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Contents

Abbreviations and symbols

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 Data unknown, not to be published or not meaningful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

Discrepancies in the totals are due to rounding.

Commentaries

Economic conditions

Underlying trends

Economic output in Germany possibly down again slightly in third quarter

Economic output in Germany could have contracted again slightly in the third quarter of 2019. This is mainly attributable to the continued downturn in export-oriented industry. By contrast, sectors with a stronger domestic focus probably continued to provide impetus. Enterprises in the consumption-related services sectors, for example, rated their business situation as decidedly positive. Retail sales and positive consumer sentiment also suggest that households' strong appetite for consumption remained undimmed throughout the period under review. This is a reflection of the ongoing favourable situation in the labour market. The slowdown in economic activity has only had a limited impact on employment and unemployment so far. Consumers' income prospects are still upbeat and the positive situation in the construction industry continues unabated. This means that Germany's economic dichotomy continues. The business climate has deteriorated perceptibly in many services sectors with a smaller focus on consumers. At the same time, leading indicators currently show few signs of a sustained revival in exports and a stabilisation in industry. There is therefore a growing danger that the downturn there will increasingly spill over to more domestically oriented sectors. However, there are no signs so far of a recession in the sense of a significant, broad-based and persistent decline in economic output with underutilisation of aggregate capacity.

Industry

Industrial production clearly up in August

German industrial production interrupted its downward trend in August 2019. Seasonally adjusted industrial production increased significantly on the month (+¾%), but on an average of July and August it was distinctly lower than in the second quarter (-¾%). This was primarily due to developments in the intermediate goods industry, where there was a steep and broad-based slump (-1¾%). Manufacturers of electrical equipment were forced to cut production particularly severely, and there was also a considerable decline in the manufacture of consumer goods (-1%). By contrast, the output of capital goods stagnated, with other manufacturing, in particular, providing impetus, mainly driven by the production of medical devices and materials. The automotive sector had a considerable dampening effect, however. The renewed tightening of standards for new registrations from September 2019 may have played a role here. The EVAP amendment, as it is known, is designed to significantly reduce the evaporative emissions that escape from motor vehicles. However, production stoppages in the automotive sector are unlikely to be as dramatic as those experienced in the summer of last year when a new emission test procedure entered into force. According to the Association of the Automotive Industry (VDA), the seasonally adjusted number of vehicles manufactured in the third quarter overall was just 1½% down on the quarter, which is only a slightly stronger decline than in the preceding quarters.

Industrial new orders deteriorate again

Industrial new orders in Germany deteriorated again in August 2019, falling markedly on the previous month in seasonally adjusted terms (-½%) Taking July and August together, there was an even stronger decrease compared with the average of the second quarter (-1¼%). Above all, there was a lack of large orders, which are generally received at fairly irregular intervals. Without this effect, German industrial enterprises experienced a distinctly smaller contraction in new orders (-¾%). Looking at the geographic origin of new orders, there was less demand for German industrial products in particular from countries outside the euro area. The lack of large orders played a particularly significant role here. Furthermore, the inflow of

Economic conditions in Germany*

Seasonally adjusted

Period	Orders received (volume); 2015 = 100			
	Industry			Main construction
	Total	of which: Domestic	of which: Foreign	
2018 Q4	107.4	103.3	110.5	131.7
2019 Q1	102.9	100.5	104.7	129.1
Q2	102.0	96.4	106.2	121.9
June	103.1	96.2	108.4	122.6
July	100.9	97.0	103.8	122.6
Aug.	100.3	94.5	104.7	…

Period	Output; 2015 = 100			
	Industry			Construction
	Total	of which: Intermediate goods	of which: Capital goods	
2018 Q4	104.4	104.4	105.0	110.3
2019 Q1	103.6	104.4	103.2	112.1
Q2	102.0	102.0	101.8	111.3
June	101.4	100.3	101.9	111.1
July	100.8	99.8	101.1	111.8
Aug.	101.5	100.8	102.2	110.1

Period	Foreign trade; € billion			Memo item: Current account balance in € billion
	Exports	Imports	Balance	
2018 Q4	333.62	277.86	55.76	61.89
2019 Q1	336.06	279.06	57.00	67.67
Q2	329.94	276.47	53.47	64.12
June	110.36	92.85	17.51	21.09
July	111.19	90.66	20.53	23.82
Aug.	109.15	91.07	18.08	22.49

Period	Labour market			
	Employment	Vacancies[1]	Unemployment	Unemployment rate
	Number in thousands			%
2019 Q1	45,176	804	2,244	5.0
Q2	45,225	794	2,263	5.0
Q3	…	771	2,282	5.0
July	45,249	779	2,284	5.0
Aug.	45,259	772	2,286	5.0
Sep.	…	763	2,276	5.0

Period	Prices; 2015 = 100			
	Import prices	Producer prices of industrial products	Construction prices[2]	Harmonised consumer prices
2019 Q1	102.3	105.1	114.0	104.6
Q2	102.1	105.1	115.0	105.6
Q3	…	…	115.8	105.8
July	101.1	104.9	.	105.8
Aug.	100.7	104.5	.	105.7
Sep.	…	…	.	105.8

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

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domestic orders declined markedly (-½%). By contrast, demand from the euro area had a stabilising effect with a clear increase of 1%. A sectoral breakdown shows that there was a broad-based deterioration in industrial orders. The order books of consumer goods manufacturers were worst affected (-3¼%), while producers of capital goods (-1¼%) and the intermediate goods sector (-¾%) reported a slightly smaller drop in orders.

Industrial turnover pointing upwards, but clear decline in exports of goods

In August 2019, nominal turnover in industry followed industrial output and expanded steeply, exceeding the previous month's level by 1½%. On an average of July and August, however, turnover was distinctly below the average of the second quarter (-¾%). In regional terms, sales were down somewhat more strongly in Germany and the euro area than in non-euro area countries, where sales of electrical equipment, in particular, provided a boost. In a sectoral breakdown, industrial sales experienced a broad-based decline in value terms. Manufacturers of intermediate, capital and consumer goods reported a similarly large decline in sales figures. In August 2019, nominal goods exports fell steeply on the previous month (-1¾%) after seasonal adjustment. Taking July and August together, however, they increased slightly (+¼%), and in price-adjusted terms they moved sideways. As with industrial turnover, the trade in goods with non-euro area countries had a supporting effect. By contrast, euro area exports were down significantly. In seasonally adjusted terms, nominal imports of goods expanded distinctly in August on the month (+½%), but on an average of July and August fell steeply (-1½%). After eliminating price effects, there was only a slight decline (-¼%). This discrepancy is attributable to energy prices, which came down quite considerably in the period under review.

Construction industry

There was a steep month-on-month decline in construction output in August 2019 after sea-

Steep decline in construction output

sonal adjustment (-1½%). Taking the first two months of the third quarter together, there was also a slight contraction compared with the second quarter (-¼%). This was primarily due to a significant reduction in activity in the main construction sector (-1%), with construction activity in general building and civil engineering contracting on a similar scale. By contrast, construction activity in the finishing trades expanded distinctly (+½%). Orders received in the main construction sector in July 2019 (the latest month for which data are available) rose markedly on the previous quarter (+½%). New orders thus interrupted their downward trend and remained at a very high level after peaking at the turn of 2018-19 on the back of large orders. Ifo Institute surveys also indicate that construction activity is still basically good, with sentiment in the main construction sector, equipment utilisation and the reach of the order books in this sector remaining close to historic peak levels.

Labour market

Employment grew further, albeit only marginally towards end of period under review

The labour market is still robust. In spite of weak demand, employment grew throughout the reporting period, albeit only marginally. In August, there were 10,000 more persons in work in seasonally adjusted terms than in the previous month. As employment growth had been significantly stronger a year ago, the year-on-year increase was down to 333,000 persons, or 0.7%. As in the case of the previous substantial rise, the current slowdown was also mainly attributable to employment subject to social security contributions. However, these jobs still showed significantly stronger growth than overall employment in year-on-year terms. This was due mainly to the number of persons exclusively in low-paid part-time employment and self-employed persons, which has been in decline for some time now. The leading indicators for labour demand showed no further deterioration overall, meaning that the slow rise in employment could continue in the coming months.

Slight fall in unemployment

The number of registered unemployed persons fell again slightly in September for the first time in four months. After seasonal adjustment, 2.28 million people were officially registered as unemployed with the Federal Employment Agency, around 10,000 fewer than in August. The unemployment rate remained unchanged at 5.0%. The number of unemployed persons fell by 22,000 compared to the same month of the previous year. The decline in September was not due to a cyclical improvement in the economy, however. In the cyclically sensitive category of SGB III job seekers (those receiving unemployment benefits under the statutory unemployment insurance scheme), the number of unemployed persons continued to rise in September, as in the preceding six months. By contrast, unemployment among those receiving the basic welfare allowance, which has a more structural basis, was down significantly. The unemployment barometer of the Institute for Employment Research (IAB) improved in September, but is still in negative territory. Unemployment is therefore likely to edge up slightly in the next few months.

Prices

Temporary increase in crude oil prices

Against the backdrop of the attack on Saudi Arabian production facilities, crude oil prices surged in mid-September 2019 but subsequently declined again. They were up by just over 5% on a monthly average compared with August, but were still around one-fifth lower than a year earlier. In October, prices declined again slightly and as this report went to press stood at US$60. Crude oil futures were traded at distinct discounts – US$2 for deliveries six months ahead and US$3 for deliveries 12 months ahead.

Import and producer prices excluding energy virtually unchanged

In August 2019, both import and producer prices were down distinctly overall due to lower energy prices. By contrast, the prices of other goods were unchanged. The year-on-year figure for imports slipped slightly further into

negative territory (-2.7%), while that for manufactured goods remained positive (+0.3%).

Consumer prices higher again

Seasonally adjusted consumer prices as measured by the Harmonised Index of Consumer Prices (HICP) rose slightly in September 2019 after declining in August. Food prices dropped marginally and prices for energy remained unchanged in spite of higher crude oil prices, as refinery margins came down. However, industrial goods excluding energy became slightly more expensive, and prices for services experienced a somewhat more significant increase. Annual headline HICP inflation decreased slightly from 1.0% to 0.9% and, excluding energy and food, the HICP rose from 0.8% to 1.0%. As was the case back in July and August, a special effect relating to package holidays had a dampening effect, but this was no longer as strong as in the previous months.[1] At +1.2% compared with 1.4%, annual national Consumer Price Index (CPI) inflation, which is not subject to this effect, was still somewhat higher than the HICP rate, which is more relevant for monetary policy. While this special effect relating to package holidays continues to depress the headline and core rates of the HICP somewhat in the current month, it will increase them significantly in November.

Public finances[2]

Local government finances

Lower surplus in Q2: subdued revenue growth …

In the second quarter of 2019, the surplus in the local government core budgets and off-budget entities stood at €4½ billion, which amounted to a decline of almost €1½ billion on the year. After a somewhat stronger start to the year, revenue increased by only 3½% (€2 billion). Among other factors, the rise in tax revenue was less dynamic, at 2½% (€½ billion). In particular, growth in local governments' share in income tax was weak, although this is likely to have been a temporary phenomenon. However, revenue from local business tax continued its robust increase. The expansion in general and investment transfers from state governments was less strong than at the start of the year, but still came to 4%. By contrast, growth in receipts from fees became more dynamic (+7%).

… and clear rise in spending on personnel and investment

Expenditure climbed sharply, by a total of 6% (€3½ billion). Growth in personnel expenditure stood at 8% (just under €1½ billion) and thus doubled in comparison with the start of the year. This reflects, above all, the pay increase negotiated in the spring 2018 collective wage agreement: this had not yet taken effect in the second quarter of last year, whereas in the same quarter of 2019, the second adjustment stage had already been implemented. Moreover, there is likely to have been a further increase in staffing levels. The rise in other operating expenditure was slower but still significant, at 4½% (€½ billion). By contrast, spending on social benefits remained stable overall. On the one hand, social assistance payments saw a significant increase (5%). On the other hand, there was a clear decline, notably, in accommodation costs for the long-term unemployed (-6%) and benefits for asylum seekers (-12½%). Much like at the beginning of the year, an upsurge in fixed asset formation (+19½%, or just under €1½ billion) was a key factor in the strong expenditure growth.

Slight deficit for first half-year means another large surplus expected for year as a whole

At the end of the first half of 2019, local government was running a slight deficit of just under €½ billion, after posting a surplus of a similar size a year earlier. A considerable surplus is usually expected for the second half of the year. However, the balance for 2019 as a whole is likely to be below the large surplus recorded in 2018 (€10 billion).

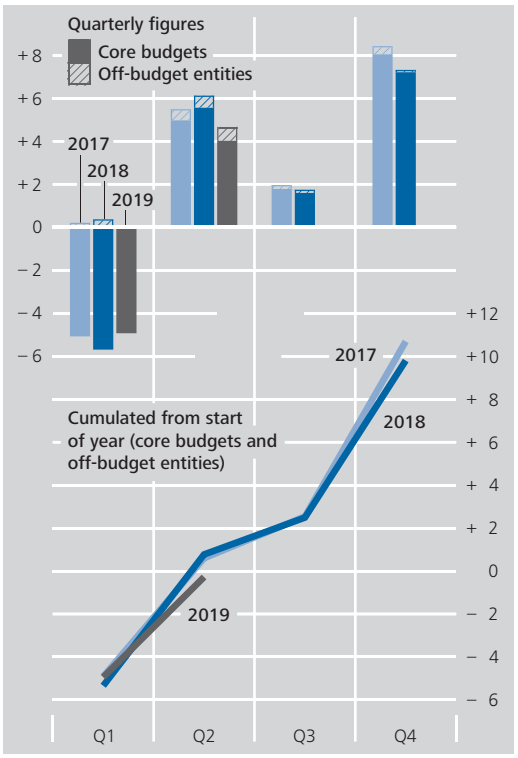
1 See Deutsche Bundesbank (2019a).
2 In the short commentaries on public finances, the emphasis is on recent outturns. The quarterly editions of the Monthly Report (published in February, May, August and November), by contrast, contain an in-depth description of public finance developments during the preceding quarter. For detailed data on budgetary developments and public debt, see the statistical section of this report.

Local government debt declining but high cash advances indicate need for action

At the end of the second quarter of 2019, local government debt was down by €1 billion on the end of the first quarter, thus totalling just over €135 billion (including liabilities to the public sector). Credit market debt fell to just under €95 billion. The volume of cash advances declined only moderately, reaching €37 billion. Cash advances are actually only intended to bridge temporary liquidity shortfalls. The fact that their total volume remains high indicates that action is needed.[3]

Local government fiscal balance

€ billion



Source: Federal Statistical Office.
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Securities markets

Bond market

Net sales in the German bond market

At €120.5 billion, gross issuance in the German bond market in August 2019 was somewhat down on July (€122.7 billion). After deducting the lower redemptions and taking account of changes in issuers' holdings of their own debt securities, net issuance of domestic debt securities came to €27.2 billion. The outstanding volume of foreign debt securities in Germany fell slightly by €0.2 billion in the reporting month, which meant that the outstanding volume of debt instruments in the German market rose by €27.0 billion overall.

Rise in public sector capital market debt

During the reporting month, the public sector issued debt securities worth €24.1 billion net (following net redemptions of €7.6 billion in July). Central government was the main issuer of new securities (€17.1 billion), chiefly in the form of two-year Federal Treasury notes (Schätze) for €8.6 billion and ten-year Federal bonds (Bunds) in the amount of €7.7 billion. It also issued five-year and 30-year Bunds totalling €3.3 billion and €1.0 billion respectively. At the same time, there were redemptions of Treasury discount paper (Bubills) amounting to €3.7 billion. State and local governments issued their own bonds worth €7.0 billion net.

Net issuance by enterprises

Domestic enterprises issued bonds with a net value of €6.5 billion in August, following net redemptions of €1.1 billion in July. Non-financial corporations were the chief issuers on balance.

Fall in credit institutions' capital market debt

Domestic credit institutions reduced their capital market debt by €3.3 billion net in August, following net issuance of €0.7 billion in July. The largest decline was in the outstanding volume of debt securities issued by specialised credit institutions (€2.9 billion), which include, for example, public promotional banks. However, there were also net redemptions of mortgage Pfandbriefe and public Pfandbriefe (€0.1 billion and €0.9 billion respectively). Meanwhile, other bank debt securities that can be structured flexibly saw net issuance (€0.5 billion).

Purchases of debt securities

Domestic investors were the main buyers of bonds in August (€18.3 billion) with domestic non-banks acquiring bonds worth €10.8 billion net, and domestic credit institutions purchasing

3 See Deutsche Bundesbank (2019b), pp. 46-47.

Sales and purchases of debt securities

€ billion

Item	2018 August	2019 July	2019 August
Sales			
Domestic debt securities[1]	10.9	– 7.9	27.2
of which:			
Bank debt securities	2.6	0.7	– 3.3
Public debt securities	12.1	– 7.6	24.1
Foreign debt securities[2]	5.3	5.8	– 0.2
Purchases			
Residents	10.9	1.4	18.3
Credit institutions[3]	– 1.6	4.5	6.2
Deutsche Bundesbank	4.6	– 2.6	1.4
Other sectors[4]	7.9	– 0.4	10.8
of which:			
Domestic debt securities	6.1	– 3.5	17.3
Non-residents[2]	5.3	– 3.5	8.7
Total sales/purchases	16.2	– 2.1	27.0

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

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securities totalling a net €6.2 billion. Holdings of debt securities in the Bundesbank's portfolio increased by €1.4 billion net. The vast majority of these were German debt securities issued by the public sector. Since January 2019, the Eurosystem has no longer been making any net purchases under the expanded asset purchase programme (APP). However, principal payments are being smoothly reinvested over time, which means that, in individual months, there will be a net acquisition or net redemption on balance. Net purchases are set to resume in November, as decided at the September meeting of the Governing Council of the ECB. Foreign investors also increased their bond investment by €8.7 billion in net terms.

Equity market

Hardly any net issuance in the German equity market

In the reporting month, domestic enterprises placed very little in the way of new shares on the German equity market, issuing €0.1 billion in net terms. The volume of foreign equities in the German market fell by €0.7 billion during the same period. Domestic non-banks were the sole buyers of mutual fund shares on balance (€1.4 billion). Domestic credit institutions reduced their holdings by €0.6 billion. Foreign investors scaled back their equity exposure in Germany by €1.4 billion on balance.

Investment funds

German mutual funds record inflows

Domestic mutual funds recorded net inflows of €9.9 billion in August, compared with €5.9 billion in July. On balance, specialised funds reserved for institutional investors were the chief beneficiaries (€8.8 billion). Among the various asset classes, new shares were placed on the market primarily by mixed securities funds (€3.9 billion) and bond funds (€3.7 billion). The outstanding volume of foreign mutual fund units distributed in Germany rose by €3.5 billion in the reporting month. On balance, domestic non-banks were the sole purchasers of mutual fund shares in August (€13.8 billion). The bulk of these were domestic securities.

Balance of payments

Current account surplus down

Germany's current account recorded a surplus of €16.9 billion in August 2019. The result was €4.3 billion down on the previous month's level, which was attributable to a decrease in the goods account surplus that significantly outweighed the decline in the invisible current transactions deficit comprising services as well as primary and secondary income.

Significant decline in the goods account surplus

In the reporting month, the surplus in the goods account contracted by €5.8 billion on the month to €17.0 billion. Exports of goods fell more strongly than imports of goods.

Germany recorded a deficit of €0.1 billion in invisible current transactions in August, compared with a deficit of €1.6 billion one month earlier. The smaller deficit was down to im-

By contrast, slight improvements in all three sub-accounts of invisible current transactions

provements in all three sub-accounts. The deficit in the services account narrowed by €0.6 billion to €5.0 billion, with expenditure shrinking more strongly than receipts. Expenditure on the use of intellectual property as well as in the area of IT services and management consulting services fell in particular. The primary income surplus increased by €0.6 billion in August to €9.1 billion. Here, again, this was due to a decline in expenditure, mainly because, in the area of investment income, payments to non-residents from portfolio investment decreased. The secondary income deficit fell by €0.3 billion to €4.2 billion, with the decline concentrated in government expenditure.

Net capital imports in portfolio investment …

In August 2019, developments in the financial markets were characterised by political uncertainty and its effects on economic activity. Against this backdrop, Germany's cross-border portfolio investment recorded net capital imports in the amount of €4.7 billion, compared with net capital exports of €13.0 billion in July. This was driven by foreign investors purchasing German securities worth €7.2 billion. They acquired money market paper (€5.3 billion) and bonds (€3.4 billion), but divested themselves of shares (€1.4 billion) and mutual fund shares (€0.1 billion). In August, domestic investors continued to boost their holdings of foreign securities by €2.5 billion on balance. They also purchased mutual fund shares (€3.5 billion) and bonds (€0.7 billion). By contrast, they sold shares and money market paper (€0.8 billion in each case).

… and in direct investment

Direct investment recorded net capital imports of €3.8 billion in August compared with €5.7 billion in July. The main reason for this was that foreign firms invested €7.4 billion net in Germany. They chiefly granted intra-group loans (€5.6 billion), with foreign affiliates in particular awarding short-term financial credits to their parent companies in Germany (reverse flows). On top of this, foreign enterprises boosted their equity capital in Germany (€1.8 billion). German firms also injected additional capital into affiliated enterprises abroad (€3.6 billion).

Major items of the balance of payments

€ billion

Item	2018 Aug.	2019 July	2019 Aug.p
I. Current account	+ 15.2	+ 21.3	+ 16.9
1. Goods[1]	+ 15.9	+ 22.9	+ 17.0
Exports (f.o.b.)	102.6	115.0	100.4
Imports (f.o.b.)	86.7	92.1	83.3
Memo item:			
Foreign trade[2]	+ 17.6	+ 21.6	+ 16.2
Exports (f.o.b.)	105.4	115.2	101.2
Imports (c.i.f.)	87.7	93.6	85.0
2. Services[3]	– 5.7	– 5.6	– 5.0
Receipts	24.2	25.5	24.3
Expenditure	29.9	31.1	29.4
3. Primary income	+ 8.6	+ 8.6	+ 9.1
Receipts	17.3	18.4	18.2
Expenditure	8.7	9.8	9.0
4. Secondary income	– 3.6	– 4.6	– 4.2
II. Capital account	+ 0.1	+ 0.3	+ 0.8
III. Financial account (increase: +)	+ 21.2	– 0.4	+ 0.5
1. Direct investment	+ 1.4	– 5.7	– 3.8
Domestic investment abroad	+ 3.6	+ 4.3	+ 3.6
Foreign investment in the reporting country	+ 2.1	+ 10.0	+ 7.4
2. Portfolio investment	+ 5.7	+ 13.0	– 4.7
Domestic investment in foreign securities	+ 9.1	+ 10.6	+ 2.5
Shares[4]	+ 3.7	+ 1.1	– 0.8
Investment fund shares[5]	+ 0.1	+ 3.8	+ 3.5
Long-term debt securities[6]	+ 5.0	+ 7.0	+ 0.7
Short-term debt securities[7]	+ 0.3	– 1.2	– 0.8
Foreign investment in domestic securities	+ 3.5	– 2.4	+ 7.2
Shares[4]	– 1.7	+ 1.6	– 1.4
Investment fund shares	– 0.1	– 0.5	– 0.1
Long-term debt securities[6]	+ 5.4	– 6.0	+ 3.4
Short-term debt securities[7]	– 0.1	+ 2.5	+ 5.3
3. Financial derivatives[8]	+ 5.4	+ 2.9	+ 2.3
4. Other investment[9]	+ 9.4	– 11.0	+ 5.9
Monetary financial institutions[10]	– 8.0	+ 33.5	– 8.6
of which: Short-term	– 12.5	+ 34.0	– 7.9
Enterprises and households[11]	– 1.6	+ 0.9	+ 4.4
General government	– 1.8	+ 0.5	+ 2.1
Bundesbank	+ 20.8	– 45.9	+ 8.0
5. Reserve assets	– 0.6	+ 0.3	+ 0.8
IV. Errors and omissions[12]	+ 6.0	– 21.9	– 17.2

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

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In doing so, they increased their equity capital (€9.4 billion) but reduced the amount of funding provided through intra-group lending (€5.8 billion).

Outflows in other investment

Other statistically recorded investment – which comprises loans and trade credits (where these do not constitute direct investment), bank deposits and other investments – registered net capital exports of €5.9 billion in August, compared with net capital imports of €11 billion one month previously. This chiefly occurred due to an increase in the Bundesbank's net asset position (€8 billion). Higher German TARGET2 claims of €27 billion were also offset by higher liabilities due to deposits by non-resident counterparties (€19 billion). Non-banks saw net outflows of €6.5 billion, primarily as a result of external transactions by enterprises and households (€4.4 billion). Meanwhile, monetary financial institutions (excluding the Bundesbank) recorded capital imports of €8.6 billion.

Reserve assets

The Bundesbank's reserve assets rose – at transaction values – by €0.8 billion in August.

List of references

Deutsche Bundesbank (2019a), Dampening special effect in the HICP in July 2019, Monthly Report, August 2019, pp. 57-59.

Deutsche Bundesbank (2019b), State government budgets: analysis of detailed results for 2018, Monthly Report, September 2019, pp. 39-57.

The sustainable finance market: a stocktake

Sustainability has become a key issue and an important investment criterion on the financial markets. Supervisory reporting data from within the European System of Central Banks bear testament to the market growth in Europe, particularly in the area of green bonds. The data permit an in-depth analysis of the holder structure of green bonds, which indicates that long-term investors, in particular, such as pension funds show a preference for green bonds over conventional bonds.

There is a huge need for investment in sustainable projects, but given the lack of generally accepted definitions of "green" and "sustainable" and insufficient transparency about their use, it is unclear how the strong market growth observed in the recent past will continue to develop.

It is down to policymakers to set the course for the appropriate and efficient integration of sustainability criteria on the financial market. Uniform, reliable metrics make it easier to factor long-term risks relating to climate change and sustainability into investment decisions. The European Commission, in particular, is currently working towards introducing a common classification system for sustainable activities, i.e. a taxonomy, which will facilitate the reliable and transparent classification of financial products and strengthen trust in sustainable assets.

Improving the general framework for sustainable investment will provide guidance and help what began as a niche development driven partly by marketing to evolve into a mainstream product. The key task now is to create transparency, which is a prerequisite for pricing that is commensurate with inherent risk – and thus to strengthen the allocative efficiency of the capital market.

The growing importance of sustainable investments

Sustainability an important issue on the financial market

Over the past few years, financing instruments geared towards sustainability objectives have gained in importance on the financial markets, and the financial industry has expanded its expertise in this area. On the one hand, corporate finance and project finance aim at reducing current greenhouse gas emissions, while on the other hand serving as a way of investing in innovative, low-carbon technologies. The market segment was given a particular boost by the Paris Agreement in 2015. One of the aims set by the international community was "making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development".[1] In view of this, too, sustainability as an investment objective emerged as a key issue on the financial markets. At the same time, however, the question arose as to how financial market participants can channel investment into projects that are aligned with the aims of sustainable economic growth and mitigating (the impact of) climate change. Even though there is still no final answer to this question, the volume of sustainable investment has nonetheless grown strongly since then.

Increasing alignment of focus on values and generating value

The greater importance of sustainability on the financial market is also due to the fact that investors these days consider not just the return, conventional risks and liquidity when investing funds, but increasingly also factor in the risks associated with a lack of consideration for sustainability factors. With risk optimisation changing in line with this, the result is that a growing group of investors find that investments with a – purely financially motivated – focus on generating value increasingly align with investments with a values-based incorporation of sustainability objectives.

Huge need for investment in both public …

The aforementioned risks go hand in hand with opportunities for investors, however. From a medium to longer-term perspective, market participants consider the investment opportunities to be substantial. This is consistent with calculations of the investment volume required to achieve global development and climate objectives. In order to bring global economic growth into line with the Sustainable Development Goals[2] and the Paris Agreement, the OECD, the World Bank and the United Nations Environment Programme estimate that infrastructure investment alone would have to come to US$6.9 trillion a year up to 2030.[3] At present, it is not known what share of this will be taken on by private players on the financial market, having weighed up the opportunities and risks. Long-term planning certainty is likely to be one of the main prerequisites for a persistently high level of private capital provision.

… and private sector

Besides infrastructure investment, further growth in the market for sustainable finance is likely to be contingent on the extent to which enterprises perceive economic opportunities in revamping established product ranges in a sustainable way, making more sparing use of natural resources and reducing environmentally harmful emissions. German industry estimates that this kind of reorientation, which is likely to encompass not just new products but also new or radically altered production processes and supply chains, will require extensive investment.[4]

Significant market growth as a result

Financial market participants have responded to the huge need for investment in sustainable projects and are placing more and more emphasis on sustainability factors in their investment decisions. On the one hand, this is illustrated by increasing volumes of green bonds

1 See United Nations (2015), Article 2(1) letter (c).
2 The Sustainable Development Goals (SDGs) of the United Nations aim to reconcile economic growth with finite resources, environmental limits and social equity.
3 See OECD/World Bank/UN Environment Programme (2018), p. 15.
4 A study commissioned by the Federation of German Industry (*Bundesverband der Deutschen Industrie* – BDI) puts the amount of additional investment needed in German industry, depending on the chosen CO_2 reduction goal, at between €120 billion and €230 billion by 2050. In total, the additional investment needed in Germany up to 2050 is estimated at €1.5 trillion to €2.3 trillion (see The Boston Consulting Group/Prognos (2018)).

and sustainable investments, and on the other, by the growing number of investors signing up to the UN Principles for Responsible Investment (UN PRI; see the adjacent box) and thereby committing to considering sustainability factors (see the chart on p. 16).

But lack of definition poses challenges

The concepts of sustainability and sustainable investment have not been clearly defined, however, and are therefore open to interpretation by investors and issuers alike. Although the EU is endeavouring to specify uniform requirements with its taxonomy – a classification system for sustainable economic activities – there is, at present, no framework at the global, European or national level which would allow sustainable investment of capital to be uniformly and clearly categorised and hence quantified. But reliable metrics are vital to enabling financial market participants to adequately evaluate the opportunities and risks of different investments and to efficiently fulfil the capital allocation function of the financial market. In particular, when matched with reporting requirements, common indicators are also a suitable means of reducing the risk of investors being misled about how sustainable their investments are.[5]

Responsible, sustainable and green investment: attempting to define terms

No definition, but some concepts established, including responsible investment …

Because there is no definition of sustainability on the financial market, it can be tricky for potential investors to choose where to invest their funds, especially since often a variety of terms are used that seem synonymous at first glance. The broadest concept is that of socially responsible investment (SRI). It typically encompasses the assets of all investors who have publicly committed to considering sustainability factors,

5 This phenomenon is referred to as greenwashing and describes the risk of investing in a security that is marketed as being sustainable but which, upon closer inspection, does not comply with standard sustainability criteria and the investor's requirements in particular.

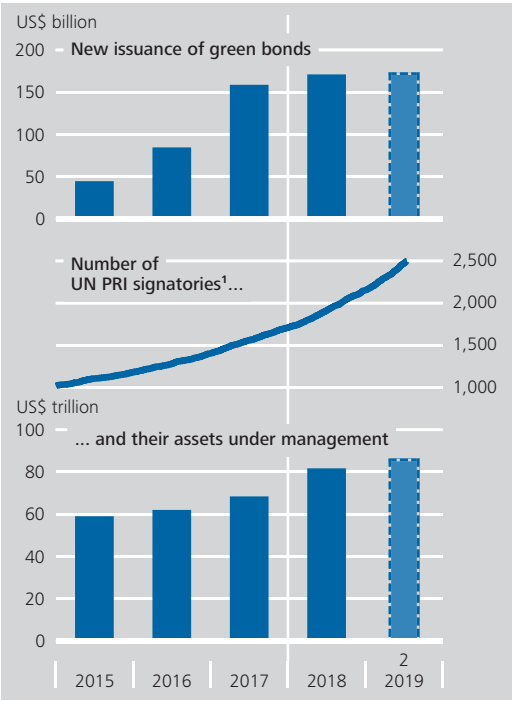
The Principles for Responsible Investment

Initiated by the then United Nations Secretary-General Kofi Annan in 2005 and supported by the UN, the UN Principles for Responsible Investment (UN PRI) define six principles which UN PRI signatories commit to apply on a voluntary and non-binding basis. A key objective of the principles is to incorporate environmental, social and governance (ESG) issues into the investment process.

To this end, the signatories undertake, first, to incorporate ESG issues into investment analysis and decision-making processes; second, to be active owners in their ownership policies and practices; third, to seek appropriate disclosure on ESG issues; fourth, to promote acceptance and implementation of the UN PRI; fifth, to work together towards these goals; and sixth, to report on own activities and progress towards implementing the UN PRI.

To date, around 2,500 asset managers, asset owners and service providers representing investment capital totalling over USD 86 trillion have committed to the principles (as at September 2019).

The global market for sustainable finance



Sources: Climate Bonds Initiative and UN PRI. **1** UN Principles for Responsible Investment. **2** As at September 2019.
Deutsche Bundesbank

for example by signing up to the UN PRI or by adopting their own general investment guidelines.[6] There is no scrutiny of the degree to which they actually follow through on this commitment at the level of the individual investments or portfolios. Instead, the sole focus is on the commitment made at the institutional level, which means that the design of specific sustainability criteria is of lesser importance.

… and sustainable investment

Where environmental, social and governance (ESG) criteria are factored into the individual investment decision, meaning that specific requirements are formulated at the security or portfolio level, this is referred to as sustainable finance or investment. Sustainable finance is not confined to climate and environmental protection issues, but also encompasses social aspects and questions about the composition and quality of management at firms in which investments have been or will be made. The subcategory of green finance, on the other hand, incorporates environmental aspects only (see the chart on p. 17).

Sustainability requirements when investing debt and equity capital

Thus, unlike responsible investment, sustainable investment is based on specific requirements and hence, where possible, on a harmonised understanding of suitable criteria. Yet choosing which benchmark to use is just as complicated as formulating appropriate minimum requirements for a security or its issuer with regards to their contribution towards achieving sustainability goals. This problem mainly affects the debt market, because when checking if bonds are sustainable or green financial products, it always comes down to the use of the proceeds, which means that the sustainability of the financed project has to be measurable. The capital raised by issuing sustainable or green bonds therefore always has to be allocated to relevant projects. On the stock market, however, investors generally consider the enterprise as a whole rather than individual projects. The primary input into their investment decisions is a comparison of the relative sustainability of the enterprises based on predefined metrics. Enterprises considered by shareholders to be (relatively) sustainable may not necessarily be able to issue green bonds – to do so, they would have to implement appropriate projects and finance them via bonds. Conversely, creditors may not necessarily class the issuer of a green bond as sustainable.

Sustainability on the stock market

Sustainable investment strategies for equity investors

Negative screening penalises poor performance, …

The above definition of sustainable finance, i.e. the integration of ESG criteria at the level of individual investments, has a long tradition

6 See Forum Nachhaltige Geldanlagen e.V. (2019), p. 20.

among equity investors, in particular.[7] Negative screening (the use of exclusion criteria), which can relate to individual firms as well as to entire sectors or countries, is not just the oldest[8] but also the most widely used sustainable investment strategy today.[9] One reason for this is that exclusions can be applied with relative ease and can be tailored according to individual needs. Even so, the exclusion of a specific firm from the investment universe is often grounded in extensive analyses.[10] A less onerous form of negative screening is norm-based screening, whereby all enterprises that do not uphold and support certain international norms and standards are excluded from the investment universe. For instance, failure to recognise the International Labour Organization's core labour standards, which prohibit forced labour and child labour, amongst other things, could be grounds for exclusion.

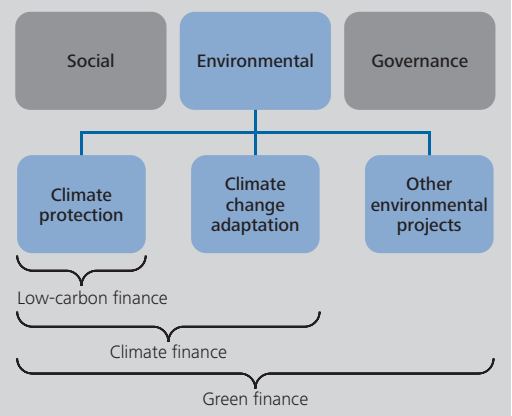
… positive screening rewards good performance

By contrast, positive screening explicitly includes companies in the investment universe. A widely used strategy in this approach is the best-in-class strategy, where the first step is to evaluate all companies in the theoretical investment universe – the benchmark, such as a global stock index – using predefined ESG criteria. A ranking is produced on the basis of these criteria, and the best companies in their respective sectors are added to the portfolio, contingent on a positive financial analysis. The aim is to promote sustainability in all sectors and to create incentives for ESG competition, as it were. A variation of this approach can reinforce the incentive mechanism and reward positive developments: rather than adding the best companies at the time of analysis to the investment universe, the investor adds those that have made the greatest progress over time in the inclusion of sustainability aspects. This is also referred to as a best progress strategy.

Narrow focus of thematic investing

With thematic investing, on the other hand, investors – especially in the private equity segment – specifically seek out sectors or issues so as to support companies in certain sectors, such as solar technology or sustainable agriculture, and to profit from positive anticipated market developments in the chosen area. The focus can also be broader, however, and include renewable energy in general, or support reaching a specific development goal such as access to water.

Sustainable finance and its subcategories



Source: Bundesbank representation based on United Nations Environment Programme (2016), p. 11.
Deutsche Bundesbank

Impact investing delivers double dividend

Another approach related to thematic investing is impact investing. Here, however, the intention is to generate social or ecological value added alongside the usual return, giving rise to a double dividend – i.e. financial and moral. This type of investment is made, for example, in companies that have committed to creating

7 The investment strategies described in this section have so far been applied mainly to equities, as the market for sustainable bonds focuses more on the financed projects than on the issuer. Nevertheless, the strategies cited here are also becoming increasingly important on the bond market.
8 Traditionally, values-based exclusion criteria are used mainly by religious investors. In the second half of the 20th century, factors such as environmental catastrophes caused by companies, the Vietnam War and the Apartheid regime in South Africa led a broad group of investors to increasingly withdraw capital from certain firms, some countries or entire sectors ("sin stock" sectors including weapons manufacturing and often tobacco, alcohol, gambling and pornography) (see Schäfer (2014)).
9 See Forum Nachhaltige Geldanlagen e.V. (2019), p. 14; and Global Sustainable Investment Alliance (2019), p. 3.
10 These track supply chains and calculate revenue shares; for a manufacturer of screws, for instance, the analysis would examine the share of screws delivered to arms manufacturers and whether to exclude not just the arms manufacturers but potentially also the screw manufacturer itself from the investment universe.

Sustainable investment strategies: an overview

Strategy	Implementation
Negative screening (exclusion criteria)	Companies are excluded from the investment universe based on specific criteria – e.g. their sector classification or failure to uphold international norms and standards – or on the basis of a risk assessment or the investor's values.
Positive screening	Companies are compared based on ESG performance and the best in each sector are chosen, either on the basis of the status quo (best in class) or recent progress (best progress).
Thematic investment	Investments (primarily funds) with a special thematic focus, e.g. renewable energy, eco-friendly agriculture, or a focus on specific development objectives.
Impact investing	Investments made with the aim of helping to solve social and environmental problems as well as generating a return.
ESG integration	Systematic inclusion of ESG issues in conventional financial analysis and investment decisions.
Engagement	Exerting influence on companies with regard to ESG issues by exercising voting rights, making applications at shareholder meetings, holding investor talks with management boards or taking a seat on the supervisory board.

Source: Bundesbank representation based on Forum Nachhaltige Geldanlagen e.V. (2019), p. 20.
Deutsche Bundesbank

jobs for minorities, or in microfinance projects in developing countries. Often, this entails concentration on a relatively small number of projects and investments and consequently low diversification.

ESG integration: financial analysis augmented by sustainability

Probably the most comprehensive sustainability strategy is what is known as ESG integration. In contrast to the approaches discussed so far, it is not simply an additional component alongside conventional financial analysis but forms an integral part of it. ESG criteria and associated opportunities and risks are explicitly and systematically integrated into the analysis of a security's risk/return profile. This means, for example, that drops in revenue stemming from reputational risk (following cases of corruption, environmental damage, etc.) or production sites threatened by extreme weather events can be incorporated into the investment analysis, allowing for a better assessment of the medium-term financial stability of the analysed company.[11]

Exercising shareholder rights

In addition, institutional investors, in particular, frequently engage with companies through active ownership, both informally and by exercising their formal rights as shareholders. This approach is referred to as engagement. Shareholders seek dialogue with decision-makers at the company in which they have invested, and thereby attempt to embed integration of ESG aspects within the company. They also influence policy using their votes and proposals at annual general meetings. If an investor owns a large enough share in a company, they can also participate in the company's decisions directly and give sustainability aspects greater prominence on the agenda by taking a seat on the supervisory board.

Strategy mix strengthens sustainability impact

The sustainable investment strategies given as examples here are not mutually exclusive. Many investors combine several of these approaches in order to give their influence on corporate sustainability the greatest possible impact. Negative screening is often paired with a best-in-class strategy, for instance. The engagement approach is also well suited to complement a best-in-class strategy, creating even stronger incentives to integrate ESG criteria.

Performance of sustainable equity investments

Impact of sustainability on performance

Sustainable investment strategies restrict investment opportunities. This typically worsens the risk/return profile of an investment, because the a priori selection of permissible investments results in portfolios that bear concentration risk and are more exposed to unsystematic risk.[12] However, corporate profits can

11 Similar analyses are now also conducted by numerous credit rating agencies, which increasingly consider ESG aspects when determining a company's creditworthiness.
12 According to Modern Portfolio Theory, pioneered by Markowitz (see Markowitz (1952)), a broadly diversified portfolio generates a better risk-adjusted return (see also Elton et al. (2017), who summarise the current status of the research). Values-based negative screening and other non-financial factors in decision-making would thus worsen the risk/return profile. This logic suggests that ESG integration is the sustainability strategy with the smallest negative impact on the risk-adjusted return, as it makes ESG criteria an integral part of conventional financial analysis.

also depend on risks that were previously disregarded in financial analysis, such as climate risks. By helping to make previously neglected risks more visible, sustainability analyses and criteria can thus enable investors to make financially successful decisions.[13] The fact that investing in sustainable enterprises can be financially attractive to investors, or at least does not have to put them at a disadvantage, is exemplified by a comparison between the very broad stock index MSCI World and its sustainable sub-index MSCI World ESG Leaders over the past ten years as well as by a comparison of their European counterparts over the same period (see the adjacent chart).[14]

Strong market growth, but so far at low level

Against this backdrop, even investors with a primary focus on generating value are increasingly considering ESG criteria. In Germany, for example, the volume of sustainable investment grew by over 70% between 2014 and 2018, in keeping with the global trend.[15] But despite this strong market growth, it is clear that sustainable investment still plays a fairly small role overall. The share of sustainable investment in the German market as a whole is estimated at less than 3%.[16]

Relative performance of sustainable and conventional stock indices

31 July 2009 = 100, daily data, log scale

Source: Bloomberg. **1** Environmental, social and governance.
Deutsche Bundesbank

The market for sustainable bonds

Standards and definitions in the green bond market

Lack of uniform definition of green projects stifling market growth

The basic difference between a green bond and a conventional bond is the use of the proceeds for an earmarked purpose. However, the inability to clearly define and classify green projects means that green bond supply in the market is still low at present. Over the past decade, the framework for issuers and investors regarding transparency and provision of information has continued to improve. International dialogue between various stakeholders from political and economic spheres paved the way for this, and continues to do so today. This has led to the development of a broad range of volun-

13 Empirical studies frequently find a significantly positive correlation between the financial success of firms and their integration of ESG criteria. For the most part, however, these analyses cannot establish causality, and neither the sustainability aspects incorporated into the various studies nor the underlying criterion for a company's financial success are necessarily comparable. Friede et al. (2015) evaluate the results of over 2,000 analyses on this topic (with a very small portion of the analyses also considering investment of debt capital) and conclude that more than half of them show a significantly positive correlation compared with less than one-tenth that find a significantly negative correlation between financial success and ESG integration. Other overview studies arrive at similar findings (including van Beurden and Gössling (2008)). To date, however, there is no academic answer as to whether and to what extent sustainability aspects can provide a structural and causal explanation for investment returns.

14 While the MSCI World (Europe) includes over 1,600 (400) medium-sized and large companies from 23 (15) countries throughout the world (Europe), the MSCI World (Europe) ESG Leaders comprises the approximately 800 (200) best-performing companies according to MSCI's internal ESG requirements. Alongside this best-in-class approach, negative screening is also used in the construction of the ESG Leaders indices.

15 See Forum Nachhaltige Geldanlagen e.V. (2019), p. 13 ff.

16 See Stapelfeldt (2018), p. 123; and Backmann (2018), p. 224. Note that this figure serves only as a rough estimate given that there is no definition of sustainability. This is also pointed out by an EU expert group, which estimates an even lower share for the EU as a whole (see EU High-Level Expert Group on Sustainable Finance (2017), p. 42).

Types of green bonds

Type	Description
Standard green use of proceeds bond	Standard recourse to the issuer. Identical credit rating to a conventional bond from the same issuer.
Green revenue bond	No recourse to the issuer. Cash flows (e.g. revenue, commissions, fees) give rise to credit risk.
Green securitised bond	Bond collateralised by one or more green projects. Cash flows of the projects are the first source of repayment.
Green project bond	Investor has direct exposure to the risk of the project(s). Additional recourse to issuer is possible.

Source: Bundesbank representation based on Green Bond Principles (2018).
Deutsche Bundesbank

tary guidelines, standards and frameworks. Moreover, some countries such as China, France and India have also initiated national regulatory measures to promote the establishment of a domestic green bond segment.

Green Bond Principles – voluntary guidelines for green bond issuers

In 2014, the International Capital Market Association (ICMA) published the Green Bond Principles (GBP) with the aim of increasing the transparency, integrity and acceptance of green bonds. The principles are voluntary guidelines designed to support potential issuers in issuing a new green bond; they define four basic types of green bond (see the table above). To be recognised as a green bond as defined by the GBP, a bond must be issued in alignment with the four core components[17] of the GBP. One of these four components relates to the use of the proceeds, for example. Various green project categories are identified which relate to environmental protection (e.g. renewable energy, clean transportation, energy efficiency, etc.). The GBP also contain additional recommendations, such as an external review of the four core components (e.g. by external consultants, external auditors, certification companies, research and rating agencies) and the preparation of a communication strategy on the compatibility of the new issue with a company-wide sustainability strategy.[18]

Climate Bonds Standard – first step towards a taxonomy

Similarly to the ICMA's GBP, the Climate Bonds Initiative (CBI) developed the Climate Bonds Standard (CBS) and an associated certification scheme. The Standard consists of two complementary components. The overarching framework specifies the management and reporting process. However, the centrepiece of the Standard is a classification system (taxonomy), which classifies individual sectors and economic activities as environmentally sustainable on the basis of selected technical eligibility criteria for green projects and assets.[19] The European Commission is taking a similar approach with its plan to adopt an EU taxonomy guided by the GBP and CBS, which is intended to serve as the basis for an EU green bond standard (see p. 27).

Market developments in Europe and Germany

First green bond issued in 2007

In 2007, the European Investment Bank (EIB) laid the foundation for the green bond segment when it issued its first Climate Awareness Bond. Since then, green bonds have become more attractive and accepted, particularly among investors interested in sustainability. But despite appreciable growth rates, outstanding green bonds only account for just under 2% of the international bond market as a whole.

Green bonds increasingly used as additional source of funding

The cumulative outstanding volume of green bonds in Europe has risen to €198 billion since 2015 (see the chart on p. 21). The positive market growth in Europe also shows that green bonds are an increasingly used source of funding. While the European market grew year by year over the observation period, the outstanding volume in Germany experienced significant fluctuations at times. In 2017, the outstanding volume doubled for the first time, climbing from €4.4 billion to €8.8 billion on the year.

17 The four core components of the guidelines are use of proceeds, project evaluation and selection, management of proceeds, and reporting.
18 See Green Bond Principles (2018).
19 See Climate Bonds Initiative (2018a).

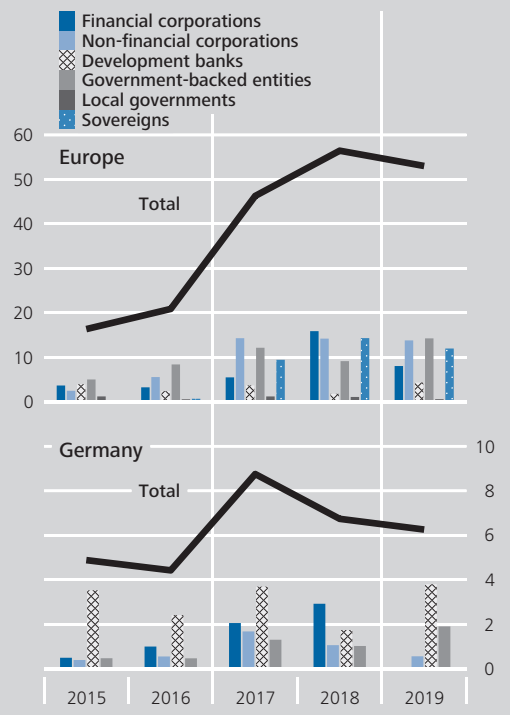
After a dip in 2018, the outstanding volume of green bonds in the first half of 2019 had already come close to the level of 2018 as a whole.

Development banks leading the way, industry and financial sector catching up

Looking at issuance by sector, it can be seen that green bonds in Europe are being issued by non-financial corporations, financial corporations, government-backed entities and sovereigns (see the adjacent chart). At first, issuance was dominated by development banks and government-backed entities, such as the EIB and the Kreditanstalt für Wiederaufbau (KfW) in Germany. Development projects are evaluated and selected based not just on their economic benefit, but also taking into account environmental and social aspects. In subsequent years, industry and the financial sector also recognised the market potential and are increasingly assuming a more active role by launching their own green bond issuance programmes. Finally, at the end of 2016, the first green government bond was issued by the Republic of Poland, with an issue volume of €750 million. Shortly afterwards, in January 2017, France issued what was up until then the biggest green government bond, with an issue volume of €7 billion.[20] The preceding examples and the attendant political signals they sent induced other EU countries – such as Ireland, Belgium and the Netherlands – to issue green government bonds. Germany's Finance Agency, recognising the Federal Government's Sustainable Finance Strategy and a mandate granted by the State Secretaries' Committee for Sustainable Development, is also looking into the issuance of a green or sustainable Federal bond.

Outstanding volume of green bonds by sector

€ billion



Source: Climate Bonds Initiative, as at 30 June 2019.
Deutsche Bundesbank

KfW is Germany's largest issuer of green bonds

KfW is still currently the largest issuer of green bonds in Germany. In the first half of 2019, it issued €3.8 billion worth of green bonds, achieving a market share of almost 60%. Over the last few years, both private financial institutions and enterprises in the real economy have contributed to the development of the market in Germany. Mortgage banks, in particular, have established themselves as regular issuers. This is also evident from the ranking list of the largest issuers of green bonds in Germany (see the table on p. 22). Furthermore, the public sector is also contributing to an increasing green bond supply for investors. NRW Bank, a government-backed entity, has already issued seven green bonds, for instance. Besides this, the federal state of North Rhine-Westphalia has issued five sustainability bonds. The latter represent a further category of sustainable bonds that are simultaneously used to fund environmental and social projects. These include, for example, funding educational projects and investing in sustainability research.

New green financial products and thematic investing growing more important

The fact that investors are generally becoming more interested in topics relating to sustainability is also having a knock-on effect on innovation within the financial sector. In addition to funding climate projects through green bonds, thematic investing is rising in importance. This includes, inter alia, sustainability bonds, social

20 See Agence France Trésor (2019).

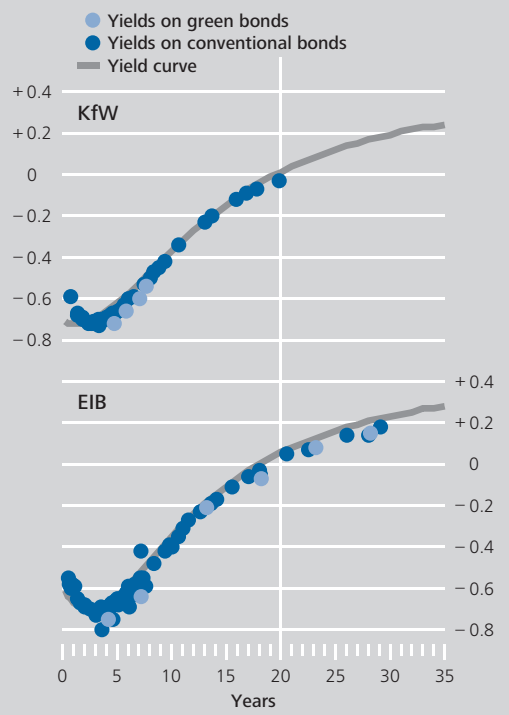
The five largest issuers of green bonds in Germany

Issuer	Number of bonds	Issue volume (€ billion)
KfW	22	18.0
NRW.BANK	7	3.3
Berlin Hyp	6	3.0
LBBW	4	2.7
Deutsche Hypo	4	1.1

Source: Climate Bonds Initiative, as at 30 June 2019.
Deutsche Bundesbank

Yield spreads for conventional bonds versus green bonds

As a percentage



Sources: Bloomberg and Bundesbank calculations.
Deutsche Bundesbank

bonds (e.g. to finance social housing projects) and SDG bonds (funding that contributes to one or more of the UN's 17 sustainable development goals (SDGs)). To reach a broader group of institutional and private investors, large financial institutions and investment companies are increasingly launching investment funds and exchange-traded funds (ETFs) and investing in green and sustainable bonds.[21]

Unclear whether issuance of a green bond affects yield

At present, it is still unclear what impact the issuance of a green bond has on its yield. On the one hand, issuers incur internal and external inspection and documentation costs (e.g. certification, second party opinion, impact reporting), which can be passed on to investors. On the other hand, it is reasonable to assume that, if the credit risk is the same, investors will not be willing to forgo yields or pay a higher price to invest in green bonds compared to conventional bonds issued by the same issuer.

Uncertainty regarding yield discounts in the secondary market for green bonds issued by KfW and EIB

The following section examines green bonds and conventional bonds issued by KfW and the EIB to determine whether yield spreads exist in secondary market trading. When deciding which bonds to include in the analysis, denomination in euro and residual maturity were key factors. The chart below shows the yields to maturity depending on the individual residual maturity of the bond. Four out of five of KfW's green bonds trade at a slight yield discount on the secondary market compared to its conventional bonds. Only one green bond with a relatively short residual maturity trades at a yield mark-up and can be regarded as an outlier in this example. At least in the case of KfW, it appears that investors are currently willing to forgo yields and pay a higher price for green bonds. Another potential reason is that demand for green bonds outstrips supply, causing them to exhibit higher prices in the capital markets as a result of scarcity conditions. The same approach is used to analyse bonds issued by the EIB. The yields of all six green bonds seem to be almost exactly on a par with those of the conventional bonds issued by the EIB. In conclusion, comparing conventional and green

21 See Climate Bonds Initiative (2018b).

bonds of the two issuers does not reveal a clear pattern in terms of yield spreads.[22]

Yield discounts not clearly confirmed by academic research

The latest academic research likewise fails to provide any definitive evidence that sustainable bonds present an advantage in terms of funding costs. The following selection of research and studies reveals isolated yield discounts in the context of primary market issuance. Two things should be noted here: first, that the green bond market is still relatively small, and, second, that the historical data available cannot yet provide reliable information spanning a longer observation period.[23]

In their studies, VanEck (2017) and Östlund (2015) conclude that, in the context of primary market issuance, there is no cost advantage over a conventional bond in the form of lower interest costs for the issuer.[24] A study by the rating agency Standard & Poor's on the same subject comes to a similar conclusion, although its focus is on secondary market trading.[25]

The research paper by Zerbib (2017), on the other hand, finds that there is indeed evidence of a "green bond premium".[26] Based on a sample of 135 investment-grade green bonds, the analysis shows an average funding cost advantage of 8 basis points compared to conventional bonds from the whole range of investment-grade bonds analysed. On average, euro-denominated green bonds and US dollar-denominated green bonds traded at a yield discount of 2 basis points and 5 basis points, respectively. The author concludes that the yield discount observed is the result of high demand for green bonds.[27]

A study by Ehlers and Packer (2017) comes to a similar conclusion. Their analysis was based on a selection of 21 green bonds issued between 2014 and 2017, which they compared to conventional bonds issued by the same issuer. The authors ultimately noted that issuers' refinancing costs in the capital market were 18 basis points lower on average when issuing green bonds as opposed to conventional bonds.[28]

In their research paper, Kapraun and Scheins (2019) use both secondary market and primary market data to examine whether a yield discount exists. Particularly in the primary market, they identified yield discounts of 20 to 30 basis points depending on currency and type of issuer. Furthermore, they observed higher yield discounts for bonds issued by governments and supranational institutions, as well as in connection with placements of secured bonds and for bonds denominated in US dollars. Yield discounts on corporate bonds were found to be smaller, probably owing to lower demand from institutional investors and the difficulty involved in issuing this type of bond.[29]

The EU's Sustainable Finance Action Plan

Sustainability as a cornerstone of the capital markets union

In the context of its measures to complete the capital markets union, the European Commission is committed to ensuring that the European financial system and its participants support long-term, low-carbon economic growth and invest in the appropriate technology. This will help it deliver the contributions it has pledged to make towards global environmental and climate goals.[30] To this end, in March 2018, the European Commission presented an action plan on the financing of sustainable growth, which, if implemented as intended, will likely have a major bearing on the market for sustainable financial investments.[31] However, this action plan sees the Commission move away

22 The yield effect at the portfolio level remains unclear, as a BIS study shows (see Fender et al. (2019)). Analysis of the portfolios of green and conventional bonds shows them to be largely similar in terms of typical yield and risk figures.
23 See EU Technical Expert Group on Sustainable Finance (2019c).
24 See Asian Development Bank (2018).
25 See Standard & Poor's Ratings Services (2016).
26 Yield spread between a green bond and a traditional bond from the same issuer and with the same features in terms of maturity, coupon, rating and currency.
27 See Zerbib (2017).
28 See Ehlers and Packer (2017).
29 See Kapraun and Scheins (2019).
30 See Dombrovskis (2019); and European Commission (2018a).
31 See European Commission (2018a).

Analysis of the holder structure of green bonds held in the EU

The data from the Eurosystem's securities holding statistics (SHS)[1] enable an analysis of the holder structure of green bonds held in the EU.[2] There has been a marked increase in the stocks held in the EU over the past six years. While the market value of green bonds at the end of the third quarter of 2013 totalled €0.7 billion, a value of €72.9 billion was recorded at the end of 2018 (see the upper adjacent chart).

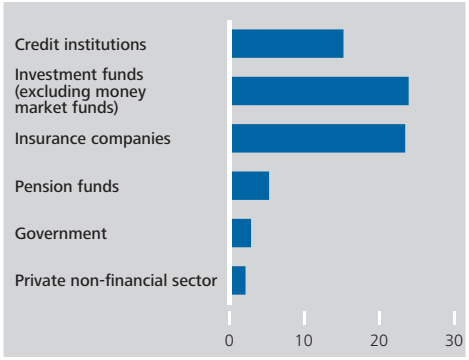
Stock of green bonds held in the EU*

€ billion, at market value

Source: ECB (SHS). * Excluding Croatia, Sweden and the United Kingdom.
Deutsche Bundesbank

Green bonds held in the EU* by holder sector

€ billion, at market value, end-2018



Source: ECB (SHS). * Excluding Croatia, Sweden and the United Kingdom.
Deutsche Bundesbank

The most significant holder group in the EU is investment funds, with stocks of €23.9 billion (see the lower adjacent chart). Insurance companies' holdings are only marginally smaller, amounting to €23.4 billion. Commercial banks follow in third place with stocks of €15.2 billion. Pension funds (€5.3 billion) and general government (€2.9 billion) hold significantly lower values than the three groups mentioned above.

An analysis by country shows that investors in France (€21.6 billion) and Germany (€19.5 billion) hold the largest stocks of green bonds.[3] A major driver here is the size of the economies and the associated importance of their financial sectors. With regard to France, the key role played by the insurance sector is striking – it accounts for 67% of the green bonds held by French investors. The Netherlands claims third place with relatively high stocks of green bonds (€10.0 billion). Banks, in particular, play a very important role in the Netherlands, holding 86% of green bonds. Luxembourg follows in fourth place with a volume of €6.7 billion. Here, the investment fund sector is particularly important, accounting for 84% of the green bonds held in the country. This

1 The SHS data are granular securities holdings data from the Eurosystem and other European countries. The statistics therefore cover securities held in the EU (excluding Croatia, Sweden and the United Kingdom). Data are collected by the national central banks of participating countries. The stocks held are broken down into holding countries and holding sectors for each type of security. In this context, the securities holdings statistics provide the underlying data for the stocks held in Germany.
2 The selection of green bonds is in line with Bloomberg's classification based on the Green Bond Principles.
3 Account should be taken of the fact that investment funds and other investment vehicles can cause the SHS data to give a distorted picture of the ultimate holders and thus also their countries of residence.

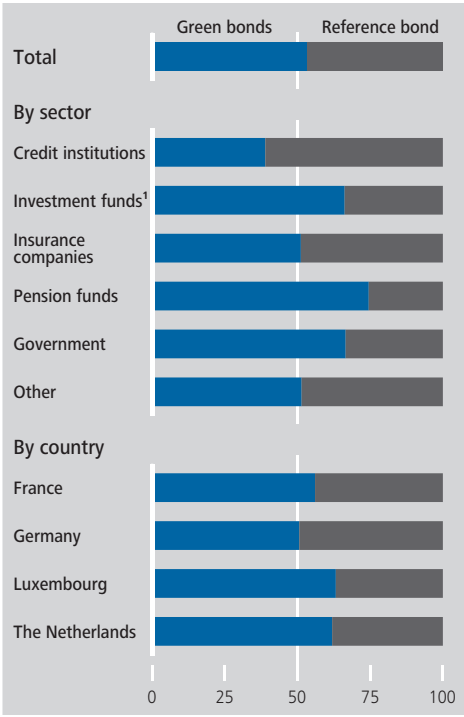
reflects Luxembourg's prominent role in the European investment fund sector.

The following section examines whether individual holder groups show a particular preference for green bonds. For this purpose, the existing green bond dataset is expanded to include conventional bonds. All normal bonds issued by issuers of green bonds are now added to the dataset, too.[4] A cross-section of all holder groups shows that the share of the total volume of green bonds is 53% (see the chart above). Therefore, the issuers included in the dataset finance a larger amount in the EU through green bonds than through conventional bonds. A look at the individual holder groups can give an indication of whether certain groups show a particular preference for green bonds. This is the case if the share of 53% across all holder groups is exceeded by an individual holder group. In particular, pension funds which choose to hold green bonds – with a share of 74% – show a strong preference for green bonds over normal bonds. The shares are also above average for general government and investment funds, equalling 67% and 66% respectively. By contrast, the share of 39% recorded by commercial banks is below average.

A breakdown of investors by country shows that the share of direct investments in green bonds is 63% for institutions in Luxembourg.[5] Holders in the Netherlands (62%) and France (56%) follow – also both above the overall average of 53%. Holders in countries with absolute high investment volumes evidently also tend to hold a disproportionately large number of green bonds compared with normal bonds. Among these countries, Germany falls just short of the average of all of the countries with a share of 51% in direct investments in green bonds.

Holder structure of green bonds versus normal bonds

As a percentage, at market value, end-2018

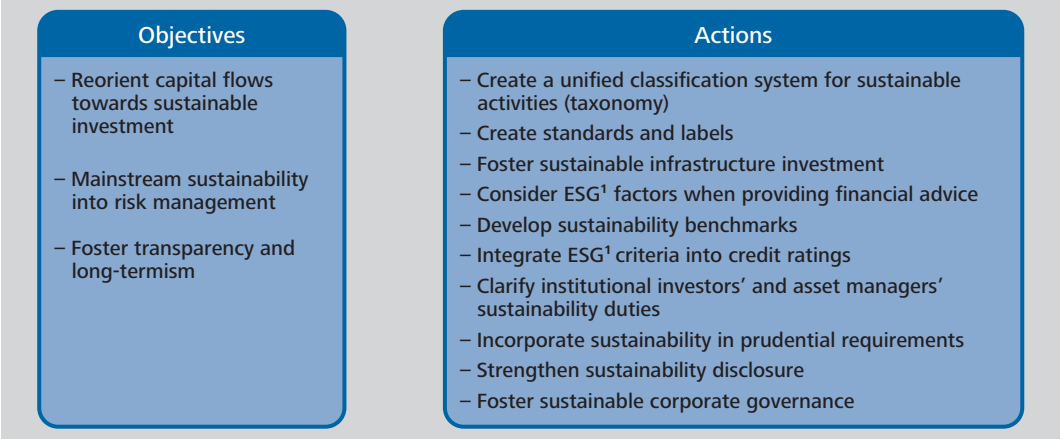


Source: ECB (SHS). **1** Excluding money market funds.
Deutsche Bundesbank

4 Therefore, the expanded dataset comprises only bonds from issuers who have issued at least one green bond and one conventional bond with virtually the same features. The sample covers the period from 2013 to 2018. Stocks held in the EU countries of Croatia, Sweden and the United Kingdom are not included. Issuers who only issue conventional bonds are not taken into account. Thus, the figures presented in the analysis do not reflect the ratio of all green bonds issued in the EU to all conventional bonds issued in the EU.

5 The data do not allow any reliable conclusions to be drawn with regard to the relative preference for green bonds in the various countries, but can only provide indications since it is not always possible to capture the countries of residence of bond holders precisely (see footnote 3).

The EU action plan on financing sustainable growth



Sources: European Commission and Deutsche Bundesbank. **1** Environmental, social and governance.
Deutsche Bundesbank

from the overall concept of sustainability and focus on green finance and, in particular, climate change. The action plan builds on the work of a high-level expert group (HLEG), mandated by the European Commission, which presented strategic recommendations and numerous sector-specific proposals in January 2018.[32] It consists of three overarching objectives and outlines ten actions needed to achieve them (see the chart above). The action plan will provide a uniform taxonomy, i.e. a classification system of sustainable economic activities, which, according to the Commission, will form the core of the action plan and create the basis for further actions. The Commission has already proposed draft legislation relating to the establishment of this taxonomy, sustainability benchmarks and disclosure of the methods used to integrate and evaluate ESG factors.[33]

Group of experts develop proposals for regulation

The European Commission tasked a technical expert group (TEG) with the specific design of the three legislative proposals. The TEG also received a mandate to develop an EU Green Bond Standard. As things stand, work on the EU standard and the three regulatory proposals should be completed by the end of 2019.

Taxonomy is key component: some flaws, but flexible

The European Commission intends the taxonomy to form the basis for the EU's sustainability strategy for the financial system. The aim is to define a set of criteria (see the chart on p. 27) for determining whether or not an economic activity is to be regarded as sustainable.[34] However, there are concerns that the binary nature of the taxonomy could prevent gradations in financing conditions, since the taxonomy itself does not reflect that economic activities can achieve various degrees of sustainability. Another criticism is that the European Commission is focussing almost exclusively on the ecological dimension of sustainability.[35] European primary law does not provide for such a hierarchy of the various dimensions of sustainability, but refers to them on equal terms.[36] However, the European Commission argues that the proposed legal framework could be broadened going forward to include aspects beyond climate change and incorporate additional sustainability goals. The taxonomy could be applied, in particular, to the planned introduction of sustainability labels for financial products and for the EU standard for green bonds.

32 See EU High-Level Expert Group on Sustainable Finance (2018).
33 See European Commission (2018b, 2018c and 2018d).
34 See EU Technical Expert Group on Sustainable Finance (2019b).
35 See Möslein and Mittwoch (2019); and Stumpp (2019).
36 See European Union (2016), Article 3(3); and Möslein and Mittwoch (2019).

EU standard for green bonds as hallmark of quality

The TEG's proposal for the creation of an EU green bond standard is closely linked to existing, established market standards, particularly the requirements listed earlier for the Climate Bonds Initiative and the Green Bond Principles published by the ICMA. In its final report on the EU green bond standard, the TEG makes recommendations to both the European Commission and market participants and highlights four key requirements a bond should meet in order to be certified as a green bond according to the EU standard. First, the EU taxonomy should be used to assess the project to be financed. Second, a green bond framework should be established, comprising information about the scope of the investment, the environmental goals associated with it, and reporting while the project is in progress. Third, the TEG proposes requirements for reporting on the use of proceeds and the environmental impact of the project being funded. The fourth recommendation is the mandatory verification of the project by an external evaluation body. Issuers would be free to implement the EU standard on a voluntary basis, and its application would not be limited to Europe. Instead, the hope is for it to have global reach and establish itself as a hallmark of quality for green bonds, thus reducing any doubts potential investors might have about the positive environmental impact of such bonds.

Benchmarks and disclosure to create confidence

To boost confidence in sustainable investment – not only in the form of bonds, but also in other asset classes – the European Commission intends, moreover, to introduce benchmarks to prevent "greenwashing".[37] These benchmarks will serve as guidance for investors aiming for a green portfolio but lacking the resources to perform in-depth sustainability analyses. To ensure the credibility and comparability of the sustainability benchmarks, the TEG is proposing transparency requirements for index providers, which will oblige them to disclose the criteria they apply to determine which securities or issuers are included in a benchmark. The European Commission's decision in June 2019 to update the voluntary guidelines on non-financial reporting to include the disclosure of climate-related aspects, in particular, can probably also be seen as part of its efforts to improve transparency in the market.

Criteria for environmentally sustainable economic activities according to the TEG's proposed taxonomy*

Compliance with minimum social standards

Substantial contribution to at least one of the following environmental objectives:

– Climate change mitigation
– Climate change adaptation
– Sustainable use and protection of water and marine resources
– Transition to a circular economy, waste prevention and recycling
– Pollution prevention and control
– Protection of healthy ecosystems

No significant harm to any of the other environmental objectives

Sources: European Commission and Deutsche Bundesbank. * Proposal by the Technical Expert Group (TEG) for the development of a classification system.
Deutsche Bundesbank

Outlook for sustainability and climate protection on the financial market

One of the financial market's functions is to allocate capital, …

Given that the most fundamental function of the financial market is to allocate capital to real economic activities, the Paris Climate Agreement has highlighted the importance of financial flows in the fight against climate change and the implementation of sustainable development goals. The financial market unites lenders with borrowers and, in the interests of both sides, allocates resources to the best possible use – in economic jargon, this is known as "utility maximisation". While some investors simply consider the "best" investment projects to be those that are most lucrative on a risk-adjusted basis, others also take into account additional aspects such as their underlying moral values. From an economic perspective, market efficiency and sustainability coincide when market prices – including in the financial

37 See EU Technical Expert Group on Sustainable Finance (2019a).

Sustainable finance initiatives in Germany

The German Federal Government is currently developing its own sustainable finance strategy, and, similarly to the EU, is working in close cooperation with the various stakeholders involved. In February 2019, the State Secretaries' Committee for Sustainable Development, which is the Federal Government's central body for the implementation, review and refinement of Germany's sustainability strategy, initiated the founding of a Sustainable Finance Advisory Council. At present, this council is supporting the Federal Ministry of Finance, the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety and the Federal Ministry for Economic Affairs and Energy in their efforts to develop a sustainable finance strategy for Germany. The Advisory Council includes representatives from the financial market, the real economy, academia and civil society to ensure that a balance is struck between the different interests and priorities of these groups. The Bundesbank and the Federal Financial Supervisory Authority are also involved in this dialogue, contributing their financial market expertise and insights gained from working closely with other central banks and supervisory authorities around the globe. Meanwhile, the Federal Government and the Advisory Council are able to build on years of extensive preliminary work carried out by the German Council for Sustainable Development, another advisory body of the Federal Government, as well as private sector initiatives. Particularly notable in this area are the Hub for Sustainable Finance (H4SF)[1] and the Green and Sustainable Finance Cluster Germany (GSFCG),[2] which for years have sought to ensure that Germany as a financial centre contributes to sustainable development and the mitigation of climate change. For this to happen, the institutions involved in the existing initiatives – among them the Bundesbank – argue the need for a uniform set of practicable indicators and transparent reporting of a comparable standard in order to facilitate adequate assessment of the risks and opportunities associated with sustainability. Such indicators would also be useful to support the Federal Government's planned communication strategy for sustainable finance by making the topic more tangible and easily understandable for consumers.

1 Founded in 2017 by Deutsche Börse and the German Council for Sustainable Development, the H4SF is an open network of financial market participants that has identified ten key fields of action for developing a sustainable financial sector in Germany. The network fosters discourse on these recommendations by organising an annual Sustainable Finance Summit, the most recent of which was held in Frankfurt on 16 October 2019.

2 The GSFCG was formed in 2018 by the merging of two initiatives run by Hesse's Ministry of Finance and Deutsche Börse. In its role as an observer on the Standing Committee of the GSFCG, the Bundesbank contributes to the network's aims of pooling the sustainability expertise of financial market participants in Germany and serving as a central point of contact for related matters.

market – adequately capture external costs and income. Transparency on social external factors such as the impact of climate change is a key prerequisite for the efficient allocation of resources and capital.

… but it needs sufficient information to do so

Ultimately, the financial market can only perform its allocation function if there is sufficient information about the risk/return profiles of the investment opportunities and if the skills and capacity to process the available information and data exist. In order to reflect investment risks in asset prices, market participants have to be able to identify and dissect them accurately. Medium and long-term risks, above all, have traditionally been disregarded as they were seen to be fraught with uncertainty. These also include climate risks, in particular. Today, although the exact realisation of these risks remains uncertain, there is now broad academic consensus that negative economic effects of climate change will materialise, particularly if adaptation and mitigation measures are not taken promptly.[38] The debate in the financial sector, as elsewhere, is therefore not about whether to take these risks into account, but how.

Long-term risks increasingly important to investors

More and more investors – especially institutional investors, which often need to hedge long-term payment obligations – are therefore also making efforts to minimise long-term risks in their portfolios and, at the same time, take advantage of the opportunities the transition towards a low-carbon economy offers. This value-based approach is often complemented by a values-based perspective and takes into account social and corporate governance factors as well.

Financial market can only provide support; policymakers must set the course

While it is in financial market participants' own interests to analyse the scope and relevance of climate and sustainability risks and to adjust their portfolio or risk management where necessary, responsibility for sustainability and climate policy lies in the hands of elected politicians. This also applies to the internalisation of external costs. The financial market can only help to achieve sustainability goals and allocate resources accordingly if efficient market price formation and solid key data are in place as a basis for valuations and decisions. With almost €100 trillion of assets under management, only a fraction of which are currently invested sustainably, the financial market industry can play a key role in the reallocation of assets along these lines going forward.

EU and German government seeking basis for further market growth

Through its action plan for financing sustainable growth, the European Commission is hoping to help facilitate this reallocation of assets into sustainable activities, notably by using the taxonomy to boost the confidence of potential investors in the impact of various forms of sustainable investment. The German government has likewise made a clear commitment to promoting sustainable finance. New transparency requirements, information campaigns and the uniform classification system are likely to make the opportunities and risks involved clearer, thus opening up sustainable investment to private investors, too. If public interest in climate change is any indication of demand for financial investments that align with this issue, then the market for sustainable financial investment is likely to continue expanding in the future.

38 See, for example, Intergovernmental Panel on Climate Change (2018).

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The European market for investment funds and the role of bond funds in the low interest rate environment

As a result of substantial net inflows of capital and significant increases in value, assets under management in investment funds have grown strongly worldwide over the past few years. The general ascendancy of capital markets as a source of funding and investment opportunities observed since the financial crisis is thus in evidence in the fund industry as well. Furthermore, cross-border funds are gaining in importance in the European market for investment funds. This is a sign of increasing market integration.

European bond funds, which managed assets to the tune of €3.4 trillion at the end of the second quarter of 2019, have been influenced to a large extent in recent years by the increasingly entrenched low interest rate environment in which they have been operating. For one thing, the declining interest rates buoyed investor demand for fund investments, as these benefited from price gains and alternative, interest-bearing investments promised slimmer returns. For another, the search for yield increasingly left its mark on funds' asset management practices, with funds giving higher weights to riskier, less liquid and long-dated debt securities. For funds invested in European debt securities, this translated into a higher share of corporate bonds at the expense of government bonds and bank debt securities. The mounting liquidity risks this has caused for funds' asset holdings is a particular issue for retail funds with a large number of small-scale investors. Analyses conducted in this field show that periods of falling prices leave these funds especially vulnerable to outflows, which can be amplified by feedback loops with securities markets. Overall, this underlines the importance of actively managing portfolio liquidity as a way of preventing illiquidity-induced, self-reinforcing outflows of capital from funds.

The global market for investment funds

Strong growth in market for investment funds

Assets under management (AuM) in investment funds have grown strongly worldwide in recent years. Globally, this market continues to be dominated by US funds. At an equivalent of €48 trillion, US funds currently account for almost half of global AuM (see the table on p. 35). Funds domiciled in the euro area manage just under one-quarter of global AuM: at the end of the first quarter of 2019, they held assets amounting to €11.4 trillion, which is slightly more than double the end-2011 figure. Fund AuM also rose markedly relative to annual gross domestic product (GDP). At last count, they were roughly on a par with euro area GDP in 2018, whereas they corresponded to no more than around three-fifths of GDP in 2011.

Market growth reflects net inflows of capital and increases in value

Growth in fund AuM reflects both significant increases in value and substantial net inflows of capital. Since the start of 2012, investors worldwide have acquired investment fund shares worth €10.7 trillion net, investing similar amounts in European and US funds (€3.8 trillion and €3.7 trillion, respectively). US funds in particular, whose assets have increased by a total of €12.0 trillion since 2012, also recorded substantial increases in value. As a case in point, global equity prices – as measured by the MSCI World index – went up by 78% between the end of 2011 and the end of March 2019.[1] In the United States, meanwhile, shares appreciated by as much as 125% (S&P 500).[2] By comparison, the assets managed by European funds rose by a smaller €5.8 trillion. Their markedly weaker increases in value were probably due primarily to the comparatively minor importance of European equity funds.

Equity funds most significant globally, but mixed funds and bond funds also important in euro area

With respect to investment focus, equity funds are the biggest investment funds globally, accounting for 42% of total AuM. This reflects, in particular, the important role played by US equity funds, which manage more than half of US fund assets. Compared to the United States, investment funds domiciled in the euro area focus more on debt securities. In addition to general investor preferences, this is also likely – in Germany, for instance – to reflect the importance of institutional investors, which invest to a greater extent in mixed funds and bond funds. Overall, the assets managed by European equity funds, mixed funds and bond funds are broadly on a par with each other.

Growing relevance of capital markets buoys market for investment funds

The increased significance of investment funds is related to the growing relevance of capital markets as a source of funding and investment opportunities. First, this is explained by factors whose effects may be time-limited, such as the monetary policy accommodation and non-standard monetary policy measures implemented by central banks in the aftermath of the financial and sovereign debt crisis. In the euro area, the Eurosystem's asset purchase programmes probably played a part in reducing market-based debt financing costs. The corporate sector purchase programme (CSPP) is also likely to have buoyed non-financial corporations' issuance activity in the bond market.[3] Second, longer-term factors, such as efforts on the part of enterprises to make greater use of non-bank funding sources, the tighter banking regulations in the wake of the global financial crisis and the ongoing consolidation of banks' balance sheets, are also bound to have made a major contribution to the increased significance of capital market financing. In the euro area, this development was also accompanied by initiatives to advance the capital markets, including, for instance, the still relatively small, newly established equity and bond markets targeting medium-sized enterprises.[4]

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1 This price increase is for the US dollar-denominated MSCI World index.
2 Fund companies also generated price gains from the decline in bond market yields. In addition, funds denominated in US dollars, when translated into euro, benefited from the 15% appreciation in the US currency against the euro during the analysis period.
3 See Deutsche Bundesbank (2017), p. 25.
4 For example, the introduction of SME growth markets as defined in the Second EU Markets in Financial Instruments Directive (MiFID II) saw the creation of a new category of trading venues to facilitate access to capital markets for SMEs.

Advantages of investment funds from investors' perspective

From the point of view of investors, investment funds also offer certain advantages that are likely to have supported market growth. Funds let them diversify their investments with comparative ease, have them professionally managed and invest in markets that might otherwise be difficult to access. Exchange-traded funds (ETFs), whose market volume has been growing at a very dynamic pace over the past few years, also offer investors the advantage of comparatively low fund fees.[5]

Increased significance of funds generally beneficial in macroeconomic terms

As a general rule, the increased significance of investment funds can help boost financial system efficiency and resilience and thus bring with it key macroeconomic benefits. Investment funds can be an important additional source of funding for the real economy – especially in times of crisis. Their increased relevance is also likely to stimulate international investment and strengthen competition for capital in the financial system. However, these benefits are counterbalanced by risks to efficient capital allocation and, in extreme cases, even to financial stability. It is likely that these risks, which ultimately have their roots in specific incentives for fund managers and investors, have grown in the current low interest rate environment. One factor here is that a period in which funds search for yield may be followed by their abruptly offloading risky assets, and investors might have an incentive to redeem their fund shares more quickly than other investors (first-mover advantage).

Key features of the European market

Financial centres play an important role in European market for investment funds

A large part of the assets held by European investment funds (including money market funds) is managed by funds domiciled in the financial centres of Luxembourg and Ireland. The dominance of these two financial centres has reached new levels in recent years, with their share of total net AuM climbing from around 46% to 54% between early 2012 and June 2019. At last count, funds domiciled in Germany and France accounted for 19% and 11%, respectively, of total euro area AuM.

Assets managed by investment funds*

Item	World	United States	Euro area
Fund assets in Q4 2011 (€ billion)	23,311	10,601	5,601
Relative to GDP in 2011	0.4	0.9	0.6
Fund assets in Q1 2019 (€ billion)	48,017	22,555	11,427
Relative to GDP in 2018	0.7	1.3	1.0
Share of equity funds (%)	42	54	29
Share of mixed funds (%)	17	14	26
Share of bond funds (%)	21	20	29
Aggregate net inflows from 2012 to Q1 2019 (€ billion)	10,668	3,697	3,784

Sources: International Investment Funds Association (IIFA), IMF, ECB (for the euro area). * Net assets of open-end investment funds including money market funds. The latest data available from all sources are for the first quarter of 2019. However, figures for the euro area are already available for the second quarter of 2019 (€11.7 trillion).

Deutsche Bundesbank

UCITS directive likely to have strengthened financial centres

The traditionally important role which financial centres play for the investment fund sector is likely to have been given an additional boost by the regulatory framework, particularly the UCITS (undertakings for collective investment in transferable securities) directive.[6] This harmonised set of EU rules makes it possible, for instance, to allocate a fund's shares to multiple fund share classes. Share classes can differ in terms of currency, appropriation of income or front-end load. This allows certain investor groups to be selectively targeted and tax regu-

5 See Deutsche Bundesbank (2018).
6 The original UCITS directive dates back to 1985 and has since been amended several times. The purpose of the UCITS directive was to establish a single set of rules for investment funds and, in doing so, regulate the cross-border provision of investment funds. It was designed to ensure that providers of financial products in the EU remain competitive and that investors have a wide range of financial products to choose from.

lations to be taken into account. Another key feature of the UCITS directive is the European passport. This means that a fund domiciled in one EU country can be distributed and purchased in another EU country. The European passport is therefore designed to further the goal of forging a single market for investment funds. The increased competition this sparked among fund companies is likely to have made financial centres more attractive. Financial centres that were relatively quick to transpose the UCITS directive into national law offer favourable conditions for funds. Empirical studies conducted on this topic show that they also benefit from fund-specific legislation, a well-established approval process and on-hand expertise.[7]

Growing importance of cross-border funds, …

Another reason why financial centres have grown in importance is the increasing number of investors investing in cross-border funds, i.e. funds domiciled in a different jurisdiction than the investor. According to information provided by the European Fund and Asset Management Association (EFAMA), the assets managed by these funds as a share of total fund assets held by European investors have increased distinctly over the past few years to around one-third. To give some context to this share, which varies considerably between the individual European countries, it is important to note that it includes what are known as round-trip funds – funds which the management company sets up in a different Member State, but then markets exclusively in the country in which it is established.[8] In some euro area countries, including Germany, round-trip funds of this nature – which should be distinguished from "real" cross-border funds that are distributed in multiple countries – account for a relatively large proportion of cross-border funds held by investors.

… but market integration still incomplete overall

Overall, the increase in the cross-border distribution of European investment funds is indicative of progressive market integration. However, this integration process is still incomplete, as shown, amongst other things, by the very high number of European investment funds, by international standards, with relatively low AuM levels on average.[9] Incomplete integration limits the economies of scale which asset managers could generally achieve and is likely to have an unfavourable effect on the fund fees paid by investors. As the European Commission sees it, regulatory barriers, which include national marketing requirements, regulatory fees, administrative requirements and notification requirements, represent a significant disincentive to cross-border distribution.[10] The capital markets union, which aims to deepen and integrate capital markets in the EU, is a major project in the fight to break down such barriers.

Non-banks: most important investor groups

The financial accounts show each individual institutional sector's exposure to investment funds. For funds domiciled in the euro area, such data are available starting in the fourth quarter of 2013. The most important groups of investors are European non-banks, above all other financial corporations – the category to which investment funds themselves belong –, insurance corporations and pension funds, as well as households (including non-profit institutions serving households). Taken together, these three investor groups have purchased investment fund shares (excluding money market fund shares) worth €1,978 billion since the fourth quarter of 2013; this equates to around 62% of net inflows to funds domiciled in the euro area (see the chart on p. 37). Other financial corporations as well as insurance corporations and pension funds stood out on account of their high exposures and, in the case of insurance corporations especially, the relatively steady increase in their investments. According to information provided by EFAMA, they fo-

7 See Lang and Schäfer (2013).
8 Possible reasons for setting up round-trip funds relate to tax advantages as well as supervisory practices and the "brand name" of the fund's domicile.
9 According to data provided by the International Investment Funds Association (IIFA), there were 48,439 investment funds domiciled in the euro area at the end of the first quarter of 2019, compared with 11,580 US funds.
10 See European Commission (2018), p. 1.

cused on domestic funds. One reason for this is undoubtedly that insurance corporations and pension funds in Germany and Austria traditionally invest to a larger extent in specialised funds. These funds, which are reserved for institutional investors and domiciled in the latter's home country, usually manage capital for an individual investor or a small group of investors. In addition, insurance corporations – those in France, for example – play a highly important role in occupational pension schemes and, to this end, likewise invest heavily in domestic funds.

New investment by credit institutions low, by investors outside euro area strong

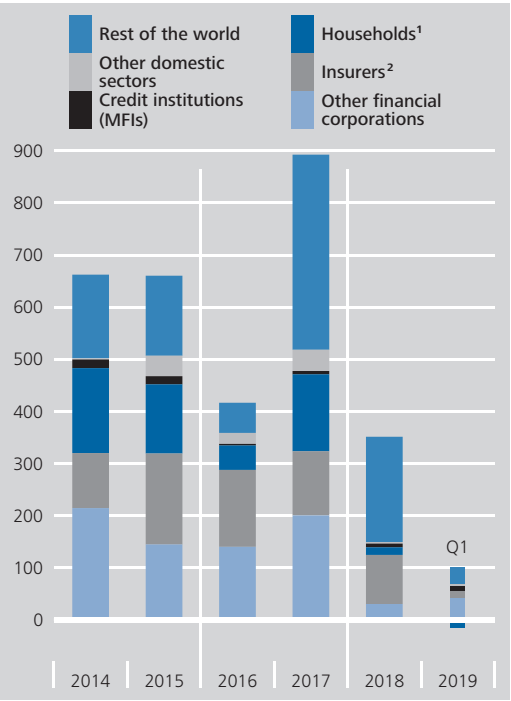
Credit institutions resident in the euro area, many of which scaled back their holdings of investment fund shares in the immediate aftermath of the financial crisis, invested a relatively small amount of fresh capital (€64 billion). By contrast, investors outside the euro area increased their portfolios of European investment fund shares significantly, adding €1,041 billion, or roughly one-third of total net inflows. They have expanded their exposures markedly, particularly since 2017. According to market observers, this demand was fuelled to a notable degree by investors from Asia and Latin America, who were attracted to cross-border European funds for reasons of security and diversification.

Households acquire a small volume of investment fund shares

Compared to insurance corporations and pension funds, households (including non-profit institutions serving households) acquired far fewer investment fund shares; furthermore, for the most part, new investment dipped somewhat over time. Given that households accumulated a relatively robust level of financial assets at the same time, this means that they preferred other financial assets such as, in particular, deposits with credit institutions, which made a stronger and more stable contribution to their accumulation of financial assets.

Net inflows to investment funds domiciled in the euro area

€ billion



Sources: ECB, Eurosystem financial accounts. **1** Including non-profit institutions. **2** Insurance corporations and pension funds.
Deutsche Bundesbank

The market for European bond funds

Bond funds of particular interest from a central bank perspective

The strong growth recorded by the market for investment funds was also reflected in a marked rise in the significance of European bond funds: as this report went to press, they were managing assets worth €3.4 trillion, compared to €1.9 trillion at the end of 2011. Although bond funds have not been investigated in as much detail as equity funds in the literature to date, they are of particular interest from a central bank perspective. This is because falling risk-free interest rates and a capital market environment of asset purchases by central banks have an especially strong bearing on these funds which invest primarily in debt securities – both in terms of their assets and the risk-return profile of their range of investments. Funds are faced with various types of risk on the investment side: besides maturity and credit risk, these include liquidity risk, which materialises

when their assets are relatively illiquid, but they themselves make their investors the usual guarantee that fund shares can be redeemed at any time. This liquidity mismatch between liabilities and assets is also referred to fund liquidity transformation. In the absence of adequate liquidity management, this mismatch leaves a fund susceptible to a run by investors, especially in periods of stress. The potential risk this poses to financial market stability is what makes it a relevant issue for central banks. Although this concerns all funds managing illiquid assets, the following analysis focuses for the aforementioned reasons on European bond funds, looking at both their net inflows and asset management.

