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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 Data unknown, not to be published or not meaningful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

German economy likely to have contracted slightly in second quarter of 2019

Economic output in Germany is likely to have contracted slightly in the second quarter of 2019. The domestic economy probably continued to provide impetus. The labour market situation was still favourable although the slowdown in economic activity started to leave its mark. However, one-off effects that were driving growth during the first quarter petered out. Construction activity is likely to have declined after a still very strong expansion in the first quarter supported by favourable weather conditions. Moreover, passenger car registrations returned to normal. There had been a sharp rise previously, as car purchases were made which had been postponed in the second half of 2018 due to supply difficulties. This dampened private consumption in the second quarter. The decline in business with the UK weighed additionally upon already weak exports. In the first quarter, a significant number of purchases were brought forward in the run-up to the original Brexit date at the end of March. Even excluding these negative one-off factors, the underlying cyclical trend remained weak. This was mainly due to the fact that the downturn in the chiefly export-oriented industry was continuing. Exports and industry are still not showing any signs of a recovery.

Industry

Industrial output up significantly in May on very weak previous month

Industrial output was up significantly in May 2019, 1% higher than in April after seasonal adjustment. On an average of April and May, however, due to the very weak previous month, industrial output was considerably below the average of the first quarter (-1%). One likely reason for this was the UK's original plan to withdraw from the European Union at the end of March. Stocks were replenished there ahead of Brexit, meaning that fewer German products were in demand and being produced. Data available so far for the second quarter show that industry has not yet been able to move past its sluggish phase. Amongst others, the manufacture of motor vehicles and motor vehicle parts declined steeply. According to data provided by the German Association of the Automotive Industry (VDA) on the numbers of passenger cars manufactured, motor vehicle output is likely to have remained rather sluggish as the quarter progressed. Moreover, German manufacturers of machinery suffered considerable losses in output in April and May compared with the first quarter. Manufacturers of computers, electronic and optical products, on the other hand, were able to significantly raise their output. Production in other transport equipment saw even steeper growth. However, the production of capital goods overall – like sales of intermediate goods – contracted considerably (-1¼% and -1½% respectively). By contrast, producers of consumer goods recorded a slight increase (+¼%).

Strong fall in industrial new orders

The order situation in German industry deteriorated substantially in May 2019. After seasonal adjustment, the intake of orders declined by 2¼% on the month. Looking at April and May in aggregate, it was also significantly below the average of the first quarter of 2019 (-1½%). The decrease was due mainly to the reduction in demand for industrial goods from Germany and the other euro area countries (-4% and -3¾% respectively), while the inflow of new orders from non-euro area countries recorded a steep rise (+2½%). Capital goods played a significant role in this geographical divide. This applies in particular to the sharp fluctuations in new orders recorded in the automotive sector towards the end of the period under review. The volume of new motor vehicle orders from Germany and the euro area dropped significantly. By contrast, German carmakers saw considerable growth in the inflow

Economic conditions in Germany*

Seasonally adjusted

Period	Orders received (volume); 2015 = 100			
	Industry			
	Total	of which: Domestic	of which: Foreign	Main construction
2018 Q3	106.9	103.5	109.5	119.6
Q4	107.4	103.3	110.5	131.7
2019 Q1	103.0	100.5	104.9	129.1
Mar.	102.1	96.9	106.1	126.3
Apr.	102.5	96.1	107.3	124.2
May	100.2	96.8	102.7	…

Period	Output; 2015 = 100			
	Industry			
	Total	of which: Intermediate goods	of which: Capital goods	Construction
2018 Q3	105.7	105.2	104.7	109.6
Q4	104.4	104.4	105.0	110.3
2019 Q1	104.2	103.9	105.1	114.2
Mar.	104.6	104.1	105.6	115.6
Apr.	102.6	102.5	102.7	113.5
May	103.5	102.0	104.8	110.8

Period	Foreign trade; € billion			Memo item:
	Exports	Imports	Balance	Current account balance in € billion
2018 Q3	330.60	277.89	52.71	54.79
Q4	333.62	277.55	56.07	62.77
2019 Q1	336.25	279.29	56.96	66.70
Mar.	112.85	92.94	19.91	23.86
Apr.	109.04	92.07	16.97	21.09
May	110.29	91.61	18.68	21.66

Period	Labour market			
	Employment	Vacancies[1]	Unemployment	Unemployment rate
	Number in thousands			%
2018 Q4	45,014	803	2,275	5.0
2019 Q1	45,162	804	2,244	5.0
Q2	…	795	2,261	5.0
Apr.	45,231	800	2,221	4.9
May	45,252	795	2,282	5.0
June	…	791	2,281	5.0

