	82,844	490,645	.
Q4 P	2,115,397	14,651	48,789	1,484,691	82,876	484,390	.
2018 Q1 P	2,092,470	12,472	48,449	1,479,750	70,445	481,354	.
Q2 P	2,076,933	12,636	54,968	1,466,057	66,345	476,927	.
Q3 P	2,077,122	15,607	60,047	1,466,370	63,884	471,215	.
Q4 P	2,063,172	14,833	52,674	1,456,412	71,008	468,245	.
<b>Central government</b>							
2012	1,387,857	9,742	88,372	1,088,796	88,311	112,636	1,465
2013	1,390,440	10,592	78,996	1,113,029	64,970	122,852	2,696
2014	1,396,496	12,150	64,230	1,141,973	54,388	123,756	1,202
2015	1,372,604	14,303	49,512	1,139,039	45,256	124,494	2,932
2016 Q1	1,382,473	11,976	49,030	1,138,051	58,381	125,035	2,853
Q2	1,391,131	12,181	59,399	1,129,874	65,168	124,508	2,803
Q3	1,381,054	15,370	61,408	1,134,326	46,832	123,117	2,634
Q4	1,366,840	15,845	55,208	1,124,445	50,004	121,338	2,238
2017 Q1 P	1,350,988	12,891	45,510	1,124,430	48,082	120,075	2,465
Q2 P	1,353,600	15,196	40,225	1,132,686	44,682	120,811	2,547
Q3 P	1,352,975	16,161	34,216	1,136,873	45,235	120,490	2,674
Q4 P	1,351,290	14,651	36,297	1,132,542	47,758	120,041	2,935
2018 Q1 P	1,338,606	12,472	35,921	1,133,358	37,206	119,650	2,953
Q2 P	1,329,320	12,636	42,883	1,120,469	34,038	119,293	2,662
Q3 P	1,335,479	15,607	46,608	1,119,011	35,617	118,637	2,492
Q4 P	1,322,995	14,833	42,237	1,107,646	41,057	117,222	2,468
<b>State government</b>							
2012	684,123	-	18,802	355,756	12,314	297,252	13,197
2013	663,514	-	6,847	360,706	11,862	284,099	12,141
2014	657,812	-	8,391	361,916	19,182	268,323	14,825
2015	654,484	-	16,169	362,376	18,707	257,232	15,867
2016 Q1	647,567	-	20,347	355,304	21,563	250,352	12,358
Q2	644,144	-	17,318	357,069	23,456	246,301	13,860
Q3	644,655	-	15,848	359,618	26,149	243,040	11,685
Q4	637,534	-	14,515	361,996	16,116	244,907	11,408
2017 Q1 P	628,149	-	15,308	356,832	15,938	240,071	10,407
Q2 P	620,539	-	14,167	356,647	14,792	234,933	11,180
Q3 P	618,534	-	14,021	355,342	16,358	232,813	13,313
Q4 P	610,473	-	12,543	354,941	15,154	227,835	14,325
2018 Q1 P	599,752	-	12,583	349,945	13,307	223,916	13,305
Q2 P	595,914	-	12,144	349,086	13,648	221,036	14,387
Q3 P	594,816	-	13,499	350,782	11,107	219,427	13,967
Q4 P	595,496	-	10,499	352,351	15,127	217,520	14,344
<b>Local government</b>							
2012	169,839	-	-	423	24,791	144,625	3,124
2013	172,858	-	-	646	25,435	146,777	2,523
2014	174,527	-	-	1,297	26,121	147,109	1,959
2015	174,415	-	-	2,047	26,998	145,370	2,143
2016 Q1	176,617	-	-	2,076	26,908	147,633	2,348
Q2	176,233	-	-	2,453	26,469	147,312	2,216
Q3	177,037	-	-	2,455	26,788	147,794	2,123
Q4	175,839	-	-	2,404	26,521	146,914	1,819
2017 Q1 P	174,709	-	-	2,645	25,561	146,503	1,959
Q2 P	174,565	-	-	2,672	25,370	146,523	1,950
Q3 P	173,054	-	-	2,687	24,581	145,786	1,851
Q4 P	171,702	-	-	2,947	24,101	144,654	1,600
2018 Q1 P	171,159	-	-	2,427	22,887	145,846	1,765
Q2 P	169,777	-	-	2,561	22,551	144,665	1,912
Q3 P	164,544	-	-	2,703	20,604	141,236	2,049
Q4 P	162,623	-	-	2,914	18,823	140,887	1,804

For footnotes see end of table.

## X. Public finances in Germany

### 14. Maastricht debt by instrument (cont'd)

€ million

Period (end of year or quarter)	Currency and deposits <sup>1</sup>	Debt securities by original maturity		Loans by original maturity		Memo item: <sup>2</sup>		
		Short-term debt securities (up to one year)	Long-term debt securities (more than one year)	Short-term loans (up to one year)	Long-term loans (more than one year)	Debt vis-à-vis other government subsectors	Claims vis-à-vis other government subsectors	
<b>Total</b>								
<b>Social security funds</b>								
2012	1,171	–	–	–	195	976	–	2,661
2013	1,287	–	–	–	360	927	–	3,872
2014	1,430	–	–	–	387	1,043	–	2,122
2015	1,411	–	–	–	446	965	–	2,685
2016 Q1	1,211	–	–	–	458	753	–	2,828
Q2	1,147	–	–	–	443	704	–	2,948
Q3	1,025	–	–	–	334	691	–	3,002
Q4	1,143	–	–	–	473	670	–	3,044
2017 Q1 P	1,150	–	–	–	504	646	–	3,226
Q2 P	895	–	–	–	290	605	–	3,318
Q3 P	750	–	–	–	184	566	–	3,433
Q4 P	792	–	–	–	247	545	–	3,934
2018 Q1 P	975	–	–	–	424	551	–	3,702
Q2 P	883	–	–	–	383	500	–	3,840
Q3 P	790	–	–	–	400	390	–	3,900
Q4 P	674	–	–	–	372	302	–	4,659

Source: Bundesbank calculations based on data from the Federal Statistical Office and the Federal Republic of Germany – Finance Agency. <sup>1</sup> Particularly liabilities resulting from coins in circulation. <sup>2</sup> Besides direct loan relationships, claims and debt

vis-à-vis other government subsectors also comprise securities holdings purchased on the market. No entry for general government as debt and claims are consolidated between different government subsectors.

### 15. Maastricht debt of central government by instrument and category

€ million

Period (end of year or quarter)	Total <sup>1</sup>	Currency and deposits <sup>2</sup>		Debt securities									Loans <sup>1</sup>
		Total <sup>1</sup>	of which: <sup>3</sup>	Total <sup>1</sup>	of which: <sup>3</sup>					Federal Treasury notes (Schätze) <sup>5</sup>	Treasury discount paper (Bubills) <sup>6</sup>	Federal savings notes	
					Federal day bond	Federal bonds (Bunds)	Federal notes (Bobl)	Inflation-linked Federal bonds (Bunds) <sup>4</sup>	Inflation-linked Federal notes (Bobl) <sup>4</sup>				
2007	984,256	6,675	–	917,584	564,137	173,949	10,019	3,444	506	102,083	37,385	10,287	59,997
2008	1,016,364	12,466	3,174	928,754	571,913	164,514	12,017	7,522	1,336	105,684	40,795	9,649	75,144
2009	1,082,644	9,981	2,495	1,013,072	577,798	166,471	16,982	7,748	1,369	113,637	104,409	9,471	59,592
2010	1,334,021	10,890	1,975	1,084,019	602,624	185,586	25,958	9,948	2,396	126,220	85,867	8,704	239,112
2011	1,344,082	10,429	2,154	1,121,331	615,200	199,284	29,313	14,927	3,961	130,648	58,297	8,208	212,322
2012	1,387,857	9,742	1,725	1,177,168	631,425	217,586	35,350	16,769	5,374	117,719	56,222	6,818	200,947
2013	1,390,440	10,592	1,397	1,192,025	643,200	234,759	41,105	10,613	4,730	110,029	50,004	4,488	187,822
2014	1,396,496	12,150	1,187	1,206,203	653,823	244,633	48,692	14,553	5,368	103,445	27,951	2,375	178,144
2015	1,372,604	14,303	1,070	1,188,551	663,296	232,387	59,942	14,553	5,607	96,389	18,536	1,305	169,750
2016	1,366,840	15,845	1,010	1,179,653	670,245	221,551	51,879	14,585	3,602	95,727	23,609	737	171,342
2017 P	1,351,290	14,651	966	1,168,840	693,687	203,899	58,365	14,490	4,720	91,013	10,037	289	167,800
2018 P	1,322,995	14,833	921	1,149,883	710,513	182,847	64,647	–	5,139	86,009	12,949	48	158,279
2016 Q1	1,382,473	11,976	1,051	1,187,081	666,565	225,678	61,893	14,603	4,395	98,232	20,526	1,205	183,416
Q2	1,391,131	12,181	1,033	1,189,273	675,794	220,840	49,675	14,550	3,099	99,417	28,369	1,108	189,676
Q3	1,381,054	15,370	1,021	1,195,734	664,034	231,375	50,869	14,570	3,097	102,053	30,626	922	169,949
Q4	1,366,840	15,845	1,010	1,179,653	670,245	221,551	51,879	14,585	3,602	95,727	23,609	737	171,342
2017 Q1 P	1,350,988	12,891	995	1,169,939	674,049	213,371	53,838	14,535	3,362	95,148	14,910	619	168,158
Q2 P	1,353,600	15,196	986	1,172,911	687,278	205,203	55,842	14,465	4,507	93,795	14,431	487	165,493
Q3 P	1,352,975	16,161	977	1,171,089	684,134	215,029	56,905	14,490	4,092	91,893	11,851	398	165,726
Q4 P	1,351,290	14,651	966	1,168,840	693,687	203,899	58,365	14,490	4,720	91,013	10,037	289	167,800
2018 Q1 P	1,338,606	12,472	951	1,169,279	699,638	193,811	60,778	14,455	4,421	94,282	9,031	219	156,855
Q2 P	1,329,320	12,636	941	1,163,353	710,784	185,042	62,863	–	4,276	92,639	15,049	141	153,330
Q3 P	1,335,479	15,607	932	1,165,619	703,682	194,356	64,304	–	4,548	90,575	17,340	75	154,254
Q4 P	1,322,995	14,833	921	1,149,883	710,513	182,847	64,647	–	5,139	86,009	12,949	48	158,279