Net inflows to corporate bond funds and other bond funds

Bond funds account for almost one-third of net inflows

At €1.2 trillion, almost one-third of total net inflows to investment funds domiciled in the euro area since the start of 2012 have been registered by bond funds. Retail fund data from the private data provider Morningstar make it possible to gauge the extent to which corporate bond funds or other bond funds were the beneficiaries of this fresh capital.[11] This is of interest from a central bank perspective in that corporate bond funds are often made up of illiquid assets. Furthermore, net inflows to funds with a focus on high-yield corporate bonds, in particular, allow inferences to be made about fund investors' risk preference. For example, corporate bond funds and high-yield funds recorded relatively high net inflows, particularly until the second quarter of 2015 (see the chart on p. 42). These funds attracted strong investment from financial corporations (excluding banks), insurance corporations and pension funds as well as households, in particular. Whilst all three investor groups shunned corporate bond funds for the most part in 2018, shares of other bond funds were added to the holdings of financial corporations (excluding banks) and insurers up to and through 2018.

Inverse relationship between net inflows to corporate bond funds and risk aversion

According to a Bundesbank analysis, the strong net inflows overall to bond funds can be explained in part by the decline in risk-free interest rates since the beginning of 2012 and the funds' positive performance (see the box on pp. 39-41). Moreover, the case of corporate bond funds shows that the investor inflows significantly depend on the development of market uncertainty and market participants' general risk aversion. The latter fell sharply in the period up to 2015. This is suggested by an aggregate indicator, which can be estimated based on multiple separate risk indicators (see the explanatory notes on pp. 44 f.). A correlation analysis confirms that net inflows to corporate bond funds and high-yield bond funds, in particular, are negatively correlated with changes in general aversion to risk, while this correlation is less pronounced for other bond funds.[12] In 2017, in particular, these other bond funds recorded substantial net inflows as risk aversion declined at a more measured pace. Heavier net outflows from corporate bond funds and other bond funds occurred during periods of mounting risk aversion as well as in the course of intermittent jumps worldwide in risk-free interest rates during what has been dubbed the US taper tantrum in mid-2013 (see also p. 45). The strong outflows in 2018 were probably driven in part by the deterioration of the capital market environment at that time amid growing concerns about the economy, falling equity prices and rising credit risks. These outflows took place against a backdrop of predominantly negative fund returns.

11 Morningstar data indicate that net inflows to European bond funds since the start of 2012 came to €835 billion. One significant difference from the ECB investment fund statistics is that net inflows to specialised funds reserved for institutional investors are not included in this figure.
12 The correlation between (monthly) net inflows and changes in general risk aversion calculated for corporate bond funds and high-yield bond funds since the beginning of 2012 is -0.6; for other bond funds, this correlation comes to -0.3.

Flow determinants of European bond funds

Investor flows to European bond funds respond to other (financial) variables. These response patterns can be systematically analysed by means of a panel estimation. Significant variables which potentially influence net flows are, for example, the fund return recorded in the previous period, changes in the interest rate level and general market uncertainty or risk aversion. Market liquidity, too, can be an important determinant of fund flows. The panel is estimated using monthly data for the period from January 2012 to March 2019 on the basis of the above-mentioned variables.

One important finding of the estimation is that the net inflow depends positively on the lagged fund return. Following negative returns, investors withdraw their capital from the bond funds; conversely, they expand their investment if the lagged return is positive. Assuming a one-percentage-point increase in the lagged fund return, bond funds exhibit a net inflow of roughly 0.2% of total net assets (coefficient θ_1 in the table on p. 40) if these are not corporate bond funds, and of approximately 0.3% (coefficient sum $\theta_1 + \theta_2$) if these are corporate bond funds. This relationship points to a momentum strategy on the part of investors. This strategy describes a behavioural pattern whereby investors respond positively to past returns and thus tend to reinforce market trends.

Changes in the interest rate level are a further key determinant of flows to European bond funds. According to the estimations, a decline in yields on ten-year Bunds was accompanied by inflows to bond funds. From an economic perspective, this can be explained by the fact that investors with a diminishing safe yield increasingly invested in alternative, higher-yield assets. Another effect caused by the interest rate level is the discount effect: a declining discount rate increases the market valuation of the bond portfolio and therefore also the contemporary fund return, which can stimulate inflows.[1] In terms of monetary policy and financial stability, this estimated relationship is also of interest in that it provides indications as to how a potential future interest rate rise would influence fund flows. If one supposes – for the sake of simplicity – that the estimated sensitivities apply even in periods of an interest rate rise, and if one assumes an interest rate rise of 100 basis points combined with a 6% drop in the value of the fund's portfolio,[2] corporate bond funds would have to accept outflows of 2.9% of their assets and other bond funds outflows of 2.5% of their assets. This would result in total net assets shrinking by a total of 8.9% and 8.5%, respectively.[3]

Other macroeconomic determinants are market uncertainty – as measured by the implied volatility of the German equity market (VDAX) – and general risk aversion in the capital market (see the explanatory notes on pp. 44 f.). The corresponding, in each case negative estimation coefficients for corporate bond funds show that investors expand (reduce) their investment in these funds in times of decreasing (increasing) uncertainty or risk aversion. This result is consistent with the negative correlation

1 In the estimation, this contemporaneous effect on the fund return is not recorded in the fund return in the previous month, $R_{i,t-1}$, but instead in the yield on Bunds $\Delta Yield_t^{Bund}$.
2 Assuming a bond portfolio duration of six years.
3 See also the estimations by the European Central Bank (2017), p. 105, according to which the total net assets of euro area bond funds shrink by 8.6% following an interest rate shock of 100 basis points.

Fixed effects estimation of the flow-performance relationship of European bond funds°

Dependent variable: net flow[1] as a percentage of total net assets in the previous month

Explanatory variable	Estimation coefficient	Specifications	
		(1)	(2)
$R_{i,t-1}$	Θ_1	0.2246*** (0.0175)	0.2205*** (0.0178)
$R_{i,t-1} \cdot Dummy_{i,t-1}^{Corp.\ bond\ fund}$	Θ_2	0.0959*** (0.0343)	0.0650* (0.0350)
Memo item[2]:	$\Theta_1 + \Theta_2$	0.3205*** (0.0300)	0.2855*** (0.0306)
$Net\ flow_{i,t-1}$	·	0.1856*** (0.0067)	0.1856*** (0.0067)
$Log\ total\ net\ assets_{i,t}$	·	0.0007 (0.0013)	0.0006 (0.0013)
$PSPP_t$	·	– 0.0054*** (0.0007)	– 0.0051*** (0.0007)
$CSPP_t$	·	0.0025*** (0.0006)	0.0023*** (0.0006)
$Bund\ spread_t^{KfW}$	κ_1	0.0002 (0.0027)	0.0008 (0.0027)
$Bund\ spread_t^{KfW} \cdot Dummy_{i,t}^{Corp.\ bond\ fund}$	κ_2	– 0.0204*** (0.0047)	– 0.0171*** (0.0048)
Memo item[2]:	$\kappa_1 + \kappa_2$	– 0.0201*** (0.0042)	– 0.0163*** (0.0043)
$\Delta Risk\ aversion_t$	γ_1	·	– 0.0006 (0.0004)
$\Delta Risk\ aversion_t \cdot Dummy_{i,t}^{Corp.\ bond\ fund}$	γ_2	·	– 0.0045*** (0.0008)
Memo item[2]:	$\gamma_1 + \gamma_2$	·	– 0.0050*** (0.0007)
$\Delta VDAX_t$	λ_1	0.0000 (0.0001)	·
$\Delta VDAX_t \cdot Dummy_{i,t}^{Corp.\ bond\ fund}$	λ_2	– 0.0010*** (0.0001)	·
Memo item[2]:	$\lambda_1 + \lambda_2$	– 0.0010*** (0.0001)	·
$\Delta Yield_t^{Bund}$	·	– 1.1737*** (0.1545)	– 1.1393*** (0.1548)
$\Delta Growth\ expectation_t^{Consensus\ GDP}$	·	0.3474*** (0.1016)	0.3595*** (0.1014)
Number of monthly observations	·	369,948	369,948
Number of funds	·	8,551	8,551
R^2 (between)	·	0.5904	0.5910
R^2 (within)	·	0.0378	0.0378

Sources: Morningstar and Bundesbank calculations. **o** Estimation period: January 2012 to March 2019. Only bond funds (excluding ETFs) domiciled in the euro area form part of the analysis. In this estimation, funds with multiple share classes are aggregated. Funds are classified as corporate bond funds ($Dummy_{i,t}^{Corp.\ bond\ fund} = 1$) if more than half of their portfolio comprises corporate bonds. For other bond funds, $Dummy_{i,t}^{Corp.\ bond\ fund} = 0$ applies. Indicator variables for the Eurosystem's asset purchase programmes, $PSPP_t$ and $CSPP_t$, have values of 0 or 1 (value = 1 from the start of the PSPP in March 2015 and from the start of the CSPP in June 2016). $\Delta Risk\ aversion$ denotes the month-on-month change in the estimated risk aversion indicator (see the explanatory notes on pp. 44 f.). $\Delta VDAX$ denotes the month-on-month change in the implied volatility of German equities and is an indicator of the change in market uncertainty. $\Delta Yield_t^{Bund}$ denotes the month-on-month change in yields on ten-year Bunds. */**/*** indicate significance at the 10%/5%/1% level according to the estimator robust to autocorrelation. **1** Inflow of funds if positively signed or outflow of funds if negatively signed. **2** The sum of the two respective estimation coefficients indicates the overall effect for corporate bond funds.

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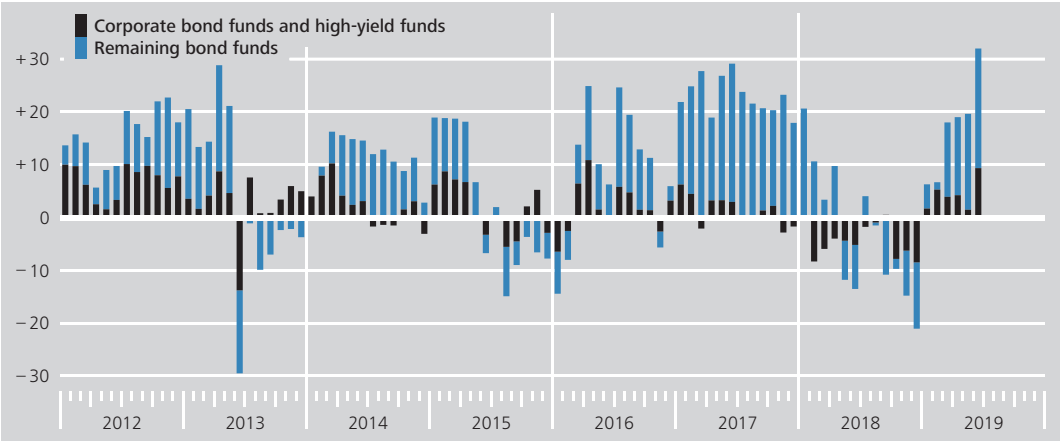
between the flows of corporate and high-yield bond funds and general risk aversion. For other bond funds, however, such a relationship is not evident. This is likely to reflect the fact that investors consider other bond funds that invest more heavily in government bonds less risky – because, if these are government bonds with high credit ratings, their prices could even receive a boost in periods of stress on account of safe haven flows.

In periods of heightened uncertainty, investors prefer safe and liquid bonds, such as Bunds. In periods of stress, this preference for liquid assets prompts market participants to require increasing compensation for an investment in debt securities with lower liquidity. In periods such as these, investors reduce their investment in corporate bond funds; conversely, corporate bond funds benefit from falling liquidity premiums. This is indicated by the impact of the yield spread between ten-year KfW bonds and Bunds with the same maturity, a common indicator for liquidity premiums. The estimation shows that this spread relates negatively to the flows to corporate bond funds. By contrast, other bond funds do not show a significant effect.

This panel estimation explicitly takes into account the time periods of two of the Eurosystem's asset purchase programmes. The results suggest that investors invested somewhat less in bond funds when government bond purchases under the public sector purchase programme (PSPP) began in March 2015 than they did previously. Meanwhile, a countervailing, partially compensatory effect was apparent in the period from June 2016, during which the Eurosystem acquired corporate bonds under the corporate sector purchase programme (CSPP). One possible interpretation of this finding is that investment in funds with a focus on government bonds lost some of its appeal among fund investors after the launch of the PSPP owing to the already very low government bond yields, meaning that bond funds subsequently sold some of their holdings of government bonds to the Eurosystem (see the chart on p. 45). Conversely, the price gains recorded on corporate bonds after the launch of the CSPP could have prompted investors to expand their indirect investment in such bonds – which continued to exhibit a positive yield spread over safe bonds – via bond funds.

Net inflows to euro area bond funds*

€ billion



Source: Morningstar. * Retail funds excluding exchange-traded funds.
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Asset management of European bond funds

Search for yield on funds' assets side

Recent studies show that the search for yield in financial markets is leaving a mark not only on the behaviour of fund investors but also on funds' active asset management.[13] In a study on US corporate bond funds, Choi and Kronlund (2018) find that fund managers have a greater tendency to shift their portfolios into riskier instruments if the level and slope of the yield curve are low and the yield spreads for taking on credit risk are slim. According to the literature, the search for yield has also intensified in German bond funds and mixed-mandate funds, with Barbu et al. (2019) showing that – unlike at the end of 2009 – a large proportion of German specialised funds actively pursued a yield-boosting strategy in their investment activities at the beginning of 2015. This usually involves taking on higher risks.

Portfolio adjustments by European bond funds

According to the ECB's investment fund statistics, European bond funds steadily increased their exposures to corporate bonds as risk-free interest rates declined. Since the beginning of 2012, their share of all the debt securities issued by euro area issuers has increased from around just over 25% to 38% at present. This contrasts with a drop in the share of government bonds, which have been posting ever lower and sometimes even negative yields, in particular since early 2015; at last count, this share came to only 42% (see the chart on p. 45). The portfolio share of bank debt securities likewise fell perceptibly on balance: while these instruments had made up 26% of the bond portfolio in 2012, this share amounted to only 20% of late.

Fund returns more sensitive to high-yield corporate bonds

As the weight of corporate bonds in the fixed-income portfolios of European bond funds increased, so, too, did the sensitivity of their returns to price developments in the corporate bond market; the impact of European government bond yields on fund performance, on the other hand, decreased. Bundesbank estimates based on a multifactor capital asset pricing model (CAPM) identify in particular a rise in sensitivity to high-yield corporate bonds, which indicates that the funds have larger exposures to such bonds (see the box on pp. 43-44).

13 This conclusion is with regard to actively managed funds. By contrast, ETFs are, for the most part, passively managed index funds replicating a benchmark index. In the case of ETFs, then, the question is more whether they pose an additional risk compared with the individual securities in the benchmark index; see Deutsche Bundesbank (2018), pp. 92 ff.

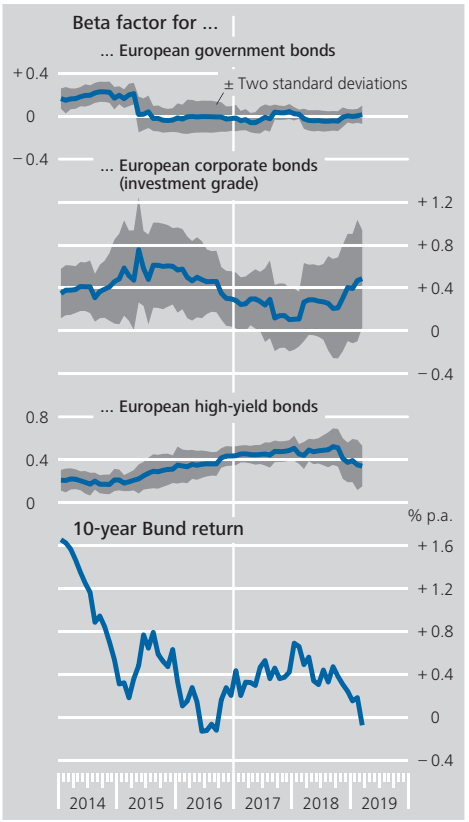
Estimating a CAPM for European bond funds

A single-factor (unifactor) capital asset pricing model (CAPM) describes a market equilibrium in which the expected return on a risky asset is made up of the risk-free return plus a risk premium. Under this model, the risk premium, which compensates the investor for taking on the non-diversifiable systematic risk inherent in the asset, is equal to the market price of that risk, multiplied by the quantity of risk involved in the asset in question (beta factor). A multifactor CAPM, meanwhile, expands on the single-factor model by splitting the beta factor into multiple separate systematic beta factors. As a result, the expected return on the risky asset, as calculated using this multifactor CAPM, is made up of the risk-free return plus several different risk premia, with the individual beta factors measuring the respective systematic quantities of risk. Applied to the portfolio of an investment fund, the individual beta factors indicate the sensitivity of the portfolio's return to each of the risk factors. Seeing as this sensitivity is positively correlated with the weight of the risk factor in the portfolio, they can be interpreted as a measure of the investment fund's exposure to these risk factors.

To explore how sensitive the assets held in European bond funds are to (risky) government and corporate bonds, this box will estimate the funds' sensitivity using a multifactor CAPM. The bond funds' realised monthly excess return over a risk-free asset is inputted into the model as a dependent variable. This excess return is the median return on European bond funds, less the return on Germany's REX index for government bonds. Three systematic risk factors have been chosen as independent variables in this model, these being relevant benchmark bond indices: one for European government bonds, one for European investment grade corporate bonds, and one for European high-yield corporate bonds. The model is estimated over a rolling 24-month window. Based on this configuration, the time-varying beta coefficients indicate the sensitivity of the excess return to each risk factor over this period.

The estimated beta factors suggest that the excess returns on European government bonds stopped contributing significantly to

Estimated beta factors in a capital asset pricing model (CAPM)*



Source: Thomson Reuters and Bundesbank calculations. * The beta coefficients shown here are based on the following CAPM: $(r-r_s) = \alpha+\beta_{GOV}(r_{GOV}-r_s)+\beta_{IG}(r_{IG}-r_s)+\beta_{HY}(r_{HY}-r_s)+\varepsilon$, where r represents the median return on European bond funds, r_s the risk-free return, and r_{GOV}, r_{IG} and r_{HY} the returns on the benchmark indices for European government bonds, investment grade corporate bonds and high-yield corporate bonds. The model was estimated over a rolling 24-month window.

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bond funds' median return (in excess of the risk-free return) following the sharp decline in the risk-free rate up until the spring of 2015 (see the chart on p. 43). Instead, the funds' returns were initially driven above all by the excess returns on corporate bonds. Between mid-2017 and the beginning of this year, the only remaining significant influence identified by the model comes (temporarily) from excess returns on high-yield corporate bonds; towards the end of the observation period, however, investment grade corporate bonds also began to contribute significantly to returns once more. Viewed in aggregate, these findings are consistent with the observation that the funds have shifted their (relative) holdings away from (risky) European government bonds into corporate bonds and stepped up their exposure to high-yield corporate bonds in particular.

The search for yield explained

Investment funds' search for yield largely reflects general risk appetite

One obvious explanation is that the search for yield by investment funds is closely linked to the increasingly entrenched low interest rate environment, just as it is for other (institutional) market participants. This section of the article analyses the extent to which this brisker demand for higher-yield assets reflects a general shift in risk preferences in European financial markets. For this purpose, a measure of general risk appetite is calculated based on a principal component analysis of several individual indicators which are relevant for risk assessments.[14] Over the observation period from 2012 onwards, this indicator has recorded mainly negative values since roughly 2014, when interest rates began to decline sharply; this suggests that market participants' risk aversion was below-average or their risk appetite was above-average. The indicator's subsequent predominantly sideways movement is indicative of relatively strong demand for risk-bearing assets since then. Both developments taken together indicate that the search for yield on the part of investment funds largely reflects the increase in financial market participants' general risk appetite.

Non-standard monetary policy increases incentive for risky investment

Another factor which is bound to have indirectly fuelled this greater risk appetite was the non-standard monetary policy measures, as shown by the increased importance of the portfolio rebalancing channel of monetary policy transmission. This is understood as the relationship in portfolio theory between monetary policy measures and investor behaviour. According to this transmission channel, a lower risk-free interest rate induced by monetary policy measures reduces the return on a risk-free asset and simultaneously makes borrowing more attractive as a result of financing costs

14 For details on the methodology of the principal component analysis, see the box in Deutsche Bundesbank (2008), pp. 38 f.

being pushed down. This shifts the efficient frontier for all manner of assets.[15] In the new equilibrium, the optimal portfolio, from an investor's perspective, will then exhibit a higher level of risk. This effect is amplified further if non-standard monetary policy accommodation is accompanied by lower financial market volatility. Taken together, declining interest rates and reduced financial market volatility thus represent an incentive for investors to shift their portfolios into riskier assets.

Rivalry with other funds may encourage search for yield and fire sales of assets

Besides general risk appetite, the asset management of (actively managed) bond funds is likely to reflect other fund manager incentives as well. Ultimately, these incentives come about because fund investors delegate their own investment decisions to funds and, in return, often rank fund managers relative to other funds. Rivalry with other funds and fund managers' desire to have a good ranking can, therefore, also influence their portfolio decisions. On the one hand, this may reinforce managers' risk appetite. On the other hand, however, it can also – in combination with a restrictive monetary policy measure – lead to a reversal in managers' search for yield and even contribute to them abruptly selling off risky assets.[16] In this context, Feroli et al. (2014) present a theoretical model in which an increase in the risk-free short-term interest rate beyond a certain threshold can lead to an abrupt correction of risk premia if the fund managers previously stepped up their exposure to risk-bearing, high-yield assets for fear of receiving a bad performance ranking. This enables even unlevered funds to exert destabilising effects on financial markets.

Outflows during the taper tantrum

One example of abrupt outflows from bond funds following monetary policy-induced price losses in capital markets is the US taper tantrum of May 2013. This term describes the surge in US Treasury yields after the Federal Reserve's announcement in May 2013 to reduce (taper) the pace of quantitative easing going forward. At the time, bond fund investors on both sides of the Atlantic responded by making large-scale withdrawals. By contrast, the sudden rise in Bund yields in spring 2015 (the Bund tantrum), which was virtually unaffected by monetary policy expectations, triggered no prominent outflows from European bond funds.

Euro area bond funds: bond portfolio shares by sector*

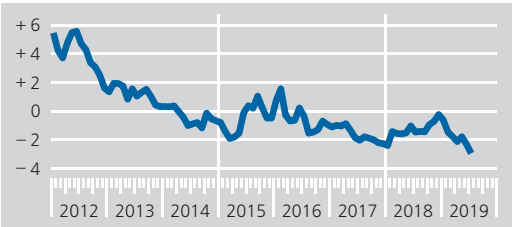
Source: ECB (investment fund statistics). * Aggregate holdings of debt securities of euro area issuers by issuer sector.
Deutsche Bundesbank

How monetary policy contributes to shifts in funds' portfolios

Recent empirical studies support the view that the expansionary monetary policy observed in the past few years provided an incentive for investors to shift their portfolios into riskier,

15 A portfolio is said to be efficient if there is no other portfolio offering less risk for a given level of expected return or a higher expected return for a given level of risk.
16 Relative rankings could imply that even major loss risks are disregarded. For more on the issue of evaluating funds relative to their peers, see also International Monetary Fund (2015), p. 98 and p. 100 f.; the report states that the delegation of investment decisions introduces incentive problems between investors and fund managers.

General risk aversion in the capital market*



Sources: Bloomberg, Thomson Reuters and Bundesbank calculations. * First principal component of a principal component analysis on the basis of the following individual indicators: the implied volatility of European shares (VSTOXX), the time-varying correlation between the returns on long-term Bunds and the EURO STOXX, the term premium on ten-year Bunds, the yield spreads of European BBB-rated corporate bonds, and the CDS spreads of European enterprises (iTraxx Europe and iTraxx Europe Crossover). Positive (negative) values represent a higher (lower) than average level of risk aversion.

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higher-yielding paper.[17] According to Abbassi and Schmidt (2019), German investment funds exhibit a tendency, when interest rates are low, to give bonds with low ratings and corporate bonds a stronger weighting in their portfolios and also to increase their exposure to securities with longer maturities. In addition, the International Monetary Fund points out that the low interest rate environment has prompted investment funds to invest more in less liquid financial assets.[18] The bid-ask spread of debt securities held by German bond funds, for instance, shows that the illiquidity differential between corporate bond holdings and holdings of other debt instruments has risen since 2012.

Trend reinforced by illiquidity

Liquidity risks in response to the search for yield

Overall, then, the search for yield by European bond funds is likely to have pushed up the weight of corporate bonds and other relatively illiquid securities in their portfolios. This also leaves the funds more vulnerable to liquidity risk, because generally speaking, funds which invest more in illiquid assets run the risk of incurring higher liquidation costs in the event of outflows. This is particularly true when the funds hold large stocks of illiquid securities, because adverse market developments can be amplified by trend-reinforcing mechanisms – a drop in market valuations, and thus in the fund's portfolio return, will be reflected in a lower redemption price for fund shares. Investors pursuing a momentum strategy (see the box on pp. 39-41) will respond to this by withdrawing their capital, potentially forcing the fund manager to liquidate assets, unless these outflows can be financed by other means, such as out of the fund's cash holdings.

Illiquid assets side might amplify outflows

If fund managers need to sell off less liquid assets to meet redemptions, the remaining fund investors might be exposed to additional losses because illiquid assets can only be sold in the market at a discount. Given the typical redemption modalities in retail funds, these costs are not normally borne by the investors withdrawing from the fund but by the remaining shareholders. Strategic investors anticipating this risk of loss therefore generally have an incentive to withdraw their capital early. Such illiquidity-induced outflows can particularly have a bearing if the liquidation value of fund shares decreases over time. In this case, investors will have an incentive to redeem their fund shares earlier than other shareholders (first-mover advantage). Compounding this issue in times of stress is the fact that illiquidity-induced outflows affect market prices, particularly in relatively illiquid markets, potentially triggering feedback effects on fund flows.[19]

Liquidity management to prevent liquidity shortfalls

The mechanism described above implies that funds with illiquid portfolios can become exposed to self-reinforcing outflows. That said, fund managers can influence and control this risk to a degree by managing the funds' liquid-

17 See European Central Bank (2017), p. 97, which writes that investment funds scaled back their exposure to euro area government bonds by around 10% and trimmed their holdings of bank debt securities by 6%. At the same time, they stepped up their holdings of securities from borrowers outside the euro area. Moreover, Cenedese and Elard (2018) and Bubeck et al. (2018) find evidence suggesting that fund managers have reduced their assets from countries conducting unconventional monetary policy and increased their investment in other countries.
18 See International Monetary Fund (2015), p. 96, and International Monetary Fund (2014), pp. 1 f.
19 See, for example, Coudert and Salakhova (2019) for an analysis of the French market for corporate bond funds.

Corporate bond funds: the role of liquidity and ownership structure

Recent years have seen European investment funds allocate an increasing share of their assets to corporate bonds. One reason for this will undoubtedly have been the decline in interest rates, which amplified the incentive to search for yield and thus stimulated demand for higher-yielding, but also riskier debt instruments. Although the supply of corporate bonds also registered an increase over the same period, the brisker demand narrowed their yield spreads. This drove up liquidity risk in the portfolios of bond funds because corporate bonds tend to be less liquid than (high-volume) government bonds.

The literature notes that investment funds can be exposed to stronger withdrawals in periods of stress if the liquidity of their assets is low. Fund managers looking to finance such outflows can use their available cash holdings, draw on any credit facilities they might have, or sell off fund assets.

If a fund manager uses cash or sells liquid securities – such as AAA-rated government bonds – to accommodate investor redemptions, the transaction costs will be relatively low, which would also mitigate the downward pressure on valuations of the remainder of the portfolio.[1] At the same time, that would, however, risk worsening the fund's portfolio liquidity on a permanent basis if the fund manager is unable to acquire new liquid assets due to a lack of fresh inflows of capital. In turn, an increasingly illiquid portfolio risks inducing further outflows if the fund's investors lose confidence in the manager's commitment to keep the fund liquid and fully meet redemptions (which might be triggered if the fund performs badly).[2] This is due to the fact that dwindling liquidity makes it more costly to convert fund assets into cash. In this case, the fund would no longer be able to accommodate all the shareholders' claims if all its assets were liquidated, assuming unit prices remain unchanged. Investors might therefore have an incentive to redeem their fund shares earlier than other shareholders. Such an incentive arises when the liquidation value of fund shares shrinks as investors hesitate to redeem. Accordingly, investors who withdraw from the fund quickly would have a first-mover advantage. Against this background, Goldstein et al. (2017) argue that an illiquid bond portfolio creates incentives for strategic investor behaviour and increased outflows when fund performance is poor. In addition, the first-mover advantage will be amplified if the fund meets outflows by first selling its relatively liquid security holdings. This is because the return of early redeemers is higher than that of investors who stay invested in the fund for longer and thus shoulder more outflow-induced losses.

According to the literature, this amplification mechanism does not apply to all illiquid funds in equal measure. Research on US and German corporate bond funds has found that the proportion of institutional investors in a fund dictates the extent to which it will be affected by withdrawals.[3,4]

1 See Choi and Shin (2016).
2 Cases have been observed in the past where funds with illiquid assets were forced to suspend redemptions in critical situations or because of their investment strategy. Redemption gates or gating provisions are the names given to measures introduced to suspend, at least temporarily, redemptions of fund shares by open-end funds.
3 See Goldstein et al. (2017) and Dötz and Weth (2019).
4 Dötz and Weth (2019) use data from the Bundesbank's investment fund statistics in combination with information from the Eurosystem's securities holdings statistics for the period from November 2009 until June 2016. In line with the literature and theoretical considerations on strategic investor behaviour, they confine their analysis to observations with a negative fund performance.

This research demonstrated that a shortage of liquid assets combined with a poor performance will trigger heavier outflows from predominantly retail-based funds than from those held chiefly by institutional investors.[5] It is a phenomenon which can be traced back to differences in liquidation costs: if a retail investor withdraws from a fund and a small volume of securities need to be sold at a discount, only the remaining shareholders will bear the costs associated with the discount. The retail investor withdrawing from the fund, however, benefits from the first-mover advantage. By contrast, if a major institutional investor makes large-scale withdrawals from a fund, the cost of generating the necessary liquidity cannot be passed on in full to the remaining investors but will have to be borne, at least in part, by the withdrawing institutional investor. This will make institutional investors more reluctant to withdraw from illiquid funds at their own expense. Evidence for German corporate bond funds suggests that outflows from institutional funds in response to poor performance are only ever significant if those funds are sufficiently liquid – that is to say, if it costs them little or nothing to liquidate fund assets.

The empirical evidence indicating that a fund's vulnerability to outflows depends on its investor structure raises the question of whether liquidity management also differs between retail-based funds and institutional-oriented funds. Generally speaking, the approach of first selling liquid assets to accommodate fund outflows (i.e. basing sales on a liquidity pecking order) offers the advantage of low transaction costs. On the downside, though, this leaves an increasingly illiquid residual portfolio, particularly when outflows are high. So how do funds trade off these pros and cons? Not only does an illiquid residual portfolio increase the risk of having to sell illiquid securities at some point in the future, it also means that replenishing liquid assets will come at a cost if the fund fails to attract inflows of capital. This can be problematic in times of elevated market uncertainty.[6] From the investor's point of view, the risk that the fund might have to sell illiquid assets makes it more advantageous to withdraw from the fund early, and it can contribute to a run.[7]

From the fund manager's perspective, the amount and likelihood of future outflows depend on both fundamentals and the liquidity of the portfolio. Liquidity here is not exogenously given, but is managed and targeted by the fund manager. This conjecture has been investigated in two recent studies, both of which identify the key role played by market uncertainty in determining whether a fund manager will sell off securities according to a liquidity pecking order or aim instead to preserve portfolio liquidity by selling illiquid assets proportionally. Jiang et al. (2017) conclude for US corporate bond funds that fund managers exposed to outflows prefer to sell liquid financial instruments during tranquil market conditions but prioritise liquidity preservation in spells of heightened uncertainty. Dötz and Weth (2019), meanwhile, highlight the role played by the investor base in German corporate bond funds. They show that the share of institutional investors is pivotal not just for investor flows, but also for differences in the way a fund's liquidity is managed. According to their research, managers of

5 Estimates by Dötz and Weth (2019) indicate that an assumed negative fund return of -5% will trigger outflows from illiquid funds of between 3.0% and 4.3% of the assets under management in the case of retail-based funds. Underperforming funds held primarily by institutional investors, by contrast, have more reason to fear outflows when liquidity levels are high: assuming a fund return of -5%, the outflows here come to between 2.5% and 3.2% of their fund assets.
6 See the empirical evidence gathered on this point by Chernenko and Sunderam (2016) as well as Coudert and Salakhova (2019).
7 See Jiang et al. (2017) and Stein (2014).

retail-based funds will tend, in times of stress, to preserve portfolio liquidity by selling securities of different liquidity proportionally (pro rata). Given the strategic behaviour of investors in retail-based funds, such a pro rata selling strategy can be interpreted as an incentive to avoid accelerated withdrawals induced by shrinking liquidity levels. Their paper found that, unlike retail-based funds, institutional-oriented funds have less reason to fear illiquidity-driven outflows: it turns out that they finance outflows in periods of stress mainly by selling liquid assets. In so doing, they save transaction costs but accept a deterioration in portfolio liquidity. This finding can be explained by the fact that these funds are less vulnerable to illiquidity-induced outflows.

In conclusion, then, it can be said that ownership structure and fund liquidity do not only affect the relationship between flows and fund performance – the fund's investor base also helps explain which securities the fund manager will sell to accommodate withdrawals. The different responses shown by illiquid retail-based and institutional-oriented funds are due to differences in their respective vulnerability to strategic investor behaviour: a fund held mainly by retail investors is more at risk of outflows. This is because the common redemption modalities tend to favour investors who redeem their fund shares early and can pass on the costs resulting from the sale of illiquid securities to the fund's remaining shareholders. This strategy is more readily available to retail investors with small investments than to institutional investors with large exposures.

ity. Two key liquidity management tools are cash reserves and highly liquid government bonds. Another is active liquidity management in the remainder of the investment portfolio as a precautionary measure against a potential illiquidity-induced sell-off. Fund managers' considerations here include weighing up the extent to which they will sell off securities according to a liquidity pecking order, if need be, to finance outflows. These relationships are explored in the box on pp. 47-49, using the German market for bond funds as an example. The box also discusses the degree to which the strategic incentive for investors to withdraw their capital early on depends on them being retail or institutional investors. It appears that, in periods of stress, managers of retail-based funds mainly strive to preserve portfolio liquidity, whereas the priority for managers of institutional-oriented funds is to avoid transaction costs.

Conclusion

Assets managed by investment funds have risen sharply worldwide in recent years, in a reflection of the general ascendancy of capital markets as a source of funding and investment opportunities since the financial crisis. There is also evidence that cross-border funds are gaining in importance in the European market for investment funds. The marked increase in assets under management in European funds can be traced back to perceptible net inflows from institutional investors in particular, but it also reflects increases in value fuelled by share price gains and the declining and sometimes even negative risk-free interest rates observed in recent years. With €3.4 trillion in assets under management at last count, European bond funds showed signs of being affected by the increasingly entrenched low interest rate environment, both in terms of their net inflows and their portfolio management. Thus, the Bundesbank has estimated that the dwindling

Bund yields helped buoy investors' propensity to invest in bond funds, while portfolio management in these funds has been increasingly driven by a search for yield since 2012. Research on this topic suggests that many funds rebalanced their portfolios more strongly into risk-bearing, less liquid and longer-dated debt securities during this period. In their portfolios of European bonds, funds reduced the weights of government bonds and bank debt securities and switched into corporate bonds, thereby driving up liquidity risks on their assets side. More recent analyses see this mainly as an issue for retail funds with a large number of small-scale investors, given that such funds are especially vulnerable to outflows in periods of falling prices if their portfolios are illiquid. This highlights the major importance of actively managing portfolio liquidity as a way of preventing illiquidity-induced, self-reinforcing outflows.

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Long-term outlook for the statutory pension insurance scheme

Over the past few years, the financial situation of the statutory pension insurance scheme has been relatively free of tension. This was due to past reforms, a pause in demographic change, and positive developments on the labour market. The contribution rate decreased and several benefits were expanded. Demographic developments will be putting pension funding under pressure in future, however. Life expectancy is likely to go on rising and the large baby boomer cohorts will be entering retirement from the mid-2020s onwards. The Federal Government is aiming for a long-term pension reform.

Long-term projections are important for this – despite all the uncertainty involved. They highlight key developments and illustrate how reforms, from a current vantage point, are going to affect persons covered by the statutory pension insurance scheme and taxpayers. Projections of this kind are presented here. They demonstrate how the key variables of the statutory pension insurance scheme are correlated: the statutory retirement age, the replacement rate, the contribution rate and government funds.

The simulations make it clear that it is all but impossible to capture future demographic burdens in a convincing manner using only single variables. Even today, burdens are being spread more broadly under the current regulations. By the early 2030s, the statutory retirement age will have been raised to 67, for example. One approach to reform would be linking (indexing) the retirement age systematically to increasing life expectancy. This is also suggested by international organisations. For example, the statutory retirement age could be raised after 2030 so that the ratio of years in retirement and years of contributions remains broadly stable (instead of constantly increasing as would be the case extrapolating from the current situation). Increasing life expectancy would then be tied to a longer period of employment, although the period of pension payment would also become longer. To this end, the statutory retirement age would have to rise to 69⅓ by 2070. Any resulting more extensive employment would also bolster social security contributions and taxes. Moreover, with a rising retirement age and the associated longer periods of work, pension entitlements would increase. It would therefore make sense to dynamically adjust the standardised replacement rate – in other words, to include more years of contributions in the standard pension in line with the increasing retirement age.

If increasing life expectancy were taken into account in this way by raising the statutory retirement age, this would still leave the financial pressure caused by the lower birth rates since the 1970s unaddressed. The existing regulations distribute this pressure among the other variables: even with an indexed retirement age, the contribution rate and government funds would rise relatively sharply up to around 2040 and the calculated dynamically adjusted replacement rate would fall. There would be much less need for adjustment, however. After 2040, the dynamically adjusted replacement rate with a correspondingly greater number of contribution years would tend to move sideways.

Acceptance of the pension insurance scheme depends, not least, on the replacement rate being considered to be adequate. If consideration were given to a longer-term minimum threshold, it

would seem reasonable to aim for a dynamically adjusted replacement rate as described. It is also an integral part of a reliable outlook that the resulting financial burdens appear sustainable. Even without an additional minimum threshold as reinforcement, such burdens are likely to increase considerably on those subject to compulsory contributions as well as on the federal budget.

Introduction

Public old-age provision in Germany

The statutory pension insurance scheme is the most important pillar of old-age provision in Germany, accounting for roughly three-quarters of all incomes from pension schemes.[1] The Federal Government has announced a major reform for the middle of the next decade. The *Kommission verlässlicher Generationenvertrag* ("Commission for a reliable intergenerational contract") is to have made preparations for this by March 2020. The following sections will first provide a brief overview of the statutory pension insurance scheme and developments in it over the past decade. The long-term outlook will then be considered in greater detail. Numerous other aspects of the pension policy debate, such as a minimum level of provision, the role of additional occupational and private pensions and the civil service pension scheme are not discussed.[2]

Basic features of the statutory pension insurance scheme

Statutory pension insurance scheme on pay-as-you-go basis

The statutory pension insurance scheme is organised as a pay-as-you-go system. This means that the receipts of a given year directly fund the expenditure of that same year. Receipts come mainly from contributions on income subject to compulsory contributions (chiefly gross wages and salaries up to the maximum social security contribution threshold).[3] Added to this are central government payments, which are financed from tax receipts.[4] The statutory pension insurance scheme is not allowed to go into debt. Rather, a reserve is to be maintained in order to prevent intra-year liquidity shortages. At the end of the year, this should be between 0.2 to 1.5 times the average monthly expenditure (after deduction of government funds). The contribution rate is adjusted if it is anticipated that the figure will not fall within this range. It currently stands at 18.6% and is capped at a maximum of 20% until 2025. Until then, any funding gap would have to be offset by additional government funds.

Close link between individual contributions and entitlements

The individual old-age pension essentially depends on the contributions paid beforehand (participation equivalence). What is crucial in this context is the relative income position, i.e. the ratio of an individual's own earnings subject to compulsory insurance to the average earnings of all persons covered by the statutory pension insurance scheme. The insurance scheme members collect earnings points with their contributions every year, reflecting this ratio. If the individual's own earnings match the average, precisely one earnings point is acquired in the year in question. The sum of the earnings points acquired during a working life thus reflects two things: the average relative

1 For more information, see Federal Ministry of Labour and Social Affairs (2016a).
2 See, inter alia, Deutsche Bundesbank (2015, 2016).
3 In 2019 the annual social security contribution threshold is €80,700 in western Germany and €73,800 in eastern Germany. Contributions are also paid for persons receiving unemployment or sickness benefit. The public long-term care insurance scheme pays pension insurance contributions for relatives who act as carers, and the Federal Government pays pension insurance contributions for parents with children below the age of three years. These contributions give rise to matching pension entitlements: in the event of illness or unemployment depending on previous income, for relatives who act as carers depending on the degree and extent of care, and for parents at a flat rate for each of the first three years of the child's life.
4 Along with other provisions, about two-thirds of the government funds are linked to growth in per capita earnings and changes in the contribution rate. The other government funds change, first and foremost, with the total wage bill and developments in turnover tax revenue (excluding rate changes).

Definition of key terms in the pension debate: pension formula, standard pension, replacement rate and pension adjustment

Pension formula

The monthly pension R is calculated using the following formula (sections 69 and 70 of the Sixth Book of the Social Security Code (*Sechstes Buch Sozialgesetzbuch*)):

$$R = EP * ZF * ARW * RAF$$

- EP is the sum of the accumulated earnings points. Contributors to the pension insurance scheme acquire earnings points on an annual basis of their contributions. The number of points credited per year depends on the ratio of the individual scheme member's earnings (subject to compulsory insurance) to the average earnings of all members of the statutory pension insurance scheme in the year in question. Where a person's own earnings correspond to the average, precisely one earnings point is acquired.

- ZF is the retirement access factor, which comprises deductions for early retirement (0.3% for each month) or add-ons for postponed retirement (0.5% for each month).

- ARW denotes the pension value, which is adjusted every year on 1 July (see annual pension adjustment). For eastern Germany, a special pension value will apply until 2024.

- RAF stands for the type of pension drawn. The pension type factor amounts, for example, to 1 for old-age pensions or 0.6 for pensions for older surviving dependents.

Standard pension

The standard pension is a benchmark frequently used for comparisons. It results when members of the statutory pension insurance scheme, first, retire at the statutory retirement age, second, have contributed to the scheme for 45 years, and third, every year have received earnings subject to compulsory insurance corresponding to the average earnings of all scheme members.

Multiplied by the pension value (at present €33.05 in western Germany and €31.89 in eastern Germany), this generates a monthly standard pension of €1,487.25 in western Germany and €1,435.05 in eastern Germany, in each case before taxes and social security contributions.

Replacement rate

The replacement rate reflects the ratio of the standard pension (in western Germany) to average employee earnings subject to compulsory insurance.[1] Both variables are based on the level before taxes, but after deduction of the respective social security contributions due (pension: half of the health insurance contribution rate and full contribution rate for long-term care insurance; earnings: half of the contribution rates for the health, long-term care, unemployment and pension insurance schemes).

$$Replacement\ rate = \frac{standard\ pension - social\ security\ contributions}{average\ earnings - social\ security\ contributions}$$

The calculated replacement rate amounts to 48.1% for 2019. The standard pension is, therefore, just under half as high as the average earnings of all employees covered by the statutory pension insurance scheme (after deduction of social security contributions).

Taxation and thus the replacement rate after taxes differs according to individual circumstances. In this vein, taxation varies depending

1 Average annual earnings (excluding employers' contributions to the social security scheme) were €37,873 in western Germany and €33,700 in eastern Germany in 2018.

on the retirement year as the taxable share of new pensions is growing from year to year.[2] By contrast, the tax-free share of pension contributions is likewise growing from year to year. In the case of retirement in 2019, the taxable share of the pension is 78%. For retirement from 2040 onwards, the pension will be fully taxable. Moreover, in some instances, the tax burden depends on numerous other factors (type of tax assessment, other income, deduction amounts). At present, the replacement rate upon retirement, after taxes (excluding any other income and child benefit claims), is likely to be roughly just under 10 percentage points higher than the pre-tax level.[3]

Annual pension adjustment

In principle, the annual pension adjustment is determined by three factors: first, the rate of change in the average employee's earnings subject to compulsory contributions, second, the change in the pension insurance scheme contribution rate and in contributions paid into assumed supplementary private pension provision, and third, the sustainability factor. Earnings are calculated separately for western Germany and eastern Germany. All other factors are based on uniform national values.

The specific adjustment formula is as follows (section 68 of the Sixth Book of the Social Security Code):

$$ARW_t = ARW_{t-1} * \frac{BE_{t-1}}{BE_{t-2}} * {}^{\frac{bBE_{t-2}}{bBE_{t-3}}} / _{\frac{BE_{t-2}}{BE_{t-3}}} * \frac{100 - AVA_{t-1} - RVB_{t-1}}{100 - AVA_{t-2} - RVB_{t-2}} * \left(\left(1 - \frac{RQ_{t-1}}{RQ_{t-2}} \right) * \alpha + 1 \right)$$

In the above equation

- ARW denotes the pension value. This transforms claims in the form of earnings points into definite euro amounts.
- BE refers to gross wages and salaries per employee.
- bBE indicates earnings subject to compulsory contributions per employee (excluding civil servants and including recipients of unemployment benefit).
- AVA is the contribution paid into a supplementary private pension scheme, which reflects the contribution envisaged for the in part state-funded additional "Riester" pension scheme (unchanged at 4% since 2012).
- RVB denotes the pension insurance scheme contribution rate.
- RQ is the pensioner ratio, which is the ratio of the number of calculated standard pensions to the number of calculated average contributions, and α denotes a sensitivity parameter which is set at 0.25. Changes in the pensioner ratio thus affect the pension adjustment by up to one quarter.

The final results regarding the development of the average contribution-relevant bBE are available only with a delay of just over one year. Therefore, the rate of increase in BE as shown by the previous year's national accounts is first used provisionally for the respective mid-year adjustment. Going forward, this is then adjusted with a time lag to bBE development by means of a correction factor (correction by the ratio of the development in bBE to BE two years previously).

2 In practice, the tax-free pension share is calculated as a euro amount in the year in which a person enters retirement and is then kept constant. As a result, future pension increases will be fully taxable.
3 Standard pension and average earnings without taking account of additional income.

earnings position and the length of the contribution period. The contributions made are the basis for the individual pension entitlement. Unlike in the case of tax payments, pension contributions are accompanied by specifically attributable benefits provided by central government. In contrast to statutory health insurance and the long-term care insurance scheme, the benefits depend on the amount of previously paid contributions.

Pensions adjusted in line with regulations

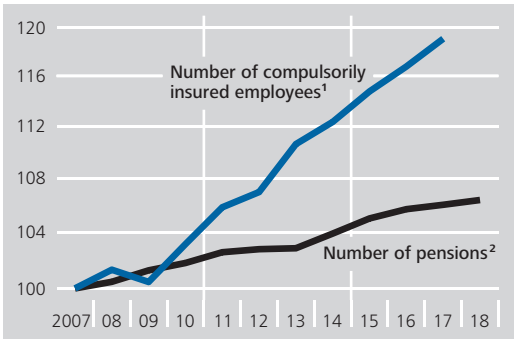
Old-age pensions account for the vast majority (most recently, around 78%) of the statutory pension insurance scheme's pension expenditure. Moreover, pensions for persons with reduced earnings capacity accounted for about 7% and surviving dependents' pensions accounted for roughly 15%.[5] When retirement begins upon reaching the statutory retirement age, the individual old-age pension is given by the product of the earnings points acquired and the pension value.[6] The pension value is updated using the pension adjustment formula. This is geared, first of all, to growth in wages. Besides other factors, it also takes due account of burdens resulting from social security contributions and a demographic factor (see also the box on pp. 55-56).

Replacement rate is often a benchmark for coverage by the statutory pension insurance scheme

In the public debate, the coverage provided by the statutory pension insurance scheme is frequently measured by the pre-tax net replacement rate. Roughly speaking, this captures the pension entitlement in relation to previous income. Specifically, this is the ratio of a standard pension to current average earnings, with the relevant social security contributions being deducted (see the box on pp. 55-56). Standard pension denotes a pension after 45 years of contributions with average pay (i.e. 45 earnings points). Defined in this way, the replacement rate is currently at just over 48%. Until 2025, a minimum threshold of 48% applies.

Persons covered by the statutory pension insurance scheme, and pensions in payment

2007 = 100



Sources: German pension insurance scheme (2018) and Bundesbank calculations. **1** Figure for 2018 not yet available. **2** Individual persons may draw more than one pension.
Deutsche Bundesbank

Looking back at trends since 2008[7]

Positive development in pension insurance scheme finances owing to favourable underlying conditions and earlier reforms

Following financially difficult times, the statutory pension insurance scheme has been benefiting for some years now from favourable underlying conditions and earlier reforms. There has been an improvement, in particular, in the labour market situation: unemployment has fallen, and there has been strong growth in employment, especially in old age. Added to this was a pause in the demographically induced pressure on expenditure, as the post-war cohorts reaching retirement age were comparatively weakly populated. The economic crisis of 2009 and the economic dip around 2013 had only a short and limited impact. The fact that the statutory pension insurance scheme was in good shape made it easier for benefits to be expanded again from 2014 onwards, including retirement on a full pension at the age of 63 for those with a very long contribution history and "mothers' pensions". Des-

5 For more information, see German pension insurance scheme (2018).
6 Deductions and add-ons are incurred in the event of earlier or later retirement. There are separate regulations governing pensions for persons with reduced earnings capacity and pensions for surviving dependents.
7 For earlier developments, see Deutsche Bundesbank (1999, 2008).

Financial developments in the statutory pension insurance scheme*

Item	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Receipts	€ billion										
Total contributions of which	167.6	169.2	172.8	177.4	181.3	182.0	189.1	194.5	202.2	211.4	221.6
Compulsory contributions	159.6	160.0	163.7	170.5	174.4	174.8	181.7	187.1	194.7	203.2	212.4
Contributions for unemployed	5.0	6.1	5.7	3.5	3.3	3.6	3.6	3.4	3.4	3.3	3.3
Other contributions	3.0	3.2	3.4	3.5	3.5	3.6	3.8	4.0	4.2	5.0	5.9
Transfers from the Government funds of which	67.9	68.8	70.6	70.5	71.6	71.4	73.2	74.6	77.0	81.0	83.8
General federal government grant	38.2	38.7	39.9	39.6	39.9	38.9	39.8	40.2	41.4	43.8	44.6
Additional federal government grant	18.2	18.7	19.1	19.2	20.1	21.0	21.5	22.2	23.1	24.0	24.9
Contributions for child-raising periods	11.5	11.5	11.6	11.6	11.6	11.6	11.9	12.1	12.5	13.2	14.3
Other receipts	7.3	6.7	6.7	7.1	6.8	6.7	6.8	7.1	7.2	7.4	7.4
Total[1]	242.8	244.7	250.1	255.0	259.7	260.2	269.1	276.1	286.4	299.8	312.8
Expenditure											
Pension payments	204.1	208.5	211.9	212.6	216.4	219.6	226.2	236.6	246.1	255.3	263.3
Contributions to pensioners' health insurance	14.1	14.4	14.3	15.0	15.3	15.5	16.0	16.7	17.4	18.0	18.6
Administrative expenditure	3.6	3.6	3.6	3.6	3.7	3.8	3.9	3.9	4.0	4.2	4.2
Other expenditure[2]	17.3	18.0	18.3	19.0	19.2	19.4	19.9	20.5	21.1	21.8	22.3
Total[1]	239.0	244.5	248.1	250.2	254.6	258.3	265.9	277.7	288.6	299.3	308.4
Surplus (+) or deficit (–)	3.8	0.2	2.1	4.7	5.1	1.9	3.2	– 1.6	– 2.2	0.5	4.4
Financial reserves	15.9	16.1	18.5	24.1	29.4	32.0	35.0	34.1	32.4	33.4	38.2
Memo item: of monthly expenditure	1.0	1.0	1.1	1.4	1.7	1.8	1.9	1.8	1.6	1.6	1.8
Receipts	Annual percentage change										
Total contributions of which	3.3	0.9	2.1	2.7	2.2	0.4	3.9	2.9	4.0	4.5	4.8
Compulsory contributions	3.9	0.2	2.3	4.2	2.3	0.2	3.9	3.0	4.1	4.3	4.5
Contributions for unemployed	– 13.1	20.7	– 5.4	– 39.5	– 3.9	7.6	– 0.2	– 3.8	– 2.6	– 2.4	– 0.1
Other contributions	4.1	5.3	5.8	3.0	2.1	1.6	6.6	4.2	4.8	19.6	18.8
Transfers from the Government funds of which	0.6	1.3	2.6	– 0.2	1.7	– 0.3	2.5	1.9	3.2	5.2	3.5
General federal government grant	0.4	1.1	3.2	– 0.6	0.6	– 2.6	2.4	1.0	2.8	5.9	1.8
Additional federal government grant	1.8	2.7	2.2	0.8	4.6	4.3	2.5	3.2	4.1	3.9	3.8
Contributions for child-raising periods	– 0.6	– 0.1	1.5	– 0.5	0.5	– 0.4	2.4	2.5	3.1	5.4	8.2
Other receipts	4.7	– 7.5	0.6	5.0	– 4.1	– 0.8	1.5	3.2	1.3	3.5	0.2
Total[1]	2.6	0.8	2.2	1.9	1.9	0.2	3.4	2.6	3.7	4.7	4.3
Expenditure											
Pension payments	1.2	2.2	1.6	0.4	1.8	1.4	3.0	4.6	4.0	3.7	3.2
Contributions to pensioners' health insurance	2.8	2.7	– 0.6	4.7	1.8	1.6	2.9	4.5	4.1	3.7	3.1
Administrative expenditure	0.7	1.1	– 1.0	2.5	1.4	2.8	2.3	0.9	2.2	4.9	– 1.0
Other expenditure	4.2	3.8	1.9	3.6	1.0	1.1	2.6	2.9	3.3	3.2	2.1
Total[1]	1.5	2.3	1.5	0.9	1.7	1.4	3.0	4.4	3.9	3.7	3.0
Memo item:	%										
Contribution rate	19.9	19.9	19.9	19.9	19.6	18.9	18.9	18.7	18.7	18.7	18.6
Net replacement rate before taxes	50.5	52.0	51.6	50.1	49.4	48.9	48.1	47.7	48.1	48.3	48.1

Source: German pension insurance scheme. * Data as defined in the financial statistics. **1** Excluding payments under the revenue-sharing scheme. **2** In particular, refunds to the miners' pension insurance scheme and rehabilitation expenditure.

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pite such additional expenditure, the contribution rate has fallen in several stages since 2012 from 19.9% to 18.6% most recently. Nevertheless, the reserve saw an increase on balance and, at the end of 2018, was at just under 1.8 times the scheme's monthly expenditure.

Favourable labour market developments allowed a marked reduction of the contribution rate

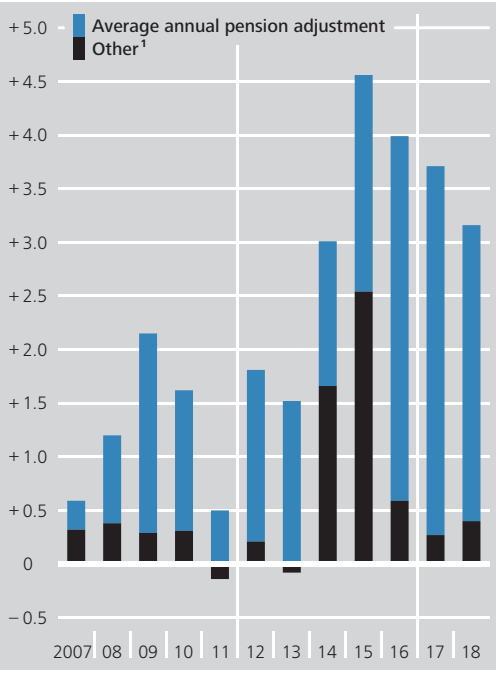
The receipts of the statutory pension insurance scheme benefited, above all, from the favourable developments on the labour market. The number of compulsorily insured employees grew by 5 million in the period from 2008 to 2017. This corresponds to an increase of almost 20%, or just under 2% on an annual average. Contribution receipts rose by an average of nearly 3%, which was weaker than the growth in the total wage bill (just over 3½%). This was due chiefly to the fact that the contribution rate fell by 1.3 percentage points.[8] The higher contribution receipts were due, not least, to a significantly higher labour force participation rate among older persons. Between 2007 and 2018, the employment rate among persons aged 60 to 64 years doubled to 60%.[9] Government funds (central government grants and contributions for child-raising periods) grew at a slightly slower pace. Their share of total receipts fell compared with 2007, but it was still more than one quarter at the end of the period under review. The main reason for this was that two-thirds of government funds for the statutory pension insurance scheme are linked to per capita earnings. If employment grows, the government funds increase less strongly than contribution receipts, which depend on the total wage bill.

Expenditure dampened by demographic pause and earlier reforms, but benefits expanded of late

As a result of the positive situation on the labour market and the rising statutory retirement age since 2012, the actual commencement age for old-age pensions has also increased significantly to 64 years on average since 2007 (+7 months since 2007). The increase would have been higher still if the possibility of retirement on a full pension at the age of 63 had not been introduced in 2014. Moreover, the expenditure side has also benefited from the pension reforms over the past decade and the demographic pause. Overall, the number of pension recipients has increased by just over 1 million since 2007, or ½% on an annual average. Pension expenditure rose at an average of 2½%, which is weaker than growth in contribution receipts.

Pension expenditure

Annual percentage change



Sources: German pension insurance scheme (2018) and Bundesbank calculations. **1** In particular, number and structure of pensions in payment. This also reflects expanded benefits such as "mothers' pensions" and retirement on a full pension at the age of 63.

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Earlier reforms stabilised pension funding

The fundamental reforms at the beginning of the last decade mainly dampened pension adjustments.[10] Furthermore, a decision was taken in 2007 to raise the statutory retirement age

8 Added to this was the fact that the contributions made by the Federal Employment Agency decreased as a result of falling unemployment. Since 2011, no pension contributions have been paid for recipients of unemployment benefit II, either.

9 For more information, see Federal Statistical Office (2019d).

10 At the same time, the funded supplementary individual old-age pension provision scheme ("Riester" pension) was boosted more strongly using tax revenue. Occupational pensions were also increasingly promoted during this period. The aim of this is that supplementary funded private pension provision be systematically accompanied by lower replacement rates under the statutory pension insurance scheme.

from 65 to 67 between 2012 and 2031.[11] Early retirement was also made more difficult. The reduced pension adjustments, as well as the higher contributions for the long-term care insurance scheme led to a fall in the replacement rate. Starting from 51.3% in 2007, the replacement rate dropped to 48.1% last year. The positive developments in employment bolstered the replacement rate through the sustainability factor in the pension formula. This is designed to limit the rise in the pension contribution rate in the wake of demographic change. In principle, this has the effect of pensions growing more slowly if there is an increase in the ratio of pension recipients to contribution payers (for more details, see p. 56). In recent years, however, this has, in fact, raised pensions, as the number of contribution payers has increased more sharply than the number of pension recipients (see the chart on p. 57 for the figures).

Developments in statutory pension insurance scheme significantly more favourable than expected

All things considered, pension funding since 2008 has thus taken a significantly more favourable turn than was expected at the time. Positive growth in employment was the key factor in this development. Despite the fact that benefits have been expanded in the meantime, the contribution rate is now 1.4 percentage points lower and the replacement rate is 1 percentage point higher than was projected in autumn 2007, for example.[12]

Demographic change will put pressure on pension funding

Pension insurance scheme highly dependent on demographic change

Demographic change has a major impact on the statutory pension insurance scheme. Key factors are the birth rate, life expectancy and migration. Furthermore, developments in labour force participation have an important influence on the pension insurance scheme.

Birth rate and …

There has been a sharp fall in the birth rate[13] since the mid-1960s. It has fallen relatively swiftly from around 2½ to somewhat below 1½. Most recently, it was somewhat higher again at 1.57. In the baseline variant of its current population projection exercise, the Federal Statistical Office assumes a broadly unchanged birth rate of 1.55.[14] The sharp decline about 50 years ago has led to a demographic hump. Above all, when the 1960s cohorts with relatively high birth rates (baby boomers) enter retirement from the mid-2020s onwards, they will have to be financed by significantly smaller cohorts. The additional pressure on the pension insurance scheme caused by the extremely unequal cohort sizes will ease again when the baby boom generation dies out.

… life expectancy are negative factors, …

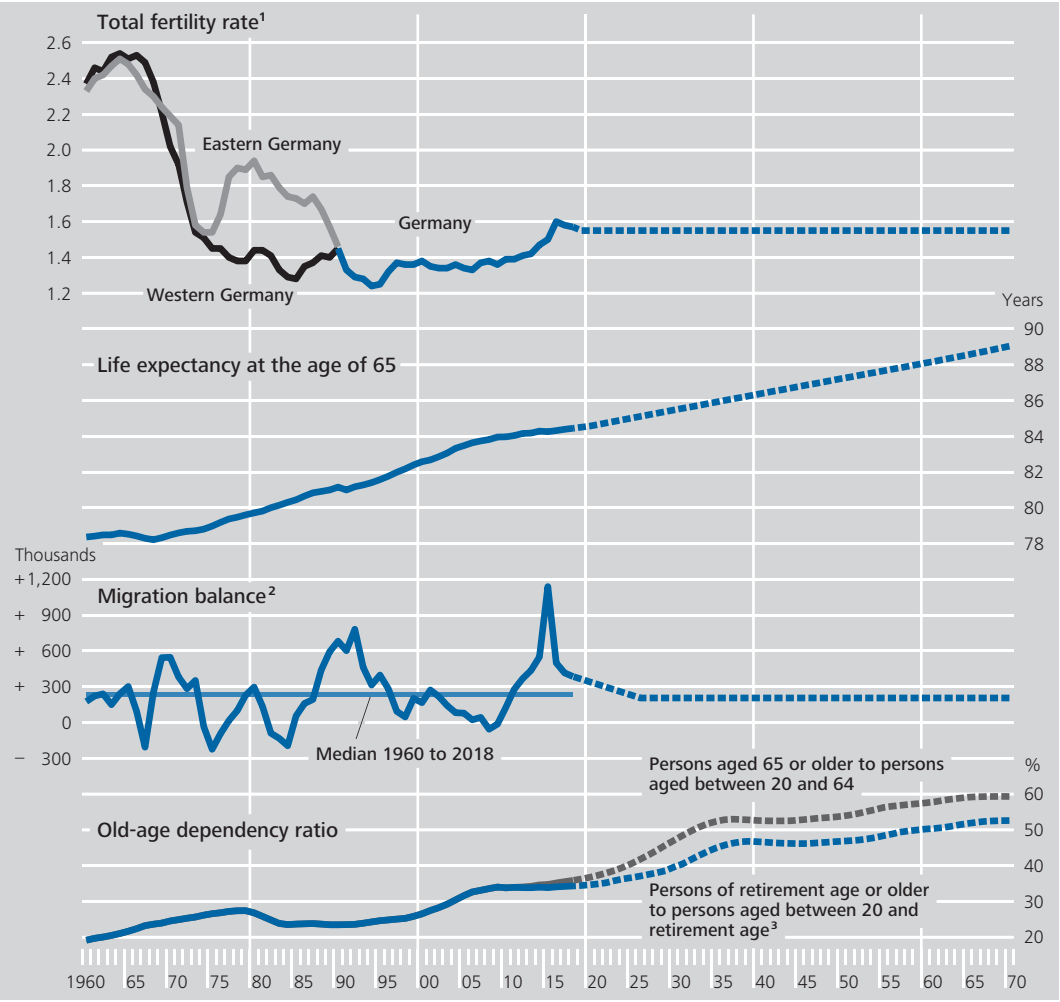
The cited population projection shows life expectancy continuing to rise steadily. In 1960, remaining life expectancy at the age of 65 was, on average, 13½ years (men and women). Since then, it has increased to 19½ years. It is to be expected that it will have gone up by a further 4½ years by 2070. With an unchanged statutory retirement age, there will be a steady increase in the pension-drawing period.

… migration is a positive factor

In recent years, there has been considerable net immigration. Over the past ten years, this has amounted to an annual average of around 400,000 persons. Labour-market-oriented immigration has played a key part in this. What is crucial for the statutory pension insurance scheme is the extent to which migration alters the number and structure of its contributor base and then, at a later date, the number and structure of pension recipients. Three things are of central importance: the age of those immi-

11 The statutory retirement age of 67 will apply for the first time for those born in 1964. This cohort will therefore enter regular retirement at the age of 67 in 2031, instead of at the age of 65 in 2029 as would be the case under the old legislation. There are various exceptions with regard to the retirement age, one particular example being retirement on a full pension at the age of 63 as cited above.
12 See Federal Ministry of Labour and Social Affairs (2007).
13 The birth rate for each year reflects the extrapolated number of live births per female in the age range of 15 to 49 years. This is the total fertility rate of a given calendar year; for more details, see Federal Statistical Office (2012, 2019a).
14 Taken in isolation, this would lead to a decline in the population. For more information, see Federal Statistical Office (2019b). The projections range up to 2060.

Key demographic variables



Sources: Federal Statistical Office data (2016; 2017a; 2017b; 2019b) to 2060 and Bundesbank calculations. **1** Live births per female in the age range of 15 to 49 years calculated for the reporting year. **2** Migration inflows less migration outflows. Before 1991, western Germany. **3** Retirement age in this context denotes the statutory retirement age, which, under the current legal situation, will have risen to 67 by 2031.

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grating and emigrating, integration into the labour market, and the impact on future demographic developments.[15] In the cited population projection, net migration falls to around 200,000 persons per year by 2026 (corresponds largely to the long-term median). After this, it remains constant. Migration is thus counteracting the effect of the low birth rate.

Demographic change increases old-age dependency ratio and puts pension funding under pressure

All three demographic factors affect the old-age dependency ratio. This is the ratio of older persons to people of working age. The working age is often defined as the age range from 20 to less than 65 years. As the retirement age is being raised progressively, however, it is defined in the following sections as the range between 20 and the statutory retirement age. In 1990, for example, the old-age dependency ratio defined in this way was 24%. In other words, for every person of retirement age and above, there were roughly four persons of working age. With the retirement of the baby boomer generation, the old-age dependency ratio could rise to 45% by 2035. This ratio

15 Pension entitlements might exist in the case of emigration. Future pressure on the statutory pension insurance scheme will then not be eased, even if there are fewer residents of retirement age. Conversely, this is the case, say, for older immigrants without pension entitlements. The sustainability factor covers all of the pensions paid (including to pension recipients who have emigrated).

would then initially remain largely stable. Although life expectancy will continue to rise, the baby boomer cohorts will gradually die out. If the statutory retirement age were to remain unchanged at 67 years, as under the current legal situation, the expected rise in life expectancy would then make itself felt again, however. The outcome would be a persistent increase in the old-age dependency ratio. In 2070, it would be around 53%. For every person of retirement age and above, there would then be fewer than two persons of working age (see chart on p. 61).

At times, rising labour force participation counteracts demographic pressure

In addition to these demographic factors, changes in labour force participation play an important role for pension funding. Rising labour force participation temporarily counteracts demographic pressure – until the corresponding pension entitlements filter through. In Germany, labour force participation is experiencing a stable upward trend. The ratio of paid employees to the population aged between 20 and the statutory retirement age has risen from 66% in 1995 to currently just over 80%. For the most part, the projections are based on the assumption that this ratio will increase somewhat more.[16]

Key variables within the pension insurance scheme need adjusting

All in all, these developments nonetheless exert considerable pressure on pension funding. As things currently stand, adjustments to the key pension insurance variables relative to the present values will be necessary: if not, expenditure will significantly outpace receipts in the long term. The key pension insurance scheme variables are the contribution rate, the replacement rate, the statutory retirement age (and thus the average standardised pension-drawing period) and the government funds provided.

Pension policy action plan to 2025

Reforms of the 2000s involved broad-based burden sharing

In important ways, the reforms of the 2000s set the course for managing demographic change in the statutory pension insurance scheme. The reforms were designed to spread the burden across all variables. First, pension adjustments and consequently the replacement rate are to be curtailed (as an accompanying measure, voluntary private pension provision is being promoted). Second, the reforms include higher contribution rates going forward. Third, government funds are to rise significantly (outpacing the tax base). Fourth, by the beginning of the 2030s, the statutory retirement age will have been raised to 67 years.

Double thresholds until 2025 and a buffer function for the federal budget

Since the pension package of 2014, benefits have been selectively expanded again. In order to finance these benefits, a higher contribution rate and additional government funds will be needed, all other things being equal; at the same time, the replacement rate will be lower overall. The most recent pension package of 2019 altered the underlying mechanisms for adjusting the contribution rate and the replacement rate until the end of 2025: the contribution rate will be subject to a maximum threshold of 20% and the replacement rate will have a minimum threshold of 48% (double thresholds). Funding gaps are, therefore, inevitable from today's perspective. These will have to be closed through higher government funds. A fundamental reform has been announced for the subsequent period. Without further adjustments, the previously applicable legislation would apply again from 2026 onwards, with the burdens shared as described above.

Longer-term outlook – current legal situation

Longer-term view important for projections

Projections can help to assess the impact of demographic change on the pension insurance scheme. The German government's annual pension insurance report looks at the next 14 years, with its most recent report of November 2018 including projections up to 2032.[17] How-

16 For more details, see the explanations on pp. 63 f. and the Federal Statistical Office (2019c).
17 For more information, see Federal Ministry of Labour and Social Affairs (2018).

The OLG model and key assumptions of the simulations

Essential features of the OLG model

The simulation results are based on a general equilibrium model with overlapping generations (OLG) developed by the Bundesbank.[1] It contains profit-maximising firms, rational utility-maximising households and the government. A model framework of this nature captures both micro and macroeconomic correlations, meaning that households, for example, react to changes in the statutory pension insurance scheme, such as the retirement age or the replacement rate. Changes in households' behaviour, in turn, impact on macroeconomic developments and public finances. The statutory pension insurance scheme is thus integrated into a macroeconomic model. This is where the present analysis differs from previous analyses conducted by the Bundesbank.[2] However, the simulations still focus on the pension insurance scheme's budgetary relationships against the backdrop of demographic change, and this explains why certain aspects of the macroeconomic modelling have been simplified.

As the model focuses on Germany, the respective parameters are tailored to the situation there. The development of the return on capital in Germany is likely to hinge primarily on developments in the international capital market. However, this market has not been modelled in the present single country model. In the baseline simulation, it is thus domestic households' propensity to save, which increases as the population ages, that drives the return on capital. This appears to be justified as international demographic developments are comparable. Thus, if the model were to include an international capital market, developments would likely be similar. In this case, demographic change in itself would also lead to a lower return on capital. However, it seems plausible that German pension reforms have only a limited impact on the international return on capital. In this respect, the yield curve in those simulations that deviate from the baseline simulation has been left unchanged.

The generations in the model

Several generations live in parallel in the model economy. Each year sees the entry of a new generation (more specifically: a cohort of 20 year olds). The generations can be of varying size. A single generation per se is homogeneous and consists of identical households. This is a major simplification and means that it is not possible to analyse questions regarding income distribution within the generations (e.g. the risk of poverty in old age), in particular. At any one time, the various generations are at different stages of life: households go through a life cycle in which they first work and then retire. At the end of each period, there is a given probability that the individual households will die. The older a household, the greater this probability. Cohorts born later have a higher life expectancy.

Demographics and labour force participation

The focus of this OLG model designed by the Bundesbank lies on the demographic challenges for Germany from today's per-

1 The model is based on the methodological approach of Auerbach and Kotlikoff (1987). Essentially it is the same model as used in Börsch-Supan and Ludwig (2009) and Vogel et al. (2017). It will be outlined in depth in an upcoming Bundesbank discussion paper.
2 See, in particular, Deutsche Bundesbank (2016).

Key demographic variables

Variable	Assumption
Birth rate	Constant at 1.55 children per female
Life expectancy at the age of 65	Rises from 84.4 (2018) to 89.0 (2070)
Net migration (balance of inflows and outflows)	Falls to 206,000 persons per year by 2026, then remains constant (2018: 400,000)

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spective. To do this, it models the population growth projected for Germany in detail.

The key demographic variables are birth rate, life expectancy and migration. Up to 2060, the population growth modelled is based on the medium variant from the most recent projections by the Federal Statistical Office.[3] After 2060, birth rate and migration are assumed to be constant. Life expectancy initially grows until 2100 in line with the average for the previous years and then remains stable.[4]

In addition to the number of people of working age, a further factor is important here, namely labour force participation. In the model, labour force participation is defined as the ratio of the number of dependent employees to the number of persons aged between 20 years and the statutory retirement age.[5] The labour force participation of the individual cohorts follows a hump-shaped curve over the life cycle. Over recent years, labour force participation has been increasing, especially for women and older people. For modelling purposes, it is assumed that this trend will continue. A rising statutory retirement age thus means longer working lives. In the model, labour force participation in the baseline simulation under the assumptions made increases from 80¼% in 2018 to 81½% in 2035. It reaches 82¼% by 2050 and then remains constant. Overall, the assumptions regarding labour force participation are particularly uncertain.

The government in the model

The government imposes proportional taxes on labour income, pensions, capital income and private consumption. The government's budget is assumed to be balanced each year. This is achieved by endogenously adjusting the tax rate on consumption. By modelling the government – albeit in a simplistic form – the picture is more comprehensive than in models which focus solely on the statutory pension insurance scheme.

The model covers the statutory pension insurance scheme in relative detail. The scheme's receipts comprise social security contributions and government funds. These receipts finance the scheme's annual expenditure. In the baseline simulation, the contribution rate is set in such a way that the scheme's annual budget is balanced. For the most part, government funds are determined based on the contribution rate and per capita earnings. The government is thus treated as a contribution payer. A smaller part is determined based on the development of social security contributions.[6]

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3 See Federal Statistical Office (2019b). In each case, the assumptions from the second variant (G2-L2-W2) were chosen. In this variant, birth rate, life expectancy and migration balance were in the middle of the range for the other variants.
4 The projections also contain information on the age profile of the immigrants and emigrants. However, the model does not distinguish between new immigrants and persons already living in Germany.
5 It is assumed that the share of self-employed persons in the labour force (9½%) and the share of employees subject to social security contributions as paid employees (81%) remain constant.
6 As a result, if contribution rates rise, the volume of government funds is somewhat overestimated as a portion of federal government grants is not tied to the contribution rate. In the model, government funds have a somewhat broader definition and also contain contribution payments from other social security schemes that have not been explicitly modelled here.

The individual pension amount is derived from the earnings points acquired during employment and the pension value. This is based largely on the pension adjustment formula according to the current legal situation or the respective form that it takes in the divergent simulations.

Besides government funds for the statutory pension insurance scheme, modelling for the government also includes spending on government consumption. The latter is kept stable over time in relation to total value added. By contrast, in all simulations, government funds rise at a faster pace than value added and, therefore, the modelled tax base. This ultimately pushes up the consumption tax rate.

The statutory pension insurance scheme's expenditure

The statutory pension insurance scheme's expenditure included in the model comprises spending on old-age pensions as well as additional expenditure by the scheme: pensions for persons with reduced earnings capacity and for surviving dependents, contributions to the statutory health insurance scheme and expenditure for rehabilitation and administration. With the exception of surviving dependents' pensions, it is assumed that expenditure develops in line with spending on ordinary old-age pensions. In the past, surviving dependents' pensions have shown a clear downward trend. This is most likely due, not least, to the increase in labour force participation of women in particular (at the same time as tighter provisions for deductions). This trend is extrapolated up to 2070. On balance, the share of surviving dependents' pensions falls by roughly half (from the current level) by then.

Quantitative results are clear but definite figures should be interpreted with caution

The article shows quantitative results for the respective simulations. While it is possible to model trends and demonstrate key correlations, these projections do not claim to give an accurate prediction of the future. Given the high level of uncertainty, this is not realistic – neither here, nor in any other type of model. A number of aspects can only be stylised and economic relationships are shown in a simplified form. This is necessary in order for the model to be manageable. In addition, numerous assumptions have to be made for very long periods of time. As a result, caution should be exercised when interpreting the definite figures reported.

ever, this is not long enough to model the already foreseeable consequences of demographic change. Significant changes – for instance in connection with the baby boomers – will not be felt until later. The European Commission, in its most recent Ageing Report, makes projections up until 2070, for example.[18] Although uncertainty rises considerably for longer time horizons, the underlying correlations and challenges for the statutory pension insurance scheme can nonetheless be captured. For instance, the expected developments and effects of possible reforms can be projected from the current standpoint. Longer-term projections therefore provide important information for reform decisions. Overall, they illustrate the outlook for and the risks involved with public old-age provision for both policy makers and pension insurance scheme members.

Long-term forecast using OLG model

The following section will present the long-term outlook until 2070 on the basis of an overlapping generations (OLG) model developed by the Bundesbank. This model uses the Federal Statistical Office's population projection in its medium scenario (for more on the assumptions and the OLG model, see the box on pp. 63 ff.). The following section will start by presenting a simulation based on the current legal situation. After that, further simulations will be used to illustrate the importance of key pension variables. The results of such long-term calculations using a stylised model should be interpreted with caution and should not be seen as precise point forecasts. Rather, they illustrate key correlations and the relative magnitude of the effects of individual measures.

Results of the baseline simulation within the spectrum of other publications

The results of the baseline simulation, which is based on the current legal situation, are within the spectrum of findings for other simulations.[19] Deviations result, inter alia, from differences in the model class, the assumptions made, the starting year (and thus the data used for comparisons) as well as the underlying legal provisions.

Contribution rate

Demographic pressure increases contribution rate and …

The contribution rate must be raised if the sustainability reserve would otherwise fall below its minimum permissible size. Up until 2025, however, the contribution rate is capped at 20%. In the light of the demographic situation, the reserves are likely to dwindle from their currently high level to their minimum over the next few years, and the contribution rate will probably have to be raised from its present level of 18.6%. As things currently stand, the contribution rate looks set to reach the maximum threshold in 2025. Based on the simulation using the current legal situation, the contribution rate will subsequently rise particularly sharply (to a magnitude of 24%) up until the end of the 2030s as the baby boomers enter retirement. Up until 2070, growth will remain substantial, albeit slower (to 26%).

Replacement rate after 45 years of contributions

… lowers replacement rate

For the replacement rate (see the explanations on pp. 55 f.), the minimum threshold of 48% will apply until 2025. After that, the sustainability factor will apply again under applicable law. This is the main reason why the replacement rate will fall continuously after that.[20] At the end of the 2030s, the simulations suggest that the replacement rate will be just under 43%, while the figure for 2070 is 40%. The decline will potentially be compensated by voluntary private pension schemes, which is the aim of

18 For more information, see European Commission (2018).
19 See Federal Ministry of Labour and Social Affairs (2018a), Börsch-Supan and Rausch (2018), Burret and Ehrentraut (2019), Geyer et al. (2019a) and Werding (2018).
20 All other things being equal, an increasing contribution rate for the public long-term care insurance scheme and/or a declining contribution rate for the unemployment insurance scheme reinforce the drop in the replacement rate. Changes to these rates are disregarded in the following as their size is difficult to assess. If, say, the contribution rate for the public long-term care insurance scheme rises by 1 percentage point, the replacement rate will be roughly ¼ point lower than calculated here.

measures to promote such private old-age provision.[21]

More widespread and longer labour force participation disregarded

In general, it should be noted that although the recognised replacement rate will drop for a constant 45 years of contributions, the number of years that contributions are paid will increase as the statutory retirement age rises to 67. We will return to this aspect later in this article. In addition, when looking at pension insurance scheme coverage it must be taken into consideration that the percentage of pension recipients within a given cohort will rise noticeably over time. This is because labour force participation in employment subject to social security contributions has grown significantly over time.

Retirement age

Higher statutory retirement age likely to more or less stabilise relative pension-drawing period

The rise in the statutory retirement age to 67 will prevent increasing life expectancy from raising the relative pension-drawing period up until 2031. The relative pension-drawing period is defined as the ratio of years drawing a pension to years making pension contributions, assuming retirement at the standard age.[22] Going forward (from the 2030s onwards), a constant number of years of contributions will have to finance an increasing number of years in retirement again if the statutory retirement age remains unchanged from then on. This will increasingly weigh on the pension insurance scheme. In the past, the relative pension-drawing period has risen sharply as a result of increasing remaining life expectancy among the post-retirement generation: it went up from 30% in 1960 to 42% in 2011. Without a further increase in the statutory retirement age, it would be 47% in 2070 (see the chart on p. 70).

Government funds

The funds that the German government provides for the pension insurance scheme will rise sharply in the longer term. In large part, they will go up in line with per capita wages and the contribution rate. As a consequence, govern-

Simulation: current legal situation

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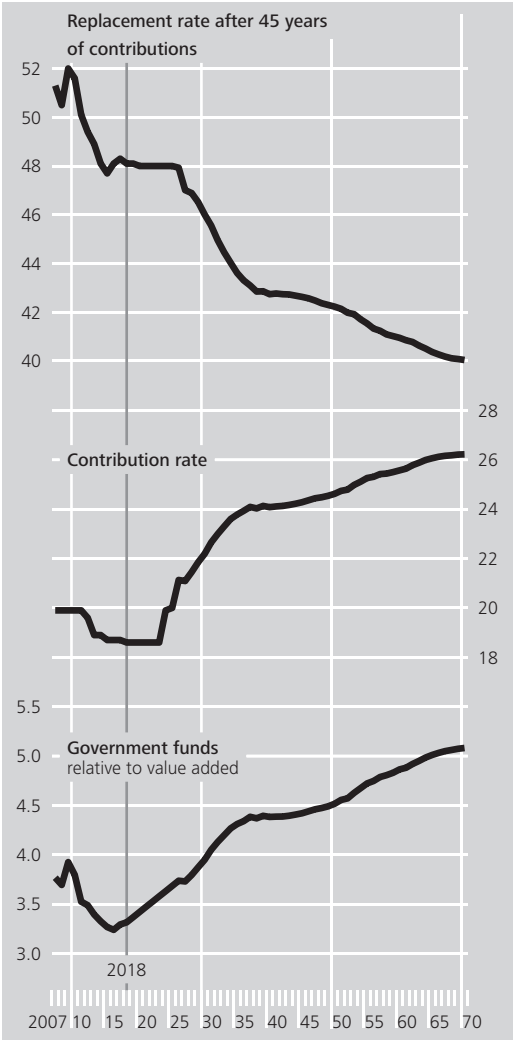
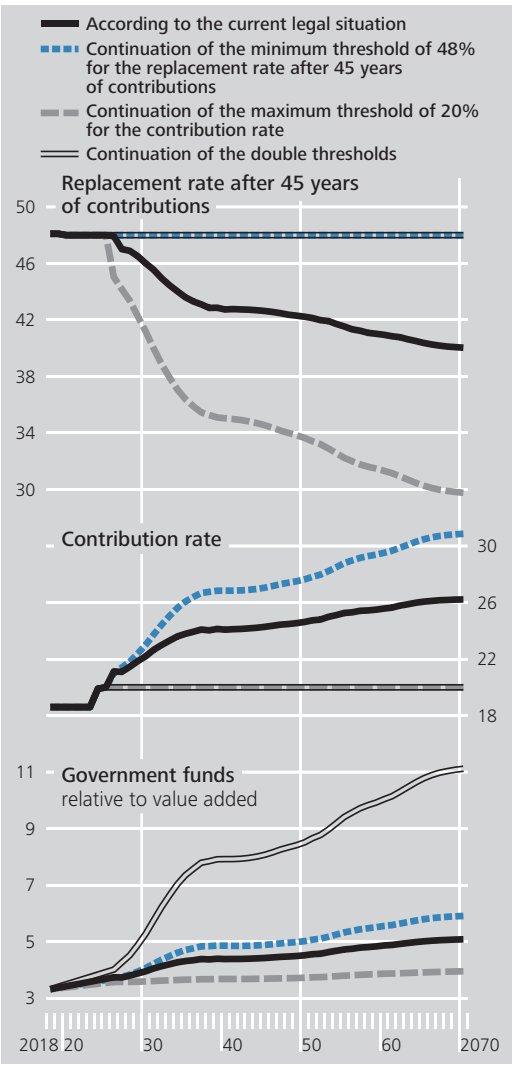


Sources: Federal Ministry of Labour and Social Affairs (2018) and Bundesbank calculations.
Deutsche Bundesbank

21 When looking at old-age provision as a whole, funded individual and occupational pension schemes may also need to be taken into account. Given the persistent low interest rate environment, their potential returns are the subject of much critical debate. However, this is not the main focus of this article. For information on the overall replacement rate with different rates of return based on the "Riester" pension plan, see, for example, Deutsche Bundesbank (2016).

22 For the purposes of this article, employment is defined as starting at 20 years of age and ending with retirement at the statutory retirement age. The assumption made in the OLG model is that, as the statutory retirement age increases, so too will the actual retirement age – as has been the case so far (see also the box on pp. 63 ff.).

Simulations: one-sided burden sharing*



* Current legal situation up until 2025.
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Government funds rise mainly in step with per capita wages and the contribution rate

ment funds overall are likely to significantly outpace the overall assessment basis for receipts from contributions and taxes. In the following, gross value added (or value added for short) will be used as an aggregate indicator for the tax base. In the model, it captures macroeconomic developments.[23] The increase in government funds relative to value added is the result, first, of the sharply higher contribution rate and, second, of the decreasing employment headcount. As a result, the total wage bill and value added are growing more slowly than per capita wages, to which the majority of government funds are linked.

Funding pressure on the federal budget

The fact that government funding is rising much faster than the tax base will put the federal budget under considerable and permanent pressure.[24] This can generally be offset by lower expenditure or higher receipts. In addition, the overall burden may be increased or reduced in other areas without any further action being taken. The interest burden depends on developments in the debt ratio and interest rates.[25] All of these aspects are disregarded in the following, with the analysis focusing solely on the changes in the burden as a result of the funds that the government has to provide for the statutory pension insurance scheme. This is captured by the rise in government funds relative to value added. In order to further illustrate its magnitude, we also state how many points of the standard rate of turnover tax this would equate to in today's terms.

High additional burden even under current legal situation

The model simulations show that, under the current legal situation, the need for government funds would expand substantially compared with 2018, with requirements rising to around 1¾% of value added a year by 2070. This equates to 4½ percentage points of the standard rate of turnover tax.

Longer-term outlook: further simulations

The German government has announced a reform of the pension insurance scheme for the period after 2025 – after the minimum and

23 Gross domestic product (GDP), which is often used as the macroeconomic reference variable, is not modelled. Gross value added currently accounts for about 90% of GDP. It is closer to the national income and consequently probably reflects the assessment basis for taxes relatively well.
24 The specific modelling of the government funds means that the burden for the government is slightly overestimated while the burden for contribution payers and pension recipients is somewhat underestimated in the simulations.
25 For instance, expenditure on pensions for retired post office and railway civil servants as well as on miners' pensions will come down over time. However, many additional demands are also currently being made on the federal budget, for example in connection with defence and the energy U-turn.

Simulations illustrate burden sharing resulting from reform decisions

maximum thresholds expire. The legal situation on which the baseline simulation outlined above is based is therefore likely to change. A key issue in all of this is the future distribution of the adjustment burdens. In order to cover a broad spectrum, various further simulations are shown below. As compared with the baseline simulation, the first simulations distribute the adjustment burdens relatively one-sidedly, with either the replacement rate or contributions bearing the brunt. After that, examples of broader-based burden sharing are presented.

Relatively one-sided burden sharing

Minimum threshold for replacement rate leads to sharp rise in contributions burden

The first simulation freezes the replacement rate (in the current definition) after 45 years of contributions at 48%: in other words, the current minimum threshold is extended beyond 2025. The statutory retirement age remains unchanged at 67 years from the 2030s onwards, as in the baseline simulation. As a result, the contribution rate rises very sharply, as pension expenditure now increases much more strongly than under the current legal situation. The contribution rate is significantly higher in 2070 (in the region of 31%) than in the baseline simulation. In addition, government funds also grow more sharply as they are linked to the contribution rate. By 2070, the ratio of government funds relative to value added would expand by 2½ percentage points. From today's perspective, this would correspond to the revenue from around 7 percentage points of the standard rate of turnover tax. The federal budget would therefore come under significant pressure.

Maximum threshold for contribution rate radically curtails replacement rate

In a second simulation, the contribution rate rather than the replacement rate is fixed at the level it reaches in 2025, namely 20%. This also considerably dampens the increase in most of the associated government funds. The replacement rate now bears the brunt of demographic change. Up until the end of the 2030s, it drops into the region of 35% and by 2070 to around 30%. The coverage provided by the statutory pension insurance scheme thus shrinks considerably.