Period	Prices; 2015 = 100			
	Import prices	Producer prices of industrial products	Construction prices[2]	Harmonised consumer prices
2018 Q4	103.7	105.0	112.0	104.8
2019 Q1	102.2	105.1	114.0	104.6
Q2	…	105.1	115.0	105.5
Apr.	102.6	105.3	.	105.3
May	102.5	105.1	.	105.6
June	…	104.8	.	105.7

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

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of new orders from non-euro area countries, which more than offset the declines from other regions. Producers of capital goods experienced a major setback overall, however (-1¾%). The intermediate goods industry received even fewer new orders (-2¼%). However, producers of consumer goods enjoyed strong growth in new orders (+2¾%).

Significant fall in industrial sales, steep growth in exports of goods

Industrial sales and industrial output were distinctly divergent in May 2019, as in the previous month. This time the change in sales was weaker than that in output, however. After seasonal adjustment, there was a steep month-on-month decline of 1% in nominal sales. On an average of April and May, sales figures fell to a similar extent (-1¼%) compared with the first quarter. In regional terms, the decline was chiefly due to weak sales in Germany and in non-euro area countries. By contrast, sales stagnated in the euro area, with sales growth at German mechanical engineering firms and manufacturers of computers, electronic and optical products having a particularly stabilising effect. However, sales of capital goods – just like sales of intermediate goods – fell heavily overall. Only sales of consumer goods were up significantly. Nominal exports of goods in May 2019 saw a steep seasonally adjusted rise on the previous month (+1¼%). Looking at April and May in aggregate, however, exports of goods declined strongly in both nominal and real terms (-2¼% in each case) compared with the first quarter of 2019. Exports to the United Kingdom were especially hard hit after they had risen strongly in the first quarter in the run-up to the Brexit date which was initially scheduled for the end of March. Nominal imports of goods decreased markedly in May 2019 after seasonal adjustment (-½%). On an average of April and May, they were down considerably in both nominal and real terms (-1½% and -1¾%) on the previous quarter.

Construction

Steep decline in construction output

Construction output declined steeply in May 2019, falling by a seasonally adjusted 2½% on the month. The average for April and May was also considerably lower than the previous quarter (-1¾%). Above all, significantly less activity in the finishing trades had a dampening effect (-3%). By contrast, the volume of production in the main construction sector was down only slightly (-¼%). This was probably partly attributable to the rebound effects in the context of the strong activity in the winter months on account of the weather. The inflow of orders in the main construction sector also declined, falling strongly by 3¾% on the quarter in April 2019 – data are available up to this date. The downturn since the turn of the year thus continued, after the inflow of orders had soared at the end of 2018 on the back of large orders. However, this probably does not suggest a rapid slowdown in the flourishing construction sector. Equipment utilisation and the reach of orders in the main construction industry were still at a very high level, according to surveys by the ifo Institute.

Labour market

Employment continues to rise

The development in employment was still positive overall. After seasonal adjustment, the number of persons in work in May 2019 rose by 21,000 on the month. Employment was up by 462,000 persons, or 1.0%, in comparison to the same month one year earlier. This is due mainly to employment subject to social security contributions, which rose more strongly again in April in seasonally adjusted terms. However, the rise in jobs subject to social security contributions – like growth in total employment – lost momentum compared with the previous year. According to data provided by the Federal Employment Agency, the economic sectors reporting the strongest growth in employment in April after seasonal adjustment included health and social care, business and support services (not including temporary agency workers), wholesale and retail and the information and communication sector. The manufacturing sector likewise posted a slight increase. By contrast, following persistent gains, employment in construction was slightly lower and job cuts in the cyclically sensitive temporary agency employment sector continued. Leading indicators suggest that employers' willingness to recruit was lower in June, too, although still distinctly expansionary.

Unemployment virtually unchanged of late

Registered unemployment remained virtually unchanged in June in seasonally adjusted terms, after previously posting a rise of 61,000 persons due to a statistical break.[1] Overall, around 2.28 million persons were registered with the Federal Employment Agency as unemployed and the unemployment rate was 5%, as in the previous month. The number of unemployment benefit recipients under the statutory insurance scheme, which is above all cyclically driven, rose slightly by 8,000 persons in seasonally adjusted terms. However, the number of registered unemployed persons receiving the basic welfare allowance fell to the same extent. Cyclical short-time working increased in April (more recent data are not available), but is still at a low level. According to the survey results of the ifo Institute, however, industrial enterprises might have increased short-time working in the meantime and expand it further in the next three months.[2] The unemployment barometer of the Institute for Employment Research (IAB) deteriorated markedly again in June, suggesting a slight increase in unemployment in the next three months.