Sources: Federal Republic of Germany – Finance Agency, Federal Statistical Office, and Bundesbank calculations. <sup>1</sup> Comprises all of central government, i.e. all off-budget entities in addition to the core budget, including the government-owned bad bank FMS Wertmanagement and liabilities attributed to central government from an economic perspective under the European System of Accounts (ESA)

2010. <sup>2</sup> Particularly liabilities resulting from coins in circulation. <sup>3</sup> Issuances by the Federal Republic of Germany. Excluding issuers' holdings of own securities but including those held by other government entities. <sup>4</sup> Excluding inflation-induced indexation of capital. <sup>5</sup> Including medium-term notes issued by the Treuhand agency (expired in 2011). <sup>6</sup> Including Federal Treasury financing papers (expired in 2014).

## XI. Economic conditions in Germany

### 1. Origin and use of domestic product, distribution of national income

Item	2016	2017	2018	2016	2017	2018	2017			2018			
							Q2	Q3	Q4	Q1	Q2	Q3	Q4
	Index 2010 = 100			Annual percentage change									
<b>At constant prices, chained</b>													
<b>I. Origin of domestic product</b>													
Production sector (excluding construction)	118.0	120.8	121.8	4.8	2.4	0.8	- 0.6	2.6	3.5	1.7	3.3	- 0.2	- 1.5
Construction	105.5	108.0	111.3	1.8	2.4	3.0	0.3	1.8	2.3	1.0	3.1	3.0	4.4
Wholesale/retail trade, transport and storage, hotel and restaurant services	110.6	114.3	116.7	1.3	3.4	2.1	2.2	3.5	2.8	1.9	2.8	1.7	2.0
Information and communication	132.9	137.6	142.5	3.4	3.6	3.5	3.2	3.4	3.4	3.6	3.9	3.3	3.4
Financial and insurance activities	104.5	105.0	105.6	0.4	0.4	0.6	0.3	0.4	0.5	0.2	1.0	0.6	0.7
Real estate activities	104.5	105.6	106.8	0.0	1.1	1.1	0.4	1.3	1.4	1.1	1.0	1.0	1.2
Business services <sup>1</sup>	109.5	112.3	114.2	1.0	2.6	1.7	0.9	2.9	2.3	1.8	2.8	1.5	0.9
Public services, education and health	108.2	109.7	111.2	2.6	1.4	1.4	1.2	1.4	0.8	1.4	1.2	1.3	1.6
Other services	98.9	100.1	100.5	- 1.1	1.2	0.5	0.1	1.4	0.4	0.1	0.9	0.2	0.7
Gross value added	111.1	113.5	115.1	2.2	2.2	1.4	0.7	2.3	2.3	1.5	2.4	1.0	0.9
Gross domestic product <sup>2</sup>	111.3	113.7	115.3	2.2	2.2	1.4	0.9	2.2	2.2	1.4	2.3	1.1	0.9
<b>II. Use of domestic product</b>													
Private consumption <sup>3</sup>	108.4	110.3	111.3	2.1	1.8	1.0	1.8	2.1	1.1	1.7	1.0	0.2	1.0
Government consumption	112.3	114.1	115.3	4.0	1.6	1.0	1.4	1.5	1.7	0.7	1.1	0.5	1.8
Machinery and equipment	113.8	118.0	123.0	2.2	3.7	4.2	1.7	4.1	4.7	4.8	5.4	3.4	3.5
Premises	112.3	115.6	118.4	3.8	2.9	2.4	1.6	3.0	1.8	0.5	2.7	2.3	4.0
Other investment <sup>4</sup>	124.7	126.3	126.8	5.2	1.3	0.4	1.2	0.4	1.5	0.4	0.4	0.4	0.5
Changes in inventories <sup>5,6</sup>	.	.	.	0.2	0.1	0.6	0.3	0.1	- 0.1	0.0	0.3	1.3	0.5
Domestic demand	109.5	111.7	113.9	3.0	2.0	1.9	2.0	2.2	1.5	1.5	1.9	2.2	2.2
Net exports <sup>6</sup>	.	.	.	- 0.5	0.3	- 0.4	- 0.9	0.1	0.8	0.0	0.6	- 0.9	- 1.1
Exports	127.8	133.7	136.4	2.3	4.6	2.0	1.8	4.9	4.7	2.2	4.3	1.2	0.4
Imports	125.5	131.6	136.0	4.1	4.8	3.3	4.5	5.5	3.7	2.6	3.7	3.8	3.2
Gross domestic product <sup>2</sup>	111.3	113.7	115.3	2.2	2.2	1.4	0.9	2.2	2.2	1.4	2.3	1.1	0.9
<b>At current prices (€ billion)</b>													
<b>III. Use of domestic product</b>													
Private consumption <sup>3</sup>	1,675.6	1,732.2	1,776.7	2.7	3.4	2.6	3.4	3.6	2.7	3.1	2.6	1.9	2.7
Government consumption	615.5	638.9	662.2	4.8	3.8	3.6	3.4	3.9	4.4	3.3	3.8	3.1	4.3
Machinery and equipment	206.5	215.2	225.7	2.6	4.2	4.9	2.1	4.5	5.7	5.1	6.0	4.1	4.3
Premises	307.1	326.6	350.5	5.6	6.4	7.3	4.8	6.5	5.8	4.7	7.2	7.6	9.4
Other investment <sup>4</sup>	120.4	123.9	127.1	6.0	2.9	2.6	2.8	2.1	3.1	2.6	2.6	2.6	2.7
Changes in inventories <sup>5</sup>	- 12.8	- 7.2	14.6	.	.	.	.	.	.	.	.	.	.
Domestic use	2,912.3	3,029.5	3,156.8	3.8	4.0	4.2	4.0	4.3	3.6	3.3	4.1	4.8	4.6
Net exports	247.5	247.8	229.2	.	.	.	.	.	.	.	.	.	.
Exports	1,450.2	1,541.9	1,590.2	1.5	6.3	3.1	3.9	6.5	6.0	2.7	4.9	2.9	2.1
Imports	1,202.8	1,294.1	1,360.9	1.5	7.6	5.2	8.0	7.2	5.5	2.9	4.7	7.1	5.9
Gross domestic product <sup>2</sup>	3,159.8	3,277.3	3,386.0	3.6	3.7	3.3	2.5	4.2	4.0	3.2	4.2	3.0	2.9
<b>IV. Prices (2010 = 100)</b>													
Private consumption	106.9	108.6	110.4	0.7	1.6	1.6	1.5	1.6	1.6	1.4	1.6	1.6	1.7
Gross domestic product	110.1	111.8	113.8	1.4	1.5	1.9	1.6	2.0	1.8	1.8	1.8	1.9	1.9
Terms of trade	103.9	102.8	102.1	1.7	- 1.0	- 0.7	- 1.2	- 0.1	- 0.5	0.2	- 0.4	- 1.5	- 0.9
<b>V. Distribution of national income</b>													
Compensation of employees	1,601.0	1,668.8	1,746.0	3.8	4.2	4.6	4.4	4.3	4.1	4.6	4.6	5.1	4.3
Entrepreneurial and property income	762.7	787.6	785.3	3.5	3.3	- 0.3	- 1.5	5.4	3.3	- 0.0	3.4	- 2.2	- 2.2
National income	2,363.7	2,456.4	2,531.3	3.7	3.9	3.1	2.5	4.7	3.9	3.0	4.2	2.6	2.5
Memo item: Gross national income	3,222.4	3,346.3	3,458.4	3.5	3.8	3.3	2.8	4.3	3.8	3.1	4.3	3.1	3.0

Source: Federal Statistical Office; figures computed in February 2019. <sup>1</sup> Professional, scientific, technical, administration and support service activities. <sup>2</sup> Gross value added plus taxes on products (netted with subsidies on products). <sup>3</sup> Including non-profit in-

stitutions serving households. <sup>4</sup> Intellectual property rights (inter alia, computer software and entertainment, literary or artistic originals) and cultivated assets. <sup>5</sup> Including net increase in valuables. <sup>6</sup> Contribution of growth to GDP.