With double thresholds, government funds soar

In a third simulation, the thresholds for both the replacement rate and the contribution rate remain in place after 2025. The full adjustment burden therefore lies on the federal budget, and the government funds employed shoot upward. In 2070, they are, relative to value added, almost 7¾ percentage points higher than in 2018 (in the region of 20 percentage points of the standard rate of turnover tax). The percentage of the statutory pension insurance scheme's receipts funded by the Federal Government rises to well over 50% (currently: 29%).

Broader-based burden sharing

Extreme options not obvious solution, burden sharing remains sensible

The simulations described above concentrate the burden of demographic adjustment on individual variables in a rather one-sided fashion. They thereby illustrate key correlations, and the strongly conclusive results ultimately show why broader-based burden sharing is the obvious choice. We will present further relevant example simulations below.

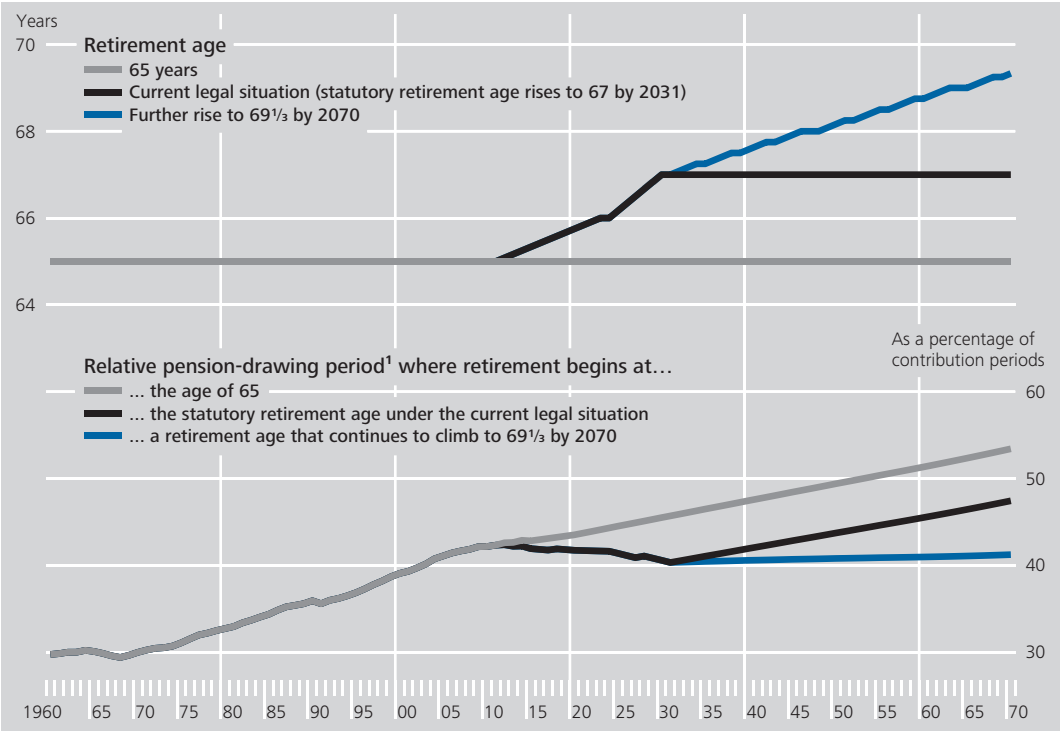
Indexation of statutory retirement age to life expectancy to stabilise the ratio of the period of pension payment to the period of employment

Further increase in statutory retirement age

One starting point is the statutory retirement age. Under the current legal situation, it will increase until the early 2030s, before remaining unchanged at 67 years thereafter. However, life expectancy is likely to continue to rise even after that. To take this into account, several countries index the statutory retirement age to life expectancy.[26] The OECD, the IMF and the European Commission recommend this proced-

26 This includes, amongst others, Finland, Portugal, Denmark, the Netherlands and Italy, see European Commission (2018).

Retirement age and relative pension-drawing period



Sources: Federal Statistical Office (2019b) and Bundesbank calculations. **1** Ratio of pension-drawing periods (defined as remaining life expectancy as of retirement age) to preceding contribution periods (defined as retirement age minus 20 years).
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ure for Germany, too.[27] As the statutory retirement age rises, the actual age at which people enter retirement is also likely to increase – as has been the case to date.[28] This expands the workforce and is therefore also beneficial for overall economic growth and incomes. Receipts from pension contributions as well as from the other social security contributions and taxes would then likewise develop more favourably.

Rising entitlements taken into account in dynamically adjusted replacement rate

The number of pensions in payment grows more slowly if the statutory retirement age is raised, which, in turn, supports the replacement rate via the sustainability factor (see the explanations on p. 56). In addition, members of the statutory pension insurance scheme gain more pension entitlements as they pay contributions for longer. The individual replacement rate consequently rises. As the statutory retirement age goes up, it would therefore make sense to stipulate a higher number of years of contributions in the definition of the standard pension and thus in the replacement rate. If, say, the retirement age is set at 67, the standard pension and, consequently, the replacement rate, would have to be calculated for 47 instead of 45 years of contributions (dynamically adjusted replacement rate; see the box on p. 71).

In what follows, retirement age is tied to life expectancy and longer contribution periods are factored into the replacement rate

In principle, there are various conceivable approaches to increasing the statutory retirement age. A very sweeping approach would be for all demographic burdens, i.e. both rising life expectancy and lower birth rates (fluctuating cohort sizes), to be absorbed through increases in the retirement age. However, the retirement age would have to rise very sharply in this case. It would also have to be raised significantly faster than currently envisaged, particularly

27 European Commission (2019); International Monetary Fund (2019); and OECD (2018).
28 Ever since the first increase in the statutory retirement age, this effect has been evident in the data provided by the German statutory pension insurance scheme, see FDZ-RV (2018). When the separate retirement age for women was abolished at the end of 2011, there was a similar effect, see Geyer et al. (2019b).

Dynamic definition of the replacement rate for a rising retirement age with longer contribution periods

The replacement rate plays a key role in the pension debate and in pension policy. It is intended to capture the extent to which a pension determined in the standardised manner is in proportion to an employment income determined in the standardised manner, i.e. in principle, the relative level of a pension as a replacement for earnings. Fundamentally, different definitions are possible and make sense depending on the objective.

The replacement rate offered by a standard pension is at the centre of the current pension debate (for instance, in the Federal Government's pension insurance report). It is also the basis for the statutory threshold of 48%, which will apply to the end of 2025. However, the rising statutory retirement age is not taken into account. Instead, a constant figure of 45 years of pension contributions is assumed. When it comes to illustrating the development of potential pension entitlements over time, however, it would make sense to have a new definition that includes the higher statutory retirement age.

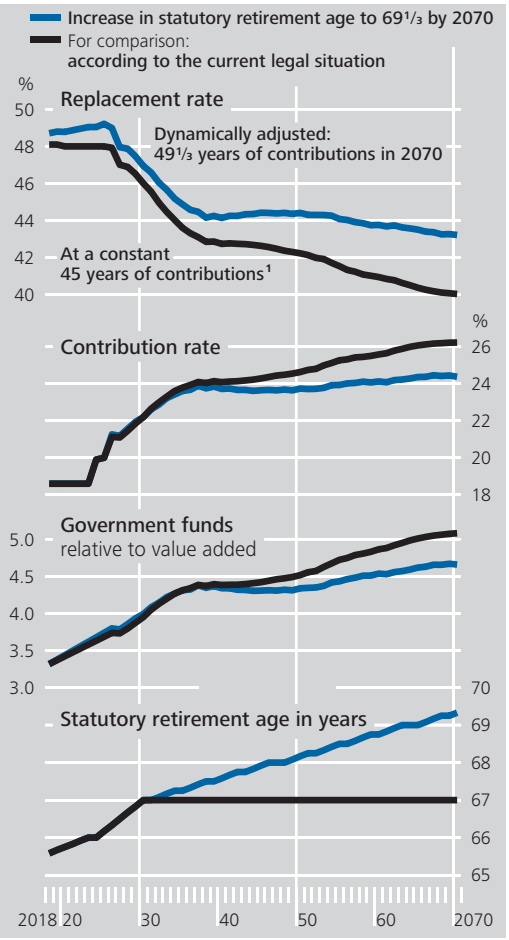
Currently, the replacement rate is still measured at 45 earnings points for a standard pension. This standard pension is intended to reflect a stylised history of employment for persons covered by the statutory pension insurance scheme who have worked for average earnings between the ages of 20 and 65 (in a nutshell: the replacement rate after 45 years of contributions). However, the statutory retirement age is being raised incrementally to 67. The intended longer period of employment is hence not taken into account.

In the past, the individual retirement age was based largely on the statutory retirement age. If this increases, the average employment periods of all persons covered by the statutory pension insurance scheme would most likely be extended. It therefore seems obvious to extend the periods of employment included in the standard pension in parallel with the rise in the statutory retirement age. Moreover, an adjustment in the contribution periods on which the standard pension is based is not a new concept. Until the end of the 1980s, the standard pension was calculated at 40 years of contributions. During a transitional period from 1988 to 1990, the Federal Government provided two standard pensions in parallel. Following this, the standard pension reflected only the new level.

Against this backdrop, a dynamically adjusted replacement rate is provided in the simulations in this section. The underlying standard pension takes into account the additional earnings points acquired by later cohorts in a longer working period (see footnote 33 on p. 73 regarding the adjustment of pensions in payment).

For instance, the following picture thus emerges for the baseline simulation according to the current legal situation presented above: people will reach the statutory retirement age of 67 for the first time in 2031. At this point in time, the dynamically adjusted replacement rate with 47 years of contributions would be about 1 percentage point higher than the traditionally calculated replacement rate after 45 years of contributions.

Simulation: indexed statutory retirement age and dynamically adjusted replacement rate



1 If the replacement rate were dynamically adjusted, i.e. if the years of contributions were increased to 47 parallel to the rise in the statutory retirement age, it would be around 42% in 2070.

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when the baby boomer cohorts enter retirement between the mid-2020s and the mid-2030s. In the following example simulations, by contrast, the adjustment burdens are spread more broadly. The statutory retirement age rises as planned until the beginning of the 2030s, followed by additional rule-based increases. In addition, the replacement rate is dynamically adjusted, with the contribution period for the standard pension increasing in parallel with the statutory retirement age. Compared to the replacement rate based on a static contribution period of just 45 years, the dynamically adjusted replacement rate is higher.

Ratio of pension-drawing period to contribution period stable even post-2030

In concrete terms, the statutory retirement age is adjusted so that the ratio of years in retirement to years of contributions – i.e. the relative pension-drawing period – remains broadly stable as of the 2030s. Essentially, therefore, the current approach continues until the beginning of the 2030s, and even within this timeframe the increasing statutory retirement age largely stabilises the relative pension-drawing period (see the chart on p. 70). The relative pension-drawing period therefore stands at around 40% on a lasting basis. In other words, given the life expectancy projections used here, the statutory retirement age would have to rise, on average, by three quarters of a month per year.[29] For example, a person entering retirement at the age of 67 in 2031 has a life expectancy of 86 years. In 2070, the statutory retirement age would be 69⅓ and life expectancy 89½ years. The period of pension payment would then be just over 20 years and thus more than one year longer than in 2031 (on the topic of health in old age, see also the box on p. 74). In practice, an indexation would take into account the uncertainty connected with future life expectancy. If life expectancy projections were to change, there would be corresponding rule-based adjustments to the statutory retirement age as well. For example, the statutory retirement age would remain constant if life expectancy no longer increased.[30]

29 In principle, if life expectancy increases, 70% of the additional years flow into a longer employment period and 30% extend the pension-drawing period. For the purpose of the calculations, however, the retirement age is adjusted in full-month increments. It therefore increases by one month per year for three years and then remains unchanged in the fourth year. The ratio of 70 to 30 thus holds more or less for the entire period of life from the age of 20 onwards.

30 Retiring earlier or later could remain possible, but the statutory retirement age would serve as the reference point for deductions or add-ons. These would have to be largely fair from an actuarial perspective. Currently, deductions are made for early retirement (3.6% per year) and add-ons are made for postponed retirement (6.0% per year). If the current derogations allowing early retirement on a full pension should continue, these rules would also need to be adjusted to take a rising statutory retirement age into account. An obvious solution would be to increase the required contribution periods in line with any rise in the statutory retirement age.

Simulation with an indexed statutory retirement age and a dynamically adjusted replacement rate

Simulation with further rises in statutory retirement age

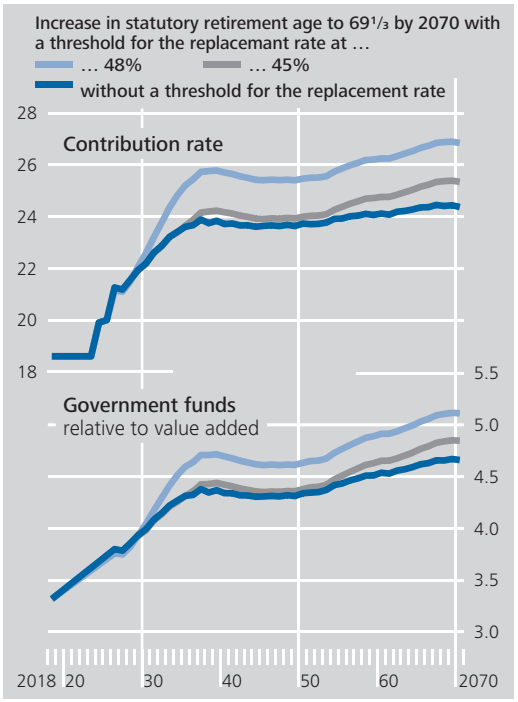
The indexation of the statutory retirement age described is illustrated in a further simulation. The ratio of years in retirement to years of contributions is held largely stable from the 2030s onwards. Apart from this, the current legal situation continues to apply, i.e. the burden is distributed relatively broadly across the other variables. They thus absorb the burden arising from the decline in the birth rate. As of 2026, pensions therefore again need to be adjusted in accordance with the pension adjustment formula.[31] The dynamically adjusted replacement rate falls chiefly due to the strain of baby boomers entering retirement (to around 44% by the end of the 2030s). It then stabilises. Although baby boomers pass away, cohorts with higher labour force participation rates retire. The cohort sizes then change only moderately and, due to the rising statutory retirement age, rising life expectancy no longer exerts any pressure.[32] At the same time, the increasing number of contribution years supports the dynamically calculated replacement rate (see the chart on p. 72).[33]

Subdued rise in the contribution rate and government funds

In this simulation, the contribution rate still increases significantly to around 24% in 2070. However, the increase is much smaller than would be the case without a further rise in the statutory retirement age. Contribution payers and the federal budget come under less strain. First, the pressure is eased by the smaller number of people drawing a pension and, second, the higher degree of employment leads to a marked increase in the tax base. As a percentage of value added, government funds rise by 1¼ percentage points on their 2018 level (3½ percentage points of the standard rate of turnover tax). Ultimately, the additional burdens from the lower birth rates are thus distributed, on the one hand, among pension recipients (via the replacement rate), and, on the other hand, among contribution payers and taxpayers.

Simulations: indexed statutory retirement age and thresholds for a dynamically adjusted replacement rate

%



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Simulation with an indexed statutory retirement age and an additional threshold

Replacement rate at centre of the debate

The replacement rate is a key topic in the pension debate. The preceding simulation shows that it falls even when the statutory retirement age is indexed as described above. However, in

31 The additional years of contributions are taken into account via the sustainability factor.
32 The cohort sizes fluctuate even after the 2030s, as the demographic "hump" of the baby boomers has an impact via their children. However, it is assumed that these effects increasingly taper off. At the end of the simulations presented here, in 2070, the dynamically adjusted replacement rate bottoms out at around 43%. As the descendants of the baby boomer cohorts die in the 2080s, the replacement rate increases again to 44% and then remains at this level in the long term.
33 The pension adjustment formula was expanded for the simulation. The expansion ensures that the replacement rate over the course of the pension-drawing period corresponds to the replacement rate for new retirees – despite new retirees having longer contribution periods (on account of the rising statutory retirement age). Accordingly, pensions in payment are adjusted to a greater extent. The principle is similar to the current higher valuation of pensions in eastern Germany. Their alignment with the level in western Germany will be completed in 2024.

Health aspects of rising life expectancy

The aim of raising the statutory retirement age is for individuals to have a longer working life and retire later. This is under the assumption that there are no health impediments. Research indicates that gains in life expectancy, on the whole, go hand in hand with better health at a given age.[1] Ongoing technological innovation, such as the recent advances in digitalisation, could lead to a decline in hard manual labour or a progressive reduction in the physical demands of such work.[2] In the more detailed simulations outlined in this article, longer life expectancy does not translate 1:1 into a higher retirement age. Instead, part of the increase in life expectancy lengthens the period of pension payment over time.

Nonetheless, some individuals are unable to continue in employment, or in full employment, because of ill health. This can be addressed, first, through professional training measures, which might enable those affected to take on less demanding work, for example. Second, it is both important and necessary to ensure adequate protection for cases of disability. Alongside any private cover, this is provided primarily by the reduced earnings capacity pension, which has recently undergone a major benefit expansion.[3]

1 See, in particular, Federal Ministry of Labour and Social Affairs (2018b) and Robert Koch Institute (2015).
2 Wolter et al. (2016) and Federal Ministry of Labour and Social Affairs (2016b).
3 There are calls for the mismatch in the life expectancy of different groups to be taken into account, say, through varying levels of replacement rates or different retirement ages. The number of years an individual spends in good health, for example, is said to be correlated with socio-demographic status (see Haan et al. (2019) and Unger and Schulze (2013)). However, as the statutory pension insurance scheme does not currently distinguish by socio-demographic factors or levy risk-based contributions, this would entail a fundamental change of system, which will not be discussed any further here.

the long term, it stabilises at 43% to 44%. In this context, supplementary private pension provision can compensate for the fall in the replacement rate. Nonetheless, calls are frequently made for the replacement rate to be prevented from falling any further or for at least thresholds to be put in place.

Burdens increasingly shifted to contribution payers and taxpayers

For that reason, the following simulations are shown with thresholds for the dynamically adjusted replacement rate described above. The adjustment burden thereby shifts further to the receipts side, i.e. to contribution rates and government funds. Risks of more unfavourable developments would therefore be borne by contribution payers and taxpayers.

Costs of a higher replacement rate

The costs of thresholds increase significantly after 2025. Once the baby boomers reach retirement age, the trajectory of rising costs flattens. The simulations show, as a rule of thumb, that a 1 percentage point higher threshold for the dynamically adjusted replacement rate requires the contribution rate in 2070 to be around ½ percentage point higher. At the same time, government funds as a percentage of value added are 0.1 percentage point higher (equivalent to ¼ percentage point of the standard rate of turnover tax).

Dynamically adjusted replacement rate of 48% associated with distinctly higher contributions and taxes

For example, a contribution rate of 27% is necessary in 2070 if the dynamically adjusted replacement rate is to remain at 48% after 2025. The government funds required then also rise more sharply by a total of 1¾% of value added (4½ percentage points of the standard rate of turnover tax). However, the burden on contribution payers and taxpayers is significantly lower than if the statutory retirement age remains unchanged and a threshold is applied for the non-dynamically adjusted replacement rate based on a constant 45-year contribution period. If the threshold for the replacement rate is set lower at 45%, the contribution rate required is correspondingly lower at around 25%. The increase in government funds needed is also then lower, at 1½% of value added

(4 percentage points of the standard rate of turnover tax).

Conclusions

Reform will decide scope of the statutory pension insurance scheme and distribution of demographic adjustment burdens

As a result of demographic trends, the pay-as-you-go statutory pension insurance scheme will come under considerable pressure in future, especially from the mid-2020s onwards. The German government has announced a pension reform which is intended to come into effect as of 2026 and put the pension system on a long-term stable footing. The key variables are the statutory retirement age, the replacement rate and the contribution rate. They affect the future scope of the statutory pension insurance scheme and the distribution of demographic burdens across cohorts. A role is also played by government funds, which are provided by all taxpayers.

Projections show long-term developments and reform impacts

The reform debate should take account of the effects of policy changes, including over the long term. For this purpose, long-term projections are used, which, despite all of the uncertainty involved, provide an idea of future developments. This is also the aim of the simulations in this article. They cannot predict the future precisely, but are intended to illustrate important trends and correlations.

Broader distribution of adjustment burdens seems appropriate

The simulations show that individual variables would have to be adjusted very sharply if they alone had to absorb demographic pressure (see the chart on p. 68). This was a major reason why previous reforms distributed the burdens more broadly. After 2025, when the thresholds for the contribution rate and the replacement rate expire under current legislation, burdens would once again be distributed more broadly.

Statutory retirement age as a starting point

The statutory retirement age is an important factor in further reforms. It will increase to 67 years by 2031. As a result, the ratio of the pension-drawing period to the contribution period will not increase, despite the fact that life expectancy is rising. If the statutory retirement age subsequently remained constant, a static number of contribution years would once again be set against a continually growing period of pension payment (see the chart on p. 70), which would put pension funding under pressure. To address this, the European Commission, the IMF, and the OECD, among others, have suggested further increases in the statutory retirement age in line with rising life expectancy. Other countries have already put such a link in place. Health impediments are sometimes pointed out in this context. However, research indicates that gains in life expectancy are generally accompanied by better health. Nevertheless, it should be noted that – as per the current situation – it will not be possible for everyone to remain in employment until reaching the statutory retirement age. Adequate protection in the form of a reduced earnings capacity pension is therefore important and necessary. This coverage has recently been expanded markedly.

Rising statutory retirement age could stabilise the relative pension-drawing period

With an indexed statutory retirement age, further targeted stabilisation of the relative pension-drawing period from the beginning of the 2030s onwards would be possible, for example. Persons covered by the statutory pension insurance scheme in future would first have to contribute to the scheme for longer, but would subsequently also draw a pension for longer. They would therefore be no worse off in terms of the ratio of the period of pension payment to the contribution period. According to current life expectancy projections, under such an approach the statutory retirement age would rise by an average of three quarters of a month per year as of 2032. Those born in 2001 would enter regular retirement at the age of 69 and four months from May 2070 onwards. If life expectancy were to develop differently, this would also have an impact on the statutory retirement age, provided it were indexed. In order to give those who are affected by this time to adjust, changes to the statutory retirement age could be smoothed and set out well in advance.

Longer working lives help to manage demographic change

This adjustment to the statutory retirement age would not only ease the burden on the statutory pension insurance scheme. Through increased employment, it would also strengthen macroeconomic potential and thus boost the assessment bases for taxes and social security contributions. Overall, it makes it easier for an employment-friendly policy to address the challenges posed by demographic change.

Replacement rate should cover longer periods of employment

Longer periods of employment and more years of contributions also lead to greater pension entitlements. It would therefore be logical to take this into account in the projections of the replacement rate and the thresholds applying to it. For instance, the number of contribution years factored into the calculation of the replacement rate could rise in line with the statutory retirement age. For example, such a dynamically adjusted replacement rate would require 46 years of contributions on the basis of average earnings in 2024, and 47 years of contributions in 2031 (see the box on p. 71). It would not be unprecedented to change the number of contribution years in terms of the replacement rate. Up to the end of the 1980s, the replacement rate was based on 40 years of contributions rather than on the current 45 years.

Remaining adjustment caused by lower birth rates

Indexing the statutory retirement age as described would absorb the pressure caused by longer life expectancy. However, other factors would still need to be addressed, including, in particular, the impact of lower birth rates since the 1970s. The vast majority of these adjustments would be concluded by the end of the 2030s. This means that, from this point onwards, almost no additional pressure on pension funding would arise. In the simulations presented here, the dynamically adjusted replacement rate – with adjustment mechanisms otherwise remaining unchanged – falls from about 48% today to 43% by 2070, before stabilising at 44% thereafter. The contribution rate increases from 18.6% to 24%. Over time, government funds also increase significantly relative to value added. The increase in this ratio by 2070 corresponds, for instance, to the current funding volume of 3½ points of the standard rate of turnover tax. The respective developments are, however, much milder than is the case if the statutory retirement age is not indexed (see the chart on p. 72).

Any thresholds should relate to the dynamically adjusted replacement rate and …

For the statutory pension insurance scheme to be accepted, it is important that the replacement rate is largely deemed to be adequate. A permanent threshold in this regard is therefore often seen as important. If such a threshold is desired, and the statutory retirement age increases, it would be logical to apply the threshold to the dynamically adjusted replacement rate.

… financial burdens of a reform should be disclosed fully and transparently

Nevertheless, if the threshold is extended, both the impact of lower birth rates as well as the remaining funding risks would be shifted almost entirely to contribution payers and taxpayers. The burden of taxes and contributions would potentially rise sharply. Furthermore, this problem cannot be solved by additionally capping the contribution rate, for although this would relieve adjustment pressure on the statutory pension insurance scheme, it would place additional burdens on the federal budget and thus on taxpayers. The current legal situation will already lead to a sharp increase in financing needs, which is sometimes neglected in the debate on pensions policy. It is essential that this aspect is taken into account in the specific design of the pension reform. At the very least, the financial impact of a reform should be disclosed on the basis of official projections over the very long term and as comprehensively as possible.

Annex

Selected legislative reforms concerning the funding of the statutory pension insurance scheme since 2008

Pension Adjustment Act 2008 *(Gesetz zur Rentenanpassung 2008*, 26 June 2008)

The dampening effect of contributions paid into a supplementary state-funded private pension scheme ("Riester steps") in the pension adjustment formula was suspended for two years, but was then made up for in 2012 and 2013. As a result, pensions rose by around an additional 0.6 percentage point in both 2008 and 2009.

Third Act Amending the Fourth Book of the Social Security Code *(Drittes Gesetz zur Änderung des Vierten Buches Sozialgesetzbuch,* 26 June 2008)

A safeguard clause was incorporated into the pension adjustment formula. From mid-2008 onwards, a reduction in the nominal pension payment amount was no longer permissible even if nominal per capita wages declined. Pension cuts waived were to be compensated for with deductions on pension increases over the following years.

Act Securing Employment and Stability in Germany *(Gesetz zur Sicherung von Beschäftigung und Stabilität in Deutschland,* 2 May 2009)

The general contribution rate for the statutory health insurance scheme applicable to pensions was reduced to 14.9% as of 1 July 2009.

Act Accompanying the 2011 Budget *(Haushaltsbegleitgesetz 2011,* 9 December 2010)

From 2011 onwards, recipients of unemployment benefit II were exempted from compulsory participation in the pension insurance scheme. As central government no longer pays any contributions, recipients of unemployment benefit II no longer accrue any pension entitlements.

Statutory Health Insurance Scheme Financing Act *(GKV-Finanzierungsgesetz,* 22 December 2010)

The general contribution rate for the statutory health insurance scheme was increased to 15.5% as of 1 January 2011.

Contribution Rate Act 2013 *(Beitragssatzgesetz 2013,* 5 December 2012)

The pension contribution rate for the year 2013 was lowered to 18.9% by law. In contrast to this Act, the usual contribution rate regulation would have required the approval of the Bundesrat, the Upper House of the German parliament.

Act on Amendments in the Area of Low-Paid Part-Time Employment *(Gesetz zu Änderungen im Bereich der geringfügigen Beschäftigung,* 5 December 2012)

The existing exemption from participation in the pension insurance scheme for low-paid workers with the option to opt in was replaced by compulsory participation in the pension insurance scheme with the option to opt out.

Act Accompanying the 2013 Budget *(Haushaltsbegleitgesetz 2013,* 20 December 2012)

The central government grant to the statutory pension insurance scheme was cut by €1 billion in 2013 and by €1.25 billion each year from 2014 to 2016.

Contribution Rate Act 2014 *(Beitragssatzgesetz 2014,* 25 March 2014)

In anticipation of the additional funding required as a result of the planned Act on Improvements in Pension Insurance Scheme Benefits, a reduction in the pension contribution rate was prevented contrary to the normal rules. It remained at 18.9%.

Act on Improvements in Pension Insurance Scheme Benefits *(RV-Leistungsverbesserungsgesetz,* 23 June 2014)

As from mid-2014 onwards, persons with an exceptionally long contribution history were entitled to re-

tire on a full pension at the age of 63. This retirement age will be increased incrementally to 65 up to 2029 in line with the gradual increase in the statutory retirement age to 67.

The crediting of child-raising periods for children born prior to 1992 in pension entitlements ("mothers' pensions") was doubled from one year to two years. In future, two earnings points in each case will thus be credited, leading to an increase in pension entitlements.

The non-contributory supplementary period for persons with reduced earnings capacity was raised from 60 to 62 years; in future, upon retirement, it will therefore be assumed that persons with reduced earnings capacity would have been in receipt of earnings up to the age of 62.

Act Improving the Financial Structure and Quality of the Statutory Health Insurance Scheme *(GKV-Finanzstruktur- und Qualitäts-Weiterentwicklungsgesetz,* 21 July 2014)

The general contribution rate for the statutory health insurance scheme was reduced from 15.5% to 14.6% on 1 January 2015. A supplementary contribution introduced to compensate for this – at a rate set by each individual health insurer – is to be paid solely by the insured persons.

Act on Making the Transition from Work to Retirement More Flexible and Strengthening Prevention and Rehabilitation in Employment *(Gesetz zur Flexibilisierung des Übergangs vom Erwerbsleben in den Ruhestand und zur Stärkung von Prävention und Rehabilitation im Erwerbsleben,* 8 December 2016)

In particular, the regulations for receiving part-pensions were made more flexible and it now became possible for employees to acquire full additional pension entitlements, including through gainful employment after reaching the statutory retirement age, by paying a supplementary employee's contribution.

Final Pension Transfer Act *(Rentenüberleitungs-Abschlussgesetz,* 17 July 2017)

The current pension value in eastern Germany is to be aligned to the current pension value in western Germany in seven steps by law, irrespective of actual wage developments in eastern Germany.

Act on Improvements in Benefits for Reduced Earnings Capacity *(EM-Leistungsverbesserungsgesetz,* 17 July 2017)

The non-contributory supplementary period for persons with reduced earnings capacity is to be increased incrementally for new retirees from 62 to 65 years by 2024.

Act on Benefit Improvements and the Stabilisation of the Statutory Pension Insurance Scheme *(RV-Leistungsverbesserungs- und -Stabilisierungsgesetz,* 28 November 2018)

The pre-tax net replacement rate may not fall below 48% and the contribution rate may not exceed 20% up to the end of 2025. Any funding gaps are to be bridged with additional government funds. The contribution rate may not fall below 18.6% between 2019 and 2025.

"Mothers' pensions" were expanded – in future, 2.5 earnings points will be credited for child-raising periods for children born prior to 1992, leading to an increase in pension entitlements.

The sliding scale within which low earners pay lower social security contributions even above the "mini-job" threshold of €450 per month was raised from €850 to €1,300 as of mid-2019. Furthermore, the reduced pension contributions within this sliding scale no longer result in reduced pension entitlements.

The non-contributory supplementary period for persons with reduced earnings capacity was raised to 65 years and 8 months in a single step as of 2019. This will be increased further to 67 years for new retirees by 2031. Deductions resulting from early retirement will therefore no longer be applicable for persons with reduced earnings capacity.

Act Providing Relief for Persons Insured under the Statutory Health Insurance Scheme *(GKV-Versichertenentlastungsgesetz,* 11 December 2018)

From 2019 onwards, the supplementary contribution to the statutory health insurance scheme is to be financed in equal parts by the statutory pension insurance scheme and employers.

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Structural reforms in the euro area

In the last two decades, trend growth in the euro area has decelerated noticeably. The global financial and economic crisis as well as the euro area sovereign debt crisis have certainly played a key role in this. However, there also appears to have been a slowdown in productivity growth in recent decades. Against this backdrop, structural reforms aimed at improving the institutional and regulatory framework for macroeconomic processes represent a key element of economic policy for promoting prosperity in a sustainable way.

Monetary policy, too, has an interest in reducing structural impediments. Flexible labour and product markets can facilitate the transmission of monetary policy measures by making it easier to steer the inflation rate towards the monetary policy target. An additional factor specific to the euro area is that monetary policy is set for the currency area as a whole. A reduction in national and regional structural asymmetries on factor and product markets can increase the effectiveness of monetary policy instruments within the single currency area. A reform-induced rise in potential growth will also lead to an increase in the equilibrium real interest rate.

The need for reform in the euro area is evident from macroeconomic metrics as well as structural indicators. For example, over the past 15 years, the euro area unemployment rate has been higher, and the employment rate lower, than in other advanced economies. The labour markets have also been characterised by a high, albeit declining, degree of regulation. Although product market regulation has been reduced considerably over time, international comparisons reveal that there is still scope for deregulation in individual countries and sectors. Institutional quality in some euro area Member States has also remained significantly below the highest ratings amongst OECD countries.

Although there is scope for reform as well as an expected positive long-term macroeconomic impact of structural measures, the momentum for reform in the euro area has slowed down in recent years. For some countries, the pressure to reform imposed by assistance programmes was removed. Irrespective of the good macroeconomic conditions, other Member States have evinced only limited willingness to implement reforms even though there is sufficient evidence that the transition costs of reform can be considerably lower in favourable environments. The argument that structural reforms are disadvantageous in the case of a binding lower bound on nominal interest rates due to a price-dampening effect is not convincing. Furthermore, any initial costs will generally be offset by the reform's strong, positive impact over the longer term.

Transition costs as well as undesirable distributional effects can be restricted by appropriately packaging different reforms. The sequence of reform measures can also encourage societal acceptance and improve political viability. However, the effectiveness of structural reforms will hinge not least on the credible commitment of political decision-makers to a path of reform.

Motivation

Improving the institutional and regulatory framework

In the last two decades, trend growth in the euro area has decelerated markedly. The global financial and economic crisis as well as the euro area sovereign debt crisis have undoubtedly played a key role in this. However, productivity growth also seems to have slowed down perceptibly. Against this backdrop, the question arises as to which measures – beyond monetary and fiscal policy – public institutions could use to sustainably foster macroeconomic prosperity and economic progress. In this context, structural reforms represent a key element of the options available to government. Structural reforms are generally defined as policy measures aimed at improving the institutional and regulatory framework for macroeconomic processes, thereby contributing to sustainable growth in employment, investment and productivity.

Alongside labour and product markets, potential reform areas also include public sector and financial markets

Structural reforms are often geared towards labour and product markets. For example, these reforms can focus on the nature of employment protection, the amount and duration of unemployment benefits, the design of active labour market policy, the removal of barriers to companies entering or exiting the market, or the reduction of red tape. However, structural reforms can also be extended to the public sector and the financial market. High-quality and high-performance judicial, administrative and educational systems play an essential role in creating a growth-friendly environment. The same is true for effective regulation and supervision of financial markets.

Monetary policy interest in reducing structural impediments

Monetary policy, too, has an interest in reducing structural impediments. Flexible labour and product markets can facilitate the transmission of monetary policy measures by making it easier to steer the inflation rate towards the monetary policy target.[1] An additional factor specific to the euro area is that monetary policy is set for the currency area as a whole. A reduction in national and regional structural asymmetries on factor and product markets can increase business cycle convergence across Member States and thereby the effectiveness of the monetary policy toolkit in the single currency area. Furthermore, flexible labour and product markets can strengthen the entire monetary union's resilience to shocks, thus facilitating the implementation of stability-oriented monetary policy.[2] Reform-induced higher potential growth also increases the room for manoeuvre for conventional monetary policy measures, as the equilibrium real interest rate positively depends on the growth rate of potential output. A higher equilibrium real interest rate reduces the likelihood of monetary policy hitting the zero lower bound. Lastly, effective regulation and supervision of financial markets can facilitate monetary policy transmission and prevent critical escalation.

Structural impediments in the euro area

Evidence from macroeconomic indicators

Below-average labour market outcomes …

The existence of structural impediments can be deduced from economic indicators. For example, a high level of unemployment that persists over a longer period of time could be indicative of rigidities in the labour market. In fact, from 2005 to 2018, the average unemployment rate in the euro area was considerably higher than in other advanced economies.[3] Double-digit unemployment rates in particular,

1 New Keynesian general equilibrium models can be used to show, for example, that rigidities in labour and product markets can dampen the effect of monetary policy on the rate of inflation. See, inter alia, Woodford (2003) and Christoffel et al. (2009). For more information on the implications of deregulation for monetary policy, see also Cacciatore et al. (2016a).
2 For more information, see Mundell (1961), Duval and Vogel (2008), Canova et al. (2012), Giudice et al. (2018), and Masuch et al. (2018). Nevertheless, some studies point out that the stabilising effect of wage and price flexibility – two specific forms of product and labour market flexibility – can be dependent on the macroeconomic environment as well as the responsiveness of monetary policy. See, inter alia, Bhattarai et al. (2018) and Billi and Galí (2019).
3 This reference period was chosen because the bounding years exhibited similar cyclical conditions.

Selected macroeconomic indicators
Averages from 2005 to 2018

Country	Growth in labour productivity[1]	Employment rate[2]	Unemployment rate[3]	Proportion of long-term unemployed[4]	Youth unemployment rate[5]
Euro area[6]	0.8	64.0	9.6	45.5	19.9
Germany	0.9	71.4	6.4	46.8	9.3
France	0.8	61.3	9.0	40.1	21.9
Italy	0.1	57.4	9.5	52.5	30.9
Spain	1.0	60.0	17.5	37.2	38.0
Greece	– 0.5	55.4	17.4	59.2	38.9
Portugal	0.7	65.4	10.6	50.6	25.3
Ireland	3.5	65.7	9.6	40.2	20.6
Selected industrial countries[7]	0.9	69.0	5.7	22.6	12.5
United States	1.0	66.6	6.3	19.4	13.1
Japan	0.8	71.5	3.9	36.6	7.0
United Kingdom	0.5	70.3	6.0	28.7	15.9

Sources: OECD and Bundesbank calculations. **1** Real GDP per hour worked. **2** Number of employed persons as a percentage of the working-age population. Aggregation for the euro area and selected industrial countries based on population shares. **3** Number of unemployed persons as percentage of the labour force. Aggregation for the euro area and selected industrial countries based on population shares. **4** Number of long-term unemployed persons (12 months or more) as a percentage of total unemployment. Aggregation for the euro area and selected industrial countries based on population shares. **5** Number of unemployed persons aged 15 to 24 as a percentage of the youth labour force. Aggregation for the euro area and selected industrial countries based on the share of the labour force aged 15 to 24. **6** Excluding Cyprus and Malta. **7** Australia, Canada, Denmark, Japan, Norway, Sweden, Switzerland, the United Kingdom and the United States.

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such as those in some euro area countries, can be interpreted as being indicative of dysfunctions. The same applies to entrenched underemployment in sub-sectors of the labour market, such as among young or older people, as well as long-term unemployment.[4] The employment rate in the euro area has likewise been relatively low, even though Germany, for example, exhibits quite a high employment-to-population ratio by international standards.

… and weak productivity growth as indicators of structural impediments

In addition to the rate of employment, productivity growth is especially important for economic performance over the medium to long term. In the euro area, labour productivity growth has been subdued overall during the past 15 years.[5] In this context, marked differences within the euro area become apparent. Even when measured against the dampened productivity growth in other industrial countries, some euro area Member States have lagged behind considerably.

Evidence from structural indicators

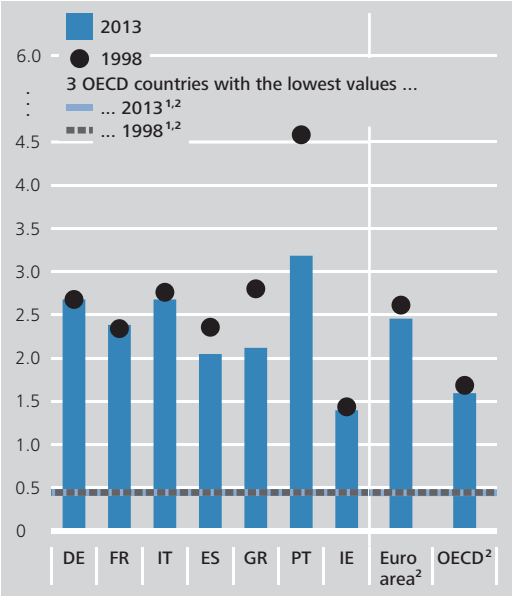
Indicators that seek to capture the degree and quality of regulation as well as the efficiency of government action can likewise be useful when looking for the causes of structural problems. Here, it should be noted that individual structural indicators sometimes capture highly specific rigidities. Generally, however, such indicators can be useful in evaluating the importance of structural impediments.

Structural indicators as a tool for identifying the causes of structural problems

In order to assess labour market flexibility, for example, the OECD indicator for employment protection legislation for regular workers is frequently used. This indicator aims to capture barriers to terminating employment contracts on the part of the employer. Amongst other factors, notice periods and compensation payments are taken into account.[6] The data obtained from annual surveys of OECD Member State governments are weighted and summarised in an indicator, which ranges from zero (least restrictive) to six (most restrictive). However, when interpreting the indicator, it should

4 When interpreting the number of long-term unemployed persons as a percentage of total unemployment, it must be taken into consideration that a cyclical decline in unemployment can lead to a rise in the long-term unemployment rate for conceptual reasons. This contributes, for example – despite a considerable fall in unemployment – to the comparatively high average proportion of long-term unemployed persons in Germany between 2005 and 2018.
5 In addition, it should be noted that the euro area average is skewed positively by Ireland and the new Member States, which are catching up from a low starting level. For more information on the problems in measuring Irish growth figures, see Deutsche Bundesbank (2018).
6 A detailed description of the indicator, which is currently only available up to 2013, can be found in OECD (2013).

Employment protection* in the euro area and selected groups of countries



Sources: OECD and Bundesbank calculations. * The indicator measures the strictness of employment protection legislation for regular employees with regard to procedural aspects, notice periods as well as severance pay and dismissal-related regulations. The indicator ranges from zero (least restrictive) to six (most restrictive). **1** Canada, the United Kingdom and the United States. **2** Aggregation based on population shares.

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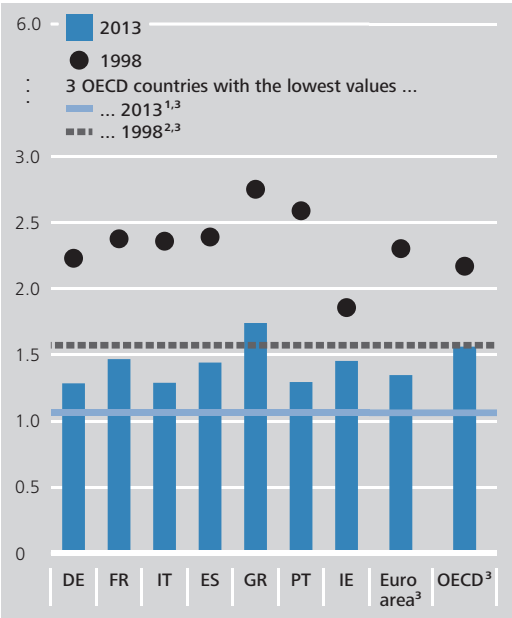
Product market regulation* in the euro area and selected groups of countries



Sources: OECD and Bundesbank calculations. * The indicator measures the strictness of regulation on product markets. The indicator ranges from zero (least restrictive) to six (most restrictive). **1** Austria, the Netherlands and the United States. **2** New Zealand, the United Kingdom and the United States. **3** Aggregation based on population shares.

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be noted that a low value for the employment protection legislation indicator is not an essential prerequisite for a good labour market outcome. Instead, this depends on the interaction between the various labour market institutions. Germany, for example, exhibits a medium intensity of regulation with regard to employment protection, but ranks highly in terms of labour market outcome. Nevertheless, there are indications that restrictive employment protection legislation adversely affects employment and productivity growth.[7]

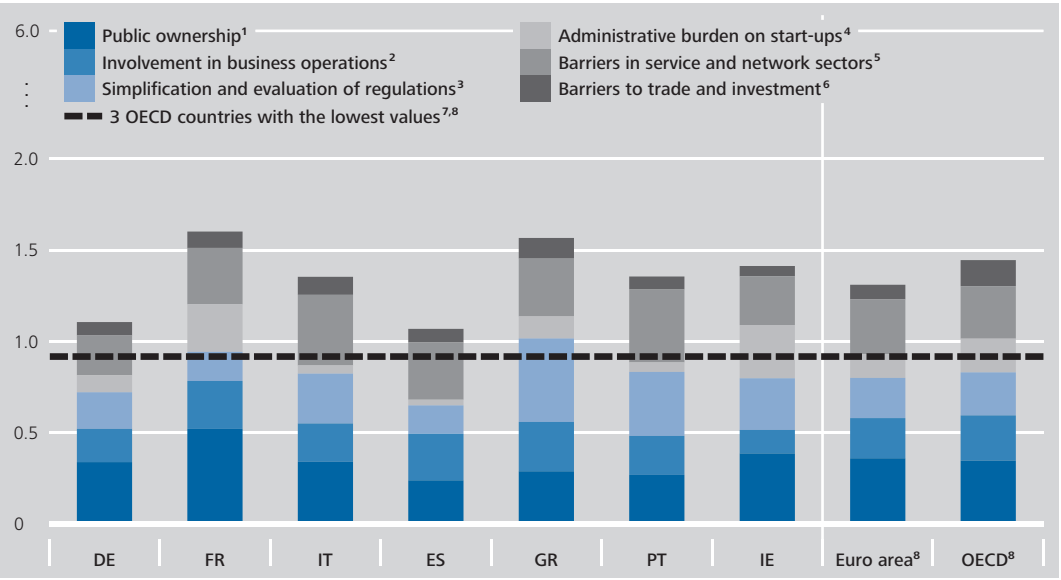
Relatively strict employment protection legislation in the euro area

According to the OECD indicator, regulatory intensity with regard to employment protection in the euro area diminished slightly between 1998 and 2013.[8] This was due not least to the deregulation efforts in the countries that were hit hardest by the crisis – Greece, Portugal and Spain – which entered assistance programmes that were conditional on reform. Nevertheless, the indicator still exceeded the OECD average in 2013. Within the euro area, employment protection was least restrictive in Ireland and – despite considerable relaxation – most restrictive in Portugal.

The OECD additionally attempts to capture regulatory intensity in the product markets of its Member States. For this purpose, it collects information from governments regarding, amongst other things, price controls, restrictions on foreign direct investment, and administrative burdens on start-ups. For the retail trade sector, for example, information on regulations governing opening hours and sales is gathered. The indicator is equally weighted across sectors and, as of 1998, has been recalculated every five years. However, the calculation method was changed in 2018 without retroactive adjustment, allowing for a consistent intertemporal comparison only up to 2013.

7 For more information, see Boeri et al. (2015).
8 The employment protection legislation indicator for the euro area as a whole (excluding Cyprus and Malta) and for the OECD are each calculated as a weighted average using the population shares of the Member States.

Product market regulation* in the euro area and selected groups of countries in 2018



Sources: OECD and Bundesbank calculations. * Barriers to domestic and foreign market entry (grey) and distortions induced by state involvement (blue) are captured. The indicators range from zero (least restrictive) to six (most restrictive). **1** Scope of state-owned enterprises (SOEs), government involvement in network sectors, direct control over enterprises, governance of SOEs. **2** Price controls, regulation, public procurement. **3** Assessment of impact of government regulation on competition, interaction with stakeholders, complexity of regulatory procedures. **4** Administrative burden for limited liability companies and personally owned enterprises, including for obtaining licenses and permits, opening business accounts, taking out insurance policies. **5** Barriers to market entry in service and network sectors, including privileges of individual occupational groups with regard to performing certain services. **6** Barriers to foreign direct investment, tariffs, differential treatment of foreign suppliers, barriers to trade facilitation. **7** Denmark, Spain and the United Kingdom. **8** Aggregation based on population shares.
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Strong deregulation in euro area product markets

Overall, there was a considerable decline in regulatory intensity on euro area product markets between 1998 and 2013. These declines were especially pronounced in Portugal, Italy and Greece. However, Spain, Germany and France also saw considerable deregulation. The consolidation of the European Single Market undoubtedly played a role in this. Nevertheless, deregulation of product markets was not unique to the euro area. This development has, in fact, been a widespread international phenomenon, as shown by the change in the OECD average.[9] However, in 2013, the euro area actually fell below the OECD average, which it had still exceeded in 1998.

Product market barriers still relevant at present

A similar picture is painted by the conceptually revised OECD indicator from 2018.[10] The euro area is below the OECD average in this context, too. The distance from the average of the three OECD countries with the least restrictive product market regulation (EU Member States United Kingdom and Denmark as well as euro area Member State Spain) nevertheless suggests that individual euro area countries still have comparatively restrictive regulation. However, these discrepancies are also partly attributable to state ownership of enterprises – as in the case of France – which the OECD records as a form of product market regulation. In other countries, such as Greece, it is due to complex administrative requirements. With re-

9 The product market regulation indicator for the euro area as a whole (excluding Cyprus and Malta) and for the OECD are each calculated as a weighted average using the population shares of the Member States.
10 Up until the overhaul in 2018, the indicator was composed of three sub-components: state control, barriers to entrepreneurship, and barriers to trade and investment. These areas have now been consolidated into two components (distortions induced by state involvement on the one hand and barriers to domestic and foreign entry on the other). In addition, new sectors (such as water and e-communications) were introduced, the survey of the services sector was extended to additional professions (including estate agents and notaries), and new elements, such as businesses' assessments of the impact of regulation on competition, were taken into account. For a detailed description of the calculation method used up until 2013, see Koske et al. (2015). The revised methodology is described in Vitale et al. (2019).

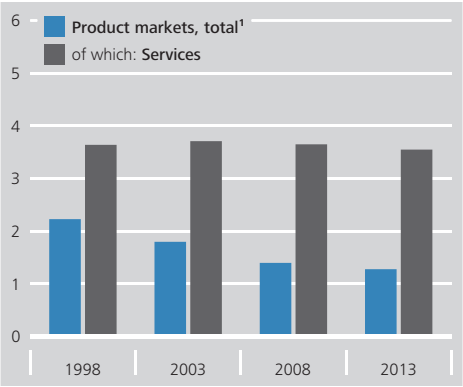
Regulation of the professional services in Germany

Since the late 1990s, Germany has seen a considerable reduction in barriers to trade and market entry on markets which, up to then, had been relatively highly regulated. Reform progress is reflected in the OECD's economy-wide Product Market Regulation (PMR) Indicator, which shows a considerable decline for Germany between 1998 and 2013.[1] Despite the considerable reform progress, including in network industries, Germany's services sector still appears to be quite highly regulated relative to other countries. International institutions, in particular, have already repeatedly proposed additional reforms, notably in what are known as the professional services.[2]

A breakdown of the OECD indicator by profession can give an idea of which professional services remain particularly highly regulated.[3] There is evidence of overregulation if, for a given profession, the OECD indicator displays clearly more restrictive regulation than in the reference group of other EU countries.[4] High indicator values in professions across countries, on the other hand, could be a sign that regulation, for instance, is intended to deliver on important consumer or health protection objectives. To that extent, this measure also takes into account that regulation is not necessarily disadvantageous or inefficient and therefore that relaxing regulation does not necessarily improve welfare.[5]

In order to ascertain those profession-related regulations that contribute significantly to the high value of the OECD indicator, it is possible to identify the individual regulations whose attributes exhibit above-average values for Germany. Of interest here are, in particular, areas in which regu-

Product market regulation in Germany*



Source: OECD. * The indicators range from zero (least restrictive) to six (most restrictive). **1** Goods and services.
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1 Indicators for the years 1998 to 2013 are based on a uniform methodology. The indicator has recently been overhauled by the OECD; see Vitale et al. (2019). Comparability between the updated indicator for 2018 with the values from previous years is extremely limited owing to the changes in the methodology. No consistent backcasting has yet been performed.
2 See, for example, European Commission (2017a) and International Monetary Fund (2018). According to section 18 of the German Income Tax Act, the professional services comprise the "independent professional exercise of scientific, artistic, literary, teaching or educational activity, the independent professional occupations of physicians, dentists, veterinary practitioners, lawyers, notaries, patent agents, land surveyors, engineers, architects, trade chemists, accountants, tax consultants, consultant economists and business economists, chartered accountants, tax agents, non-medical practitioners, dentists, physiotherapists, journalists, photojournalists, interpreters, translators, pilots and similar professions".
3 The indicators refer to the following areas: e-telecommunications, electricity, natural gas, air transport, rail transport, road transport and water transport, as well as six professions in the services sector (lawyers, accountants, engineers, architects, notaries and estate agents). There are also indicators for retail distribution and retail sales of medicines.
4 Country-specific features (such as regulation through complementary instruments not covered by the OECD indicator) – given a de facto similar degree of regulation – can cause differences in the reported degree of regulation between countries. Results are similar if the OECD countries (excluding Germany) are taken as a reference group.
5 This approach is also conceptually suited to identifying professions with an especially low degree of regulation by international standards. According to the data regarding the professional services in Germany, this pertains to the activities of estate agents in particular.

lation does not appear to be urgently necessary in order to assure service quality.[6]

The professions that appear to be more strictly regulated in Germany by international standards are notaries, accountants and engineers. First, according to the OECD, barriers to market entry are quite high for these professions. In the case of notaries, this pertains to the regional distribution of business areas within Germany and regional quotas on the number of notaries. As regards accountants, the requirements relating to professional experience – in addition to the state examination – motivated by the need for quality assurance seem very high in some accountant training courses.[7] For engineers, access to the market – especially for foreign graduates – is impaired. The recognition procedures for EU and EFTA (Iceland, Liechtenstein, Norway and Switzerland) citizens are currently the responsibility of the federal states and could potentially appear cumbersome and opaque to non-residents.

Second, more market-based price setting – as opposed to the current mandatory fee scale for notaries and the Official Scale of Fees for Services by Architects and Engineers *(Honorarordnung für Architekten und Ingenieure)* – could foster competition.[8] Though it would be wrong to dismiss concerns about price competition at the expense of service quality, it is questionable whether the currently high level of regulation is justified.

Reducing the density of regulation in these areas would probably foster competition and bring about positive spillover effects to upstream and downstream sectors. As professional services do not make up a large share of aggregate value added, the macroeconomic impact of such measures is likely to be rather small.[9] Nonetheless, this should not be construed as an argument in favour of maintaining regulation that inhibits competition. Special regulatory protections for some individual areas tend to increase demand for such privileged treatment elsewhere. In addition, restrictions on market entry reduce social mobility and impair equality of opportunity. Lastly, reforms in the professions cited here by way of illustration could provide an impetus for similar measures in other sectors or professions. The macroeconomic impact of a more comprehensive reform package would then be higher.

Product market regulation for selected professions in 2018*

Professions	Germany	EU average excluding Germany[1]
Notaries	5.4	4.5
Lawyers	3.4	3.3
Accountants	2.6	0.9
Engineers	2.4	1.3
Architects	1.3	1.6
Estate agents	0.2	0.7

Sources: OECD and Bundesbank calculations. * The indicators range from zero (least restrictive) to six (most restrictive). 1 No data for Bulgaria, Croatia, Cyprus, Estonia, Malta or Romania. Additionally, no data on notaries are available for Denmark, Finland, Ireland or the United Kingdom.

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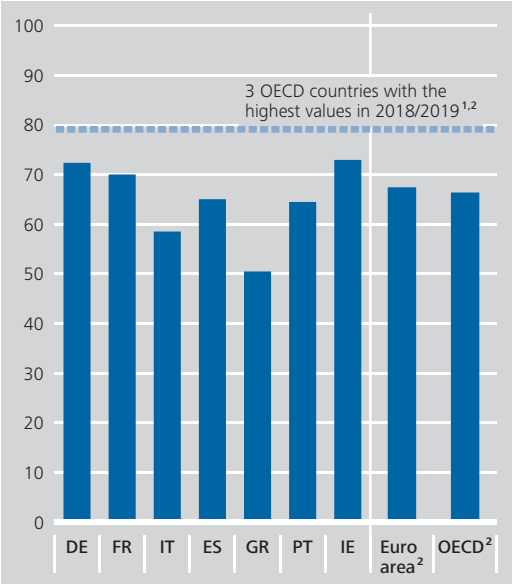
6 Asymmetric information or adverse selection can necessitate regulatory provisions in order to avoid watered-down quality standards or inefficient price or wage setting. This analysis abstracts from possible interactions between regulatory measures within the individual sub-categories. Nevertheless, various combinations of individual measures could bring about a similar effect on overall regulation.

7 As part of the Third Bureaucracy Relief Act *(Drittes Bürokratieentlastungsgesetz),* there are plans to reduce the amount of professional experience needed for admission to the accountant examination.

8 See also German Council of Economic Experts (2016). The European Court of Justice recently ruled that fixed minimum and maximum fees for services by architects and engineers pursuant to the Official Scale of Fees for Services by Architects and Engineers *(Honorarordnung für Architekten und Ingenieure)* violated EU law. Fixed minimum and maximum fees are therefore null and void. See European Court of Justice (2019).

9 Krebs and Scheffel (2016) use a DSGE model to analyse, inter alia, a reform scenario in which the price mark-up of professional services in Germany is reduced by 4 percentage points. Under such a hypothetical scenario, ten years after implementing the reforms, potential output, for instance, would be just over 0.1% higher than in a comparable scenario without reforms.

Institutional quality* in the euro area and selected groups of countries in 2018 and 2019



Sources: World Economic Forum and Bundesbank calculations. * The indicator measures institutional quality in selected sectors (including the judicial system and public administration). The indicator ranges from zero (low quality) to 100 (very high quality). **1** Finland, the Netherlands and New Zealand. **2** Aggregation based on population shares.
Deutsche Bundesbank

gard to barriers to market entry, barriers in the service and network sectors[11] play a relatively large role. Particularly in Italy, Spain, Greece and Portugal, but also in Germany, these are the most significant barriers in terms of restrictions to market entry (see also the box on pp. 88-89). According to the OECD, market entry in other euro area countries, such as France and Ireland, is also adversely affected by the administrative burden on business start-ups.

However, the regulation of labour and product markets is not the only source of structural impediments. The overall quality of public administration as well as of the judicial and educational systems likewise has an impact on a country's economic performance. The World Economic Forum's competitiveness indicator, which is predominantly based on surveys of business managers, attempts to capture this aspect. In this context, a sub-indicator provides information on institutional quality, which comprises factors such as protection of property rights, judicial independence, and the strength of auditing and accounting standards.[12]

Institutional quality varies considerably amongst euro area countries

According to the "Institutions" sub-indicator, the quality assessment for the euro area in 2018 and 2019 corresponded to the OECD average.[13] However, there are also considerable differences between the individual countries of the euro area. Some countries are well below the euro area average.[14] Accordingly, there exist marked deviations from the average of the three OECD countries with the highest scores (euro area Member States Finland and the Netherlands, as well as New Zealand).

Overall view of macroeconomic indicators and structural indicators

Despite the limited informative value of individual structural indicators, they add to the general picture outlined by the macroeconomic indicators. For instance, regulation in some euro area countries – despite substantial efforts towards deregulation on labour and product markets in some cases – remains strict by international standards. Moreover, institutional quality is not assessed as being very high in some euro area Member States. This also appears to be reflected in the macroeconomic indicators in some cases.

Macroeconomic analyses of structural reforms

The expected macroeconomic effects of reducing the structural impediments described above can be assessed using quantitative economic methods. In addition to statistical regression exercises, structural macroeconomic models are

11 These comprise, for example, barriers to entry for foreign energy producers and rail companies, or licensing requirements for the sale of certain products (e.g. pharmaceuticals).
12 Details of the calculation can be found in World Economic Forum (2019). In some cases, these indicators represent the average value of 2018 and 2019.
13 The figures for the euro area and the OECD are, in turn, calculated from the national data as averages weighted by population share.
14 This is also the picture revealed by the World Bank's world governance indicators. See also World Bank (2019), https://info.worldbank.org/governance/wgi/#doc.

typically utilised when analysing the economic impact of structural reforms. The results of such analyses also serve as guidance for policymakers.

Studies based on structural macroeconomic models

Macroeconomic models for evaluating structural reforms …

Structural reforms often have various spillover effects and must therefore be modelled accordingly. Dynamic stochastic general equilibrium (DSGE) models are especially suited to this purpose. These models seek to explain macroeconomic interactions and developments based on the individual optimal decision rules of rational economic agents.[15] This allows for relatively detailed modelling of specific transmission channels and relationships.

… vary in their degree of detail

However, structural impediments are captured, in part, in a highly stylised way in DSGE frameworks and are modelled, for example, as imperfect competition on labour and product markets or as wage and price rigidities. Within such setups, structural reforms reduce trade unions' and firms' power to set wages and prices and also lower the costs of wage and price adjustments.[16] Alternatively, structural reforms are modelled merely as exogenous changes in key macroeconomic variables, such as productivity or labour supply. These shocks are usually specified on the basis of empirical studies on the impact of structural reforms on these variables.[17] By contrast, more complex DSGE approaches feature detailed representations of labour and product markets. In these model variants, specific reform measures – such as the reduction of barriers to market entry or adjustments to employment protection and unemployment benefits – can be investigated directly (see the box on pp. 92-93). In this way, the impact of reforms on the degree of competition as well as on productivity and employment are often endogenously determined.[18]

However, broad evidence of positive long-term impact of reforms

Despite these differences in the level of detail, DSGE analyses paint a uniform picture: measures that promote competition on labour and product markets can lead to strong increases in productivity, employment and investment over the long term. The same applies to reforms that promote human capital through improved access to education and to the implementation of active labour market policies.[19] DSGE studies show, for example, that the favourable labour market developments in Germany can be attributed not least to the labour market reforms of the mid-2000s.[20]

Conversely, mixed picture with regard to short-term effects of reform

The findings are less homogeneous with regard to the short to medium-run effects of structural measures. While structural reforms can have positive effects as early as the short run in some DSGE analyses,[21] they can – if the macroeconomic conditions are unfavourable – also initially cause the overall economic situation to deteriorate. For example, DSGE simulations of the impact of a relaxation in employment protection indicate that the reform-induced rise in job-seeking would be amplified during a period of economic weakness.[22]

Studies based on statistical regression models

Statistical regression analyses also provide evidence of macroeconomic reform effects

Statistical regression analyses can also help to shed light on the macroeconomic effects of structural reforms. These investigations look at individual country-specific reform measures or at the macroeconomic assessment of structural reforms across countries. However, obtaining evidence of reform effects is challenging from a

15 DSGE models typically assume that economic agents do not make any systematic errors when forming their expectations and that they make optimum use of all the information that is available to them.
16 See, inter alia, Gomes et al. (2013), Galí and Monacelli (2016), and Bursian and Stähler (2019).
17 See Anderson et al. (2014a).
18 See, inter alia, Cacciatore et al. (2016b).
19 See, inter alia, Gomes et al. (2013), Anderson et al. (2014a), Varga and in 't Veld (2014), and Cacciatore and Fiori (2016).
20 See, inter alia, Krause and Uhlig (2012), Krebs and Scheffel (2013), and Gadatsch et al. (2016).
21 See, inter alia, Gomes et al. (2013) and Anderson et al. (2014a).
22 For more information, see Cacciatore et al. (2016c).

Implementing structural reforms in DSGE models

Dynamic stochastic general equilibrium (DSGE) models are a standard tool in modern quantitative macroeconomics. This category of equilibrium models generally seeks to explain macroeconomic relationships and developments based on the individual optimal decision rules of rational economic agents.[1] In those models, market imperfections, such as distortion of competition or wage and price rigidities, can be taken into account. Therefore, DSGE models are also useful in assessing the effects of structural reforms. However, presenting specific causal relationships, even in their most simplified form, can create complex model structures. This might, at times, imply a trade-off between the models' tractability and their ability to precisely capture observable characteristics of the economy.

The potential importance of the selected degree of detail for the reported effects shows up, for instance, when modelling product market reforms. For example, the removal of competitive distortion in the product markets can be implemented in DSGE models in a relatively abstract manner using an exogenously assumed reduction in firms' price mark-ups.[2] Even though such an experiment is generally able to capture the macroeconomic reform effects, the scope for deriving actual policy measures is only very limited.

On the other hand, there exist modelling frameworks which provide a detailed representation of product markets. Such setups include DSGE models with endogenous market entry and exit, where a relationship between market concentration and price mark-ups is determined endogenously in the model.[3] Reforms to intensify competition are modelled in such a framework as, for instance, a reduction of barriers to market entry.

While the outcomes regarding the long-run real economic effects of reform are qualitatively consistent irrespective of the specific model used – intensified competition stimulates macroeconomic activity and employment – such an unambiguous causality does not hold in the short run, however.

Using a prototypical DSGE model, it can be shown, for instance, that the way product markets are modelled has a meaningful impact on the short-run price effects of competition-enhancing product market reforms. In a simple baseline New Keynesian model, an exogenous decrease in price mark-ups directly reduces the inflation rate, thereby leading to an increase in aggregate demand.[4] Although the latter will tend to push prices up, this is not sufficient to offset the immediate decline in prices. Overall, prices are dampened.

The presence of endogenous market entry and exit by firms changes the situation with regard to price dynamics. Under these circumstances, intensified competition owing

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1 DSGE models usually assume that economic agents do not make any systematic errors when forming their expectations and that they make optimum use of all the information that is available to them. In this sense, they behave "rationally".
2 See, inter alia, Gomes et al. (2013), Eggertsson et al. (2014), Arce et al. (2016), and Vogel (2017).
3 See, inter alia, Cacciatore and Fiori (2016), Cacciatore et al. (2016a), and Colciago (2018).
4 To this end, an exogenous reduction in price mark-ups from 30% to 25% was simulated. The analytical framework used here was a simple baseline New Keynesian model with imperfect competition, quadratic price adjustment costs and no physical capital. In this stylised model framework, the number of firms is assumed to be constant. The potential influence of competition-enhancing product market reforms on business dynamism is therefore ignored. For more information, see Ireland (2004).

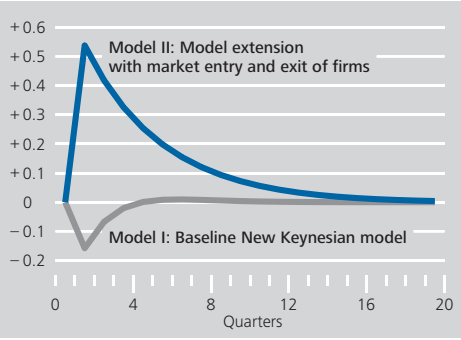
to a reduction of barriers to market entry will tend to increase the rate of inflation.[5] The price-increasing effect of the rise in macroeconomic demand outweighs the price-dampening effect of the endogenous reduction in margins. Demand is stimulated not only by expenditure for new firms to enter the market but also rising labour incomes on account of the increased demand for factor inputs.

This finding is noteworthy inasmuch as potential short-run price-reducing effects of structural reforms have assumed quite a prominent role in the recent economic policy debate, in which – referring to DSGE analyses[6] – the potential short-run costs of structural reforms given a binding zero lower bound (ZLB) have been discussed.[7] Specifically, it has been argued that – given a binding nominal ZLB – a reform-induced dampening of prices would push up real interest rates.[8] However, an increase in real interest rates usually dampens aggregate demand. This has, not least, resulted in calls for policy measures to boost demand in order to supplement structural reforms.

The simulation analysis presented here illustrates, however, that such model results could prove not to be very robust and should therefore be interpreted with caution.[9] More recent studies likewise show that it is the macroeconomic situation, more than the general interest rate environment, which drives the short-run effects of structural measures. Specifically, the findings indicate that, during a phase of cyclical weakness, structural reforms are more likely to be associated with temporary macroeconomic costs than in a favourable macroeconomic environment.[10]

Impact of product market reform on the rate of inflation*

Percentage point deviation from the steady state



* Impulse responses of the quarterly inflation rate to a competition-enhancing product market reform using New Keynesian DSGE models.

Deutsche Bundesbank

5 The baseline New Keynesian model was expanded here such that firms first have to decide whether, given the costs of market entry, they wish to enter the market (endogenous market entry). The number of market participants determines firms' market power and thus the size of price mark-ups. A detailed description of the mechanism may be found, inter alia, in Jaimovich and Floetotto (2008). For the sake of comparability, in this simulated scenario firms' entry costs were reduced to such an extent that the intensified competition triggered by the subsequent increase in the number of firms operating in the market causes price mark-ups to likewise drop from 30% to 25%.

6 For more information, see Eggertsson et al. (2014) and Vogel (2017).

7 See, inter alia, OECD (2016), European Commission (2017b) and Brand (2018).

8 This relationship follows from the "Fisher equation".

9 See also Fernández-Villaverde (2014), Fernández-Villaverde et al. (2014), Gomes (2014), Andrés et al. (2017) and Cacciatore et al. (2017).

10 See, inter alia, Bouis et al. (2012), Cacciatore et al. (2017), Duval and Furceri (2018) and Bassanini and Cingano (2019).

methodological perspective.[23] One reason for this is that cyclical developments or other economic policy measures can mask the effects of structural reforms. For instance, disentangling the impact of a reform measure adopted during an economic downturn from the side effects of a subsequent macroeconomic recovery is no straightforward task.[24] Another reason is that the cyclical position as well as economic policy stances are likely to have a major influence on the effectiveness of structural reforms. For example, reform-induced adjustment processes may unfold more slowly during a period of economic weakness.

Assessing the macroeconomic effects of structural reforms also requires that relevant policy measures be properly identified. This is a challenge especially in the case of cross-country analyses. While structural indicators could signal that reform measures are being implemented, these indicators sometimes tend to represent rough approximations. For example, the difference between reform resolutions and their actual implementation is not always clear cut. Additionally, it is difficult to measure the depth and scope of various reforms or reform programmes adequately. "Narrative approaches" that identify structural reforms by analysing the content of relevant media may serve as a supplement in this regard.[25] Ultimately, however, this method is based on subjective selection criteria.

Regression analyses with clear signs of positive long-term reform effects

In general, regression analyses also provide clear evidence of the positive long-term macroeconomic effects of structural reforms.[26] A number of studies show that adjustments to the amount and duration of unemployment benefits, the design and deployment of active labour market policy measures and the lifting of impediments to competition in labour and product markets may contribute, on average, to a sustainable increase in investment, employment and productivity.[27] For instance, there are numerous examples that show the positive macroeconomic effects of the labour market reforms that were carried out in Germany in the mid-2000s.[28]

By contrast, short-run effects not clear either

Analyses of the short-run impact of structural reforms once again present a mixed picture. While some studies already find positive reform effects in the short term, other analyses suggest signs of a negative impact, especially given an unfavourable macroeconomic situation.[29] In this respect, some empirical evidence indicates that labour market reforms during an economic downturn are more likely to cause temporary negative employment effects compared to reforms conducted under favourable economic conditions.[30] Studies on the impact of labour market reforms in Germany and Spain indicate at least a clearly muted positive reform effect during recessions.[31] These findings suggest that it is preferable to implement reforms during favourable cyclical periods.

Reform intensity in the euro area

Existing reform potential and the expected positive long-run macroeconomic impact of structural measures would suggest that reform intensity has increased in the euro area – especially since the macroeconomic environment has improved significantly in recent years and is now more supportive of successful reforms. This does not appear to have been the case recently, however.

23 See also Bordon et al. (2018), Parlevliet et al. (2018) as well as Bassanini and Cingano (2019).
24 See also Deutsche Bundesbank (2014).
25 Duval et al. (2018a), for example, identify substantial structural reforms by evaluating OECD publications, amongst other things.
26 See also Boeri et al. (2015) and Parlevliet et al. (2018).
27 See, inter alia, Bassanini and Duval (2006), Bassanini and Duval (2009), Bouis and Duval (2011), Bourlés et al. (2013), Cette et al. (2016), Égert (2016), Duval and Furceri (2018), Duval et al. (2018a) and Égert (2018).
28 See, inter alia, Klinger and Rothe (2012) as well as Klinger and Weber (2016).
29 See, inter alia, Boeri et al. (2015).
30 See, inter alia, Bouis et al. (2012), Duval and Furceri (2018) as well as Bassanini and Cingano (2019).
31 See Gehrke and Weber (2018).

Implementation of OECD and European Commission economic policy recommendations is an indicator of reform intensity

This is at least what is indicated by reports on implemented reform measures in specific countries and groups of countries by the European Commission and the OECD. They refer to the economic policy recommendations that are prepared on a regular basis by the European Commission[32] and the OECD,[33] respectively, and in some cases in cooperation with the national governments and experts. These recommendations target best practices while taking into account country-specific circumstances, including its macroeconomic situation. Often, the recommendations of both institutions overlap, but not always.

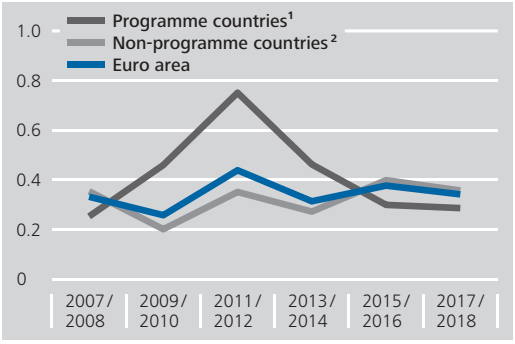
Recently only moderate reform intensity in the euro area, according to OECD

Since 2008 the OECD has published a corresponding annual indicator on reform progress in the member countries.[34] For the euro area as a whole, the indicator has recently signalled merely moderate reform intensity, after the implementation of recommendations reached its peak in 2011-12. The high reform intensity in the aftermath of the global financial and economic crisis and during the sovereign debt crisis was primarily attributable to measures in the programme countries Greece, Ireland, Portugal and Spain. Thereafter, the reform intensity subsided markedly in these countries and dropped below the level of non-programme countries in 2015. Meaningful progress was subsequently made only in Ireland and Greece. The OECD's latest references to functional shortcomings in the labour markets and labour market institutions as well as to potential improvements in public administration suggest that, despite the extensive measures taken, this group of countries is still in need of reforms.[35] In the rest of the euro area Member States, the status of implementation of OECD recommendations at the current end was at the level of 2007-08. Here, too, the OECD has identified further potential for reform in the labour markets, in the education system and in public administration.

Willingness to reform also waning according to European Commission

In the context of the European Semester, the European Commission annually assesses the implementation of country-specific reform recommendations.[36] This evaluation covers, inter alia, measures to improve the performance of product and labour markets as well as of the judicial and education system and public administration. No distinction is made with regard to the scope and depth of the reforms. Likewise, the withdrawal of measures is not taken into account immediately. These data also show a waning reform momentum. It is particularly noteworthy that none of the measures already initiated in the reform areas listed above can be classified as "full progress" according to the European Commission's assessment. However, it should be highlighted that the implementation of structural reforms is often accompanied by a lengthy legislative process, which is reflected in the high proportion of measures that have achieved "some pro-

Reform intensity* in the euro area



Sources: OECD and Bundesbank calculations. * The indicator measures reform intensity based on the implementation of OECD policy recommendations. The indicator ranges from zero (low reform intensity) to one (high reform intensity). Aggregation based on population shares. **1** Greece, Ireland, Portugal and Spain. **2** Other euro area countries.

Deutsche Bundesbank

32 In accordance with Art. 121(2) and 148(4) of the Treaty on the Functioning of the European Union, the European Commission reviews the economic and fiscal policy of EU Member States in the context of the European Semester based on the national reform programmes submitted by national governments as well as the Stability and Growth programmes, and issues country-specific recommendations which are passed by the EU Council.

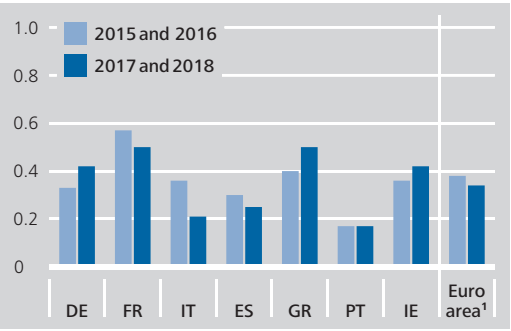
33 The OECD's "Going for Growth" reports, which are published regularly, identify priority reform areas for OECD countries and put forward appropriate policy recommendations.

34 For a detailed description of the indicator, see OECD (2010).

35 See OECD (2019).

36 The level of implementation is divided into five categories: no progress, limited progress, some progress, substantial progress and full progress. For further information, see, inter alia, Angerer et al. (2019).

Reform intensity* in the euro area at the current end



Sources: OECD and Bundesbank calculations. * The indicator measures reform intensity based on the implementation of OECD policy recommendations. The indicator ranges from zero (low reform intensity) to one (high reform intensity). **1** Aggregation based on population shares.
Deutsche Bundesbank

gress". Their share, however, declined in 2018 as well. Differences between the euro area countries have also become evident in the implementation of country-specific recommendations. Since 2016 the French government, for example, has initiated a series of labour market and educational reforms and taken liberalisation measures in the services and transport sectors. By contrast, the implementation of country-specific recommendations has been rather sluggish in other euro area countries, including Germany.

Resistance to structural reforms and ways to overcome it

Reservations regarding structural reforms

Opposition to reform an explanation for weak reform drive

The evaluations of the OECD and the European Commission illustrate that reform intensity in the euro area has abated in recent years. Only a few countries have taken advantage of the more favourable macroeconomic conditions to implement additional reform measures. The question arises as to how this can be explained. Concerns over transition costs certainly play a role. Unemployment can rise temporarily after employment protection rules are relaxed. Moreover, an improvement in business dynamism caused by the reforms can also dampen labour demand in the short run.[37] However, it is especially in a weak macroeconomic environment that adverse transition effects occur.[38] This is noteworthy in that severe crises are at times seen as triggers for structural reforms.[39] In this case, however, the urgent necessity for structural reforms may overshadow any potential transition costs, even if these are amplified by the crisis.

Besides reform-induced transition costs, …

In the economic policy debate in recent years, considerations of potential additional short-term costs of structural reforms in a low-interest-rate environment have also played a role. If an economy is constrained at the (nominal) zero lower bound and the scope for monetary policy is therefore limited, labour and product reforms, which – due to a boost in competition – tend to weigh on wages and prices, could dampen economic activity in the short term via the real interest channel.[40] On closer inspection, however, it appears that this result is not very robust (for more information, see the box on pp. 92 f.).

… possible distributional effects …

Unwanted distributional consequences also represent a potential obstacle to reform. For instance, cuts in unemployment benefits could reinforce the incentive to take up full-time employment and contribute to an improvement in the overall situation on the labour market. For some people, however, this could entail a long-term loss in income owing to lower unemployment benefits and lower wages. Reform-induced income gains may also vary markedly between income classes.[41] Even though such considerations on the distributional impact of structural reforms have thus far been based solely on a small number of empirical find-

37 See, inter alia, Cacciatore and Fiori (2016).
38 See, inter alia, Bouis et al. (2012), Cacciatore et al. (2016c), Duval and Furceri (2018) as well as Bassanini and Cingano (2019).
39 For more information, see Duval et al. (2018b).
40 See Eggertsson et al. (2014).
41 See also Blanchard and Gavazzi (2003), Röhe and Stähler (2018) as well as Roeger et al. (2019).

ings,[42] they may nevertheless serve as an explanation for the low social acceptance and political viability of structural reforms.[43] In this context, it is important to note that the existing uncertainty about the consequences of structural measures can already dampen the willingness to implement reforms.[44] Moreover, it should be noted that even small interest groups can exert distinct political influence.[45]

… and the time horizon of policymakers are causes for reform reservations

A lack of willingness to embrace reforms may also be explained by the delayed impact of structural measures. While the full effects of structural reforms are typically only seen in the medium to long run, the time horizon of policymakers is at times rather short and aligned with national electoral cycles.[46]

Instruments to support structural reforms

Tailored reform packages may counter reform resistance and costs by …

If short-term adjustment costs and distributional effects obstruct reforms that promise to be effective in the long run, there are a variety of strategies to address this. Besides focusing on key reform areas and packaging measures, their decisive implementation plays a pivotal role.[47]

… strengthening the impact of reforms …

First, a package of measures is more likely to have a stronger macroeconomic impact than individual measures.[48] This packaging of measures is especially effective if complementarities come into play. For instance, it can be shown that the positive impact of wage flexibility for countries in a monetary union crucially hinges on product prices being sufficiently responsive.[49] The success of labour and product market reforms is influenced markedly by the quality of the judicial, public administration and education systems.[50] The implementation of structural reforms will scarcely be possible if public institutions are insufficiently efficient.

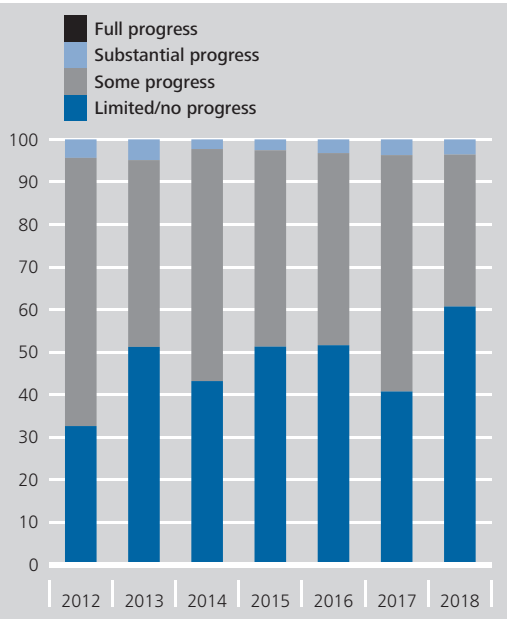
… and absorbing adverse reform effects

Second, coherent packages of reforms may counteract the adverse effects of individual measures. Certain structural reforms, such as relaxing employment protection regulations, may dampen demand in the short run. Well-designed packages of product and labour market reforms can mitigate this effect.[51]

In this context, the sequence of reform measures is also important. The sequential order in which measures are implemented may increase

Implementation of country-specific recommendations in the euro area*

Percentage share of recommendations



Sources: European Commission and Bundesbank calculations.
* The indicator measures the implementation of reform recommendations during the European semester. Reform progress is shown in selected segments (product and labour markets, judicial and education systems and public administrations). Aggregation based on population shares.
Deutsche Bundesbank

42 See Koske et al. (2012), Causa et al. (2015), Causa et al. (2016) and Causa (2018).
43 See also Leiner-Killinger et al. (2007), Heinemann and Grigoriadis (2016) as well as Parlevliet (2017).
44 See, inter alia, Samuelson and Zeckhauser (1988), Alesina and Drazen (1991), Fernandez and Rodrik (1991) as well as Høj et al. (2007).
45 See also Grossman and Helpman (2001).
46 See also Buti et al. (2010), Dal Bó and Rossi (2011) as well as Conconi et al. (2014).
47 See, inter alia, Edwards (1989) and Hausmann et al. (2008).
48 See, inter alia, Anderson et al. (2014b).
49 See Galí and Monacelli (2016).
50 See, inter alia, Rodrik et al. (2004), Prati et al. (2013) and Cette et al. (2018).
51 For example, Cacciatore et al. (2016b) demonstrate that removing barriers to entry in the product market may counteract a temporary drop in real wages caused by labour market reforms.

Sequencing structural reforms to increase their social acceptance …

or decrease their social acceptance and political viability.[52] For instance, the implementation of product market reforms that raise purchasing power could make labour market reforms that are likely to dampen wages easier for the public to swallow.[53]

… and their overall economic impact

Furthermore, the macroeconomic environment may suggest a specific sequencing of reforms. While, for instance, an easing of employment protection legislation may initially worsen the overall economic situation due to dampening effects on demand, especially when macroeconomic activity is subdued, this does not appear to hold for competition-enhancing product market reforms.[54] It is therefore conceivable that product market reforms that bolster demand are preferred during a macroeconomic downturn.

Recognition of regulatory and institutional setting vital for successful reform packages

Due to various interdependencies, consideration of the specific regulatory and institutional environment is a requirement for successful measures. For example, the effects of product market reforms also depend on how flexible the labour markets are.[55] Conversely, the impact of labour market reforms can also be influenced by the product market situation.[56]

Effectiveness of structural measures depends on credible commitment to reforms

The effectiveness of structural reforms can be strengthened by a credible commitment of policymakers to a reform path.[57] In this case, the expectation of long-term productivity and income growth can already stimulate demand in the short term.[58] These income and confidence effects may counteract short-term reform costs, especially in a weak macroeconomic environment.[59]

Fiscal policy can support implementation of structural reforms

Fiscal policy, too, can support the implementation of structural reforms.[60] Measures that stimulate demand can counteract short-term reform costs. In addition, fiscal policy has the ability to respond to undesirable distributional effects. For instance, a possible decline in wages in the course of labour market reforms can be countered by easing the tax burden on labour, as during the German labour market reforms of the first half of the 2000s.[61] However, this requires a sufficiently large fiscal buffer. The impact of debt-financed fiscal measures, for example, depends crucially on the trust in the sustainability of public finances.[62]

Institutional reforms at the EU level can help remove structural impediments

Lastly, reforms implemented at the EU level can also help to remove structural impediments. These include, besides the banking union already initiated, a deeper integration of capital markets and measures to facilitate cross-border labour mobility. EU-wide reforms can only supplement national efforts, however. The responsibility for key policy areas in the EU remains at the national level. The country-specific recommendations in the European Semester can only initiate and support reform processes; national ownership is crucial for their implementation.[63]

Conclusion

Despite, in some cases, considerable reform progress, especially in the aftermath of the global financial and economic crisis and the subsequent sovereign debt crisis, structural impediments continue to pose economic policy challenges to the economies of the euro area. In this context, the recent trend of declining reform intensity raises doubts as to whether the

52 See, inter alia, Edwards (1989) and Hausmann et al. (2008).
53 See, inter alia, Blanchard and Giavazzi (2003) as well as Roeger et al. (2019).
54 See Cacciatore et al. (2016c) as well as Duval and Furceri (2018).
55 Empirical studies provide a mixed picture of these interrelationships, however. Fiori et al. (2012), Cacciatore et al. (2016b) and Duval and Furceri (2018), inter alia, find that pronounced labour market rigidities boost the effectiveness of product market reforms. By contrast, Berger and Danninger (2007) as well as Bassanini and Duval (2009) point to pre-existing complementarities between labour and product market reforms.
56 See, inter alia, Koeniger and Prat (2007).
57 See, inter alia, Bertola and Ichino (1995).
58 See, inter alia, Anderson et al. (2014b).
59 See, inter alia, Fernández-Villaverde et al. (2014).
60 See, inter alia, Anderson et al. (2014b) and Bordon et al. (2018).
61 See, inter alia, Gadatsch et al. (2016) as well as Röhe and Stähler (2018).
62 See, inter alia, Bi (2012), Corsetti et al. (2013), Röhe and Stähler (2018) as well as Bonam and Lukkezen (2019).
63 For more information, see Duval et al. (2018b).

favourable macroeconomic environment has been used adequately for the implementation of reforms. The primary responsibility for implementation lies at the national level, and structural reforms are intended to foster economic prosperity first and foremost in the individual Member States. At the same time, it should be emphasised that a successful common monetary policy requires well-functioning labour, financial and product markets. For that reason, the removal of structural rigidities is also of interest from a monetary policy perspective.