Prices

Crude oil prices down significantly

In June, crude oil prices were down significantly on the month due to the gloomier demand outlook. The May level was undershot by

1 According to the Federal Employment Agency, this statistical effect occurring in May 2019 no longer has any significant impact on the seasonally adjusted changes in June 2019. See Federal Employment Agency (2019).
2 See ifo Institute (2019a, 2019b).

one-tenth on a monthly average and by more than 15% in a year-on-year comparison. As this report went to press, prices, at US$62, were still at roughly the June level. Crude oil futures were traded at a slight discount: US$1¼ for deliveries six months ahead and US$2¼ for deliveries 12 months ahead.

Import and producer prices lower again

Import prices fell slightly in May, which was mainly due to developments in the non-energy area. By contrast, the decline in producer prices, for which data are already available for June, stemmed primarily from the energy component, while prices for other goods remained unchanged. At the end of the period under review, the year-on-year figure for imports turned negative and dropped to 1.2% in the case of industrial producer prices.

Slight rise in consumer prices

Consumer prices (HICP) in June rose by a seasonally adjusted 0.1%. Energy prices decreased as a result of the lower crude oil prices, but prices of food as well as of non-energy industrial goods and of services were markedly higher. Annual headline HICP inflation went up from 1.3% to 1.5% overall (CPI 1.6%, after 1.4%). Excluding energy and food, it rose from 0.9% to 1.5%, partly owing to the late timing of Whitsun. HICP as a whole is expected to show slightly more moderate growth again in the coming months. On the one hand, the lower crude oil prices have probably not yet been fully passed on to consumers and, on the other, prices for travel services are likely to dampen the inflation rate.

Public finances[3]

Local government finances

Improved financial situation at start of year: steep rise in revenue …

Local governments' core budgets are usually in deficit in the first quarter.[4] This year, at €5 billion, the deficit was €1 billion lower than a year ago. Revenue rose by 6½% (€3½ billion), including a 4% increase in tax revenue (€½ billion). Contributing factors were the growth in revenue from local business tax together with the declining share thereof to be transferred to central and state government. Transfers from state government also went up by a substantial 9½% (€2 billion). Proceeds from financial transactions (primarily loan repayments) saw significant growth of nearly €½ billion as well.

… with slightly weaker expenditure growth

Expenditure increased by 4½% (€2½ billion), including a 4% rise in staff costs (€½ billion). This growth indicates that local government is continuing to add to its staff numbers. Other operating expenditure was considerably higher than one year previously (+6½%, or €1 billion), while the rise in social spending was only relatively moderate (2%). Social assistance payments increased significantly, but accommodation costs for the long-term unemployed decreased once more, as did benefits for asylum seekers, albeit at a slower rate. Fixed asset formation continued at a very dynamic pace, with growth of 16½% (€1 billion).

Positive outlook for year as a whole and medium term, too

As the year progresses, year-on-year revenue growth is expected to become slower. The latest tax estimate only forecasts an increase of just over 2% in tax revenue for the year as a whole. Receipts from local business tax are even expected to decline somewhat. According to its projection for the German Financial Stability Council meeting in June, the Federal Ministry of Finance also anticipates a slower rise in state government transfers over the course of the year. Expenditure, on the other hand, is expected to grow at a similar pace as in the first quarter. On balance, local governments' core budgets would post a slightly less favourable result than last year, but would still be running a very high surplus. The medium-term outlook

3 In the short commentaries on public finances, the emphasis is on recent outturns. The quarterly editions of the Monthly Report (published in February, May, August and November), by contrast, contain a detailed description of developments during the preceding quarter. More detailed data can be found in the Statistical Section of the Monthly Reports.
4 Figures for the off-budget entities were not yet available as this report went to press. Local governments usually post a deficit in the first quarter because they initially receive only minimal funds from their shares in income tax. This is offset by state government in the final quarter.

is positive, too, provided growth in the economy as a whole is broadly stable in line with the baseline scenario. Further surpluses appear likely.