## XI. Economic conditions in Germany

### 2. Output in the production sector\*

Adjusted for working-day variations ◦

		of which:											
		Production sector, total	Construc-tion	Energy	Industry								
					Total	of which: by main industrial grouping				of which: by economic sector			
						Inter-mediate goods	Capital goods	Durable goods	Non-durable goods	Manu-facture of basic metals and fabricated metal products	Manu-facture of computers, electronic and optical products and electrical equipment	Machinery and equipment	Motor vehicles, trailers and semi-trailers
<b>2015 = 100</b>													
% of total 1		100.00	14.04	6.37	79.60	29.44	36.96	2.28	10.92	10.27	9.95	12.73	14.14
Period													
2015		99.7	99.6	100.1	99.7	99.8	99.7	99.6	99.8	99.8	99.7	99.7	99.6
2016		101.5	105.3	98.7	101.1	100.9	101.3	102.6	101.0	101.6	101.0	99.6	102.1
2017		104.9	108.7	98.8	104.7	104.9	105.0	106.9	103.0	106.2	107.0	104.1	105.3
2018	<b>2,x</b>	106.0	109.7	97.0	106.1	105.7	106.1	106.1	107.1	107.4	109.1	106.5	103.7
2017 Q4		109.9	122.3	104.6	108.2	104.6	111.3	109.6	107.0	106.7	111.6	115.8	104.7
2018 Q1		102.7	87.8	105.1	105.2	106.1	104.3	108.9	104.7	107.3	108.3	100.6	109.5
Q2		107.5	113.6	90.5	107.7	108.0	107.6	105.4	107.4	110.1	107.6	104.9	110.8
Q3	<b>2</b>	106.2	115.5	93.3	105.6	106.8	103.2	104.1	111.4	107.9	110.3	105.1	96.5
Q4	<b>x</b>	107.6	122.0	99.2	105.8	101.8	109.2	106.0	105.0	104.4	110.1	115.6	97.8
2018 Feb.		98.8	83.0	101.6	101.4	102.6	100.7	105.4	99.4	104.9	104.3	97.1	105.3
Mar.		113.6	105.1	107.7	115.6	113.3	118.4	118.4	112.0	115.5	118.7	116.7	123.8
Apr.		105.1	109.6	92.5	105.3	106.0	105.5	103.2	103.0	108.6	104.0	100.3	112.3
May		106.7	114.1	90.2	106.7	108.2	104.8	102.8	109.6	109.4	105.9	101.7	108.2
June		110.6	117.1	88.9	111.1	109.8	112.6	110.3	109.6	112.3	112.9	112.7	112.0
July	<b>2,3</b>	106.9	115.5	93.6	106.5	108.6	104.3	98.4	109.9	109.3	108.9	104.7	100.6
Aug.	<b>3</b>	100.5	111.4	94.9	99.0	102.9	93.0	95.0	110.0	102.9	105.5	98.1	80.4
Sep.		111.2	119.5	91.4	111.4	108.8	112.2	118.9	114.2	111.5	116.6	112.6	108.5
Oct.	<b>x</b>	110.0	121.3	97.1	109.1	109.1	108.4	111.9	111.0	111.8	112.2	108.5	104.5
Nov.	<b>x</b>	111.4	122.5	99.0	110.4	107.3	113.4	111.7	108.4	111.6	114.6	113.2	108.0
Dec.	<b>x</b>	101.5	122.2	101.5	97.8	88.9	105.8	94.3	95.5	89.8	103.6	125.0	81.0
2019 Jan.	<b>x</b>	93.1	73.4	107.9	95.4	99.8	90.6	101.6	98.2	99.2	99.5	87.9	89.9
Feb.	<b>x,p</b>	98.4	92.3	97.0	99.6	100.0	100.5	105.3	94.2	101.3	101.1	95.4	103.8
<b>Annual percentage change</b>													
2015		+ 0.9	- 2.3	+ 5.1	+ 0.4	- 0.1	+ 0.9	+ 2.2	- 0.3	+ 0.1	+ 0.7	- 0.3	- 0.2
2016		+ 1.8	+ 5.7	- 1.4	+ 1.4	+ 1.1	+ 1.6	+ 3.0	+ 1.2	+ 1.8	+ 1.3	- 0.1	+ 2.5
2017		+ 3.3	+ 3.2	+ 0.1	+ 3.6	+ 4.0	+ 3.7	+ 4.2	+ 2.0	+ 4.5	+ 5.9	+ 4.5	+ 3.1
2018	<b>2,x</b>	+ 1.0	+ 0.9	- 1.8	+ 1.3	+ 0.8	+ 1.0	- 0.7	+ 4.0	+ 1.1	+ 2.0	+ 2.3	- 1.5
2017 Q4		+ 4.7	+ 3.3	+ 0.3	+ 5.3	+ 6.2	+ 5.4	+ 3.1	+ 3.3	+ 5.9	+ 7.5	+ 7.2	+ 5.6
2018 Q1		+ 3.9	+ 3.5	+ 0.7	+ 4.2	+ 3.8	+ 4.3	+ 2.6	+ 5.3	+ 3.9	+ 5.9	+ 4.9	+ 4.2
Q2		+ 2.9	+ 2.2	- 3.5	+ 3.5	+ 2.4	+ 3.5	- 0.2	+ 7.0	+ 2.9	+ 2.8	+ 3.1	+ 4.6
Q3	<b>2</b>	- 0.2	- 1.0	+ 0.9	- 0.2	- 0.6	- 1.5	- 2.0	+ 5.9	+ 0.1	+ 0.8	+ 2.0	- 8.3
Q4	<b>x</b>	- 2.1	- 0.2	- 5.2	- 2.2	- 2.7	- 1.9	- 3.3	- 1.9	- 2.2	- 1.3	- 0.2	- 6.6
2018 Feb.		+ 2.1	- 1.3	+ 2.0	+ 2.6	+ 3.5	+ 1.6	+ 0.6	+ 4.2	+ 4.2	+ 5.2	+ 2.5	- 0.4
Mar.		+ 3.6	- 0.6	+ 5.1	+ 4.3	+ 3.0	+ 5.4	+ 3.4	+ 4.6	+ 2.8	+ 6.1	+ 6.5	+ 7.5
Apr.		+ 1.8	+ 0.3	- 3.1	+ 2.5	+ 0.8	+ 3.7	- 2.4	+ 4.5	+ 2.8	+ 1.0	+ 2.9	+ 4.9
May		+ 3.6	+ 4.2	- 4.8	+ 4.1	+ 3.7	+ 3.0	- 0.4	+ 9.2	+ 2.8	+ 3.8	+ 3.0	+ 3.5
June		+ 3.3	+ 2.2	- 2.6	+ 3.7	+ 2.8	+ 3.6	+ 2.1	+ 7.5	+ 2.9	+ 3.7	+ 3.3	+ 5.3
July	<b>2,3</b>	+ 0.3	- 3.0	+ 2.5	+ 0.8	± 0.0	+ 0.2	- 3.1	+ 5.2	+ 0.6	- 0.3	+ 2.8	- 3.1
Aug.	<b>3</b>	- 0.7	- 0.9	+ 2.0	- 0.9	- 0.6	- 3.5	- 3.3	+ 7.1	+ 0.7	+ 1.2	+ 3.4	- 16.0
Sep.		- 0.3	+ 1.0	- 1.7	- 0.4	- 1.3	- 1.3	- 0.1	+ 5.4	- 0.9	+ 1.4	+ 0.2	- 6.5
Oct.	<b>x</b>	+ 0.5	+ 0.4	- 5.7	+ 1.0	- 0.5	+ 2.0	- 1.8	+ 2.7	- 0.1	+ 2.5	+ 5.3	- 3.2
Nov.	<b>x</b>	- 4.0	- 0.7	- 5.1	- 4.5	- 3.9	- 4.9	- 5.1	- 4.2	- 3.0	- 2.4	- 2.3	- 11.8
Dec.	<b>x</b>	- 2.7	- 0.4	- 4.8	- 3.1	- 3.8	- 2.3	- 2.9	- 4.3	- 3.6	- 4.0	- 2.8	- 3.3
2019 Jan.	<b>x</b>	- 2.7	- 2.4	+ 1.8	- 3.1	- 2.5	- 3.4	- 1.2	- 4.5	- 2.3	- 2.5	± 0.0	- 9.6
Feb.	<b>x,p</b>	- 0.4	+ 11.2	- 4.5	- 1.8	- 2.5	- 0.2	- 0.1	- 5.2	- 3.4	- 3.1	- 1.8	- 1.4