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Statistical Section

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XII. External sector

I. Key economic data for the euro area

1. Monetary developments and interest rates

	Money stock in various definitions [1,2]				Determinants of the money stock [1]			Interest rates		
			M3 [3]							
	M1	M2		3-month moving average (centred)	MFI lending, total	MFI lending to enterprises and households	Monetary capital formation [4]	EONIA [5,7]	3-month EURIBOR [6,7]	Yield on European government bonds outstanding [8]
Period	Annual percentage change							% p.a. as a monthly average		
2017 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	4.1	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	2.9	2.7	– 0.5	– 0.37	– 0.33	1.0
May	7.5	4.6	4.0	4.1	3.3	3.2	– 0.8	– 0.36	– 0.33	1.1
June	7.4	4.7	4.4	4.1	3.1	2.8	– 0.9	– 0.36	– 0.32	1.1
July	7.0	4.4	4.0	3.9	3.4	3.3	– 0.6	– 0.36	– 0.32	1.0
Aug.	6.5	4.0	3.5	3.7	3.4	3.4	– 0.7	– 0.36	– 0.32	1.1
Sep.	6.9	4.3	3.6	3.7	3.2	3.2	0.1	– 0.36	– 0.32	1.2
Oct.	6.8	4.4	3.9	3.7	2.9	2.9	0.6	– 0.37	– 0.32	1.3
Nov.	6.7	4.3	3.8	3.9	2.7	2.8	0.6	– 0.36	– 0.32	1.2
Dec.	6.6	4.3	4.1	3.9	2.8	3.0	0.8	– 0.36	– 0.31	1.1
2019 Jan.	6.2	4.0	3.7	4.0	2.7	2.9	0.9	– 0.37	– 0.31	1.0
Feb.	6.6	4.5	4.2	4.1	3.0	3.2	1.4	– 0.37	– 0.31	0.9
Mar.	7.5	5.2	4.6	4.5	2.7	3.0	1.3	– 0.37	– 0.31	0.8
Apr.	7.4	5.3	4.7	4.7	2.7	3.2	1.2	– 0.37	– 0.31	0.8
May	7.2	5.2	4.8	4.6	2.2	2.8	1.4	– 0.37	– 0.31	0.7
June	7.2	5.0	4.5	4.8	2.3	3.1	2.2	– 0.36	– 0.33	0.4
July	7.8	5.5	5.1	5.1	2.2	3.1	2.0	– 0.37	– 0.36	0.2
Aug.	8.4	6.2	5.7	...	2.3	3.3	1.7	– 0.36	– 0.41	– 0.1
Sep.	...	...	...	...	...	...	...	– 0.40	– 0.42	– 0.1

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 *

	Selected items of the euro area balance of payments [r]								Euro exchange rates [1]		
	Current account		Financial account							Effective exchange rate [3]	
	Balance	of which: Goods	Balance	Direct investment	Portfolio investment	Financial derivatives [2]	Other investment	Reserve assets	Dollar rate	Nominal	Real [4]
Period	€ million								EUR 1 = USD ...	Q1 1999 = 100	
2017 Dec.	+ 51,059	+ 33,700	+ 69,314	+ 12,194	+ 12,237	+ 2,316	+ 44,126	– 1,561	1.1836	98.8	93.3
2018 Jan.	+ 11,005	+ 12,028	+ 21,226	+ 59,890	+ 3,425	– 4,320	– 39,973	+ 2,204	1.2200	99.4	93.9
Feb.	+ 20,449	+ 22,974	+ 25,317	+ 1,611	+ 64,631	– 476	– 40,400	– 49	1.2348	99.6	93.9
Mar.	+ 47,306	+ 35,303	+ 45,500	+ 69,181	– 57,364	– 738	+ 25,263	+ 9,159	1.2336	99.7	94.2
Apr.	+ 33,898	+ 24,472	+ 6,074	+ 20,858	+ 29,093	+ 13,878	– 54,093	– 3,662	1.2276	99.5	94.0
May	+ 11,660	+ 24,082	+ 23,437	– 2,900	+ 54,147	+ 15,129	– 45,294	+ 2,355	1.1812	98.1	92.7
June	+ 32,649	+ 29,184	+ 12,937	– 21,609	– 16,605	+ 8,513	+ 34,782	+ 7,856	1.1678	97.9	92.6
July	+ 32,714	+ 26,210	+ 9,865	+ 4,164	+ 9,256	+ 14,052	– 13,326	– 4,281	1.1686	99.2	93.8
Aug.	+ 29,626	+ 19,053	+ 44,134	– 3,071	+ 70,427	+ 14,263	– 40,682	+ 3,197	1.1549	99.0	93.4
Sep.	+ 27,608	+ 19,750	+ 40,164	+ 1,646	– 45,423	+ 6,666	+ 74,960	+ 2,315	1.1659	99.5	93.9
Oct.	+ 36,097	+ 25,627	– 21,892	+ 11,240	– 9,313	+ 11,728	– 34,770	– 777	1.1484	98.9	93.4
Nov.	+ 31,913	+ 29,018	+ 45,543	– 34,050	+ 17,115	+ 16,125	+ 42,877	+ 3,476	1.1367	98.3	92.9
Dec.	+ 43,047	+ 26,689	+ 40,102	– 86,030	+ 122,157	+ 1,747	– 859	+ 3,087	1.1384	98.4	92.7
2019 Jan.	+ 8,669	+ 10,566	+ 9,397	+ 7,278	– 20,721	– 36	+ 25,388	– 2,512	1.1416	97.8	92.2
Feb.	+ 18,515	+ 27,572	– 3,352	+ 20,783	– 21,865	– 3,081	+ 454	+ 357	1.1351	97.4	91.7
Mar.	+ 40,493	+ 33,486	+ 45,374	+ 26,901	– 40,644	+ 5,335	+ 48,785	+ 4,996	1.1302	96.9	91.1
Apr.	+ 17,538	+ 25,897	– 15,976	– 27,561	+ 3,336	+ 10,593	– 5,521	+ 3,178	1.1238	96.7	91.0
May	+ 4,778	+ 30,136	+ 12,567	– 7,098	– 60,441	+ 12,555	+ 65,788	+ 1,763	1.1185	97.4	91.4
June	+ 19,820	+ 28,400	+ 41,500	– 24,620	+ 16,212	+ 7,075	+ 45,126	– 2,293	1.1293	97.9	91.9
July	+ 29,841	+ 32,654	+ 5,077	– 19,040	– 28,955	+ 5,596	+ 40,400	+ 7,076	1.1218	97.5 p	91.3
Aug.	...	...	...	...	...	...	...	...	1.1126	98.1 p	91.9
Sep.	...	...	...	...	...	...	...	...	1.1004	97.4 p	91.2

***** 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
Real gross domestic product [1]										
Annual percentage change										
2016	1.9	1.5	2.2	2.6	2.6	1.1	– 0.2	3.7	1.3	1.8
2017	2.5	1.7	2.5	5.8	3.1	2.3	1.5	8.1	1.7	3.8
2018	1.9	1.4	1.5	4.8	1.7	1.7	1.9	8.2	0.8	4.6
2018 Q1	2.6	1.5	1.6	4.7	2.5	2.2	2.3	12.1	1.1	4.0
Q2	2.3	1.5	2.5	4.5	2.2	1.8	1.4	10.4	1.0	5.3
Q3	1.7	1.6	1.1	4.7	1.4	1.7	2.4	7.4	0.5	4.5
Q4	1.2	1.2	0.9	5.1	0.6	1.3	1.6	3.6	0.5	5.2
2019 Q1	1.3	1.3	0.8	5.0	0.5	1.0	0.5	7.4	– 0.2	3.0
Q2	1.2	1.2	0.0	3.6	1.3	1.4	1.9	5.8	0.0	2.0
Industrial production [2]										
Annual percentage change										
2016	1.6	4.5	1.2	3.0	4.1	0.6	2.6	1.8	1.9	4.7
2017	2.9	2.9	3.4	4.3	3.4	2.4	4.1	– 2.2	3.6	8.7
2018	0.9	1.2	1.0	4.2	3.6	0.3	1.8	– 0.1	0.6	2.0
2018 Q1	3.0	2.7	3.8	4.6	6.1	2.3	0.1	– 2.3	3.4	4.4
Q2	2.2	1.3	2.8	3.1	2.6	0.4	2.0	4.1	1.7	0.2
Q3	0.5	– 0.5	– 0.1	3.8	3.4	0.1	2.5	5.9	– 0.3	2.9
Q4	– 1.9	1.1	– 2.3	5.1	2.2	– 1.7	2.6	– 6.4	– 2.4	0.8
2019 Q1	– 0.5	3.1	– 2.7	3.3	0.7	0.5	1.8	2.6	– 0.6	– 0.8
Q2	– 1.3	5.9	p – 5.1	– 0.6	3.4	1.4	1.0	4.0	– 1.1	1.3
Capacity utilisation in industry [3]										
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
2018 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	85.2	70.2	80.3	78.4	77.0
Q2	82.8	81.3	85.3	73.5	80.8	85.1	71.7	76.9	77.5	76.9
Q3	81.9	81.2	83.9	72.5	81.6	84.0	71.8	74.1	77.0	75.9
Standardised unemployment rate [4]										
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	9.7
2017	9.1	7.1	3.8	5.8	8.6	9.4	21.5	6.8	11.2	8.7
2018	8.2	6.0	3.4	5.4	7.4	9.1	19.3	5.8	10.6	7.5
2019 Apr.	7.6	5.5	3.1	4.9	6.7	8.5	17.4	5.2	10.0	6.4
May	7.6	5.5	3.1	5.0	6.7	8.5	17.1	5.2	9.9	6.4
June	7.5	5.5	3.1	4.6	6.7	8.5	17.0	5.3	9.7	6.5
July	7.5	5.5	3.1	4.2	6.7	8.5	...	5.3	9.8	6.5
Aug.	7.4	5.5	3.1	...	6.8	8.5	...	5.3	9.5	6.4
Sep.	...	...	...	...	...	...	...	5.3	...	...
Harmonised Index of Consumer Prices										
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
2019 Apr.	1.7	2.0	2.1	3.2	1.5	1.5	1.1	1.7	1.1	3.3
May	1.2	1.7	1.3	3.1	1.3	1.1	0.6	1.0	0.9	3.5
June	1.3	1.3	1.5	2.6	1.1	1.4	0.2	1.1	0.8	3.1
July	1.0	1.2	1.1	2.0	1.0	1.3	0.4	0.5	0.3	3.0
Aug.	1.0	0.9	1.0	2.1	1.2	1.3	0.1	0.6	0.5	3.1
Sep.	0.8	0.6	0.9	2.2	1.0	1.1	0.2	0.6	0.2	2.3
General government financial balance [5]										
As a percentage of GDP										
2016	– 1.6	– 2.4	1.2	– 0.3	– 1.7	– 3.5	0.5	– 0.7	– 2.5	0.1
2017	– 1.0	– 0.8	1.2	– 0.4	– 0.8	– 2.8	0.7	– 0.3	– 2.4	– 0.6
2018	– 0.5	– 0.7	1.9	– 0.6	– 0.7	– 2.5	1.1	0.0	– 2.1	– 1.0
General government debt [5]										
As a percentage of GDP										
2016	89.2	106.1	69.2	9.2	63.0	98.0	178.5	73.5	131.4	40.3
2017	87.1	103.4	65.3	9.2	61.3	98.4	176.2	68.5	131.4	40.0
2018	85.1	102.0	61.9	8.4	58.9	98.4	181.1	64.8	132.2	35.9

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
										Real gross domestic product [1]
										Annual percentage change
2.5	4.6	5.7	2.2	2.1	2.0	2.1	3.1	3.0	6.7	2016
4.3	1.8	6.7	2.9	2.5	3.5	3.0	4.8	2.9	4.4	2017
3.6	3.1	6.8	2.6	2.4	2.4	4.0	4.1	2.4	4.1	2018
3.6	4.8	5.0	2.8	3.4	2.7	3.7	4.3	2.6	4.0	2018 Q1
4.0	3.8	7.1	3.0	2.3	2.9	4.5	3.7	2.4	4.0	Q2
3.1	2.8	7.7	2.5	1.6	2.4	4.6	4.6	2.0	3.8	Q3
3.9	1.2	7.1	2.2	2.5	1.8	3.6	3.8	2.4	3.8	Q4
4.2	1.0	5.4	1.7	2.0	2.1	3.7	3.3	2.4	3.2	2019 Q1
3.8	3.6	4.0	1.8	1.5	1.6	2.0	2.5	1.8	3.0	Q2
										Industrial production [2]
										Annual percentage change
2.7	0.2	– 7.3	1.3	2.8	2.4	4.6	7.8	1.7	9.1	2016
6.8	3.7	8.7	1.3	5.5	3.5	3.3	8.4	3.3	7.5	2017
5.2	– 1.3	1.3	0.6	3.7	0.1	4.4	5.0	0.4	7.1	2018
7.1	1.7	2.0	2.4	5.0	2.2	1.2	8.8	2.9	5.2	2018 Q1
5.2	– 2.2	0.8	1.5	5.1	0.9	5.9	6.9	1.3	10.5	Q2
2.9	– 2.6	– 1.9	0.1	2.4	– 1.3	5.9	3.5	0.4	6.1	Q3
5.7	– 2.1	4.6	– 1.6	2.3	– 1.4	4.6	0.8	– 2.9	6.3	Q4
4.8	– 2.9	– 2.1	– 1.2	5.5	– 4.1	6.8	4.3	– 0.2	5.9	2019 Q1
5.4	– 1.5	0.5	– 1.7	– 0.5	– 2.2	3.0	2.9	1.3	1.8	Q2
										Capacity utilisation in industry [3]
										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
77.5	82.0	77.6	83.6	88.7	81.4	86.3	86.0	80.3	60.9	2018 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
76.9	79.7	78.2	84.3	87.2	79.4	89.1	84.8	80.4	66.0	Q2
77.5	80.3	75.9	84.1	86.7	80.1	89.4	83.6	80.8	64.2	Q3
										Standardised unemployment rate [4]
										As a percentage of civilian labour force
7.9	6.3	4.7	6.0	6.0	11.2	9.7	8.1	19.6	13.0	2016
7.1	5.6	4.0	4.9	5.6	9.0	8.1	6.6	17.3	11.1	2017
6.2	5.5	3.7	3.9	4.9	7.1	6.6	5.1	15.3	8.4	2018
6.1	5.7	3.5	3.3	4.7	6.6	5.8	4.5	14.2	7.5	2019 Apr.
6.1	5.7	3.5	3.3	4.6	6.6	5.8	4.3	14.1	7.3	May
6.2	5.7	3.4	3.4	4.5	6.5	5.7	4.2	14.0	7.2	June
6.4	5.7	3.4	3.4	4.4	6.4	5.6	4.2	13.9	7.0	July
6.6	5.7	3.3	3.5	4.5	6.2	5.5	4.2	13.8	6.8	Aug.
...	...	...	...	...	...	...	...	...	...	Sep.
										Harmonised Index of Consumer Prices
										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
2.7	2.2	1.7	3.0	1.7	0.9	2.4	1.8	1.6	1.2	2019 Apr.
2.5	2.2	1.7	2.3	1.7	0.3	2.7	1.6	0.9	0.2	May
2.4	1.5	1.8	2.7	1.6	0.7	2.7	1.9	0.6	0.3	June
2.5	1.6	1.8	2.6	1.4	– 0.7	3.0	2.0	0.6	0.1	July
2.5	1.4	1.9	3.1	1.5	– 0.1	3.0	2.4	0.4	0.6	Aug.
2.0	1.1	1.6	2.7	1.2	– 0.3	3.0	1.7	0.2	– 0.5	Sep.
										General government financial balance [5]
										As a percentage of GDP
0.2	1.9	0.9	0.0	– 1.6	– 2.0	– 2.2	– 1.9	– 4.5	0.3	2016
0.5	1.4	3.4	1.2	– 0.8	– 3.0	– 0.8	0.0	– 3.1	1.8	2017
0.7	2.4	2.0	1.5	0.1	– 0.5	– 0.7	0.7	– 2.5	– 4.8	2018
										General government debt [5]
										As a percentage of GDP
40.0	20.7	55.5	61.9	83.0	129.2	51.8	78.7	99.0	105.5	2016
39.4	23.0	50.2	57.0	78.2	124.8	50.9	74.1	98.1	95.8	2017
34.2	21.4	46.0	52.4	73.8	121.5	48.9	70.1	97.1	102.5	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				
		Enterprises and households		General government									
	Total	Total	of which: Securities	Total	of which: Securities	Total	Claims on non-euro area residents	Liabilities to non-euro area residents	Total	Deposits with an agreed maturity of over 2 years	Deposits at agreed notice of over 3 months	Debt securities with maturities of over 2 years (net) 2	Capital and reserves 3
2018 Jan.	124.7	83.9	26.4	40.8	27.6	– 43.1	152.4	195.5	11.6	– 8.5	– 0.1	22.0	– 1.8
Feb.	5.6	1.5	– 0.3	4.2	20.8	– 10.6	46.9	57.5	– 16.3	– 0.8	– 0.5	– 13.3	– 1.8
Mar.	68.2	63.2	1.5	4.9	6.9	79.7	– 65.9	– 145.6	13.4	– 6.0	– 0.4	1.9	17.8
Apr.	69.3	68.2	52.6	1.1	– 0.7	– 74.5	42.0	116.5	– 5.5	– 1.0	– 0.5	– 2.5	– 1.5
May	122.3	88.1	11.0	34.2	39.9	– 34.3	120.9	155.2	– 4.3	– 7.2	– 0.4	1.2	2.2
June	– 5.3	– 22.7	– 22.3	17.3	20.5	75.1	– 67.8	– 143.0	– 8.4	– 4.8	– 0.4	– 7.7	4.5
July	67.4	66.6	19.9	0.8	3.4	– 24.4	41.6	66.0	10.4	6.1	– 0.6	– 8.3	13.2
Aug.	– 2.2	– 13.6	– 4.8	11.4	22.7	– 26.6	– 1.3	25.3	4.0	– 8.3	– 0.4	1.4	11.3
Sep.	25.3	22.4	– 11.2	2.9	7.1	64.1	– 26.2	– 90.3	24.5	– 12.5	– 0.5	22.3	15.1
Oct.	11.7	17.4	3.1	– 5.7	– 7.5	– 13.0	72.4	85.4	7.9	– 6.5	– 0.2	3.8	10.8
Nov.	92.1	91.6	12.1	0.5	2.0	73.8	35.0	– 38.8	3.4	– 4.2	– 1.0	3.9	4.7
Dec.	– 90.5	– 69.9	– 21.6	– 20.6	– 22.6	– 3.1	– 162.5	– 159.5	9.4	16.4	0.1	– 3.1	– 4.0
2019 Jan.	125.8	70.0	14.8	55.8	44.4	– 0.8	196.2	197.0	19.9	– 8.7	0.1	26.0	2.5
Feb.	53.2	42.4	17.3	10.9	24.5	20.6	– 32.8	– 53.3	20.5	0.6	– 0.1	25.7	– 5.7
Mar.	15.3	41.5	2.1	– 26.2	– 26.2	71.3	– 0.6	– 71.9	8.6	– 1.8	0.0	– 4.6	15.0
Apr.	68.8	89.8	26.7	– 21.0	– 20.6	– 6.4	114.4	120.8	– 16.3	– 5.2	0.2	– 9.9	– 1.4
May	39.1	36.7	12.7	2.4	3.3	61.1	67.6	6.5	10.5	– 2.9	0.6	7.1	5.7
June	1.6	22.7	– 13.8	– 21.1	– 20.3	80.7	– 12.0	– 92.7	45.7	20.0	1.1	8.7	15.9
July	51.3	62.3	– 0.7	– 11.0	– 13.7	32.5	162.1	129.6	0.2	– 22.4	0.4	4.7	17.5
Aug.	24.3	20.0	– 7.0	4.3	4.1	– 20.1	16.5	36.6	– 17.6	– 15.9	– 0.4	– 8.6	7.3

b) German contribution

Period	I. Lending to non-banks (non-MFIs) in the euro area					II. Net claims on non-euro area residents			III. Monetary capital formation at monetary financial institutions (MFIs) in the euro area				
		Enterprises and households		General government									
	Total	Total	of which: Securities	Total	of which: Securities	Total	Claims on non-euro area residents	Liabilities to non-euro area residents	Total	Deposits with an agreed maturity of over 2 years	Deposits at agreed notice of over 3 months	Debt securities with maturities of over 2 years (net) 2	Capital and reserves 3
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.	12.5	16.4	– 0.3	– 3.9	– 1.4	24.3	– 15.4	– 39.6	6.6	– 0.8	0.1	12.6	– 5.2
Mar.	9.7	17.2	0.1	– 7.5	– 4.8	– 32.1	13.9	46.1	– 4.0	– 3.2	0.2	– 4.4	3.4
Apr.	7.6	12.7	– 0.5	– 5.1	– 6.1	19.2	14.8	– 4.5	– 6.6	– 2.7	0.2	– 4.0	0.0
May	19.3	19.8	0.5	– 0.5	1.4	11.8	2.4	– 9.3	9.1	– 1.7	0.6	7.5	2.6
June	25.7	26.4	4.3	– 0.7	1.2	– 8.0	10.3	18.3	11.5	1.5	0.6	2.4	7.1
July	9.5	7.8	0.0	1.6	– 0.8	42.6	6.3	– 36.4	0.8	– 2.2	– 0.3	– 1.1	4.4
Aug.	25.2	20.0	1.1	5.1	5.4	– 13.7	2.3	16.0	– 6.4	– 4.6	– 0.3	– 3.7	2.3

***** 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]						
40.9	20.0	–	9.1	– 2.4	– 19.7	– 15.2	– 4.5	5.6	11.7	– 7.8	20.1	– 11.9	2018 Jan.
13.8	8.4	–	– 10.9	– 8.9	5.7	0.3	5.4	– 17.3	2.7	– 1.4	– 11.3	6.0	Feb.
13.9	51.7	–	69.0	67.4	64.6	8.7	55.9	– 3.6	6.4	2.6	– 1.4	6.5	Mar.
– 19.9	– 32.4	–	52.5	30.0	48.7	4.2	44.5	– 20.6	2.0	– 4.3	11.3	1.5	Apr.
7.1	15.4	–	69.7	93.2	95.8	4.9	90.9	– 9.9	7.2	25.0	– 12.3	– 5.8	May
21.4	– 43.5	–	100.3	108.7	91.1	11.4	79.6	14.2	3.4	– 5.6	– 8.9	2.9	June
7.6	33.8	–	– 8.8	– 9.5	– 6.0	6.7	– 12.8	– 8.1	4.6	6.7	10.3	– 6.3	July
2.9	– 41.0	–	5.3	– 1.5	– 0.0	2.9	– 3.0	– 6.7	5.2	3.8	– 1.6	1.9	Aug.
40.6	5.7	–	18.7	45.4	69.3	2.1	67.2	– 20.8	– 3.2	– 10.7	– 19.5	– 0.7	Sep.
– 38.8	– 5.4	–	35.0	13.3	8.0	1.8	6.3	8.3	– 3.0	– 10.2	23.8	– 2.2	Oct.
7.3	65.1	–	90.2	88.3	97.7	5.3	92.4	– 11.6	2.2	31.5	0.3	– 0.9	Nov.
– 59.9	– 93.9	–	50.8	50.2	49.2	18.0	31.3	– 4.4	5.4	– 14.2	0.6	5.2	Dec.
66.1	67.9	–	– 28.8	– 21.5	– 39.0	– 13.1	– 25.9	3.3	14.2	15.6	– 3.9	– 7.1	2019 Jan.
18.6	– 3.2	–	37.9	45.6	39.4	3.2	36.2	– 0.4	6.6	0.2	– 8.4	– 0.4	Feb.
– 21.2	– 21.6	–	120.8	139.5	133.0	6.2	126.8	– 6.2	12.7	– 7.2	– 0.5	– 19.5	Mar.
– 33.5	35.9	–	76.2	56.0	46.8	7.4	39.4	2.4	6.8	22.2	15.5	0.4	Apr.
17.8	– 9.1	–	80.9	88.3	87.3	5.1	82.2	– 12.4	13.4	– 7.7	– 9.7	5.9	May
33.6	– 69.7	–	72.8	87.3	98.3	7.5	90.7	– 14.4	3.4	– 20.7	– 11.5	– 3.0	June
– 13.0	45.6	–	51.0	31.0	25.7	9.0	16.7	1.3	4.0	17.9	22.7	– 5.7	July
6.3	– 91.3	–	106.8	108.2	84.1	1.4	82.7	19.0	5.1	5.1	13.8	– 14.2	Aug.

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:		Total	Components of the money stock							
		Intra-Eurosystem liability/ claim related to banknote issue [9,11]	Currency in circulation		Overnight deposits	Deposits with an agreed maturity of up to 2 years	Deposits at agreed notice of up to 3 months [6]	Repo transactions	Money market fund shares (net) [7,8]	Debt securities with maturities of up to 2 years (incl. money market paper)(net) [7]	
– 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	20.3	2.9	0.4	12.5	8.3	3.6	1.0	0.3	– 0.0	– 0.7	Feb.
17.7	– 58.0	2.5	1.2	21.8	20.9	– 1.5	2.2	0.0	– 0.2	0.3	Mar.
– 15.2	33.9	3.9	2.1	14.7	17.9	– 3.7	0.0	1.1	– 0.1	– 0.6	Apr.
19.0	– 20.1	4.0	0.8	23.0	23.8	0.4	– 0.3	– 1.3	0.1	0.4	May
3.7	– 7.7	3.0	2.1	10.3	10.3	– 1.4	– 0.4	1.7	– 0.0	0.2	June
– 27.1	74.0	3.6	3.2	4.4	7.2	– 3.3	– 0.6	1.0	0.1	0.1	July
10.7	– 26.7	5.8	– 0.7	33.9	26.1	5.7	– 1.2	3.1	0.0	0.3	Aug.

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

II. Overall monetary survey in the euro area

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

End of year/month	Total assets or liabilities	Assets										
		Lending to non-banks (non-MFIs) in the euro area									Claims on non-euro area residents	Other assets
		Total	Enterprises and households				General government					
			Total	Loans	Debt securities 2	Shares and other equities	Total	Loans	Debt securities 3			
	Euro area (€ billion) 1											
2017 July	26,650.3	17,603.7	13,118.4	10,866.0	1,460.0	792.4	4,485.3	1,060.3	3,425.0	5,229.5	3,817.2
Aug.	26,683.9	17,609.7	13,086.5	10,852.9	1,443.9	789.6	4,523.3	1,054.6	3,468.6	5,199.9	3,874.3
Sep.	26,562.4	17,656.1	13,130.9	10,905.8	1,434.2	790.9	4,525.1	1,046.0	3,479.1	5,171.5	3,734.8
Oct.	26,760.5	17,733.1	13,189.4	10,968.3	1,422.9	798.2	4,543.7	1,046.2	3,497.5	5,292.7	3,734.6
Nov.	26,790.1	17,846.2	13,271.9	11,037.5	1,430.7	803.7	4,574.3	1,038.3	3,536.0	5,247.3	3,696.6
Dec.	26,320.8	17,707.9	13,166.9	10,942.4	1,425.5	798.9	4,541.0	1,028.7	3,512.3	5,065.9	3,547.0
2018 Jan.	26,414.7	17,897.5	13,319.7	11,069.2	1,448.8	801.7	4,577.8	1,041.6	3,536.2	5,253.9	3,263.3
Feb.	26,379.4	17,897.8	13,316.5	11,070.0	1,456.5	790.0	4,581.2	1,025.2	3,556.0	5,342.9	3,138.7
Mar.	26,373.2	17,959.2	13,358.1	11,111.2	1,466.5	780.4	4,601.1	1,023.3	3,577.8	5,257.8	3,156.2
Apr.	26,515.4	18,032.8	13,432.8	11,127.7	1,490.0	815.1	4,599.9	1,025.1	3,574.8	5,335.0	3,147.6
May	26,916.5	18,104.2	13,514.1	11,201.8	1,504.5	807.8	4,590.1	1,019.9	3,570.2	5,543.9	3,268.5
June	26,772.3	18,099.2	13,482.5	11,193.8	1,501.6	787.1	4,616.7	1,016.8	3,599.9	5,455.9	3,217.3
July	26,782.1	18,156.4	13,547.1	11,235.8	1,523.9	787.4	4,609.3	1,012.7	3,596.5	5,466.2	3,159.5
Aug.	26,815.9	18,127.5	13,530.7	11,227.3	1,523.9	779.5	4,596.8	1,001.7	3,595.1	5,485.0	3,203.4
Sep.	26,769.8	18,147.8	13,539.6	11,248.0	1,509.3	782.3	4,608.3	1,000.7	3,607.5	5,462.1	3,160.0
Oct.	27,088.9	18,151.7	13,555.3	11,266.4	1,510.7	778.1	4,596.4	1,002.6	3,593.9	5,679.3	3,257.9
Nov.	27,226.0	18,243.4	13,638.0	11,338.0	1,515.9	784.0	4,605.5	1,001.0	3,604.5	5,704.1	3,278.5
Dec.	26,993.5	18,171.1	13,567.8	11,295.9	1,501.4	770.5	4,603.3	1,002.8	3,600.5	5,563.5	3,258.8
2019 Jan.	27,402.8	18,308.2	13,637.2	11,345.5	1,517.0	774.7	4,671.0	1,015.9	3,655.2	5,783.5	3,311.0
Feb.	27,440.6	18,353.3	13,683.3	11,368.6	1,528.1	786.7	4,670.0	1,001.2	3,668.8	5,771.0	3,316.2
Mar.	27,739.0	18,395.8	13,735.1	11,413.7	1,525.8	795.6	4,660.7	1,001.3	3,659.3	5,848.4	3,494.8
Apr.	27,898.4	18,466.6	13,828.0	11,472.9	1,529.5	825.6	4,638.7	1,001.1	3,637.6	5,955.8	3,476.0
May	28,194.7	18,495.2	13,853.0	11,494.6	1,548.7	809.7	4,642.1	1,000.3	3,641.8	6,038.9	3,660.7
June	28,319.9	18,522.3	13,873.6	11,521.3	1,551.8	800.5	4,648.6	1,000.0	3,648.6	6,005.0	3,792.6
July	28,781.9	18,601.6	13,938.7	11,584.1	1,550.5	804.1	4,662.9	1,002.8	3,660.0	6,218.8	3,961.4
Aug.	29,369.6	18,658.2	13,961.6	11,613.0	1,549.9	798.7	4,696.7	1,003.1	3,693.6	6,311.3	4,400.0
	German contribution (€ billion)											
2017 July	6,069.0	4,135.9	3,176.7	2,731.5	175.2	269.9	959.2	332.6	626.7	1,201.4	731.7
Aug.	6,084.5	4,152.3	3,186.3	2,741.6	174.3	270.3	966.1	327.8	638.3	1,185.1	747.2
Sep.	6,076.7	4,167.7	3,200.9	2,757.6	174.3	269.1	966.8	323.2	643.6	1,194.6	714.3
Oct.	6,082.0	4,185.9	3,210.4	2,766.1	174.6	269.8	975.4	324.0	651.4	1,188.5	707.7
Nov.	6,088.7	4,211.0	3,227.4	2,777.0	178.7	271.6	983.6	321.5	662.1	1,177.2	700.5
Dec.	6,051.1	4,202.2	3,222.8	2,768.6	180.4	273.8	979.4	318.5	660.9	1,163.4	685.4
2018 Jan.	6,074.8	4,214.9	3,242.3	2,786.5	181.6	274.2	972.5	317.0	655.6	1,176.4	683.5
Feb.	6,051.9	4,220.1	3,253.3	2,799.4	183.1	270.8	966.8	311.4	655.4	1,195.1	636.8
Mar.	6,053.7	4,228.1	3,260.9	2,809.5	183.0	268.4	967.2	309.7	657.5	1,184.4	641.2
Apr.	6,046.4	4,233.3	3,267.7	2,816.0	184.4	267.4	965.6	310.5	655.0	1,178.5	634.6
May	6,148.1	4,248.4	3,280.8	2,824.1	186.8	269.8	967.6	306.5	661.1	1,226.7	673.0
June	6,120.9	4,264.2	3,297.3	2,838.8	187.5	271.0	966.9	304.3	662.7	1,201.8	654.9
July	6,089.3	4,274.2	3,307.9	2,849.4	187.0	271.5	966.3	304.9	661.4	1,194.2	620.9
Aug.	6,121.9	4,279.7	3,313.6	2,863.9	183.8	265.9	966.0	300.5	665.5	1,189.8	652.4
Sep.	6,119.7	4,295.4	3,331.0	2,880.3	184.8	265.9	964.4	297.5	666.9	1,194.5	629.8
Oct.	6,154.2	4,303.6	3,339.1	2,888.2	185.3	265.6	964.5	300.8	663.7	1,208.1	642.4
Nov.	6,177.4	4,323.4	3,356.8	2,905.6	188.1	263.0	966.7	299.8	666.9	1,202.7	651.3
Dec.	6,194.1	4,317.4	3,353.6	2,903.7	187.8	262.2	963.7	296.4	667.3	1,208.5	668.2
2019 Jan.	6,252.9	4,333.5	3,366.6	2,917.4	188.8	260.4	966.9	299.2	667.7	1,232.6	686.9
Feb.	6,243.9	4,343.3	3,382.0	2,932.6	189.2	260.2	961.3	296.6	664.7	1,221.0	679.6
Mar.	6,392.0	4,373.9	3,414.7	2,963.7	189.7	261.3	959.2	293.9	665.3	1,265.4	752.8
Apr.	6,408.7	4,379.3	3,427.3	2,976.4	189.1	261.9	951.9	294.8	657.1	1,278.2	751.2
May	6,524.8	4,402.6	3,446.8	2,995.6	190.0	261.1	955.8	293.1	662.8	1,284.5	837.7
June	6,619.8	4,431.8	3,473.1	3,017.0	194.4	261.7	958.6	291.2	667.5	1,294.2	893.7
July	6,698.2	4,445.3	3,481.1	3,024.8	194.0	262.3	964.2	293.7	670.5	1,312.3	940.7
Aug.	6,973.3	4,478.7	3,501.8	3,044.2	196.5	261.0	976.8	293.5	683.3	1,330.8	1,163.8

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

II. Overall monetary survey in the euro area

Liabilities											
	Deposits of non-banks (non-MFIs) in the euro area										
			Enterprises and households								
					With agreed maturities of			At agreed notice of [6]			
Currency in circulation [4]	Total	of which: in euro [5]	Total	Overnight	up to 1 year	over 1 year and up to 2 years	over 2 years	up to 3 months	over 3 months	End of year/month
											Euro area (€ billion) [1]
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	2017 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	12,285.7	11,542.3	11,615.7	6,348.4	834.7	242.2	1,925.2	2,210.3	54.9	Dec.
1,108.0	12,318.0	11,527.5	11,608.4	6,347.5	840.6	236.7	1,915.1	2,212.7	55.8	2018 Jan.
1,108.3	12,329.7	11,524.1	11,601.3	6,351.7	831.3	232.1	1,915.9	2,215.2	55.1	Feb.
1,117.0	12,393.6	11,579.9	11,659.1	6,416.1	831.5	226.4	1,908.9	2,221.4	54.8	Mar.
1,121.2	12,401.4	11,610.6	11,679.1	6,454.1	817.7	222.3	1,907.2	2,223.4	54.4	Apr.
1,126.1	12,502.5	11,690.4	11,761.7	6,547.6	810.6	217.7	1,900.9	2,230.9	54.0	May
1,137.6	12,613.6	11,776.7	11,843.6	6,623.3	821.4	214.9	1,895.2	2,235.1	53.7	June
1,145.3	12,606.0	11,760.4	11,825.6	6,603.5	817.3	212.1	1,899.9	2,239.8	53.1	July
1,148.3	12,595.4	11,753.0	11,802.8	6,593.6	812.2	208.9	1,890.4	2,244.9	52.7	Aug.
1,150.4	12,662.1	11,779.9	11,831.4	6,656.8	796.4	205.9	1,877.8	2,242.2	52.3	Sep.
1,152.2	12,639.5	11,788.4	11,848.4	6,668.9	812.9	203.6	1,872.0	2,239.0	52.1	Oct.
1,157.5	12,719.4	11,861.9	11,912.4	6,750.7	801.7	200.7	1,866.8	2,241.3	51.3	Nov.
1,175.4	12,713.4	11,926.4	11,989.4	6,799.2	800.8	200.7	1,888.5	2,248.7	51.5	Dec.
1,162.4	12,765.3	11,909.0	11,974.7	6,778.5	798.3	199.4	1,885.1	2,262.1	51.3	2019 Jan.
1,165.6	12,830.6	11,958.0	12,003.9	6,807.0	795.6	196.8	1,885.4	2,268.0	51.2	Feb.
1,171.7	12,947.7	12,078.6	12,135.4	6,931.8	786.3	199.6	1,885.8	2,280.4	51.3	Mar.
1,179.1	12,958.0	12,121.3	12,181.2	6,971.4	788.7	201.9	1,880.0	2,287.7	51.5	Apr.
1,184.2	13,059.0	12,198.7	12,257.5	7,050.3	775.9	201.5	1,876.2	2,301.4	52.1	May
1,191.7	13,181.4	12,288.4	12,336.0	7,123.4	762.4	198.4	1,893.9	2,304.7	53.2	June
1,200.7	13,175.3	12,297.1	12,348.4	7,146.6	767.4	198.9	1,872.8	2,309.0	53.7	July
1,202.1	13,279.3	12,385.4	12,436.0	7,226.0	782.1	201.1	1,859.4	2,314.0	53.4	Aug.
											German contribution (€ billion)
251.6	3,583.1	3,472.8	3,333.0	1,927.8	162.6	40.3	619.5	537.9	44.9	2017 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.
269.1	3,785.8	3,652.3	3,490.2	2,136.2	152.2	33.0	587.7	544.0	37.1	Mar.
271.3	3,782.3	3,667.4	3,506.4	2,156.4	151.2	32.8	584.8	544.1	37.2	Apr.
272.1	3,824.2	3,689.1	3,523.2	2,176.6	149.4	32.7	582.9	543.7	37.9	May
274.2	3,837.7	3,697.8	3,528.6	2,183.2	147.8	32.3	583.5	543.3	38.4	June
277.3	3,812.4	3,701.4	3,532.6	2,191.7	147.0	31.6	581.4	542.7	38.1	July
276.6	3,849.4	3,730.0	3,550.8	2,213.2	149.7	31.7	576.8	541.5	37.8	Aug.

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"). **5** Excluding central governments' deposits. **6** In Germany, only savings deposits.

II. Overall monetary survey in the euro area

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

End of year/month	Liabilities (cont'd)												
	Deposits of non-banks (non-MFIs) in the euro area (cont'd)								Repo transactions with non-banks in the euro area		Money market fund shares (net) 3	Debt securities	
	General government												
	Central governments	Other general government											
		Total	Overnight	With agreed maturities of			At agreed notice of 2		Total	of which: Enterprises and households		Total	of which: Denominated in euro
				up to 1 year	over 1 year and up to 2 years	over 2 years	up to 3 months	over 3 months					
Euro area (€ billion) 1													
2017 July	345.0	388.3	191.0	95.2	26.7	46.2	24.4	4.8	197.4	196.8	517.0	2,129.4	1,469.0
Aug.	326.7	395.0	197.1	94.8	27.8	46.2	24.4	4.7	199.6	198.9	526.4	2,114.9	1,462.3
Sep.	362.5	389.5	193.2	91.9	28.1	47.5	24.1	4.7	206.6	205.9	522.1	2,091.3	1,444.0
Oct.	318.9	390.9	197.9	87.6	28.3	48.3	24.1	4.7	226.5	225.8	531.3	2,082.5	1,427.3
Nov.	310.2	394.4	197.6	89.5	29.8	49.0	23.8	4.6	243.4	242.8	527.6	2,096.3	1,442.2
Dec.	289.4	380.5	191.5	81.5	31.5	46.8	24.6	4.6	211.2	210.7	501.2	2,077.2	1,433.0
2018 Jan.	330.3	379.3	186.4	84.3	31.1	47.5	25.1	5.0	230.3	229.8	521.3	2,072.4	1,439.4
Feb.	344.1	384.3	192.0	83.4	30.4	47.8	25.8	4.8	229.1	228.6	510.0	2,075.7	1,430.8
Mar.	358.1	376.4	181.7	85.8	29.5	48.6	25.9	4.8	231.7	231.2	508.5	2,078.7	1,435.5
Apr.	338.2	384.1	190.5	84.7	28.4	49.7	26.0	4.7	227.6	227.1	519.7	2,087.3	1,436.6
May	345.3	395.4	196.6	87.2	29.8	51.0	26.1	4.7	253.0	252.5	507.4	2,100.4	1,439.3
June	366.7	403.3	199.6	91.7	29.9	51.9	25.7	4.7	247.4	246.8	498.2	2,095.9	1,439.0
July	374.6	405.8	203.3	88.4	30.9	52.8	25.7	4.7	254.0	253.5	508.7	2,077.3	1,432.6
Aug.	377.4	415.2	208.7	90.6	31.0	54.4	25.9	4.6	257.8	257.3	507.1	2,084.1	1,439.3
Sep.	414.4	416.3	211.2	87.8	32.4	54.8	25.5	4.6	247.2	246.7	487.6	2,109.6	1,457.2
Oct.	375.6	415.5	213.2	84.0	32.3	55.7	25.8	4.5	237.4	236.9	511.4	2,164.5	1,474.0
Nov.	383.0	423.9	218.9	85.1	33.6	56.3	25.7	4.3	268.8	268.4	511.7	2,164.1	1,469.6
Dec.	322.5	401.4	203.7	78.6	34.2	56.9	23.8	4.3	254.5	254.2	512.5	2,158.3	1,472.0
2019 Jan.	388.6	402.0	196.7	85.8	34.9	55.8	24.2	4.5	270.1	269.6	513.3	2,176.3	1,484.6
Feb.	407.3	419.4	207.3	92.1	34.2	56.3	25.1	4.5	270.5	269.7	505.0	2,204.6	1,506.2
Mar.	385.8	426.5	212.0	92.5	35.4	56.7	25.5	4.4	272.8	272.4	506.5	2,184.4	1,490.0
Apr.	352.4	424.4	212.1	91.2	34.5	56.9	25.3	4.4	295.0	294.6	521.8	2,174.2	1,487.9
May	370.2	431.3	216.8	94.7	33.4	57.0	25.1	4.3	287.4	287.0	512.0	2,190.0	1,497.2
June	403.7	441.8	224.3	94.6	35.1	58.1	25.2	4.4	266.0	265.7	500.4	2,182.5	1,494.3
July	390.7	436.2	220.7	93.8	34.1	58.2	25.1	4.4	284.1	283.8	523.1	2,189.1	1,493.5
Aug.	396.9	446.4	227.5	97.2	34.1	58.1	25.2	4.3	289.4	288.9	536.8	2,171.5	1,482.4
German contribution (€ billion)													
2017 July	42.3	207.8	60.3	81.5	22.6	39.8	3.0	0.7	3.3	3.3	2.1	534.5	264.9
Aug.	49.7	212.4	64.0	81.0	23.6	40.1	3.0	0.7	3.4	3.4	2.3	534.4	267.8
Sep.	59.5	210.9	63.2	78.5	24.3	41.2	3.0	0.7	2.6	2.6	2.3	529.1	264.0
Oct.	45.3	208.2	64.4	73.5	24.7	41.9	3.0	0.7	2.3	2.3	2.0	521.8	252.3
Nov.	51.7	211.4	65.5	73.0	26.2	43.1	2.9	0.7	2.6	2.6	2.0	518.3	251.1
Dec.	61.7	207.7	69.3	66.3	27.8	40.6	2.9	0.7	3.3	3.3	1.7	512.7	256.4
2018 Jan.	37.4	204.4	61.6	70.3	27.5	41.4	2.8	0.8	4.3	4.3	1.7	518.8	262.8
Feb.	46.7	207.4	66.3	69.2	26.8	41.5	3.0	0.6	3.8	3.8	2.0	522.7	263.8
Mar.	55.0	207.6	63.2	72.7	25.8	42.3	3.0	0.6	2.9	2.9	2.2	523.5	265.6
Apr.	39.7	207.0	63.1	72.5	24.4	43.3	3.0	0.6	2.4	2.4	2.1	524.1	270.0
May	51.4	217.4	68.6	74.9	25.7	44.5	3.1	0.6	1.6	1.6	1.9	536.8	274.3
June	69.1	224.5	70.7	79.2	25.6	45.3	3.1	0.6	1.3	1.3	2.0	531.3	274.8
July	48.1	216.4	63.4	76.6	26.5	46.2	3.1	0.6	1.8	1.8	1.9	526.6	277.0
Aug.	61.7	224.1	67.3	78.9	26.4	47.7	3.1	0.6	1.2	1.2	1.9	527.7	282.0
Sep.	73.9	226.2	69.6	76.9	27.8	48.3	3.1	0.6	1.3	1.3	1.9	536.3	287.6
Oct.	56.1	220.6	66.1	73.9	28.0	48.9	3.1	0.6	2.4	2.4	1.9	544.5	286.9
Nov.	65.7	226.3	69.4	74.8	28.7	49.7	3.1	0.7	1.3	1.3	2.2	544.9	290.3
Dec.	60.3	225.0	74.6	67.5	29.3	49.9	3.0	0.6	0.8	0.8	2.2	532.5	283.4
2019 Jan.	41.8	224.2	67.1	74.8	30.0	48.7	3.0	0.6	1.7	1.7	2.2	546.6	294.1
Feb.	38.8	234.3	71.8	80.3	29.3	49.1	3.1	0.6	2.0	2.0	2.2	560.4	302.9
Mar.	56.4	239.2	75.9	80.0	30.3	49.4	3.1	0.6	11.4	11.4	2.0	557.3	298.2
Apr.	41.2	234.7	73.6	78.4	29.4	49.6	3.1	0.6	12.5	12.5	1.9	552.8	293.5
May	60.3	240.7	77.4	81.7	28.3	49.6	3.2	0.5	11.2	11.2	2.0	560.1	300.1
June	64.0	245.1	80.4	81.5	29.0	50.6	3.1	0.5	12.9	12.9	2.0	558.0	301.8
July	36.9	242.9	79.6	80.7	28.2	50.8	3.1	0.5	13.9	13.9	2.0	559.4	296.9
Aug.	47.6	251.1	84.7	83.8	28.1	50.8	3.2	0.5	16.9	16.7	2.0	557.3	295.0

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

II. Overall monetary survey in the euro area

Memo item:													
						Other liability items		Monetary aggregates [7] (from 2002 German contribution excludes currency in circulation)					
issued (net) [3]													
With maturities of													
up to 1 year [4]	over 1 year and up to 2 years	over 2 years	Liabilities to non-euro area residents [5]	Capital and reserves [6]	Excess of inter-MFI liabilities	Total [8]	of which: Intra-Eurosystem-liability/ claim related to banknote issue [9]	M1 [10]	M2 [11]	M3 [12]	Monetary capital formation [13]	Monetary liabilities of central governments (Post Office, Treasury) [14]	End of year/month
Euro area (€ billion) [1]													
37.3	38.9	2,053.2	4,182.1	2,615.9	9.4	3,683.9	–	7,544.1	11,032.5	11,694.8	6,755.0	148.0	2017 July
33.3	39.0	2,042.6	4,178.0	2,647.7	– 0.9	3,688.3	–	7,571.6	11,073.6	11,747.4	6,768.3	148.5	Aug.
40.3	38.4	2,012.5	4,158.3	2,650.8	17.0	3,540.4	–	7,620.4	11,098.3	11,765.0	6,728.8	150.4	Sep.
34.7	36.6	2,011.2	4,339.5	2,666.1	13.3	3,577.9	–	7,646.1	11,114.4	11,785.1	6,716.0	148.7	Oct.
39.2	36.9	2,020.3	4,288.9	2,657.3	45.9	3,574.3	–	7,724.0	11,175.5	11,854.9	6,699.4	151.3	Nov.
33.5	34.8	2,008.9	4,098.4	2,730.9	26.5	3,266.5	–	7,786.3	11,233.9	11,870.9	6,771.4	146.0	Dec.
26.5	28.8	2,017.1	4,415.2	2,714.8	0.3	3,034.4	–	7,767.2	11,220.5	11,867.6	6,755.3	148.1	2018 Jan.
34.8	27.3	2,013.6	4,505.1	2,708.1	13.5	2,899.8	–	7,777.1	11,217.7	11,863.9	6,745.3	147.5	Feb.
40.7	27.1	2,010.8	4,349.2	2,721.1	50.4	2,923.2	–	7,840.1	11,282.8	11,929.6	6,749.0	147.5	Mar.
43.0	26.9	2,017.4	4,494.1	2,722.0	10.0	2,932.1	–	7,892.1	11,316.8	11,986.7	6,755.4	148.4	Apr.
38.2	26.8	2,035.4	4,707.9	2,701.2	13.9	3,004.2	–	7,994.8	11,419.6	12,067.5	6,747.1	147.0	May
42.1	26.0	2,027.8	4,563.6	2,672.3	31.8	2,911.9	–	8,086.7	11,529.2	12,168.6	6,705.5	150.2	June
34.6	27.1	2,015.6	4,612.9	2,667.6	18.5	2,891.9	–	8,080.7	11,518.8	12,158.7	6,693.5	152.4	July
36.7	27.2	2,020.2	4,649.5	2,663.2	25.8	2,884.9	–	8,082.1	11,519.5	12,166.6	6,685.6	155.5	Aug.
37.6	25.1	2,046.9	4,573.4	2,663.0	27.3	2,849.1	–	8,152.5	11,566.6	12,186.6	6,699.4	157.9	Sep.
35.9	26.5	2,102.1	4,705.7	2,708.7	– 2.6	2,972.2	–	8,164.0	11,585.4	12,229.3	6,795.1	153.6	Oct.
39.6	21.9	2,102.6	4,658.8	2,711.1	15.7	3,019.0	–	8,260.7	11,672.4	12,318.3	6,792.4	157.4	Nov.
47.5	20.6	2,090.1	4,504.5	2,727.5	14.8	2,932.6	–	8,307.2	11,719.2	12,367.3	6,818.8	154.1	Dec.
36.3	23.9	2,116.2	4,707.8	2,752.8	24.0	3,030.9	–	8,264.8	11,694.0	12,338.6	6,865.7	151.7	2019 Jan.
32.8	26.1	2,145.8	4,672.5	2,740.4	22.8	3,028.5	–	8,305.8	11,742.0	12,378.2	6,883.5	150.4	Feb.
15.2	22.5	2,146.8	4,662.4	2,766.3	29.4	3,197.8	–	8,443.1	11,887.3	12,505.3	6,911.3	151.9	Mar.
17.0	21.4	2,135.8	4,780.4	2,760.6	27.7	3,201.7	–	8,489.7	11,943.3	12,581.6	6,889.3	151.5	Apr.
23.5	22.2	2,144.3	4,786.8	2,774.3	37.7	3,363.4	–	8,576.8	12,032.9	12,665.2	6,908.4	149.7	May
20.2	20.5	2,141.9	4,651.7	2,830.2	47.9	3,468.0	–	8,670.7	12,115.1	12,730.6	6,981.7	155.2	June
15.9	20.2	2,153.0	4,807.5	2,878.9	38.9	3,684.3	–	8,699.7	12,150.8	12,787.6	7,020.9	154.5	July
1.7	19.7	2,150.1	4,871.3	2,940.4	– 0.7	4,079.5	–	8,786.5	12,263.0	12,898.0	7,065.7	153.8	Aug.
German contribution (€ billion)													
18.8	16.2	499.5	926.1	589.1	– 975.5	1,406.4	345.0	1,988.1	2,835.9	2,876.2	1,793.6	–	2017 July
18.5	15.8	500.0	894.5	597.2	– 970.2	1,422.2	348.6	2,002.3	2,846.8	2,886.8	1,801.4	–	Aug.
19.3	15.4	494.4	927.7	594.2	– 982.9	1,387.5	352.1	2,008.2	2,853.5	2,893.0	1,792.0	–	Sep.
18.6	15.7	487.5	913.6	596.3	– 946.7	1,386.3	354.2	2,023.0	2,859.6	2,898.2	1,785.4	–	Oct.
18.5	15.8	484.0	883.4	593.7	– 940.3	1,382.0	355.5	2,056.1	2,890.9	2,929.9	1,781.9	–	Nov.
17.7	14.8	480.2	921.3	668.6	– 999.6	1,295.2	359.3	2,045.5	2,882.9	2,920.4	1,852.1	–	Dec.
16.0	14.2	488.5	931.6	656.8	– 974.7	1,303.7	359.3	2,056.2	2,894.2	2,930.5	1,846.2	–	2018 Jan.
16.7	14.3	491.6	968.4	653.3	– 1,003.8	1,263.2	361.3	2,062.1	2,896.6	2,933.5	1,844.1	–	Feb.
16.0	13.9	493.6	953.5	657.7	– 1,016.5	1,278.1	368.2	2,061.3	2,901.1	2,936.2	1,847.4	–	Mar.
17.5	12.3	494.3	949.7	658.7	– 1,002.9	1,270.5	369.5	2,076.6	2,907.0	2,941.3	1,848.1	–	Apr.
19.0	13.1	504.7	997.9	662.3	– 1,044.2	1,297.9	374.9	2,116.6	2,946.8	2,982.4	1,862.6	–	May
17.0	12.5	501.8	996.0	666.2	– 1,070.1	1,277.7	378.5	2,110.1	2,954.5	2,987.3	1,860.9	–	June
16.7	11.9	498.0	967.9	665.4	– 1,019.3	1,250.8	381.6	2,116.5	2,954.1	2,986.4	1,855.4	–	July
18.3	12.0	497.4	966.5	672.6	– 1,024.8	1,273.6	386.9	2,119.1	2,953.0	2,986.4	1,858.4	–	Aug.
17.8	11.0	507.4	979.8	670.9	– 1,059.4	1,251.7	390.8	2,146.5	2,978.4	3,010.4	1,863.3	–	Sep.
20.2	11.0	513.2	952.8	676.1	– 1,031.2	1,277.1	394.6	2,158.3	2,990.0	3,025.5	1,873.8	–	Oct.
19.4	10.3	515.2	932.7	675.8	– 1,041.8	1,288.0	397.1	2,196.8	3,024.9	3,058.2	1,874.7	–	Nov.
17.7	10.1	504.6	967.9	689.9	– 1,063.4	1,297.9	401.1	2,195.0	3,021.7	3,052.5	1,879.0	–	Dec.
18.2	9.6	518.7	920.7	690.0	– 971.6	1,326.1	391.5	2,180.7	3,017.3	3,049.1	1,886.9	–	2019 Jan.
19.1	8.2	533.2	882.8	684.4	– 966.0	1,330.9	394.4	2,189.4	3,030.9	3,062.3	1,895.1	–	Feb.
19.2	8.3	529.8	958.7	695.9	– 1,031.3	1,412.2	396.9	2,212.1	3,054.7	3,095.5	1,900.4	–	Mar.
18.6	8.2	525.9	953.9	692.7	– 985.8	1,398.5	400.8	2,230.0	3,069.0	3,110.2	1,890.7	–	Apr.
18.9	8.4	532.9	944.9	702.5	– 1,016.3	1,496.1	404.8	2,254.0	3,093.0	3,133.5	1,906.3	–	May
19.7	7.6	530.7	957.2	722.3	– 1,013.1	1,542.9	407.8	2,263.6	3,100.7	3,142.8	1,926.0	–	June
19.7	7.9	531.9	925.0	735.6	– 950.3	1,600.3	411.4	2,271.3	3,104.7	3,148.2	1,938.3	–	July
20.3	7.6	529.4	944.3	757.1	– 980.7	1,826.9	417.2	2,297.9	3,135.9	3,182.8	1,952.4	–	Aug.

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

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3. Banking system's liquidity position * Stocks

€ billion; period averages of daily positions

Reserve maintenance period ending in 1	Liquidity-providing factors					Liquidity-absorbing factors						
		Monetary policy operations of the Eurosystem										
	Net assets in gold and foreign currency	Main refinancing operations	Longer-term refinancing operations	Marginal lending facility	Other liquidity-providing operations 3	Deposit facility	Other liquidity-absorbing operations 4	Banknotes in circulation 5	Central government deposits	Other factors (net) 6	Credit institutions' current account balances (including minimum reserves) 7	Base money 8
Eurosystem 2												
2017 Apr.	.	.	.	.	.	.	.	.	.	.	.	.
May	678.6	18.5	707.4	0.3	1,905.3	550.0	0.0	1,118.4	182.0	378.8	1,081.1	2,749.4
June	683.1	13.7	767.4	0.2	1,995.0	593.7	0.0	1,126.0	163.6	397.4	1,178.7	2,898.5
July	656.9	9.4	767.4	0.2	2,076.1	595.3	0.0	1,136.3	229.8	379.4	1,169.2	2,900.8
Aug.	.	.	.	.	.	.	.	.	.	.	.	.
Sep.	639.0	5.5	768.6	0.3	2,150.2	611.4	0.0	1,142.5	181.8	385.1	1,242.7	2,996.7
Oct.	635.0	6.7	765.3	0.2	2,239.2	648.1	0.0	1,142.8	218.3	383.9	1,253.3	3,044.2
Nov.	.	.	.	.	.	.	.	.	.	.	.	.
Dec.	634.5	3.0	763.7	0.2	2,333.5	682.5	0.0	1,146.6	188.5	407.6	1,309.7	3,138.8
2018 Jan.	635.7	2.9	760.6	0.2	2,398.2	689.2	0.0	1,158.2	188.1	487.0	1,275.2	3,122.5
Feb.	.	.	.	.	.	.	.	.	.	.	.	.
Mar.	630.9	1.5	760.5	0.0	2,435.5	686.3	0.0	1,148.2	203.6	474.9	1,315.6	3,150.1
Apr.	.	.	.	.	.	.	.	.	.	.	.	.
May	627.1	1.9	759.5	0.1	2,476.8	668.0	0.0	1,159.0	247.5	495.6	1,295.3	3,122.3
June	625.2	1.8	757.3	0.1	2,519.9	659.5	0.0	1,170.4	218.0	502.5	1,353.9	3,183.8
July	635.1	2.1	744.2	0.1	2,558.4	652.2	0.0	1,183.6	263.4	533.8	1,306.9	3,142.6
Aug.	.	.	.	.	.	.	.	.	.	.	.	.
Sep.	637.5	3.0	739.9	0.1	2,589.7	671.2	0.0	1,192.2	239.1	519.1	1,348.7	3,212.0
Oct.	625.2	6.9	727.8	0.1	2,622.8	631.8	0.0	1,194.3	283.1	504.4	1,369.0	3,195.1
Nov.	.	.	.	.	.	.	.	.	.	.	.	.
Dec.	625.1	6.8	726.4	0.1	2,642.3	635.9	0.0	1,202.4	240.2	542.9	1,379.4	3,217.7
2019 Jan.	655.8	7.9	723.8	0.1	2,652.8	640.0	0.0	1,218.8	231.3	618.2	1,332.1	3,190.9
Feb.	.	.	.	.	.	.	.	.	.	.	.	.
Mar.	665.5	6.0	723.1	0.1	2,645.8	637.6	0.0	1,209.2	257.3	571.4	1,364.8	3,211.7
Apr.	678.6	5.7	720.3	0.1	2,635.9	619.6	0.0	1,215.8	270.5	555.6	1,379.0	3,214.4
May	.	.	.	.	.	.	.	.	.	.	.	.
June	689.7	5.5	718.6	0.4	2,630.6	601.9	0.0	1,228.2	248.2	561.9	1,404.6	3,234.7
July	710.3	4.6	700.1	0.0	2,620.4	570.8	0.0	1,240.8	295.9	592.2	1,335.7	3,147.4
Aug.	.	.	.	.	.	.	.	.	.	.	.	.
Sep.	720.2	3.0	692.5	0.0	2,612.4	555.7	0.0	1,251.1	268.5	621.2	1,331.5	3,138.3
Deutsche Bundesbank												
2017 Apr.	.	.	.	.	.	.	.	.	.	.	.	.
May	164.4	1.0	86.0	0.1	412.4	181.4	0.0	264.1	29.7	– 185.3	374.0	819.5
June	165.8	0.3	95.0	0.0	431.8	181.2	0.0	266.2	32.4	– 204.9	418.0	865.4
July	159.6	0.5	95.0	0.0	447.9	170.1	0.0	269.0	52.7	– 201.6	412.7	851.9
Aug.	.	.	.	.	.	.	.	.	.	.	.	.
Sep.	155.2	0.3	94.9	0.0	463.2	165.5	0.0	269.9	52.4	– 192.6	418.5	853.9
Oct.	154.8	0.3	94.9	0.0	481.5	171.0	0.0	269.4	65.9	– 197.6	422.7	863.2
Nov.	.	.	.	.	.	.	.	.	.	.	.	.
Dec.	154.2	0.5	94.8	0.0	501.4	187.5	0.0	270.3	56.0	– 218.6	455.8	913.6
2018 Jan.	155.5	0.9	93.3	0.0	514.7	204.4	0.0	272.8	54.9	– 192.2	424.5	901.7
Feb.	.	.	.	.	.	.	.	.	.	.	.	.
Mar.	151.5	0.6	93.4	0.0	522.9	207.9	0.0	271.0	56.8	– 221.3	453.9	932.8
Apr.	.	.	.	.	.	.	.	.	.	.	.	.
May	150.7	1.1	93.3	0.0	530.6	190.8	0.0	273.8	61.1	– 191.3	440.9	905.5
June	150.1	1.1	93.1	0.0	540.6	200.3	0.0	277.4	59.2	– 217.9	466.0	943.6
July	151.9	0.4	91.8	0.0	547.6	196.8	0.0	280.0	69.4	– 194.1	439.6	916.4
Aug.	.	.	.	.	.	.	.	.	.	.	.	.
Sep.	152.1	0.4	91.5	0.0	556.2	192.9	0.0	282.0	65.2	– 178.9	439.0	913.9
Oct.	148.1	0.5	88.5	0.0	563.5	160.0	0.0	282.6	81.3	– 183.4	460.0	902.6
Nov.	.	.	.	.	.	.	.	.	.	.	.	.
Dec.	146.9	0.6	88.1	0.0	570.0	148.0	0.0	283.6	69.6	– 185.2	489.5	921.2
2019 Jan.	155.8	1.7	87.6	0.1	570.4	153.1	0.0	293.4	60.5	– 144.9	453.7	900.1
Feb.	.	.	.	.	.	.	.	.	.	.	.	.
Mar.	158.3	0.6	87.6	0.0	569.5	163.3	0.0	294.3	49.3	– 157.0	466.0	923.7
Apr.	160.8	0.6	86.7	0.0	563.7	172.5	0.0	296.1	61.2	– 199.4	481.6	950.1
May	.	.	.	.	.	.	.	.	.	.	.	.
June	163.6	0.6	86.1	0.0	565.2	166.3	0.0	299.6	58.0	– 213.6	505.3	971.1
July	169.4	0.7	85.3	0.0	563.1	150.1	0.0	303.0	65.7	– 175.0	474.5	927.7
Aug.	.	.	.	.	.	.	.	.	.	.	.	.
Sep.	172.5	0.5	84.9	0.0	562.7	150.1	0.0	305.6	57.6	– 157.6	464.9	920.6

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

II. Overall monetary survey in the euro area

Flows

Liquidity-providing factors					Liquidity-absorbing factors					Credit institutions' current account balances (including minimum reserves) 7	Base money 8	Reserve maintenance period ending in 1
	Monetary policy operations of the Eurosystem											
Net assets in gold and foreign currency	Main refinancing operations	Longer-term refinancing operations	Marginal lending facility	Other liquidity-providing operations 3	Deposit facility	Other liquidity-absorbing operations 4	Banknotes in circulation 5	Central government deposits	Other factors (net) 6			
Eurosystem 2												
+ 16.2	– 10.5	+ 153.1	± 0.0	+ 117.8	+ 70.8	± 0.0	+ 7.6	+ 21.7	+ 56.6	+ 120.2	+ 198.5	2017 Apr.
+ 4.5	– 4.8	+ 60.0	– 0.1	+ 89.7	+ 43.7	± 0.0	+ 7.6	– 18.4	+ 18.6	+ 97.6	+ 149.1	May
– 26.2	– 4.3	± 0.0	± 0.0	+ 81.1	+ 1.6	± 0.0	+ 10.3	+ 66.2	– 18.0	– 9.5	+ 2.3	June
– 17.9	– 3.9	+ 1.2	+ 0.1	+ 74.1	+ 16.1	± 0.0	+ 6.2	– 48.0	+ 5.7	+ 73.5	+ 95.9	July
– 4.0	+ 1.2	– 3.3	– 0.1	+ 89.0	+ 36.7	± 0.0	+ 0.3	+ 36.5	– 1.2	+ 10.6	+ 47.5	Aug.
– 0.5	– 3.7	– 1.6	± 0.0	+ 94.3	+ 34.4	± 0.0	+ 3.8	– 29.8	+ 23.7	+ 56.4	+ 94.6	Sep.
+ 1.2	– 0.1	– 3.1	± 0.0	+ 64.7	+ 6.7	± 0.0	+ 11.6	– 0.4	+ 79.4	– 34.5	– 16.3	Oct.
– 4.8	– 1.4	– 0.1	– 0.2	+ 37.3	– 2.9	± 0.0	– 10.0	+ 15.5	– 12.1	+ 40.4	+ 27.6	Nov.
– 3.8	+ 0.4	– 1.0	+ 0.1	+ 41.3	– 18.3	± 0.0	+ 10.8	+ 43.9	+ 20.7	– 20.3	– 27.8	Dec.
– 1.9	– 0.1	– 2.2	± 0.0	+ 43.1	– 8.5	± 0.0	+ 11.4	– 29.5	+ 6.9	+ 58.6	+ 61.5	2018 Jan.
+ 9.9	+ 0.3	– 13.1	± 0.0	+ 38.5	– 7.3	± 0.0	+ 13.2	+ 45.4	+ 31.3	– 47.0	– 41.2	Feb.
+ 2.4	+ 0.9	– 4.3	± 0.0	+ 31.3	+ 19.0	± 0.0	+ 8.6	– 24.3	– 14.7	+ 41.8	+ 69.4	Mar.
– 12.3	+ 3.9	– 12.1	± 0.0	+ 33.1	– 39.4	± 0.0	+ 2.1	+ 44.0	– 14.7	+ 20.3	– 16.9	Apr.
– 0.1	– 0.1	– 1.4	± 0.0	+ 19.5	+ 4.1	± 0.0	+ 8.1	– 42.9	+ 38.5	+ 10.4	+ 22.6	May
+ 30.7	+ 1.1	– 2.6	± 0.0	+ 10.5	+ 4.1	± 0.0	+ 16.4	– 8.9	+ 75.3	– 47.3	– 26.8	June
+ 9.7	– 1.9	– 0.7	± 0.0	– 7.0	– 2.4	± 0.0	– 9.6	+ 26.0	– 46.8	+ 32.7	+ 20.8	2019 Jan.
+ 13.1	– 0.3	– 2.8	± 0.0	– 9.9	– 18.0	± 0.0	+ 6.6	+ 13.2	– 15.8	+ 14.2	+ 2.7	Feb.
+ 11.1	– 0.2	– 1.7	+ 0.3	– 5.3	– 17.7	± 0.0	+ 12.4	– 22.3	+ 6.3	+ 25.6	+ 20.3	Mar.
+ 20.6	– 0.9	– 18.5	– 0.4	– 10.2	– 31.1	± 0.0	+ 12.6	+ 47.7	+ 30.3	– 68.9	– 87.3	Apr.
+ 9.9	– 1.6	– 7.6	± 0.0	– 8.0	– 15.1	± 0.0	+ 10.3	– 27.4	+ 29.0	– 4.2	– 9.1	May
Deutsche Bundesbank												
+ 4.9	+ 0.1	+ 22.6	+ 0.0	+ 25.9	+ 27.7	± 0.0	+ 1.8	+ 6.6	– 15.6	+ 33.0	+ 62.5	2017 Apr.
+ 1.5	– 0.7	+ 9.0	– 0.1	+ 19.4	– 0.2	± 0.0	+ 2.1	+ 2.6	– 19.6	+ 44.0	+ 45.9	May
– 6.2	+ 0.2	+ 0.0	+ 0.0	+ 16.1	– 11.1	± 0.0	+ 2.8	+ 20.3	+ 3.3	– 5.3	– 13.6	June
– 4.4	– 0.2	– 0.1	+ 0.0	+ 15.4	– 4.6	± 0.0	+ 0.9	– 0.2	+ 9.0	+ 5.8	+ 2.1	July
– 0.4	– 0.1	– 0.1	– 0.0	+ 18.3	+ 5.5	± 0.0	– 0.5	+ 13.5	– 5.0	+ 4.2	+ 9.2	Aug.
– 0.6	+ 0.2	– 0.0	– 0.0	+ 19.9	+ 16.5	± 0.0	+ 0.9	– 9.9	– 21.0	+ 33.1	+ 50.4	Sep.
+ 1.3	+ 0.4	– 1.6	– 0.0	+ 13.3	+ 16.9	± 0.0	+ 2.5	– 1.1	+ 26.4	– 31.3	– 11.9	Oct.
– 4.0	– 0.3	+ 0.1	+ 0.0	+ 8.2	+ 3.5	± 0.0	– 1.7	+ 1.9	– 29.1	+ 29.4	+ 31.1	Nov.
– 0.8	+ 0.5	– 0.0	+ 0.0	+ 7.7	– 17.0	± 0.0	+ 2.8	+ 4.2	+ 30.0	– 13.0	– 27.3	Dec.
– 0.6	+ 0.0	– 0.2	– 0.0	+ 10.0	+ 9.5	± 0.0	+ 3.6	– 1.8	– 26.6	+ 25.1	+ 38.1	2018 Jan.
+ 1.8	– 0.6	– 1.3	+ 0.0	+ 7.0	– 3.5	± 0.0	+ 2.6	+ 10.2	+ 23.9	– 26.4	– 27.2	Feb.
+ 0.2	+ 0.0	– 0.3	– 0.0	+ 8.6	– 3.9	± 0.0	+ 2.0	– 4.2	+ 15.2	– 0.6	– 2.5	Mar.
– 4.0	+ 0.0	– 3.0	+ 0.0	+ 7.3	– 32.9	± 0.0	+ 0.6	+ 16.1	– 4.5	+ 21.1	– 11.2	Apr.
– 1.1	+ 0.1	– 0.5	+ 0.0	+ 6.6	– 12.0	± 0.0	+ 1.1	– 11.7	– 1.8	+ 29.5	+ 18.5	May
+ 8.8	+ 1.2	– 0.4	+ 0.0	+ 0.4	+ 5.0	± 0.0	+ 9.7	– 9.2	+ 40.2	– 35.9	– 21.1	June
+ 2.5	– 1.1	– 0.1	– 0.1	– 0.9	+ 10.3	± 0.0	+ 1.0	– 11.2	– 12.0	+ 12.3	+ 23.6	2019 Jan.
+ 2.6	– 0.0	– 0.9	+ 0.0	– 5.8	+ 9.1	± 0.0	+ 1.8	+ 12.0	– 42.5	+ 15.6	+ 26.5	Feb.
+ 2.8	+ 0.0	– 0.6	– 0.0	+ 1.4	– 6.2	± 0.0	+ 3.5	– 3.2	– 14.2	+ 23.7	+ 21.0	Mar.
+ 5.7	+ 0.0	– 0.9	+ 0.0	– 2.1	– 16.2	± 0.0	+ 3.5	+ 7.6	+ 38.6	– 30.7	– 43.5	Apr.
+ 3.2	– 0.2	– 0.4	– 0.0	– 0.4	+ 0.0	± 0.0	+ 2.5	– 8.1	+ 17.4	– 9.6	– 7.1	May

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
Eurosystem [1]									
2019 Mar. 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	–
Apr. 5	4,699.6	402.2	338.7	78.0	260.7	19.6	18.2	18.2	–
12	4,701.8	402.2	342.2	80.5	261.7	19.4	16.5	16.5	–
19	4,707.9	402.1	343.5	80.5	263.0	19.3	19.6	19.6	–
26	4,697.6	402.1	344.6	80.5	264.1	18.5	18.1	18.1	–
May 3	4,683.9	402.1	344.1	80.5	263.7	19.0	19.3	19.3	–
10	4,685.4	402.1	344.1	80.6	263.6	19.3	18.4	18.4	–
17	4,684.9	402.1	344.5	80.6	263.9	18.6	16.6	16.6	–
24	4,692.6	402.1	345.6	80.6	265.0	20.1	19.4	19.4	–
31	4,686.0	402.1	344.8	80.6	264.2	19.2	18.3	18.3	–
June 7	4,690.4	402.1	344.8	80.6	264.2	20.1	23.7	23.7	–
14	4,681.4	402.1	345.9	80.6	265.3	20.4	20.8	20.8	–
21	4,682.7	402.1	344.4	80.5	263.9	20.4	20.8	20.8	–
28	4,692.6	431.8	340.4	79.6	260.8	20.4	21.0	21.0	–
July 5	4,677.5	431.8	339.0	79.6	259.5	21.0	20.6	20.6	–
12	4,684.4	431.9	341.1	79.6	261.6	20.3	20.9	20.9	–
19	4,688.2	431.9	345.2	80.5	264.7	20.2	21.6	21.6	–
26	4,685.7	431.9	347.0	80.6	266.4	20.5	19.7	19.7	–
2019 Aug. 2	4,679.2	431.9	347.7	80.6	267.1	18.8	20.0	20.0	–
9	4,677.8	431.9	347.3	80.6	266.8	19.3	19.0	19.0	–
16	4,676.1	431.9	347.1	80.6	266.5	18.5	21.6	21.6	–
23	4,681.0	431.9	347.6	80.6	267.0	18.6	21.7	21.7	–
30	4,683.7	431.9	347.9	80.6	267.3	19.5	22.5	22.5	–
Sep. 6	4,681.6	431.9	346.5	80.6	265.9	19.0	25.3	25.3	–
13	4,674.6	431.9	345.9	80.6	265.4	20.3	21.8	21.8	–
20	4,663.0	431.9	342.2	80.5	261.7	20.5	20.2	20.2	–
27	4,638.1	431.9	341.9	80.5	261.4	21.5	18.6	18.6	–
Oct. 4	4,695.1	474.1	357.5	82.4	275.1	19.0	18.9	18.9	–
Deutsche Bundesbank									
2019 Mar. 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	–
Apr. 5	1,774.3	125.3	52.9	20.2	32.7	0.0	2.2	2.2	–
12	1,760.4	125.3	53.6	20.9	32.7	0.0	0.9	0.9	–
19	1,773.9	125.3	53.3	20.9	32.4	0.0	4.1	4.1	–
26	1,787.4	125.3	53.6	20.9	32.7	0.0	1.8	1.8	–
May 3	1,786.4	125.2	53.5	20.9	32.7	0.0	3.2	3.2	–
10	1,772.4	125.2	53.6	20.8	32.8	0.0	1.7	1.7	–
17	1,785.1	125.2	53.2	20.8	32.5	0.0	0.4	0.4	–
24	1,788.8	125.2	53.4	20.8	32.6	0.0	3.5	3.5	–
31	1,813.2	125.2	53.5	20.8	32.7	0.0	3.1	3.1	–
June 7	1,805.8	125.2	53.4	20.8	32.6	0.0	6.8	6.8	–
14	1,778.2	125.2	53.9	20.8	33.1	0.0	3.0	3.0	–
21	1,764.8	125.2	53.3	20.8	32.5	0.0	2.8	2.8	–
28	1,818.3	125.2	53.2	20.8	32.4	0.0	2.8	2.8	–
July 5	1,751.7	134.5	52.9	20.6	32.3	0.0	2.3	2.3	–
12	1,754.5	134.5	53.1	20.6	32.5	0.0	2.5	2.5	–
19	1,765.7	134.5	54.1	20.8	33.3	0.0	3.8	3.8	–
26	1,736.3	134.5	54.4	20.8	33.6	0.0	1.7	1.7	–
2019 Aug. 2	1,756.5	134.5	53.6	20.8	32.8	0.0	2.9	2.9	–
9	1,756.1	134.5	53.3	20.7	32.5	0.0	1.2	1.2	–
16	1,768.1	134.5	53.3	20.7	32.6	0.0	3.4	3.4	–
23	1,764.5	134.5	53.6	20.8	32.8	0.0	2.8	2.8	–
30	1,779.5	134.5	54.0	20.8	33.3	0.0	3.1	3.1	–
Sep. 6	1,761.8	134.5	53.4	20.7	32.7	0.0	6.1	6.1	–
13	1,754.7	134.5	53.2	20.7	32.5	0.0	3.2	3.2	–
20	1,767.6	134.5	52.7	20.7	31.9	0.0	3.1	3.1	–
27	1,768.2	134.5	52.6	20.7	31.8	0.0	1.7	1.7	–
Oct. 4	1,768.6	147.6	55.3	21.2	34.1	0.0	1.9	1.9	–

***** 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. **1** 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 denominated in euro	Other assets	As at reporting date
Total	Main refinancing operations	Longer-term refinancing operations	Fine-tuning reverse operations	Structural reverse operations	Marginal lending facility	Credits related to margin calls		Total	Securities held for monetary policy purposes	Other securities			
Eurosystem [1]													
728.7	6.1	722.6	–	–	0.0	–	36.1	2,878.1	2,639.1	239.0	23.9	255.4	2019 Mar. 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
724.1	5.4	718.7	–	–	–	–	40.8	2,873.5	2,634.9	238.6	23.9	258.7	Apr. 5
724.1	5.3	718.7	–	–	0.1	–	39.9	2,873.0	2,634.9	238.1	23.9	260.7	12
727.8	5.4	718.7	–	–	3.7	–	39.0	2,873.6	2,635.8	237.8	23.9	259.1	19
724.7	6.0	718.6	–	–	0.1	–	39.2	2,869.4	2,633.7	235.7	23.9	257.1	26
724.3	5.7	718.6	–	–	–	–	38.2	2,857.9	2,624.8	233.1	23.9	255.0	May 3
724.0	5.4	718.6	–	–	–	–	39.5	2,859.5	2,628.1	231.5	23.9	254.5	10
724.0	5.4	718.6	–	–	–	–	36.7	2,862.1	2,631.2	230.8	23.9	256.5	17
723.5	4.9	718.6	–	–	0.0	–	39.2	2,864.0	2,634.3	229.7	23.9	254.7	24
724.9	6.1	718.7	–	–	0.1	–	37.6	2,858.5	2,628.9	229.7	23.9	256.6	31
724.0	5.3	718.7	–	–	–	–	36.0	2,859.5	2,630.0	229.6	23.9	256.4	June 7
724.7	6.0	718.7	–	–	–	–	31.3	2,854.2	2,624.9	229.2	23.9	258.2	14
724.9	6.2	718.7	–	–	0.0	–	42.3	2,852.8	2,625.0	227.9	23.9	251.1	21
699.1	6.4	692.6	–	–	0.0	–	47.6	2,849.1	2,620.3	228.8	23.4	259.9	28
697.7	5.1	692.6	–	–	–	–	42.0	2,843.6	2,615.6	228.0	23.4	258.3	July 5
695.6	2.9	692.6	–	–	–	–	40.4	2,846.8	2,619.9	226.9	23.4	264.1	12
695.5	2.9	692.6	–	–	–	–	39.7	2,841.9	2,616.1	225.8	23.4	268.9	19
695.6	2.9	692.6	–	–	0.0	–	38.7	2,843.4	2,617.9	225.5	23.4	265.6	26
696.2	3.6	692.6	–	–	0.0	–	42.3	2,832.5	2,610.5	221.9	23.4	266.5	2019 Aug. 2
696.0	3.4	692.6	–	–	–	–	41.5	2,833.2	2,612.2	221.0	23.4	266.2	9
695.6	3.0	692.6	–	–	0.0	–	39.6	2,834.1	2,613.0	221.2	23.4	264.3	16
695.6	3.0	692.6	–	–	0.0	–	36.0	2,835.5	2,613.7	221.7	23.4	270.8	23
695.7	3.3	692.3	–	–	–	–	35.1	2,835.5	2,614.2	221.3	23.4	272.3	30
694.7	2.3	692.3	–	–	0.0	–	35.7	2,833.0	2,612.6	220.3	23.4	272.2	Sep. 6
694.7	2.3	692.3	–	–	0.1	–	36.4	2,831.9	2,611.1	220.9	23.4	268.3	13
694.3	2.0	692.3	–	–	–	–	35.5	2,831.2	2,609.9	221.3	23.4	263.9	20
666.6	2.8	663.8	–	–	0.0	–	34.1	2,833.3	2,612.4	220.9	23.4	266.7	27
665.6	1.8	663.8	–	–	–	–	31.0	2,829.8	2,609.1	220.7	23.4	275.7	Oct. 4
Deutsche Bundesbank													
88.2	0.6	87.6	–	–	0.0	–	7.0	565.2	565.2	–	4.4	904.1	2019 Mar. 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
86.8	0.6	86.2	–	–	–	–	6.6	564.0	564.0	–	4.4	932.1	Apr. 5
86.7	0.5	86.2	–	–	0.1	–	6.9	560.7	560.7	–	4.4	922.0	12
86.8	0.7	86.2	–	–	0.0	–	7.6	562.1	562.1	–	4.4	930.2	19
86.9	0.6	86.1	–	–	0.1	–	7.5	563.1	563.1	–	4.4	944.7	26
86.7	0.5	86.1	–	–	–	–	7.4	563.8	563.8	–	4.4	942.2	May 3
86.7	0.5	86.1	–	–	–	–	6.8	564.8	564.8	–	4.4	929.1	10
86.8	0.6	86.1	–	–	–	–	6.8	565.5	565.5	–	4.4	942.8	17
86.7	0.5	86.1	–	–	0.0	–	7.1	566.6	566.6	–	4.4	941.7	24
87.2	1.0	86.1	–	–	0.1	–	6.7	567.5	567.5	–	4.4	965.5	31
86.6	0.5	86.1	–	–	–	–	8.8	568.0	568.0	–	4.4	952.5	June 7
86.6	0.5	86.1	–	–	–	–	7.3	564.4	564.4	–	4.4	933.3	14
86.7	0.6	86.1	–	–	0.0	–	7.7	565.3	565.3	–	4.4	919.4	21
85.6	0.7	84.9	–	–	0.0	–	7.8	565.7	565.7	–	4.4	973.5	28
85.5	0.6	84.9	–	–	–	–	6.8	559.5	559.5	–	4.4	905.7	July 5
85.6	0.7	84.9	–	–	–	–	8.4	561.1	561.1	–	4.4	904.9	12
85.6	0.6	84.9	–	–	0.0	–	9.4	561.7	561.7	–	4.4	912.3	19
85.8	0.8	84.9	–	–	0.0	–	4.9	562.4	562.4	–	4.4	888.3	26
85.5	0.6	84.9	–	–	0.0	–	6.7	562.2	562.2	–	4.4	906.7	2019 Aug. 2
85.6	0.7	84.9	–	–	–	–	5.3	562.8	562.8	–	4.4	909.2	9
85.4	0.5	84.9	–	–	0.0	–	7.4	562.6	562.6	–	4.4	917.1	16
85.4	0.5	84.9	–	–	0.0	–	7.5	563.1	563.1	–	4.4	913.2	23
85.2	0.4	84.8	–	–	–	–	6.7	563.4	563.4	–	4.4	928.2	30
85.1	0.2	84.8	–	–	0.0	–	7.2	563.7	563.7	–	4.4	907.2	Sep. 6
85.3	0.5	84.8	–	–	–	–	8.2	560.6	560.6	–	4.4	905.3	13
85.2	0.4	84.8	–	–	–	–	7.0	561.0	561.0	–	4.4	919.7	20
82.9	0.5	82.4	–	–	0.0	–	5.2	561.6	561.6	–	4.4	925.3	27
82.9	0.5	82.4	–	–	–	–	4.6	561.5	561.5	–	4.4	910.4	Oct. 4

III. Consolidated financial statement of the Eurosystem

2. Liabilities *

€ billion

As at reporting date		Total liabilities	Banknotes in circulation 1	Liabilities to euro area credit institutions related to monetary policy operations denominated in euro						Other liabilities to euro area credit institutions denominated in euro	Debt certificates issued	Liabilities to other euro area residents denominated in euro		
				Total	Current accounts (covering the minimum reserve system)	Deposit facility	Fixed-term deposits	Fine-tuning reverse operations	Deposits related to margin calls			Total	General government	Other liabilities
Eurosystem 3														
2019 Mar.	15	4,680.6	1,213.3	1,995.0	1,403.5	591.5	–	–	0.0	6.7	–	398.7	272.3	126.4
	22	4,677.0	1,212.4	1,971.7	1,351.4	620.2	–	–	0.0	7.0	–	429.9	302.3	127.6
	29	4,695.8	1,216.1	1,948.2	1,348.9	599.2	–	–	0.1	5.3	–	389.9	263.7	126.2
Apr.	5	4,699.6	1,218.3	2,036.0	1,401.7	634.2	–	–	0.0	5.4	–	370.4	244.6	125.8
	12	4,701.8	1,221.2	2,028.3	1,396.8	631.5	–	–	0.0	6.6	–	382.4	253.9	128.5
	19	4,707.9	1,229.4	1,980.3	1,393.9	586.4	–	–	0.0	6.5	–	416.5	285.8	130.7
	26	4,697.6	1,228.5	1,989.6	1,378.8	610.6	–	–	0.1	5.4	–	401.5	271.4	130.1
May	3	4,683.9	1,229.0	2,037.6	1,403.9	633.7	–	–	0.1	5.1	–	325.4	203.1	122.2
	10	4,685.4	1,226.6	2,041.2	1,435.9	605.3	–	–	–	5.2	–	328.4	206.8	121.6
	17	4,684.9	1,225.4	1,986.7	1,393.7	593.1	–	–	–	4.9	–	389.4	264.0	125.3
	24	4,692.6	1,224.9	1,967.3	1,396.0	571.3	–	–	0.0	6.2	–	428.1	301.8	126.4
	31	4,686.0	1,231.2	2,014.5	1,388.5	626.0	–	–	–	6.1	–	364.7	239.7	125.0
June	7	4,690.4	1,234.1	2,043.5	1,441.1	602.4	–	–	0.0	8.4	–	337.1	210.4	126.7
	14	4,681.4	1,234.4	2,003.1	1,419.2	583.8	–	–	0.0	5.8	–	372.6	241.5	131.1
	21	4,682.7	1,234.9	1,911.4	1,341.7	569.7	–	–	0.0	5.4	–	457.1	325.1	132.0
	28	4,692.6	1,239.3	1,891.4	1,312.0	579.4	–	–	0.0	6.0	–	410.2	278.0	132.2
July	5	4,677.5	1,243.1	1,935.4	1,350.4	585.0	–	–	0.0	4.5	–	388.1	257.3	130.8
	12	4,684.4	1,245.1	1,909.2	1,327.2	582.0	–	–	0.0	5.9	–	413.6	283.7	129.9
	19	4,688.2	1,245.2	1,845.2	1,293.5	551.7	–	–	0.0	6.9	–	469.1	333.4	135.7
	26	4,685.7	1,247.1	1,848.7	1,307.3	541.3	–	–	0.0	3.8	–	463.7	329.6	134.0
2019 Aug.	2	4,679.2	1,252.4	1,916.3	1,349.5	566.8	–	–	0.0	4.5	–	380.2	245.4	134.8
	9	4,677.8	1,252.6	1,907.1	1,350.0	557.1	–	–	0.0	4.0	–	382.2	251.6	130.6
	16	4,676.1	1,253.9	1,865.8	1,323.6	542.2	–	–	0.0	5.6	–	413.1	279.6	133.5
	23	4,681.0	1,249.2	1,836.9	1,299.2	537.7	–	–	0.0	5.6	–	450.9	316.0	134.9
	30	4,683.7	1,250.8	1,873.2	1,318.4	554.7	–	–	0.0	5.9	–	415.3	278.1	137.2
Sep.	6	4,681.6	1,251.6	1,916.9	1,335.6	581.2	–	–	0.0	6.0	–	376.1	238.3	137.8
	13	4,674.6	1,250.7	1,894.7	1,337.7	557.0	–	–	0.0	5.2	–	406.2	264.4	141.8
	20	4,663.0	1,249.4	1,859.4	1,394.9	464.4	–	–	0.0	6.5	–	446.4	308.8	137.7
	27	4,638.1	1,252.2	1,828.5	1,369.1	459.5	–	–	–	3.8	–	447.2	312.0	135.2
Oct.	4	4,695.1	1,254.9	1,863.6	1,407.1	456.5	–	–	–	5.4	–	406.3	268.6	137.7
Deutsche Bundesbank														
2019 Mar.	15	1,745.6	295.4	628.3	470.9	157.3	–	–	0.0	3.8	–	120.3	72.5	47.8
	22	1,751.0	295.7	641.5	475.2	166.3	–	–	0.0	4.2	–	119.4	71.2	48.2
	29	1,812.7	295.2	663.4	481.2	182.2	–	–	0.0	2.1	–	109.0	61.8	47.3
Apr.	5	1,774.3	296.5	679.7	492.9	186.8	–	–	0.0	2.3	–	98.8	50.2	48.6
	12	1,760.4	298.1	675.4	496.0	179.3	–	–	0.0	3.5	–	92.7	44.6	48.1
	19	1,773.9	301.4	654.9	487.2	167.7	–	–	0.0	3.3	–	112.1	62.9	49.2
	26	1,787.4	301.1	657.4	482.5	174.9	–	–	0.0	2.9	–	121.5	72.2	49.3
May	3	1,786.4	298.4	687.5	504.6	182.8	–	–	–	2.5	–	82.5	38.7	43.8
	10	1,772.4	298.5	665.4	499.5	165.9	–	–	–	2.4	–	90.7	47.4	43.3
	17	1,785.1	299.0	654.3	498.6	155.7	–	–	–	2.3	–	116.4	70.8	45.5
	24	1,788.8	299.8	670.9	520.9	150.0	–	–	–	3.8	–	112.2	68.7	43.4
	31	1,813.2	298.8	694.7	518.8	175.9	–	–	–	3.5	–	102.4	59.8	42.6
June	7	1,805.8	300.7	691.1	523.6	167.5	–	–	–	5.2	–	94.7	53.1	41.6
	14	1,778.2	301.1	641.0	490.8	150.2	–	–	–	3.7	–	118.8	76.1	42.7
	21	1,764.8	301.9	610.9	472.2	138.6	–	–	0.0	3.1	–	130.5	88.7	41.8
	28	1,818.3	300.8	659.5	485.2	174.3	–	–	0.0	3.6	–	109.3	65.2	44.1
July	5	1,751.7	302.6	638.4	475.1	163.4	–	–	0.0	2.2	–	79.5	38.2	41.3
	12	1,754.5	304.3	621.5	469.4	152.1	–	–	0.0	3.4	–	94.7	52.4	42.3
	19	1,765.7	305.2	613.2	467.5	145.7	–	–	0.0	4.3	–	108.8	67.8	41.0
	26	1,736.3	306.0	594.1	462.6	131.5	–	–	0.0	0.9	–	103.8	62.9	40.9
2019 Aug.	2	1,756.5	304.8	631.0	474.2	156.8	–	–	0.0	1.9	–	85.3	42.7	42.7
	9	1,756.1	306.1	625.1	476.0	149.1	–	–	0.0	1.1	–	86.9	46.8	40.1
	16	1,768.1	307.1	606.9	463.4	143.4	–	–	0.0	2.2	–	103.0	63.4	39.6
	23	1,764.5	307.3	598.5	456.0	142.5	–	–	0.0	2.7	–	109.9	67.7	42.2
	30	1,779.5	303.6	627.8	462.3	165.4	–	–	0.0	2.9	–	95.5	52.0	43.5
Sep.	6	1,761.8	304.6	618.7	457.4	161.3	–	–	0.0	2.4	–	92.1	51.3	40.8
	13	1,754.7	305.5	607.4	460.0	147.4	–	–	0.0	2.5	–	106.6	65.9	40.7
	20	1,767.6	306.2	611.6	455.5	156.1	–	–	0.0	2.9	–	124.8	85.3	39.5
	27	1,768.2	308.6	614.2	455.2	159.0	–	–	–	1.5	–	126.8	82.2	44.5
Oct.	4	1,768.6	305.9	616.5	467.4	149.1	–	–	–	2.0	–	105.4	60.0	45.4

***** The consolidated financial statement of the Eurosystem comprises the financial statement of the European Central Bank (ECB) and the financial statements of the national central banks of the euro area Member States (NCBs). The balance sheet items for foreign currency, securities, gold and financial instruments are valued at market rates at the end of the quarter. **1** In accordance with the accounting procedure chosen by the Eurosystem for the issue of euro banknotes, a share of 8% of the total value of the euro banknotes in circulation is allocated to the ECB on a monthly basis. The counterpart of this adjustment is disclosed as an "Intra-Eurosystem liability related to euro banknote issue". The remaining 92% of the value of the euro banknotes in circulation is allocated, likewise on a monthly

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 [2]	Intra-Eurosystem liability related to euro banknote issue [1]	Revaluation accounts	Capital and reserves	As at reporting date
		Total	Deposits, balances and other liabilities	Liabilities arising from the credit facility under ERM II						
Eurosystem [3]										
255.5	5.6	10.1	10.1	–	56.5	256.9	–	376.1	106.2	2019 Mar. 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
239.3	6.2	10.4	10.4	–	57.5	251.7	–	397.3	107.2	Apr. 5
230.5	5.9	11.7	11.7	–	57.5	253.3	–	397.3	107.2	12
239.6	7.1	10.9	10.9	–	57.5	255.6	–	397.3	107.2	19
236.9	6.7	11.5	11.5	–	57.5	255.5	–	397.3	107.2	26
248.5	5.9	12.2	12.2	–	57.5	258.3	–	397.3	107.2	May 3
242.7	6.7	12.6	12.6	–	57.5	259.9	–	397.3	107.2	10
240.5	6.8	11.4	11.4	–	57.5	257.8	–	397.3	107.2	17
225.9	8.2	11.9	11.9	–	57.5	258.0	–	397.3	107.2	24
234.8	6.5	11.7	11.7	–	57.5	254.4	–	397.3	107.2	31
235.1	7.2	11.8	11.8	–	57.5	251.3	–	397.3	107.2	June 7
232.3	7.8	12.4	12.4	–	57.5	251.0	–	397.3	107.2	14
237.3	7.5	11.3	11.3	–	57.5	255.7	–	397.3	107.2	21
277.4	5.4	10.4	10.4	–	56.8	262.8	–	425.7	107.2	28
241.3	5.8	10.2	10.2	–	56.8	259.4	–	425.7	107.2	July 5
242.8	6.7	10.7	10.7	–	56.8	260.7	–	425.7	107.2	12
248.3	8.1	11.7	11.7	–	56.8	264.0	–	425.7	107.2	19
245.8	10.3	11.4	11.4	–	56.8	265.3	–	425.7	107.2	26
247.0	10.4	10.5	10.5	–	56.8	268.1	–	425.7	107.2	2019 Aug. 2
254.0	10.8	10.5	10.5	–	56.8	266.8	–	425.7	107.2	9
263.1	10.2	10.3	10.3	–	56.8	264.4	–	425.7	107.2	16
261.6	9.7	11.6	11.6	–	56.8	265.9	–	425.7	107.2	23
260.9	10.2	11.4	11.4	–	56.8	266.4	–	425.7	107.2	30
250.5	10.2	10.9	10.9	–	56.8	269.7	–	425.7	107.2	Sep. 6
238.6	10.4	11.1	11.1	–	56.8	267.9	–	425.7	107.2	13
225.8	7.4	10.6	10.6	–	56.8	267.8	–	425.7	107.2	20
226.9	7.2	10.4	10.4	–	56.8	272.2	–	425.7	107.2	27
230.1	7.4	11.1	11.1	–	58.1	272.8	–	478.3	107.2	Oct. 4
Deutsche Bundesbank										
134.0	0.0	0.4	0.4	–	14.7	30.1	394.4	118.5	5.7	2019 Mar. 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
126.7	0.0	0.3	0.3	–	14.9	29.5	396.9	123.1	5.7	Apr. 5
120.2	0.0	0.3	0.3	–	14.9	29.7	396.9	123.1	5.7	12
131.6	0.0	0.0	0.0	–	14.9	29.9	396.9	123.1	5.7	19
133.6	0.0	0.3	0.3	–	14.9	30.0	396.9	123.1	5.7	26
140.7	0.0	0.2	0.2	–	14.9	30.1	400.8	123.1	5.7	May 3
140.3	0.0	0.3	0.3	–	14.9	30.2	400.8	123.1	5.7	10
138.4	0.0	0.0	0.0	–	14.9	30.3	400.8	123.1	5.7	17
127.1	0.0	0.2	0.2	–	14.9	30.4	400.8	123.1	5.7	24
134.6	0.0	0.3	0.3	–	14.9	30.5	404.8	123.1	5.7	31
134.7	0.0	0.2	0.2	–	14.9	30.7	404.8	123.1	5.7	June 7
133.5	0.0	0.7	0.7	–	14.9	31.0	404.8	123.1	5.7	14
138.6	0.0	0.1	0.1	–	14.9	31.1	404.8	123.1	5.7	21
162.3	0.0	0.0	0.0	–	14.9	31.3	407.8	123.1	5.7	28
136.6	0.0	–	–	–	14.7	32.1	407.8	132.0	5.7	July 5
137.9	0.0	0.2	0.2	–	14.7	32.1	407.8	132.0	5.7	12
140.9	0.0	1.0	1.0	–	14.7	32.1	407.8	132.0	5.7	19
137.7	0.0	1.4	1.4	–	14.7	32.2	407.8	132.0	5.7	26
136.6	0.0	0.5	0.5	–	14.7	32.5	411.4	132.0	5.7	2019 Aug. 2
140.2	0.0	0.4	0.4	–	14.7	32.5	411.4	132.0	5.7	9
151.8	0.0	0.6	0.6	–	14.7	32.6	411.4	132.0	5.7	16
148.6	0.0	0.9	0.9	–	14.7	32.7	411.4	132.0	5.7	23
145.9	0.0	1.4	1.4	–	14.7	32.7	417.2	132.0	5.7	30
140.8	0.0	0.8	0.8	–	14.7	32.7	417.2	132.0	5.7	Sep. 6
129.8	0.0	0.6	0.6	–	14.7	32.7	417.2	132.0	5.7	13
119.2	0.0	0.2	0.2	–	14.7	33.0	417.2	132.0	5.7	20
114.2	0.0	0.2	0.2	–	14.7	33.1	417.2	132.0	5.7	27
115.9	0.0	0.9	0.9	–	15.1	32.6	422.1	146.6	5.7	Oct. 4

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". **2** For the Deutsche Bundesbank: including DEM banknotes still in circulation. **3** Source: ECB.