Reserves used to limit debt growth in Q1

Local government was evidently able to cover the larger part of the deficit at the start of the year using reserves: the preliminary debt statistics only show an increase of just under €2 billion between the end of 2018 and the end of March 2019.[5] The debt level thus came to €136½ billion. The stock of cash advances rose moderately by €½ billion to €37½ billion. In Rhineland-Palatinate and Saarland, the per capita increases were still appreciable. Besides these two federal states, North Rhine-Westphalia continued to report a very high stock of local government cash advances well in excess of €1,000 per capita.

State government shares responsibility for high cash advances

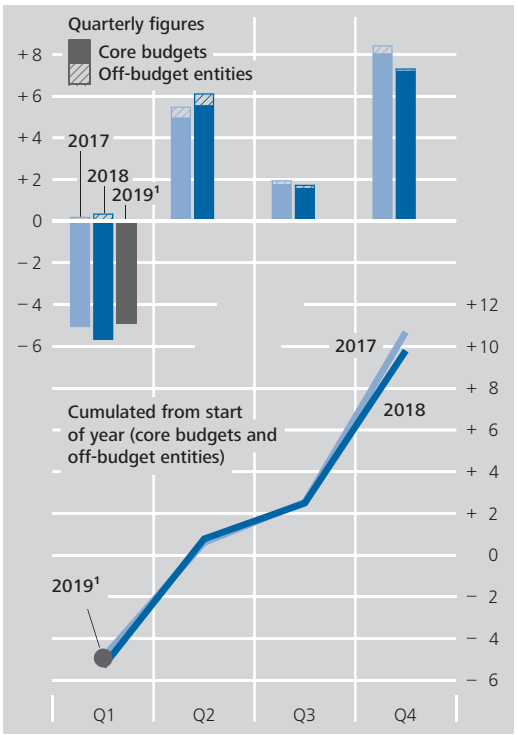
Cash advances are actually intended simply to bridge short-term liquidity shortfalls. In the past, however, many local governments took to large-scale and long-term use of cash advances to plug structural budget shortfalls. State government has a duty to help ensure that its local governments have sufficient funding to perform their tasks. To do so, it can create federal state-specific financial equalisation schemes involving transfers from state government. At the same time, the duty of financial supervision over local government also gives state government the ability to enforce consolidation measures. It appears that some state governments failed to intervene effectively when cash advances, some of them high, piled up. This has meant that the financial position of individual local governments has diverged very strongly, even within some federal states. The local government financial equalisation schemes have only partially counteracted this development.

Reliably prevent problems with cash advances in future

Amongst other things, the Commission on Equivalent Living Conditions was tasked with proposing solutions to the problem of high local government cash advances. It was unable to reach an agreement, however. The Federal

Local government fiscal balance

€ billion



Source: Federal Statistical Office. **1** Figures for Q1 2019 excluding off-budget entities.
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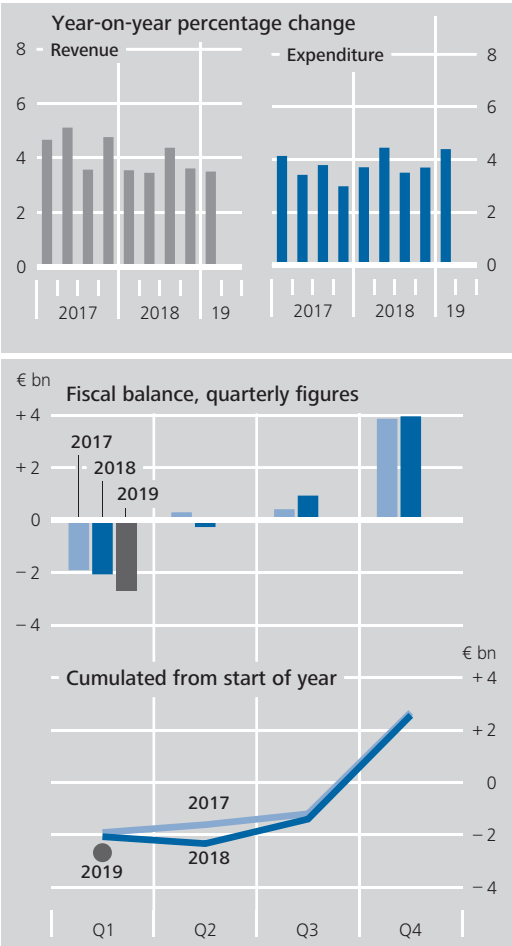
Government continues to emphasise that state government is responsible, but nonetheless offers to make a financial contribution in the event that an amicable solution is found. One starting point could be for central government to take on a larger share of the costs of social benefits, but local government discretion and control place limits on this, partly for efficiency reasons.[6] Central government assistance for high volumes of cash advances will be granted only if there is a consensus. Moreover, it must be ensured that no such liabilities accrue again afterwards. In order to make sure of this, it would be worth considering a rule stipulating that, in future, local governments with budget shortages may take out cash advances only from their respective state government. If these