Source of the unadjusted figures: Federal Statistical Office. \* For explanatory notes, see Statistical Supplement 4 – Seasonally adjusted business statistics, Tables II.10 to II.12. ◦ Using JDemetra+ 2.2.1 (X13). 1 Share of gross value added at factor cost of the production sector in the base year 2015. 2 From July 2018 deflated by producer price index based on the 2015 weighting scheme. Until June 2018 the producer price

index based on the 2010 weighting scheme is used. 3 Influenced by a change in holiday dates. x Provisional; estimated and adjusted in advance by the Federal Statistical Office to the results of the Quarterly Production Survey and the Quarterly Survey in the specialised construction industry, respectively.











## XI. Economic conditions in Germany

### 8. Households' income \*

Period	Gross wages and salaries <sup>1</sup>		Net wages and salaries <sup>2</sup>		Monetary social benefits received <sup>3</sup>		Mass income <sup>4</sup>		Disposable income <sup>5</sup>		Saving <sup>6</sup>		Saving ratio <sup>7</sup>
	€ 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
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	1,167.4	3.0	778.3	2.8	388.1	0.1	1,166.4	1.9	1,717.2	1.3	153.7	- 2.5	8.9
2014	1,213.0	3.9	807.2	3.7	398.4	2.6	1,205.6	3.4	1,761.3	2.6	167.2	8.8	9.5
2015	1,261.4	4.0	837.2	3.7	416.5	4.5	1,253.7	4.0	1,805.7	2.5	174.8	4.5	9.7
2016	1,311.9	4.0	869.1	3.8	430.5	3.4	1,299.6	3.7	1,857.5	2.9	181.9	4.1	9.8
2017	1,366.6	4.2	902.9	3.9	444.8	3.3	1,347.7	3.7	1,922.0	3.5	189.8	4.3	9.9
2018	1,432.5	4.8	945.2	4.7	455.7	2.5	1,400.9	3.9	1,983.6	3.2	206.9	9.0	10.4
2017 Q3	337.4	4.3	227.7	4.1	111.7	2.6	339.5	3.6	480.0	3.7	39.9	4.2	8.3
Q4	377.6	4.0	249.2	3.7	110.3	2.9	359.5	3.5	485.1	2.9	42.0	6.0	8.7
2018 Q1	333.6	4.8	220.6	4.7	115.3	2.2	335.9	3.8	494.9	3.5	67.0	6.4	13.5
Q2	349.3	4.8	225.4	4.7	112.4	2.3	337.8	3.9	494.2	3.2	48.8	8.6	9.9
Q3	355.3	5.3	239.6	5.2	114.5	2.5	354.1	4.3	492.5	2.6	44.1	10.7	9.0
Q4	394.3	4.4	259.6	4.2	113.5	2.9	373.1	3.8	502.0	3.5	46.9	11.6	9.3

Source: Federal Statistical Office; figures computed in February 2019. \* 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 <sup>1</sup>								Memo item: Wages and salaries per employee <sup>3</sup>	
	On an hourly basis				On a monthly basis					
	2010 = 100	Annual percentage change	2010 = 100	Annual percentage change	2010 = 100	Annual percentage change	2010 = 100	Annual percentage change		
	Total		Total excluding one-off payments		Basic pay rates <sup>2</sup>					
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	2.8	104.7	2.8	106.2	2.7
2013	106.9	2.4	106.9	2.4	107.2	2.4	107.2	2.4	108.4	2.1
2014	110.0	2.9	109.9	2.8	110.1	2.7	110.1	2.7	111.5	2.8
2015	112.6	2.3	112.3	2.2	112.6	2.3	112.7	2.3	114.6	2.8
2016	114.9	2.1	114.7	2.1	115.0	2.1	115.2	2.2	117.3	2.4
2017	117.3	2.1	117.1	2.1	117.4	2.1	117.8	2.3	120.3	2.5
2018	120.6	2.9	120.4	2.9	120.6	2.7	121.0	2.7	124.1	3.2
2017 Q3	119.8	1.9	119.6	1.9	119.9	1.9	118.2	2.1	118.4	2.6
Q4	130.3	1.9	130.1	1.9	130.5	1.9	118.6	2.2	131.4	2.4
2018 Q1	111.5	2.3	111.3	2.3	111.4	2.1	119.4	2.2	116.8	3.0
Q2	113.7	3.4	113.4	3.3	113.5	3.0	121.1	3.0	121.3	3.2
Q3	123.3	2.9	123.1	2.9	123.5	2.9	121.6	2.8	122.8	3.7
Q4	134.1	2.9	133.9	2.9	134.1	2.7	122.0	2.8	135.2	2.9
2018 Aug.	113.3	2.8	113.1	2.8	113.5	2.8	121.6	2.8	.	.
Sep.	113.4	2.7	113.2	2.7	113.6	2.7	121.7	2.7	.	.
Oct.	113.6	2.4	113.4	2.4	113.7	2.4	121.9	2.8	.	.
Nov.	173.2	3.3	172.8	3.3	172.7	2.9	122.1	2.8	.	.
Dec.	115.7	2.9	115.4	2.9	115.8	2.9	122.1	2.9	.	.
2019 Jan.	114.6	3.1	114.4	3.1	114.7	3.1	122.9	3.1	.	.
Feb.	115.0	3.4	114.8	3.4	114.8	3.1	122.9	3.1	.	.