IV. Banks

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

€ billion

Period	Balance sheet total [1]	Cash in hand	Lending to banks (MFIs) in the euro area							Lending to non-banks (non-MFIs) in the			
				to banks in the home country			to banks in other Member States				to non-banks in the home country		
												Enterprises and households	
			Total	Total	Loans	Securities issued by banks	Total	Loans	Securities issued by banks	Total	Total	Total	Loans
	End of year or month												
2010	8,304.8	16.5	2,361.6	1,787.8	1,276.9	510.9	573.9	372.8	201.0	3,724.5	3,303.0	2,669.2	2,354.7
2011	8,393.3	16.4	2,394.4	1,844.5	1,362.2	482.2	550.0	362.3	187.7	3,673.5	3,270.5	2,709.4	2,415.1
2012	8,226.6	19.2	2,309.0	1,813.2	1,363.8	449.4	495.9	322.2	173.7	3,688.6	3,289.4	2,695.5	2,435.7
2013	7,528.9	18.7	2,145.0	1,654.8	1,239.1	415.7	490.2	324.6	165.6	3,594.3	3,202.1	2,616.3	2,354.0
2014	7,802.3	19.2	2,022.8	1,530.5	1,147.2	383.3	492.3	333.9	158.4	3,654.5	3,239.4	2,661.2	2,384.8
2015	7,665.2	19.5	2,013.6	1,523.8	1,218.0	305.8	489.8	344.9	144.9	3,719.9	3,302.5	2,727.4	2,440.0
2016	7,792.6	26.0	2,101.4	1,670.9	1,384.2	286.7	430.5	295.0	135.5	3,762.9	3,344.5	2,805.6	2,512.0
2017	7,710.8	32.1	2,216.3	1,821.1	1,556.3	264.8	395.2	270.1	125.2	3,801.7	3,400.7	2,918.8	2,610.1
2018	7,776.0	40.6	2,188.0	1,768.3	1,500.7	267.5	419.7	284.8	134.9	3,864.0	3,458.2	3,024.3	2,727.0
2017 Nov.	7,849.9	28.0	2,312.8	1,901.5	1,633.0	268.5	411.3	285.5	125.8	3,818.1	3,411.2	2,919.0	2,612.6
Dec.	7,710.8	32.1	2,216.3	1,821.1	1,556.3	264.8	395.2	270.1	125.2	3,801.7	3,400.7	2,918.8	2,610.1
2018 Jan.	7,817.2	29.2	2,296.1	1,891.0	1,624.5	266.5	405.1	280.3	124.9	3,813.9	3,407.5	2,930.5	2,622.5
Feb.	7,790.8	29.6	2,298.1	1,892.3	1,627.0	265.2	405.9	280.6	125.2	3,814.1	3,406.5	2,938.1	2,633.4
Mar.	7,746.6	35.1	2,254.6	1,852.5	1,585.3	267.1	402.1	274.9	127.2	3,814.9	3,410.8	2,946.8	2,644.4
Apr.	7,781.1	33.8	2,300.8	1,892.1	1,625.1	267.0	408.7	280.6	128.0	3,818.5	3,417.4	2,956.1	2,650.7
May	7,882.8	35.0	2,314.0	1,900.7	1,630.1	270.6	413.3	284.6	128.6	3,823.8	3,418.9	2,963.0	2,656.6
June	7,804.7	35.0	2,266.6	1,853.0	1,584.7	268.2	413.6	285.5	128.1	3,832.7	3,430.8	2,979.9	2,672.2
July	7,784.2	34.7	2,276.2	1,852.8	1,585.7	267.1	423.4	295.9	127.5	3,840.0	3,437.3	2,987.0	2,679.3
Aug.	7,828.0	35.1	2,294.8	1,865.2	1,597.6	267.6	429.6	301.1	128.5	3,840.6	3,431.8	2,987.4	2,690.7
Sep.	7,799.9	35.8	2,267.8	1,846.4	1,577.7	268.7	421.4	291.0	130.4	3,854.6	3,447.2	3,006.3	2,708.5
Oct.	7,845.2	36.9	2,286.9	1,855.6	1,588.6	267.0	431.4	298.1	133.2	3,858.3	3,447.8	3,009.7	2,711.9
Nov.	7,881.2	36.8	2,303.5	1,872.8	1,605.2	267.6	430.8	295.9	134.8	3,874.4	3,460.7	3,023.7	2,727.7
Dec.	7,776.0	40.6	2,188.0	1,768.3	1,500.7	267.5	419.7	284.8	134.9	3,864.0	3,458.2	3,024.3	2,727.0
2019 Jan.	7,902.3	36.7	2,267.3	1,827.4	1,559.5	267.8	439.9	304.8	135.1	3,878.8	3,468.7	3,032.2	2,737.6
Feb.	7,935.7	36.9	2,304.8	1,862.5	1,591.5	271.1	442.3	304.8	137.5	3,893.1	3,477.0	3,044.8	2,751.0
Mar.	8,121.3	37.0	2,343.5	1,885.9	1,614.7	271.2	457.6	319.3	138.4	3,921.0	3,488.4	3,059.8	2,765.7
Apr.	8,154.6	38.2	2,354.4	1,893.6	1,625.2	268.5	460.8	321.6	139.1	3,928.3	3,492.4	3,068.0	2,774.1
May	8,280.9	37.9	2,376.8	1,919.0	1,648.5	270.5	457.8	317.9	139.9	3,944.5	3,509.1	3,085.5	2,790.5
June	8,321.9	37.9	2,332.5	1,869.9	1,600.4	269.6	462.6	321.6	141.0	3,972.1	3,530.5	3,108.0	2,809.6
July	8,372.1	37.4	2,311.4	1,845.2	1,575.0	270.2	466.2	324.2	142.0	3,984.9	3,539.6	3,114.5	2,815.1
Aug.	8,645.3	38.3	2,327.7	1,857.2	1,589.6	267.6	470.4	327.6	142.8	4,009.8	3,554.6	3,127.0	2,827.3
	Changes [3]												
2011	54.1	– 0.1	32.6	58.7	91.7	– 33.0	– 26.0	– 12.1	– 13.9	– 51.8	– 35.3	38.7	56.7
2012	– 129.2	2.9	– 81.9	– 28.4	3.0	– 31.4	– 53.5	– 39.7	– 13.8	27.5	27.7	17.0	28.8
2013	– 703.6	– 0.5	– 257.1	– 249.2	– 216.5	– 32.7	– 7.9	1.6	– 9.5	13.6	16.6	23.6	21.6
2014	206.8	0.4	– 126.2	– 128.6	– 95.3	– 33.4	2.4	7.2	– 4.8	55.1	40.0	52.3	36.8
2015	– 191.4	0.3	– 18.2	– 12.1	66.1	– 78.2	– 6.1	6.6	– 12.8	64.8	64.1	68.1	56.6
2016	184.3	6.5	120.3	178.4	195.3	– 16.8	– 58.1	– 49.2	– 8.8	57.5	53.4	88.8	81.0
2017	8.0	6.1	135.9	165.0	182.6	– 17.6	– 29.1	– 19.6	– 9.5	51.3	63.5	114.8	101.1
2018	101.8	8.5	– 29.2	– 49.7	– 53.4	3.7	20.6	13.0	7.6	78.7	71.9	118.1	127.8
2017 Dec.	– 126.4	4.1	– 90.1	– 74.7	– 72.0	– 2.7	– 15.4	– 15.0	– 0.4	– 15.2	– 10.0	0.1	– 2.4
2018 Jan.	124.2	– 2.9	82.2	70.9	68.7	2.2	11.3	11.5	– 0.2	14.7	8.2	12.4	13.0
Feb.	6.3	0.3	0.5	0.6	2.0	– 1.4	– 0.1	– 0.4	0.3	0.2	– 0.7	7.7	10.7
Mar.	– 37.4	5.5	– 42.9	– 39.5	– 41.4	1.9	– 3.4	– 5.3	2.0	2.7	5.6	10.1	12.3
Apr.	28.9	– 1.3	45.6	39.7	39.9	– 0.2	5.9	5.1	0.9	4.0	7.1	9.8	6.3
May	85.0	1.3	12.4	9.1	5.7	3.4	3.4	2.8	0.5	12.9	9.4	15.3	14.3
June	– 77.2	– 0.1	– 47.4	– 47.7	– 45.4	– 2.3	0.3	0.9	– 0.5	9.9	12.8	17.9	16.4
July	– 14.4	– 0.3	10.5	0.3	1.3	– 1.0	10.1	10.7	– 0.6	7.8	6.8	5.9	6.1
Aug.	41.9	0.4	19.8	13.8	13.0	0.8	5.9	4.9	1.0	0.6	– 5.6	0.4	11.3
Sep.	– 30.4	0.8	– 27.3	– 18.9	– 19.9	1.0	– 8.4	– 10.4	1.9	14.2	15.9	19.2	18.2
Oct.	36.4	1.1	15.0	8.5	10.3	– 1.8	6.5	6.1	0.4	3.8	0.5	3.4	3.2
Nov.	38.5	– 0.1	17.2	17.6	16.7	1.0	– 0.5	– 2.0	1.6	16.7	13.4	14.4	16.1
Dec.	– 100.0	3.8	– 114.6	– 104.0	– 104.3	0.2	– 10.6	– 10.9	0.3	– 8.8	– 1.5	1.6	– 0.1
2019 Jan.	128.9	– 3.9	79.5	59.2	58.8	0.5	20.3	20.0	0.3	17.0	12.6	10.0	11.4
Feb.	31.1	0.1	36.8	34.8	31.7	3.0	2.1	– 0.4	2.5	15.5	9.5	13.7	14.5
Mar.	124.6	0.2	32.4	25.5	26.3	– 0.8	6.9	6.5	0.4	12.4	10.7	14.4	14.6
Apr.	33.9	1.2	10.8	7.7	10.5	– 2.8	3.1	2.4	0.7	7.6	4.4	8.4	8.9
May	124.6	– 0.3	22.1	25.4	23.2	2.1	– 3.2	– 3.9	0.7	16.3	16.3	17.4	16.2
June	50.5	0.0	– 42.3	– 48.3	– 47.7	– 0.6	6.0	4.8	1.2	27.8	21.7	22.9	19.4
July	49.8	– 0.5	– 23.0	– 25.4	– 26.0	0.6	2.4	1.5	0.9	12.1	9.1	6.8	5.6
Aug.	272.8	0.8	16.1	12.0	14.6	– 2.6	4.1	3.4	0.7	24.6	15.0	12.6	12.2

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

IV. Banks

euro area														
				to non-banks in other Member States						Claims on non-euro area residents			
	General government				Enterprises and households		General government						
Securities	Total	Loans	Securities [2]	Total	Total	of which: Loans	Total	Loans	Securities	Total	of which: Loans	Other assets [1]	Period
End of year or month													
314.5	633.8	418.4	215.3	421.6	289.2	164.2	132.4	24.8	107.6	1,021.0	792.7	1,181.1	2010
294.3	561.1	359.8	201.2	403.1	276.9	161.2	126.2	32.6	93.6	995.1	770.9	1,313.8	2011
259.8	594.0	350.3	243.7	399.2	275.1	158.1	124.1	30.4	93.7	970.3	745.0	1,239.4	2012
262.3	585.8	339.2	246.6	392.3	267.6	144.6	124.6	27.8	96.9	921.2	690.5	849.7	2013
276.4	578.2	327.9	250.4	415.0	270.0	142.7	145.0	31.9	113.2	1,050.1	805.0	1,055.8	2014
287.4	575.1	324.5	250.6	417.5	276.0	146.4	141.5	29.4	112.1	1,006.5	746.3	905.6	2015
293.6	538.9	312.2	226.7	418.4	281.7	159.5	136.7	28.5	108.2	1,058.2	802.3	844.1	2016
308.7	481.9	284.3	197.6	401.0	271.8	158.3	129.1	29.8	99.3	991.9	745.3	668.9	2017
297.2	433.9	263.4	170.5	405.8	286.7	176.5	119.2	28.6	90.6	1,033.2	778.5	650.2	2018
306.4	492.2	287.3	205.0	406.8	276.8	164.2	130.0	29.8	100.2	1,005.3	759.4	685.6	2017 Nov.
308.7	481.9	284.3	197.6	401.0	271.8	158.3	129.1	29.8	99.3	991.9	745.3	668.9	Dec.
308.0	477.0	282.8	194.2	406.4	278.6	163.9	127.8	29.7	98.0	1,009.1	758.2	668.9	2018 Jan.
304.7	468.4	277.4	191.0	407.6	280.5	165.9	127.1	29.6	97.5	1,026.5	775.9	622.5	Feb.
302.4	463.9	275.5	188.4	404.1	278.3	164.9	125.9	29.8	96.1	1,016.8	763.8	625.3	Mar.
305.4	461.2	276.2	185.0	401.2	275.1	165.1	126.0	29.9	96.2	1,009.2	757.3	618.9	Apr.
306.4	455.9	272.3	183.6	404.9	280.2	167.4	124.8	29.8	95.0	1,052.9	799.1	657.1	May
307.7	450.8	270.0	180.8	402.0	278.4	166.4	123.6	29.9	93.7	1,032.5	777.4	637.9	June
307.7	450.3	270.8	179.5	402.7	281.2	169.9	121.5	29.7	91.8	1,028.8	770.8	604.5	July
296.8	444.3	266.4	178.0	408.9	286.1	173.1	122.8	29.7	93.1	1,021.0	762.2	636.6	Aug.
297.8	440.9	263.4	177.5	407.4	283.7	171.7	123.6	29.6	94.0	1,028.7	770.3	613.1	Sep.
297.8	438.1	265.4	172.7	410.5	287.6	176.1	122.9	31.0	91.9	1,037.4	780.7	625.6	Oct.
296.0	437.0	264.5	172.5	413.7	290.8	177.8	122.9	30.9	92.1	1,032.1	777.3	634.5	Nov.
297.2	433.9	263.4	170.5	405.8	286.7	176.5	119.2	28.6	90.6	1,033.2	778.5	650.2	Dec.
294.6	436.5	265.9	170.6	410.1	291.8	179.6	118.3	28.9	89.5	1,049.5	794.1	670.0	2019 Jan.
293.8	432.2	263.3	168.9	416.1	294.1	181.5	122.0	28.8	93.1	1,037.8	781.6	663.2	Feb.
294.1	428.5	260.6	168.0	432.6	311.4	197.8	121.2	28.9	92.4	1,084.1	826.7	735.7	Mar.
293.8	424.5	260.8	163.7	435.9	315.7	202.0	120.2	29.6	90.5	1,099.5	840.3	734.2	Apr.
295.0	423.6	259.2	164.4	435.5	317.7	205.0	117.8	29.4	88.4	1,101.0	839.1	820.6	May
298.5	422.5	257.7	164.7	441.6	320.9	207.2	120.7	29.0	91.7	1,103.8	841.8	875.6	June
299.4	425.0	260.2	164.8	445.3	322.2	209.5	123.1	29.0	94.1	1,114.6	851.7	923.8	July
299.7	427.6	260.2	167.4	455.2	330.2	216.8	125.0	28.9	96.1	1,122.1	857.6	1,147.4	Aug.
Changes [3]													
– 18.0	– 74.0	– 59.1	– 14.9	– 16.6	– 13.8	– 5.5	– 2.7	8.0	– 10.7	– 39.5	– 34.9	112.9	2011
– 11.8	10.7	– 10.5	21.2	– 0.2	– 0.7	– 1.5	0.5	– 2.2	2.7	– 15.5	– 17.7	– 62.2	2012
2.0	– 7.0	– 10.9	3.9	– 3.0	– 3.4	– 9.3	0.5	– 2.6	3.1	– 38.8	– 47.2	– 420.8	2013
15.5	– 12.3	– 15.1	2.9	15.1	0.4	– 4.0	14.6	0.9	13.8	83.6	72.0	194.0	2014
11.5	– 3.9	– 4.2	0.3	0.7	4.4	1.8	– 3.7	– 1.0	– 2.8	– 88.3	– 101.0	– 150.1	2015
7.8	– 35.4	– 12.1	– 23.3	4.0	8.2	14.6	– 4.2	– 0.9	– 3.3	51.4	55.0	– 51.4	2016
13.7	– 51.3	– 22.8	– 28.5	– 12.2	– 3.4	4.0	– 8.7	0.1	– 8.9	– 12.3	– 6.7	– 173.1	2017
– 9.8	– 46.2	– 19.1	– 27.0	6.8	18.2	18.6	– 11.4	– 1.5	– 9.9	29.0	18.9	14.8	2018
2.5	– 10.1	– 2.8	– 7.2	– 5.2	– 4.3	– 5.4	– 0.8	0.0	– 0.9	– 8.3	– 9.5	– 16.9	2017 Dec.
– 0.6	– 4.1	– 0.8	– 3.3	6.5	7.7	6.3	– 1.2	– 0.1	– 1.2	29.4	24.6	0.7	2018 Jan.
– 3.0	– 8.4	– 5.2	– 3.3	1.0	1.7	1.7	– 0.7	– 0.2	– 0.5	10.6	11.1	– 5.4	Feb.
– 2.2	– 4.5	– 1.9	– 2.6	– 2.9	– 1.6	– 0.4	– 1.3	0.1	– 1.4	– 5.5	– 8.2	2.8	Mar.
3.5	– 2.6	0.7	– 3.3	– 3.1	– 3.3	0.0	0.1	0.1	0.0	– 13.2	– 11.9	– 6.2	Apr.
0.9	– 5.8	– 4.3	– 1.5	3.5	4.6	1.8	– 1.2	– 0.1	– 1.1	30.9	29.9	27.5	May
1.5	– 5.0	– 2.3	– 2.8	– 2.9	– 1.4	– 0.6	– 1.5	– 0.1	– 1.4	– 20.4	– 21.8	– 19.2	June
– 0.2	0.9	2.2	– 1.3	0.9	3.1	3.7	– 2.2	– 0.2	– 2.0	– 0.7	– 3.8	– 31.6	July
– 10.9	– 6.0	– 4.5	– 1.5	6.2	4.9	3.1	1.3	0.0	1.2	– 11.0	– 11.5	32.1	Aug.
1.1	– 3.4	– 2.9	– 0.4	– 1.6	– 1.9	– 1.6	0.3	– 0.1	0.5	5.4	5.9	– 23.5	Sep.
0.2	– 2.9	1.9	– 4.8	3.3	4.5	4.1	– 1.2	1.4	– 2.6	4.0	3.5	12.6	Oct.
– 1.7	– 1.1	– 0.8	– 0.2	3.3	3.3	1.5	0.0	– 0.1	0.2	– 4.0	– 2.2	8.8	Nov.
1.7	– 3.1	– 1.1	– 2.0	– 7.3	– 3.5	– 1.1	– 3.8	– 2.3	– 1.5	3.5	3.5	16.1	Dec.
– 1.4	2.6	2.4	0.2	4.4	5.1	3.2	– 0.8	0.3	– 1.0	16.5	15.8	19.8	2019 Jan.
– 0.8	– 4.2	– 2.6	– 1.7	6.0	2.4	2.2	3.7	– 0.0	3.7	– 14.5	– 15.1	– 6.9	Feb.
– 0.2	– 3.7	– 2.8	– 1.0	1.7	3.0	2.5	– 1.2	0.0	– 1.2	16.1	17.2	63.6	Mar.
– 0.4	– 4.0	0.2	– 4.2	3.1	4.2	4.3	– 1.1	0.7	– 1.8	15.8	14.1	– 1.5	Apr.
1.2	– 1.0	– 1.7	0.7	– 0.1	2.3	3.1	– 2.4	– 0.2	– 2.2	0.0	– 2.8	86.5	May
3.5	– 1.2	– 1.5	0.3	6.1	3.4	2.7	2.6	– 0.4	3.1	10.5	9.9	54.5	June
1.2	2.2	2.5	– 0.2	3.0	1.3	2.1	1.7	– 0.0	1.8	4.4	4.1	56.8	July
0.4	2.4	– 0.1	2.5	9.7	7.9	7.3	1.7	– 0.1	1.8	7.7	5.9	223.6	Aug.

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

IV. Banks

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

€ billion

Period	Balance sheet total [1]	Deposits of banks (MFIs) in the euro area			Deposits of non-banks (non-MFIs) in the euro area									
						Deposits of non-banks in the home country							Deposits of non-banks	
			of banks					With agreed maturities		At agreed notice				
		Total	in the home country	in other Member States	Total	Total	Over-night	Total	of which: up to 2 years	Total	of which: up to 3 months	Total	Over-night
	End of year or month													
2010	8,304.8	1,495.8	1,240.1	255.7	2,925.8	2,817.6	1,089.1	1,110.3	304.6	618.2	512.5	68.4	19.3
2011	8,393.3	1,444.8	1,210.3	234.5	3,033.4	2,915.1	1,143.3	1,155.8	362.6	616.1	515.3	78.8	25.9
2012	8,226.6	1,371.0	1,135.9	235.1	3,091.4	2,985.2	1,294.9	1,072.8	320.0	617.6	528.4	77.3	31.2
2013	7,528.9	1,345.4	1,140.3	205.1	3,130.5	3,031.5	1,405.3	1,016.2	293.7	610.1	532.4	81.3	33.8
2014	7,802.3	1,324.0	1,112.3	211.7	3,197.7	3,107.4	1,514.3	985.4	298.1	607.7	531.3	79.7	34.4
2015	7,665.2	1,267.8	1,065.9	201.9	3,307.1	3,215.1	1,670.2	948.4	291.5	596.4	534.5	80.8	35.3
2016	7,792.6	1,205.2	1,033.2	172.0	3,411.3	3,318.5	1,794.8	935.3	291.2	588.5	537.0	84.2	37.2
2017	7,710.8	1,233.6	1,048.6	184.9	3,529.1	3,411.1	1,936.6	891.7	274.2	582.8	541.0	108.6	42.5
2018	7,776.0	1,213.8	1,021.8	192.0	3,642.8	3,527.0	2,075.5	872.9	267.2	578.6	541.1	104.5	45.0
2017 Nov.	7,849.9	1,275.5	1,081.0	194.5	3,542.9	3,417.4	1,939.9	896.5	276.9	581.0	538.6	113.6	52.1
Dec.	7,710.8	1,233.6	1,048.6	184.9	3,529.1	3,411.1	1,936.6	891.7	274.2	582.8	541.0	108.6	42.5
2018 Jan.	7,817.2	1,249.4	1,060.8	188.6	3,539.8	3,419.1	1,944.5	892.2	276.8	582.4	539.7	110.6	46.4
Feb.	7,790.8	1,246.9	1,058.2	188.8	3,536.8	3,416.5	1,945.4	888.9	273.3	582.1	540.4	109.7	47.1
Mar.	7,746.6	1,238.1	1,057.5	180.6	3,537.7	3,413.3	1,944.1	888.1	274.7	581.2	539.9	115.3	48.7
Apr.	7,781.1	1,233.9	1,053.5	180.4	3,551.3	3,430.7	1,967.4	882.9	270.2	580.4	539.6	108.8	46.7
May	7,882.8	1,232.4	1,037.1	195.3	3,582.2	3,462.4	1,998.3	884.0	271.4	580.1	539.5	109.4	47.7
June	7,804.7	1,224.7	1,035.7	189.0	3,582.9	3,463.7	1,991.4	893.1	281.1	579.2	539.1	109.0	44.0
July	7,784.2	1,228.5	1,042.2	186.3	3,584.2	3,462.9	1,997.6	887.1	277.5	578.2	538.6	108.8	44.5
Aug.	7,828.0	1,229.6	1,043.7	185.9	3,595.2	3,474.5	2,014.0	882.9	276.6	577.6	538.3	106.9	45.1
Sep.	7,799.9	1,220.4	1,034.2	186.2	3,594.0	3,473.8	2,017.5	879.0	273.7	577.3	538.4	108.8	48.2
Oct.	7,845.2	1,227.0	1,034.3	192.7	3,614.3	3,494.1	2,039.3	877.8	273.4	577.0	538.6	108.8	47.3
Nov.	7,881.2	1,244.5	1,046.8	197.7	3,646.1	3,527.4	2,074.8	875.8	271.5	576.8	539.1	106.2	47.1
Dec.	7,776.0	1,213.8	1,021.8	192.0	3,642.8	3,527.0	2,075.5	872.9	267.2	578.6	541.1	104.5	45.0
2019 Jan.	7,902.3	1,238.4	1,040.5	197.9	3,646.4	3,530.1	2,074.3	877.3	277.3	578.4	541.4	104.9	45.9
Feb.	7,935.7	1,258.4	1,046.6	211.8	3,658.9	3,544.0	2,083.6	880.9	281.8	579.5	542.4	103.3	44.6
Mar.	8,121.3	1,281.9	1,050.1	231.8	3,676.8	3,554.7	2,095.7	877.1	280.6	582.0	544.7	109.9	51.7
Apr.	8,154.6	1,298.3	1,061.2	237.0	3,689.3	3,569.8	2,117.1	870.5	276.7	582.2	544.7	105.8	47.5
May	8,280.9	1,291.2	1,057.1	234.1	3,721.9	3,599.3	2,147.3	869.5	277.3	582.5	544.4	108.1	50.1
June	8,321.9	1,292.1	1,048.3	243.8	3,728.4	3,595.5	2,144.7	868.1	274.5	582.6	544.0	116.0	56.6
July	8,372.1	1,291.9	1,055.1	236.8	3,728.8	3,605.7	2,160.6	863.3	271.9	581.8	543.4	110.3	51.1
Aug.	8,645.3	1,306.3	1,062.2	244.1	3,753.9	3,626.7	2,182.9	863.5	276.0	580.2	542.2	114.5	54.3
	Changes [4]													
2011	54.1	– 48.4	– 28.8	– 19.6	102.1	97.4	52.4	47.6	58.8	– 2.6	1.3	4.8	6.5
2012	– 129.2	– 68.7	– 70.0	1.3	57.8	67.1	156.1	– 90.4	– 50.2	1.5	14.1	– 1.4	5.4
2013	– 703.6	– 106.2	– 73.9	– 32.3	39.1	47.8	111.5	– 56.3	– 26.6	– 7.3	4.0	2.6	3.3
2014	206.8	– 28.4	– 32.2	3.9	62.7	71.6	106.0	– 32.1	3.1	– 2.4	– 2.4	– 2.5	– 0.0
2015	– 191.4	– 62.1	– 50.3	– 11.9	104.1	104.8	153.2	– 37.0	– 10.1	– 11.3	4.2	– 0.4	– 0.3
2016	184.3	– 31.6	– 2.2	– 29.4	105.7	105.2	124.3	– 11.1	1.4	– 8.0	2.4	2.7	1.9
2017	8.0	30.6	14.8	15.8	124.2	107.7	145.8	– 32.5	– 15.3	– 5.6	1.5	16.4	5.8
2018	101.8	– 20.1	– 25.7	5.6	112.4	114.7	137.7	– 18.8	– 6.5	– 4.3	1.2	– 4.3	2.3
2017 Dec.	– 126.4	– 36.9	– 27.7	– 9.2	– 13.1	– 5.7	– 3.0	– 4.6	– 2.6	1.9	2.4	– 4.9	– 9.6
2018 Jan.	124.2	17.6	13.1	4.5	12.2	9.1	8.7	0.9	3.2	– 0.5	0.2	2.4	4.0
Feb.	6.3	– 3.6	– 3.2	– 0.4	– 4.0	– 3.5	0.2	– 3.5	– 3.7	– 0.2	0.4	– 1.1	0.7
Mar.	– 37.4	– 8.3	– 0.5	– 7.9	1.3	– 2.8	– 1.1	– 0.8	1.5	– 0.9	– 0.5	5.7	1.6
Apr.	28.9	– 4.5	– 3.8	– 0.6	13.5	17.5	22.8	– 4.6	– 4.0	– 0.8	– 0.3	– 6.6	– 2.0
May	85.0	– 3.5	– 17.3	13.9	29.2	30.2	29.9	0.7	0.8	– 0.3	– 0.1	0.4	0.9
June	– 77.2	– 7.8	– 1.5	– 6.3	0.7	1.2	– 6.9	9.0	9.7	– 0.9	– 0.4	– 0.4	– 3.8
July	– 14.4	4.7	7.2	– 2.5	1.8	– 0.4	6.5	– 5.9	– 3.5	– 1.0	– 0.5	– 0.1	0.5
Aug.	41.9	2.0	2.6	– 0.6	10.7	11.3	16.1	– 4.2	– 0.9	– 0.6	– 0.2	– 2.0	0.6
Sep.	– 30.4	– 9.6	– 9.7	0.1	– 1.2	– 0.7	3.6	– 4.0	– 3.1	– 0.3	0.0	1.9	3.1
Oct.	36.4	5.4	– 0.4	5.9	19.1	19.3	21.1	– 1.5	– 0.5	– 0.3	0.2	– 0.2	– 1.0
Nov.	38.5	17.7	12.6	5.1	32.1	33.5	35.5	– 1.9	– 1.9	– 0.1	0.5	– 2.5	– 0.2
Dec.	– 100.0	– 30.3	– 24.8	– 5.5	– 2.9	– 0.1	1.3	– 3.1	– 4.2	1.7	2.0	– 1.7	– 2.1
2019 Jan.	128.9	24.8	18.9	6.0	3.6	3.0	– 1.2	4.4	10.1	– 0.2	0.3	0.4	1.0
Feb.	31.1	19.6	5.6	13.9	12.0	13.3	9.0	3.2	4.1	1.1	1.0	– 1.7	– 1.4
Mar.	124.6	19.3	2.7	16.6	15.7	9.5	11.1	– 4.1	– 1.4	2.5	2.2	5.7	6.3
Apr.	33.9	16.4	11.2	5.2	12.6	15.1	21.4	– 6.6	– 3.9	0.2	0.1	– 4.1	– 4.3
May	124.6	– 7.3	– 4.2	– 3.1	32.4	29.5	30.1	– 0.9	0.6	0.3	– 0.3	2.3	2.7
June	50.5	2.1	– 8.2	10.3	7.3	– 3.2	– 2.0	– 1.3	– 2.8	0.2	– 0.4	7.9	6.6
July	49.8	– 1.3	6.3	– 7.6	– 0.7	9.3	15.4	– 5.2	– 2.8	– 0.9	– 0.6	– 5.8	– 5.6
Aug.	272.8	14.4	7.2	7.3	25.1	20.9	22.2	0.2	4.1	– 1.5	– 1.2	4.2	3.2

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

IV. Banks

in other Member States [2]				Deposits of central governments		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: up to 2 years	Total	of which: up to 3 months	Total	of which: domestic central governments			Total	of which: with maturities of up to 2 years [3]				
End of year or month													
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
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	2017 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	1,067.9	32.2	621.9	684.9	639.5	Feb.
55.4	14.9	2.8	2.5	12.1	10.5	11.4	2.1	1,065.3	32.7	666.8	699.3	717.8	Mar.
55.5	15.0	2.8	2.5	13.7	11.2	12.5	2.0	1,060.0	32.1	698.4	696.3	697.8	Apr.
55.2	14.8	2.8	2.5	14.4	12.0	11.2	2.0	1,071.8	32.4	688.6	703.5	790.6	May
56.6	16.1	2.8	2.5	17.0	14.0	12.9	2.0	1,071.1	33.1	676.3	706.6	832.5	June
56.4	15.6	2.8	2.5	12.8	11.2	13.9	2.1	1,075.3	33.4	667.9	709.9	882.4	July
57.4	17.4	2.8	2.5	12.8	11.2	16.9	2.2	1,072.7	33.9	676.2	713.0	1,103.9	Aug.
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
4.7	3.0	0.0	0.0	– 2.4	0.3	0.7	– 0.0	– 7.3	– 2.3	– 59.2	5.6	– 16.1	2017 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	17.8	– 0.0	– 16.4	– 4.0	1.9	Feb.
– 0.5	– 0.1	– 0.0	– 0.0	0.5	0.6	0.0	– 0.3	– 6.0	0.4	15.8	11.6	68.4	Mar.
0.1	0.1	0.0	– 0.0	1.7	0.8	1.1	– 0.0	– 5.3	– 0.5	31.6	– 3.0	– 19.4	Apr.
– 0.4	– 0.2	– 0.0	– 0.0	0.6	0.6	– 1.3	0.0	11.8	0.2	– 10.4	7.2	92.3	May
1.4	1.3	– 0.0	– 0.0	2.5	2.0	1.7	0.0	3.4	0.9	– 8.2	4.8	39.5	June
– 0.3	– 0.5	– 0.0	0.0	– 4.2	– 2.8	1.0	0.1	1.0	0.2	– 11.7	2.2	59.2	July
1.0	1.7	– 0.0	– 0.0	– 0.0	– 0.0	3.1	0.1	– 1.7	1.4	8.4	2.3	221.2	Aug.

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

IV. Banks

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

€ billion

End of month	Number of reporting institutions	Balance sheet total 1	Cash in hand and credit balances with central banks	Lending to banks (MFIs)			Lending to non-banks (non-MFIs)					Participating interests	Other assets 1
				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				
All categories of banks													
2019 Mar.	1,579	8,171.5	521.8	2,473.2	1,982.4	487.8	4,224.1	382.8	3,162.7	0.6	669.3	112.6	839.7
Apr.	1,578	8,205.5	546.2	2,470.0	1,981.4	485.0	4,236.8	385.1	3,178.3	0.5	665.2	113.2	839.3
May	1,576	8,331.8	564.0	2,462.3	1,970.6	488.1	4,265.7	395.5	3,196.6	0.4	665.2	113.7	926.0
June	1,572	8,371.8	523.0	2,471.9	1,978.5	489.2	4,283.3	405.3	3,197.4	0.5	672.2	113.5	980.1
July	1,567	8,421.6	520.0	2,454.5	1,958.2	492.1	4,305.4	411.5	3,211.6	0.4	671.1	113.2	1,028.5
Aug.	1,562	8,695.0	522.3	2,465.3	1,971.4	489.5	4,342.4	420.9	3,230.9	0.5	677.8	112.6	1,252.5
Commercial banks 6													
2019 July	262	3,520.3	298.2	1,019.5	929.3	89.4	1,387.0	249.6	924.5	0.4	206.7	51.5	764.0
Aug.	262	3,714.2	306.3	1,023.2	932.9	89.6	1,405.7	259.3	931.1	0.4	210.2	50.9	928.0
Big banks 7													
2019 July	4	2,084.0	100.4	593.4	557.2	36.2	645.7	131.0	403.1	0.1	106.9	45.4	699.2
Aug.	4	2,278.5	113.0	603.2	566.5	36.7	658.2	137.9	406.7	0.1	110.1	44.8	859.3
Regional banks and other commercial banks													
2019 July	150	1,031.1	98.9	238.0	186.5	51.3	632.0	84.4	454.3	0.2	92.3	5.5	56.7
Aug.	150	1,045.0	102.1	239.4	188.2	51.0	637.7	87.6	456.2	0.2	92.7	5.5	60.4
Branches of foreign banks													
2019 July	108	405.1	99.0	188.1	185.6	1.9	109.3	34.3	67.1	0.1	7.5	0.7	8.1
Aug.	108	390.7	91.2	180.7	178.2	1.9	109.9	33.7	68.3	0.1	7.4	0.7	8.2
Landesbanken													
2019 July	6	831.3	56.0	262.7	199.9	61.7	398.5	51.4	297.5	0.0	46.7	9.4	104.6
Aug.	6	849.6	53.2	257.6	196.0	60.5	404.2	52.5	299.2	0.0	47.6	9.4	125.2
Savings banks													
2019 July	385	1,315.1	56.2	189.4	70.4	118.7	1,035.6	52.3	819.5	0.0	163.4	14.2	19.7
Aug.	380	1,325.0	57.9	192.6	74.4	117.9	1,039.8	51.1	824.1	0.0	164.2	14.2	20.5
Credit cooperatives													
2019 July	867	958.7	20.9	177.1	69.5	107.3	723.5	34.7	574.8	0.0	113.8	17.4	19.9
Aug.	867	965.7	22.4	178.2	71.1	106.8	727.4	34.4	578.6	0.0	114.2	17.4	20.4
Mortgage banks													
2019 July	10	233.1	4.1	27.3	17.9	9.4	193.3	2.5	170.9	–	19.9	0.2	8.1
Aug.	10	235.3	3.7	27.8	18.3	9.5	194.7	2.7	172.1	–	19.9	0.2	9.0
Building and loan associations													
2019 July	19	237.2	0.8	53.9	37.5	16.4	178.0	1.2	151.0	.	25.8	0.3	4.3
Aug.	19	238.5	1.7	53.4	37.2	16.2	178.8	1.1	151.8	.	25.8	0.3	4.2
Banks with special, development and other central support tasks													
2019 July	18	1,325.9	83.7	724.7	633.6	89.3	389.5	19.8	273.4	–	94.7	20.2	107.9
Aug.	18	1,366.7	77.1	732.5	641.4	89.1	391.7	19.7	273.9	–	95.9	20.2	145.3
Memo item: Foreign banks 8													
2019 July	143	1,225.6	159.7	389.1	349.6	38.7	548.3	104.0	352.7	0.3	90.2	3.4	125.3
Aug.	143	1,244.6	153.7	393.4	353.4	39.3	557.9	108.9	354.5	0.3	92.9	3.4	136.2
of which: Banks majority-owned by foreign banks 9													
2019 July	35	820.5	60.7	201.0	164.0	36.8	439.0	69.7	285.6	0.2	82.7	2.7	117.1
Aug.	35	853.9	62.5	212.7	175.2	37.4	448.0	75.2	286.3	0.2	85.5	2.7	128.0

***** Assets and liabilities of monetary financial institutions (MFIs) in Germany. The assets and liabilities of foreign branches, of money market funds (which are also classified as MFIs) and of the Bundesbank are not included. For the definitions of the respective items, see the footnotes to Table IV.3. **1** Owing to the Act Modernising Accounting Law *(Gesetz zur Modernisierung des Bilanzrechts)* of 25 May 2009, derivative financial instruments in the trading portfolio (trading portfolio derivatives) within the meaning of Section 340e(3) sentence 1 of the German Commercial Code *(Handelsgesetzbuch)* read in conjunction with Section 35(1) number 1a of the Credit Institution Accounting Regulation *(Verordnung über die Rechnungslegung der Kreditinstitute)* are classified under "Other assets and liabilities" as of the December 2010 reporting date. Trading portfolio derivatives are listed separately in Statistical Supplement 1 to the Monthly Report – Banking statistics, in Tables I.1 to I.3. **2** For building and loan associations: including deposits under savings and loan contracts (see Table IV.12). **3** Included in time deposits. **4** Excluding deposits under savings and

IV. Banks

Deposits of banks (MFIs)			Deposits of non-banks (non-MFIs)											
	of which:			of which:										
					Time deposits 2			Savings deposits 4						
Total	Sight deposits	Time deposits	Total	Sight deposits	for up to and including 1 year	for more than 1 year 2	Memo item: Liabilities arising from repos 3	Total	of which: At 3 months' notice	Bank savings bonds	Bearer debt securities out-standing 5	Capital including published reserves, partici-pation rights capital, funds for general banking risks	Other liabi-lities 1	End of month
All categories of banks														
1,812.3	586.4	1,225.8	3,824.4	2,215.0	297.4	683.5	53.4	588.9	550.9	39.7	1,169.0	536.1	829.6	2019 Mar.
1,847.9	573.2	1,274.6	3,850.4	2,246.9	295.4	679.6	60.5	589.1	550.9	39.4	1,161.2	536.0	810.0	Apr.
1,840.1	603.9	1,236.2	3,872.7	2,273.4	293.8	677.1	58.1	589.4	550.5	39.1	1,178.2	539.6	901.3	May
1,834.3	593.8	1,240.4	3,875.2	2,277.6	290.2	679.1	52.4	589.5	550.1	38.8	1,174.8	544.3	943.3	June
1,822.4	584.0	1,238.4	3,879.8	2,292.6	284.1	675.8	59.8	588.6	549.5	38.7	1,179.0	545.3	995.2	July
1,840.9	563.7	1,277.2	3,912.6	2,316.2	298.9	671.9	67.2	587.0	548.3	38.6	1,178.3	545.8	1,217.5	Aug.
Commercial banks 6														
897.4	415.1	482.3	1,573.3	1,006.1	173.2	274.3	57.3	103.8	94.7	16.0	171.6	197.2	680.8	2019 July
910.6	412.1	498.5	1,588.2	1,011.8	185.5	272.3	64.8	102.5	93.6	16.1	169.3	197.6	848.4	Aug.
Big banks 7														
455.1	191.3	263.8	777.6	475.2	101.2	110.1	44.9	87.5	79.4	3.6	120.7	110.1	620.5	2019 July
475.5	201.2	274.3	788.4	479.4	109.5	109.7	50.0	86.3	78.3	3.6	119.3	110.2	785.0	Aug.
Regional banks and other commercial banks														
209.3	80.0	129.3	643.7	424.1	49.7	141.6	12.5	16.1	15.1	12.3	49.9	77.9	50.3	2019 July
215.4	84.6	130.7	649.1	425.7	53.7	141.3	14.8	16.0	15.0	12.4	49.0	78.3	53.2	Aug.
Branches of foreign banks														
233.0	143.8	89.2	151.9	106.8	22.3	22.6	–	0.2	0.2	0.1	1.0	9.2	10.0	2019 July
219.7	126.3	93.5	150.6	106.7	22.3	21.3	–	0.2	0.2	0.1	1.0	9.2	10.3	Aug.
Landesbanken														
257.0	71.4	185.6	235.6	109.3	40.6	78.2	2.2	7.1	7.0	0.3	192.7	39.9	106.1	2019 July
251.8	55.9	195.8	237.4	111.3	41.8	76.9	2.1	7.1	7.0	0.3	195.1	39.9	125.4	Aug.
Savings banks														
134.5	3.8	130.7	996.7	656.5	18.5	15.2	–	290.4	268.5	16.0	18.4	122.3	43.2	2019 July
133.7	3.1	130.6	1,006.7	666.9	18.7	15.2	–	290.1	268.3	15.9	18.4	122.4	43.8	Aug.
Credit cooperatives														
119.1	1.4	117.6	716.9	477.7	33.6	13.9	–	186.8	178.8	4.8	10.1	83.3	29.3	2019 July
119.6	1.1	118.5	723.0	483.8	33.7	13.9	–	186.9	178.9	4.7	10.2	83.4	29.5	Aug.
Mortgage banks														
50.2	6.0	44.2	71.9	2.1	3.5	66.2	–	–	–	.	94.3	10.2	6.6	2019 July
52.2	6.7	45.5	71.7	2.4	3.6	65.7	–	–	–	.	94.4	10.2	6.9	Aug.
Building and loan associations														
23.8	2.3	21.5	186.4	3.2	2.1	180.6	–	0.5	0.5	0.1	3.1	12.0	11.9	2019 July
24.3	2.5	21.8	186.9	3.2	2.4	180.8	–	0.5	0.5	0.1	3.1	12.0	12.1	Aug.
Banks with special, development and other central support tasks														
340.6	84.0	256.5	99.1	37.8	12.5	47.3	0.3	–	–	.	688.7	80.3	117.3	2019 July
348.6	82.2	266.4	98.7	36.8	13.3	47.2	0.3	–	–	.	687.8	80.3	151.3	Aug.
***Memo item:* Foreign banks 8**														
443.5	231.6	211.9	570.3	411.4	54.5	79.4	14.3	19.6	19.2	5.4	31.2	58.9	121.7	2019 July
444.6	222.3	222.3	576.1	414.7	58.8	77.6	17.3	19.6	19.2	5.4	31.5	58.9	133.4	Aug.
***of which:* Banks majority-owned by foreign banks 9**														
210.5	87.8	122.7	418.4	304.6	32.2	56.9	14.3	19.4	19.0	5.4	30.2	49.7	111.7	2019 July
224.9	96.0	128.9	425.6	308.0	36.6	56.4	17.3	19.4	19.0	5.3	30.5	49.8	123.1	Aug.

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), Deutsche Postbank AG (from December 2004 up to April 2018) and DB Privat- und Firmenkundenbank AG (from May 2018) (see the explanatory notes in the Statistical Supplement to the Monthly Report 1, Banking statistics, Table I.3, banking group "Big banks"). **8** Sum of the banks majority-owned by foreign banks and included in other categories of banks and the category "Branches (with dependent legal status) of foreign banks". **9** Separate presentation of the banks majority-owned by foreign banks included in other banking categories.

IV. Banks

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

€ billion

Period	Cash in hand (euro area banknotes and coins)	Credit balances with the Bundesbank	Lending to domestic banks (MFIs)						Lending to domestic non-banks (non-MFIs)				
			Total	Credit balances and loans	Bills	Negotiable money market paper issued by banks	Securities issued by banks	Memo item: Fiduciary loans	Total	Loans	Bills	Treasury bills and negotiable money market paper issued by non-banks	Securities issued by non-banks [1]
													End of year or month *
2009	16.9	78.9	1,711.5	1,138.0	–	31.6	541.9	2.2	3,100.1	2,691.8	0.8	4.0	403.5
2010	16.0	79.6	1,686.3	1,195.4	–	7.5	483.5	1.8	3,220.9	2,770.4	0.8	27.9	421.8
2011	15.8	93.8	1,725.6	1,267.9	–	7.1	450.7	2.1	3,197.8	2,774.6	0.8	6.4	415.9
2012	18.5	134.3	1,655.0	1,229.1	–	2.4	423.5	2.4	3,220.4	2,785.5	0.6	2.2	432.1
2013	18.5	85.6	1,545.6	1,153.1	0.0	1.7	390.8	2.2	3,131.6	2,692.6	0.5	1.2	437.2
2014	18.9	81.3	1,425.9	1,065.6	0.0	2.1	358.2	1.7	3,167.3	2,712.2	0.4	0.7	454.0
2015	19.2	155.0	1,346.6	1,062.6	0.0	1.7	282.2	1.7	3,233.9	2,764.0	0.4	0.4	469.0
2016	25.8	284.0	1,364.9	1,099.8	0.0	0.8	264.3	2.0	3,274.3	2,823.8	0.3	0.4	449.8
2017	31.9	392.5	1,407.5	1,163.4	0.0	0.7	243.4	1.9	3,332.6	2,894.0	0.4	0.7	437.5
2018	40.4	416.1	1,323.5	1,083.8	0.0	0.8	239.0	5.9	3,394.5	2,990.2	0.2	0.2	403.9
2018 Mar.	34.8	440.7	1,389.5	1,143.5	0.0	0.9	245.2	3.2	3,342.5	2,919.6	0.3	1.0	421.7
Apr.	33.5	464.4	1,405.8	1,159.9	0.0	0.8	245.1	3.6	3,348.5	2,926.7	0.2	1.6	420.0
May	34.8	475.7	1,398.4	1,153.4	0.0	1.0	244.1	4.1	3,350.0	2,928.6	0.2	2.3	418.8
June	34.7	437.6	1,388.9	1,146.3	0.0	1.0	241.6	4.5	3,361.8	2,941.9	0.2	1.8	417.7
July	34.4	456.8	1,369.6	1,128.2	0.0	1.1	240.3	4.8	3,368.0	2,949.9	0.2	2.2	415.6
Aug.	34.8	455.2	1,383.7	1,141.5	0.0	1.2	241.0	5.3	3,368.5	2,956.8	0.2	1.6	409.9
Sep.	35.6	471.0	1,349.1	1,105.9	0.0	1.3	241.9	5.9	3,384.0	2,971.7	0.2	1.8	410.2
Oct.	36.6	505.8	1,323.8	1,082.0	0.0	1.4	240.3	6.1	3,384.4	2,977.1	0.2	0.6	406.6
Nov.	36.5	496.8	1,350.3	1,107.7	0.0	1.3	241.3	6.0	3,397.3	2,992.0	0.2	0.8	404.3
Dec.	40.4	416.1	1,323.5	1,083.8	0.0	0.8	239.0	5.9	3,394.5	2,990.2	0.2	0.2	403.9
2019 Jan.	36.5	451.8	1,346.4	1,106.7	0.0	0.8	238.9	6.1	3,405.3	3,003.3	0.2	1.0	400.8
Feb.	36.6	471.9	1,361.8	1,118.8	0.0	0.8	242.1	6.1	3,413.6	3,014.0	0.2	0.3	399.0
Mar.	36.8	476.4	1,380.3	1,137.3	0.0	1.0	242.0	6.0	3,425.0	3,026.0	0.3	1.0	397.7
Apr.	38.0	501.2	1,363.8	1,123.2	0.0	0.8	239.8	6.0	3,428.9	3,034.7	0.2	1.1	393.0
May	37.7	517.6	1,371.8	1,129.7	0.0	0.8	241.3	5.5	3,445.6	3,049.5	0.2	1.5	394.4
June	37.7	477.9	1,362.5	1,121.2	0.0	1.0	240.3	5.2	3,467.1	3,067.0	0.2	1.3	398.5
July	37.2	460.1	1,355.5	1,113.6	0.0	0.9	241.0	5.1	3,476.1	3,075.1	0.2	2.3	398.6
Aug.	38.0	462.1	1,365.8	1,126.4	0.0	0.9	238.4	4.8	3,491.7	3,087.2	0.2	2.9	401.4
													Changes *
2010	– 0.9	+ 0.6	– 19.3	+ 61.5	± 0.0	– 24.0	– 56.8	– 0.3	+ 130.5	+ 78.7	+ 0.0	+ 23.8	+ 28.0
2011	– 0.2	+ 14.2	+ 47.3	+ 80.5	–	– 0.4	– 32.8	– 0.1	– 30.6	– 3.2	+ 0.0	– 21.5	– 5.9
2012	+ 2.7	+ 40.5	– 68.6	– 37.5	–	– 4.6	– 26.5	+ 0.1	+ 21.0	+ 9.8	– 0.2	– 4.3	+ 15.7
2013	+ 0.0	– 48.8	– 204.1	– 170.6	+ 0.0	– 0.7	– 32.7	– 0.2	+ 4.4	+ 0.3	– 0.1	– 0.6	+ 4.8
2014	+ 0.4	– 4.3	– 119.3	– 87.1	+ 0.0	+ 0.4	– 32.6	+ 0.1	+ 36.7	+ 20.6	– 0.1	– 0.6	+ 16.8
2015	+ 0.3	+ 73.7	– 80.7	– 4.3	– 0.0	– 0.4	– 75.9	– 0.1	+ 68.9	+ 54.1	– 0.0	– 0.3	+ 15.1
2016	+ 6.5	+129.1	+ 48.1	+ 66.9	–	– 0.9	– 17.9	+ 0.4	+ 43.7	+ 62.8	– 0.1	– 0.1	– 18.9
2017	+ 6.1	+108.4	+ 50.3	+ 70.4	– 0.0	+ 0.0	– 20.1	– 0.1	+ 57.0	+ 70.2	+ 0.0	+ 0.4	– 13.6
2018	+ 8.5	+ 24.0	– 81.0	– 76.6	+ 0.0	+ 0.1	– 4.4	+ 3.8	+ 71.5	+ 105.4	– 0.1	– 0.5	– 33.2
2018 Mar.	+ 5.5	– 20.0	– 19.9	– 21.9	–	+ 0.1	+ 1.9	+ 0.3	+ 4.2	+ 9.1	+ 0.1	– 0.2	– 4.7
Apr.	– 1.3	+ 23.6	+ 16.8	+ 16.9	+ 0.0	– 0.0	– 0.0	+ 0.4	+ 6.4	+ 7.1	– 0.0	+ 0.7	– 1.3
May	+ 1.3	+ 11.4	– 5.8	– 4.9	–	+ 0.1	– 1.1	+ 0.5	+ 10.4	+ 10.8	– 0.0	+ 0.7	– 1.2
June	– 0.1	– 38.1	– 9.5	– 7.1	–	+ 0.0	– 2.4	+ 0.4	+ 11.8	+ 13.3	+ 0.0	– 0.5	– 1.0
July	– 0.3	+ 19.3	– 19.3	– 18.1	–	+ 0.1	– 1.3	+ 0.3	+ 6.2	+ 8.0	– 0.0	+ 0.4	– 2.1
Aug.	+ 0.4	– 1.6	+ 15.6	+ 14.8	–	+ 0.1	+ 0.7	+ 0.5	+ 0.7	+ 7.1	– 0.0	– 0.6	– 5.8
Sep.	+ 0.8	+ 16.0	– 34.6	– 35.7	–	+ 0.1	+ 0.9	+ 0.4	+ 15.5	+ 14.9	+ 0.0	+ 0.2	+ 0.4
Oct.	+ 1.1	+ 34.7	– 25.4	– 23.8	+ 0.0	+ 0.1	– 1.7	+ 0.1	+ 0.5	+ 5.4	– 0.0	– 1.2	– 3.6
Nov.	– 0.1	– 9.0	+ 26.6	+ 25.7	–	– 0.1	+ 1.0	– 0.1	+ 12.9	+ 14.9	+ 0.0	+ 0.2	– 2.2
Dec.	+ 3.9	– 80.6	– 26.9	– 24.0	–	– 0.6	– 2.3	– 0.1	– 2.9	– 1.8	+ 0.0	– 0.6	– 0.5
2019 Jan.	– 3.9	+ 35.6	+ 23.0	+ 23.0	– 0.0	+ 0.0	+ 0.1	+ 0.2	+ 10.8	+ 13.1	– 0.0	+ 0.8	– 3.1
Feb.	+ 0.1	+ 20.1	+ 15.3	+ 12.1	+ 0.0	+ 0.0	+ 3.2	+ 0.0	+ 8.3	+ 10.7	+ 0.0	– 0.7	– 1.7
Mar.	+ 0.2	+ 3.8	+ 22.0	+ 22.7	–	+ 0.1	– 0.8	– 0.0	+ 10.9	+ 12.0	+ 0.1	+ 0.7	– 1.8
Apr.	+ 1.2	+ 24.8	– 16.6	– 14.1	+ 0.0	– 0.2	– 2.2	+ 0.0	+ 3.8	+ 8.5	– 0.0	+ 0.1	– 4.7
May	– 0.3	+ 16.4	+ 8.0	+ 6.5	–	– 0.0	+ 1.5	– 0.5	+ 16.7	+ 14.8	– 0.0	+ 0.4	+ 1.5
June	– 0.0	– 39.7	– 9.2	– 8.4	–	+ 0.2	– 0.9	– 0.3	+ 21.5	+ 17.5	+ 0.1	– 0.1	+ 4.1
July	– 0.5	– 17.7	– 7.2	– 7.8	+ 0.0	– 0.1	+ 0.7	– 0.1	+ 9.2	+ 8.3	– 0.1	+ 0.9	+ 0.0
Aug.	+ 0.8	+ 1.9	+ 10.3	+ 12.9	+ 0.0	+ 0.0	– 2.6	– 0.2	+ 15.6	+ 12.1	+ 0.0	+ 0.6	+ 2.8

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

IV. Banks

Equalisation claims [2]	Memo item: Fiduciary loans	Participating interests in domestic banks and enterprises	Deposits of domestic banks (MFIs) [3] Total	Sight deposits [4]	Time deposits [4]	Redis-counted bills [5]	Memo item: Fiduciary loans	Deposits of domestic non-banks (non-MFIs) Total	Sight deposits	Time deposits [6]	Savings deposits [7]	Bank savings bonds [8]	Memo item: Fiduciary loans	Period
End of year or month *														
–	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
–	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	2018 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.
–	17.6	90.9	1,049.4	122.3	927.1	0.0	4.7	3,565.3	2,101.1	846.4	582.0	35.8	33.9	Mar.
–	17.5	90.7	1,060.8	131.5	929.3	0.0	4.6	3,582.0	2,122.7	841.6	582.3	35.4	33.9	Apr.
–	17.5	91.2	1,056.4	121.5	934.9	0.0	4.6	3,611.4	2,152.7	841.0	582.5	35.2	33.7	May
–	17.5	90.9	1,047.1	122.5	924.6	0.0	4.6	3,609.5	2,150.7	841.2	582.7	34.9	33.4	June
–	17.1	91.0	1,053.9	123.2	930.6	0.0	4.5	3,616.9	2,166.5	833.9	581.8	34.8	32.9	July
–	17.1	90.3	1,061.4	127.7	933.7	0.0	4.5	3,638.4	2,189.1	834.4	580.3	34.7	32.7	Aug.
Changes *														
–	– 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	+ 0.0	– 0.3	+ 8.3	– 8.7	+ 0.0	– 0.0	– 4.0	– 1.7	– 0.9	– 0.9	– 0.5	+ 0.5	2018 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	+ 3.9	+ 1.1	– 0.6	+ 0.1	Feb.
–	– 0.2	+ 0.1	+ 3.5	+ 3.8	– 0.3	– 0.0	– 0.1	+ 10.4	+ 12.0	– 3.8	+ 2.5	– 0.3	– 0.0	Mar.
–	– 0.1	– 0.2	+ 11.3	+ 9.2	+ 2.2	+ 0.0	– 0.0	+ 16.7	+ 21.6	– 4.7	+ 0.2	– 0.3	+ 0.0	Apr.
–	+ 0.0	+ 0.5	– 4.3	– 10.0	+ 5.7	–	+ 0.0	+ 29.4	+ 30.0	– 0.6	+ 0.3	– 0.3	– 0.2	May
–	– 0.1	– 0.1	– 9.2	+ 1.2	– 10.4	– 0.0	– 0.1	– 2.0	– 1.9	+ 0.1	+ 0.2	– 0.3	– 0.3	June
–	– 0.4	+ 0.0	+ 6.8	+ 0.7	+ 6.0	+ 0.0	– 0.0	+ 7.2	+ 15.7	– 7.6	– 0.9	– 0.1	– 0.5	July
–	+ 0.0	– 0.6	+ 7.6	+ 4.5	+ 3.1	+ 0.0	–	+ 21.4	+ 22.6	+ 0.5	– 1.5	– 0.1	– 0.2	Aug.

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		
	End of year or month *													
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
2018 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
Mar.	0.2	1,092.9	845.1	565.9	279.2	2.0	245.8	3.2	799.2	519.8	122.8	397.0	7.8	271.6
Apr.	0.2	1,106.2	858.3	579.0	279.3	2.8	245.2	3.3	807.9	529.0	130.3	398.7	6.6	272.2
May	0.2	1,090.6	840.9	564.1	276.8	2.8	246.8	3.6	820.1	542.9	140.2	402.7	6.4	270.8
June	0.2	1,109.3	857.3	578.3	279.0	3.1	248.9	3.8	816.2	535.9	135.8	400.1	6.6	273.6
July	0.2	1,099.0	844.6	563.6	281.0	3.3	251.1	3.8	829.3	548.2	143.9	404.3	8.6	272.5
Aug.	0.2	1,099.5	844.9	562.8	282.1	3.4	251.1	3.9	850.7	564.8	158.0	406.8	9.4	276.4
	Changes *													
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
2018 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	– 4.4	– 7.7	+ 3.3	+ 0.4	+ 2.2	+ 0.1	– 4.3	– 8.3	– 9.2	+ 0.9	– 0.1	+ 4.2
Mar.	+ 0.0	+ 28.2	+ 27.8	+ 24.7	+ 3.1	+ 0.3	+ 0.2	+ 0.0	– 3.0	– 2.5	– 3.4	+ 0.8	+ 1.5	– 2.0
Apr.	+ 0.0	+ 13.7	+ 13.5	+ 13.5	– 0.0	+ 0.8	– 0.5	+ 0.1	+ 9.1	+ 9.6	+ 7.7	+ 1.9	– 1.1	+ 0.7
May	– 0.0	– 17.6	– 19.4	– 16.4	– 3.0	+ 0.0	+ 1.7	+ 0.3	+ 12.1	+ 13.9	+ 10.0	+ 3.9	– 0.2	– 1.6
June	+ 0.0	+ 23.8	+ 21.3	+ 15.8	+ 5.5	+ 0.3	+ 2.2	+ 0.2	– 0.1	– 3.7	– 3.2	– 0.5	+ 0.2	+ 3.4
July	– 0.0	– 15.1	– 17.4	– 17.3	– 0.1	+ 0.2	+ 2.1	+ 0.0	+ 10.2	+ 9.9	+ 7.7	+ 2.2	+ 2.0	– 1.6
Aug.	+ 0.0	– 3.6	– 3.5	– 3.1	– 0.3	+ 0.1	– 0.2	+ 0.0	+ 19.0	+ 14.5	+ 13.9	+ 0.6	+ 0.8	+ 3.7

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

IV. Banks

Memo item: Fiduciary loans	Participating interests in foreign banks and enterprises	Deposits of foreign banks (MFIs)						Deposits of foreign non-banks (non-MFIs)						Period
		Total	Sight deposits	Time deposits (including bank savings bonds)			Memo item: Fiduciary loans	Total	Sight deposits	Time deposits (including savings deposits and bank savings bonds)			Memo item: Fiduciary loans	
				Total	Short-term	Medium and long-term				Total	Short-term	Medium and long-term		
End of year or month *														
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
12.2	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	2018 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	Sep.
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.
13.0	21.5	762.8	464.1	298.7	209.1	89.6	1.3	259.1	113.8	145.3	87.7	57.6	0.1	Mar.
13.0	22.3	787.1	441.7	345.4	255.0	90.4	1.3	268.4	124.2	144.2	86.9	57.3	0.1	Apr.
13.0	22.3	783.6	482.4	301.2	210.0	91.2	1.3	261.3	120.7	140.6	83.6	57.0	0.1	May
12.8	22.3	787.2	471.3	315.9	225.1	90.7	1.3	265.6	126.9	138.8	81.8	56.9	0.1	June
12.8	22.0	768.5	460.7	307.8	214.3	93.5	1.3	262.9	126.2	136.7	79.5	57.2	0.1	July
12.8	22.0	779.4	436.0	343.4	247.8	95.6	1.3	274.2	127.1	147.1	90.2	56.9	0.1	Aug.
Changes *														
+ 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
+ 0.1	+ 0.3	– 45.8	– 55.0	+ 9.1	+ 11.5	– 2.3	–	– 6.4	– 8.3	+ 1.9	+ 2.3	– 0.4	– 0.0	2018 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	Sep.
+ 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.
+ 1.3	– 0.2	+ 32.9	+ 22.7	+ 10.2	+ 9.0	+ 1.3	+ 1.3	+ 5.1	+ 1.6	+ 3.5	+ 4.0	– 0.5	– 0.0	Mar.
– 0.0	+ 0.8	+ 24.4	– 22.2	+ 46.6	+ 45.9	+ 0.7	– 0.0	+ 9.3	+ 10.4	– 1.1	– 0.8	– 0.3	–	Apr.
– 0.0	– 0.0	– 4.2	+ 40.4	– 44.6	– 45.3	+ 0.8	+ 0.0	– 7.2	– 7.9	+ 0.6	+ 1.0	– 0.3	+ 0.0	May
– 0.2	+ 0.0	+ 7.2	– 9.6	+ 16.8	+ 14.6	+ 2.2	–	+ 5.4	+ 6.6	– 1.2	– 1.2	– 0.0	– 0.0	June
– 0.0	– 0.4	– 22.0	– 12.0	– 10.0	– 12.4	+ 2.4	+ 0.0	– 3.6	– 1.2	– 2.4	– 2.5	+ 0.1	+ 0.0	July
+ 0.0	+ 0.0	+ 8.4	– 25.9	+ 34.3	+ 32.8	+ 1.5	+ 0.0	+ 10.5	+ 0.6	+ 10.0	+ 10.3	– 0.4	–	Aug.

IV. Banks

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

€ billion

Period	Lending to domestic non-banks, total		Short-term lending							Medium and long-term	
				to enterprises and households			to general government				to enterprises and households
	including negotiable money market paper, securities, equalisation claims	excluding negotiable money market paper, securities, equalisation claims	Total	Total	Loans and bills	Negotiable money market paper	Total	Loans	Treasury bills	Total	Total
	End of year or month *										
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
2018 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	2,746.4
Mar.	3,425.0	3,026.3	261.6	241.0	240.4	0.6	20.6	20.2	0.4	3,163.4	2,755.8
Apr.	3,428.9	3,034.9	256.3	235.0	234.3	0.7	21.4	21.0	0.4	3,172.6	2,769.9
May	3,445.6	3,049.7	257.3	236.6	235.7	0.9	20.7	20.1	0.6	3,188.3	2,785.8
June	3,467.1	3,067.2	271.3	249.8	249.2	0.6	21.5	20.8	0.7	3,195.8	2,795.2
July	3,476.1	3,075.3	270.3	243.8	243.2	0.6	26.5	24.9	1.6	3,205.9	2,807.7
Aug.	3,491.7	3,087.4	266.2	238.8	238.3	0.5	27.4	25.0	2.4	3,225.5	2,825.7
	Changes *										
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
2018 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
Mar.	+ 10.9	+ 12.0	+ 4.1	+ 5.7	+ 5.7	+ 0.1	– 1.7	– 2.3	+ 0.6	+ 6.9	+ 8.8
Apr.	+ 3.8	+ 8.5	– 4.7	– 5.5	– 5.6	+ 0.1	+ 0.8	+ 0.8	+ 0.0	+ 8.6	+ 13.4
May	+ 16.7	+ 14.8	+ 1.0	+ 1.6	+ 1.4	+ 0.2	– 0.7	– 0.9	+ 0.2	+ 15.7	+ 16.0
June	+ 21.5	+ 17.6	+ 14.0	+ 13.2	+ 13.5	– 0.3	+ 0.8	+ 0.7	+ 0.1	+ 7.5	+ 9.4
July	+ 9.2	+ 8.2	– 1.0	– 6.1	– 6.0	– 0.0	+ 5.0	+ 4.1	+ 0.9	+ 10.2	+ 12.9
Aug.	+ 15.6	+ 12.1	– 4.2	– 5.1	– 5.0	– 0.1	+ 0.9	+ 0.1	+ 0.8	+ 19.8	+ 18.2

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

IV. Banks

lending												
prises and households					to general government							
Loans						Loans						
Total	Medium-term	Long-term	Securities	Memo item: Fiduciary loans	Total	Total	Medium-term	Long-term	Securities [1]	Equalisation claims [2]	Memo item: Fiduciary loans	Period
End of year or month *												
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
2,419.5	275.2	2,144.2	233.8	17.4	435.8	247.9	22.1	225.8	187.9	–	1.6	2018 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.
2,516.1	284.2	2,231.9	230.3	16.5	409.6	240.8	18.9	221.9	168.7	–	1.3	Feb.
2,525.3	286.6	2,238.7	230.5	16.3	407.6	240.4	18.7	221.7	167.2	–	1.3	Mar.
2,539.8	291.3	2,248.5	230.0	16.2	402.7	239.8	18.4	221.4	162.9	–	1.3	Apr.
2,554.8	293.7	2,261.1	231.0	16.3	402.5	239.1	18.2	220.9	163.4	–	1.3	May
2,560.3	294.3	2,266.1	234.9	16.2	400.6	237.0	17.9	219.0	163.7	–	1.3	June
2,571.9	295.2	2,276.8	235.8	15.8	398.2	235.4	17.4	218.0	162.8	–	1.2	July
2,588.9	298.3	2,290.6	236.8	15.9	399.7	235.2	17.4	217.8	164.5	–	1.2	Aug.
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
+ 5.4	+ 0.2	+ 5.2	– 2.5	– 0.1	– 4.6	– 2.4	+ 0.1	– 2.5	– 2.2	–	+ 0.0	2018 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.
+ 9.1	+ 2.1	+ 6.9	– 0.3	– 0.2	– 1.9	– 0.4	– 0.3	– 0.2	– 1.5	–	+ 0.0	Mar.
+ 13.9	+ 4.5	+ 9.4	– 0.5	– 0.1	– 4.8	– 0.6	– 0.2	– 0.3	– 4.3	–	– 0.0	Apr.
+ 15.0	+ 2.4	+ 12.7	+ 0.9	+ 0.0	– 0.3	– 0.8	– 0.2	– 0.6	+ 0.5	–	– 0.0	May
+ 5.6	+ 0.6	+ 5.0	+ 3.9	– 0.0	– 1.9	– 2.2	– 0.3	– 1.9	+ 0.2	–	– 0.0	June
+ 11.7	+ 1.0	+ 10.7	+ 1.2	– 0.4	– 2.7	– 1.6	– 0.5	– 1.0	– 1.1	–	– 0.0	July
+ 17.1	+ 3.3	+ 13.8	+ 1.1	+ 0.0	+ 1.6	– 0.2	– 0.0	– 0.2	+ 1.8	–	+ 0.0	Aug.

IV. Banks

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

€ billion

Period	Lending to domestic enterprises and households (excluding holdings of negotiable money market paper and excluding securities portfolios) [1]													
		of which:				Lending to enterprises and self-employed persons								
			Housing loans											
	Total	Mortgage loans, total	Total	Mortgage loans secured by residential real estate	Other housing loans	Total	of which: Housing loans	Manufacturing	Electricity, gas and water supply; refuse disposal, mining and quarrying	Construction	Wholesale and retail trade; repair of motor vehicles and motorcycles	Agriculture, forestry, fishing and aquaculture	Transportation and storage; post and telecommunications	Financial intermediation (excluding MFIs) and insurance companies
	Lending, total													**End of year or quarter ***
2017	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 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
2019 Mar.	2,765.7	1,437.3	1,404.9	1,152.3	252.6	1,513.5	398.4	144.4	117.8	74.0	141.0	53.6	50.1	160.5
June	2,809.5	1,469.6	1,427.8	1,182.8	244.9	1,539.7	405.2	150.3	120.5	76.2	140.5	54.4	50.5	161.5
	Short-term lending													
2017	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 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
2019 Mar.	240.4	–	7.7	–	7.7	210.1	4.5	39.5	6.2	15.8	49.6	4.0	5.0	29.7
June	249.2	–	8.0	–	8.0	217.3	4.6	42.9	7.2	16.5	48.6	4.7	5.2	29.3
	Medium-term lending													
2017	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 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
2019 Mar.	286.6	–	35.1	–	35.1	206.0	15.4	25.4	4.5	12.9	19.3	4.5	10.4	49.1
June	294.3	–	36.0	–	36.0	212.6	16.1	26.1	5.2	13.5	19.5	4.5	10.4	49.0
	Long-term lending													
2017	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 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
2019 Mar.	2,238.7	1,437.3	1,362.1	1,152.3	209.8	1,097.4	378.5	79.5	107.2	45.3	72.1	45.0	34.6	81.7
June	2,266.1	1,469.6	1,383.8	1,182.8	200.9	1,109.8	384.5	81.3	108.1	46.2	72.4	45.3	34.9	83.2
	Lending, total													**Change during quarter ***
2018 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
2019 Q1	+ 38.7	+ 15.1	+ 13.5	+ 11.4	+ 2.1	+ 29.8	+ 5.5	+ 5.1	+ 1.4	+ 2.1	+ 2.3	+ 0.4	– 0.5	+ 4.9
Q2	+ 43.8	+ 16.3	+ 20.1	+ 13.5	+ 6.7	+ 26.8	+ 6.9	+ 5.8	+ 1.7	+ 2.2	– 0.7	+ 0.9	+ 0.4	+ 1.0
	Short-term lending													
2018 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
2019 Q1	+ 12.9	–	+ 0.5	–	+ 0.5	+ 14.3	+ 0.4	+ 4.0	+ 1.4	+ 1.1	+ 1.3	+ 0.4	+ 0.1	+ 3.5
Q2	+ 9.3	–	+ 0.3	–	+ 0.3	+ 7.7	+ 0.2	+ 3.3	+ 1.0	+ 0.8	– 1.2	+ 0.6	+ 0.1	– 0.4
	Medium-term lending													
2018 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
2019 Q1	+ 3.7	–	– 0.3	–	– 0.3	+ 3.2	+ 0.0	+ 0.4	– 0.0	+ 0.4	+ 0.3	+ 0.0	– 0.1	– 0.1
Q2	+ 7.4	–	+ 0.9	–	+ 0.9	+ 6.4	+ 0.6	+ 0.8	+ 0.7	+ 0.5	+ 0.2	+ 0.0	– 0.0	– 0.0
	Long-term lending													
2018 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
2019 Q1	+ 22.0	+ 15.1	+ 13.3	+ 11.4	+ 1.9	+ 12.3	+ 5.1	+ 0.7	+ 0.0	+ 0.6	+ 0.7	+ 0.0	– 0.5	+ 1.5
Q2	+ 27.0	+ 16.3	+ 18.9	+ 13.5	+ 5.5	+ 12.7	+ 6.1	+ 1.8	– 0.0	+ 0.9	+ 0.4	+ 0.2	+ 0.4	+ 1.5

* 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

Services sector (including the professions)				Memo items:		Lending to employees and other individuals					Lending to non-profit institutions		
	of which:							Other lending					
									of which:				
Total	Housing enterprises	Holding companies	Other real estate activities	Lending to self-employed persons [2]	Lending to craft enterprises	Total	Housing loans	Total	Instalment loans [3]	Debit balances on wage, salary and pension accounts	Total	of which: Housing loans	Period
End of year or quarter *												**Lending, total**	
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
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	2018 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.
772.0	242.9	48.7	197.6	436.3	48.6	1,237.2	1,002.7	234.4	173.7	8.0	15.1	3.8	2019 Mar.
785.8	247.4	51.6	199.3	441.1	48.6	1,254.6	1,018.8	235.9	175.6	8.0	15.2	3.8	June
												Short-term lending	
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
57.2	10.7	10.2	10.6	23.5	5.7	29.2	3.1	26.1	1.5	8.4	0.5	–	2018 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.
60.1	12.1	9.3	10.4	24.4	5.8	29.8	3.2	26.5	1.5	8.0	0.5	0.0	2019 Mar.
63.0	12.5	10.2	10.6	24.6	5.6	31.3	3.4	28.0	1.9	8.0	0.5	0.0	June
												Medium-term lending	
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
73.0	13.0	9.7	19.2	31.0	3.4	79.6	19.7	59.9	55.4	–	0.5	0.0	2018 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.
80.0	15.4	9.6	21.8	31.7	3.5	80.1	19.6	60.5	57.2	–	0.5	0.0	2019 Mar.
84.4	16.6	11.0	22.4	32.2	3.6	81.2	19.9	61.4	58.0	–	0.5	0.0	June
												Long-term lending	
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
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	2018 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.
631.9	215.4	29.8	165.4	380.3	39.3	1,127.2	979.9	147.4	115.1	–	14.1	3.7	2019 Mar.
638.5	218.3	30.3	166.3	384.3	39.4	1,142.0	995.5	146.5	115.8	–	14.2	3.8	June
Change during quarter *												**Lending, total**	
+ 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	2018 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
+ 14.1	+ 4.6	+ 1.4	+ 2.0	+ 3.7	+ 0.6	+ 8.8	+ 8.0	+ 0.8	+ 2.6	– 0.2	+ 0.1	+ 0.0	2019 Q1
+ 15.5	+ 4.5	+ 2.8	+ 1.7	+ 4.3	– 0.1	+ 16.9	+ 13.2	+ 3.7	+ 2.9	– 0.0	+ 0.1	+ 0.0	Q2
												Short-term lending	
+ 3.7	+ 0.6	+ 2.3	– 0.2	– 0.2	– 0.1	+ 0.1	+ 0.1	+ 0.0	+ 0.0	– 0.0	– 0.2	–	2018 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
+ 2.4	+ 0.1	+ 1.2	+ 0.1	+ 0.4	+ 0.5	– 1.4	+ 0.2	– 1.5	– 0.0	– 0.2	+ 0.0	+ 0.0	2019 Q1
+ 3.5	+ 0.5	+ 0.9	+ 0.3	+ 0.2	– 0.2	+ 1.6	+ 0.2	+ 1.4	+ 0.4	– 0.0	+ 0.0	+ 0.0	Q2
												Medium-term lending	
+ 3.1	+ 0.7	+ 0.4	+ 1.0	+ 0.4	+ 0.0	+ 1.6	+ 0.0	+ 1.5	+ 1.5	–	– 0.0	+ 0.0	2018 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
+ 2.4	+ 0.6	– 0.3	+ 0.5	+ 0.1	+ 0.0	+ 0.5	– 0.3	+ 0.9	+ 0.9	–	– 0.0	– 0.0	2019 Q1
+ 4.3	+ 1.2	+ 1.4	+ 0.6	+ 0.4	+ 0.1	+ 1.1	+ 0.3	+ 0.8	+ 0.8	–	– 0.0	– 0.0	Q2
												Long-term lending	
+ 7.7	+ 3.6	+ 0.6	+ 1.4	+ 3.5	+ 0.1	+ 12.3	+ 11.0	+ 1.3	+ 1.6	–	+ 0.1	+ 0.0	2018 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
+ 9.3	+ 3.9	+ 0.5	+ 1.5	+ 3.2	+ 0.0	+ 9.7	+ 8.2	+ 1.5	+ 1.7	–	+ 0.1	+ 0.0	2019 Q1
+ 7.7	+ 2.9	+ 0.5	+ 0.8	+ 3.7	+ 0.0	+ 14.2	+ 12.8	+ 1.5	+ 1.7	–	+ 0.1	+ 0.0	Q2

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

IV. Banks

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

€ billion

Period	Deposits, total	Sight deposits	Time deposits 1,2					Savings deposits 3	Bank savings bonds 4	Memo item:		
			Total	for up to and including 1 year	for more than 1 year 2					Fiduciary loans	Subordinated liabilities (excluding negotiable debt securities)	Liabilities arising from repos
					Total	for up to and including 2 years	for more than 2 years					
	Domestic non-banks, total											**End of year or month***
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 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
Mar.	3,565.3	2,101.1	846.4	215.8	630.5	57.0	573.5	582.0	35.8	33.9	15.2	0.2
Apr.	3,582.0	2,122.7	841.6	214.7	626.9	56.0	570.9	582.3	35.4	33.9	15.2	2.6
May	3,611.4	2,152.7	841.0	216.3	624.7	54.9	569.8	582.5	35.2	33.7	15.2	1.6
June	3,609.5	2,150.7	841.2	214.5	626.7	55.4	571.4	582.7	34.9	33.4	15.1	2.2
July	3,616.9	2,166.5	833.9	210.7	623.2	54.0	569.2	581.8	34.8	32.9	14.9	0.2
Aug.	3,638.4	2,189.1	834.4	214.7	619.7	54.1	565.5	580.3	34.7	32.7	14.9	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 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	+ 3.9	+ 5.2	– 1.4	– 0.9	– 0.4	+ 1.1	– 0.6	+ 0.1	+ 0.2	– 0.2
Mar.	+ 10.4	+ 12.0	– 3.8	– 2.1	– 1.7	+ 0.8	– 2.5	+ 2.5	– 0.3	– 0.0	+ 0.1	– 0.4
Apr.	+ 16.7	+ 21.6	– 4.7	– 1.1	– 3.6	– 1.1	– 2.6	+ 0.2	– 0.3	+ 0.0	+ 0.0	+ 2.4
May	+ 29.4	+ 30.0	– 0.6	+ 1.6	– 2.2	– 1.1	– 1.1	+ 0.3	– 0.3	– 0.2	– 0.0	– 1.0
June	– 2.0	– 1.9	+ 0.1	– 2.0	+ 2.0	+ 0.5	+ 1.5	+ 0.2	– 0.3	– 0.3	– 0.0	+ 0.6
July	+ 7.2	+ 15.7	– 7.6	– 3.8	– 3.7	– 1.4	– 2.3	– 0.9	– 0.1	– 0.5	+ 0.9	– 2.0
Aug.	+ 21.4	+ 22.6	+ 0.5	+ 4.0	– 3.5	+ 0.1	– 3.7	– 1.5	– 0.1	– 0.2	– 0.0	+ 0.5
	Domestic government											**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 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	–
Mar.	232.2	64.0	160.3	79.8	80.5	29.3	51.2	3.8	4.1	25.1	2.2	–
Apr.	229.6	62.3	159.5	79.7	79.8	28.4	51.4	3.7	4.1	25.0	2.2	1.4
May	238.8	68.9	162.0	83.0	79.0	27.3	51.7	3.7	4.1	25.0	2.2	1.4
June	240.8	68.3	164.6	84.1	80.5	28.1	52.4	3.7	4.2	24.8	2.2	2.0
July	234.6	66.2	160.6	80.7	79.9	27.3	52.6	3.7	4.2	24.7	2.2	–
Aug.	245.2	73.5	163.7	83.7	80.0	27.3	52.7	3.7	4.2	24.7	2.3	0.2
												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 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	+ 3.8	+ 4.9	+ 5.3	– 0.4	– 0.8	+ 0.4	+ 0.1	– 0.1	+ 0.0	+ 0.0	–
Mar.	+ 1.8	+ 1.1	+ 0.8	– 0.3	+ 1.1	+ 0.9	+ 0.2	– 0.0	– 0.1	– 0.1	– 0.1	–
Apr.	– 2.6	– 1.7	– 0.8	– 0.2	– 0.6	– 0.9	+ 0.2	– 0.0	– 0.0	– 0.1	+ 0.0	+ 1.4
May	+ 9.1	+ 6.6	+ 2.5	+ 3.3	– 0.9	– 1.1	+ 0.3	– 0.0	+ 0.1	– 0.0	–	– 0.0
June	+ 1.6	– 0.8	+ 2.3	+ 1.1	+ 1.3	+ 0.7	+ 0.5	– 0.0	+ 0.0	– 0.2	–	+ 0.6
July	– 6.1	– 2.1	– 4.0	– 3.4	– 0.6	– 0.8	+ 0.2	– 0.0	+ 0.0	– 0.1	+ 0.0	– 2.0
Aug.	+ 10.5	+ 7.3	+ 3.2	+ 3.0	+ 0.1	+ 0.1	+ 0.1	+ 0.0	+ 0.0	+ 0.0	+ 0.0	+ 0.2

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

IV. Banks

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

€ billion

Period	Deposits, total	Sight deposits	Time deposits [1,2]					Savings deposits [3]	Bank savings bonds [4]	Memo item:		
			Total	for up to and including 1 year	for more than 1 year [2]					Fiduciary loans	Subordinated liabilities (excluding negotiable debt securities)	Liabilities arising from repos
					Total	for up to and including 2 years	for more than 2 years					
	Domestic enterprises and households											**End of year or month***
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 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	31.9	8.8	12.9	0.6
Mar.	3,333.1	2,037.1	686.0	136.0	550.0	27.7	522.3	578.3	31.7	8.8	13.0	0.2
Apr.	3,352.4	2,060.4	682.1	135.1	547.1	27.5	519.5	578.5	31.3	8.9	13.0	1.1
May	3,372.6	2,083.8	679.0	133.3	545.7	27.6	518.1	578.8	31.0	8.7	13.0	0.2
June	3,368.8	2,082.4	676.6	130.4	546.2	27.3	518.9	579.0	30.7	8.6	12.9	0.2
July	3,382.3	2,100.3	673.3	130.0	543.3	26.7	516.6	578.1	30.6	8.2	12.7	0.2
Aug.	3,393.3	2,115.6	670.6	131.0	539.7	26.8	512.8	576.5	30.4	8.0	12.7	0.4
												Changes*
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 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
Mar.	+ 8.6	+ 10.9	– 4.5	– 1.7	– 2.8	– 0.1	– 2.7	+ 2.5	– 0.3	+ 0.0	+ 0.1	– 0.4
Apr.	+ 19.3	+ 23.3	– 3.9	– 0.9	– 3.0	– 0.2	– 2.8	+ 0.3	– 0.3	+ 0.1	+ 0.0	+ 0.9
May	+ 20.2	+ 23.3	– 3.1	– 1.7	– 1.3	+ 0.1	– 1.4	+ 0.3	– 0.3	– 0.2	– 0.0	– 0.9
June	– 3.6	– 1.2	– 2.3	– 3.1	+ 0.8	– 0.2	+ 1.0	+ 0.2	– 0.3	– 0.1	– 0.0	+ 0.0
July	+ 13.3	+ 17.9	– 3.6	– 0.4	– 3.1	– 0.6	– 2.5	– 0.9	– 0.1	– 0.4	+ 0.8	– 0.1
Aug.	+ 10.9	+ 15.3	– 2.7	+ 1.0	– 3.7	+ 0.1	– 3.8	– 1.6	– 0.1	– 0.2	– 0.0	+ 0.3
	of which: Domestic enterprises											**End of year or month***
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 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
Mar.	1,028.2	585.5	424.2	86.2	338.0	16.6	321.4	7.1	11.4	2.6	10.5	0.2
Apr.	1,035.7	596.5	420.7	85.6	335.1	16.5	318.6	7.1	11.4	2.6	10.5	1.1
May	1,043.1	606.9	417.7	84.7	333.0	16.6	316.4	7.1	11.3	2.6	10.5	0.2
June	1,029.8	595.8	415.6	81.9	333.7	16.5	317.2	7.1	11.3	2.6	10.4	0.2
July	1,035.2	604.4	412.5	81.7	330.8	15.9	314.9	7.1	11.2	2.2	10.2	0.2
Aug.	1,036.6	608.6	409.7	83.1	326.7	15.8	310.8	7.1	11.2	2.2	10.2	0.4
												Changes*
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 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	– 8.7	– 1.6	– 0.1	– 1.5	– 0.2	– 1.3	+ 0.0	– 0.0	+ 0.0	+ 0.2	– 0.2
Mar.	+ 1.1	+ 5.9	– 4.9	– 1.9	– 3.0	– 0.1	– 2.9	+ 0.0	+ 0.1	– 0.0	+ 0.1	– 0.4
Apr.	+ 7.4	+ 11.0	– 3.5	– 0.6	– 2.9	– 0.1	– 2.7	+ 0.0	– 0.1	+ 0.0	– 0.0	+ 0.9
May	+ 7.5	+ 10.4	– 2.8	– 0.9	– 1.9	+ 0.2	– 2.1	+ 0.0	– 0.0	+ 0.0	– 0.0	– 0.9
June	– 13.1	– 10.9	– 2.1	– 3.0	+ 0.9	– 0.1	+ 1.0	– 0.0	– 0.1	– 0.0	– 0.0	+ 0.0
July	+ 5.3	+ 8.7	– 3.3	– 0.2	– 3.1	– 0.6	– 2.5	– 0.0	– 0.0	– 0.4	+ 0.8	– 0.1
Aug.	+ 1.4	+ 4.2	– 2.8	+ 1.4	– 4.2	– 0.1	– 4.1	+ 0.1	– 0.0	– 0.0	– 0.1	+ 0.3

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

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

€ billion

Period	Deposits of domestic households and non-profit institutions, total	Sight deposits						Time deposits [1,2]					
		Total	by creditor group					Total	by creditor group				
			Domestic households				Domestic non-profit institutions		Domestic households				
			Total	Self-employed persons	Employees	Other individuals			Total	Self-employed persons	Employees	Other individuals	
	End of year or month*												
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	
2019 Mar.	2,304.9	1,451.6	1,413.3	247.7	1,008.9	156.8	38.3	261.9	248.2	21.6	189.7	36.9	
Apr.	2,316.7	1,463.9	1,425.9	253.6	1,015.6	156.8	37.9	261.4	247.8	21.6	189.5	36.7	
May	2,329.6	1,476.9	1,437.9	255.8	1,024.3	157.8	38.9	261.3	247.6	21.5	189.4	36.7	
June	2,339.0	1,486.6	1,447.7	252.7	1,036.8	158.2	38.9	261.0	247.5	21.6	189.2	36.7	
July	2,347.1	1,495.9	1,457.3	260.2	1,039.4	157.8	38.7	260.8	247.2	21.6	188.9	36.8	
Aug.	2,356.7	1,507.1	1,467.5	263.5	1,046.1	157.9	39.6	260.9	247.4	21.5	189.0	36.9	
	Changes*												
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	
2019 Mar.	+ 7.5	+ 5.0	+ 4.4	– 4.4	+ 8.8	+ 0.0	+ 0.6	+ 0.4	+ 0.4	+ 0.1	+ 0.3	+ 0.0	
Apr.	+ 11.8	+ 12.3	+ 12.6	+ 5.9	+ 6.6	+ 0.1	– 0.3	– 0.5	– 0.4	– 0.0	– 0.2	– 0.2	
May	+ 12.7	+ 13.0	+ 12.0	+ 2.3	+ 8.6	+ 1.1	+ 1.0	– 0.2	– 0.2	– 0.0	– 0.2	– 0.0	
June	+ 9.5	+ 9.8	+ 9.8	– 3.2	+ 12.5	+ 0.5	+ 0.0	– 0.2	– 0.1	+ 0.1	– 0.2	+ 0.0	
July	+ 8.0	+ 9.2	+ 9.6	+ 7.5	+ 2.5	– 0.4	– 0.4	– 0.2	– 0.2	– 0.0	– 0.3	+ 0.1	
Aug.	+ 9.5	+ 11.1	+ 10.2	+ 3.3	+ 6.8	+ 0.2	+ 0.9	+ 0.1	+ 0.1	– 0.1	+ 0.1	+ 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		
	End of year or month*												
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
2019 Mar.	232.2	10.5	5.6	1.0	3.8	0.1	12.2	55.2	14.0	27.5	12.6	1.1	12.9
Apr.	229.6	11.2	5.0	2.3	3.9	0.1	12.2	54.3	13.0	27.2	12.9	1.1	12.8
May	238.8	12.0	5.5	2.3	4.2	0.1	12.1	54.8	13.6	27.1	13.0	1.1	12.9
June	240.8	14.0	6.1	3.6	4.2	0.1	11.9	57.8	15.1	28.5	13.1	1.1	12.9
July	234.6	11.2	6.0	0.9	4.2	0.0	11.8	58.0	15.8	27.8	13.3	1.1	12.8
Aug.	245.2	11.2	5.9	0.9	4.3	0.1	11.8	60.9	18.0	28.3	13.4	1.1	12.9
	Changes*												
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
2019 Mar.	+ 1.8	+ 0.6	+ 0.7	+ 0.0	– 0.1	+ 0.0	– 0.0	+ 5.3	+ 1.2	+ 3.5	+ 0.6	– 0.1	– 0.1
Apr.	– 2.6	+ 0.8	– 0.7	+ 1.4	+ 0.1	– 0.0	– 0.0	– 1.0	– 1.0	– 0.3	+ 0.3	+ 0.0	– 0.0
May	+ 9.1	+ 0.6	+ 0.5	– 0.0	+ 0.2	– 0.0	– 0.0	+ 0.5	+ 0.6	– 0.1	+ 0.1	– 0.0	+ 0.0
June	+ 1.6	+ 2.0	+ 0.7	+ 1.3	–	+ 0.0	– 0.2	+ 3.0	+ 1.5	+ 1.4	+ 0.1	– 0.0	+ 0.0
July	– 6.1	– 2.8	– 0.2	– 2.7	+ 0.1	– 0.0	– 0.1	+ 0.2	+ 0.8	– 0.8	+ 0.2	+ 0.0	– 0.0
Aug.	+ 10.5	– 0.0	– 0.1	– 0.1	+ 0.1	+ 0.0	+ 0.0	+ 2.9	+ 2.2	+ 0.5	+ 0.2	– 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

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Domestic non-profit institutions	by maturity				Savings deposits [3]			Bank savings bonds [4]	Memo item:			Period
	up to and including 1 year	more than 1 year [2]							Fiduciary loans	Subordinated liabilities (excluding negotiable debt securities) [5]	Liabilities arising from repos	
		Total	of which: up to and including 2 years	of which: more than 2 years	Total	Domestic households	Domestic non-profit institutions					
End of year or month*												
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
13.7	49.8	212.1	11.1	201.0	571.2	563.7	7.5	20.2	6.2	2.5	–	2019 Mar.
13.6	49.4	212.0	11.1	200.9	571.4	563.9	7.5	20.0	6.2	2.5	–	Apr.
13.7	48.6	212.7	11.0	201.7	571.7	564.2	7.5	19.7	6.1	2.5	–	May
13.5	48.5	212.5	10.8	201.7	571.9	564.4	7.5	19.5	6.0	2.5	–	June
13.5	48.3	212.5	10.8	201.7	571.1	563.7	7.4	19.4	6.0	2.5	–	July
13.5	47.9	213.0	11.0	202.0	569.4	562.1	7.3	19.3	5.8	2.5	–	Aug.
Changes*												
+ 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
– 0.1	+ 0.2	+ 0.2	– 0.0	+ 0.2	+ 2.5	+ 2.3	+ 0.2	– 0.4	+ 0.0	+ 0.0	–	2019 Mar.
– 0.1	– 0.3	– 0.1	– 0.0	– 0.1	+ 0.3	+ 0.2	+ 0.0	– 0.2	+ 0.1	+ 0.0	–	Apr.
– 0.0	– 0.8	+ 0.6	– 0.1	+ 0.7	+ 0.3	+ 0.3	– 0.0	– 0.3	– 0.2	+ 0.0	–	May
– 0.1	– 0.1	– 0.1	– 0.1	– 0.0	+ 0.2	+ 0.2	– 0.0	– 0.2	– 0.1	+ 0.0	–	June
+ 0.0	– 0.2	– 0.0	– 0.0	– 0.0	– 0.8	– 0.7	– 0.1	– 0.1	– 0.0	+ 0.0	–	July
– 0.0	– 0.3	+ 0.5	+ 0.1	+ 0.3	– 1.6	– 1.6	– 0.0	– 0.1	– 0.2	+ 0.0	–	Aug.