5 These statistics include all debt attributable to core budgets and off-budget entities, adjusted for debt owed to other municipalities and municipal special-purpose associations. As well as the financing of deficits, the debt level also reflects changes in the reporting group.
6 See Deutsche Bundesbank (2016), pp. 19 and 23.

Finances of the statutory health insurance scheme*



Source: Federal Ministry of Health. * Health fund and health insurance institutions (consolidated). Preliminary quarterly figures. The final annual figures differ from the total of the reported preliminary quarterly figures as the latter are not revised subsequently.
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advances are then counted under that state government's debt brake, it would have an added incentive to take effective countermeasures.[7] Just last year, the federal state of Hesse took on the bulk of its local governments' cash advances without using central government assistance. In return, these local governments have to help repay the advances for up to 30 years. From now on, all local governments in Hesse are required to consistently balance income and expenditure in their budgets. If this kind of approach is properly pursued, future problems should be prevented.

Statutory health insurance scheme

Slightly higher deficit in Q1

In the first quarter, the statutory health insurance (SHI) scheme (comprising the health insurance institutions and the health fund) posted the usual seasonal deficit. At €2½ billion, it was €½ billion higher on the year. The health fund posted a virtually unchanged deficit of €2½ billion, while the health insurance institutions ran a slight deficit, following a surplus of just under €½ billion at the start of the previous year. This deterioration is largely attributable to somewhat lower supplementary contribution rates charged by the health insurance institutions. According to data from the Federal Ministry of Health, the average supplementary contribution rate was 1.01%, which is 0.07 percentage point lower than a year ago.

Health insurance institutions post slight deficit in face of somewhat lower supplementary contribution rates

The health insurance institutions' revenue, which mainly consists of transfers from the health fund, grew by 3½%. If supplementary contribution rates had remained unchanged, revenue growth would have been ½ percentage point higher. Expenditure rose significantly by 4½%. The number of insured persons grew at a slightly slower pace (½%) than before, while growth picked up distinctly otherwise. The increase in payments for hospital treatment (3%), a particularly large expenditure item, was clearly weaker than overall expenditure growth. One probable reason for this is that there was only a slight increase in the number of cases. The rise in expenditure on remedies and therapeutic appliances, sickness benefits and travelling expenses was far above average. There was an even stronger increase in other expenditure on benefits owing to the first transfers under the Care Staff Strengthening Act *(Pflegepersonal-Stärkungsgesetz)*.

Health fund result largely unchanged

The health fund's revenue grew by just under €3½%. This was down to a slightly stronger increase in contribution receipts on the back of an unchanged central government grant (€14½

7 See Deutsche Bundesbank (2016), p. 29.

billion annually). Growth was dampened by the lower supplementary contribution rates and reduced contributions for self-employed persons with low income. The fund's expenditure, which largely comprises payments to the health insurance institutions, rose just as strongly as revenue.