**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 February 2019.





## XII. External sector

### 1. Major items of the balance of payments of the euro area \*

€ million

Item	2016 r	2017 r	2018 r	2018 r					2019
				Q2	Q3	Q4	Nov.	Dec.	Jan. P
A. Current account	+ 334,624	+ 362,825	+ 334,673	+ 73,093	+ 82,837	+ 104,274	+ 28,829	+ 41,494	+ 9,327
1. Goods									
Exports	2,116,412	2,251,144	2,332,835	580,267	574,155	614,387	211,030	186,097	187,969
Imports	1,769,839	1,933,352	2,056,395	507,170	514,612	536,709	183,401	160,006	181,206
Balance	+ 346,576	+ 317,788	+ 276,440	+ 73,097	+ 59,543	+ 77,678	+ 27,629	+ 26,091	+ 6,763
2. Services									
Receipts	818,021	874,456	904,308	222,989	239,254	237,466	76,356	84,193	71,660
Expenditure	774,459	770,519	797,386	191,474	204,109	219,235	71,401	77,732	66,878
Balance	+ 43,561	+ 103,936	+ 106,923	+ 31,516	+ 35,145	+ 18,231	+ 4,955	+ 6,461	+ 4,781
3. Primary income									
Receipts	668,424	694,825	752,705	204,533	179,961	199,725	59,622	77,254	57,514
Expenditure	585,226	616,494	651,897	207,593	156,662	148,598	49,416	52,673	46,274
Balance	+ 83,198	+ 78,332	+ 100,807	- 3,061	+ 23,299	+ 51,126	+ 10,206	+ 24,580	+ 11,240
4. Secondary income									
Receipts	103,416	107,802	114,566	31,152	26,624	30,330	9,574	11,985	8,677
Expenditure	242,127	245,034	264,062	59,611	61,774	73,091	23,534	27,623	22,135
Balance	- 138,711	- 137,230	- 149,495	- 28,459	- 35,150	- 42,760	- 13,960	- 15,638	- 13,457
B. Capital account	+ 1,620	- 21,413	- 3,086	- 581	+ 2,972	- 11,747	- 6,560	+ 1,161	+ 1,735
C. Financial account (increase: +)	+ 336,720	+ 376,168	+ 317,591	+ 42,985	+ 87,093	+ 85,524	+ 51,943	+ 61,091	+ 8,464
1. Direct investment	+ 186,860	+ 78,533	+ 52,634	+ 18,058	- 13,946	- 73,651	- 35,632	- 56,946	- 12,180
By resident units abroad	+ 541,442	+ 435,361	- 220,242	+ 39,237	- 116,197	- 208,286	- 106,113	- 135,731	+ 43
By non-resident units in the euro area	+ 354,583	+ 356,827	- 272,878	+ 21,179	- 102,252	- 134,636	- 70,482	- 78,785	+ 12,223
2. Portfolio investment	+ 460,718	+ 297,042	+ 213,992	+ 51,662	+ 44,314	+ 105,887	+ 14,132	+ 107,041	- 1,226
By resident units abroad	+ 386,628	+ 653,092	+ 184,034	+ 451	+ 43,851	- 55,570	+ 1,862	- 27,236	+ 38,057
Equity and investment fund shares	+ 19,665	+ 198,545	+ 19,020	+ 6,015	+ 12,681	- 56,946	+ 4,794	- 39,989	+ 15,446
Long-term debt securities	+ 358,992	+ 376,615	+ 201,143	+ 14,571	+ 71,390	+ 5,990	+ 8,175	+ 6,768	+ 7,908
Short-term debt securities	+ 7,971	+ 77,936	- 36,127	- 20,135	- 40,219	- 4,612	- 11,106	+ 5,985	+ 14,703
By non-resident units in the euro area	- 74,091	+ 356,050	- 29,958	- 51,211	- 463	- 161,457	- 12,270	- 134,277	+ 39,283
Equity and investment fund shares	+ 112,111	+ 486,296	+ 157,517	+ 21,051	+ 14,296	+ 15,715	- 17,395	+ 29,655	- 19,583
Long-term debt securities	- 238,070	- 135,984	- 113,476	- 50,365	- 4,391	- 102,695	+ 5,843	- 103,315	+ 35,071
Short-term debt securities	+ 51,868	+ 5,738	- 74,003	- 21,898	- 10,370	- 74,478	- 719	- 60,617	+ 23,795
3. Financial derivatives and employee stock options	+ 15,229	+ 23,967	+ 98,856	+ 38,387	+ 35,428	+ 29,539	+ 15,967	+ 6,565	+ 5,676
4. Other investment	- 341,566	- 21,975	- 72,885	- 71,724	+ 20,049	+ 17,918	+ 54,019	+ 1,308	+ 18,900
Eurosysteem	- 152,798	- 175,527	- 131,473	- 27,444	+ 40,556	- 148,428	- 20,909	- 158,540	+ 140,568
General government	+ 12,593	+ 21,595	- 3,327	- 4,105	- 8,979	+ 15,534	- 1,668	+ 19,689	+ 6,279
MFIs (excluding the Eurosysteem)	- 123,705	+ 144,138	+ 95,773	- 38,864	- 20,592	+ 175,314	+ 59,311	+ 162,340	- 121,031
Enterprises and households	- 77,653	- 12,182	- 33,857	- 1,310	+ 9,065	- 24,504	+ 17,285	- 22,183	- 6,915
5. Reserve assets	+ 15,480	- 1,400	+ 24,989	+ 6,601	+ 1,246	+ 5,830	+ 3,456	+ 3,124	- 2,706
D. Net errors and omissions	+ 474	+ 34,755	- 13,993	- 29,527	+ 1,285	- 7,001	+ 29,675	+ 18,436	- 2,598

\* Source: ECB, according to the international standards of the International Monetary Fund's Balance of Payments Manual (sixth edition).





## XII. External sector

### 4. Services and primary income of the Federal Republic of Germany (balances)

€ million

Period	Services <sup>1</sup>								Primary income		
	Total	of which:							Compensation of employees	Investment income	Other primary income <sup>4</sup>
		Transport	Travel <sup>2</sup>	Financial services	Charges for the use of intellectual property	Tele-communications, computer and information services	Other business services	Government goods and services <sup>3</sup>			
2014	- 25,029	- 6,867	- 37,653	+ 7,556	+ 3,549	+ 1,280	+ 555	+ 2,971	+ 1,184	+ 54,939	+ 891
2015	- 18,296	- 5,203	- 36,595	+ 9,567	+ 5,354	+ 2,601	- 1,216	+ 3,161	+ 1,114	+ 67,560	- 358
2016	- 20,967	- 5,978	- 38,247	+ 9,454	+ 6,779	+ 1,536	- 1,716	+ 3,093	+ 441	+ 75,371	- 1,070
2017	- 21,938	- 3,669	- 43,558	+ 10,726	+ 5,930	+ 1,349	+ 39	+ 2,138	- 702	+ 82,270	- 1,292
2018	- 19,551	- 2,500	- 43,408	+ 10,044	+ 7,453	+ 1,597	- 353	+ 3,209	- 1,118	+ 93,548	- 765
2017 Q2	- 5,301	- 389	- 10,607	+ 2,626	+ 1,496	+ 316	- 426	+ 637	- 306	+ 8,096	- 2,118
Q3	- 12,334	- 1,123	- 17,109	+ 2,693	+ 1,275	+ 128	+ 435	+ 558	- 822	+ 23,960	- 1,147
Q4	- 1,651	- 1,013	- 9,509	+ 2,970	+ 2,263	+ 1,084	- 72	+ 381	- 150	+ 26,848	+ 3,133
2018 Q1	- 2,188	- 811	- 6,962	+ 2,590	+ 1,077	- 68	+ 43	+ 824	+ 374	+ 25,736	- 831
Q2	- 2,869	- 249	- 9,219	+ 2,093	+ 1,998	+ 804	- 225	+ 906	- 469	+ 11,098	- 2,125
Q3	- 12,908	- 654	- 17,988	+ 1,777	+ 1,604	+ 287	+ 326	+ 822	- 918	+ 27,163	- 939
Q4	- 1,586	- 786	- 9,239	+ 3,585	+ 2,774	+ 574	- 497	+ 656	- 104	+ 29,552	+ 3,130
2018 Apr.	+ 72	- 150	- 1,558	+ 790	+ 748	- 40	- 361	+ 271	- 158	+ 5,562	- 446
May	- 1,414	- 74	- 3,751	+ 657	+ 837	+ 162	- 45	+ 268	- 160	- 3,357	- 1,334
June	- 1,527	- 25	- 3,910	+ 646	+ 413	+ 682	+ 181	+ 367	- 151	+ 8,893	- 346
July	- 4,938	- 103	- 5,933	+ 744	+ 168	- 104	- 443	+ 256	- 332	+ 8,767	- 346
Aug.	- 5,759	- 271	- 6,636	+ 280	+ 989	- 171	- 271	+ 187	- 306	+ 9,198	- 327
Sep.	- 2,210	- 280	- 5,418	+ 752	+ 446	+ 562	+ 1,040	+ 379	- 281	+ 9,198	- 266
Oct.	- 3,888	- 290	- 5,623	+ 940	+ 637	- 68	- 81	+ 238	- 47	+ 9,589	- 537
Nov.	+ 515	- 164	- 2,314	+ 1,510	+ 1,645	- 496	- 410	+ 162	- 51	+ 9,534	- 298
Dec.	+ 1,787	- 333	- 1,303	+ 1,135	+ 492	+ 1,137	- 6	+ 257	- 6	+ 10,429	+ 3,966
2019 Jan.	- 1,088	- 337	- 1,739	+ 762	+ 218	- 119	- 362	+ 244	+ 119	+ 9,207	- 214
Feb. <sup>p</sup>	- 1,051	- 375	- 2,106	+ 752	+ 1,058	- 315	- 582	+ 255	+ 127	+ 6,353	- 288

<sup>1</sup> Including freight and insurance costs of foreign trade. <sup>2</sup> Since 2001 the sample results of a household survey have been used on the expenditure side. <sup>3</sup> Domestic public authorities' receipts from and expenditure on services, not included elsewhere;

including the receipts from foreign military bases. <sup>4</sup> 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)