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

Local government and local government associations (including municipal special-purpose associations)						Social security funds						
Total	Sight deposits	Time deposits [3] for up to and including 1 year	Time deposits [3] for more than 1 year	Savings deposits and bank savings bonds [2,4]	Memo item: Fiduciary loans	Total	Sight deposits	Time deposits for up to and including 1 year	Time deposits for more than 1 year	Savings deposits and bank savings bonds [2]	Memo item: Fiduciary loans	Period
End of year or month*												
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
60.3	30.4	9.5	14.8	5.6	0.0	106.2	14.0	41.8	49.2	1.0	–	2019 Mar.
59.1	29.7	9.2	14.6	5.6	0.0	105.0	14.6	40.9	48.5	1.0	–	Apr.
64.1	34.3	9.6	14.6	5.7	0.0	107.9	15.5	44.0	47.3	1.0	–	May
61.7	31.8	9.8	14.5	5.6	0.0	107.3	15.3	42.2	48.7	1.0	–	June
57.5	28.4	9.3	14.2	5.6	0.0	108.0	16.0	42.7	48.2	1.1	–	July
64.6	35.4	9.7	13.8	5.6	0.0	108.6	14.2	44.8	48.4	1.1	–	Aug.
Changes*												
+ 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
– 1.4	– 1.2	– 0.1	– 0.1	– 0.0	–	– 2.7	+ 0.3	– 3.8	+ 0.8	+ 0.0	–	2019 Mar.
– 1.2	– 0.7	– 0.3	– 0.2	– 0.1	–	– 1.1	+ 0.5	– 0.9	– 0.8	+ 0.0	–	Apr.
+ 5.2	+ 4.6	+ 0.4	+ 0.1	+ 0.1	–	+ 2.8	+ 0.9	+ 3.1	– 1.2	– 0.0	–	May
– 2.8	– 2.7	+ 0.1	– 0.3	– 0.0	– 0.0	– 0.7	– 0.3	– 1.8	+ 1.4	+ 0.0	–	June
– 4.2	– 3.4	– 0.5	– 0.3	– 0.1	–	+ 0.7	+ 0.7	+ 0.5	– 0.6	+ 0.1	–	July
+ 7.1	+ 7.0	+ 0.4	– 0.3	+ 0.0	–	+ 0.6	– 1.8	+ 2.1	+ 0.2	+ 0.0	–	Aug.

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

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

€ billion

Period	Savings deposits [1]								Memo item: Interest credited on savings deposits	Bank savings bonds, [3] sold to			
		of residents					of non-residents				domestic non-banks		
			at 3 months' notice		at more than 3 months' notice								
	Total	Total	Total	of which: Special savings facilities [2]	Total	of which: Special savings facilities [2]	Total	of which: At 3 months' notice		non-banks, total	Total	of which: With maturities of more than 2 years	foreign non-banks
	End of year or month*												
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
2019 Apr.	589.1	582.3	544.8	329.5	37.5	27.5	6.9	6.1	0.1	39.4	35.4	26.6	4.0
May	589.4	582.5	544.4	326.9	38.1	28.1	6.9	6.1	0.1	39.1	35.2	26.4	3.9
June	589.5	582.7	544.0	326.5	38.6	28.6	6.8	6.1	0.1	38.8	34.9	26.2	3.9
July	588.6	581.8	543.4	324.8	38.4	28.4	6.8	6.1	0.1	38.7	34.8	26.2	3.9
Aug.	587.0	580.3	542.2	323.1	38.0	28.1	6.8	6.0	0.1	38.6	34.7	26.1	3.9
	Changes*												
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
2019 Apr.	+ 0.2	+ 0.2	+ 0.1	– 0.8	+ 0.2	+ 0.3	– 0.0	– 0.0	.	– 0.3	– 0.3	– 0.1	+ 0.1
May	+ 0.2	+ 0.3	– 0.3	– 2.6	+ 0.6	+ 0.5	– 0.0	– 0.0	.	– 0.2	– 0.3	– 0.2	+ 0.0
June	+ 0.1	+ 0.2	– 0.4	– 0.3	+ 0.6	+ 0.5	– 0.0	– 0.0	.	– 0.3	– 0.3	– 0.2	– 0.0
July	– 0.9	– 0.9	– 0.6	– 1.6	– 0.3	– 0.2	– 0.0	– 0.0	.	– 0.1	– 0.1	– 0.1	+ 0.0
Aug.	– 1.6	– 1.5	– 1.2	– 1.9	– 0.3	– 0.3	– 0.0	– 0.0	.	– 0.1	– 0.1	– 0.1	+ 0.0

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

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

€ billion

Period	Negotiable bearer debt securities and money market paper										Non-negotiable bearer debt securities and money market paper [6]		Subordinated	
		of which:				with maturities of								
						up to and including 1 year		more than 1 year up to and including 2 years						
	Total	Floating rate bonds [1]	Zero coupon bonds [1,2]	Foreign currency bonds [3,4]	Certificates of deposit	Total	of which: without a nominal guarantee [5]	Total	of which: without a nominal guarantee [5]	more than 2 years	Total	of which: with maturities of more than 2 years	negotiable debt securities	non-negotiable debt securities
	End of year or month*													
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
2019 Apr.	1,131.3	136.5	30.8	371.9	86.4	108.6	2.9	24.8	5.4	997.9	1.0	0.7	29.9	0.7
May	1,147.8	136.0	31.8	377.6	91.1	113.7	2.9	25.0	5.4	1,009.1	0.9	0.6	30.4	0.4
June	1,144.6	132.9	31.6	370.9	91.2	113.6	2.8	23.1	4.8	1,007.9	1.2	0.7	30.1	0.4
July	1,147.8	130.6	30.0	377.1	92.7	113.6	2.8	23.4	4.8	1,010.7	1.2	0.7	31.2	0.4
Aug.	1,147.2	127.9	30.1	377.6	95.0	116.0	2.7	23.4	4.9	1,007.8	1.4	0.7	31.1	0.4
	Changes*													
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
2019 Apr.	– 7.8	– 2.9	– 1.1	– 2.4	– 6.1	– 7.0	– 0.0	+ 4.0	– 0.0	– 4.8	+ 0.3	+ 0.5	+ 0.0	–
May	+ 16.5	– 0.5	+ 1.0	+ 5.6	+ 4.7	+ 5.1	+ 0.0	+ 0.1	+ 0.0	+ 11.2	– 0.0	– 0.0	+ 0.5	– 0.3
June	– 3.7	– 3.1	– 0.2	– 6.6	+ 0.2	– 0.1	– 0.2	– 1.9	– 0.6	– 1.7	+ 0.2	+ 0.0	– 0.2	–
July	+ 3.2	– 2.4	– 1.7	+ 6.3	+ 1.5	– 0.0	+ 0.0	+ 0.3	+ 0.0	+ 2.8	+ 0.0	+ 0.0	+ 1.0	–
Aug.	– 0.6	– 2.7	+ 0.2	+ 0.5	+ 2.3	+ 2.4	– 0.1	– 0.0	+ 0.1	– 3.0	+ 0.2	– 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. **1** Including debt securities denominated in foreign currencies. **2** Issue value when floated. **3** Including floating rate notes and zero coupon bonds denominated in foreign currencies. **4** Bonds denominated in non-euro area currencies. **5** Negotiable bearer debt securities and money market paper with a nominal guarantee of less than 100%. **6** Non-negotiable bearer debt securities are classified among bank savings bonds (see also Table IV.10, footnote 2).

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

€ billion

End of year/month	Number of associations	Balance sheet total 13	Lending to banks (MFIs)			Lending to non-banks (non-MFIs)				Deposits of banks (MFIs) 5		Deposits of non-banks (non-MFIs)		Bearer debt securities outstanding	Capital (including published reserves) 7	Memo item: New contracts entered into in year or month 8
			Credit balances and loans (excluding building loans) 1	Building loans 2	Bank debt securities 3	Building loans			Securities (including Treasury bills and Treasury discount paper) 4	Deposits under savings and loan contracts	Sight and time deposits	Deposits under savings and loan contracts	Sight and time deposits 6			
						Loans under savings and loan contracts	Interim and bridging loans	Other building loans								
All building and loan associations																
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
2019 June	19	236.9	38.5	0.0	16.3	11.7	113.3	26.4	25.6	2.9	20.3	176.6	9.8	3.1	12.0	7.2
July	19	237.2	38.3	0.0	16.4	11.7	113.9	26.6	25.8	2.9	20.9	176.6	9.8	3.1	12.0	7.5
Aug.	19	238.5	39.0	0.0	16.2	11.7	114.5	26.8	25.8	2.9	21.4	176.9	10.0	3.1	12.0	7.3
Private building and loan associations																
2019 June	11	164.2	22.9	–	6.8	8.8	88.0	22.4	11.5	1.7	18.4	114.5	9.6	3.1	8.3	4.5
July	11	164.4	22.7	–	6.8	8.8	88.5	22.6	11.6	1.7	18.8	114.6	9.6	3.1	8.3	4.7
Aug.	11	165.6	23.4	–	6.7	8.7	88.9	22.8	11.7	1.7	19.5	114.8	9.7	3.1	8.3	4.6
Public building and loan associations																
2019 June	8	72.7	15.7	0.0	9.5	3.0	25.3	4.0	14.2	1.1	1.9	62.0	0.3	–	3.7	2.7
July	8	72.8	15.6	0.0	9.6	2.9	25.5	4.0	14.2	1.2	2.1	62.0	0.3	–	3.7	2.8
Aug.	8	72.9	15.6	0.0	9.5	2.9	25.6	4.0	14.2	1.2	1.9	62.2	0.3	–	3.7	2.8

Trends in building and loan association business

€ billion

Period	Changes in deposits under savings and loan contracts			Capital promised		Capital disbursed						Disbursement commitments outstanding at end of period		Interest and repayments received on building loans 10		
							Allocations									
							Deposits under savings and loan contracts		Loans under savings and loan contracts 9							
	Amounts paid into savings and loan accounts 9	Interest credited on deposits under savings and loan contracts	Repayments of deposits under cancelled savings and loan contracts	Total	of which: Net allocations 11	Total	Total	of which: Applied to settlement of interim and bridging loans	Total	of which: Applied to settlement of interim and bridging loans	Newly granted interim and bridging loans and other building loans	Total	of which: Under allocated contracts	Total	of which: Repayments during quarter	Memo item: Housing bonuses received 12
All building and loan associations																
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
2019 June	2.2	0.0	0.6	3.9	2.2	3.5	1.4	0.3	0.4	0.3	1.8	17.7	7.2	0.5	1.3	0.0
July	2.2	0.0	0.7	4.3	2.2	3.9	1.4	0.4	0.4	0.3	2.1	17.6	7.1	0.6		0.0
Aug.	2.2	0.0	0.6	3.8	1.9	3.5	1.3	0.3	0.4	0.3	1.9	17.5	6.9	0.5		0.0
Private building and loan associations																
2019 June	1.4	0.0	0.3	2.8	1.5	2.6	1.0	0.2	0.2	0.2	1.4	12.4	3.7	0.4	1.0	0.0
July	1.4	0.0	0.3	3.3	1.6	3.0	1.0	0.3	0.3	0.3	1.7	12.6	3.8	0.5		0.0
Aug.	1.4	0.0	0.3	2.8	1.3	2.7	1.0	0.3	0.3	0.2	1.5	12.5	3.6	0.4		0.0
Public building and loan associations																
2019 June	0.8	0.0	0.4	1.0	0.7	0.9	0.4	0.1	0.1	0.1	0.4	5.3	3.5	0.1	0.4	0.0
July	0.8	0.0	0.4	1.0	0.6	1.0	0.4	0.1	0.1	0.1	0.4	5.1	3.3	0.1		0.0
Aug.	0.8	0.0	0.3	1.0	0.6	0.8	0.3	0.1	0.1	0.1	0.4	5.0	3.3	0.1		0.0

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

IV. Banks

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

€ billion

Period	Number of: German banks (MFIs) with foreign branches and/or foreign subsidiaries	Number of: foreign branches [1] and/or foreign subsidiaries	Balance sheet total [7]	Lending to banks (MFIs): Total	Lending to banks (MFIs): Credit balances and loans: Total	Lending to banks (MFIs): Credit balances and loans: German banks	Lending to banks (MFIs): Credit balances and loans: Foreign banks	Lending to banks (MFIs): Money market paper, securities [2,3]	Lending to non-banks (non-MFIs): Total	Lending to non-banks (non-MFIs): Loans: Total	Lending to non-banks (non-MFIs): Loans: to German non-banks	Lending to non-banks (non-MFIs): Loans: to foreign non-banks	Lending to non-banks (non-MFIs): Money market paper, securities [2]	Other assets [7]: Total	Other assets [7]: of which: Derivative financial instruments in the trading portfolio
Foreign branches															End of year or month *
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 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
Feb.	50	186	1,457.9	426.1	413.9	203.7	210.2	12.2	562.1	472.2	19.2	453.1	89.9	469.6	290.3
Mar.	53	196	1,498.2	446.3	434.3	214.6	219.7	11.9	572.3	480.1	19.3	460.8	92.1	479.7	305.2
Apr.	53	199	1,517.6	449.4	433.3	212.3	221.1	16.0	565.8	477.7	18.9	458.8	88.1	502.4	313.7
May	52	198	1,573.6	442.1	425.4	213.1	212.3	16.7	575.5	483.3	19.5	463.9	92.1	556.0	383.3
June	53	199	1,556.2	429.4	412.4	216.7	195.7	17.0	576.2	478.8	19.5	459.3	97.4	550.6	378.2
July	53	199	1,564.2	426.9	410.4	222.3	188.0	16.5	572.8	476.9	19.8	457.1	95.9	564.5	390.5
															Changes *
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 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
Feb.	–	+ 2	+ 5.8	+ 5.6	+ 4.8	+ 12.8	– 8.0	+ 0.8	+ 18.5	+ 17.0	– 0.7	+ 17.7	+ 1.4	– 21.7	– 20.0
Mar.	+ 3	+ 10	+ 40.4	+ 18.1	+ 18.4	+ 11.0	+ 7.5	– 0.4	+ 5.4	+ 3.7	+ 0.1	+ 3.6	+ 1.6	+ 10.0	+ 13.3
Apr.	–	+ 3	+ 19.3	– 0.8	– 1.0	– 2.3	+ 1.3	+ 0.2	– 2.5	– 2.4	– 0.4	– 2.0	– 0.2	+ 22.7	+ 8.4
May	– 1	– 1	+ 55.6	– 8.0	– 8.7	+ 0.8	– 9.5	+ 0.7	+ 8.9	+ 4.7	+ 0.6	+ 4.2	+ 4.1	+ 53.2	+ 69.2
June	+ 1	+ 1	– 16.0	– 10.1	– 10.5	+ 3.6	– 14.1	+ 0.4	+ 6.7	+ 0.5	+ 0.1	+ 0.4	+ 6.2	– 4.0	– 2.7
July	–	–	+ 6.9	– 4.5	– 3.9	+ 5.6	– 9.6	– 0.6	– 8.1	– 6.0	+ 0.3	– 6.3	– 2.1	+ 12.8	+ 10.3
Foreign subsidiaries															End of year or month *
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 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	–
Feb.	16	42	236.0	50.6	44.6	19.0	25.6	5.9	134.3	108.5	13.9	94.6	25.8	51.2	–
Mar.	16	42	246.1	53.9	48.3	19.2	29.1	5.6	141.2	114.2	13.8	100.5	27.0	51.1	–
Apr.	17	43	245.6	53.9	48.5	19.9	28.6	5.4	142.6	116.0	14.0	102.0	26.6	49.1	–
May	17	43	245.4	54.3	48.9	19.1	29.8	5.4	145.4	119.0	14.4	104.7	26.3	45.7	–
June	17	43	249.3	57.4	51.9	19.1	32.7	5.6	146.8	120.5	14.3	106.2	26.3	45.1	–
July	16	42	248.9	54.8	49.4	18.8	30.6	5.4	147.5	121.7	14.5	107.2	25.7	46.6	–
															Changes *
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 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	–
Feb.	–	–	+ 0.7	+ 1.3	+ 1.7	+ 0.9	+ 0.8	– 0.3	– 1.4	– 1.1	– 0.1	– 1.0	– 0.3	+ 0.7	–
Mar.	–	–	+ 6.0	+ 2.8	+ 3.3	+ 0.2	+ 3.0	– 0.5	+ 6.5	+ 5.3	– 0.1	+ 5.4	+ 1.2	– 3.3	–
Apr.	+ 1	+ 1	– 0.3	+ 0.1	+ 0.3	+ 0.6	– 0.4	– 0.1	+ 1.5	+ 1.9	+ 0.2	+ 1.6	– 0.4	– 2.0	–
May	–	–	– 0.6	+ 0.2	+ 0.2	– 0.7	+ 1.0	– 0.1	+ 2.6	+ 2.9	+ 0.4	+ 2.5	– 0.3	– 3.4	–
June	–	–	+ 5.0	+ 3.5	+ 3.2	+ 0.0	+ 3.2	+ 0.3	+ 2.0	+ 2.1	– 0.1	+ 2.1	– 0.0	– 0.5	–
July	– 1	– 1	– 1.5	– 3.1	– 2.8	– 0.3	– 2.5	– 0.3	+ 0.1	+ 0.7	+ 0.2	+ 0.5	– 0.6	+ 1.5	–

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

IV. Banks

Deposits									Money market paper and debt securities outstanding [5]	Working capital and own funds	Other liabilities [6,7]		Period
	of banks (MFIs)			of non-banks (non-MFIs)									
					German non-banks [4]								
Total	Total	German banks	Foreign banks	Total	Total	Short-term	Medium and long-term	Foreign non-banks			Total	of which: Derivative financial instruments in the trading portfolio	
End of year or month *												**Foreign branches**	
1,136.5	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
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	2018 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.
952.3	635.2	419.8	215.4	317.1	11.8	9.9	1.8	305.4	97.2	54.2	354.1	287.1	Feb.
981.9	664.9	448.7	216.2	317.1	11.4	9.7	1.8	305.6	98.2	53.7	364.4	302.3	Mar.
994.1	675.5	467.6	207.9	318.6	10.8	8.4	2.4	307.9	100.2	54.0	369.3	303.1	Apr.
989.9	667.6	450.7	216.9	322.2	10.7	8.4	2.2	311.6	103.2	54.3	426.2	380.3	May
979.6	670.4	468.5	201.8	309.2	12.0	9.4	2.6	297.2	94.4	54.4	427.8	376.0	June
960.5	660.0	451.8	208.2	300.5	13.5	10.8	2.7	287.0	105.8	53.7	444.2	390.6	July
Changes *													
– 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
– 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	2018 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.
+ 22.7	+ 12.4	– 0.4	+ 12.8	+ 10.3	+ 2.3	+ 2.2	+ 0.1	+ 8.0	+ 3.0	+ 0.2	– 20.9	– 17.5	Feb.
+ 27.3	+ 27.4	+ 28.8	– 1.5	– 0.1	– 0.3	– 0.3	– 0.0	+ 0.2	+ 1.0	– 0.5	+ 10.3	+ 15.3	Mar.
+ 12.2	+ 10.6	+ 18.9	– 8.4	+ 1.6	– 0.7	– 1.3	+ 0.6	+ 2.3	+ 2.0	+ 0.3	+ 4.9	+ 0.8	Apr.
– 5.1	– 8.6	– 16.9	+ 8.3	+ 3.6	– 0.1	+ 0.1	– 0.1	+ 3.7	+ 2.6	+ 0.3	+ 56.9	+ 77.2	May
– 7.8	+ 5.1	+ 17.8	– 12.7	– 12.9	+ 1.3	+ 1.0	+ 0.3	– 14.2	– 7.4	+ 0.1	+ 1.6	– 4.3	June
– 21.0	– 12.2	– 16.7	+ 4.6	– 8.9	+ 1.5	+ 1.4	+ 0.1	– 10.4	+ 10.3	– 0.7	+ 16.3	+ 14.6	July
End of year or month *												**Foreign subsidiaries**	
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
175.5	73.4	36.5	36.8	102.1	9.6	6.0	3.6	92.6	14.1	22.8	31.3	–	2018 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.
168.3	69.6	35.4	34.2	98.7	7.9	5.2	2.7	90.8	16.1	21.8	29.8	–	Feb.
174.4	75.1	37.8	37.3	99.3	7.5	4.8	2.7	91.7	16.5	21.8	33.4	–	Mar.
173.1	75.7	36.4	39.3	97.5	7.6	4.9	2.7	89.9	16.6	22.2	33.6	–	Apr.
172.7	74.8	36.0	38.8	97.9	7.4	4.6	2.8	90.5	16.5	22.3	33.9	–	May
177.0	74.7	37.9	36.8	102.4	7.7	4.9	2.8	94.6	16.5	22.4	33.3	–	June
176.4	72.8	37.6	35.3	103.6	7.7	4.9	2.8	95.9	16.5	22.3	33.7	–	July
Changes *													
– 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
– 3.2	– 0.7	– 0.8	+ 0.2	– 2.5	– 0.4	– 0.4	– 0.0	– 2.1	– 0.4	– 0.3	+ 0.1	–	2018 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.
– 0.3	– 1.4	– 0.1	– 1.3	+ 1.1	+ 0.9	+ 0.9	– 0.0	+ 0.2	+ 0.1	– 0.0	+ 1.0	–	Feb.
+ 5.6	+ 5.3	+ 2.4	+ 2.8	+ 0.3	– 0.4	– 0.3	– 0.0	+ 0.7	+ 0.4	+ 0.0	– 0.0	–	Mar.
– 1.3	+ 0.5	– 1.5	+ 2.0	– 1.8	+ 0.1	+ 0.1	–	– 1.9	+ 0.1	+ 0.4	+ 0.5	–	Apr.
– 0.7	– 1.0	– 0.4	– 0.6	+ 0.3	– 0.2	– 0.3	+ 0.1	+ 0.5	– 0.1	+ 0.1	+ 0.0	–	May
+ 5.2	+ 0.4	+ 1.9	– 1.5	+ 4.8	+ 0.3	+ 0.3	+ 0.0	+ 4.5	+ 0.0	+ 0.1	– 0.3	–	June
– 1.4	– 2.3	– 0.3	– 2.0	+ 0.8	– 0.0	+ 0.0	– 0.0	+ 0.9	– 0.1	– 0.1	+ 0.0	–	July

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

V. Minimum reserves

1. Reserve maintenance in the euro area

€ billion

Maintenance period beginning in [1]	Reserve base [2]	Required reserves before deduction of lump-sum allowance [3]	Required reserves after deduction of lump-sum allowance [4]	Current accounts [5]	Excess reserves [6]	Deficiencies [7]
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 July	13,243.2	132.4	132.0	1,331.5	1,199.5	0.0
Aug.	.	.	.	.	.	.
Sep. p	13,359.8	133.6	133.2	...	...	...

2. Reserve maintenance in Germany

€ million

Maintenance period beginning in [1]	Reserve base [2]	German share of euro area reserve base as a percentage	Required reserves before deduction of lump-sum allowance [3]	Required reserves after deduction of lump-sum allowance [4]	Current accounts [5]	Excess reserves [6]	Deficiencies [7]
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 July	3,713,540	28.0	37,135	36,983	464,917	427,934	0
Aug.	.	.	.	.	.	.	.
Sep. p	3,703,927	27.7	37,039	36,889	...	...	...

a) Required reserves of individual categories of banks

€ million

Maintenance period beginning in [1]	Big banks	Regional banks and other commercial banks	Branches of foreign banks	Landesbanken and savings banks	Credit cooperatives	Mortgage banks	Banks with special, development and other central support tasks
2012 [3]	5,388	4,696	2,477	9,626	4,886	248	1,247
2013	5,189	4,705	1,437	9,306	5,123	239	1,263
2014	5,593	4,966	1,507	9,626	5,375	216	1,312
2015	6,105	5,199	2,012	10,432	5,649	226	1,578
2016	6,384	5,390	2,812	10,905	5,960	236	1,859
2017	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 July	7,722	5,427	2,955	12,035	6,856	100	1,888
Aug.	7,764	5,405	3,031	11,903	6,859	104	1,932
Sep.	7,674	5,386	2,854	12,068	6,916	101	1,890

b) Reserve base by subcategories of liabilities

€ million

Maintenance period beginning in [1]	Liabilities (excluding savings deposits, deposits with building and loan associations and repos) to non-MFIs with agreed maturities of up to 2 years	Liabilities (excluding repos and deposits with building and loan associations) with agreed maturities of up to 2 years to MFIs that are resident in euro area countries but not subject to minimum reserve requirements	Liabilities (excluding repos and deposits with building and loan associations) with agreed maturities of up to 2 years to banks in non-euro area countries	Savings deposits with agreed periods of notice of up to 2 years	Liabilities arising from bearer debt securities issued with agreed maturities of up to 2 years and bearer money market paper after deduction of a standard amount for bearer debt certificates or deduction of such paper held by the reporting institution
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 July	2,577,215	1,050	434,473	582,830	117,972
Aug.	2,583,771	1,192	430,423	583,066	116,534
Sep.	2,583,838	1,051	419,906	582,270	116,860

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

VI. Interest rates

1. ECB interest rates

% per annum

Applicable from	Deposit facility	Main refinancing operations: Fixed rate	Main refinancing operations: Minimum bid rate	Marginal lending facility	Applicable from	Deposit facility	Main refinancing operations: Fixed rate	Main refinancing operations: Minimum bid rate	Marginal lending facility
2005 Dec. 6	1.25	–	2.25	3.25	2011 Apr. 13	0.50	1.25	–	2.00
					July 13	0.75	1.50	–	2.25
2006 Mar. 8	1.50	–	2.50	3.50	Nov. 9	0.50	1.25	–	2.00
June 15	1.75	–	2.75	3.75	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	2019 Sep. 18	–0.50	0.00	–	0.25
Mar. 11	0.50	1.50	–	2.50					
Apr. 8	0.25	1.25	–	2.25					
May 13	0.25	1.00	–	1.75					

2. Base rates

% per annum

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

1 Pursuant to Section 247 of the Civil Code.

3. Eurosystem monetary policy operations allotted through tenders *

Date of settlement	Bid amount	Allotment amount	Fixed rate tenders: Fixed rate	Variable rate tenders: Minimum bid rate	Variable rate tenders: Marginal rate [1]	Variable rate tenders: Weighted average rate	Running for ... days
	€ million		% per annum				
Main refinancing operations							
2019 Sep. 11	2,317	2,317	0.00	–	–	–	7
Sep. 18	2,021	2,021	0.00	–	–	–	7
Sep. 25	2,804	2,804	0.00	–	–	–	7
Oct. 2	1,821	1,821	0.00	–	–	–	7
Oct. 9	2,289	2,289	0.00	–	–	–	7
Oct. 16	1,882	1,882	0.00	–	–	–	7
Long-term refinancing operations							
2019 Aug. 1	790	790	[2] 0.00	–	–	–	91
Aug. 29	1,138	1,138	[2] 0.00	–	–	–	91
Sep. 25	3,396	3,396	[2] ...	–	–	–	1,099
Sep. 26	848	848	[2] 0.00	–	–	–	84

***** 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	Twelve-month funds
2019 Mar.	– 0.37	– 0.38	– 0.37	– 0.31	– 0.23	– 0.11
Apr.	– 0.37	– 0.38	– 0.37	– 0.31	– 0.23	– 0.11
May	– 0.37	– 0.38	– 0.37	– 0.31	– 0.24	– 0.13
June	– 0.36	– 0.40	– 0.38	– 0.33	– 0.28	– 0.19
July	– 0.37	– 0.40	– 0.40	– 0.36	– 0.35	– 0.28
Aug.	– 0.36	– 0.41	– 0.41	– 0.41	– 0.40	– 0.36
Sep.	– 0.40	– 0.45	– 0.45	– 0.42	– 0.39	– 0.34

***** 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.

VI. Interest rates

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

End of month	Households' deposits				Non-financial corporations' deposits			
	with an agreed maturity of							
	up to 2 years		over 2 years		up to 2 years		over 2 years	
	Effective interest rate 1 % 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 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
Mar.	0.23	62,652	1.20	217,159	0.02	67,395	0.85	29,229
Apr.	0.22	62,253	1.19	216,952	0.02	67,114	0.84	28,899
May	0.21	60,966	1.18	217,558	0.03	66,325	0.83	28,799
June	0.22	60,652	1.17	217,383	0.03	63,711	0.83	28,547
July	0.22	60,326	1.16	217,260	0.03	63,826	0.85	27,984
Aug.	0.22	60,070	1.15	217,529	0.02	66,065	0.84	27,809

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 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	314,960
Mar.	2.27	4,424	1.85	25,905	2.39	1,210,350	7.16	49,935	3.50	86,453	3.78	314,929
Apr.	2.26	4,418	1.79	25,875	2.37	1,218,785	7.04	50,058	3.49	86,872	3.77	313,007
May	2.26	4,534	1.79	26,212	2.35	1,224,628	7.13	49,275	3.49	87,410	3.76	314,341
June	2.23	4,575	1.78	26,445	2.33	1,230,368	7.11	51,281	3.49	87,504	3.76	314,057
July	2.22	4,643	1.77	26,544	2.31	1,236,461	7.06	50,115	3.48	86,724	3.74	315,493
Aug.	2.16	4,658	1.76	26,765	2.29	1,243,959	7.08	49,277	3.46	87,410	3.74	316,798

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 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	712,194
Mar.	2.21	159,432	1.69	155,413	2.02	713,389
Apr.	2.20	157,460	1.66	159,372	2.00	716,684
May	2.14	159,767	1.67	162,699	1.99	722,437
June	2.14	167,044	1.66	164,225	1.98	722,521
July	2.13	163,263	1.64	165,839	1.96	724,902
Aug.	2.14	163,138	1.64	167,474	1.95	729,498

***** 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). **o** The statistics on outstanding amounts are collected at the end of the month. **1** The effective interest rates are calculated either as annualised agreed interest rates or as narrowly defined effective rates. Both calculation methods cover all interest payments on deposits and loans but not any other related charges which may occur for enquiries, administration, preparation of the documents, guarantees and credit insurance. **2** Data based on monthly balance sheet statistics. **3** Secured and unsecured loans for home purchase, including building and home improvements; including loans granted by building and loan associations and interim credits as well as transmitted loans granted by the reporting agents in their own name and for their own account. **4** Loans for consumption are defined as loans granted for the purpose of personal use in the consumption of goods and services. **5** For the purpose of these statistics, other loans are loans granted for other purposes such as business, debt consolidation, education, etc. **6** Including overdrafts (see also footnotes 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 +

Reporting period	Households' deposits											
	Overnight		with an agreed maturity of						redeemable at notice [8] of			
			up to 1 year		over 1 year and up to 2 years		over 2 years		up to 3 months		over 3 months	
	Effective interest rate [1] % p.a.	Volume [2] € 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 [2] € million	Effective interest rate [1] % p.a.	Volume [2] € million
2018 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	1,446,689	0.29	5,693	0.45	619	0.68	1,032	0.13	541,529	0.24	36,726
Mar.	0.01	1,451,707	0.29	5,595	0.34	837	0.73	978	0.13	543,711	0.25	37,036
Apr.	0.01	1,464,110	0.29	5,357	0.33	485	0.72	868	0.14	543,806	0.25	37,197
May	0.01	1,477,188	0.13	4,250	0.52	665	0.67	737	0.13	543,432	0.26	37,857
June	0.01	1,487,229	0.10	3,429	0.44	330	0.68	713	0.13	543,047	0.27	38,409
July	0.01	1,496,476	0.12	3,834	0.49	378	0.79	965	0.13	542,420	0.27	38,137
Aug.	0.01	1,507,767	0.15	3,511	0.39	522	0.73	907	0.12	541,176	0.26	37,798

Reporting period	Non-financial corporations' deposits							
	Overnight		with an agreed maturity of					
			up to 1 year		over 1 year and up to 2 years		over 2 years	
	Effective interest rate [1] % p.a.	Volume [2] € 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
2018 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	439,934	0.02	15,774	0.11	277	0.31	238
Mar.	– 0.03	443,524	0.01	15,807	0.07	389	0.65	299
Apr.	– 0.03	451,668	0.01	14,136	0.09	374	0.34	278
May	– 0.03	460,120	– 0.03	12,080	0.23	641	0.40	311
June	– 0.03	448,314	– 0.09	10,189	0.19	421	0.25	190
July	– 0.03	460,551	– 0.08	11,503	0.00	86	0.66	442
Aug.	– 0.03	465,696	– 0.17	11,745	– 0.06	135	0.45	211

Reporting period	Loans to households											
	Loans for consumption [4] with an initial rate fixation of											
	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		
	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
2018 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
Mar.	5.73	5.72	9,868	6.88	1,765	8.48	528	4.25	3,929	6.52	5,411
Apr.	5.83	5.76	9,830	6.86	1,767	8.44	504	4.36	3,762	6.47	5,564
May	5.86	5.80	9,893	6.79	1,839	8.80	428	4.46	3,770	6.45	5,695
June	6.06	5.98	8,345	7.01	1,554	9.23	425	4.52	3,222	6.68	4,698
July	6.17	6.11	10,570	7.13	2,173	9.19	493	4.63	3,859	6.79	6,219
Aug.	6.06	6.00	9,342	6.97	1,954	9.68	420	4.51	3,374	6.62	5,548

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. **7** Estimated. The volume of new business is extrapolated to form the underlying total using a grossing-up procedure. **8** Including non-financial corporations' deposits; including fidelity and growth premiums. **9** Excluding overdrafts. **10** 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
Loans to households										
2018 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	1,409	1.82	2,095	2.59	661	1.96	1,951
Mar.	1.90	5,598	1.77	1,515	1.68	2,497	2.51	772	1.92	2,329
Apr.	2.01	5,684	1.88	1,734	2.01	2,214	2.46	815	1.86	2,655
May	1.90	5,259	1.75	1,397	1.79	2,312	2.44	813	1.82	2,134
June	1.80	5,098	1.80	1,128	1.69	2,120	2.32	731	1.73	2,247
July	1.84	5,915	1.78	1,869	1.80	2,429	2.43	876	1.69	2,610
Aug.	1.79	4,740	1.71	1,047	1.76	1,855	2.53	657	1.60	2,228
of which: Loans to sole proprietors										
2018 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
Mar.	1.99	3,895	.	.	1.95	1,539	2.53	580	1.86	1,776
Apr.	2.04	3,962	.	.	2.09	1,654	2.46	619	1.83	1,689
May	1.95	3,864	.	.	1.91	1,705	2.54	593	1.76	1,566
June	1.90	3,540	.	.	1.94	1,397	2.43	515	1.70	1,628
July	1.92	4,264	.	.	1.99	1,719	2.43	676	1.68	1,869
Aug.	1.91	3,192	.	.	1.97	1,203	2.64	483	1.63	1,506

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
Total loans													
2018 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
Mar.	1.80	1.74	21,335	1.83	3,606	2.04	2,413	1.64	1,755	1.59	6,884	1.79	10,283
Apr.	1.72	1.67	23,105	1.76	4,326	2.04	2,570	1.48	2,074	1.53	7,760	1.72	10,701
May	1.68	1.63	22,629	1.74	3,609	2.00	2,560	1.50	2,030	1.46	7,324	1.67	10,715
June	1.63	1.57	20,164	1.65	3,245	1.98	2,280	1.44	1,695	1.41	6,429	1.61	9,760
July	1.54	1.49	25,672	1.64	4,571	1.98	2,743	1.43	2,107	1.34	8,473	1.49	12,348
Aug.	1.43	1.38	22,521	1.53	3,272	1.86	2,528	1.38	1,684	1.23	6,858	1.36	11,451
of which: Collateralised loans [11]													
2018 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
Mar.	.	1.68	8,615	.	.	2.06	732	1.43	768	1.51	2,924	1.77	4,191
Apr.	.	1.63	9,886	.	.	2.02	933	1.40	986	1.47	3,469	1.71	4,498
May	.	1.56	9,434	.	.	1.90	945	1.30	879	1.39	3,118	1.65	4,492
June	.	1.52	8,277	.	.	1.98	820	1.28	744	1.35	2,732	1.59	3,981
July	.	1.44	10,426	.	.	1.96	944	1.24	935	1.30	3,493	1.48	5,054
Aug.	.	1.32	9,009	.	.	1.90	732	1.19	762	1.17	2,861	1.35	4,654

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 12 and overdrafts 13 Credit card debt 14		of which:				Revolving loans 12 and overdrafts 13 Credit card debt 14		of which:	
			Revolving loans 12 and overdrafts 13		Extended credit card debt				Revolving loans 12 and overdrafts 13	
	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 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
Mar.	7.98	40,531	7.97	32,533	14.75	4,355	3.06	80,843	3.07	80,447
Apr.	7.78	40,783	7.93	31,833	14.75	4,416	3.04	78,782	3.06	78,390
May	7.90	39,977	7.92	31,720	14.76	4,369	2.98	78,903	2.99	78,496
June	7.86	41,429	7.92	32,848	14.77	4,421	2.92	84,632	2.94	84,230
July	7.72	40,774	7.81	32,054	14.77	4,372	2.92	80,865	2.94	80,466
Aug.	7.79	40,128	7.84	31,484	14.78	4,450	2.91	81,292	2.92	80,923

Reporting period	Loans to non-financial corporations (cont'd)															
	Total		of which: Renegotiated loans 9		Loans up to €1 million 15 with an initial rate fixation of: floating rate or up to 1 year 9		over 1 year and up to 5 years		over 5 years		Loans over €1 million 15 with an initial rate fixation of: 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	Effective interest rate 1 % p.a.	Volume 7 € million	Effective interest rate 1 % p.a.	Volume 7 € million
Total loans																
2018 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	65,642	1.46	16,418	2.04	9,918	2.51	1,338	1.86	1,136	0.97	43,885	1.37	3,016	1.56	6,349
Mar.	1.29	77,548	1.41	22,154	2.05	11,060	2.56	1,534	1.85	1,391	1.05	52,989	1.49	2,834	1.43	7,740
Apr.	1.21	81,708	1.38	21,675	2.10	10,283	2.46	1,606	1.76	1,464	0.95	55,315	1.26	3,354	1.44	9,686
May	1.19	75,507	1.38	19,256	2.12	9,981	2.52	1,587	1.76	1,374	0.91	51,534	1.45	3,207	1.40	7,824
June	1.18	84,377	1.28	25,393	2.08	10,633	2.51	1,407	1.65	1,312	0.94	58,540	1.21	3,408	1.40	9,077
July	1.19	85,200	1.32	22,605	2.08	10,553	2.52	1,630	1.59	1,640	0.91	56,383	1.69	4,920	1.24	10,074
Aug.	1.13	70,058	1.32	19,328	2.02	8,816	2.54	1,375	1.55	1,248	0.88	47,954	1.71	3,280	1.17	7,385
of which: Collateralised loans 11																
2018 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
Mar.	1.49	11,158	.	.	1.87	508	2.65	144	1.78	388	1.40	7,357	1.71	520	1.53	2,241
Apr.	1.39	10,596	.	.	1.81	620	2.43	162	1.60	417	1.25	5,977	1.95	533	1.41	2,887
May	x .	x .	.	.	1.94	565	x .	x .	1.58	381	1.50	6,363	2.17	355	1.49	2,156
June	1.47	10,380	.	.	1.80	493	2.86	126	1.55	326	1.41	6,221	1.31	448	1.51	2,766
July	1.34	11,662	.	.	1.80	595	2.81	152	1.46	466	1.22	6,100	1.63	1,548	1.26	2,801
Aug.	1.49	8,835	.	.	1.96	474	2.53	152	1.28	357	1.45	4,757	2.16	957	1.15	2,138

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 debt balances from this specific billing cycle become due. **15** The amount category refers to the single loan transaction considered as new business. **x** Dominated by the business of one or two banks. Therefore, the value cannot be published because of confidentiality.

VII. Insurance corporations and pension funds

1. Assets *

€ billion

End of year/quarter	Total	Currency and deposits 1	Debt securities	Loans 2	Shares and other equity	Investment fund shares/units	Financial derivatives	Insurance technical reserves	Non-financial assets	Remaining assets
Insurance corporations										
2016 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	2,213.2	318.2	400.4	330.4	349.8	665.7	2.0	55.4	36.8	54.6
2019 Q1	2,343.8	332.2	431.9	329.6	381.6	707.7	2.6	59.5	37.1	61.6
Q2	2,406.3	336.8	449.3	338.5	388.2	734.8	3.6	57.8	37.1	60.3
Life insurance										
2016 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	1,185.2	194.5	200.1	208.4	50.4	484.6	1.0	11.6	20.3	14.3
2019 Q1	1,237.8	202.8	213.4	205.9	52.7	516.7	1.6	10.4	20.2	14.1
Q2	1,289.5	205.8	227.1	213.9	55.3	537.5	2.3	10.0	20.2	17.3
Non-life insurance										
2016 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	616.1	113.7	117.4	73.7	73.8	167.4	0.2	33.4	10.8	25.5
2019 Q1	655.5	119.2	128.0	74.2	75.7	177.0	0.3	38.3	11.1	31.6
Q2	665.0	119.8	131.9	75.6	76.8	182.9	0.4	37.5	11.0	29.1
Reinsurance 3										
2016 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	412.0	10.1	82.9	48.2	225.5	13.7	0.7	10.3	5.7	14.8
2019 Q1	450.5	10.2	90.5	49.5	253.1	14.0	0.7	10.8	5.8	15.9
Q2	451.9	11.2	90.3	49.0	256.1	14.4	0.8	10.3	5.8	13.9
Pension funds 4										
2016 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	63.4	32.0	23.5	380.3	–	7.4	42.6	22.3
2019 Q1	680.4	89.4	67.6	32.1	24.2	393.2	–	7.5	43.6	22.8
Q2	692.5	87.4	70.8	32.7	24.6	401.9	–	7.5	43.9	23.7

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. 1 Accounts receivable to monetary financial institutions, including registered bonds, borrowers' note loans and registered Pfandbriefe. 2 Including deposits retained on assumed reinsurance as well as registered bonds, borrowers' note loans and registered Pfandbriefe. 3 Not including the reinsurance business conducted by primary insurers, which is included there. 4 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 [1]	Shares and other equity	Insurance technical reserves			Financial derivatives	Remaining liabilities	Net worth [5]
					Total	Life/ claims on pension fund reserves [2]	Non-life			
Insurance corporations										
2016 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	2,213.2	29.3	64.6	463.1	1,530.1	1,332.3	197.8	1.6	124.6	–
2019 Q1	2,343.8	31.6	68.3	489.1	1,624.9	1,402.6	222.3	1.5	128.4	–
Q2	2,406.3	31.9	69.3	489.6	1,685.0	1,463.7	221.3	1.8	128.7	–
Life insurance										
2016 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	1,185.2	4.1	15.2	122.7	1,000.6	1,000.6	–	0.5	42.2	–
2019 Q1	1,237.8	4.1	14.3	120.8	1,057.4	1,057.4	–	0.4	40.8	–
Q2	1,289.5	4.1	14.5	121.8	1,106.3	1,106.3	–	0.4	42.4	–
Non-life insurance										
2016 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	616.1	1.0	8.3	140.3	416.5	315.5	101.0	0.0	49.9	–
2019 Q1	655.5	1.1	9.3	144.5	449.6	329.5	120.1	0.0	50.9	–
Q2	665.0	1.1	8.8	146.0	459.8	341.8	118.0	0.1	49.2	–
Reinsurance [3]										
2016 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	412.0	24.1	41.2	200.1	113.0	16.2	96.8	1.1	32.5	–
2019 Q1	450.5	26.5	44.6	223.8	117.9	15.7	102.2	1.1	36.7	–
Q2	451.9	26.6	46.1	221.8	118.9	15.6	103.3	1.3	37.2	–
Pension funds [4]										
2016 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
2019 Q1	680.4	–	7.7	7.9	606.0	606.0	–	–	2.7	56.1
Q2	692.5	–	7.7	8.0	610.9	610.9	–	–	2.7	63.2

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. **1** Including deposits retained on ceded business as well as registered bonds, borrowers' note loans and registered Pfandbriefe. **2** Insurance technical reserves "life" taking account of transitional measures. Health insurance is also included in the "non-life insurance" sector. **3** Not including the reinsurance business conducted by primary insurers, which is included there. **4** 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. **5** 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					Purchases					
		Domestic debt securities [1]					Residents					
	Sales = total purchases	Total	Bank debt securities	Corporate bonds (non-MFIs) [2]	Public debt securities	Foreign debt securities [3]	Total [4]	Credit institutions including building and loan associations [5]	Deutsche Bundesbank	Other sectors [6]	Non-residents [7]
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 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.	25,646	13,718	16,833	2,035	– 5,150	11,928	12,638	7,239	– 1,984	7,383	13,008
Mar.	17,631	18,264	4,492	2,581	11,191	– 633	– 5,323	– 1,709	– 4,425	811	22,954
Apr.	– 13,949	– 18,294	– 8,318	5,092	– 15,069	4,345	– 3,081	– 8,015	1,283	3,651	– 10,868
May	44,585	42,665	20,104	1,599	20,962	1,920	16,191	4,099	4,010	8,082	28,395
June	8,018	– 2,297	– 913	8,375	– 9,757	10,315	11,820	9,743	– 1,663	3,740	– 3,801
July	– 2,071	– 7,860	744	– 1,051	– 7,553	5,789	1,428	4,464	– 2,627	– 409	– 3,499
Aug.	27,040	27,213	– 3,325	6,474	24,064	– 173	18,300	6,157	1,378	10,765	8,739

€ million

Period	Shares							
		Sales		Purchases				
				Residents				
	Sales = total purchases	Domestic shares [8]	Foreign shares [9]	Total [10]	Credit institutions [5]	Other sectors [11]	Non-residents [12]
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 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.	634	122	512	1,500	– 436	1,936	– 866
Mar.	– 1,529	948	– 2,477	138	– 867	1,005	– 1,667
Apr.	5,466	243	5,223	6,315	– 360	6,675	– 849
May	4,650	1,061	3,589	5,996	1,182	4,814	– 1,346
June	989	475	514	181	– 295	476	808
July	2,858	68	2,790	1,255	– 1,609	2,864	1,603
Aug.	– 602	75	– 677	794	– 616	1,410	– 1,396

1 Net sales at market values plus/minus changes in issuers' portfolios of their own debt securities. **2** Including cross-border financing within groups from January 2011. **3** Net purchases or net sales (–) of foreign debt securities by residents; transaction values. **4** Domestic and foreign debt securities. **5** Book values; statistically adjusted. **6** Residual; also including purchases of domestic and foreign securities by domestic mutual funds. Up to end-2008 including Deutsche Bundesbank. **7** Net purchases or net sales (–) of domestic debt securities by non-residents; transaction values. **8** Excluding shares of public limited investment companies; at issue prices. **9** Net purchases or net sales (–) of foreign shares (including direct investment) by residents; transaction values. **10** Domestic and foreign shares. **11** Residual; also including purchases of domestic and foreign securities by domestic mutual funds. **12** 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.

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2. Sales of debt securities issued by residents *

€ million, nominal value

Period	Total	Bank debt securities [1]					Corporate bonds (non-MFIs) [2]	Public debt securities
		Total	Mortgage Pfandbriefe	Public Pfandbriefe	Debt securities issued by special-purpose credit institutions	Other bank debt securities		
	Gross sales							
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 [3]	1,206,483	717,002	29,059	7,621	511,222	169,103	73,371	416,108
2017 [3]	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
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
Mar.	116,190	65,908	1,768	741	50,411	12,988	7,155	43,128
Apr.	100,795	64,464	2,078	92	53,880	8,414	6,941	29,390
May	115,749	71,690	7,035	15	53,641	10,998	5,146	38,914
June	88,671	50,607	1,469	37	38,478	10,623	13,573	24,491
July	116,547	73,836	3,014	738	58,148	11,936	6,410	36,302
Aug.	113,666	61,206	1,851	–	46,927	12,428	8,352	44,107
	of which: Debt securities with maturities of more than four years [4]							
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 [3]	375,859	173,900	24,741	5,841	78,859	64,460	47,818	154,144
2017 [3]	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
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
Mar.	38,161	11,772	1,637	685	4,153	5,296	4,995	21,394
Apr.	25,789	9,141	1,255	92	4,760	3,035	4,194	12,454
May	34,546	17,220	3,914	15	8,131	5,160	2,831	14,495
June	30,682	11,412	1,015	35	7,578	2,784	11,093	8,177
July	33,810	15,283	2,331	290	8,959	3,704	5,310	13,217
Aug.	24,543	5,751	341	–	2,515	2,895	6,676	12,116
	Net sales [5]							
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 [3]	21,951	10,792	2,176	– 12,979	16,266	5,327	18,177	– 7,020
2017 [3]	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
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
Mar.	13,397	3,874	– 910	– 280	5,369	– 306	1,676	7,847
Apr.	– 14,225	– 6,856	987	– 1,177	– 5,347	– 1,319	4,151	– 11,521
May	39,075	19,156	4,826	– 1,099	13,377	2,052	317	19,601
June	– 933	– 116	– 608	– 1,193	1,497	188	8,975	– 9,792
July	– 6,666	1,488	– 1,791	45	1,851	1,382	– 1,306	– 6,847
Aug.	23,134	– 3,541	680	– 918	– 2,828	– 474	6,041	20,634

***** For definitions, see the explanatory notes in Statistical Supplement 2 – Capital market statistics on pp. 23 ff. **1** Excluding registered bank debt securities. **2** Including cross-border financing within groups from January 2011. **3** Sectoral reclassification of debt securities. **4** Maximum maturity according to the terms of issue. **5** Gross sales less redemptions.

VIII. Capital market

3. Amounts outstanding of debt securities issued by residents *

€ million, nominal value

End of year or month/ Maturity in years	Total	Bank debt securities					Corporate bonds (non-MFIs)	Public debt securities
		Total	Mortgage Pfandbriefe	Public Pfandbriefe	Debt securities issued by special-purpose credit institutions	Other bank debt securities		
2007	3,130,723	1,868,066	133,501	452,896	411,041	870,629	95,863	1,166,794
2008	3,250,195	1,876,583	150,302	377,091	490,641	858,550	178,515	1,195,097
2009	3,326,635	1,801,029	151,160	296,445	516,221	837,203	227,024	1,298,581
2010	3,348,201	1 1,570,490	147,529	232,954	544,517	1 645,491	250,774	1 1,526,937
2011	3,370,721	1,515,911	149,185	188,663	577,423	600,640	247,585	1,607,226
2012	3,285,422	1 1,414,349	145,007	147,070	574,163	1 548,109	1 220,456	1 1,650,617
2013	3,145,329	1,288,340	127,641	109,290	570,136	481,273	221,851	1,635,138
2014	3,111,308	1,231,445	121,328	85,434	569,409	455,274	232,342	1,647,520
2015	3,046,162	1,154,173	130,598	75,679	566,811	381,085	257,612	1,634,377
2016 1	3,068,111	1,164,965	132,775	62,701	633,578	335,910	275,789	1,627,358
2017 1	3,090,708	1,170,920	141,273	58,004	651,211	320,432	2 302,543	1,617,244
2018	3,091,303	1,194,160	161,088	51,439	670,062	1 311,572	1 2 313,527	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
Mar.	3,131,621	1,224,293	167,299	52,477	691,284	313,232	318,258	1,589,070
Apr.	3,117,396	1,217,437	168,287	51,300	685,937	311,913	322,409	1,577,550
May	2 3,154,821	1,236,593	173,113	50,201	699,314	313,965	2 321,076	1,597,151
June	3,153,887	1,236,477	172,505	49,008	700,811	314,153	330,051	1,587,359
July	3,147,222	1,237,965	170,714	49,054	702,662	315,535	328,744	1,580,512
Aug.	3,170,356	1,234,424	171,394	48,135	699,834	315,061	334,785	1,601,147
Breakdown by remaining period to maturity 3						**Position at end-August 2019**		
less than 2	1,029,718	458,973	41,362	15,161	295,142	107,307	66,024	504,720
2 to less than 4	631,444	281,498	48,531	12,230	154,435	66,304	48,862	301,084
4 to less than 6	485,264	212,147	36,238	6,880	119,698	49,333	52,897	220,220
6 to less than 8	302,175	113,943	21,564	7,732	51,150	33,497	26,174	162,059
8 to less than 10	235,851	81,430	15,566	3,993	43,406	18,465	20,792	133,629
10 to less than 15	154,822	34,394	5,536	521	14,904	13,433	28,331	92,098
15 to less than 20	84,776	22,266	1,768	1,373	15,446	3,679	10,863	51,647
20 and more	246,305	29,774	829	248	5,654	23,043	80,842	135,689

***** Including debt securities temporarily held in the issuers' portfolios. **1** Sectoral reclassification of debt securities. **2** Adjustments due to change of domicile of issuers. **3** Calculated from month under review until final maturity for debt securities falling due en bloc and until mean maturity of the residual amount outstanding for debt securities not falling due en bloc.

4. Shares in circulation issued by residents *

€ million, nominal value

Period	Share capital = circulation at end of period under review	Net increase or net decrease (–) during period under review	Change in domestic public limited companies' capital due to						Memo item: Share circulation at market values (market capitalisation) level at end of period under review 2
			cash payments and exchange of convertible bonds 1	issue of bonus shares	contribution of claims and other real assets	merger and transfer of assets	change of legal form	reduction of capital and liquidation	
2007	164,560	799	3,164	1,322	200	– 682	– 1,847	– 1,636	1,481,930
2008	168,701	4,142	5,006	1,319	152	– 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	– 486	– 993	– 3,569	1,091,220
2011	177,167	2,570	6,390	552	462	– 552	– 762	– 3,532	924,214
2012	178,617	1,449	3,046	129	570	– 478	594	– 2,411	1,150,188
2013	171,741	– 6,879	2,971	718	476	– 1,432	– 619	– 8,992	1,432,658
2014	177,097	5,356	5,332	1,265	1,714	– 465	– 1,044	– 1,446	1,478,063
2015	177,416	319	4,634	397	599	– 1,394	– 1,385	– 2,535	1,614,442
2016	176,355	– 1,062	3,272	319	337	– 953	– 2,165	– 1,865	1,676,397
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
2019 Jan.	180,090	– 97	223	–	–	– 2	– 8	– 310	1,726,959
Feb.	180,116	26	116	–	–	–	– 37	– 52	1,755,552
Mar.	180,706	590	929	179	–	– 486	2	– 34	1,722,937
Apr.	180,744	38	127	21	19	– 29	– 9	– 90	1,833,023
May	180,763	19	46	112	0	– 45	– 60	– 34	1,696,088
June	180,375	– 389	420	84	8	22	– 59	– 864	1,784,783
July	179,852	– 523	35	11	3	– 10	– 6	– 555	1,769,824
Aug.	179,826	– 26	40	93	–	– 36	– 7	– 116	1,745,136

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

VIII. Capital market

5. Yields and indices on German securities

Period	Yields on debt securities outstanding issued by residents [1]							Price indices [2,3]			
		Public debt securities			Bank debt securities			Debt securities		Shares	
			Listed Federal securities								
	Total	Total	Total	With a residual maturity of 9 to 10 years [4]	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)
	% 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
2019 Apr.	0.1	0.0	– 0.1	– 0.0	0.3	0.5	2.6	142.69	110.72	552.28	12,344.08
May	0.1	– 0.1	– 0.1	– 0.1	0.2	0.4	2.6	144.20	112.36	510.79	11,726.84
June	– 0.1	– 0.2	– 0.3	– 0.3	0.1	0.3	2.5	144.73	113.54	535.23	12,398.80
July	– 0.2	– 0.3	– 0.4	– 0.4	0.0	0.2	2.4	145.43	113.94	528.16	12,189.04
Aug.	– 0.4	– 0.6	– 0.6	– 0.7	– 0.2	– 0.1	2.2	147.13	116.35	518.10	11,939.28
Sep.	– 0.4	– 0.5	– 0.6	– 0.6	– 0.2	– 0.1	2.3	145.93	114.98	535.82	12,428.08

1 Bearer debt securities with maximum maturities according to the terms of issue of over 4 years if their mean residual maturities exceed 3 years. Convertible debt securities 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 outstanding of the debt securities included in the calculation. Monthly figures are calculated on the basis of the yields on all the business days in a month. The annual figures are the unweighted means of the monthly figures. **2** End of year or month. **3** Source: Deutsche Börse AG. **4** Only debt securities eligible as underlying instruments for futures contracts; calculated as unweighted averages.

6. Sales and purchases of mutual fund shares in Germany

€ million

Period	Sales								Purchases					
		Open-end domestic mutual funds [1] (sales receipts)							Residents					
			Mutual funds open to the general public							Credit institutions including building and loan associations [2]		Other sectors [3]		
				of which:										
	Sales = total purchases	Total	Total	Money market funds	Securities-based funds	Real estate funds	Specialised funds	Foreign funds [4]	Total	Total	of which: Foreign mutual fund shares	Total	of which: Foreign mutual fund shares	Non-residents [5]
2008	2,598	– 7,911	– 14,409	– 12,171	– 11,149	799	6,498	10,509	11,315	– 16,625	– 9,252	27,940	19,761	– 8,717
2009	49,929	43,747	10,966	– 5,047	11,749	2,686	32,780	6,182	38,132	– 14,995	– 8,178	53,127	14,361	11,796
2010	106,190	84,906	13,381	– 148	8,683	1,897	71,345	21,284	102,591	3,873	6,290	98,718	14,994	3,598
2011	46,512	45,221	– 1,340	– 379	– 2,037	1,562	46,561	1,290	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
2019 Feb.	12,476	8,702	1,188	– 107	127	965	7,514	3,774	14,478	692	1,228	13,786	2,546	– 2,002
Mar.	9,647	6,647	302	– 283	– 29	624	6,345	3,000	10,378	698	595	9,680	2,405	– 732
Apr.	12,448	9,524	1,305	– 47	437	919	8,219	2,923	12,749	1,090	830	11,659	2,093	– 301
May	2,417	3,715	1,386	3	449	979	2,329	– 1,298	3,744	– 2,014	– 2,357	5,758	1,059	– 1,327
June	10,963	4,257	2,040	10	790	1,164	2,218	6,705	10,282	– 150	– 505	10,432	7,210	681
July	9,671	5,905	681	63	122	549	5,225	3,766	10,131	1,377	– 55	8,754	3,821	– 460
Aug.	13,337	9,862	1,022	139	346	570	8,839	3,476	13,469	– 309	– 1,346	13,778	4,822	– 131

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

IX. Financial accounts

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

€ billion

Item	2016	2017	2018	2018 Q1	2018 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2
Acquisition of financial assets									
Currency and deposits	35.08	48.76	24.92	– 16.13	– 0.40	9.97	31.48	– 18.86	– 13.43
Debt securities	– 3.40	– 5.65	5.10	0.65	0.55	1.46	2.44	0.65	– 0.45
Short-term debt securities	– 0.58	– 2.26	1.00	– 0.12	– 0.02	0.38	0.77	0.41	– 1.11
Long-term debt securities	– 2.81	– 3.39	4.10	0.77	0.57	1.09	1.68	0.25	0.66
Memo item:									
Debt securities of domestic sectors	– 2.68	– 2.80	1.45	0.11	0.47	– 0.02	0.89	0.62	– 0.07
Non-financial corporations	0.67	– 0.56	0.51	– 0.01	0.32	– 0.13	0.33	0.74	– 0.27
Financial corporations	– 2.53	– 0.41	1.18	0.19	0.31	0.08	0.61	– 0.10	0.12
General government	– 0.82	– 1.82	– 0.25	– 0.07	– 0.15	0.03	– 0.05	– 0.03	0.07
Debt securities of the rest of the world	– 0.72	– 2.85	3.66	0.54	0.08	1.48	1.56	0.04	– 0.38
Loans	18.11	52.72	– 23.70	– 2.42	– 9.88	– 0.55	– 10.86	14.29	– 5.51
Short-term loans	18.80	28.74	4.52	5.71	– 4.96	– 0.62	4.38	15.77	– 6.22
Long-term loans	– 0.69	23.97	– 28.22	– 8.13	– 4.92	0.07	– 15.24	– 1.48	0.71
Memo item:									
Loans to domestic sectors	0.67	21.85	– 3.39	– 0.71	– 3.71	4.68	– 3.64	2.95	– 3.62
Non-financial corporations	– 4.78	15.23	– 10.03	– 2.41	– 4.52	2.50	– 5.60	0.94	– 6.71
Financial corporations	5.25	6.26	6.29	1.60	0.72	2.10	1.87	2.01	3.10
General government	0.20	0.36	0.35	0.09	0.09	0.09	0.09	0.00	0.00
Loans to the rest of the world	17.44	30.86	– 20.32	– 1.71	– 6.17	– 5.23	– 7.22	11.34	– 1.89
Equity and investment fund shares	96.49	66.04	124.32	30.48	41.25	44.93	7.67	3.69	13.21
Equity	90.66	57.49	122.65	26.96	40.27	44.83	10.59	0.93	11.51
Listed shares of domestic sectors	22.91	– 3.82	18.82	21.74	– 2.70	– 1.34	1.12	1.82	– 3.34
Non-financial corporations	22.59	– 3.76	18.27	21.64	– 2.90	– 1.38	0.91	1.84	– 3.31
Financial corporations	0.31	– 0.06	0.55	0.10	0.20	0.04	0.21	– 0.02	– 0.03
Listed shares of the rest of the world	10.88	7.62	0.70	– 0.33	16.15	– 15.14	0.02	0.34	0.74
Other equity [1]	56.88	53.69	103.13	5.55	26.82	61.31	9.45	– 1.23	14.11
Investment fund shares	5.83	8.55	1.67	3.52	0.98	0.10	– 2.93	2.76	1.70
Money market fund shares	0.36	– 0.46	– 0.53	– 0.63	– 0.03	– 0.14	0.27	– 0.03	0.23
Non-MMF investment fund shares	5.47	9.01	2.21	4.15	1.01	0.24	– 3.19	2.79	1.47
Insurance technical reserves	1.15	3.92	4.68	0.96	1.36	1.33	1.04	0.99	0.98
Financial derivatives	22.74	12.68	– 5.07	2.57	– 2.68	– 4.36	– 0.60	2.49	– 4.19
Other accounts receivable	7.17	163.67	4.51	33.60	9.05	– 0.44	– 37.71	29.07	– 26.66
Total	177.34	342.14	134.75	49.70	39.25	52.33	– 6.53	32.33	– 36.05
External financing									
Debt securities	23.71	8.56	7.08	2.79	2.36	0.90	1.03	5.77	5.87
Short-term securities	– 0.15	0.60	4.08	2.54	1.48	0.38	– 0.32	1.23	1.75
Long-term securities	23.85	7.95	3.00	0.24	0.89	0.53	1.35	4.54	4.12
Memo item:									
Debt securities of domestic sectors	10.82	7.13	3.80	2.48	1.65	– 0.94	0.61	4.11	0.13
Non-financial corporations	0.67	– 0.56	0.51	– 0.01	0.32	– 0.13	0.33	0.74	– 0.27
Financial corporations	10.06	9.13	3.27	2.19	1.38	– 0.54	0.24	2.48	0.92
General government	0.01	0.01	0.01	0.01	– 0.01	0.00	0.00	0.69	– 0.61
Households	0.08	– 1.45	0.01	0.29	– 0.05	– 0.27	0.04	0.20	0.09
Debt securities of the rest of the world	12.89	1.42	3.28	0.31	0.71	1.84	0.42	1.66	5.74
Loans	40.46	95.63	131.24	40.27	45.50	37.27	8.19	23.70	38.92
Short-term loans	14.98	21.62	68.51	27.06	21.86	23.48	– 3.89	18.42	18.63
Long-term loans	25.49	74.02	62.73	13.22	23.64	13.80	12.08	5.28	20.29
Memo item:									
Loans from domestic sectors	19.51	54.16	73.86	28.07	18.45	27.44	– 0.10	19.28	17.23
Non-financial corporations	– 4.78	15.23	– 10.03	– 2.41	– 4.52	2.50	– 5.60	0.94	– 6.71
Financial corporations	21.90	39.70	82.87	30.67	22.47	24.13	5.59	23.24	24.31
General government	2.39	– 0.77	1.02	– 0.19	0.50	0.82	– 0.10	– 4.89	– 0.36
Loans from the rest of the world	20.95	41.47	57.38	12.21	27.05	9.83	8.29	4.41	21.69
Equity	16.09	13.41	14.80	2.40	11.38	– 1.03	2.06	3.76	2.77
Listed shares of domestic sectors	27.35	8.53	73.29	20.00	4.49	5.21	43.60	4.48	– 34.56
Non-financial corporations	22.59	– 3.76	18.27	21.64	– 2.90	– 1.38	0.91	1.84	– 3.31
Financial corporations	– 2.06	11.14	46.76	– 5.05	4.52	4.11	43.19	– 0.24	– 32.74
General government	0.07	0.51	0.53	0.16	0.15	0.09	0.13	– 0.04	0.04
Households	6.74	0.65	7.72	3.26	2.71	2.38	– 0.63	2.92	1.45
Listed shares of the rest of the world	– 25.83	– 4.20	– 32.01	8.73	6.18	– 4.82	– 42.09	– 4.24	2.58
Other equity [1]	14.57	9.07	– 26.47	– 26.33	0.71	– 1.42	0.56	3.52	34.74
Insurance technical reserves	3.22	6.89	6.04	1.51	1.51	1.51	1.51	1.51	1.51
Financial derivatives and employee stock options	– 0.13	3.69	– 4.19	1.50	3.27	– 0.06	– 8.90	4.86	2.23
Other accounts payable	38.53	58.09	22.69	17.85	19.39	5.47	– 20.02	13.42	– 16.41
Total	121.87	186.27	177.65	66.32	83.40	44.06	– 16.13	53.01	34.89

1 Including unlisted shares.

IX. Financial accounts

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

End of year/quarter; € billion

Item	2016	2017	2018	2018 Q1	2018 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2
Financial assets									
Currency and deposits	512.9	556.2	568.4	524.5	536.1	535.4	568.4	536.0	518.6
Debt securities	44.8	38.8	43.1	39.2	39.7	41.0	43.1	44.4	44.3
Short-term debt securities	5.5	3.3	4.2	3.1	3.1	3.5	4.2	4.7	3.6
Long-term debt securities	39.3	35.6	38.8	36.0	36.6	37.5	38.8	39.7	40.8
Memo item:									
Debt securities of domestic sectors	20.8	18.2	19.2	18.2	18.7	18.6	19.2	20.1	20.2
Non-financial corporations	4.4	3.9	4.3	3.8	4.1	4.0	4.3	5.1	4.8
Financial corporations	12.0	11.7	12.7	11.9	12.2	12.3	12.7	12.8	13.1
General government	4.4	2.5	2.3	2.4	2.3	2.3	2.3	2.2	2.3
Debt securities of the rest of the world	24.0	20.7	23.8	21.0	21.1	22.5	23.8	24.2	24.1
Loans	549.4	594.0	570.7	590.2	581.8	581.3	570.7	591.7	586.4
Short-term loans	450.7	475.0	480.0	480.1	476.0	475.5	480.0	502.0	496.2
Long-term loans	98.7	119.0	90.7	110.1	105.9	105.8	90.7	89.7	90.2
Memo item:									
Loans to domestic sectors	354.4	376.3	372.9	375.6	371.8	376.5	372.9	375.8	372.2
Non-financial corporations	282.6	297.8	287.8	295.4	290.9	293.4	287.8	288.7	282.0
Financial corporations	62.0	68.2	74.5	69.8	70.5	72.6	74.5	76.5	79.6
General government	9.9	10.3	10.6	10.3	10.4	10.5	10.6	10.6	10.6
Loans to the rest of the world	195.0	217.7	197.8	214.6	210.0	204.7	197.8	215.9	214.2
Equity and investment fund shares	2,030.4	2,187.0	2,145.4	2,179.5	2,227.1	2,259.3	2,145.4	2,235.6	2,246.6
Equity	1,870.5	2,016.9	1,981.1	2,008.6	2,054.2	2,085.5	1,981.1	2,061.3	2,067.9
Listed shares of domestic sectors	292.3	332.2	302.6	349.4	338.5	338.3	302.6	318.3	319.7
Non-financial corporations	286.2	325.3	296.0	342.2	330.9	330.4	296.0	311.3	312.1
Financial corporations	6.1	6.8	6.6	7.1	7.6	7.9	6.6	7.0	7.7
Listed shares of the rest of the world	44.5	49.0	45.3	48.7	64.2	49.1	45.3	49.1	49.9
Other equity [1]	1,533.7	1,635.8	1,633.2	1,610.6	1,651.6	1,698.0	1,633.2	1,694.0	1,698.3
Investment fund shares	159.9	170.1	164.3	170.9	172.8	173.9	164.3	174.3	178.7
Money market fund shares	1.9	1.5	1.0	0.9	0.9	0.7	1.0	0.9	1.2
Non-MMF investment fund shares	158.0	168.6	163.3	170.0	172.0	173.1	163.3	173.4	177.5
Insurance technical reserves	50.2	54.2	59.0	55.4	56.6	57.8	59.0	60.3	61.6
Financial derivatives	60.1	49.3	43.7	48.7	42.8	41.4	43.7	49.2	48.4
Other accounts receivable	1,006.1	1,116.7	1,149.2	1,174.7	1,184.8	1,184.6	1,149.2	1,191.9	1,172.7
Total	4,253.9	4,596.3	4,579.6	4,612.2	4,668.9	4,700.8	4,579.6	4,709.0	4,678.5
Liabilities									
Debt securities	183.8	210.6	187.8	185.4	189.0	185.8	187.8	196.4	205.6
Short-term securities	2.9	3.4	6.1	5.9	7.4	6.5	6.1	7.4	9.1
Long-term securities	180.9	207.2	181.6	179.4	181.6	179.2	181.6	189.1	196.5
Memo item:									
Debt securities of domestic sectors	72.1	82.8	78.9	79.6	80.1	78.9	78.9	86.0	87.4
Non-financial corporations	4.4	3.9	4.3	3.8	4.1	4.0	4.3	5.1	4.8
Financial corporations	51.9	64.3	60.6	61.2	61.5	60.6	60.6	65.8	67.9
General government	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.8	0.2
Households	15.7	14.4	13.9	14.4	14.3	14.1	13.9	14.3	14.4
Debt securities of the rest of the world	111.7	127.8	108.9	105.8	108.9	106.9	108.9	110.4	118.2
Loans	1,511.7	1,606.7	1,726.7	1,643.9	1,687.7	1,719.3	1,726.7	1,757.4	1,794.5
Short-term loans	598.1	624.3	687.7	650.5	673.4	692.0	687.7	709.4	728.0
Long-term loans	913.6	982.4	1,038.9	993.5	1,014.3	1,027.3	1,038.9	1,048.0	1,066.5
Memo item:									
Loans from domestic sectors	1,157.8	1,207.2	1,273.2	1,233.3	1,247.8	1,274.2	1,273.2	1,287.8	1,304.0
Non-financial corporations	282.6	297.8	287.8	295.4	290.9	293.4	287.8	288.7	282.0
Financial corporations	815.4	851.4	927.4	880.4	899.2	922.5	927.4	945.8	969.0
General government	59.8	58.1	58.0	57.5	57.8	58.3	58.0	53.3	53.0
Loans from the rest of the world	353.9	399.4	453.5	410.6	439.9	445.1	453.5	469.6	490.4
Equity	2,785.3	3,062.0	2,684.8	2,957.4	2,978.5	2,942.3	2,684.8	2,782.7	2,869.3
Listed shares of domestic sectors	654.2	748.2	683.9	737.4	726.8	733.2	683.9	733.3	711.9
Non-financial corporations	286.2	325.3	296.0	342.2	330.9	330.4	296.0	311.3	312.1
Financial corporations	144.8	171.8	180.2	155.4	156.3	160.2	180.2	193.2	165.7
General government	44.4	51.8	48.7	48.7	49.0	52.1	48.7	54.1	55.5
Households	178.7	199.2	159.0	191.1	190.7	190.5	159.0	174.7	178.7
Listed shares of the rest of the world	813.6	933.6	740.2	889.8	915.2	882.3	740.2	760.2	830.4
Other equity [1]	1,317.6	1,380.1	1,260.7	1,330.2	1,336.5	1,326.8	1,260.7	1,289.2	1,326.9
Insurance technical reserves	256.8	263.7	269.7	265.2	266.7	268.2	269.7	271.2	272.7
Financial derivatives and employee stock options	38.2	26.9	23.3	26.7	28.2	30.1	23.3	29.7	34.0
Other accounts payable	1,072.6	1,107.2	1,161.1	1,131.8	1,154.8	1,163.7	1,161.1	1,190.9	1,190.8
Total	5,848.4	6,276.9	6,053.3	6,210.4	6,304.8	6,309.3	6,053.3	6,228.4	6,366.9

1 Including unlisted shares.

IX. Financial accounts

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

€ billion

Item	2016	2017	2018	2018 Q1	2018 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2
Acquisition of financial assets									
Currency and deposits	114.91	106.23	140.31	14.02	40.59	27.35	58.34	20.10	43.23
Currency	21.18	19.73	32.27	3.67	7.57	7.05	13.98	– 0.89	9.40
Deposits	93.74	86.51	108.04	10.36	33.02	20.30	44.37	21.00	33.83
Transferable deposits	105.32	99.78	109.88	12.16	34.10	21.40	42.22	17.18	34.39
Time deposits	1.28	– 4.03	6.79	1.15	1.99	1.43	2.23	1.86	– 0.79
Savings deposits (including savings certificates)	– 12.87	– 9.24	– 8.63	– 2.95	– 3.06	– 2.53	– 0.08	1.95	0.23
Debt securities	– 12.80	– 8.14	1.81	– 1.00	0.52	1.71	0.58	0.52	0.66
Short-term debt securities	– 0.16	– 0.20	– 0.13	– 0.37	– 0.01	– 0.02	0.26	– 0.22	– 0.13
Long-term debt securities	– 12.63	– 7.93	1.94	– 0.63	0.53	1.72	0.32	0.74	0.79
Memo item:									
Debt securities of domestic sectors	– 4.14	– 5.09	2.29	– 0.01	0.16	1.18	0.96	0.71	0.28
Non-financial corporations	– 0.01	– 1.43	– 0.09	0.08	– 0.23	– 0.12	0.19	0.22	0.04
Financial corporations	– 2.48	– 2.68	2.83	0.07	0.61	1.36	0.79	0.58	0.30
General government	– 1.65	– 0.99	– 0.46	– 0.17	– 0.22	– 0.06	– 0.02	– 0.09	– 0.07
Debt securities of the rest of the world	– 8.66	– 3.05	– 0.48	– 0.98	0.36	0.53	– 0.38	– 0.19	0.39
Equity and investment fund shares	45.78	55.13	39.42	17.73	8.06	11.79	1.84	11.41	11.48
Equity	21.65	14.69	18.92	7.35	2.79	7.01	1.76	6.76	4.21
Listed shares of domestic sectors	9.37	0.90	9.47	4.27	2.55	2.63	0.02	4.29	1.56
Non-financial corporations	6.09	0.54	6.33	3.12	1.63	2.27	– 0.69	2.52	1.43
Financial corporations	3.28	0.36	3.14	1.15	0.92	0.37	0.70	1.78	0.13
Listed shares of the rest of the world	6.93	9.65	4.41	1.47	– 0.83	2.82	0.95	0.93	1.52
Other equity [1]	5.35	4.13	5.04	1.61	1.07	1.57	0.79	1.54	1.12
Investment fund shares	24.13	40.44	20.51	10.38	5.27	4.77	0.08	4.65	7.27
Money market fund shares	– 0.53	– 0.28	– 0.33	– 0.40	– 0.03	– 0.06	0.16	– 0.12	– 0.02
Non-MMF investment fund shares	24.66	40.72	20.84	10.79	5.29	4.83	– 0.07	4.77	7.29
Non-life insurance technical reserves and provision for calls under standardised guarantees	15.58	20.23	16.93	4.22	4.24	4.21	4.26	4.51	4.49
Life insurance and annuity entitlements	24.79	37.68	32.65	11.79	8.20	7.46	5.19	8.15	6.16
Pension entitlement, claims of pension funds on pension managers, entitlements to non-pension benefits	32.00	30.32	19.92	3.81	4.34	4.01	7.76	5.31	4.38
Financial derivatives and employee stock options	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other accounts receivable [2]	– 15.96	– 19.53	– 1.76	25.71	– 7.18	– 0.89	– 19.40	33.56	– 5.41
Total	204.31	221.92	249.28	76.29	58.77	55.64	58.58	83.57	64.99
External financing									
Loans	47.46	55.55	68.46	10.81	20.12	22.48	15.05	15.89	23.84
Short-term loans	– 4.31	– 2.19	2.44	– 0.02	0.11	1.83	0.53	0.47	0.87
Long-term loans	51.76	57.74	66.02	10.83	20.01	20.66	14.52	15.42	22.97
Memo item:									
Mortgage loans	41.92	47.41	57.47	9.00	15.79	19.58	13.11	9.09	16.63
Consumer loans	9.78	11.25	11.14	1.78	4.34	2.36	2.67	6.15	6.56
Entrepreneurial loans	– 4.24	– 3.11	– 0.14	0.04	– 0.01	0.55	– 0.73	0.65	0.66
Memo item:									
Loans from monetary financial institutions	42.87	49.99	61.72	11.00	17.65	19.41	13.67	12.51	21.22
Loans from other financial institutions	4.59	5.57	6.74	– 0.19	2.47	3.07	1.38	3.38	2.62
Loans from general government and rest of the world	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Financial derivatives	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other accounts payable	– 0.23	0.53	0.07	0.22	0.01	– 0.05	– 0.11	0.44	0.12
Total	47.23	56.09	68.53	11.03	20.13	22.43	14.94	16.33	23.96

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

IX. Financial accounts

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

End of year/quarter; € billion

Item	2016	2017	2018	2018 Q1	2018 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2
Financial assets									
Currency and deposits	2,209.4	2,314.4	2,456.4	2,328.4	2,369.0	2,398.1	2,456.4	2,476.6	2,519.8
Currency	174.4	194.1	226.3	197.8	205.3	212.3	226.3	225.4	234.8
Deposits	2,035.0	2,120.3	2,230.1	2,130.7	2,163.7	2,185.8	2,230.1	2,251.1	2,285.0
Transferable deposits	1,188.6	1,288.4	1,398.0	1,300.5	1,334.6	1,355.8	1,398.0	1,415.2	1,449.6
Time deposits	248.7	245.4	252.4	246.6	248.6	250.2	252.4	254.3	253.5
Savings deposits (including savings certificates)	597.7	586.5	579.7	583.6	580.5	579.8	579.7	581.6	581.9
Debt securities	127.4	120.5	115.7	117.7	118.1	119.3	115.7	119.4	121.3
Short-term debt securities	2.7	2.5	2.1	2.1	2.0	2.0	2.1	1.9	1.8
Long-term debt securities	124.7	118.0	113.6	115.6	116.0	117.3	113.6	117.5	119.5
Memo item:									
Debt securities of domestic sectors	85.6	82.5	79.9	81.2	81.4	82.5	79.9	83.1	84.2
Non-financial corporations	13.9	12.5	12.1	12.4	12.1	12.1	12.1	12.4	12.5
Financial corporations	66.7	66.1	64.4	65.1	65.7	67.0	64.4	67.3	68.4
General government	5.0	3.9	3.4	3.7	3.5	3.4	3.4	3.4	3.3
Debt securities of the rest of the world	41.8	37.9	35.9	36.4	36.7	36.9	35.9	36.3	37.1
Equity and investment fund shares	1,107.8	1,216.7	1,140.0	1,196.4	1,215.5	1,239.4	1,140.0	1,231.7	1,265.3
Equity	590.0	640.6	584.3	624.3	629.2	643.8	584.3	634.8	651.5
Listed shares of domestic sectors	200.8	226.4	183.0	217.3	214.2	217.2	183.0	202.6	209.0
Non-financial corporations	169.8	190.3	151.0	182.5	180.8	180.8	151.0	166.0	170.1
Financial corporations	31.0	36.1	32.0	34.8	33.4	36.5	32.0	36.6	38.9
Listed shares of the rest of the world	86.8	101.0	98.2	97.7	102.9	111.4	98.2	114.2	117.8
Other equity [1]	302.4	313.2	303.2	309.3	312.1	315.2	303.2	318.0	324.8
Investment fund shares	517.8	576.2	555.7	572.1	586.3	595.7	555.7	596.9	613.8
Money market fund shares	2.8	2.7	2.3	2.3	2.3	2.1	2.3	2.2	2.2
Non-MMF investment fund shares	515.0	573.5	553.4	569.8	584.1	593.5	553.4	594.7	611.6
Non-life insurance technical reserves and provision for calls under standardised guarantees	339.9	360.1	377.0	364.3	368.6	372.8	377.0	381.5	386.0
Life insurance and annuity entitlements	947.8	991.4	1,025.7	1,003.6	1,012.2	1,020.1	1,025.7	1,033.8	1,040.0
Pension entitlement, claims of pension funds on pension managers, entitlements to non-pension benefits	810.9	841.1	861.0	844.9	849.2	853.2	861.0	866.3	870.7
Financial derivatives and employee stock options	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other accounts receivable [2]	32.6	31.1	31.5	31.5	31.8	31.8	31.5	32.6	33.6
Total	5,575.8	5,875.3	6,007.3	5,886.8	5,964.4	6,034.7	6,007.3	6,141.9	6,236.7
Liabilities									
Loans	1,654.7	1,711.9	1,775.9	1,722.6	1,737.9	1,760.8	1,775.9	1,791.6	1,816.5
Short-term loans	56.6	54.4	58.1	54.4	54.5	56.3	58.1	58.5	59.4
Long-term loans	1,598.1	1,657.5	1,717.7	1,668.2	1,683.4	1,704.5	1,717.7	1,733.1	1,757.1
Memo item:									
Mortgage loans	1,195.8	1,247.4	1,308.1	1,257.4	1,275.0	1,295.0	1,308.1	1,317.1	1,337.6
Consumer loans	201.8	211.8	218.1	212.8	213.4	215.5	218.1	224.1	229.7
Entrepreneurial loans	257.0	252.7	249.7	252.5	249.5	250.4	249.7	250.4	249.2
Memo item:									
Loans from monetary financial institutions	1,558.3	1,610.0	1,667.2	1,620.9	1,633.7	1,653.5	1,667.2	1,679.6	1,701.8
Loans from other financial institutions	96.4	101.9	108.7	101.8	104.2	107.3	108.7	112.1	114.7
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	15.9	17.0	17.2	18.3	17.9	18.3	17.2	19.0	19.2
Total	1,670.6	1,728.9	1,793.1	1,741.0	1,755.8	1,779.0	1,793.1	1,810.7	1,835.7

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

X. Public finances in Germany

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

Period	General government	Central government	State government	Local government	Social security funds	General government	Central government	State government	Local government	Social security funds
	€ billion					As a percentage of GDP				
	Deficit/surplus[1]									
2013	+ 1.1	– 1.3	– 0.7	– 2.5	+ 5.7	+ 0.0	– 0.0	– 0.0	– 0.1	+ 0.2
2014	+ 17.0	+ 15.5	+ 2.0	– 3.9	+ 3.4	+ 0.6	+ 0.5	+ 0.1	– 0.1	+ 0.1
2015	+ 28.6	+ 16.6	+ 5.2	+ 3.7	+ 3.0	+ 0.9	+ 0.5	+ 0.2	+ 0.1	+ 0.1
2016 p	+ 37.1	+ 13.6	+ 8.1	+ 6.9	+ 8.6	+ 1.2	+ 0.4	+ 0.3	+ 0.2	+ 0.3
2017 p	+ 40.3	+ 8.1	+ 11.3	+ 9.9	+ 11.0	+ 1.2	+ 0.2	+ 0.3	+ 0.3	+ 0.3
2018 p	+ 62.4	+ 20.1	+ 12.8	+ 13.7	+ 15.9	+ 1.9	+ 0.6	+ 0.4	+ 0.4	+ 0.5
2017 H1 p	+ 23.6	+ 2.8	+ 6.8	+ 6.7	+ 7.3	+ 1.5	+ 0.2	+ 0.4	+ 0.4	+ 0.5
H2 p	+ 16.7	+ 5.3	+ 4.5	+ 3.3	+ 3.6	+ 1.0	+ 0.3	+ 0.3	+ 0.2	+ 0.2
2018 H1 p	+ 51.7	+ 18.7	+ 15.8	+ 8.0	+ 9.2	+ 3.1	+ 1.1	+ 1.0	+ 0.5	+ 0.6
H2 p	+ 10.7	+ 1.4	– 3.0	+ 5.7	+ 6.6	+ 0.6	+ 0.1	– 0.2	+ 0.3	+ 0.4
2019 H1 pe	+ 45.3	+ 17.7	+ 12.7	+ 7.1	+ 7.7	+ 2.7	+ 1.0	+ 0.8	+ 0.4	+ 0.5
	Debt level[2]									End of year or quarter
2013	2,213.0	1,390.1	663.6	175.4	1.3	78.7	49.4	23.6	6.2	0.0
2014	2,215.2	1,396.1	657.8	177.8	1.4	75.7	47.7	22.5	6.1	0.0
2015	2,185.1	1,372.2	654.7	177.7	1.4	72.1	45.3	21.6	5.9	0.0
2016 p	2,169.0	1,366.4	637.7	179.2	1.1	69.2	43.6	20.3	5.7	0.0
2017 p	2,119.0	1,350.9	610.5	175.9	0.8	65.3	41.6	18.8	5.4	0.0
2018 p	2,069.0	1,323.5	596.1	167.6	0.7	61.9	39.6	17.8	5.0	0.0
2017 Q1 p	2,144.6	1,350.6	629.5	178.1	1.2	67.7	42.7	19.9	5.6	0.0
Q2 p	2,139.6	1,353.2	623.2	178.1	0.9	67.2	42.5	19.6	5.6	0.0
Q3 p	2,134.5	1,352.6	622.4	176.6	0.8	66.5	42.1	19.4	5.5	0.0
Q4 p	2,119.0	1,350.9	610.5	175.9	0.8	65.3	41.6	18.8	5.4	0.0
2018 Q1 p	2,095.8	1,338.3	599.8	174.7	1.0	64.1	40.9	18.3	5.3	0.0
Q2 p	2,081.2	1,330.0	596.2	173.2	0.9	63.0	40.3	18.1	5.2	0.0
Q3 p	2,081.3	1,336.2	595.2	167.9	0.8	62.7	40.2	17.9	5.1	0.0
Q4 p	2,069.0	1,323.5	596.1	167.6	0.7	61.9	39.6	17.8	5.0	0.0
2019 Q1 p	2,078.7	1,324.9	606.8	166.5	0.7	61.7	39.3	18.0	4.9	0.0
Q2 p	2,069.6	1,320.8	605.4	165.3	0.7	61.2	39.0	17.9	4.9	0.0

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

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

Period	Revenue				Expenditure							Deficit/ surplus	Memo item: Total tax burden [1]
	Total	of which: Taxes	Social contributions	Other	Total	of which: Social benefits	Compensation of employees	Intermediate consumption	Gross capital formation	Interest	Other		
	€ billion												
2013	1,264.7	650.9	465.4	148.4	1,263.5	666.6	220.5	141.8	61.0	51.5	122.2	+ 1.1	1,120.6
2014	1,313.9	673.0	482.3	158.5	1,296.9	691.3	227.5	147.1	60.5	47.1	123.4	+ 17.0	1,160.0
2015	1,363.1	704.2	501.2	157.7	1,334.5	722.0	233.0	149.7	64.6	42.7	122.5	+ 28.6	1,212.4
2016 p	1,425.6	738.6	524.3	162.7	1,388.5	754.3	240.7	158.6	68.2	37.8	128.9	+ 37.1	1,269.8
2017 p	1,481.7	772.7	549.5	159.6	1,441.4	784.8	250.0	162.9	71.9	34.3	137.5	+ 40.3	1,328.9
2018 p	1,552.9	807.7	572.5	172.7	1,490.5	806.1	259.3	169.4	78.4	31.7	145.7	+ 62.4	1,387.3
	As a percentage of GDP												
2013	45.0	23.2	16.6	5.3	44.9	23.7	7.8	5.0	2.2	1.8	4.3	+ 0.0	39.9
2014	44.9	23.0	16.5	5.4	44.3	23.6	7.8	5.0	2.1	1.6	4.2	+ 0.6	39.6
2015	45.0	23.2	16.5	5.2	44.0	23.8	7.7	4.9	2.1	1.4	4.0	+ 0.9	40.0
2016 p	45.5	23.6	16.7	5.2	44.3	24.1	7.7	5.1	2.2	1.2	4.1	+ 1.2	40.5
2017 p	45.7	23.8	16.9	4.9	44.4	24.2	7.7	5.0	2.2	1.1	4.2	+ 1.2	41.0
2018 p	46.4	24.2	17.1	5.2	44.6	24.1	7.8	5.1	2.3	0.9	4.4	+ 1.9	41.5
	Percentage growth rates												
2013	+ 2.5	+ 3.0	+ 2.4	+ 1.1	+ 2.5	+ 3.3	+ 2.7	+ 4.5	+ 1.0	– 18.9	+ 7.9	.	+ 2.7
2014	+ 3.9	+ 3.4	+ 3.6	+ 6.9	+ 2.6	+ 3.7	+ 3.2	+ 3.7	– 0.8	– 8.4	+ 1.0	.	+ 3.5
2015	+ 3.7	+ 4.6	+ 3.9	– 0.5	+ 2.9	+ 4.4	+ 2.4	+ 1.8	+ 6.7	– 9.4	– 0.7	.	+ 4.5
2016 p	+ 4.6	+ 4.9	+ 4.6	+ 3.1	+ 4.0	+ 4.5	+ 3.3	+ 6.0	+ 5.5	– 11.6	+ 5.3	.	+ 4.7
2017 p	+ 3.9	+ 4.6	+ 4.8	– 1.9	+ 3.8	+ 4.1	+ 3.9	+ 2.7	+ 5.4	– 9.3	+ 6.7	.	+ 4.7
2018 p	+ 4.8	+ 4.5	+ 4.2	+ 8.2	+ 3.4	+ 2.7	+ 3.7	+ 4.0	+ 9.0	– 7.4	+ 5.9	.	+ 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 [1]									Social security funds [2]			General government, total		
	Revenue			Expenditure											
		of which:			of which: [3]										
	Total [4]	Taxes	Financial transactions [5]	Total [4]	Personnel expenditure	Current grants	Interest	Fixed asset formation	Financial transactions [5]	Deficit/ surplus	Revenue [6]	Expenditure	Deficit/ surplus	Revenue	Expenditure	Deficit/ surplus
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	788.9	236.0	295.1	57.1	45.9	17.6	+ 2.9	554.5	551.1	+ 3.5	1,245.2	1,238.8	+ 6.4
2015 p	829.8	673.3	10.4	804.3	244.1	302.7	49.8	46.4	12.5	+ 25.5	575.0	573.1	+ 1.9	1,301.1	1,273.6	+ 27.4
2016 p	862.3	705.8	9.0	844.5	251.3	321.6	43.4	49.0	11.8	+ 17.8	601.8	594.8	+ 7.1	1,355.1	1,330.2	+ 24.9
2017 p	900.3	734.5	7.9	869.4	261.6	327.9	42.0	52.3	13.8	+ 30.8	631.5	622.0	+ 9.5	1,417.5	1,377.2	+ 40.3
2018 p	949.3	776.3	6.2	905.5	272.3	337.8	39.2	55.8	16.0	+ 43.8	656.3	642.2	+ 14.1	1,488.5	1,430.6	+ 57.9
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
Q4 p	255.2	203.9	2.2	262.1	73.1	89.7	6.2	20.3	9.6	– 6.9	174.6	163.4	+ 11.2	400.7	396.4	+ 4.3
2019 Q1 p	240.9	192.7	2.5	230.4	71.0	88.5	11.5	10.1	3.3	+ 10.5	163.3	166.4	– 3.1	374.3	366.8	+ 7.5

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

4. Central, state and local government: budgetary development (as per the government finance statistics)

€ billion

Period	Central government			State government [2,3]			Local government [3]		
	Revenue [1]	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
2018 p	374.4	363.5	+ 10.9	421.2	400.5	+ 20.7	271.8	261.5	+ 10.2
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
Q4 p	100.4	103.9	– 3.5	113.4	118.5	– 5.1	80.4	73.1	+ 7.3
2019 Q1 p	84.7	86.1	– 1.4	105.7	99.4	+ 6.2	58.2	63.2	– 4.9
Q2 p	97.7	90.3	+ 7.4	106.0	97.5	+ 8.5	70.6	65.9	+ 4.7

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

X. Public finances in Germany

5. Central, state and local government: tax revenue

€ million

Period	Total	Central and state government and European Union				Local government 3	Balance of untransferred tax shares 4	Memo item: Amounts deducted in the Federal budget 5
		Total	Central government 1	State government 1	European Union 2			
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	776,314	665,005	349,134	287,282	28,589	111,308	+ 1	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	203,128	177,157	92,363	76,459	8,335	35,492	– 9,521	6,206
2019 Q1	193,054	162,696	79,669	71,578	11,450	19,816	+ 10,541	6,270
Q2	202,383	172,563	90,883	75,455	6,224	29,784	+ 37	6,179
2018 July	.	51,041	26,535	22,230	2,276	.	.	3,060
Aug.	.	46,753	24,878	19,374	2,501	.	.	2,260
2019 July	.	50,036	25,537	21,917	2,582	.	.	3,001
Aug.	.	49,231	25,597	20,974	2,660	.	.	2,201

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									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			Local business tax transfers 6				
		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
2019 Q1	175,216	82,996	50,923	17,453	9,194	5,426	60,402	46,018	14,384	121	23,968	6,531	1,197	12,519
Q2	185,333	90,134	54,437	16,069	8,085	11,543	59,101	43,943	15,158	2,113	26,625	6,087	1,273	12,770
2018 July	54,358	22,042	18,240	– 644	– 506	4,952	19,320	14,304	5,016	2,020	8,634	1,942	401	3,317
Aug.	49,872	17,559	16,451	– 457	48	1,517	20,665	15,476	5,189	293	8,834	2,009	510	3,118
2019 July	53,498	21,403	19,068	– 642	– 39	3,016	19,016	14,422	4,594	1,928	8,672	2,079	400	3,462
Aug.	52,670	19,616	18,140	– 488	71	1,892	21,126	15,473	5,653	292	8,843	2,315	479	3,439

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.

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7. Central, state and local government: individual taxes

€ million

Period	Central government taxes [1]								State government taxes [1]				Local government taxes		
	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]	of which: 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	71,817	55,904	14,203
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	17,224	13,713	3,140
2019 Q1	4,848	4,679	2,495	6,542	2,594	1,646	579	586	3,976	1,705	499	351	...	14,139	3,350
Q2	9,937	5,257	3,588	2,543	2,491	1,659	485	665	3,667	1,660	513	247	...	14,869	3,881
2018 July	3,504	1,171	1,558	776	709	532	176	209	1,197	487	169	88	.	.	.
Aug.	3,447	1,038	1,248	1,337	765	581	184	235	1,259	505	158	88	.	.	.
2019 July	3,523	1,235	1,450	718	810	543	181	212	1,276	555	163	85	.	.	.
Aug.	3,325	1,142	1,294	1,382	752	556	160	232	1,349	723	154	89	.	.	.

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 statutory 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: Contributions [3]	of which: Payments from central government	Total	of which: Pension payments	of which: Pensioners' health insurance		Total	Deposits [5]	Securities	Equity interests, mortgages and other loans [6]	Real estate	
2012	259,700	181,262	77,193	254,604	216,450	15,283	+ 5,097	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	312,788	221,572	90,408	308,356	263,338	18,588	+ 4,432	40,345	38,314	1,713	262	56	4,008
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
2019 Q1	77,984	54,393	23,426	78,630	67,328	5,087	– 646	39,432	37,637	1,474	263	57	4,001
Q2	81,410	57,837	23,408	80,804	69,011	5,205	+ 605	40,232	38,639	1,272	264	57	3,996

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 subsequently. **2** Including financial compensation payments. Excluding investment spending and proceeds. **3** Including contributions for recipients of government cash benefits. **4** Largely corresponds to the sustainability reserves. End of year or quarter. **5** Including cash. **6** Excluding loans to other social security funds.

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9. Federal Employment Agency: budgetary development*

€ million

Period	Revenue				Expenditure							Deficit/ surplus	Deficit-offsetting grant or loan from central government
	Total 1	of which:			Total	of which:							
		Contributions	Insolvency compensation levy	Central government subscriptions		Unemployment benefit 2	Short-time working benefits 3	Job promotion 4	Re-integration payment 5	Insolvency benefit payment	Administrative expenditure 6		
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	–
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	–
2019 Q1	8,369	7,027	148	–	8,597	3,969	403	1,818	.	179	1,450	– 228	–
Q2	8,685	7,440	156	–	8,136	3,673	204	1,832	.	243	1,475	+ 549	–

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

10. Statutory health insurance scheme: budgetary development

€ million

Period	Revenue 1			Expenditure 1								Deficit/ surplus
	Total	of which:		Total	of which:							
		Contributions 2	Central government funds 3		Hospital treatment	Pharmaceuticals	Medical treatment	Dental treatment 4	Remedies and therapeutic appliances	Sickness benefits	Administrative expenditure 5	
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	242,360	224,912	14,500	239,706	74,506	38,327	39,968	14,490	15,965	13,090	11,564	+ 2,654
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
2019 Q1	59,809	55,622	3,625	62,485	19,586	9,947	10,386	3,738	4,106	3,649	2,707	– 2,676
Q2	62,121	57,858	3,625	62,858	19,210	10,127	10,421	3,821	4,289	3,535	2,774	– 736

Source: Federal Ministry of Health. 1 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. 2 Including contributions from subsidised low-paid part-time employment. 3 Federal grant and liquidity assistance. 4 Including dentures. 5 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 1		Expenditure 1						Deficit/ surplus	
				of which:						
	Total	of which: Contributions 2	Total	Non-cash care benefits	Inpatient care	Nursing benefit	Contributions to pension insurance scheme 3	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	37,949	37,886	41,265	4,778	12,951	10,809	2,093	1,586	–	3,315
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
2019 Q1	11,123	10,938	10,728	1,198	3,232	2,833	547	437	+	396
Q2	11,795	11,620	10,812	1,205	3,237	2,868	588	449	+	983

Source: Federal Ministry of Health. * Including transfers to the long-term care provident fund. **1** The final annual figures generally differ from the total of the reported provisional quarterly figures as the latter are not revised subsequently. **2** Since 2005 including special contributions for childless persons (0.25% of income subject to insurance contributions). **3** For non-professional carers.

12. Central government: borrowing in the market

€ million

Period	Total new borrowing 1		of which: Change in money market loans	of which: Change in money market deposits 3
	Gross 2	Net		
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
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
2019 Q1	+ 56,654	+ 3,281	– 2,172	– 1,199
Q2	+ 48,545	+ 5,491	– 279	+ 7,227

Source: Federal Republic of Germany – Finance Agency. **1** Including the Financial Market Stabilisation Fund, the Investment and Repayment Fund and the Restructuring Fund for Credit Institutions. **2** After deducting repurchases. **3** Excluding the central account balance with the Deutsche Bundesbank.

13. General government: debt by creditor*

€ million

Period (end of year or quarter)	Total	Banking system		Domestic non-banks		Foreign creditors pe
		Bundesbank	Domestic MFIs pe	Other domestic financial corporations pe	Other domestic creditors 1	
2012	2,227,419	12,126	655,104	199,132	59,660	1,301,397
2013	2,213,009	12,438	662,788	190,555	43,616	1,303,612
2014	2,215,168	12,774	634,012	190,130	44,576	1,333,675
2015	2,185,113	85,952	621,220	186,661	44,630	1,246,650
2016	2,168,989	205,391	598,282	179,755	41,318	1,144,243
2017	2,118,963	319,159	551,834	175,617	38,502	1,033,852
2018 p	2,069,007	364,731	500,938	181,077	37,475	984,786
2017 Q1	2,144,575	239,495	585,209	178,219	40,475	1,101,176
Q2	2,139,642	265,130	571,563	176,810	41,255	1,084,885
Q3	2,134,509	290,214	559,524	176,646	42,855	1,065,270
Q4	2,118,963	319,159	551,834	175,617	38,502	1,033,852
2018 Q1 p	2,095,754	329,387	529,176	176,495	37,450	1,023,246
Q2 p	2,081,161	344,279	513,563	179,856	36,980	1,006,483
Q3 p	2,081,326	356,899	501,892	180,464	37,428	1,004,642
Q4 p	2,069,007	364,731	500,938	181,077	37,475	984,786
2019 Q1 p	2,078,699	359,884	498,281	179,512	36,368	1,004,654
Q2 p	2,069,640	361,032	491,757	178,681	36,727	1,001,442

Source: Bundesbank calculations based on data from the Federal Statistical Office. * As defined in the Maastricht Treaty. **1** Calculated as a residual.

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14. Maastricht debt by instrument

€ million

Period (end of year or quarter)	Total	Currency and deposits [1]	Debt securities by original maturity: Short-term debt securities (up to one year)	Debt securities by original maturity: Long-term debt securities (more than one year)	Loans by original maturity: Short-term loans (up to one year)	Loans by original maturity: Long-term loans (more than one year)	Memo item: [2] Debt vis-à-vis other government subsectors	Memo item: [2] Claims vis-à-vis other government subsectors
General government								
2012	2,227,419	9,742	106,945	1,441,406	124,280	545,046	.	.
2013	2,213,009	10,592	85,836	1,470,698	100,535	545,347	.	.
2014	2,215,168	12,150	72,618	1,501,494	95,833	533,074	.	.
2015	2,185,113	14,303	65,676	1,499,098	85,121	520,914	.	.
2016	2,168,989	15,845	69,715	1,484,378	91,300	507,752	.	.
2017 Q1	2,144,575	12,891	60,798	1,479,171	89,093	502,622	.	.
Q2	2,139,642	15,196	54,362	1,486,822	83,528	499,734	.	.
Q3	2,134,509	16,161	48,197	1,489,440	82,720	497,992	.	.
Q4	2,118,963	14,651	48,789	1,484,573	82,662	488,288	.	.
2018 Q1 **p**	2,095,754	12,472	48,431	1,479,589	70,141	485,122	.	.
Q2 **p**	2,081,161	12,636	54,932	1,465,767	67,050	480,776	.	.
Q3 **p**	2,081,326	15,607	59,989	1,465,858	64,601	475,271	.	.
Q4 **p**	2,069,007	14,833	52,572	1,456,512	72,044	473,046	.	.
2019 Q1 **p**	2,078,699	15,635	64,225	1,460,757	66,795	471,288	.	.
Q2 **p**	2,069,640	12,811	56,259	1,462,928	70,647	466,994	.	.
Central government								
2012	1,387,361	9,742	88,372	1,088,796	88,311	112,140	1,465	11,354
2013	1,390,061	10,592	78,996	1,113,029	64,970	122,474	2,696	10,303
2014	1,396,124	12,150	64,230	1,141,973	54,388	123,383	1,202	12,833
2015	1,372,206	14,303	49,512	1,139,039	45,256	124,095	2,932	13,577
2016	1,366,416	15,845	55,208	1,124,445	50,004	120,914	2,238	8,478
2017 Q1	1,350,579	12,891	45,510	1,124,430	48,082	119,666	2,465	7,469
Q2	1,353,204	15,196	40,225	1,132,686	44,682	120,415	2,547	8,136
Q3	1,352,593	16,161	34,216	1,136,873	45,235	120,108	2,674	10,160
Q4	1,350,925	14,651	36,297	1,132,542	47,761	119,673	2,935	10,603
2018 Q1 **p**	1,338,267	12,472	35,923	1,133,372	37,211	119,290	2,867	9,887
Q2 **p**	1,330,010	12,636	42,888	1,120,497	35,048	118,941	2,835	10,693
Q3 **p**	1,336,199	15,607	46,614	1,119,053	36,633	118,293	2,614	10,260
Q4 **p**	1,323,503	14,833	42,246	1,107,702	42,057	116,666	2,540	9,959
2019 Q1 **p**	1,324,917	15,635	50,032	1,103,095	39,126	117,028	2,437	11,528
Q2 **p**	1,320,783	12,811	42,752	1,109,478	38,851	116,890	2,464	13,768
State government								
2012	684,222	–	18,802	355,756	12,314	297,351	13,197	2,968
2013	663,615	–	6,847	360,706	11,862	284,200	12,141	2,655
2014	657,819	–	8,391	361,916	19,182	268,330	14,825	2,297
2015	654,712	–	16,169	362,376	18,707	257,460	15,867	4,218
2016	637,673	–	14,515	361,996	16,116	245,046	11,408	3,376
2017 Q1	629,540	–	15,308	356,769	15,938	241,526	10,407	3,446
Q2	623,182	–	14,167	356,521	14,792	237,702	11,180	3,417
Q3	622,430	–	14,021	355,153	16,358	236,899	13,313	3,338
Q4	610,535	–	12,543	354,688	15,112	228,192	14,326	3,539
2018 Q1 **p**	599,835	–	12,548	349,682	13,137	224,468	13,301	3,409
Q2 **p**	596,174	–	12,073	348,833	13,485	221,782	14,271	3,579
Q3 **p**	595,241	–	13,392	350,399	10,953	220,498	14,008	3,531
Q4 **p**	596,147	–	10,332	352,376	14,307	219,132	14,385	3,331
2019 Q1 **p**	606,791	–	14,198	361,513	14,003	217,077	15,530	3,458
Q2 **p**	605,391	–	13,512	357,673	20,096	214,109	17,948	3,353
Local government								
2012	172,451	–	–	423	24,682	147,346	3,124	802
2013	175,405	–	–	646	25,325	149,435	2,523	530
2014	177,782	–	–	1,297	26,009	150,476	1,959	734
2015	177,727	–	–	2,047	26,887	148,793	2,143	463
2016	179,222	–	–	2,404	26,414	150,403	1,819	566
2017 Q1	178,144	–	–	2,645	25,452	150,047	1,966	697
Q2	178,051	–	–	2,672	25,263	150,116	1,963	819
Q3	176,593	–	–	2,687	24,477	149,429	1,871	927
Q4	175,852	–	–	3,082	23,952	148,818	1,881	1,064
2018 Q1 **p**	174,654	–	–	2,427	22,778	149,450	1,811	1,072
Q2 **p**	173,177	–	–	2,561	22,443	148,172	1,977	1,090
Q3 **p**	167,850	–	–	2,703	20,503	144,644	2,132	1,123
Q4 **p**	167,626	–	1	3,046	19,730	144,849	2,019	1,147
2019 Q1 **p**	166,536	–	1	2,960	19,092	144,483	2,285	1,153
Q2 **p**	165,325	–	1	2,969	18,993	143,363	2,173	1,175

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)	Total	Currency and deposits [1]	Debt securities by original maturity		Loans by original maturity		Memo item: [2]	
			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
Social security funds								
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	1,143	–	–	–	473	670	–	3,044
2017 Q1	1,150	–	–	–	504	646	–	3,226
Q2	895	–	–	–	290	605	–	3,318
Q3	750	–	–	–	184	566	–	3,433
Q4	792	–	–	–	247	545	–	3,934
2018 Q1 **p**	975	–	–	–	424	551	–	3,610
Q2 **p**	883	–	–	–	383	500	–	3,721
Q3 **p**	790	–	–	–	400	390	–	3,841
Q4 **p**	674	–	–	–	372	302	–	4,506
2019 Q1 **p**	707	–	–	–	437	270	–	4,114
Q2 **p**	726	–	–	–	541	185	–	4,289

Source: Bundesbank calculations based on data from the Federal Statistical Office and the Federal Republic of Germany – Finance Agency. **1** Particularly liabilities resulting from coins in circulation. **2** 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)		Currency and deposits [2]		Debt securities										Loans [1]
			of which: [3]		of which: [3]									
	Total [1]	Total [1]	Federal day bond	Total [1]	Federal bonds (Bunds)	Federal notes (Bobls)	Inflation-linked Federal bonds (Bunds) [4]	Inflation-linked Federal notes (Bobls) [4]	Capital indexation of inflation-linked securities	Federal Treasury notes (Schätze) [5]	Treasury discount paper (Bubills) [6]	Federal savings notes		
2007	983,807	6,675	.	917,584	564,137	173,949	10,019	3,444	506	102,083	37,385	10,287		59,548
2008	1,015,846	12,466	3,174	928,754	571,913	164,514	12,017	7,522	1,336	105,684	40,795	9,649		74,626
2009	1,082,101	9,981	2,495	1,013,072	577,798	166,471	16,982	7,748	1,369	113,637	104,409	9,471		59,048
2010	1,333,467	10,890	1,975	1,084,019	602,624	185,586	25,958	9,948	2,396	126,220	85,867	8,704		238,558
2011	1,343,515	10,429	2,154	1,121,331	615,200	199,284	29,313	14,927	3,961	130,648	58,297	8,208		211,756
2012	1,387,361	9,742	1,725	1,177,168	631,425	217,586	35,350	16,769	5,374	117,719	56,222	6,818		200,451
2013	1,390,061	10,592	1,397	1,192,025	643,200	234,759	41,105	10,613	4,730	110,029	50,004	4,488		187,444
2014	1,396,124	12,150	1,187	1,206,203	653,823	244,633	48,692	14,553	5,368	103,445	27,951	2,375		177,771
2015	1,372,206	14,303	1,070	1,188,551	663,296	232,387	59,942	14,553	5,607	96,389	18,536	1,305		169,351
2016	1,366,416	15,845	1,010	1,179,653	670,245	221,551	51,879	14,585	3,602	95,727	23,609	737		170,919
2017	1,350,925	14,651	966	1,168,840	693,687	203,899	58,365	14,490	4,720	91,013	10,037	289		167,435
2018 **p**	1,323,503	14,833	921	1,149,948	710,513	182,847	64,647	–	5,139	86,009	12,949	48		158,723
2017 Q1	1,350,579	12,891	995	1,169,939	674,049	213,371	53,838	14,535	3,362	95,148	14,910	619		167,748
Q2	1,353,204	15,196	986	1,172,911	687,278	205,203	55,842	14,465	4,507	93,795	14,431	487		165,097
Q3	1,352,593	16,161	977	1,171,089	684,134	215,029	56,905	14,490	4,092	91,893	11,851	398		165,344
Q4	1,350,925	14,651	966	1,168,840	693,687	203,899	58,365	14,490	4,720	91,013	10,037	289		167,435
2018 Q1 **p**	1,338,267	12,472	951	1,169,295	699,638	193,811	60,778	14,455	4,421	94,282	9,031	219		156,501
Q2 **p**	1,330,010	12,636	941	1,163,385	710,784	185,042	62,863	–	4,276	92,639	15,049	141		153,989
Q3 **p**	1,336,199	15,607	932	1,165,667	703,682	194,356	64,304	–	4,548	90,575	17,340	75		154,925
Q4 **p**	1,323,503	14,833	921	1,149,948	710,513	182,847	64,647	–	5,139	86,009	12,949	48		158,723
2019 Q1 **p**	1,324,917	15,635	902	1,153,128	709,008	178,900	66,531	–	4,191	89,782	18,288	31		156,155
Q2 **p**	1,320,783	12,811	852	1,152,230	720,904	173,313	68,110	–	5,691	91,024	15,042	19		155,742

Sources: Federal Republic of Germany – Finance Agency, Federal Statistical Office, and Bundesbank calculations. **1** 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. **2** Particularly liabilities resulting from coins in circulation. **3** Issuances by the Federal Republic of Germany. Excluding issuers' holdings of own securities but including those held by other government entities. **4** Excluding inflation-induced indexation of capital. **5** Including medium-term notes issued by the Treuhand agency (expired in 2011). **6** 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 Q4	2018 Q1	2018 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2
	Index 2015 = 100			Annual percentage change									
At constant prices, chained													
I. Origin of domestic product													
Production sector (excluding construction)	104.3	107.6	109.0	4.3	3.2	1.3	4.4	2.2	3.7	0.2	– 0.8	– 2.1	– 4.7
Construction	102.0	101.4	104.8	2.0	– 0.6	3.4	– 0.4	1.3	3.5	3.3	4.9	6.6	2.8
Wholesale/retail trade, transport and storage, hotel and restaurant services	101.4	104.4	106.2	1.4	2.9	1.8	2.6	2.2	3.0	0.8	1.2	2.1	1.2
Information and communication	102.8	106.4	109.7	2.8	3.5	3.1	3.6	2.6	2.9	3.9	2.9	3.2	3.3
Financial and insurance activities	96.5	100.2	100.1	– 3.6	3.8	– 0.1	3.0	0.5	– 0.0	– 1.0	0.3	1.8	2.6
Real estate activities	100.0	99.0	100.1	– 0.1	– 1.0	1.1	– 0.5	1.3	1.1	1.0	0.9	0.9	1.5
Business services [1]	101.9	105.7	108.0	1.9	3.7	2.2	4.3	2.7	3.4	1.8	1.0	1.3	0.5
Public services, education and health	104.2	107.7	109.0	4.2	3.4	1.2	3.5	1.5	1.2	1.0	1.1	1.2	1.2
Other services	98.0	98.9	99.0	– 2.0	0.8	0.1	0.8	– 0.4	0.4	– 0.1	0.6	1.2	1.0
Gross value added	102.2	104.8	106.4	2.2	2.5	1.5	2.9	1.8	2.5	0.9	0.8	0.8	– 0.1
Gross domestic product [2]	102.2	104.8	106.4	2.2	2.5	1.5	2.8	1.6	2.5	1.1	0.9	0.8	0.0
II. Use of domestic product													
Private consumption [3]	102.3	103.6	105.0	2.3	1.3	1.3	1.2	1.8	1.4	0.6	1.3	1.0	1.5
Government consumption	104.1	106.6	108.1	4.1	2.4	1.4	2.2	1.5	1.9	1.2	1.1	1.9	1.9
Machinery and equipment	103.0	107.1	111.8	3.0	4.0	4.4	4.7	5.0	5.9	3.4	3.4	2.7	1.5
Premises	103.8	104.6	107.2	3.8	0.7	2.5	– 0.1	0.6	2.7	2.6	4.0	6.6	2.2
Other investment [4]	105.2	109.6	114.3	5.2	4.2	4.3	6.8	3.9	4.6	4.8	3.8	3.0	2.7
Changes in inventories [5,6]	.	.	.	0.1	0.5	0.3	0.3	– 0.2	– 0.1	1.0	0.6	– 0.2	– 0.4
Domestic demand	103.0	105.5	107.7	3.0	2.4	2.1	2.1	1.7	2.0	2.4	2.4	1.7	1.3
Net exports [6]	.	.	.	– 0.6	0.3	– 0.4	0.8	0.1	0.6	– 1.1	– 1.3	– 0.7	– 1.1
Exports	102.4	107.4	109.7	2.4	4.9	2.1	5.2	3.0	4.4	1.3	– 0.1	2.1	– 0.8
Imports	104.3	109.8	113.7	4.3	5.2	3.6	4.3	3.4	3.7	4.3	3.1	4.3	1.8
Gross domestic product [2]	102.2	104.8	106.4	2.2	2.5	1.5	2.8	1.6	2.5	1.1	0.9	0.8	0.0
At current prices (€ billion)													
III. Use of domestic product													
Private consumption [3]	1,649.8	1,697.0	1,743.7	3.0	2.9	2.8	2.5	3.1	2.8	2.2	3.0	2.2	3.1
Government consumption	620.0	644.3	665.6	4.6	3.9	3.3	4.3	3.3	3.7	3.3	3.0	4.0	4.1
Machinery and equipment	214.1	224.2	235.3	3.5	4.7	4.9	5.9	5.2	6.4	4.1	4.2	3.6	2.5
Premises	307.9	320.7	344.3	5.7	4.2	7.3	3.9	4.8	7.2	7.8	9.3	12.0	7.1
Other investment [4]	114.4	121.0	128.1	6.1	5.8	5.9	8.4	5.5	6.2	6.6	5.5	4.7	4.4
Changes in inventories [5]	– 2.9	7.4	21.3	.	.	.	.	.	.	.	.	.	.
Domestic use	2,903.3	3,014.5	3,138.3	3.7	3.8	4.1	3.9	3.4	3.9	4.2	4.8	3.6	3.3
Net exports	230.8	230.4	206.1	.	.	.	.	.	.	.	.	.	.
Exports	1,442.4	1,538.0	1,585.8	1.6	6.6	3.1	6.3	3.2	4.8	2.9	1.6	3.5	0.1
Imports	1,211.6	1,307.6	1,379.7	1.8	7.9	5.5	6.0	3.6	4.9	7.6	5.9	5.5	2.6
Gross domestic product [2]	3,134.1	3,245.0	3,344.4	3.4	3.5	3.1	4.2	3.2	4.0	2.3	2.8	2.8	2.1
IV. Prices (2015 = 100)													
Private consumption	100.7	102.2	103.7	0.7	1.5	1.5	1.2	1.2	1.4	1.5	1.7	1.2	1.6
Gross domestic product	101.2	102.2	103.8	1.2	1.0	1.5	1.4	1.6	1.4	1.2	1.9	1.9	2.0
Terms of trade	101.7	100.8	99.9	1.7	– 0.9	– 0.9	– 0.6	– 0.1	– 0.8	– 1.6	– 1.0	0.2	0.2
V. Distribution of national income													
Compensation of employees	1,625.1	1,694.7	1,771.3	3.9	4.3	4.5	4.3	4.5	4.4	4.9	4.3	4.4	4.5
Entrepreneurial and property income	721.0	735.8	731.8	3.8	2.1	– 0.5	4.7	0.8	2.8	– 4.8	– 0.5	– 0.3	– 1.9
National income	2,346.1	2,430.5	2,503.1	3.8	3.6	3.0	4.4	3.3	4.0	1.8	3.0	2.9	2.7
Memo item: Gross national income	3,211.3	3,328.0	3,437.9	3.6	3.6	3.3	4.3	3.4	4.2	2.6	3.0	2.8	2.3

Source: Federal Statistical Office; figures computed in August 2019. **1** Professional, scientific, technical, administration and support service activities. **2** Gross value added plus taxes on products (netted with subsidies on products). **3** Including non-profit institutions serving households. **4** Intellectual property rights (inter alia, computer software and entertainment, literary or artistic originals) and cultivated assets. **5** Including net increase in valuables. **6** Contribution of growth to GDP.

XI. Economic conditions in Germany

2. Output in the production sector*

Adjusted for working-day variations **o**

	Production sector, total	of which: Construction	of which: Energy	of which: Industry Total	of which: by main industrial grouping: Intermediate goods	Capital goods	Durable goods	Non-durable goods	of which: by economic sector: Manufacture of basic metals and fabricated metal products	Manufacture of computers, electronic and optical products and electrical equipment	Machinery and equipment	Motor vehicles, trailers and semi-trailers
	2015 = 100											
% of total **1**	100.00	14.04	6.37	79.59	29.45	36.98	2.27	10.89	10.31	9.95	12.73	14.16
Period												
2015	99.7	99.6	100.0	99.7	99.8	99.7	99.6	99.8	99.8	99.7	99.7	99.6
2016	101.5	105.2	98.5	101.1	100.9	101.3	102.6	101.0	101.6	101.0	99.6	102.1
2017	104.9	108.7	98.9	104.7	104.9	105.0	106.9	103.0	106.2	107.0	104.1	105.2
2018	**2** 105.8	**2** 109.0	97.4	105.9	105.5	106.0	106.1	106.9	107.3	108.9	106.5	103.5
2018 Q2	106.7	110.2	91.0	107.4	107.7	107.5	105.4	106.8	109.7	107.2	104.8	110.6
Q3	106.3	116.1	93.3	105.6	106.7	103.1	104.1	111.4	107.9	110.3	105.1	96.5
Q4	107.7	122.1	99.9	105.8	101.8	109.3	106.3	105.0	104.8	110.3	115.7	97.7
2019 Q1	100.9	92.9	102.4	102.2	104.3	100.8	108.4	100.1	106.5	104.4	100.3	98.0
Q2	102.5	112.4	83.6	102.2	103.2	101.8	103.5	100.3	105.5	103.3	102.4	95.3
2018 Aug. **3**	100.4	110.8	94.8	99.0	102.8	93.0	95.0	110.0	102.9	105.5	98.1	80.4
Sep.	111.2	119.0	91.6	111.4	108.8	112.1	118.8	114.3	111.7	116.5	112.6	108.5
Oct.	110.0	120.3	97.5	109.2	109.2	108.5	112.2	110.9	112.2	112.4	108.7	104.3
Nov.	111.3	122.0	99.0	110.5	107.3	113.5	112.0	108.4	112.0	114.7	113.4	107.8
Dec.	101.8	124.0	103.1	97.8	88.9	105.8	94.8	95.6	90.2	103.7	124.9	80.9
2019 Jan.	92.8	75.1	109.5	94.6	100.1	88.6	100.8	98.5	100.7	97.6	88.3	84.9
Feb.	98.3	92.6	96.6	99.4	100.7	99.4	105.3	94.6	103.1	99.7	97.1	99.5
Mar.	111.7	111.0	101.1	112.7	112.2	114.3	119.1	107.1	115.8	115.8	115.4	109.7
Apr. **x**	101.5	111.6	88.1	100.7	103.5	98.8	102.0	99.5	105.8	101.4	99.4	92.6
May **x**	101.3	109.8	84.2	101.2	102.8	100.0	101.6	100.5	104.1	101.8	98.9	96.2
June **x**	104.6	115.8	78.4	104.7	103.4	106.6	106.8	101.0	106.6	106.6	108.9	97.2
July **3,x**	103.0	121.2	81.7	101.5	102.7	100.5	99.9	101.7	104.3	103.2	102.8	90.7
Aug. **3,x,p**	96.4	112.3	79.6	94.9	98.4	90.8	96.0	99.3	97.5	100.9	93.7	77.1
	Annual percentage change											
2015	+ 0.9	– 2.3	+ 5.0	+ 0.4	– 0.1	+ 0.9	+ 2.2	– 0.3	+ 0.1	+ 0.7	– 0.3	– 0.2
2016	+ 1.8	+ 5.6	– 1.5	+ 1.4	+ 1.1	+ 1.6	+ 3.0	+ 1.2	+ 1.8	+ 1.3	– 0.1	+ 2.5
2017	+ 3.3	+ 3.3	+ 0.4	+ 3.6	+ 4.0	+ 3.7	+ 4.2	+ 2.0	+ 4.5	+ 5.9	+ 4.5	+ 3.0
2018	**2** + 0.9	**2** + 0.3	– 1.5	+ 1.1	+ 0.6	+ 1.0	– 0.7	+ 3.8	+ 1.0	+ 1.8	+ 2.3	– 1.6
2018 Q2	+ 2.2	– 0.8	– 3.0	+ 3.2	+ 2.1	+ 3.3	– 0.2	+ 6.4	+ 2.5	+ 2.5	+ 2.9	+ 4.4
Q3	– 0.2	– 0.5	+ 0.9	– 0.2	– 0.7	– 1.5	– 2.0	+ 5.9	+ 0.2	+ 0.7	+ 2.0	– 8.3
Q4	– 2.0	– 0.1	– 4.6	– 2.2	– 2.6	– 1.8	– 3.0	– 2.0	– 1.8	– 1.2	– 0.1	– 6.7
2019 Q1	– 1.6	+ 6.2	– 2.9	– 2.6	– 1.4	– 3.2	– 0.3	– 4.1	– 0.3	– 3.4	– 0.2	– 10.2
Q2	– 4.0	+ 2.0	– 8.2	– 4.8	– 4.1	– 5.3	– 1.8	– 6.0	– 3.8	– 3.6	– 2.3	– 13.8
2018 Aug. **3**	– 0.8	– 1.4	+ 1.9	– 0.9	– 0.7	– 3.5	– 3.3	+ 7.2	+ 0.7	+ 1.2	+ 3.4	– 16.0
Sep.	– 0.3	+ 0.6	– 1.5	– 0.4	– 1.3	– 1.3	– 0.2	+ 5.4	– 0.7	+ 1.3	+ 0.2	– 6.5
Oct.	+ 0.5	– 0.3	– 5.4	+ 1.1	– 0.5	+ 2.1	– 1.5	+ 2.5	+ 0.3	+ 2.6	+ 5.5	– 3.4
Nov.	– 4.1	– 1.1	– 5.1	– 4.4	– 3.9	– 4.9	– 4.8	– 4.2	– 2.6	– 2.3	– 2.2	– 11.9
Dec.	– 2.4	+ 1.1	– 3.5	– 3.1	– 3.8	– 2.2	– 2.4	– 4.2	– 3.2	– 3.9	– 2.9	– 3.3
2019 Jan.	– 2.8	– 0.5	+ 2.8	– 3.7	– 2.1	– 5.3	– 1.2	– 3.8	– 0.4	– 3.9	+ 0.6	– 14.2
Feb.	– 0.4	+ 11.4	– 5.3	– 1.8	– 1.7	– 1.1	– 0.4	– 4.4	– 1.2	– 4.2	+ 0.1	– 5.1
Mar.	– 1.5	+ 6.8	– 6.4	– 2.3	– 0.7	– 3.4	+ 0.4	– 4.0	+ 0.7	– 2.1	– 0.9	– 11.2
Apr. **x**	– 2.8	+ 5.0	– 5.4	– 4.1	– 2.1	– 6.3	– 1.2	– 2.8	– 2.1	– 2.1	– 0.8	– 17.4
May **x**	– 4.4	– 1.0	– 7.2	– 4.9	– 4.7	– 4.4	– 1.1	– 7.7	– 4.5	– 3.5	– 2.7	– 10.9
June **x**	– 4.7	+ 2.0	– 12.1	– 5.5	– 5.6	– 5.2	– 3.1	– 7.3	– 4.7	– 5.2	– 3.2	– 13.1
July **3,x**	– 3.9	+ 2.4	– 12.6	– 4.6	– 5.3	– 3.6	+ 1.5	– 7.5	– 4.5	– 5.2	– 1.8	– 9.8
Aug. **3,x,p**	– 4.0	+ 1.4	– 16.0	– 4.1	– 4.3	– 2.4	+ 1.1	– 9.7	– 5.2	– 4.4	– 4.5	– 4.1

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. **o** 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** As of January 2018 weights in structural and civil engineering work corrected by the Federal Statistical Office. **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

3. Orders received by industry *

Adjusted for working-day variations o

Period	Industry		of which: Intermediate goods		Capital goods		Consumer goods		of which: Durable goods		Non-durable goods	
	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change
Total												
2014	97.8	+ 2.7	100.6	+ 0.6	96.2	+ 3.9	96.8	+ 4.6	95.8	+ 0.6	97.1	+ 5.9
2015	99.8	+ 2.0	99.8	– 0.8	99.8	+ 3.7	99.8	+ 3.1	99.7	+ 4.1	99.8	+ 2.8
2016	100.7	+ 0.9	98.9	– 0.9	101.8	+ 2.0	100.6	+ 0.8	105.3	+ 5.6	99.1	– 0.7
2017	108.6	+ 7.8	109.4	+ 10.6	108.5	+ 6.6	105.7	+ 5.1	116.5	+ 10.6	102.2	+ 3.1
2018	110.5	+ 1.7	111.5	+ 1.9	109.9	+ 1.3	110.0	+ 4.1	118.9	+ 2.1	107.1	+ 4.8
2018 Aug.	98.9	– 0.1	103.2	– 1.6	94.7	+ 0.6	109.9	+ 1.9	116.7	+ 1.2	107.6	+ 1.9
Sep.	109.7	– 0.5	109.2	+ 0.3	109.6	– 2.0	113.1	+ 5.7	125.4	– 0.6	109.1	+ 8.3
Oct.	111.6	– 1.1	113.9	+ 0.4	110.7	– 1.9	108.9	– 0.6	127.4	– 0.4	102.8	– 0.8
Nov.	112.4	– 2.1	111.3	– 5.8	114.0	+ 0.8	105.7	– 5.2	121.6	– 6.2	100.4	– 4.7
Dec.	111.6	– 3.1	96.8	– 6.4	122.8	– 1.9	95.8	+ 1.5	109.6	+ 0.9	91.3	+ 1.8
2019 Jan.	108.0	– 2.4	110.0	– 5.0	106.8	– 0.6	108.3	– 3.0	118.6	+ 3.7	104.9	– 5.2
Feb.	102.8	– 7.0	104.5	– 5.0	101.4	– 8.5	106.5	– 4.7	114.9	+ 3.5	103.8	– 7.3
Mar.	115.9	– 4.7	113.9	– 6.0	117.3	– 4.2	115.5	– 0.4	131.2	+ 6.8	110.4	– 2.9
Apr.	104.3	– 4.1	104.9	– 8.5	103.6	– 1.9	105.9	+ 1.0	115.6	+ 1.7	102.8	+ 1.0
May	101.2	– 7.7	102.1	– 9.7	100.3	– 7.0	104.2	– 2.3	113.7	– 6.0	101.0	– 0.9
June	108.9	– 3.0	105.1	– 8.3	111.4	+ 0.9	107.6	– 6.6	120.6	– 1.6	103.3	– 8.4
July	103.0	– 4.5	102.2	– 10.0	102.7	± 0.0	109.8	– 9.0	120.9	+ 0.8	106.2	– 12.2
Aug. p	92.8	– 6.2	94.5	– 8.4	90.5	– 4.4	102.9	– 6.4	118.5	+ 1.5	97.7	– 9.2
From the domestic market												
2014	98.1	+ 1.1	101.7	– 1.1	95.2	+ 3.1	97.1	+ 2.0	100.4	± 0.0	96.0	+ 2.8
2015	99.8	+ 1.7	99.8	– 1.9	99.7	+ 4.7	99.8	+ 2.8	99.7	– 0.7	99.8	+ 4.0
2016	99.8	± 0.0	97.6	– 2.2	101.9	+ 2.2	98.1	– 1.7	103.1	+ 3.4	96.3	– 3.5
2017	107.0	+ 7.2	107.1	+ 9.7	107.8	+ 5.8	101.6	+ 3.6	108.6	+ 5.3	99.3	+ 3.1
2018	107.2	+ 0.2	108.6	+ 1.4	106.6	– 1.1	102.9	+ 1.3	114.7	+ 5.6	98.9	– 0.4
2018 Aug.	97.6	– 3.6	101.5	– 5.1	93.5	– 2.0	103.1	– 3.0	114.8	+ 3.5	99.2	– 5.3
Sep.	107.8	+ 0.3	107.5	+ 1.5	109.2	– 0.2	100.7	– 3.6	119.1	– 1.6	94.5	– 4.4
Oct.	106.8	– 3.7	110.4	– 1.7	103.7	– 5.8	107.4	– 1.1	120.5	– 6.2	102.9	+ 1.1
Nov.	112.2	– 0.4	111.0	– 2.7	113.8	+ 1.9	108.2	– 3.0	121.3	– 1.5	103.8	– 3.6
Dec.	101.4	+ 0.1	91.6	– 6.9	111.3	+ 4.9	90.9	+ 5.5	99.0	+ 11.2	88.1	+ 3.4
2019 Jan.	107.2	– 0.6	106.3	– 6.2	108.9	+ 4.7	101.1	– 1.2	109.3	+ 1.8	98.3	– 2.3
Feb.	104.3	– 0.6	102.6	– 4.3	105.4	+ 2.1	106.9	+ 3.0	112.6	+ 4.2	105.0	+ 2.5
Mar.	112.3	– 6.2	109.4	– 8.5	115.2	– 5.3	109.7	+ 1.5	134.6	+ 10.9	101.3	– 2.2
Apr.	100.1	– 4.0	100.3	– 7.0	100.3	– 2.1	97.4	+ 0.7	111.9	– 1.2	92.5	+ 1.5
May	99.3	– 6.3	99.6	– 8.6	99.4	– 3.9	96.8	– 8.6	105.9	– 16.8	93.7	– 5.1
June	101.3	– 5.9	99.6	– 10.2	103.3	– 2.4	97.6	– 3.9	104.4	– 9.6	95.3	– 1.7
July	102.4	– 6.6	100.4	– 11.1	103.9	– 3.1	103.5	– 2.6	112.6	+ 3.4	100.4	– 4.7
Aug. p	91.0	– 6.8	91.3	– 10.0	90.1	– 3.6	95.7	– 7.2	103.2	– 10.1	93.1	– 6.1
From abroad												
2014	97.5	+ 3.8	99.5	+ 2.5	96.7	+ 4.2	96.5	+ 6.6	92.0	+ 1.1	97.9	+ 8.3
2015	99.8	+ 2.4	99.8	+ 0.3	99.8	+ 3.2	99.8	+ 3.4	99.8	+ 8.5	99.8	+ 1.9
2016	101.5	+ 1.7	100.4	+ 0.6	101.9	+ 2.1	102.6	+ 2.8	107.0	+ 7.2	101.1	+ 1.3
2017	109.8	+ 8.2	111.9	+ 11.5	108.9	+ 6.9	108.9	+ 6.1	122.8	+ 14.8	104.4	+ 3.3
2018	113.0	+ 2.9	114.6	+ 2.4	111.9	+ 2.8	115.5	+ 6.1	122.2	– 0.5	113.3	+ 8.5
2018 Aug.	99.8	+ 2.6	105.1	+ 2.4	95.5	+ 2.4	115.1	+ 5.4	118.3	– 0.4	114.1	+ 7.4
Sep.	111.2	– 1.2	111.0	– 1.0	109.9	– 2.9	122.8	+ 12.7	130.5	+ 0.2	120.3	+ 17.8
Oct.	115.3	+ 1.0	117.6	+ 2.3	114.9	+ 0.4	110.1	– 0.2	133.0	+ 4.4	102.7	– 2.1
Nov.	112.6	– 3.3	111.7	– 9.0	114.1	+ 0.2	103.7	– 6.9	121.9	– 9.8	97.8	– 5.7
Dec.	119.4	– 5.0	102.5	– 5.8	129.8	– 5.0	99.6	– 1.2	118.1	– 5.0	93.7	+ 0.5
2019 Jan.	108.6	– 3.7	113.9	– 3.9	105.5	– 3.6	113.9	– 4.2	126.1	+ 5.0	110.0	– 7.2
Feb.	101.7	– 11.4	106.5	– 5.8	99.0	– 14.1	106.2	– 9.9	116.7	+ 2.9	102.9	– 13.8
Mar.	118.7	– 3.5	118.7	– 3.6	118.5	– 3.7	120.0	– 1.8	128.4	+ 3.5	117.3	– 3.5
Apr.	107.4	– 4.3	109.8	– 10.1	105.6	– 1.9	112.5	+ 1.4	118.6	+ 3.9	110.6	+ 0.5
May	102.7	– 8.6	104.8	– 10.9	100.9	– 8.8	109.9	+ 2.6	120.0	+ 3.5	106.6	+ 2.2
June	114.7	– 0.9	111.1	– 6.3	116.3	+ 2.7	115.3	– 8.3	133.6	+ 4.1	109.5	– 12.4
July	103.5	– 2.9	104.2	– 8.8	101.9	+ 1.9	114.7	– 13.0	127.6	– 1.0	110.6	– 16.7
Aug. p	94.2	– 5.6	98.0	– 6.8	90.7	– 5.0	108.4	– 5.8	130.8	+ 10.6	101.2	– 11.3

Source of the unadjusted figures: Federal Statistical Office. * At current prices; for explanatory notes, see Statistical Supplement 4 – Seasonally adjusted business statistics, Tables II.14 to II.16. o Using JDemetra+ 2.2.1 (X13).

XI. Economic conditions in Germany

4. Orders received by construction *

Adjusted for working-day variations o

Period	Total		Breakdown by type of construction										Breakdown by client 1			
			Building													
	Total		Total		Housing construction		Industrial construction		Public sector construction		Civil engineering		Industry		Public sector 2	
	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change
2015	99.9	+ 4.7	99.9	+ 4.9	99.9	+ 12.9	99.9	– 2.1	99.8	+ 8.7	99.9	+ 4.5	99.9	+ 0.7	99.8	+ 4.9
2016	114.4	+ 14.5	115.0	+ 15.1	116.9	+ 17.0	114.9	+ 15.0	108.8	+ 9.0	113.7	+ 13.8	111.7	+ 11.8	116.0	+ 16.2
2017	122.4	+ 7.0	123.1	+ 7.0	123.0	+ 5.2	123.4	+ 7.4	121.8	+ 11.9	121.6	+ 6.9	119.8	+ 7.3	125.0	+ 7.8
2018	134.7	+ 10.0	131.2	+ 6.6	136.6	+ 11.1	127.9	+ 3.6	125.2	+ 2.8	138.8	+ 14.1	135.7	+ 13.3	132.5	+ 6.0
2018 July	142.2	+ 7.3	142.1	+ 12.4	142.3	+ 14.9	143.8	+ 11.0	134.9	+ 10.0	142.4	+ 2.0	144.4	+ 13.7	139.7	– 3.0
Aug.	128.7	+ 10.5	119.8	+ 5.5	125.7	+ 13.2	116.5	+ 2.6	112.3	– 8.5	139.0	+ 16.0	127.3	+ 13.0	132.0	+ 6.4
Sep.	139.7	+ 14.2	143.6	+ 16.9	155.9	+ 28.7	130.4	+ 9.0	152.2	+ 8.5	135.3	+ 11.1	134.8	+ 13.9	135.6	+ 6.2
Oct.	132.1	+ 15.8	128.6	+ 11.6	141.3	+ 14.3	122.2	+ 14.8	110.8	– 7.7	136.1	+ 20.5	134.4	+ 24.0	123.8	+ 7.7
Nov.	128.6	+ 13.9	125.6	+ 6.6	139.5	+ 23.0	117.1	– 6.8	111.8	+ 9.2	131.9	+ 23.0	136.7	+ 10.0	112.5	+ 13.2
Dec.	150.5	+ 12.4	145.7	– 2.1	166.6	+ 12.1	135.1	– 14.2	116.5	– 1.1	156.1	+ 34.0	164.1	+ 15.3	125.2	+ 8.5
2019 Jan.	117.3	+ 18.2	120.8	+ 19.8	123.8	+ 21.3	123.7	+ 19.6	99.7	+ 15.0	113.3	+ 16.3	126.5	+ 19.6	102.8	+ 14.3
Feb.	132.9	+ 7.1	129.4	+ 9.7	119.0	+ 5.5	134.4	+ 7.8	145.1	+ 31.7	137.0	+ 4.4	132.4	– 2.9	141.9	+ 21.3
Mar.	171.7	+ 17.9	163.9	+ 16.8	170.3	+ 22.9	158.4	+ 15.6	163.1	+ 3.2	180.9	+ 19.2	166.5	+ 21.1	178.7	+ 12.2
Apr.	153.1	+ 12.7	149.0	+ 14.0	149.8	+ 6.2	151.6	+ 20.5	136.8	+ 19.6	157.9	+ 11.4	145.5	+ 14.6	163.9	+ 14.8
May	147.7	+ 3.4	144.6	+ 5.6	146.8	+ 12.3	148.8	+ 4.1	121.6	– 9.9	151.4	+ 1.2	148.0	+ 3.7	148.0	– 1.5
June	162.2	+ 10.3	161.7	+ 14.1	158.3	+ 11.1	164.1	+ 20.6	164.0	+ 2.7	162.8	+ 6.1	166.2	+ 21.5	159.9	– 1.1
July	153.8	+ 8.2	147.8	+ 4.0	154.6	+ 8.6	141.8	– 1.4	147.9	+ 9.6	160.8	+ 12.9	152.2	+ 5.4	155.2	+ 11.1

Source of the unadjusted figures: Federal Statistical Office. * At current prices; excluding value added tax; for explanatory notes, see Statistical Supplement – Seasonally adjusted business statistics, Table II.21. o Using JDemetra+ 2.2.1 (X13). 1 Excluding housing construction orders. 2 Including road construction.

5. Retail trade turnover *

Adjusted for calendar variations o

Period	Total				of which:											
					In stores by enterprises main product range										Retail sale via mail order houses or via internet as well as other retail sale 2	
					Food, beverages, tobacco 1		Textiles, clothing, foodwear and leather goods		Information and communications equipment		Construction and flooring materials, household appliances, furniture		Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles			
	At current prices		At 2015 prices		At current prices											
	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change
2015	3 100.1	+ 3.7	3 100.1	+ 3.8	100.1	+ 2.9	100.2	+ 0.3	100.2	+ 1.0	100.2	+ 2.7	100.0	+ 5.3	3 100.0	+ 20.0
2016	102.5	+ 2.4	102.2	+ 2.1	101.7	+ 1.6	101.0	+ 0.8	99.9	– 0.3	101.5	+ 1.3	103.9	+ 3.9	109.8	+ 9.8
2017	107.6	+ 5.0	105.8	+ 3.5	105.9	+ 4.1	108.2	+ 7.1	106.2	+ 6.3	103.0	+ 1.5	107.7	+ 3.7	120.4	+ 9.7
2018 4	110.6	+ 2.8	107.4	+ 1.5	109.6	+ 3.5	105.5	– 2.5	107.0	+ 0.8	103.0	± 0.0	112.3	+ 4.3	127.7	+ 6.1
2018 Aug.	106.6	+ 3.5	103.9	+ 2.0	107.3	+ 3.3	98.4	– 1.1	97.1	± 0.0	96.4	– 0.7	109.9	+ 5.5	116.6	+ 5.7
Sep.	107.8	+ 1.9	103.9	+ 0.2	105.6	+ 2.7	108.6	– 8.4	108.0	+ 5.4	98.9	– 0.3	110.5	+ 4.2	125.5	+ 7.4
Oct.	114.3	+ 3.6	110.0	+ 2.0	110.7	+ 4.3	116.2	– 2.3	107.6	– 1.5	108.2	– 0.6	115.2	+ 5.8	136.9	+ 12.5
Nov.	118.9	+ 3.5	114.6	+ 2.0	109.3	+ 0.9	112.1	– 0.3	131.5	+ 6.9	112.1	+ 2.1	118.0	+ 4.1	162.6	+ 7.7
Dec.	128.7	– 0.5	125.0	– 1.3	126.4	+ 0.6	121.9	– 4.7	157.2	– 2.8	109.6	– 2.3	124.3	+ 0.8	153.8	– 0.4
2019 Jan.	103.8	+ 3.8	101.3	+ 3.2	102.1	+ 3.0	87.5	– 2.5	112.0	+ 1.9	92.1	+ 2.0	113.4	+ 5.4	130.6	+ 9.9
Feb.	101.5	+ 5.5	98.6	+ 4.7	101.3	+ 3.1	82.6	+ 5.4	94.1	+ 1.8	94.5	+ 4.8	110.0	+ 6.0	120.3	+ 11.4
Mar.	115.7	+ 4.4	112.1	+ 4.0	114.0	+ 3.4	104.2	+ 4.1	105.7	+ 1.7	114.9	+ 7.4	117.3	+ 4.2	133.6	+ 6.0
Apr.	114.9	+ 1.6	110.6	+ 0.9	113.2	+ 0.4	109.9	– 8.1	93.7	+ 3.2	114.8	+ 1.1	116.3	+ 3.4	134.4	+ 9.0
May	113.3	+ 2.3	108.9	+ 1.7	111.7	– 0.7	103.1	– 5.7	94.2	+ 5.6	110.3	+ 4.2	115.5	+ 7.0	127.8	+ 5.7
June	114.9	+ 4.6	110.8	+ 3.9	115.6	+ 3.4	116.5	+ 9.3	97.2	– 2.5	106.5	+ 4.8	114.4	+ 4.5	132.1	+ 14.4
July	115.1	+ 4.1	111.4	+ 2.9	113.7	+ 2.7	105.3	± 0.0	95.4	– 0.7	108.5	+ 5.8	118.9	+ 2.9	136.6	+ 10.2
Aug.	110.6	+ 3.8	107.1	+ 3.1	110.7	+ 3.2	100.2	+ 1.8	101.5	+ 4.5	100.9	+ 4.7	113.4	+ 3.2	123.9	+ 6.3

Source of the unadjusted figures: Federal Statistical Office. * Excluding value added tax; for explanatory notes, see Statistical Supplement 4 – Seasonally adjusted business statistics, Table II.24. o Using the Census X-12-ARIMA method, version 0.2.8. 1 Including stalls and markets. 2 Not in stores, stalls or markets. 3 As of May 2015 integration of a larger online retail sales-based enterprise that founded a business establishment in Germany in May 2015. 4 As of January 2018 figures are provisional, in some cases revised, and particularly uncertain in recent months due to estimates for missing reports.

XI. Economic conditions in Germany

6. Labour market *

Period	Employment 1		Employment subject to social contributions 2					Solely jobs exempt from social contributions 2	Short-time workers 3		Unemployment 4		Unemployment rate 4, 5 in %	Vacancies, 4, 6 thousands
			Total		of which:					of which:		of which:		
	Thousands	Annual percentage change	Thousands	Annual percentage change	Production sector	Services excluding temporary employment	Temporary employment		Total	Cyclically induced	Total	Assigned to the legal category of the Third Book of the Social Security Code (SGB III)		
					Thousands									
2014	42,721	+ 0.9	30,197	+ 1.6	8,860	20,332	770	5,029	134	49	2,898	933	6.7	490
2015	43,122	+ 0.9	30,823	+ 2.1	8,938	20,840	806	4,856	130	44	2,795	859	6.4	569
2016	43,655	+ 1.2	31,508	+ 2.2	9,028	21,407	834	4,804	128	42	2,691	822	6.1	655
2017	44,248	+ 1.4	32,234	+ 2.3	9,146	21,980	868	4,742	114	24	2,533 7	855	5.7	731
2018	44,854	+ 1.4	32,964	+ 2.3	9,349	22,532	840	4,671	118	25	2,340	802	5.2	796
2016 Q3	43,830	+ 1.2	31,593	+ 2.1	9,056	21,431	858	4,827	46	35	2,651	808	6.0	682
Q4	44,091	+ 1.3	32,014	+ 2.2	9,137	21,770	866	4,781	93	36	2,547	766	5.8	677
2017 Q1	43,720	+ 1.4	31,790	+ 2.3	9,040	21,697	830	4,728	307	41	2,734 7	987	6.2	671
Q2	44,153	+ 1.3	32,064	+ 2.3	9,110	21,857	852	4,762	36	25	2,513	822	5.6	717
Q3	44,436	+ 1.4	32,324	+ 2.3	9,172	22,011	892	4,766	28	16	2,504	833	5.6	763
Q4	44,684	+ 1.3	32,759	+ 2.3	9,263	22,354	900	4,711	82	15	2,381	780	5.3	771
2018 Q1	44,380	+ 1.5	32,563	+ 2.4	9,214	22,279	843	4,664	325	24	2,525	909	5.7	760
Q2	44,776	+ 1.4	32,802	+ 2.3	9,296	22,414	843	4,701	23	14	2,325	760	5.1	794
Q3	45,016	+ 1.3	33,040	+ 2.2	9,387	22,546	855	4,694	35	27	2,311	784	5.1	828
Q4	45,244	+ 1.3	33,452	+ 2.1	9,498	22,890	819	4,627	88	35	2,200	755	4.9	804
2019 Q1	44,887	+ 1.1	33,214	+ 2.0	9,419	22,803	761	4,581	303	34	2,360	892	5.2	780
Q2	8 45,211	8 + 1.0	9 33,381	9 + 1.8	9 9,455	9 22,928	9 750	9 4,618	...	9 46	10 2,227	778	10,11 4.9	795
Q3	...	...	...	...	...	...	...	...	...	...	...	827	5.0	794
2016 May	43,591	+ 1.2	31,410	+ 2.3	9,000	21,337	826	4,838	57	45	2,664	774	6.0	655
June	43,703	+ 1.2	31,443	+ 2.2	9,010	21,339	846	4,865	54	42	2,614	754	5.9	665
July	43,697	+ 1.1	31,378	+ 2.1	9,007	21,273	853	4,863	43	31	2,661	805	6.0	674
Aug.	43,768	+ 1.2	31,675	+ 2.2	9,076	21,486	865	4,802	50	38	2,684	830	6.1	685
Sep.	44,024	+ 1.2	32,007	+ 2.2	9,157	21,729	869	4,768	46	35	2,608	787	5.9	687
Oct.	44,102	+ 1.2	32,045	+ 2.2	9,154	21,773	871	4,767	50	39	2,540	756	5.8	691
Nov.	44,154	+ 1.2	32,069	+ 2.2	9,147	21,807	876	4,794	52	40	2,532	756	5.7	681
Dec.	44,016	+ 1.3	31,848	+ 2.2	9,063	21,731	835	4,794	178	30	2,568	785	5.8	658
2017 Jan.	43,640	+ 1.4	31,707	+ 2.3	9,017	21,648	825	4,719	370	43	2,777 7	1,010	6.3	647
Feb.	43,692	+ 1.4	31,774	+ 2.3	9,032	21,690	828	4,706	335	42	2,762	1,014	6.3	675
Mar.	43,829	+ 1.4	31,930	+ 2.3	9,078	21,777	838	4,722	216	40	2,662	935	6.0	692
Apr.	43,999	+ 1.4	32,013	+ 2.2	9,101	21,831	838	4,748	39	27	2,569	861	5.8	706
May	44,168	+ 1.3	32,131	+ 2.3	9,124	21,900	859	4,775	36	25	2,498	810	5.6	714
June	44,291	+ 1.3	32,165	+ 2.3	9,135	21,902	878	4,802	33	22	2,473	796	5.5	731
July	44,330	+ 1.4	32,128	+ 2.4	9,123	21,869	890	4,803	30	18	2,518	842	5.6	750
Aug.	44,371	+ 1.4	32,396	+ 2.3	9,189	22,060	896	4,739	28	15	2,545	855	5.7	765
Sep.	44,606	+ 1.3	32,732	+ 2.3	9,272	22,304	901	4,711	28	16	2,449	800	5.5	773
Oct.	44,678	+ 1.3	32,778	+ 2.3	9,274	22,355	901	4,696	27	16	2,389	772	5.4	780
Nov.	44,749	+ 1.3	32,830	+ 2.4	9,278	22,395	916	4,720	26	16	2,368	772	5.3	772
Dec.	44,625	+ 1.4	32,609	+ 2.4	9,202	22,319	867	4,722	194	12	2,385	796	5.3	761
2018 Jan.	44,326	+ 1.6	32,504	+ 2.5	9,191	22,249	841	4,660	287	23	2,570	941	5.8	736
Feb.	44,358	+ 1.5	32,551	+ 2.4	9,223	22,262	838	4,642	359	23	2,546	927	5.7	764
Mar.	44,456	+ 1.4	32,660	+ 2.3	9,253	22,334	837	4,656	327	27	2,458	859	5.5	778
Apr.	44,632	+ 1.4	32,782	+ 2.4	9,291	22,404	840	4,686	23	13	2,384	796	5.3	784
May	44,812	+ 1.5	32,857	+ 2.3	9,310	22,450	845	4,718	21	12	2,315	751	5.1	793
June	44,885	+ 1.3	32,870	+ 2.2	9,325	22,439	853	4,742	25	16	2,276	735	5.0	805
July	44,918	+ 1.3	32,844	+ 2.2	9,339	22,396	860	4,736	22	14	2,325	788	5.1	823
Aug.	44,968	+ 1.3	33,131	+ 2.3	9,412	22,609	856	4,664	41	33	2,351	804	5.2	828
Sep.	45,161	+ 1.2	33,422	+ 2.1	9,496	22,827	842	4,619	42	34	2,256	759	5.0	834
Oct.	45,249	+ 1.3	33,488	+ 2.2	9,515	22,895	827	4,616	46	37	2,204	742	4.9	824
Nov.	45,312	+ 1.3	33,513	+ 2.1	9,513	22,934	822	4,638	51	43	2,186	745	4.8	807
Dec.	45,170	+ 1.2	33,286	+ 2.1	9,434	22,854	773	4,637	166	26	2,210	777	4.9	781
2019 Jan.	44,839	+ 1.2	33,156	+ 2.0	9,405	22,762	763	4,574	354	42	2,406	919	5.3	758
Feb.	44,870	+ 1.2	33,199	+ 2.0	9,416	22,794	758	4,564	310	29	2,373	908	5.3	784
Mar.	44,951	+ 1.1	33,286	+ 1.9	9,442	22,855	749	4,574	246	32	2,301	850	5.1	797
Apr.	45,097	+ 1.0	9 33,376	9 + 1.8	9 9,456	9 22,920	9 752	9 4,610	...	9 41	2,229	795	4.9	796
May	45,240	+ 1.0	9 33,424	9 + 1.7	9 9,460	9 22,963	9 748	9 4,631	...	9 48	10 2,236	772	10,11 4.9	792
June	8 45,295	8 + 0.9	9 33,402	9 + 1.6	9 9,454	9 22,946	9 749	9 4,649	...	9 47	2,216	766	4.9	798
July	8 45,292	8 + 0.8	9 33,354	9 + 1.6	9 9,451	9 22,897	9 756	9 4,656	...	9 43	2,275	825	5.0	799
Aug.	8 45,301	8 + 0.7	...	...	...	...	...	...	...	...	2,319	848	5.1	795
Sep.	...	...	...	...	...	...	...	...	...	...	2,234	808	4.9	787

Sources: Federal Statistical Office; Federal Employment Agency. * Annual and quarterly figures: averages; calculated by the Bundesbank; deviations from the official figures are due to rounding. **1** Workplace concept; averages. **2** Monthly figures: end of month. **3** Number within a given month. **4** Mid-month level. **5** Relative to the total civilian labour force. **6** Excluding government-assisted forms of employment and seasonal jobs, including jobs located abroad. **7** From January 2017 persons receiving additional income assistance (unemployment benefit and unemployment benefit II at the same time) shall be assigned to the legal category of the Third Book the basis of the Social Security Code (SGB III) **8** Initial preliminary estimate by the Federal Statistical Office. **9** Unadjusted figures estimated by the Federal Employment Agency. In 2017 and 2018, the estimated values for Germany deviated from the final data by a maximum of 0.2 % for employees subject to social contributions, by a maximum of 0.4 % for persons solely in jobs exempt from social contributions, and by a maximum of 70.0 % for cyclically induced short-time work. **10** Statistical break due to late recording of unemployed persons in the legal category of the Second Book of the Social Security Code (SGB II). **11** From May 2019, calculated on the basis of new labour force figures.

XI. Economic conditions in Germany

7. Prices

Period	Harmonised Index of Consumer Prices						Memo item: Consumer price index (national concept)	Construction price index	Index of producer prices of industrial products sold on the domestic market 6	Index of producer prices of agricultural products 6	Indices of foreign trade prices		HWWI Index of World Market Prices of Raw Materials 7	
		of which: 1				of which:								
	Total 2	Food 3	Non-energy industrial goods 4	Energy 4, 5	Services 2, 4	Actual rents for housing					Exports	Imports	Energy 8	Other raw materials 9
	2015 = 100													
Index level														
2015	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2016	100.4	101.3	101.0	94.6	101.1	101.2	100.5	101.9	98.4	98.7	99.0	96.7	83.2	98.4
2017	102.1	104.0	102.2	97.5	102.5	102.9	102.0	105.3	101.1	108.6	100.7	100.1	99.6	107.1
2018	104.0	106.7	103.0	102.3	104.2	104.6	103.8	110.2	103.7	109.0	101.9	102.7	124.6	106.2
2017 Nov.	102.0	104.8	103.1	98.7	101.3	103.5	102.1	106.5	101.7	109.4	100.8	100.6	110.3	103.8
Dec.	102.7	105.5	102.7	98.5	102.8	103.6	102.6		101.9	108.9	100.8	100.8	113.7	103.6
2018 Jan.	101.7	106.2	101.7	98.9	100.8	103.9	102.0		102.4	105.2	101.1	101.4	115.9	105.4
Feb.	102.2	106.2	102.1	98.5	101.9	104.0	102.3	108.3	102.3	104.8	101.0	100.9	108.7	106.0
Mar.	103.0	106.4	103.1	97.9	102.9	104.1	102.9		102.4	105.8	101.1	100.8	109.5	104.9
Apr.	103.2	106.8	103.3	99.5	102.8	104.3	103.1		102.8	105.6	101.3	101.4	116.7	106.1
May	104.3	106.9	103.2	101.9	104.6	104.4	103.9	109.4	103.3	104.4	101.8	102.9	129.9	112.5
June	104.4	106.9	102.8	102.4	104.9	104.5	104.0		103.7	104.6	102.1	103.4	130.5	111.3
July	105.2	106.6	101.7	102.3	107.4	104.7	104.4		103.9	107.1	102.2	103.3	129.9	105.8
Aug.	105.2	106.4	102.3	103.1	107.0	104.8	104.5	111.0	104.2	110.5	102.4	103.3	130.5	105.7
Sep.	105.3	107.1	103.8	105.1	105.6	104.9	104.7		104.7	111.6	102.4	103.7	140.8	102.7
Oct.	105.4	107.1	104.1	106.1	105.5	105.0	104.9		105.0	111.4	102.6	104.7	144.7	105.5
Nov.	104.2	107.0	104.1	108.0	102.4	105.1	104.2	112.0	105.1	111.7	102.5	103.7	123.7	105.2
Dec.	104.4	107.0	103.8	103.5	104.0	105.2	104.2		104.7	111.6	102.1	102.4	111.4	103.2
2019 Jan.	103.4	107.4	102.9	101.5	102.9	105.4	103.4		105.1	10 111.5	102.2	102.2	112.3	104.4
Feb.	103.9	107.9	103.4	101.7	103.6	105.6	103.8	114.0	105.0	112.1	102.3	102.5	114.3	109.4
Mar.	104.4	107.7	103.9	102.4	104.1	105.7	104.2		104.9	113.0	102.4	102.5	115.2	108.3
Apr.	105.4	107.9	104.6	104.4	105.3	105.8	105.2		105.4	115.5	102.6	102.8	119.2	108.8
May	105.7	108.3	104.6	106.1	105.3	105.9	105.4	115.0	105.3	115.7	102.5	102.7	116.6	106.6
June	106.0	108.4	104.1	104.9	106.6	106.1	105.7		104.9	115.1	102.3	101.3	102.8	108.6
July	106.4	108.7	103.3	104.7	107.9	106.2	106.2		105.0	114.3	102.4	101.1	105.7	113.0
Aug.	106.3	108.8	103.4	103.8	107.8	106.3	106.0	115.8	104.5	112.5	102.3	100.5	100.2	106.0
Sep.	106.2	108.8	104.7	103.8	106.9	106.4	106.0		...	...	...	...	105.9	107.5
Annual percentage change														
2015	+ 0.7	+ 1.2	+ 0.8	– 7.0	+ 2.5	+ 1.2	+ 0.5	+ 1.4	– 1.9	– 5.3	+ 0.9	– 2.8	– 30.0	– 7.7
2016	+ 0.4	+ 1.3	+ 1.0	– 5.4	+ 1.1	+ 1.2	+ 0.5	+ 1.9	– 1.6	– 1.3	– 1.0	– 3.3	– 16.8	– 1.6
2017	+ 1.7	+ 2.7	+ 1.2	+ 3.1	+ 1.4	+ 1.7	+ 1.5	+ 3.3	+ 2.7	+ 10.0	+ 1.7	+ 3.5	+ 19.7	+ 8.8
2018	+ 1.9	+ 2.6	+ 0.8	+ 4.9	+ 1.6	+ 1.6	+ 1.8	+ 4.7	+ 2.6	+ 0.4	+ 1.2	+ 2.6	+ 25.1	– 0.8
2017 Nov.	+ 1.7	+ 2.7	+ 1.1	+ 3.7	+ 1.4	+ 1.7	+ 1.6	+ 3.8	+ 2.6	+ 5.8	+ 1.1	+ 2.3	+ 15.6	– 4.3
Dec.	+ 1.5	+ 2.8	+ 1.1	+ 1.2	+ 1.4	+ 1.6	+ 1.4		+ 2.3	+ 3.4	+ 0.5	+ 0.7	+ 6.7	– 9.1
2018 Jan.	+ 1.5	+ 2.9	+ 1.0	+ 0.7	+ 1.3	+ 1.7	+ 1.4		+ 2.1	– 1.0	+ 0.4	+ 0.6	+ 6.4	– 9.1
Feb.	+ 1.2	+ 1.5	+ 1.1	+ 0.1	+ 1.5	+ 1.7	+ 1.1	+ 4.2	+ 1.8	– 2.1	+ 0.1	– 0.5	– 1.4	– 10.8
Mar.	+ 1.7	+ 2.9	+ 0.6	+ 0.4	+ 2.1	+ 1.7	+ 1.5		+ 1.8	– 2.4	+ 0.2	– 0.3	+ 9.8	– 9.9
Apr.	+ 1.3	+ 3.3	+ 0.6	+ 1.2	+ 1.0	+ 1.7	+ 1.3		+ 1.9	– 4.3	+ 0.2	+ 0.4	+ 16.2	– 3.6
May	+ 2.5	+ 3.3	+ 0.5	+ 5.2	+ 2.5	+ 1.6	+ 2.1	+ 4.3	+ 2.5	– 6.5	+ 1.0	+ 2.9	+ 39.5	+ 8.0
June	+ 2.1	+ 3.2	+ 0.8	+ 6.6	+ 1.4	+ 1.6	+ 1.9		+ 2.9	– 6.7	+ 1.5	+ 4.4	+ 52.3	+ 10.9
July	+ 2.2	+ 2.7	+ 0.4	+ 6.7	+ 2.1	+ 1.7	+ 1.9		+ 2.9	– 4.2	+ 1.7	+ 4.8	+ 50.2	+ 2.8
Aug.	+ 2.1	+ 2.5	+ 0.6	+ 7.1	+ 1.7	+ 1.6	+ 1.9	+ 5.0	+ 3.1	– 1.7	+ 2.1	+ 4.8	+ 44.8	+ 2.3
Sep.	+ 2.2	+ 2.9	+ 1.0	+ 7.8	+ 1.5	+ 1.6	+ 1.9		+ 3.2	+ 1.3	+ 1.9	+ 4.4	+ 46.2	– 0.1
Oct.	+ 2.6	+ 2.2	+ 1.0	+ 8.9	+ 2.3	+ 1.6	+ 2.3		+ 3.3	+ 1.6	+ 2.0	+ 4.8	+ 42.4	+ 2.7
Nov.	+ 2.2	+ 2.1	+ 1.0	+ 9.4	+ 1.1	+ 1.5	+ 2.1	+ 5.2	+ 3.3	+ 2.1	+ 1.7	+ 3.1	+ 12.1	+ 1.3
Dec.	+ 1.7	+ 1.4	+ 1.1	+ 5.1	+ 1.2	+ 1.5	+ 1.6		+ 2.7	+ 2.5	+ 1.3	+ 1.6	– 2.0	– 0.4
2019 Jan.	+ 1.7	+ 1.1	+ 1.2	+ 2.6	+ 2.1	+ 1.4	+ 1.4		+ 2.6	10 + 6.0	+ 1.1	+ 0.8	– 3.1	– 0.9
Feb.	+ 1.7	+ 1.6	+ 1.3	+ 3.2	+ 1.7	+ 1.5	+ 1.5	+ 5.3	+ 2.6	+ 7.0	+ 1.3	+ 1.6	+ 5.2	+ 3.2
Mar.	+ 1.4	+ 1.2	+ 0.8	+ 4.6	+ 1.2	+ 1.5	+ 1.3		+ 2.4	+ 6.8	+ 1.3	+ 1.7	+ 5.2	+ 3.2
Apr.	+ 2.1	+ 1.0	+ 1.3	+ 4.9	+ 2.4	+ 1.4	+ 2.0		+ 2.5	+ 9.4	+ 1.3	+ 1.4	+ 2.1	+ 2.5
May	+ 1.3	+ 1.3	+ 1.4	+ 4.1	+ 0.7	+ 1.4	+ 1.4	+ 5.1	+ 1.9	+ 10.8	+ 0.7	– 0.2	– 10.2	– 5.2
June	+ 1.5	+ 1.4	+ 1.3	+ 2.4	+ 1.6	+ 1.5	+ 1.6		+ 1.2	+ 10.0	+ 0.2	– 2.0	– 21.2	– 2.4
July	+ 1.1	+ 2.0	+ 1.6	+ 2.3	+ 0.5	+ 1.4	+ 1.7		+ 1.1	+ 6.7	+ 0.2	– 2.1	– 18.6	+ 6.8
Aug.	+ 1.0	+ 2.3	+ 1.1	+ 0.7	+ 0.7	+ 1.4	+ 1.4	+ 4.3	+ 0.3	+ 1.8	– 0.1	– 2.7	– 23.2	+ 0.3
Sep.	+ 0.9	+ 1.6	+ 0.9	– 1.2	+ 1.2	+ 1.4	+ 1.2		...	...	...	...	– 24.8	+ 4.7

Sources: Eurostat; Federal Statistical Office and Bundesbank calculation based on data from the Federal Statistical Office; for the Index of World Market Prices of Raw Materials: HWWI. **1** Deviations from the official figures are due to rounding. **2** With effect from 2015, methodological changes to the collection of data on the prices of package holidays, impacting until the beginning of the series. **3** Including alcoholic beverages and tobacco. **4** Modified procedure as of 2017 due to calculations on the basis of the five digit structure set out in the European Classification of Individual Consumption according to Purpose (ECOICOP). **5** Electricity, gas and other fuels as well as transport fuels and lubricants, from January 2017 excluding lubricants. **6** Excluding value added tax. **7** For the euro area, in euro. **8** Coal, crude oil (Brent) and natural gas. **9** Food, beverages and tobacco as well as industrial raw materials. **10** From January 2019 onwards provisional figures.

XI. Economic conditions in Germany

8. Households' income *

Period	Gross wages and salaries [1]		Net wages and salaries [2]		Monetary social benefits received [3]		Mass income [4]		Disposable income [5]		Saving [6]		Saving ratio [7]
	€ billion	Annual percentage change	€ billion	Annual percentage change	€ billion	Annual percentage change	€ billion	Annual percentage change	€ billion	Annual percentage change	€ billion	Annual percentage change	As percentage
2011	1,103.5	4.9	746.4	4.0	371.1	– 1.3	1,117.5	2.2	1,628.1	3.3	163.1	0.5	10.0
2012	1,150.0	4.2	776.1	4.0	376.8	1.5	1,152.9	3.2	1,668.4	2.5	161.0	– 1.3	9.7
2013	1,186.3	3.2	799.4	3.0	383.9	1.9	1,183.2	2.6	1,690.8	1.3	157.1	– 2.5	9.3
2014	1,234.2	4.0	830.5	3.9	394.0	2.6	1,224.5	3.5	1,734.5	2.6	170.6	8.6	9.8
2015	1,285.5	4.2	863.3	4.0	410.2	4.1	1,273.5	4.0	1,781.5	2.7	179.2	5.1	10.1
2016	1,337.4	4.0	896.9	3.9	425.6	3.7	1,322.4	3.8	1,836.2	3.1	186.4	4.0	10.2
2017	1,394.0	4.2	932.0	3.9	441.5	3.7	1,373.4	3.9	1,894.4	3.2	197.4	5.9	10.4
2018	1,460.9	4.8	975.5	4.7	451.8	2.3	1,427.3	3.9	1,958.2	3.4	214.5	8.6	11.0
2018 Q1	340.2	4.7	227.6	4.6	113.9	2.1	341.5	3.8	492.5	3.8	70.8	8.1	14.4
Q2	355.8	4.8	232.3	4.6	111.6	2.3	343.9	3.9	482.3	3.4	50.2	9.0	10.4
Q3	361.7	5.1	246.5	5.0	113.6	2.4	360.1	4.2	486.0	2.8	45.1	9.1	9.3
Q4	403.3	4.6	269.0	4.4	112.8	2.5	381.8	3.9	497.5	3.5	48.4	8.7	9.7
2019 Q1	354.7	4.3	238.5	4.8	117.5	3.2	356.0	4.2	503.8	2.3	73.0	3.2	14.5
Q2	371.2	4.3	243.5	4.8	117.1	4.9	360.6	4.9	497.1	3.1	51.8	3.1	10.4

Source: Federal Statistical Office; figures computed in August 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 [1]								Memo item: Wages and salaries per employee [3]	
	On an hourly basis		On a monthly basis							
			Total		Total excluding one-off payments		Basic pay rates [2]			
	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change
2011	90.3	1.7	90.5	1.7	90.4	1.7	90.3	1.7	89.8	3.5
2012	92.7	2.6	92.9	2.6	92.9	2.8	92.8	2.8	92.4	2.9
2013	95.0	2.5	95.1	2.5	95.2	2.5	95.1	2.5	94.4	2.2
2014	97.8	2.9	97.8	2.8	97.8	2.7	97.7	2.7	97.2	3.0
2015	100.0	2.3	100.0	2.2	100.0	2.3	100.0	2.3	100.0	2.9
2016	102.1	2.1	102.1	2.1	102.1	2.1	102.2	2.2	102.5	2.5
2017	104.2	2.1	104.2	2.1	104.3	2.2	104.6	2.3	105.1	2.6
2018	107.2	2.9	107.2	2.9	107.2	2.7	107.4	2.7	108.4	3.1
2018 Q1	99.0	2.3	99.0	2.3	98.9	2.1	106.0	2.2	102.1	2.9
Q2	101.0	3.3	101.0	3.3	100.7	3.0	107.5	3.0	105.9	3.1
Q3	109.6	2.9	109.6	2.9	109.7	2.9	108.0	2.8	107.2	3.6
Q4	119.3	2.9	119.3	2.9	119.2	2.8	108.3	2.8	118.5	3.1
2019 Q1	101.9	2.9	101.9	2.9	101.9	3.0	109.1	3.0	105.0	2.9
Q2	103.0	2.1	103.1	2.1	102.9	2.2	109.9	2.2	109.1	3.1
2019 Feb.	102.1	3.4	102.1	3.4	101.9	3.1	109.1	3.1	.	.
Mar.	101.8	2.2	101.8	2.2	102.0	2.8	109.2	2.8	.	.
Apr.	102.9	2.3	103.0	2.3	103.1	2.5	109.8	2.5	.	.
May	103.0	1.3	103.0	1.3	103.1	2.1	109.8	2.0	.	.
June	103.2	2.6	103.2	2.6	102.6	1.9	110.0	2.0	.	.
July	136.2	7.0	136.1	6.9	131.0	2.8	110.4	2.4	.	.
Aug.	103.4	2.7	103.3	2.6	103.2	2.4	110.5	2.4	.	.