### 6. Capital account of the Federal Republic of Germany (balances)

€ million

Period	General government				All sectors excluding general government <sup>2</sup>			
	Total	Total	of which:		Total	of which:		
			Current international cooperation <sup>1</sup>	Current taxes on income, wealth, etc.		Personal transfers between resident and non-resident households <sup>3</sup>	of which: Workers' remittances	
2014	- 40,880	- 28,146	- 6,419	+ 8,105	- 12,734	- 3,477	- 3,451	+ 2,936
2015	- 38,494	- 24,087	- 6,805	+ 10,455	- 14,406	- 3,540	- 3,523	+ 2,841
2016	- 40,868	- 25,232	- 11,516	+ 10,627	- 15,636	- 4,214	- 4,196	+ 2,502
2017	- 49,554	- 21,979	- 9,852	+ 10,446	- 27,576	- 4,632	- 4,613	+ 2,329
2018	- 47,619	- 27,748	- 9,880	+ 10,351	- 19,871	- 5,152	- 5,142	+ 2,286
2017 Q2	- 11,959	- 1,841	- 1,500	+ 6,075	- 10,117	- 1,159	- 1,153	+ 2,133
Q3	- 10,893	- 5,341	- 1,557	+ 1,780	- 5,552	- 1,157	- 1,153	+ 2,050
Q4	- 12,802	- 7,191	- 3,800	+ 795	- 5,611	- 1,158	- 1,153	+ 1,831
2018 Q1	- 14,329	- 9,218	- 2,234	+ 1,698	- 5,111	- 1,291	- 1,286	+ 1,635
Q2	- 5,205	- 347	- 1,260	+ 6,233	- 4,858	- 1,287	- 1,286	+ 1,467
Q3	- 11,823	- 7,249	- 1,926	+ 1,225	- 4,574	- 1,287	- 1,286	+ 1,286
Q4	- 16,262	- 10,934	- 4,461	+ 1,195	- 5,328	- 1,287	- 1,286	+ 1,286
2018 Apr.	- 2,556	- 935	- 314	+ 1,503	- 1,621	- 429	- 429	+ 448
May	+ 146	+ 1,698	- 281	+ 3,663	- 1,551	- 429	- 429	+ 185
June	- 2,795	- 1,110	- 665	+ 1,067	- 1,685	- 429	- 429	+ 311
July	- 4,638	- 2,760	- 858	+ 184	- 1,878	- 430	- 429	+ 85
Aug.	- 3,610	- 2,441	- 529	+ 281	- 1,169	- 429	- 429	+ 244
Sep.	- 3,576	- 2,048	- 540	+ 760	- 1,527	- 429	- 429	+ 626
Oct.	- 4,287	- 3,183	- 1,074	+ 172	- 1,104	- 429	- 429	+ 594
Nov.	- 5,534	- 3,195	- 999	+ 180	- 2,339	- 429	- 429	+ 313
Dec.	- 6,440	- 4,556	- 2,388	+ 843	- 1,885	- 429	- 429	+ 2,779
2019 Jan.	- 5,036	- 3,623	- 1,286	+ 278	- 1,413	- 453	- 453	+ 1,831
Feb. <sup>p</sup>	- 7,945	- 6,364	- 1,046	+ 927	- 1,581	- 453	- 453	+ 156

<sup>1</sup> Excluding capital transfers, where identifiable. Includes current international cooperation and other current transfers. <sup>2</sup> Includes insurance premiums and claims

(excluding life insurance policies). <sup>3</sup> Transfers between resident and non-resident households.

€ million

Period	Total	Non-produced non-financial assets	Capital transfers
2015	- 48	+ 1,787	- 1,835
2016	+ 2,138	+ 3,208	- 1,070
2017	- 1,947	+ 2,502	- 4,449
2018	+ 1,858	+ 5,375	- 3,517
2017 Q2	- 2,624	+ 220	- 2,844
Q3	+ 766	+ 1,396	- 630
Q4	- 652	+ 216	- 868
2018 Q1	+ 4,003	+ 3,390	+ 613
Q2	- 2,563	- 48	- 2,515
Q3	- 1,050	- 297	- 753
Q4	+ 1,467	+ 2,329	- 862
2018 Apr.	+ 301	+ 448	- 147
May	- 27	+ 185	+ 159
June	- 2,838	- 311	- 2,527
July	- 231	+ 85	- 316
Aug.	+ 97	+ 244	- 147
Sep.	- 915	- 626	- 289
Oct.	- 822	- 594	- 228
Nov.	- 489	- 313	- 176
Dec.	+ 2,779	+ 3,237	- 458
2019 Jan.	+ 2,133	+ 1,831	+ 302
Feb. <sup>p</sup>	+ 322	- 156	+ 478



## XII. External sector

### 7. Financial account of the Federal Republic of Germany (net)

€ million

Item	2016	2017	2018	2018				2019	
				Q2	Q3	Q4	Dec.	Jan.	Feb. p
I. Net domestic investment abroad (increase: +)	+ 401,354	+ 376,599	+ 349,234	+ 118,727	+ 58,020	+ 6,713	- 3,881	- 13,236	+ 28,565
1. Direct investment	+ 99,180	+ 123,084	+ 132,671	+ 58,257	+ 24,534	+ 2,237	+ 7,434	+ 15,956	+ 12,785
Equity of which:	+ 83,199	+ 76,326	+ 140,071	+ 64,431	+ 24,116	+ 11,697	+ 14,408	+ 12,278	+ 5,223
Reinvestment of earnings <b>1</b>	+ 32,535	+ 24,572	+ 31,689	+ 6,858	+ 8,735	+ 3,530	- 5,258	+ 5,670	+ 2,934
Debt instruments	+ 15,981	+ 46,758	- 7,400	- 6,174	+ 418	- 9,459	- 6,975	+ 3,679	+ 7,562
2. Portfolio investment	+ 96,969	+ 106,469	+ 68,098	+ 5,641	+ 27,974	- 8,940	- 7,994	+ 21,242	+ 16,603
Shares <b>2</b>	+ 16,954	+ 14,229	+ 9,406	- 2,161	+ 3,866	- 504	+ 477	+ 3,332	+ 437
Investment fund shares <b>3</b>	+ 37,698	+ 50,094	+ 18,658	+ 4,505	+ 3,959	- 441	+ 759	+ 3,921	+ 3,391
Long-term debt securities <b>4</b>	+ 48,544	+ 44,184	+ 44,648	+ 3,827	+ 20,819	- 2,411	- 5,037	+ 8,605	+ 12,469
Short-term debt securities <b>5</b>	- 6,227	- 2,038	- 4,613	- 530	- 671	- 5,585	- 3,240	+ 5,383	+ 306
3. Financial derivatives and employee stock options <b>6</b>	+ 29,053	+ 11,618	+ 23,253	+ 10,175	+ 10,660	+ 537	- 3,552	+ 756	+ 4,165
4. Other investment <b>7</b>	+ 174,467	+ 136,697	+ 124,819	+ 45,028	- 4,656	+ 12,320	+ 249	- 51,348	- 5,099
Monetary financial institutions <b>8</b>	+ 18,509	- 20,986	+ 49,856	+ 6,132	+ 1,171	+ 1,493	- 10,240	+ 38,709	- 13,657
Long-term	+ 44,861	+ 19,641	+ 4,456	- 496	+ 3,336	+ 3,023	+ 3,254	+ 3,363	+ 4,964
Short-term	- 26,353	- 40,627	+ 45,400	+ 6,628	- 2,165	- 1,530	- 13,494	+ 35,346	- 18,621
Enterprises and households <b>9</b>	- 13,510	+ 5,039	+ 26,981	- 8,501	+ 16,433	+ 2,625	- 10,886	- 3	+ 5,115
Long-term	- 3,237	- 2,062	+ 10,456	+ 3,830	+ 2,606	+ 2,393	+ 478	+ 951	+ 332
Short-term	- 10,273	+ 7,102	+ 16,526	- 12,331	+ 13,826	+ 232	- 11,363	- 954	+ 4,783
General government	- 1,022	- 3,993	- 8,814	- 4,950	+ 4,063	+ 1,020	+ 1,292	+ 96	+ 374
Long-term	- 7,408	- 4,408	- 1,097	- 881	+ 714	- 121	+ 134	+ 359	+ 43
Short-term	+ 6,386	+ 415	- 7,717	- 4,069	- 4,777	+ 1,141	+ 1,158	- 263	- 417
Bundesbank	+ 170,491	+ 156,637	+ 56,795	+ 52,347	- 18,197	+ 7,181	+ 20,082	- 90,150	+ 3,816
5. Reserve assets	+ 1,686	- 1,269	+ 392	- 374	- 493	+ 560	- 17	+ 158	+ 112
II. Net foreign investment in the reporting country (increase: +)	+ 141,635	+ 93,652	+ 123,637	+ 61,924	+ 18,180	- 54,901	- 37,045	- 28,476	- 640
1. Direct investment	+ 56,018	+ 74,395	+ 89,151	+ 22,613	+ 17,882	+ 25,853	+ 9,004	+ 3,678	+ 7,488
Equity of which:	+ 13,883	+ 21,255	+ 13,396	+ 165	+ 2,282	+ 7,680	+ 1,592	+ 1,847	+ 2,887
Reinvestment of earnings <b>1</b>	+ 2,188	+ 8,115	+ 4,531	- 901	+ 211	+ 2,551	+ 104	+ 1,653	+ 1,469
Debt instruments	+ 42,135	+ 53,140	+ 75,755	+ 22,449	+ 15,600	+ 18,172	+ 7,411	+ 1,830	+ 4,601
2. Portfolio investment	- 102,008	- 90,176	- 44,980	- 17,813	- 11,969	- 27,860	- 40,827	+ 22,352	+ 9,011
Shares <b>2</b>	- 221	- 715	+ 6,618	+ 3,715	- 1,589	+ 14	- 1,763	- 1,598	- 1,382
Investment fund shares <b>3</b>	- 6,932	- 1,991	- 5,821	- 3,038	- 341	- 654	+ 462	- 1,067	- 1,991
Long-term debt securities <b>4</b>	- 95,327	- 70,432	- 47,593	- 26,390	- 13,850	- 22,480	- 27,989	+ 15,289	+ 17,016
Short-term debt securities <b>5</b>	+ 471	- 17,039	+ 1,815	+ 7,900	+ 3,811	- 4,740	- 11,538	+ 9,729	- 4,632
3. Other investment <b>7</b>	+ 187,625	+ 109,433	+ 79,466	+ 57,124	+ 12,268	- 52,893	- 5,221	- 54,506	- 17,139
Monetary financial institutions <b>8</b>	+ 86,742	+ 17,476	- 35,965	+ 19,374	+ 8,519	- 108,955	- 75,434	+ 68,246	- 3,896
Long-term	+ 5,774	+ 7,541	- 8,496	+ 3,309	- 3,878	- 509	- 1,790	- 442	+ 910
Short-term	+ 80,968	+ 9,935	- 27,469	+ 16,065	+ 12,397	- 108,446	- 73,643	+ 68,688	- 4,806
Enterprises and households <b>9</b>	- 4,658	+ 23,541	+ 15,750	+ 16,481	+ 14,391	- 19,053	- 17,237	+ 6,080	- 3,349
Long-term	+ 78	+ 8,855	+ 8,259	+ 9,585	- 2,054	- 1,417	- 1,225	+ 2,922	+ 213
Short-term	- 4,736	+ 14,687	+ 7,491	+ 6,896	+ 16,445	- 17,636	- 16,012	+ 3,158	- 3,562
General government	- 5,309	- 8,719	+ 2,890	- 595	+ 4,069	- 4,205	- 7,219	- 4,563	+ 6,835
Long-term	- 4,682	- 3,723	+ 660	+ 151	+ 101	+ 402	+ 65	- 0	+ 0
Short-term	- 626	- 4,996	+ 2,230	- 746	+ 3,968	- 4,607	- 7,284	- 4,563	+ 6,835
Bundesbank	+ 110,849	+ 77,135	+ 96,792	+ 21,864	- 14,710	+ 79,319	+ 94,668	- 124,269	- 16,728
III. Net financial account (net lending: +/net borrowing: -)	+ 259,720	+ 282,947	+ 225,597	+ 56,803	+ 39,839	+ 61,614	+ 33,164	+ 15,240	+ 29,205

**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

### 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	Denmark DKK	Japan JPY	Norway NOK	Sweden SEK	Switzerland CHF	United Kingdom GBP	United States USD
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
2017	1.4732	1.4647	7.6290	7.4386	126.71	9.3270	9.6351	1.1117	0.87667	1.1297
2018	1.5797	1.5294	7.8081	7.4532	130.40	9.5975	10.2583	1.1550	0.88471	1.1810
2017 Dec.	1.5486	1.5108	7.8073	7.4433	133.64	9.8412	9.9370	1.1689	0.88265	1.1836
2018 Jan.	1.5340	1.5167	7.8398	7.4455	135.25	9.6464	9.8200	1.1723	0.88331	1.2200
Feb.	1.5684	1.5526	7.8068	7.4457	133.29	9.6712	9.9384	1.1542	0.88396	1.2348
Mar.	1.5889	1.5943	7.7982	7.4490	130.86	9.5848	10.1608	1.1685	0.88287	1.2336
Apr.	1.5972	1.5622	7.7347	7.4479	132.16	9.6202	10.3717	1.1890	0.87212	1.2276
May	1.5695	1.5197	7.5291	7.4482	129.57	9.5642	10.3419	1.1780	0.87726	1.1812
June	1.5579	1.5327	7.5512	7.4493	128.53	9.4746	10.2788	1.1562	0.87886	1.1678
July	1.5792	1.5356	7.8504	7.4523	130.23	9.4975	10.3076	1.1622	0.88726	1.1686
Aug.	1.5762	1.5063	7.9092	7.4558	128.20	9.6161	10.4668	1.1413	0.89687	1.1549
Sep.	1.6189	1.5211	7.9930	7.4583	130.54	9.6205	10.4426	1.1286	0.89281	1.1659
Oct.	1.6158	1.4935	7.9481	7.4597	129.62	9.4793	10.3839	1.1413	0.88272	1.1484
Nov.	1.5681	1.4998	7.8880	7.4611	128.79	9.6272	10.2918	1.1377	0.88118	1.1367
Dec.	1.5849	1.5278	7.8398	7.4653	127.88	9.8055	10.2766	1.1293	0.89774	1.1384
2019 Jan.	1.5975	1.5196	7.7504	7.4657	124.34	9.7631	10.2685	1.1297	0.88603	1.1416
Feb.	1.5895	1.4995	7.6485	7.4627	125.28	9.7444	10.4986	1.1368	0.87264	1.1351
Mar.	1.5959	1.5104	7.5868	7.4625	125.67	9.7181	10.4999	1.1311	0.85822	1.1302

\* 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.

### 11. Euro area countries and irrevocable euro conversion rates in the third stage of 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\***

1999Q1=100

Period	Effective exchange rate of the euro vis-à-vis the currencies of the group					Indicators of the German economy's price competitiveness								
	EER-19 1				EER-38 2		Based on the deflators of total sales 3 vis-à-vis				Based on consumer price indices vis-à-vis			
	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	26 selected industrial countries 4			37 countries 5	26 selected industrial countries 4	37 countries 5	56 countries 6	
							Total	of which:						
							Euro area countries	Non-euro area countries						
1999	96.3	96.1	96.0	96.1	96.5	95.8	97.9	99.5	95.9	97.6	98.3	98.1	97.7	
2000	87.2	86.7	86.0	85.3	88.0	85.8	91.9	97.3	85.3	90.9	93.1	92.1	91.0	
2001	87.8	87.0	86.5	86.0	90.6	86.8	91.7	96.4	86.2	90.2	93.1	91.5	90.9	
2002	90.1	90.0	89.4	89.4	95.2	90.4	92.3	95.5	88.7	90.7	93.6	92.0	91.7	
2003	100.7	101.1	100.3	100.5	107.1	101.2	95.7	94.5	97.8	94.8	97.0	96.6	96.7	
2004	104.6	104.8	103.1	103.8	111.7	104.9	95.9	93.3	100.2	95.1	98.4	98.0	98.3	
2005	102.9	103.3	100.9	101.9	109.6	102.3	94.8	91.9	99.3	92.9	98.4	96.9	96.6	
2006	102.8	103.2	100.1	100.6	109.6	101.5	93.5	90.3	98.7	91.2	98.6	96.5	95.8	
2007	106.1	105.8	101.9	102.8	113.0	103.4	94.4	89.5	102.5	91.4	100.9	97.9	97.1	
2008	109.3	107.9	103.2	106.0	117.1	105.3	94.6	88.1	105.6	90.5	102.2	97.8	97.1	
2009	110.7	108.7	104.1	111.0	120.2	106.4	94.8	88.8	105.0	91.0	101.8	98.0	97.5	
2010	103.6	101.0	95.9	102.9	111.6	97.4	92.3	88.5	98.6	87.2	98.7	93.6	92.0	
2011	103.3	99.9	93.7	101.4	112.3	96.9	92.0	88.4	97.9	86.4	98.2	92.8	91.3	
2012	97.7	94.7	88.3	95.3	107.2	92.0	90.1	88.3	92.9	83.7	95.9	89.8	88.3	
2013	101.0	97.5	91.0	97.8	111.8	94.9	92.4	88.8	98.1	85.6	98.2	91.5	90.2	
2014	101.4	97.1	91.1	98.7	114.1	95.2	93.0	89.6	98.4	86.3	98.3	91.7	90.8	
2015	91.7	87.5	82.9	88.5	105.7	86.8	90.2	90.5	89.7	82.7	94.7	87.0	86.3	
2016	94.4	89.4	85.1	89.3	109.7	88.7	91.1	91.0	91.2	84.1	95.3	88.0	87.5	
2017	96.6	91.3	86.0	89.8	112.0	89.9	92.4	91.2	94.2	85.1	96.6	89.1	88.4	
2018	98.9	93.3	87.6	91.0	117.9	93.7	93.6	91.3	97.2	86.1	97.9	90.3	90.4	
2016 Apr.	94.4	89.3		109.8	88.8					95.5	88.1	87.7		
May	94.6	89.7	85.2	89.7	110.2	89.3	91.1	91.0	91.1	84.3	95.3	88.2	87.9	
June	94.4	89.5		109.8	88.9					95.1	88.1	87.6		
July	94.6	89.6		109.5	88.5					95.3	88.1	87.4		
Aug.	94.9	89.9	85.4	89.5	110.0	88.9	91.2	90.9	91.6	84.3	95.6	88.2	87.6	
Sep.	95.1	90.0		110.2	89.1					95.6	88.3	87.7		
Oct.	95.1	90.1		110.0	88.8					95.9	88.3	87.6		
Nov.	94.6	89.5	84.8	88.8	109.6	88.5	91.1	90.9	91.2	84.0	95.5	88.1	87.4	
Dec.	93.7	88.8		108.6	87.7					95.3	87.9	87.1		
2017 Jan.	93.9	89.0		109.0	87.8					95.2	87.7	87.0		
Feb.	93.4	88.7	83.5	87.9	108.1	87.3	90.8	90.9	90.6	83.6	95.1	87.7	86.7	
Mar.	94.0	89.0		108.5	87.4					95.4	87.8	86.8		
Apr.	93.7	88.8		108.2	87.1					95.1	87.6	86.5		
May	95.6	90.3	85.0	88.7	110.5	88.7	91.8	91.3	92.5	84.6	96.0	88.6	87.6	
June	96.3	91.0		111.4	89.4					96.4	88.9	88.0		
July	97.6	92.2		113.3	90.8					97.1	89.7	89.0		
Aug.	99.0	93.5	87.8	91.4	115.0	92.2	93.3	91.3	96.4	86.1	97.9	90.4	89.8	
Sep.	99.0	93.5		115.0	92.1					97.9	90.5	89.9		
Oct.	98.6	93.0		114.8	91.8					97.5	89.9	89.4		
Nov.	98.5	92.9	87.6	91.1	115.0	91.9	93.5	91.3	97.0	86.0	97.9	90.2	89.7	
Dec.	98.8	93.2		115.3	92.0					98.1	90.3	89.8		
2018 Jan.	99.4	93.8		116.1	92.6					98.3	90.4	89.9		
Feb.	99.6	93.8	88.1	91.5	117.3	93.5	94.0	91.2	98.6	86.3	98.3	90.5	90.1	
Mar.	99.7	94.0		117.7	93.8					98.4	90.6	90.3		
Apr.	99.5	93.8		117.9	93.9					98.6	90.6	90.5		
May	98.1	92.6	87.2	90.5	116.6	93.0	93.7	91.3	97.4	85.8	98.0	90.0	89.9	
June	97.9	92.4		116.7	92.9					97.8	89.9	90.0		
July	99.2	93.6		118.2	94.0					97.7	90.4	90.5		
Aug.	99.0	93.3	87.8	91.3	119.0	94.5	93.5	91.4	96.8	86.2	97.5	90.2	90.6	
Sep.	99.5	93.8		120.4	95.4					98.0	90.8	91.5		
Oct.	98.9	93.2		119.0	94.2					97.5	90.3	90.7		
Nov.	98.3	92.8	87.2	90.6	117.9	93.4	93.2	91.4	95.9	85.9	97.6	90.3	90.5	
Dec.	98.4	92.6		118.0	93.2					97.4	90.0	90.3		
2019 Jan.	97.8	92.0		117.3	92.6					97.0	89.5	89.7		
Feb.	97.4	91.6	...	116.6	91.9					96.9	89.3	89.4		
Mar.	96.9	91.1	...	116.2	91.5					96.6	88.9	89.1		