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 August 2019.

XI. Economic conditions in Germany

10. Assets, equity and liabilities of listed non-financial groups *

End of year/half

Period	Assets									Equity and liabilities						
			of which:				of which:				Liabilities					
												Long-term		Short-term		
															of which:	
	Total assets	Non-current assets	Intangible assets	Tangible assets	Financial assets	Current assets	Inventories	Trade receivables	Cash 1	Equity	Total	Total	of which: Financial debt	Total	Financial debt	Trade payables
	Total (€ billion)															
2015	2,226.8	1,395.1	470.7	565.7	273.1	831.8	215.5	190.5	136.1	633.5	1,593.4	861.4	466.2	732.0	222.8	180.3
2016	2,367.7	1,478.1	493.4	595.9	288.9	889.6	226.8	218.0	150.5	672.2	1,695.6	889.3	482.6	806.3	249.1	192.8
2017	2,400.8	1,490.0	500.0	602.9	295.9	910.8	230.6	225.7	158.2	758.8	1,642.0	867.3	496.4	774.7	236.4	195.7
2018 **p,3**	2,595.6	1,539.2	542.4	611.3	290.2	1,056.4	249.5	235.8	175.5	792.4	1,803.2	927.6	560.2	875.6	257.4	205.1
2017 H1	2,385.4	1,471.8	502.9	584.4	288.6	913.5	238.2	220.8	149.9	701.7	1,683.6	888.0	498.3	795.7	246.2	194.9
H2	2,400.8	1,490.0	500.0	602.9	295.9	910.8	230.6	225.7	158.2	758.8	1,642.0	867.3	496.4	774.7	236.4	195.7
2018 H1 **3**	2,551.8	1,533.0	541.7	602.5	289.8	1,018.8	250.1	236.1	143.3	775.6	1,776.2	909.4	541.0	866.7	254.7	210.2
H2 **p**	2,595.6	1,539.2	542.4	611.3	290.2	1,056.4	249.5	235.8	175.5	792.4	1,803.2	927.6	560.2	875.6	257.4	205.1
	As a percentage of total assets															
2015	100.0	62.7	21.1	25.4	12.3	37.4	9.7	8.6	6.1	28.5	71.6	38.7	20.9	32.9	10.0	8.1
2016	100.0	62.4	20.8	25.2	12.2	37.6	9.6	9.2	6.4	28.4	71.6	37.6	20.4	34.1	10.5	8.1
2017	100.0	62.1	20.8	25.1	12.3	37.9	9.6	9.4	6.6	31.6	68.4	36.1	20.7	32.3	9.9	8.2
2018 **p,3**	100.0	59.3	20.9	23.6	11.2	40.7	9.6	9.1	6.8	30.5	69.5	35.7	21.6	33.7	9.9	7.9
2017 H1	100.0	61.7	21.1	24.5	12.1	38.3	10.0	9.3	6.3	29.4	70.6	37.2	20.9	33.4	10.3	8.2
H2	100.0	62.1	20.8	25.1	12.3	37.9	9.6	9.4	6.6	31.6	68.4	36.1	20.7	32.3	9.9	8.2
2018 H1 **3**	100.0	60.1	21.2	23.6	11.4	39.9	9.8	9.3	5.6	30.4	69.6	35.6	21.2	34.0	10.0	8.2
H2 **p**	100.0	59.3	20.9	23.6	11.2	40.7	9.6	9.1	6.8	30.5	69.5	35.7	21.6	33.7	9.9	7.9
	Groups with a focus on the production sector (€ billion) 2															
2015	1,782.4	1,077.8	304.0	447.3	259.0	704.6	198.8	147.1	104.4	485.2	1,297.2	690.4	354.0	606.8	198.4	127.5
2016	1,910.1	1,147.2	322.5	473.9	270.8	762.9	209.7	170.0	115.5	514.5	1,395.7	715.9	370.3	679.8	223.1	140.9
2017	1,936.3	1,150.3	323.1	474.5	281.8	786.0	212.5	175.2	127.0	588.2	1,348.0	698.4	381.6	649.6	215.5	148.4
2018 **p,3**	2,093.2	1,173.8	359.3	462.9	277.5	919.4	231.4	182.2	136.5	612.2	1,481.0	741.9	428.3	739.1	231.3	150.7
2017 H1	1,923.5	1,138.9	325.9	465.1	273.1	784.6	224.2	171.9	125.4	550.6	1,372.9	709.7	379.4	663.2	224.4	153.2
H2	1,936.3	1,150.3	323.1	474.5	281.8	786.0	212.5	175.2	127.0	588.2	1,348.0	698.4	381.6	649.6	215.5	148.4
2018 H1 **3**	2,072.0	1,177.0	360.2	460.4	277.5	895.0	232.7	185.6	115.2	604.9	1,467.0	727.9	411.2	739.2	229.5	167.5
H2 **p**	2,093.2	1,173.8	359.3	462.9	277.5	919.4	231.4	182.2	136.5	612.2	1,481.0	741.9	428.3	739.1	231.3	150.7
	As a percentage of total assets															
2015	100.0	60.5	17.1	25.1	14.5	39.5	11.2	8.3	5.9	27.2	72.8	38.7	19.9	34.1	11.1	7.2
2016	100.0	60.1	16.9	24.8	14.2	39.9	11.0	8.9	6.1	26.9	73.1	37.5	19.4	35.6	11.7	7.4
2017	100.0	59.4	16.7	24.5	14.6	40.6	11.0	9.1	6.6	30.4	69.6	36.1	19.7	33.6	11.1	7.7
2018 **p,3**	100.0	56.1	17.2	22.1	13.3	43.9	11.1	8.7	6.5	29.3	70.8	35.4	20.5	35.3	11.1	7.2
2017 H1	100.0	59.2	16.9	24.2	14.2	40.8	11.7	8.9	6.5	28.6	71.4	36.9	19.7	34.5	11.7	8.0
H2	100.0	59.4	16.7	24.5	14.6	40.6	11.0	9.1	6.6	30.4	69.6	36.1	19.7	33.6	11.1	7.7
2018 H1 **3**	100.0	56.8	17.4	22.2	13.4	43.2	11.2	9.0	5.6	29.2	70.8	35.1	19.9	35.7	11.1	8.1
H2 **p**	100.0	56.1	17.2	22.1	13.3	43.9	11.1	8.7	6.5	29.3	70.8	35.4	20.5	35.3	11.1	7.2
	Groups with a focus on the services sector (€ billion)															
2015	444.5	317.3	166.7	118.3	14.1	127.2	16.7	43.5	31.6	148.3	296.2	171.0	112.2	125.2	24.4	52.7
2016	457.6	330.9	170.9	122.0	18.1	126.7	17.1	48.0	34.9	157.7	299.9	173.4	112.3	126.5	25.9	51.9
2017	464.5	339.7	176.9	128.4	14.1	124.8	18.1	50.4	31.3	170.6	293.9	168.9	114.8	125.0	20.9	47.3
2018 **p,3**	502.4	365.4	183.1	148.4	12.7	137.1	18.2	53.6	38.9	180.2	322.2	185.7	131.9	136.5	26.2	54.4
2017 H1	461.9	332.9	177.0	119.3	15.5	129.0	14.0	48.8	24.5	151.1	310.7	178.3	118.9	132.5	21.8	41.8
H2	464.5	339.7	176.9	128.4	14.1	124.8	18.1	50.4	31.3	170.6	293.9	168.9	114.8	125.0	20.9	47.3
2018 H1 **3**	479.8	356.0	181.4	142.1	12.3	123.8	17.4	50.5	28.1	170.7	309.2	181.6	129.8	127.6	25.2	42.7
H2 **p**	502.4	365.4	183.1	148.4	12.7	137.1	18.2	53.6	38.9	180.2	322.2	185.7	131.9	136.5	26.2	54.4
	As a percentage of total assets															
2015	100.0	71.4	37.5	26.6	3.2	28.6	3.8	9.8	7.1	33.4	66.6	38.5	25.3	28.2	5.5	11.9
2016	100.0	72.3	37.3	26.7	4.0	27.7	3.7	10.5	7.6	34.5	65.5	37.9	24.5	27.7	5.7	11.3
2017	100.0	73.1	38.1	27.6	3.0	26.9	3.9	10.9	6.7	36.7	63.3	36.4	24.7	26.9	4.5	10.2
2018 **p,3**	100.0	72.7	36.4	29.5	2.5	27.3	3.6	10.7	7.7	35.9	64.1	37.0	26.3	27.2	5.2	10.8
2017 H1	100.0	72.1	38.3	25.8	3.4	27.9	3.0	10.6	5.3	32.7	67.3	38.6	25.7	28.7	4.7	9.0
H2	100.0	73.1	38.1	27.6	3.0	26.9	3.9	10.9	6.7	36.7	63.3	36.4	24.7	26.9	4.5	10.2
2018 H1 **3**	100.0	74.2	37.8	29.6	2.6	25.8	3.6	10.5	5.9	35.6	64.4	37.8	27.1	26.6	5.2	8.9
H2 **p**	100.0	72.7	36.4	29.5	2.5	27.3	3.6	10.7	7.7	35.9	64.1	37.0	26.3	27.2	5.2	10.8

***** Non-financial groups admitted to the Prime Standard segment of the Frankfurt Stock Exchange which publish IFRS consolidated financial statements on a quarterly or half-yearly basis and make a noteworthy contribution to value added in Germany. Excluding groups engaged in real estate activities. **1** Including cash equivalents. **2** Including groups in agriculture and forestry. **3** From this point onwards: significant changes in IFRS standards, impairing comparability with previous periods.

XI. Economic conditions in Germany

11. Revenues and operating income of listed non-financial groups *

Period	Revenues		Operating income before depreciation and amortisation (EBITDA 1)		Operating income before depreciation and amortisation (EBITDA 1) as a percentage of revenues					Operating income (EBIT)		Operating income (EBIT) as a percentage of revenues				
					Weighted average		Distribution 2					Weighted average		Distribution 2		
							First quartile	Median	Third quartile					First quartile	Median	Third quartile
	€ billion 3	Annual percentage change 4	€ billion 3	Annual percentage change 4	%	Annual change in percentage points 4	%	%	%	€ billion 3	Annual percentage change 4	%	Annual change in percentage points 4	%	%	%
	Total															
2011	1,414.3	8.5	175.9	0.5	12.4	– 1.0	5.7	11.1	17.4	93.9	– 4.1	6.6	– 0.9	2.7	6.6	12.0
2012	1,532.9	6.6	188.8	3.2	12.3	– 0.4	5.4	10.2	17.5	95.7	– 7.7	6.2	– 0.9	2.0	6.1	11.0
2013	1,541.1	– 0.6	187.2	– 2.8	12.2	– 0.3	5.2	10.3	18.5	99.5	5.5	6.5	0.4	2.0	5.9	11.1
2014	1,565.7	1.0	198.9	4.9	12.7	0.5	5.9	10.3	17.5	109.4	8.5	7.0	0.5	1.9	6.2	11.2
2015	1,635.4	6.9	196.2	– 1.0	12.0	– 1.0	6.1	10.6	18.1	91.7	– 16.3	5.6	– 1.5	1.7	6.7	11.6
2016	1,626.1	– 0.4	214.9	8.0	13.2	1.0	6.7	11.5	18.1	112.1	9.2	6.9	0.5	2.6	6.7	12.0
2017	1,721.7	5.1	243.9	14.6	14.2	1.2	6.8	11.0	18.0	142.3	33.2	8.3	1.7	2.5	6.9	12.2
2018 p,6	1,709.6	0.7	233.5	– 0.9	13.7	– 0.2	6.3	10.6	17.8	129.8	– 6.1	7.6	– 0.6	2.3	6.5	11.9
2014 H1	757.3	– 0.9	97.3	4.6	12.8	0.7	4.8	9.6	16.2	57.9	9.4	7.6	0.7	1.1	5.3	10.7
H2	808.8	2.9	101.7	5.3	12.6	0.3	5.6	11.0	19.2	51.5	7.6	6.4	0.3	1.8	7.1	12.1
2015 H1	815.3	8.7	102.9	5.7	12.6	– 0.4	5.0	10.2	17.6	59.1	1.3	7.3	– 0.5	1.2	5.9	10.9
H2	831.4	5.1	93.6	– 7.6	11.3	– 1.5	6.3	11.5	18.5	32.7	– 36.6	3.9	– 2.5	2.3	7.2	11.7
2016 H1	782.7	– 1.9	111.8	6.3	14.3	1.1	6.1	10.5	18.0	65.7	2.9	8.4	0.4	1.7	6.4	11.4
H2	843.4	1.1	103.1	9.8	12.2	1.0	6.9	11.9	19.2	46.4	21.0	5.5	0.8	3.0	7.6	12.5
2017 H1	845.0	6.8	125.9	14.5	14.9	1.0	5.8	10.1	17.2	78.6	29.3	9.3	1.6	1.8	5.8	11.7
H2	879.8	3.5	117.7	14.7	13.4	1.3	6.9	12.0	19.4	63.2	38.3	7.2	1.8	3.0	7.5	12.4
2018 H1 6	849.5	– 0.0	120.7	– 2.5	14.2	– 0.4	5.1	10.6	18.2	72.9	– 5.2	8.6	– 0.5	1.7	6.4	12.5
H2 p	870.9	1.4	115.3	0.9	13.2	– 0.1	6.5	11.2	18.3	58.4	– 7.3	6.7	– 0.6	2.2	6.8	12.5
	Groups with a focus on the production sector 5															
2011	1,079.0	10.6	130.0	– 1.7	12.1	– 1.5	5.6	11.3	16.4	74.1	– 4.9	6.9	– 1.1	2.4	6.9	11.5
2012	1,173.8	7.7	140.8	5.3	12.0	– 0.3	5.8	10.3	16.1	81.7	2.2	7.0	– 0.4	1.9	6.1	9.8
2013	1,179.0	– 0.8	138.8	– 2.6	11.8	– 0.2	5.1	10.3	15.7	74.5	– 5.8	6.3	– 0.3	1.6	5.8	10.5
2014	1,197.4	1.0	148.1	5.8	12.4	0.6	5.6	10.0	15.5	82.0	9.3	6.9	0.5	1.5	5.9	10.3
2015	1,282.5	7.0	144.0	– 2.7	11.2	– 1.1	6.3	10.5	16.0	65.2	– 20.2	5.1	– 1.8	2.1	6.5	10.3
2016	1,267.1	– 1.0	156.5	6.0	12.4	0.8	6.5	10.6	16.0	80.6	4.3	6.4	0.3	2.8	6.3	10.5
2017	1,362.9	5.5	181.6	16.8	13.3	1.3	6.8	10.9	15.6	108.0	41.0	7.9	2.0	3.2	6.7	10.4
2018 p,6	1,334.9	1.0	169.1	– 1.6	12.7	– 0.3	6.8	10.6	15.6	95.5	– 7.0	7.2	– 0.6	2.7	6.8	10.9
2014 H1	584.4	– 1.1	74.3	3.8	12.7	0.6	4.9	9.7	15.2	46.3	8.9	7.9	0.7	1.6	5.5	9.7
H2	613.1	3.0	73.8	7.8	12.0	0.5	4.4	9.8	16.0	35.8	9.8	5.8	0.4	0.7	6.4	10.8
2015 H1	636.4	8.7	80.1	7.8	12.6	– 0.1	5.4	10.2	15.5	48.8	4.8	7.7	– 0.3	2.1	6.1	10.0
H2	646.7	5.3	63.9	– 13.3	9.9	– 2.1	5.3	11.1	15.6	16.4	– 52.4	2.5	– 3.3	1.8	6.9	10.7
2016 H1	611.3	– 2.6	84.0	1.3	13.7	0.5	6.7	10.6	15.8	50.7	– 6.5	8.3	– 0.3	2.9	6.4	10.0
H2	655.9	0.5	72.6	11.9	11.1	1.1	6.2	11.3	16.4	29.9	34.7	4.6	0.9	2.4	6.3	10.6
2017 H1	678.7	7.2	98.5	18.7	14.5	1.4	6.0	10.1	16.1	64.0	37.5	9.4	2.1	2.3	5.8	10.8
H2	684.9	3.9	83.1	14.7	12.1	1.2	6.9	11.7	16.5	44.0	46.4	6.4	1.9	3.4	7.2	10.8
2018 H1 6	665.8	– 0.1	90.9	– 3.8	13.7	– 0.5	6.5	10.8	16.7	57.1	– 5.8	8.6	– 0.5	2.9	6.6	11.5
H2 p	678.8	2.1	80.6	1.0	11.9	– 0.1	6.2	11.1	15.9	39.8	– 8.5	5.9	– 0.7	1.9	6.4	10.9
	Groups with a focus on the services sector															
2011	335.3	1.7	45.9	7.6	13.7	0.8	6.0	10.4	20.7	19.7	– 0.7	5.9	– 0.1	3.2	6.2	13.8
2012	359.1	2.8	48.0	– 3.3	13.4	– 0.8	5.1	10.1	23.0	14.0	– 47.2	3.9	– 3.0	2.1	5.7	14.2
2013	362.0	– 0.1	48.4	– 3.4	13.4	– 0.5	5.2	10.5	21.6	25.0	84.4	6.9	3.0	2.4	5.9	12.5
2014	368.3	1.1	50.8	2.2	13.8	0.1	6.2	12.7	22.6	27.3	5.7	7.4	0.3	2.9	6.5	13.7
2015	352.9	6.4	52.2	4.8	14.8	– 0.2	6.1	11.4	22.1	26.4	– 1.6	7.5	– 0.6	1.4	6.7	14.1
2016	358.9	2.4	58.4	14.6	16.3	1.8	6.9	13.5	25.8	31.6	24.7	8.8	1.5	2.5	8.3	15.5
2017	358.7	3.4	62.3	7.5	17.4	0.7	7.3	11.6	23.0	34.3	9.9	9.6	0.5	2.4	7.5	15.1
2018 p,6	374.7	– 0.6	64.4	1.6	17.2	0.4	5.7	10.5	24.7	34.3	– 3.0	9.2	– 0.2	1.7	5.9	16.6
2014 H1	172.9	– 0.5	23.0	7.7	13.3	1.0	4.8	9.3	20.4	11.6	11.7	6.7	0.7	1.0	5.1	13.5
H2	195.6	2.5	27.8	– 2.2	14.2	– 0.7	6.4	13.5	23.8	15.7	1.5	8.1	– 0.1	3.6	8.1	18.0
2015 H1	178.9	8.4	22.8	– 2.2	12.7	– 1.5	4.4	10.9	21.5	10.3	– 15.7	5.8	– 1.6	– 0.5	4.5	14.2
H2	184.7	4.6	29.7	10.8	16.1	0.9	7.0	12.1	23.5	16.3	9.3	8.8	0.4	2.5	7.7	15.0
2016 H1	171.5	1.2	27.8	27.7	16.2	3.5	5.1	10.3	23.8	15.0	62.1	8.7	3.3	1.0	6.4	14.9
H2	187.4	3.6	30.6	4.6	16.3	0.2	7.4	13.7	24.4	16.6	2.7	8.8	– 0.1	4.0	9.0	17.2
2017 H1	166.3	4.8	27.4	– 0.2	16.5	– 0.8	5.3	10.5	21.2	14.6	– 0.8	8.8	– 0.5	1.3	5.8	14.6
H2	195.0	2.0	34.7	14.6	17.8	2.0	6.9	12.5	24.6	19.2	19.9	9.9	1.5	3.0	8.2	17.9
2018 H1 6	183.7	0.5	29.8	3.0	16.2	0.4	4.0	9.7	22.9	15.8	– 1.8	8.6	– 0.2	– 0.9	5.1	15.5
H2 p	192.1	– 1.7	34.7	0.4	18.1	0.4	7.0	13.3	25.7	18.5	– 3.9	9.6	– 0.2	2.7	7.3	18.0

* Non-financial groups admitted to the Prime Standard segment of the Frankfurt Stock Exchange which publish IFRS consolidated financial statements on a quarterly or half-yearly basis and make a noteworthy contribution to value added in Germany. Excluding groups engaged in real estate activities. **1** Earnings before interest, taxes, depreciation and amortisation. **2** Quantile data are based on the groups' unweighted return on sales. **3** Annual figures do not always match the sum of the two half-year figures. See Quality report on consolidated financial statement statistics, p. 3. **4** Adjusted for substantial changes in the basis of consolidation of large groups and in the reporting sample. See the explanatory notes in Statistical Supplement 4 – Seasonally adjusted business statistics. **5** Including groups in agriculture and forestry. **6** From this point onwards: significant changes in IFRS standards, impairing comparability with previous periods.

XII. External sector

1. Major items of the balance of payments of the euro area *

€ million

Item	2016	2017	2018	2018 Q4	2019 Q1	2019 Q2	2019 May	2019 June	2019 July p
A. Current account	+ 351,318	+ 352,210	+ 357,972	+ 111,057	+ 67,677	+ 42,136	+ 4,778	+ 19,820	+ 29,841
1. Goods									
Exports	2,117,444	2,264,981	2,341,540	615,938	593,995	601,397	208,240	194,451	212,546
Imports	1,755,461	1,918,079	2,047,147	534,603	522,371	516,964	178,104	166,051	179,892
Balance	+ 361,983	+ 346,903	+ 294,390	+ 81,334	+ 71,624	+ 84,433	+ 30,136	+ 28,400	+ 32,654
2. Services									
Receipts	816,309	881,599	921,236	241,309	216,869	242,276	79,715	85,724	85,741
Expenditure	773,212	809,138	806,577	220,350	193,767	241,070	79,258	83,304	81,182
Balance	+ 43,100	+ 72,462	+ 114,662	+ 20,959	+ 23,102	+ 1,205	+ 457	+ 2,419	+ 4,559
3. Primary income									
Receipts	678,807	720,574	770,346	209,152	182,211	202,052	67,716	68,573	60,455
Expenditure	593,487	652,128	671,050	157,473	155,763	217,277	87,457	67,794	55,550
Balance	+ 85,324	+ 68,448	+ 99,296	+ 51,679	+ 26,448	– 15,226	– 19,741	+ 778	+ 4,905
4. Secondary income									
Receipts	102,461	108,327	115,082	29,926	27,321	29,398	11,115	9,812	8,367
Expenditure	241,545	243,929	265,463	72,844	80,818	57,672	17,188	21,589	20,644
Balance	– 139,087	– 135,603	– 150,378	– 42,918	– 53,498	– 28,277	– 6,074	– 11,778	– 12,277
B. Capital account	+ 1,517	– 19,720	– 33,594	– 42,345	– 4,209	– 15,231	– 5,022	– 4,757	+ 1,086
C. Financial account (increase: +)	+ 359,955	+ 337,160	+ 292,407	+ 63,753	+ 51,419	+ 38,091	+ 12,567	+ 41,500	+ 5,077
1. Direct investment	+ 98,144	+ 3,357	+ 20,930	– 108,840	+ 54,962	– 59,279	– 7,098	– 24,620	– 19,040
By resident units abroad	+ 440,418	+ 260,297	– 256,864	– 303,889	+ 90,644	– 47,296	+ 9,026	– 77,715	– 19,220
By non-resident units in the euro area	+ 342,271	+ 256,942	– 277,796	– 195,049	+ 35,681	+ 11,983	+ 16,124	– 53,095	– 180
2. Portfolio investment	+ 563,037	+ 331,113	+ 241,546	+ 129,959	– 83,230	– 40,893	– 60,441	+ 16,212	– 28,955
By resident units abroad	+ 380,010	+ 660,992	+ 202,687	– 28,172	+ 58,612	+ 49,529	– 480	+ 57,622	+ 50,757
Equity and investment fund shares	+ 9,157	+ 203,579	+ 46,344	– 30,223	– 2,932	+ 3,906	– 22,063	+ 10,685	+ 11,822
Long-term debt securities	+ 363,257	+ 382,122	+ 195,713	+ 1,319	+ 63,397	+ 89,615	+ 25,688	+ 49,027	+ 34,209
Short-term debt securities	+ 7,596	+ 75,287	– 39,370	+ 732	– 1,851	– 43,992	– 4,105	– 2,090	+ 4,725
By non-resident units in the euro area	– 183,026	+ 329,878	– 38,858	– 158,131	+ 141,842	+ 90,422	+ 59,961	+ 41,410	+ 79,712
Equity and investment fund shares	+ 109,956	+ 454,495	+ 117,588	+ 24,561	– 11,260	+ 50,933	+ 18,969	+ 32,199	+ 48,450
Long-term debt securities	– 319,442	– 135,583	– 76,187	– 105,010	+ 129,188	+ 49,998	+ 24,609	+ 22,711	+ 31,123
Short-term debt securities	+ 26,462	+ 10,967	– 80,259	– 77,682	+ 23,915	– 10,510	+ 16,383	– 13,500	+ 139
3. Financial derivatives and employee stock options	+ 20,809	+ 25,389	+ 96,567	+ 29,600	+ 2,218	+ 30,223	+ 12,555	+ 7,075	+ 5,596
4. Other investment	– 337,355	– 21,625	– 91,515	+ 7,248	+ 74,627	+ 105,393	+ 65,788	+ 45,126	+ 40,400
Eurosystem	– 152,902	– 176,851	– 132,123	– 148,797	+ 141,225	+ 6,200	+ 21,243	– 44,536	+ 31,931
General government	+ 14,097	+ 25,710	– 5,719	+ 14,030	– 9,636	+ 5,187	+ 2,838	+ 7,408	– 5,032
MFIs (excluding the Eurosystem)	– 126,606	+ 149,885	+ 88,742	+ 169,428	– 16,093	+ 116,949	+ 52,666	+ 113,400	+ 12,943
Enterprises and households	– 71,942	– 20,368	– 42,416	– 27,413	– 40,868	– 22,942	– 10,958	– 31,147	+ 558
5. Reserve assets	+ 15,322	– 1,073	+ 24,880	+ 5,786	+ 2,841	+ 2,648	+ 1,763	– 2,293	+ 7,076
D. Net errors and omissions	+ 7,122	+ 4,673	– 31,967	– 4,958	– 12,048	+ 11,186	+ 12,811	+ 26,437	– 25,850

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

XII. External sector

2. Major items of the balance of payments of the Federal Republic of Germany (balances)

€ million

Period	Current account						Balance of capital account [4]	Financial account (Net lending: +/net borrowing: -)		Errors and omissions [5]
	Total	Goods (f.o.b./f.o.b.) [1]		Services [3]	Primary income	Secondary income		Total	of which: Reserve assets	
		Total	of which: Supplementary trade items [2]							
2004	+ 102,270	+ 152,851	– 7,174	– 35,201	+ 14,577	– 29,957	– 119	+ 112,867	– 1,470	+ 10,715
2005	+ 106,942	+ 156,563	– 6,515	– 37,580	+ 19,300	– 31,341	– 2,334	+ 96,436	– 2,182	– 8,172
2006	+ 137,674	+ 160,965	– 4,687	– 31,777	+ 40,499	– 32,014	– 1,328	+ 157,142	– 2,934	+ 20,796
2007	+ 171,493	+ 201,728	– 1,183	– 32,465	+ 35,620	– 33,390	– 1,597	+ 183,169	+ 953	+ 13,273
2008	+ 144,954	+ 184,160	– 3,947	– 29,122	+ 24,063	– 34,147	– 893	+ 121,336	+ 2,008	– 22,725
2009	+ 142,744	+ 140,626	– 6,605	– 17,642	+ 54,524	– 34,764	– 1,858	+ 129,693	+ 8,648	– 11,194
2010	+ 147,298	+ 160,829	– 6,209	– 25,255	+ 51,306	– 39,582	+ 1,219	+ 92,757	+ 1,613	– 55,760
2011	+ 167,340	+ 162,970	– 9,357	– 29,930	+ 69,087	– 34,787	+ 419	+ 120,857	+ 2,836	– 46,902
2012	+ 195,712	+ 199,531	– 11,388	– 30,774	+ 65,658	– 38,703	– 413	+ 151,417	+ 1,297	– 43,882
2013	+ 184,274	+ 203,802	– 12,523	– 39,399	+ 63,284	– 43,413	– 563	+ 225,371	+ 838	+ 41,660
2014	+ 210,735	+ 219,629	– 14,296	– 25,873	+ 57,858	– 40,880	+ 2,936	+ 240,117	– 2,564	+ 26,446
2015	+ 259,920	+ 248,394	– 15,405	– 19,242	+ 69,262	– 38,494	– 48	+ 234,404	– 2,213	– 25,467
2016	+ 265,489	+ 252,581	– 19,010	– 21,814	+ 75,590	– 40,868	+ 2,138	+ 259,720	+ 1,686	– 7,908
2017	+ 261,894	+ 253,111	– 14,069	– 21,938	+ 80,276	– 49,554	– 1,947	+ 282,947	– 1,269	+ 23,000
2018	+ 245,035	+ 221,675	– 24,490	– 20,686	+ 91,666	– 47,619	+ 1,858	+ 228,848	+ 392	– 18,045
2016 Q3	+ 60,302	+ 63,541	– 4,007	– 11,827	+ 20,320	– 11,733	+ 412	+ 60,148	– 261	– 566
Q4	+ 69,437	+ 55,640	– 8,359	– 2,048	+ 28,269	– 12,425	+ 2,844	+ 90,452	– 43	+ 18,171
2017 Q1	+ 69,906	+ 63,678	– 1,365	– 2,653	+ 22,781	– 13,901	+ 562	+ 69,234	– 360	– 1,234
Q2	+ 52,671	+ 64,258	– 3,660	– 5,301	+ 5,673	– 11,959	– 2,624	+ 67,523	+ 385	+ 17,476
Q3	+ 64,060	+ 65,296	– 3,113	– 12,334	+ 21,991	– 10,893	+ 766	+ 62,836	+ 152	– 1,990
Q4	+ 75,257	+ 59,879	– 5,931	– 1,651	+ 29,831	– 12,802	– 652	+ 83,353	– 1,446	+ 8,749
2018 Q1	+ 69,966	+ 61,219	– 3,973	– 2,203	+ 25,279	– 14,329	+ 4,003	+ 67,340	+ 699	– 6,629
Q2	+ 60,605	+ 60,111	– 8,201	– 2,804	+ 8,504	– 5,205	– 2,563	+ 56,803	– 374	– 1,239
Q3	+ 48,036	+ 47,693	– 7,861	– 13,139	+ 25,305	– 11,823	– 1,050	+ 39,839	– 493	– 7,147
Q4	+ 66,429	+ 52,652	– 4,455	– 2,540	+ 32,578	– 16,262	+ 1,467	+ 64,866	+ 560	– 3,030
2019 Q1	+ 66,736	+ 59,926	– 1,896	– 2,309	+ 25,733	– 16,615	+ 1,408	+ 35,415	– 63	– 32,730
Q2	+ 60,007	+ 58,455	– 2,487	– 3,680	+ 11,389	– 6,156	– 522	+ 49,254	+ 444	– 10,232
2017 Mar.	+ 32,687	+ 26,969	– 149	– 1,217	+ 9,421	– 2,487	+ 414	+ 45,745	– 21	+ 12,644
Apr.	+ 15,315	+ 19,080	– 763	– 1,286	+ 5,841	– 8,319	– 384	+ 17,461	– 2	+ 2,529
May	+ 14,767	+ 21,701	– 2,429	– 1,721	– 4,343	– 869	+ 20	+ 10,532	– 47	– 4,256
June	+ 22,588	+ 23,477	– 468	– 2,293	+ 4,175	– 2,770	– 2,260	+ 39,530	+ 434	+ 19,202
July	+ 18,800	+ 19,876	– 203	– 4,325	+ 7,632	– 4,383	+ 483	+ 18,879	+ 463	– 404
Aug.	+ 17,949	+ 20,316	– 2,098	– 5,515	+ 6,576	– 3,427	+ 130	+ 9,684	– 912	– 8,395
Sep.	+ 27,311	+ 25,104	– 812	– 2,494	+ 7,783	– 3,082	+ 154	+ 34,273	+ 602	+ 6,808
Oct.	+ 19,647	+ 20,060	– 767	– 4,091	+ 7,853	– 4,175	– 270	+ 16,992	+ 1,176	– 2,385
Nov.	+ 27,382	+ 23,893	– 1,960	– 345	+ 8,266	– 4,432	– 521	+ 30,390	– 270	+ 3,530
Dec.	+ 28,228	+ 15,926	– 3,204	+ 2,785	+ 13,712	– 4,195	+ 139	+ 35,971	– 2,353	+ 7,604
2018 Jan.	+ 21,070	+ 17,587	– 1,544	– 367	+ 8,866	– 5,016	+ 3,772	+ 27,335	– 121	+ 2,492
Feb.	+ 19,495	+ 19,147	– 883	– 772	+ 6,465	– 5,346	+ 324	+ 13,905	+ 583	– 5,913
Mar.	+ 29,401	+ 24,484	– 1,546	– 1,064	+ 9,948	– 3,967	– 92	+ 26,100	+ 236	– 3,208
Apr.	+ 22,756	+ 20,264	– 2,447	+ 89	+ 4,958	– 2,556	+ 301	+ 30,453	– 670	+ 7,396
May	+ 13,047	+ 19,112	– 2,380	– 1,360	– 4,851	+ 146	– 27	+ 20,458	+ 83	+ 7,438
June	+ 24,802	+ 20,734	– 3,373	– 1,533	+ 8,396	– 2,795	– 2,838	+ 5,892	+ 213	– 16,072
July	+ 13,874	+ 15,287	– 1,892	– 4,865	+ 8,090	– 4,638	– 231	+ 6,482	+ 266	– 7,161
Aug.	+ 15,185	+ 15,923	– 2,680	– 5,693	+ 8,565	– 3,610	+ 97	+ 21,233	– 640	+ 5,952
Sep.	+ 18,978	+ 16,483	– 3,289	– 2,581	+ 8,651	– 3,576	– 915	+ 12,124	– 119	– 5,938
Oct.	+ 20,181	+ 19,801	– 512	– 4,338	+ 9,005	– 4,287	– 822	+ 4,021	+ 700	– 15,337
Nov.	+ 23,688	+ 19,517	– 2,015	+ 521	+ 9,185	– 5,534	– 489	+ 26,596	– 124	+ 3,398
Dec.	+ 22,560	+ 13,335	– 1,928	+ 1,277	+ 14,389	– 6,440	+ 2,779	+ 34,248	– 17	+ 8,910
2019 Jan.	+ 18,778	+ 15,790	– 1,006	– 1,088	+ 9,112	– 5,036	+ 2,133	+ 9,673	+ 158	– 11,238
Feb.	+ 17,328	+ 18,983	– 546	– 544	+ 6,868	– 7,979	+ 224	+ 15,413	+ 112	– 2,139
Mar.	+ 30,631	+ 25,154	– 344	– 677	+ 9,754	– 3,600	– 949	+ 10,329	– 333	– 19,353
Apr.	+ 22,840	+ 19,192	– 972	– 516	+ 7,789	– 3,625	+ 79	+ 25,075	+ 547	+ 2,156
May	+ 16,233	+ 21,559	– 1,048	– 791	– 5,274	+ 739	– 435	+ 6,257	+ 182	– 9,541
June	+ 20,935	+ 17,704	– 467	– 2,373	+ 8,875	– 3,271	– 166	+ 17,923	– 285	– 2,847
July	+ 21,256	+ 22,866	– 1,457	– 5,612	+ 8,567	– 4,565	+ 259	– 390	+ 348	– 21,904
Aug. p	+ 16,928	+ 17,033	– 912	– 5,026	+ 9,147	– 4,226	+ 819	+ 503	+ 755	– 17,244

1 Excluding freight and insurance costs of foreign trade. **2** For example, warehouse transactions for the account of residents, deductions of goods returned and deductions of exports and imports in connection with goods for processing. **3** Including freight and insurance costs of foreign trade. **4** Including net acquisition/disposal of non-produced non-financial assets. **5** Statistical errors and omissions resulting from the difference between the balance on the financial account and the balances on the current account and the capital account.

XII. External sector

3. Foreign trade (special trade) of the Federal Republic of Germany, by country and group of countries*

€ million

Group of countries/country		2016	2017	2018	2019 Jan./Aug. p	Apr.	May	June	July	Aug. p
All countries [1]	Exports	1,203,833	1,278,958	1,317,556	882,636	109,983	114,213	106,066	115,191	101,247
	Imports	954,917	1,031,013	1,089,833	735,141	92,154	93,562	89,425	93,631	85,042
	Balance	+ 248,916	+ 247,946	+ 227,724	+ 147,495	+ 17,830	+ 20,651	+ 16,641	+ 21,560	+ 16,205
I. European countries	Exports	818,644	872,427	900,177	600,533	74,770	77,270	73,449	75,403	67,574
	Imports	657,753	699,677	745,343	500,544	62,897	64,254	62,208	62,538	55,968
	Balance	+ 160,891	+ 172,749	+ 154,834	+ 99,990	+ 11,873	+ 13,016	+ 11,241	+ 12,865	+ 11,605
1. EU Member States (28)	Exports	705,548	749,850	778,646	517,210	64,164	66,191	63,476	64,204	57,497
	Imports	551,344	586,071	623,037	422,726	53,345	54,238	53,353	52,783	47,224
	Balance	+ 154,204	+ 163,780	+ 155,609	+ 94,484	+ 10,819	+ 11,953	+ 10,123	+ 11,420	+ 10,273
Euro area (19) countries	Exports	441,092	471,213	492,521	328,718	41,795	42,345	40,617	41,277	35,185
	Imports	358,848	378,700	404,671	276,471	35,021	35,797	35,001	34,754	30,216
	Balance	+ 82,244	+ 92,513	+ 87,850	+ 52,247	+ 6,774	+ 6,549	+ 5,616	+ 6,523	+ 4,969
of which:										
Austria	Exports	59,778	62,656	64,985	44,294	5,724	5,819	5,356	5,533	4,955
	Imports	38,543	40,686	43,131	29,770	3,889	3,985	3,726	3,906	3,112
	Balance	+ 21,235	+ 21,970	+ 21,854	+ 14,524	+ 1,835	+ 1,834	+ 1,629	+ 1,627	+ 1,843
Belgium and Luxembourg	Exports	46,931	50,071	50,399	34,535	4,425	4,538	4,307	4,206	3,865
	Imports	40,960	43,689	49,486	32,085	3,937	3,973	4,151	3,608	3,692
	Balance	+ 5,971	+ 6,381	+ 913	+ 2,450	+ 488	+ 565	+ 157	+ 598	+ 173
France	Exports	101,106	105,687	105,282	71,316	9,261	9,004	8,777	9,064	7,288
	Imports	65,651	64,329	65,171	44,095	5,594	5,742	5,609	5,674	4,486
	Balance	+ 35,454	+ 41,359	+ 40,111	+ 27,222	+ 3,668	+ 3,262	+ 3,168	+ 3,390	+ 2,802
Italy	Exports	61,265	65,422	69,918	45,421	5,608	5,989	5,807	5,922	4,264
	Imports	51,737	55,342	60,336	38,128	4,801	4,858	5,083	5,077	3,987
	Balance	+ 9,528	+ 10,080	+ 9,581	+ 7,293	+ 807	+ 1,131	+ 724	+ 845	+ 276
Netherlands	Exports	78,433	84,661	91,145	61,173	7,720	7,700	7,233	7,606	7,106
	Imports	83,142	90,597	98,017	66,916	8,156	8,604	8,218	8,224	7,910
	Balance	– 4,709	– 5,935	– 6,872	– 5,744	– 436	– 904	– 985	– 617	– 804
Spain	Exports	40,497	43,067	44,217	29,840	3,780	3,859	3,932	3,714	2,916
	Imports	27,870	31,396	32,466	22,717	2,721	3,371	2,973	2,893	2,093
	Balance	+ 12,627	+ 11,671	+ 11,750	+ 7,124	+ 1,060	+ 488	+ 959	+ 821	+ 823
Other EU Member States	Exports	264,456	278,638	286,125	188,492	22,369	23,846	22,859	22,927	22,311
	Imports	192,496	207,371	218,366	146,255	18,324	18,442	18,352	18,030	17,008
	Balance	+ 71,960	+ 71,267	+ 67,759	+ 42,237	+ 4,045	+ 5,404	+ 4,507	+ 4,897	+ 5,303
of which:										
United Kingdom	Exports	85,939	85,440	82,048	53,056	5,590	6,464	5,999	6,252	5,940
	Imports	35,654	36,820	37,101	24,440	2,769	2,716	2,941	3,178	3,106
	Balance	+ 50,285	+ 48,620	+ 44,947	+ 28,616	+ 2,821	+ 3,748	+ 3,058	+ 3,073	+ 2,834
2. Other European countries	Exports	113,096	122,576	121,531	83,323	10,606	11,079	9,973	11,200	10,077
	Imports	106,409	113,607	122,307	77,818	9,551	10,016	8,855	9,755	8,744
	Balance	+ 6,687	+ 8,969	– 776	+ 5,506	+ 1,055	+ 1,063	+ 1,118	+ 1,445	+ 1,333
of which:										
Switzerland	Exports	50,161	53,913	54,041	37,417	4,803	4,902	4,271	4,877	4,584
	Imports	43,896	45,689	45,937	30,785	3,636	4,233	3,673	3,959	3,547
	Balance	+ 6,265	+ 8,224	+ 8,104	+ 6,633	+ 1,168	+ 669	+ 598	+ 918	+ 1,037
II. Non-European countries	Exports	382,486	403,490	413,560	279,570	34,914	36,507	32,313	39,455	33,352
	Imports	297,164	328,606	343,181	233,464	29,142	29,127	27,043	30,918	28,910
	Balance	+ 85,322	+ 74,884	+ 70,379	+ 46,106	+ 5,772	+ 7,380	+ 5,270	+ 8,537	+ 4,442
1. Africa	Exports	24,434	25,431	22,639	16,141	1,884	2,133	1,920	2,280	1,892
	Imports	16,675	20,428	22,528	15,762	2,142	2,100	1,847	2,320	1,786
	Balance	+ 7,759	+ 5,003	+ 111	+ 380	– 258	+ 33	+ 73	– 40	+ 106
2. America	Exports	147,542	154,644	158,946	111,009	13,638	14,165	12,789	15,764	13,739
	Imports	83,499	89,927	92,464	65,759	8,138	8,514	7,838	8,516	7,973
	Balance	+ 64,043	+ 64,717	+ 66,482	+ 45,251	+ 5,500	+ 5,652	+ 4,951	+ 7,248	+ 5,766
of which:										
United States	Exports	106,822	111,805	113,293	79,334	9,779	10,130	9,242	11,273	9,769
	Imports	57,968	61,902	64,515	46,754	5,774	6,016	5,399	6,113	5,728
	Balance	+ 48,855	+ 49,903	+ 48,779	+ 32,581	+ 4,005	+ 4,114	+ 3,844	+ 5,160	+ 4,040
3. Asia	Exports	200,158	212,070	219,685	144,733	18,371	19,254	16,728	20,202	16,849
	Imports	193,979	214,393	224,551	149,308	18,560	18,101	17,073	19,701	18,795
	Balance	+ 6,179	– 2,323	– 4,866	– 4,575	– 190	+ 1,153	– 346	+ 501	– 1,945
of which:										
Middle East	Exports	36,659	33,104	29,148	17,876	2,088	2,455	2,340	2,674	2,243
	Imports	6,581	6,963	8,145	5,028	631	610	668	710	585
	Balance	+ 30,079	+ 26,141	+ 21,003	+ 12,848	+ 1,456	+ 1,845	+ 1,672	+ 1,964	+ 1,657
Japan	Exports	18,307	19,546	20,441	13,959	1,643	1,657	1,599	2,041	1,581
	Imports	21,922	22,955	23,723	16,054	2,103	2,109	1,839	2,030	1,918
	Balance	– 3,615	– 3,410	– 3,282	– 2,095	– 460	– 452	– 240	+ 11	– 336
People's Republic of China [2]	Exports	76,046	86,141	93,037	63,305	8,281	8,178	7,220	8,735	7,394
	Imports	94,172	101,837	106,268	70,767	8,410	8,518	7,948	9,482	9,253
	Balance	– 18,126	– 15,695	– 13,231	– 7,462	– 129	– 340	– 728	– 747	– 1,859
New industrial countries and emerging markets of Asia [3]	Exports	51,921	53,425	54,926	35,852	4,398	4,842	4,069	4,987	4,137
	Imports	42,966	50,873	52,963	34,716	4,515	4,188	4,084	4,614	4,024
	Balance	+ 8,955	+ 2,552	+ 1,963	+ 1,136	– 117	+ 655	– 15	+ 373	+ 113
4. Oceania and polar regions	Exports	10,352	11,344	12,291	7,687	1,021	955	876	1,209	872
	Imports	3,011	3,857	3,638	2,636	301	413	285	381	357
	Balance	+ 7,341	+ 7,487	+ 8,653	+ 5,051	+ 720	+ 542	+ 591	+ 828	+ 515

***** Source: Federal Statistical Office. Exports (f.o.b.) by country of destination, imports (c.i.f.) by country of origin. Individual countries and groups of countries according to the current position. **1** Including fuel and other supplies for ships and aircraft and other data not classifiable by region. **2** Excluding Hong Kong. **3** Brunei Darussalam, Hong Kong, Indonesia, Malaysia, Philippines, Republic of Korea, Singapore, Taiwan and Thailand.

XII. External sector

4. Services and primary income of the Federal Republic of Germany (balances)

€ million

Period	Services [1]								Primary income		
		of which:									
	Total	Transport	Travel [2]	Financial services	Charges for the use of intellectual property	Telecommunications, computer and information services	Other business services	Government goods and services [3]	Compensation of employees	Investment income	Other primary income [4]
2014	– 25,873	– 6,867	– 37,653	+ 6,712	+ 3,549	+ 1,280	+ 555	+ 2,971	+ 1,184	+ 55,783	+ 891
2015	– 19,242	– 5,203	– 36,595	+ 8,621	+ 5,354	+ 2,601	– 1,216	+ 3,161	+ 1,114	+ 68,506	– 358
2016	– 21,814	– 5,978	– 38,247	+ 8,607	+ 6,779	+ 1,536	– 1,716	+ 3,093	+ 441	+ 76,218	– 1,070
2017	– 21,938	– 3,669	– 43,558	+ 10,726	+ 5,930	+ 1,349	+ 39	+ 2,138	– 702	+ 82,270	– 1,292
2018	– 20,686	– 2,500	– 44,543	+ 10,044	+ 7,453	+ 1,597	– 353	+ 3,209	– 1,118	+ 93,548	– 765
2017 Q4	– 1,651	– 1,013	– 9,509	+ 2,970	+ 2,263	+ 1,084	– 72	+ 381	– 150	+ 26,848	+ 3,133
2018 Q1	– 2,203	– 811	– 6,977	+ 2,590	+ 1,077	– 68	+ 43	+ 824	+ 374	+ 25,736	– 831
Q2	– 2,804	– 249	– 9,153	+ 2,093	+ 1,998	+ 804	– 225	+ 906	– 469	+ 11,098	– 2,125
Q3	– 13,139	– 654	– 18,219	+ 1,777	+ 1,604	+ 287	+ 326	+ 822	– 918	+ 27,163	– 939
Q4	– 2,540	– 786	– 10,194	+ 3,585	+ 2,774	+ 574	– 497	+ 656	– 104	+ 29,552	+ 3,130
2019 Q1	– 2,309	– 686	– 6,978	+ 2,272	+ 2,154	– 157	– 454	+ 760	+ 329	+ 26,232	– 828
Q2	– 3,680	+ 329	– 9,899	+ 2,530	+ 1,790	+ 632	– 1,152	+ 817	– 466	+ 13,997	– 2,142
2018 Oct.	– 4,338	– 290	– 6,073	+ 940	+ 637	– 68	– 81	+ 238	– 47	+ 9,589	– 537
Nov.	+ 521	– 164	– 2,309	+ 1,510	+ 1,645	– 496	– 410	+ 162	– 51	+ 9,534	– 298
Dec.	+ 1,277	– 333	– 1,813	+ 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.	– 544	– 368	– 2,106	+ 731	+ 1,078	– 170	– 216	+ 249	+ 125	+ 7,029	– 285
Mar.	– 677	+ 18	– 3,133	+ 779	+ 858	+ 132	+ 124	+ 267	+ 85	+ 9,996	– 328
Apr.	– 516	+ 185	– 1,830	+ 936	+ 512	– 240	– 601	+ 278	– 152	+ 8,365	– 425
May	– 791	+ 89	– 3,401	+ 706	+ 1,080	– 130	– 6	+ 267	– 157	– 3,630	– 1,487
June	– 2,373	+ 55	– 4,668	+ 888	+ 198	+ 1,002	– 545	+ 272	– 157	+ 9,262	– 230
July	– 5,612	+ 53	– 6,098	+ 883	+ 773	– 993	– 740	+ 252	– 337	+ 9,306	– 402
Aug. p	– 5,026	– 39	– 6,814	+ 958	+ 1,427	– 879	– 296	+ 293	– 321	+ 9,932	– 464

1 Including freight and insurance costs of foreign trade. **2** Since 2001 the sample results of a household survey have been used on the expenditure side. **3** Domestic public authorities' receipts from and expenditure on services, not included elsewhere; including the receipts from foreign military bases. **4** Includes, inter alia, taxes on leasing, production and imports transferred to the EU as well as subsidies received from the EU.

5. Secondary income of the Federal Republic of Germany (balances)

€ million

Period	General government				All sectors excluding general government [2]		
			of which:			of which:	
	Total	Total	Current international cooperation [1]	Current taxes on income, wealth, etc.	Total	Personal transfers between resident and non-resident households [3]	of which: Workers' remittances
2014	– 40,880	– 28,146	– 6,419	+ 8,105	– 12,734	– 3,477	– 3,451
2015	– 38,494	– 24,087	– 6,805	+ 10,455	– 14,406	– 3,540	– 3,523
2016	– 40,868	– 25,232	– 11,516	+ 10,627	– 15,636	– 4,214	– 4,196
2017	– 49,554	– 21,979	– 9,852	+ 10,446	– 27,576	– 4,632	– 4,613
2018	– 47,619	– 27,748	– 9,880	+ 10,351	– 19,871	– 5,152	– 5,142
2017 Q4	– 12,802	– 7,191	– 3,800	+ 795	– 5,611	– 1,158	– 1,153
2018 Q1	– 14,329	– 9,218	– 2,234	+ 1,698	– 5,111	– 1,291	– 1,286
Q2	– 5,205	– 347	– 1,260	+ 6,233	– 4,858	– 1,287	– 1,286
Q3	– 11,823	– 7,249	– 1,926	+ 1,225	– 4,574	– 1,287	– 1,286
Q4	– 16,262	– 10,934	– 4,461	+ 1,195	– 5,328	– 1,287	– 1,286
2019 Q1	– 16,615	– 12,096	– 2,756	+ 2,015	– 4,519	– 1,360	– 1,358
Q2	– 6,156	– 543	– 1,352	+ 6,600	– 5,613	– 1,361	– 1,358
2018 Oct.	– 4,287	– 3,183	– 1,074	+ 172	– 1,104	– 429	– 429
Nov.	– 5,534	– 3,195	– 999	+ 180	– 2,339	– 429	– 429
Dec.	– 6,440	– 4,556	– 2,388	+ 843	– 1,885	– 429	– 429
2019 Jan.	– 5,036	– 3,623	– 1,286	+ 278	– 1,413	– 453	– 453
Feb.	– 7,979	– 6,374	– 1,056	+ 927	– 1,605	– 453	– 453
Mar.	– 3,600	– 2,099	– 413	+ 811	– 1,501	– 453	– 453
Apr.	– 3,625	– 1,072	– 371	+ 1,138	– 2,553	– 454	– 453
May	+ 739	+ 2,424	– 333	+ 4,352	– 1,685	– 453	– 453
June	– 3,271	– 1,895	– 648	+ 1,109	– 1,375	– 454	– 453
July	– 4,565	– 2,898	– 814	+ 376	– 1,668	– 453	– 453
Aug. p	– 4,226	– 2,675	– 629	+ 368	– 1,551	– 453	– 453

1 Excluding capital transfers, where identifiable. Includes current international cooperation and other current transfers. **2** Includes insurance premiums and claims (excluding life insurance policies). **3** Transfers between resident and non-resident households.

6. Capital account of the Federal Republic of Germany (balances)

€ million

Period	Total	Non-produced non-financial assets	Capital transfers
2014	+ 2,936	+ 2,841	+ 95
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 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
2019 Q1	+ 1,408	+ 845	+ 563
Q2	– 522	– 288	– 233
2018 Oct.	– 822	– 594	– 228
Nov.	– 489	– 313	– 176
Dec.	+ 2,779	+ 3,237	– 458
2019 Jan.	+ 2,133	+ 1,831	+ 302
Feb.	+ 224	– 241	+ 465
Mar.	– 949	– 745	– 203
Apr.	+ 79	+ 305	– 226
May	– 435	– 554	+ 119
June	– 166	– 39	– 127
July	+ 259	+ 668	– 409
Aug. p	+ 819	+ 853	– 34

XII. External sector

7. Financial account of the Federal Republic of Germany (net)

€ million

Item	2016	2017	2018	2018 Q4	2019 Q1	2019 Q2	2019 June	2019 July	2019 Aug. p
I. Net domestic investment abroad (increase: +)	+ 401,354	+ 376,599	+ 352,485	+ 9,965	+ 123,539	+ 100,445	+ 61,218	– 51,895	+ 50,892
1. Direct investment	+ 99,180	+ 123,084	+ 132,671	+ 2,237	+ 44,205	+ 30,482	+ 2,774	+ 4,298	+ 3,615
Equity	+ 83,199	+ 76,326	+ 140,071	+ 11,697	+ 24,175	+ 29,812	+ 4,010	+ 2,155	+ 9,440
of which: Reinvestment of earnings [1]	+ 32,535	+ 24,572	+ 31,689	+ 3,530	+ 12,762	+ 12,576	+ 3,224	+ 3,254	+ 6,331
Debt instruments	+ 15,981	+ 46,758	– 7,400	– 9,459	+ 20,030	+ 670	– 1,236	+ 2,143	– 5,825
2. Portfolio investment	+ 96,969	+ 106,469	+ 68,098	– 8,940	+ 36,459	+ 27,839	+ 17,479	+ 10,627	+ 2,506
Shares [2]	+ 16,954	+ 14,229	+ 9,406	– 504	+ 481	+ 2,928	+ 458	+ 1,073	– 797
Investment fund shares [3]	+ 37,698	+ 50,094	+ 18,658	– 441	+ 10,695	+ 8,330	+ 6,705	+ 3,766	+ 3,476
Long-term debt securities [4]	+ 48,544	+ 44,184	+ 44,648	– 2,411	+ 17,978	+ 17,011	+ 7,848	+ 6,963	+ 672
Short-term debt securities [5]	– 6,227	– 2,038	– 4,613	– 5,585	+ 7,304	– 430	+ 2,468	– 1,174	– 846
3. Financial derivatives and employee stock options [6]	+ 29,053	+ 11,618	+ 23,253	+ 537	+ 6,184	+ 11,240	+ 4,810	+ 2,944	+ 2,302
4. Other investment [7]	+ 174,467	+ 136,697	+ 128,070	+ 15,571	+ 36,754	+ 30,440	+ 36,440	– 70,112	+ 41,714
Monetary financial institutions [8]	+ 18,509	– 20,986	+ 49,856	+ 1,493	+ 51,097	+ 34,381	+ 16,642	+ 7,786	+ 10,899
Long-term	+ 44,861	+ 19,641	+ 4,456	+ 3,023	+ 12,324	+ 7,842	+ 5,049	+ 2,040	+ 344
Short-term	– 26,353	– 40,627	+ 45,400	– 1,530	+ 38,773	+ 26,540	+ 11,593	+ 5,747	+ 10,555
Enterprises and households [9]	– 13,510	+ 5,039	+ 30,233	+ 5,877	+ 6,210	– 5,403	+ 11,720	– 5,898	– 4,639
Long-term	– 3,237	– 2,062	+ 10,456	+ 2,393	– 14	+ 2,627	+ 729	+ 1,100	+ 594
Short-term	– 10,273	+ 7,102	+ 19,777	+ 3,484	+ 6,225	– 8,030	+ 10,990	– 6,998	– 5,234
General government	– 1,022	– 3,993	– 8,814	+ 1,020	+ 1,764	– 453	– 41	– 427	+ 8,493
Long-term	– 7,408	– 4,408	– 1,097	– 121	– 358	– 1,514	– 1,396	– 148	– 13
Short-term	+ 6,386	+ 415	– 7,717	+ 1,141	+ 2,122	+ 1,061	+ 1,355	– 279	+ 8,506
Bundesbank	+ 170,491	+ 156,637	+ 56,795	+ 7,181	– 22,318	+ 1,915	+ 8,120	– 71,574	+ 26,961
5. Reserve assets	+ 1,686	– 1,269	+ 392	+ 560	– 63	+ 444	– 285	+ 348	+ 755
II. Net foreign investment in the reporting country (increase: +)	+ 141,635	+ 93,652	+ 123,637	– 54,901	+ 88,124	+ 51,191	+ 43,295	– 51,505	+ 50,388
1. Direct investment	+ 56,018	+ 74,395	+ 89,151	+ 25,853	+ 8,953	+ 26,472	+ 639	+ 9,981	+ 7,371
Equity	+ 13,883	+ 21,255	+ 13,396	+ 7,680	+ 8,138	+ 2,857	– 113	+ 1,738	+ 1,778
of which: Reinvestment of earnings [1]	+ 2,188	+ 8,115	+ 4,531	+ 2,551	+ 4,062	+ 1,216	– 188	+ 824	+ 1,975
Debt instruments	+ 42,135	+ 53,140	+ 75,755	+ 18,172	+ 815	+ 23,615	+ 752	+ 8,243	+ 5,593
2. Portfolio investment	– 102,008	– 90,176	– 44,980	– 27,860	+ 53,202	+ 11,356	– 2,328	– 2,355	+ 7,212
Shares [2]	– 221	– 715	+ 6,618	+ 14	– 3,977	– 1,422	+ 793	+ 1,603	– 1,396
Investment fund shares [3]	– 6,932	– 1,991	– 5,821	– 654	– 3,801	– 948	+ 681	– 460	– 131
Long-term debt securities [4]	– 95,327	– 70,432	– 47,593	– 22,480	+ 38,800	+ 20,460	+ 2,074	– 6,032	+ 3,444
Short-term debt securities [5]	+ 471	– 17,039	+ 1,815	– 4,740	+ 22,179	– 6,734	– 5,876	+ 2,533	+ 5,296
3. Other investment [7]	+ 187,625	+ 109,433	+ 79,466	– 52,893	+ 25,969	+ 13,362	+ 44,984	– 59,131	+ 35,805
Monetary financial institutions [8]	+ 86,742	+ 17,476	– 35,965	– 108,955	+ 102,619	+ 34,768	+ 12,233	– 25,737	+ 19,531
Long-term	+ 5,774	+ 7,541	– 8,496	– 509	+ 1,223	+ 3,349	+ 2,238	+ 2,481	+ 1,115
Short-term	+ 80,968	+ 9,935	– 27,469	– 108,446	+ 101,396	+ 31,419	+ 9,995	– 28,218	+ 18,416
Enterprises and households [9]	– 4,658	+ 23,541	+ 15,750	– 19,053	+ 26,964	+ 831	+ 6,840	– 6,834	– 9,037
Long-term	+ 78	+ 8,855	+ 8,259	– 1,417	+ 3,091	+ 3,182	+ 1,156	+ 3,095	+ 594
Short-term	– 4,736	+ 14,687	+ 7,491	– 17,636	+ 23,873	– 2,351	+ 5,684	– 9,928	– 9,631
General government	– 5,309	– 8,719	+ 2,890	– 4,205	+ 6,805	– 620	– 46	– 892	+ 6,348
Long-term	– 4,682	– 3,723	+ 660	+ 402	– 1	– 101	– 25	– 91	– 63
Short-term	– 626	– 4,996	+ 2,230	– 4,607	+ 6,807	– 519	– 21	– 801	+ 6,411
Bundesbank	+ 110,849	+ 77,135	+ 96,792	+ 79,319	– 110,419	– 21,617	+ 25,957	– 25,668	+ 18,963
III. Net financial account (net lending: +/net borrowing: -)	+ 259,720	+ 282,947	+ 228,848	+ 64,866	+ 35,415	+ 49,254	+ 17,923	– 390	+ 503

1 Estimate based on data on direct investment stocks abroad and in the Federal Republic of Germany (see Special Statistical Publication 10). **2** Including participation certificates. **3** Including reinvestment of earnings. **4** Up to and including 2012 without accrued interest. Long-term: original maturity of more than one year or unlimited. **5** Short-term: original maturity up to one year. **6** Balance of transactions arising from options and financial futures contracts as well as employee stock options. **7** Includes in particular loans, trade credits as well as currency and deposits. **8** Excluding Bundesbank. **9** Includes the following sectors: financial corporations (excluding monetary financial institutions) as well as non-financial corporations, households and non-profit institutions serving households.

XII. External sector

8. External position of the Bundesbank °

€ million

End of reporting period	External assets									External liabilities 3,4	Net external position (col. 1 minus col. 10)
		Reserve assets					Other investment				
	Total	Total	Gold and gold receivables	Special drawing rights	Reserve position in the IMF	Currency, deposits and securities	Total	of which: Clearing accounts within the ESCB 1	Portfolio investment 2		
	1	2	3	4	5	6	7	8	9	10	11
1999 Jan. 5	95,316	93,940	29,312	1,598	6,863	56,167	1,376	–	–	9,628	85,688
1999	141,958	93,039	32,287	1,948	6,383	52,420	48,919	26,275	–	7,830	134,128
2000	100,762	93,815	32,676	1,894	5,868	53,377	6,947	– 6,851	–	8,287	92,475
2001	76,147	93,215	35,005	2,032	6,689	49,489	– 17,068	– 30,857	–	10,477	65,670
2002	103,948	85,002	36,208	1,888	6,384	40,522	18,780	4,995	166	66,278	37,670
2003	95,394	76,680	36,533	1,540	6,069	32,538	18,259	4,474	454	83,329	12,065
2004	93,110	71,335	35,495	1,512	5,036	29,292	21,110	7,851	665	95,014	– 1,904
2005	130,268	86,181	47,924	1,601	2,948	33,708	43,184	29,886	902	115,377	14,891
2006	104,389	84,765	53,114	1,525	1,486	28,640	18,696	5,399	928	134,697	– 30,308
2007	179,492	92,545	62,433	1,469	949	27,694	84,420	71,046	2,527	176,569	2,923
2008	230,775	99,185	68,194	1,576	1,709	27,705	129,020	115,650	2,570	237,893	– 7,118
2009	323,286	125,541	83,939	13,263	2,705	25,634	190,288	177,935	7,458	247,645	75,641
2010	524,695	162,100	115,403	14,104	4,636	27,957	337,921	325,553	24,674	273,241	251,454
2011	714,662	184,603	132,874	14,118	8,178	29,433	475,994	463,311	54,065	333,730	380,932
2012	921,002	188,630	137,513	13,583	8,760	28,774	668,672	655,670	63,700	424,999	496,003
2013	721,741	143,753	94,876	12,837	7,961	28,080	523,153	510,201	54,834	401,524	320,217
2014	678,804	158,745	107,475	14,261	6,364	30,646	473,274	460,846	46,784	396,314	282,490
2015	800,709	159,532	105,792	15,185	5,132	33,423	596,638	584,210	44,539	481,787	318,921
2016	990,450	175,765	119,253	14,938	6,581	34,993	767,128	754,263	47,557	592,723	397,727
2017	1,142,845	166,842	117,347	13,987	4,294	31,215	923,765	906,941	52,238	668,652	474,193
2018	1,209,982	173,138	121,445	14,378	5,518	31,796	980,560	966,190	56,284	765,813	444,168
2017 Jan.	1,034,804	177,256	121,656	14,806	6,523	34,270	809,862	795,621	47,687	577,945	456,858
Feb.	1,060,894	184,666	128,507	14,976	6,248	34,935	828,264	814,375	47,964	609,216	451,678
Mar.	1,075,039	181,898	126,158	14,886	6,183	34,671	843,892	829,751	49,249	623,524	451,515
Apr.	1,089,144	180,726	126,011	14,697	6,055	33,963	858,281	843,439	50,137	601,492	487,652
May	1,098,879	175,958	122,486	14,459	5,907	33,107	871,724	857,272	51,197	601,093	497,785
June	1,098,880	171,295	118,235	14,349	5,695	33,016	875,312	860,764	52,273	623,914	474,966
July	1,092,769	169,735	117,330	14,124	5,531	32,750	871,752	856,510	51,282	612,871	479,898
Aug.	1,089,883	171,044	119,770	14,071	5,530	31,673	867,696	852,511	51,143	620,273	469,611
Sep.	1,115,200	169,937	118,208	14,089	5,471	32,169	894,441	878,888	50,821	618,496	496,703
Oct.	1,085,916	172,047	118,569	14,208	5,446	33,824	862,772	848,443	51,097	600,416	485,499
Nov.	1,091,832	169,539	117,208	14,069	5,168	33,094	869,988	855,548	52,305	576,550	515,282
Dec.	1,142,845	166,842	117,347	13,987	4,294	31,215	923,765	906,941	52,238	668,652	474,193
2018 Jan.	1,114,774	164,944	117,008	13,776	4,166	29,994	896,665	882,043	53,165	617,024	497,750
Feb.	1,147,979	166,370	117,138	13,949	4,138	31,146	928,275	913,989	53,333	636,717	511,262
Mar.	1,158,983	165,830	116,630	13,906	4,114	31,181	939,229	923,466	53,924	678,829	480,155
Apr.	1,139,056	166,970	117,867	14,043	4,150	30,910	917,971	902,364	54,115	633,679	505,377
May	1,198,995	171,469	120,871	14,287	4,172	32,139	973,323	956,150	54,203	656,506	542,489
June	1,213,511	167,078	116,291	14,245	4,983	31,559	991,577	976,266	54,857	701,075	512,436
July	1,147,878	163,308	112,693	14,131	4,881	31,603	930,107	913,270	54,463	666,362	481,515
Aug.	1,145,283	162,346	111,986	14,208	4,879	31,273	929,073	912,448	53,864	644,650	500,633
Sep.	1,189,175	161,078	110,755	14,236	4,889	31,199	973,380	956,487	54,717	686,357	502,818
Oct.	1,167,004	168,272	116,314	14,440	5,259	32,258	943,644	927,555	55,089	662,976	504,029
Nov.	1,184,703	168,198	116,409	14,405	5,244	32,140	960,478	941,130	56,026	671,196	513,507
Dec.	1,209,982	173,138	121,445	14,378	5,518	31,796	980,560	966,190	56,284	765,813	444,168
2019 Jan.	1,123,169	176,720	124,811	14,424	5,486	31,999	890,410	868,142	56,039	645,348	477,822
Feb.	1,127,455	178,016	125,793	14,496	5,510	32,217	894,226	872,698	55,214	632,447	495,008
Mar.	1,190,416	178,088	125,302	14,629	5,561	32,596	958,243	941,310	54,086	655,643	534,773
Apr.	1,167,188	177,378	124,046	14,622	6,228	32,482	935,563	919,696	54,247	621,907	545,280
May	1,186,394	180,073	126,092	14,637	6,150	33,193	952,038	934,640	54,283	608,076	578,317
June	1,201,041	187,401	134,470	14,473	6,081	32,377	960,158	942,319	53,482	633,849	567,192
July	1,134,349	193,244	139,163	14,613	6,391	33,077	888,584	870,903	52,521	609,370	524,979
Aug.	1,173,640	205,331	149,696	14,703	6,379	34,553	915,546	897,901	52,763	627,395	546,245
Sep.	1,185,142	202,285	147,611	14,831	6,396	33,447	930,892	915,342	51,965	617,201	567,941

o Assets and liabilities vis-à-vis all countries within and outside the euro area. Up to December 2000 the levels at the end of each quarter are shown, owing to revaluations, at market prices; within each quarter, however, the levels are computed on the basis of cumulative transaction values. From January 2001 all end-of-month levels are valued at market prices. **1** Mainly net claims on TARGET2 balances (according to the respective country designation), since November 2000 also balances with non-euro area central banks within the ESCB. **2** Mainly long-term debt securities from issuers within the euro area. **3** Including estimates of currency in circulation abroad. **4** See Deutsche Bundesbank, Monthly Report, October 2014, p. 22. **5** Euro opening balance sheet of the Bundesbank as at 1 January 1999.

XII. External sector

9. Assets and liabilities of enterprises in Germany (other than banks) vis-à-vis non-residents *

€ million

End of year or month	Claims on non-residents							Liabilities vis-à-vis non-residents						
			Claims on foreign non-banks							Liabilities vis-à-vis foreign non-banks				
					from trade credits							from trade credits		
	Total	Balances with foreign banks	Total	from financial operations	Total	Credit terms granted	Advance payments effected	Total	Loans from foreign banks	Total	from financial operations	Total	Credit terms used	Advance payments received
All countries														
2015	876,992	264,561	612,431	416,692	195,739	181,240	14,499	1,018,628	152,364	866,264	681,975	184,289	112,668	71,621
2016	877,132	245,991	631,141	420,851	210,290	196,110	14,180	1,051,138	132,151	918,987	722,253	196,734	124,129	72,605
2017	892,379	218,372	674,007	450,147	223,860	210,204	13,657	1,087,106	138,289	948,818	750,318	198,500	128,892	69,607
2018	914,056	233,402	680,654	450,943	229,712	215,637	14,075	1,174,527	138,328	1,036,199	832,342	203,857	133,440	70,417
2019 Mar.	959,563	238,446	721,117	478,350	242,767	228,246	14,521	1,221,840	165,016	1,056,824	850,485	206,339	134,484	71,854
Apr.	947,991	226,267	721,725	485,109	236,616	221,914	14,702	1,221,073	155,616	1,065,457	866,481	198,976	126,167	72,809
May	945,779	221,210	724,569	487,822	236,747	222,353	14,394	1,238,781	158,729	1,080,052	881,048	199,005	127,163	71,842
June	953,789	228,595	725,194	488,559	236,636	222,043	14,592	1,245,781	160,979	1,084,802	882,811	201,991	129,420	72,571
July	949,485	222,692	726,793	490,374	236,419	221,761	14,657	1,249,534	152,679	1,096,855	895,379	201,476	128,362	73,114
Aug.	939,569	223,270	716,298	488,474	227,824	213,001	14,823	1,243,067	151,281	1,091,786	897,608	194,178	120,264	73,913
Industrial countries [1]														
2015	768,263	260,659	507,604	374,690	132,915	119,868	13,047	919,095	147,507	771,588	644,558	127,030	91,119	35,911
2016	760,622	242,112	518,510	378,804	139,705	127,025	12,680	946,894	128,163	818,731	685,120	133,611	96,436	37,174
2017	773,242	214,321	558,921	406,982	151,939	139,749	12,190	982,241	131,450	850,792	711,976	138,816	104,054	34,762
2018	789,499	228,170	561,329	406,279	155,050	142,678	12,372	1,058,150	125,576	932,574	792,349	140,225	105,662	34,563
2019 Mar.	832,431	233,720	598,711	430,270	168,440	155,544	12,896	1,099,773	142,642	957,131	811,167	145,963	110,390	35,573
Apr.	820,716	221,574	599,142	437,295	161,847	148,697	13,150	1,105,485	139,858	965,627	827,612	138,015	102,103	35,912
May	819,654	216,486	603,168	441,245	161,924	149,117	12,806	1,121,023	139,328	981,695	842,151	139,544	104,462	35,082
June	826,620	223,823	602,796	441,001	161,795	148,751	13,044	1,122,439	136,566	985,872	844,066	141,806	105,516	36,290
July	819,880	218,048	601,832	442,666	159,166	146,057	13,109	1,130,203	135,769	994,433	854,699	139,734	103,805	35,929
Aug.	812,233	218,136	594,098	441,143	152,955	139,758	13,196	1,132,396	143,153	989,243	856,047	133,196	97,073	36,123
EU Member States [1]														
2015	631,596	242,588	389,007	294,555	94,452	83,957	10,495	752,188	136,630	615,558	531,136	84,422	58,673	25,749
2016	614,938	224,194	390,744	293,305	97,439	87,421	10,018	770,003	118,015	651,988	563,776	88,212	61,312	26,901
2017	612,266	194,340	417,927	311,482	106,445	96,562	9,882	807,572	115,034	692,538	596,293	96,244	71,297	24,947
2018	629,920	207,625	422,295	314,364	107,932	98,242	9,689	865,713	108,560	757,153	661,338	95,816	71,623	24,192
2019 Mar.	661,769	211,392	450,377	332,137	118,241	108,492	9,748	904,541	123,318	781,223	679,002	102,220	77,107	25,113
Apr.	654,450	200,962	453,489	341,586	111,902	101,852	10,050	909,613	121,585	788,027	692,216	95,812	70,297	25,515
May	653,493	195,672	457,820	345,009	112,812	103,166	9,645	919,425	120,876	798,549	700,934	97,615	73,058	24,557
June	661,551	203,487	458,064	345,445	112,618	102,746	9,872	922,542	118,963	803,579	704,592	98,987	73,459	25,528
July	651,073	197,839	453,234	344,308	108,926	99,124	9,802	927,964	117,661	810,304	713,498	96,805	71,670	25,135
Aug.	644,657	198,196	446,460	342,328	104,133	94,306	9,827	924,368	121,490	802,878	712,298	90,581	65,454	25,126
of which: Euro area [2]														
2015	469,103	195,348	273,755	212,286	61,469	54,890	6,579	606,161	94,619	511,542	458,734	52,808	38,164	14,644
2016	450,353	171,625	278,728	214,125	64,603	57,876	6,727	616,804	75,803	541,001	484,967	56,034	41,167	14,867
2017	449,892	150,351	299,541	227,981	71,560	64,102	7,458	642,801	74,554	568,248	503,475	64,773	49,432	15,342
2018	461,247	155,715	305,532	234,656	70,875	63,734	7,141	702,037	67,366	634,671	569,246	65,425	49,682	15,743
2019 Mar.	483,210	161,906	321,303	245,166	76,138	68,994	7,144	728,003	75,884	652,119	583,445	68,673	52,481	16,192
Apr.	475,064	152,528	322,536	249,339	73,198	65,877	7,321	734,333	75,778	658,555	593,264	65,292	48,849	16,443
May	475,158	151,513	323,645	249,843	73,803	66,678	7,124	742,927	75,513	667,414	602,524	64,890	49,627	15,263
June	480,893	154,754	326,139	252,678	73,461	66,321	7,140	752,044	73,642	678,402	610,770	67,632	51,210	16,421
July	471,794	148,940	322,854	251,226	71,628	64,280	7,348	757,800	73,172	684,628	618,830	65,798	49,581	16,217
Aug.	464,483	146,648	317,835	249,283	68,552	61,159	7,393	754,634	75,043	679,590	618,400	61,190	44,924	16,266
Emerging economies and developing countries [3]														
2015	107,753	3,094	104,659	42,003	62,656	61,204	1,452	95,363	886	94,477	37,218	57,259	21,549	35,710
2016	115,100	2,632	112,468	42,031	70,437	68,937	1,500	101,101	1,061	100,039	36,933	63,107	27,693	35,414
2017	117,488	2,618	114,871	43,097	71,774	70,307	1,467	98,839	1,101	97,738	38,142	59,596	24,838	34,758
2018	122,483	3,445	119,038	44,535	74,503	72,800	1,703	104,630	1,236	103,394	39,793	63,601	27,778	35,823
2019 Mar.	125,082	2,943	122,138	47,950	74,188	72,563	1,625	100,531	1,102	99,429	39,118	60,311	24,064	36,247
Apr.	125,298	3,200	122,098	47,477	74,621	73,069	1,552	100,796	1,238	99,559	38,669	60,890	24,030	36,860
May	124,128	3,238	120,890	46,232	74,658	73,070	1,587	99,326	1,242	98,085	38,696	59,388	22,665	36,723
June	125,168	3,285	121,883	47,212	74,672	73,123	1,549	99,891	1,233	98,658	38,545	60,113	23,865	36,248
July	127,636	3,192	124,444	47,362	77,082	75,534	1,548	103,413	1,249	102,163	40,480	61,683	24,520	37,163
Aug.	125,389	3,712	121,677	46,984	74,693	73,067	1,626	103,635	1,366	102,269	41,362	60,907	23,152	37,756

* The assets and liabilities vis-à-vis non-residents of banks (MFIs) in Germany are shown in Table 4 of Section IV, "Banks". Statistical increases and decreases have not been eliminated; to this extent, the changes in totals are not comparable with the figures shown in Table XI.7. **1** From July 2013 including Croatia. **2** From January 2014 including Latvia; from January 2015 including Lithuania. **3** All countries that are not regarded as industrial countries. Up to June 2013 including Croatia.

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
2018 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
Apr.	1.5802	1.5035	7.5489	7.4650	125.44	9.6233	10.4819	1.1319	0.86179	1.1238
May	1.6116	1.5058	7.6736	7.4675	122.95	9.7794	10.7372	1.1304	0.87176	1.1185
June	1.6264	1.5011	7.7937	7.4669	122.08	9.7465	10.6263	1.1167	0.89107	1.1293
July	1.6061	1.4693	7.7151	7.4656	121.41	9.6587	10.5604	1.1076	0.89942	1.1218
Aug.	1.6431	1.4768	7.8581	7.4602	118.18	9.9742	10.7356	1.0892	0.91554	1.1126
Sep.	1.6162	1.4578	7.8323	7.4634	118.24	9.9203	10.6968	1.0903	0.89092	1.1004

* 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 *

Q1 1999 = 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		
							26 selected industrial countries 4						
								of which:					
	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	Total	Euro area countries	Non-euro area countries	37 countries 5	26 selected industrial countries 4	37 countries 5	56 countries 6
1999	96.3	96.1	96.1	96.1	96.5	95.8	97.9	99.6	95.9	97.7	98.3	98.1	97.7
2000	87.2	86.7	86.0	85.6	88.0	85.8	92.0	97.5	85.4	91.0	93.0	92.1	91.0
2001	87.8	87.0	86.5	86.3	90.6	86.8	91.8	96.5	86.3	90.3	93.1	91.5	90.9
2002	90.1	90.0	89.4	89.6	95.2	90.4	92.5	95.7	88.8	90.8	93.6	92.0	91.7
2003	100.7	101.1	100.4	100.9	107.1	101.2	95.9	94.7	98.0	95.1	97.0	96.6	96.7
2004	104.6	104.8	103.2	104.2	111.7	104.9	96.2	93.5	100.4	95.3	98.4	98.0	98.3
2005	102.9	103.3	100.9	102.3	109.6	102.3	94.9	92.0	99.3	93.0	98.4	96.9	96.6
2006	102.8	103.2	100.2	101.0	109.6	101.5	93.7	90.4	98.8	91.3	98.6	96.5	95.8
2007	106.1	105.8	102.0	103.3	113.0	103.4	94.6	89.7	102.7	91.6	100.9	97.9	97.1
2008	109.3	107.9	103.3	106.7	117.1	105.4	94.8	88.3	105.9	90.7	102.2	97.8	97.1
2009	110.7	108.7	104.2	111.8	120.2	106.4	95.2	89.1	105.4	91.4	101.8	98.0	97.5
2010	103.6	101.0	96.0	103.6	111.6	97.5	92.6	88.8	98.9	87.5	98.7	93.6	92.0
2011	103.3	100.0	93.9	102.1	112.3	96.9	92.2	88.5	98.2	86.6	98.2	92.8	91.3
2012	97.7	94.7	88.4	96.0	107.2	92.1	90.2	88.4	93.0	83.9	95.9	89.8	88.3
2013	101.0	97.5	91.1	98.7	111.8	94.9	92.5	88.9	98.3	85.8	98.2	91.5	90.2
2014	101.4	97.1	91.2	99.6	114.1	95.3	93.2	89.8	98.6	86.5	98.3	91.7	90.8
2015	91.7	87.6	83.0	89.3	105.7	87.0	90.2	90.5	89.6	82.7	94.7	87.0	86.3
2016	94.4	89.5	85.2	p 90.2	109.7	p 88.9	91.0	90.9	91.1	84.0	95.3	88.0	p 87.5
2017	96.6	91.4	86.0	p 90.6	112.0	p 90.0	92.0	90.8	93.8	84.7	96.6	89.1	p 88.3
2018	98.9	93.4	87.4	p 91.5	117.9	p 93.8	93.0	90.7	96.5	85.5	98.0	90.3	p 90.4
2016 Oct.	95.1	90.3			110.0	p 89.0					95.9	88.3	p 87.6
Nov.	94.6	89.7	84.8	p 89.7	109.6	p 88.6	90.9	90.7	91.0	83.8	95.4	88.0	p 87.4
Dec.	93.7	89.0			108.6	p 87.8					95.3	87.9	p 87.1
2017 Jan.	93.9	89.1			109.0	p 88.0					95.2	87.7	p 87.0
Feb.	93.4	88.9	83.5	p 88.8	108.1	p 87.4	90.4	90.5	90.2	83.2	95.0	87.6	p 86.7
Mar.	94.0	89.2			108.5	p 87.5					95.3	87.7	p 86.7
Apr.	93.7	89.0			108.2	p 87.2					95.1	87.6	p 86.5
May	95.6	90.5	85.0	p 89.7	110.5	p 88.8	91.4	90.8	92.2	84.2	96.0	88.6	p 87.6
June	96.3	91.1			111.4	p 89.5					96.4	88.9	p 88.0
July	97.6	92.3			113.3	p 90.9					97.1	89.7	p 89.0
Aug.	99.0	93.7	87.8	p 92.2	115.0	p 92.3	92.9	90.9	96.1	85.7	97.9	90.4	p 89.8
Sep.	99.0	93.6			115.0	p 92.3					97.9	90.5	p 89.9
Oct.	98.6	93.1			114.8	p 91.9					97.5	89.9	p 89.4
Nov.	98.5	93.1	87.6	p 91.8	115.0	p 92.0	93.1	90.8	96.6	85.6	97.9	90.2	p 89.7
Dec.	98.8	93.3			115.3	p 92.2					98.1	90.3	p 89.8
2018 Jan.	99.4	93.9			116.1	p 92.7					98.3	90.4	p 89.9
Feb.	99.6	93.9	88.0	p 92.1	117.3	p 93.6	93.5	90.6	98.0	85.7	98.4	90.5	p 90.1
Mar.	99.7	94.2			117.7	p 94.0					98.5	90.7	p 90.4
Apr.	99.5	94.0			117.9	p 94.0					98.6	90.6	p 90.5
May	98.1	92.7	87.0	p 91.2	116.6	p 93.1	93.0	90.7	96.7	85.2	98.1	90.1	p 90.0
June	97.9	92.6			116.7	p 93.0					97.8	89.9	p 90.0
July	99.2	93.8			118.2	p 94.2					97.6	90.3	p 90.4
Aug.	99.0	93.4	87.5	p 91.8	119.0	p 94.6	92.6	90.5	96.0	85.5	97.5	90.2	p 90.6
Sep.	99.5	93.9			120.4	p 95.5					98.0	90.8	p 91.5
Oct.	98.9	93.4			119.0	p 94.4					97.6	90.3	p 90.7
Nov.	98.3	92.9	86.9	p 91.0	117.9	p 93.5	92.7	90.9	95.5	85.5	97.6	90.3	p 90.5
Dec.	98.4	92.7			118.0	p 93.4					97.4	90.0	p 90.3
2019 Jan.	97.8	92.2			117.3	p 92.7					97.0	89.5	p 89.7
Feb.	97.4	91.7	p 85.7	p 89.6	116.6	p 92.0	92.3	90.7	94.5	p 84.7	96.9	89.3	p 89.4
Mar.	96.9	91.1			116.2	p 91.6					96.5	88.8	p 88.9
Apr.	96.7	91.0			116.1	p 91.4					96.9	89.1	p 89.2
May	97.4	91.4	p 85.5	p 89.3	117.0	p 91.9	p 92.1	p 90.9	94.0	p 84.6	97.0	89.4	p 89.6
June	97.9	91.9			117.4	p 92.2					97.2	89.7	p 89.8
July	97.5	p 91.3			116.5	p 91.3					97.0	p 89.4	p 89.3
Aug.	98.1	p 91.9	...	...	117.6	p 92.0	...	...	...	...	p 96.8	p 89.5	p 89.5
Sep.	97.4	p 91.2			116.7	p 91.2					p 96.4	p 89.2	p 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

Financial Stability Review

Monthly Report

For information on the articles published between 2000 and 2018 see the index attached to the January 2019 Monthly Report.

Monthly Report articles

November 2018
- The current economic situation in Germany

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

May 2019
- The current economic situation in Germany

June 2019
- Outlook for the German economy – macroeconomic projections for 2019 and 2020 and an outlook for 2021
- The European banking package – revised rules in EU banking regulation
- Payment services in transition: instant payments, PSD2 and new competitors
- The costs of payment methods in the retail sector

July 2019
- Parallels in the exchange rate movements of major currencies
- Crypto tokens in payments and securities settlement

August 2019
- The current economic situation in Germany

September 2019
- The impact of wages on prices in Germany: evidence from selected empirical analyses
- State government budgets: analysis of detailed results for 2018
- Longer-term changes in the unsecured interbank money market
- The performance of German credit institutions in 2018

October 2019
- The sustainable finance market: a stocktake
- The European market for investment funds and the role of bond funds in the low interest rate environment
- Long-term outlook for the statutory pension insurance scheme
- Structural reforms in the euro area

Statistical Supplements to the Monthly Report

1 Banking statistics[1, 2]
2 Capital market statistics[1, 2]
3 Balance of payments statistics[1, 2]
4 Seasonally adjusted business statistics[1, 2]
5 Exchange rate statistics[2]

Special Publications

Makro-ökonometrisches Mehr-Länder-Modell, November 1996[3]

Europäische Organisationen und Gremien im Bereich von Währung und Wirtschaft, May 1997[3]

Die Zahlungsbilanz der ehemaligen DDR 1975 bis 1989, August 1999[3]

The market for German Federal securities, May 2000

Macro-Econometric Multi-Country Model: MEMMOD, June 2000

Bundesbank Act, September 2002

Weltweite Organisationen und Gremien im Bereich von Währung und Wirtschaft, March 2013[3]

Die Europäische Union: Grundlagen und Politikbereiche außerhalb der Wirtschafts- und Währungsunion, April 2005[3]

Die Deutsche Bundesbank – Aufgabenfelder, rechtlicher Rahmen, Geschichte, April 2006[3]

European economic and monetary union, April 2008

For footnotes, see p. 88•.

Special Statistical Publications

1 Banking statistics guidelines, January 2019[2, 4]

2 Banking statistics customer classification, January 2019[2]

3 Aufbau der bankstatistischen Tabellen, July 2013[2, 3]

4 Financial accounts for Germany 2013 to 2018, July 2019[2]

5 Extrapolated results from financial statements of German enterprises 1997 to 2017, June 2019[2]

6 Verhältniszahlen aus Jahresabschlüssen deutscher Unternehmen von 2014 bis 2015, May 2018[2, 3]

7 Notes on the coding list for the balance of payments statistics, October 2013[2]

8 The balance of payments statistics of the Federal Republic of Germany, 2nd edition, February 1991[o]

9 Securities deposits, August 2005

10 Foreign direct investment stock statistics, June 2019[1, 2]

11 Balance of payments by region, July 2013

12 Technologische Dienstleistungen in der Zahlungsbilanz, June 2011[3]

Discussion Papers*

29/2019
Going the extra mile: Effort by workers and job-seekers

30/2019
Risk weighting, private lending and macroeconomic dynamics

31/2019
A novel housing price misalignment indicator for Germany

32/2019
Price trends over the product life cycle and the optimal inflation target

33/2019
When old meets young? Germany's population ageing and the current account

34/2019
Expectation formation, sticky prices, and the ZLB

35/2019
Estimating regional wealth in Germany: How different are east and west really?

36/2019
Uncertainty shocks and financial crisis indicators

37/2019
Statistical governance and FDI in emerging economies

38/2019
The real effects of bank distress: evidence from bank bailouts in Germany

39/2019
Foreign exchange dealer asset pricing

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[2]

2a Solvency Regulation, December 2006[2]
Liquidity Regulation, December 2006[2]

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1 Only the headings and explanatory notes to the data contained in the German originals are available in English.
2 Available on the website only.
3 Available in German only.
4 Only some parts of the Special Statistical Publications are provided in English. The date refers to the German issue, which may be of a more recent date than the English one.