\* 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 2017, pp. 41-43). 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 vis-à-vis the currencies of the following countries: Australia, Bulgaria, Canada, China, Croatia, Czechia, 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

group EER-19 (see footnote 1) and additionally Algeria, Argentina, Brazil, Chile, Iceland, India, Indonesia, Israel, Malaysia, Mexico, Morocco, New Zealand, Philippines, Russian Federation, South Africa, Taiwan, Thailand, Turkey and Venezuela. Due to the redenomination of the Venezuelan bolívar on 20 August 2018, the spot rate from 17 August 2018 is used since then. 3 Annual and quarterly averages. 4 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. 5 Euro area countries (current composition) and countries belonging to the group EER-19. 6 Euro area countries (current composition) and countries belonging to the group EER-38 (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

- Trends in the financing structures of German non-financial corporations as reflected in the corporate financial statements statistics

### ■ Financial Stability Review

#### August 2018

- The current economic situation in Germany

### ■ Monthly Report

#### September 2018

- Models for short-term economic forecasts: an update
- The performance of German credit institutions in 2017

For information on the articles published between 2000 and 2018 see the index attached to the January 2019 Monthly Report.

### Monthly Report articles

#### October 2018

- State government finances: comparison of developments, debt brakes and fiscal surveillance
- The macroeconomic impact of uncertainty
- Activities of multinational enterprise groups and national economic statistics
- The growing importance of exchange-traded funds in the financial markets

#### May 2018

- The current economic situation in Germany

#### June 2018

- Outlook for the German economy – macroeconomic projections for 2018 and 2019 and an outlook for 2020
- Lower bound, inflation target and the anchoring of inflation expectations

#### November 2018

- The current economic situation in Germany

#### July 2018

- The market for Federal securities: holder structure and the main drivers of yield movements
- The realignment of the Chinese economy and its global implications

#### December 2018

- Outlook for the German economy – macroeconomic projections for 2019 and 2020 and an outlook for 2021

- German enterprises' profitability and financing in 2017
- Germany's international investment position: amount, profitability and risks of cross-border assets

#### January 2019

- The impact of an interest rate normalisation on the private non-financial sector in the euro area from a balance sheet perspective
- Price competitiveness in individual euro area countries: developments, drivers and the influence of labour market reforms
- Financial cycles in the euro area
- IFRS 9 from the perspective of banking supervision

#### February 2019

- The current economic situation in Germany

#### March 2019

- German balance of payments in 2018
- Cash demand in the shadow economy

#### April 2019

- Household wealth and finances in Germany: results of the 2017 survey
- Interest rate pass-through in the low interest rate environment
- European Stability and Growth Pact: individual reform options
- Germany's debt brake: surveillance by the Stability Council

## Statistical Supplements to the Monthly Report

- 1 Banking statistics<sup>1, 2</sup>
- 2 Capital market statistics<sup>1, 2</sup>
- 3 Balance of payments statistics<sup>1, 2</sup>
- 4 Seasonally adjusted business statistics<sup>1, 2</sup>
- 5 Exchange rate statistics<sup>2</sup>

## Special Publications

Makro-ökonometrisches Mehr-Länder-Modell, November 1996<sup>3</sup>

Europäische Organisationen und Gremien im Bereich von Währung und Wirtschaft, May 1997<sup>3</sup>

Die Zahlungsbilanz der ehemaligen DDR 1975 bis 1989, August 1999<sup>3</sup>

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<sup>3</sup>

Die Europäische Union: Grundlagen und Politikbereiche außerhalb der Wirtschafts- und Währungsunion, April 2005<sup>3</sup>

Die Deutsche Bundesbank – Aufgabenfelder, rechtlicher Rahmen, Geschichte, April 2006<sup>3</sup>

European economic and monetary union, April 2008



## ■ Special Statistical Publications

- 1 Banking statistics guidelines, January 2019<sup>2, 4</sup>
- 2 Banking statistics customer classification, January 2019<sup>2</sup>
- 3 Aufbau der bankstatistischen Tabellen, July 2013<sup>2, 3</sup>
- 4 Financial accounts for Germany 2012 to 2017, July 2018<sup>2</sup>
- 5 Extrapolated results from financial statements of German enterprises 1997 to 2016, December 2017<sup>2</sup>
- 6 Verhältniszahlen aus Jahresabschlüssen deutscher Unternehmen von 2014 bis 2015, May 2018<sup>2, 3</sup>
- 7 Notes on the coding list for the balance of payments statistics, September 2013<sup>2</sup>
- 8 The balance of payments statistics of the Federal Republic of Germany, 2nd edition, February 1991<sup>o</sup>
- 9 Securities deposits, August 2005
- 10 Foreign direct investment stock statistics, April 2018<sup>1, 2</sup>
- 11 Balance of payments by region, July 2013
- 12 Technologische Dienstleistungen in der Zahlungsbilanz, June 2011<sup>3</sup>

## ■ Discussion Papers\*

- 04/2019  
Anatomy of regional price differentials: Evidence from micro price data
- 05/2019  
What drives the short-term fluctuations of banks' exposure to interest rate risk?
- 06/2019  
Connectedness between G10 currencies: Searching for the causal structure
- 07/2019  
Information effects of euro area monetary policy: New evidence from high-frequency futures data
- 08/2019  
The nonlinear dynamics of corporate bond spreads: Regime-dependent effects of their determinants
- 09/2019  
Model and estimation risk in credit risk stress tests
- 10/2019  
Procyclical leverage in Europe and its role in asset pricing
- 11/2019  
Redemptions and asset liquidations in corporate bond funds
- 12/2019  
Fear, deposit insurance schemes, and deposit reallocation in the German banking system
- 13/2019  
Labor market reforms, precautionary savings, and global imbalances

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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. 88\*.

## ■ 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<sup>2</sup>

2a Solvency Regulation, December 2006<sup>2</sup>  
Liquidity Regulation, December 2006<sup>2</sup>

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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.