Another surplus possible for year as a whole

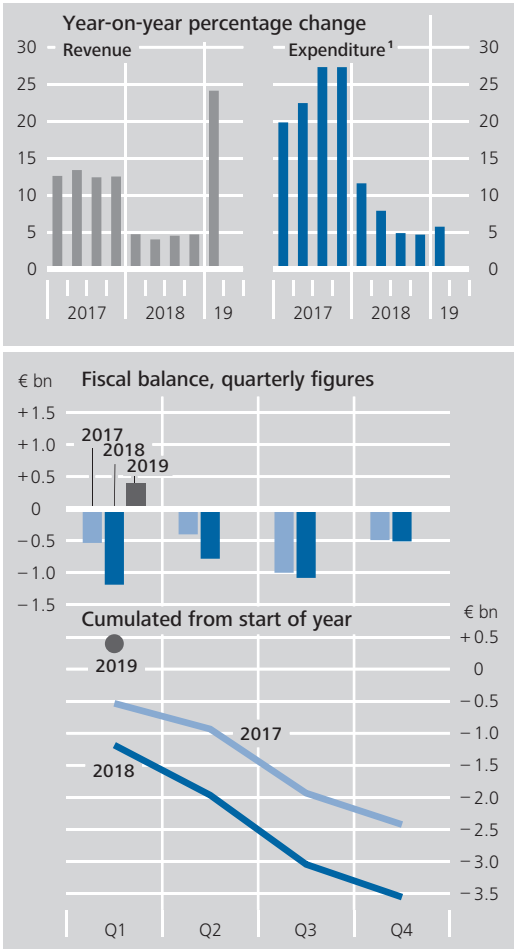
Planning in the fourth quarter of 2018 included a slight deficit to be posted by the health fund for the year as a whole. Transfers are to be made from reserves to the innovation and structural funds. Although the macroeconomic setting worsened compared with the plans made in the fourth quarter of 2018, contribution receipts are shaped by changes in employee compensation and pensions. The outlook for these has so far been stable. The estimators' expenditure projections have regularly proved to be too high in recent years. This does not appear to be the case for the current year. However, the average supplementary contribution rate is once again distinctly higher than would be required to balance out the estimated expenditure (by 0.1 percentage point). It follows that the health insurance institutions would post a surplus of roughly €1½ billion. All in all, the SHI scheme could post a result that is almost half of the previous year's outturn (2018 surplus: €2½ billion).

Public long-term care insurance scheme

Marked surplus in Q1 after strong contribution rate hike, …

The core area[8] of the public long-term care insurance scheme recorded a surplus of €½ billion in the first quarter. At the start of 2018, it had still been running a deficit of €1 billion. The key reason for this strong improvement was the higher contribution rate. At the start of the year, it had been raised by 0.5 percentage point to 3.05% (plus an extra 0.25 percentage point for childless persons, as before). This caused revenue to shoot up by 24%. The rate hike probably has not yet taken full effect when it comes to contributions paid on pensions: pensions drawn since 2004 are generally paid out in arrears, and this also affects the contributions to the long-term care insurance scheme due on those pensions. In addition, the new "mothers' pensions" are being paid out subject to a delay, meaning that the associated increase in contribution receipts was still moderate. The first transfers from the SHI scheme to the long-term care insurance scheme under the Care Staff Strengthening Act had a positive effect. For this reason alone, total revenue was 1½% higher.

Finances of the public long-term care insurance scheme*



Source: Federal Ministry of Health. * Preliminary quarterly figures. The final annual figures differ from the total of the reported preliminary quarterly figures as the latter are not revised subsequently. **1** Including the transfers to the long-term care provident fund.
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8 Excluding the provident fund. The fund uses grants financed by contributions from the core area to accumulate assets. These assets are to be used in the 2030s to dampen the expected contribution rate rise.

… but significant expenditure growth is a strain

Expenditure rose strongly by just over 5½% at the start of the year. Higher care allowance payments and pension contributions for those providing care for a relative caused especially steep growth in cash benefits of 9% overall. The increase in benefits in kind was markedly smaller, at 4½%. In particular, the considerable level of expenditure on fully inpatient care stagnated after the strong rise in 2017.

Much better result for year as a whole given higher contribution burden

Over the remainder of the year, expenditure growth could accelerate on account of efforts to improve the care situation. However, for the year as a whole, too, the raised contribution rate and additional revenue of €7½ billion will clearly dominate. Following a €3½ billion deficit last year, a significant surplus is therefore expected. Looking ahead, demographic change will place a considerable strain on the finances of the long-term care insurance scheme. Additionally, the prospect of further increases in benefits was raised. On the whole, expenditure growth is thus likely to significantly outstrip the increase in the revenue base. It is therefore foreseeable that the contribution rate will rise further in the medium and long term. Beyond that, rising contribution rates for the statutory pension insurance and health insurance schemes are on the horizon. Against this backdrop, caution is advised with respect to any further increases in benefits so as to prevent rising contribution rates from placing an undue strain on macroeconomic growth.

Securities markets

Bond market

High net issuance in the German bond market

At €122.5 billion, gross issuance in the German bond market in May 2019 was up on the previous month's figure (€106.4 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 €42.7 billion. The outstanding volume of foreign debt securities in Germany rose by €8.8 billion during the reporting month, which meant that the outstanding volume of debt instruments in the German market increased by €51.5 billion overall.

Rise in public sector capital market debt

During the reporting month, the public sector issued debt securities worth €21.0 billion net (following net redemptions of €15.1 billion in April). Central government was the main issuer of new securities (€22.7 billion), chiefly in the form of two-year Federal Treasury notes (Schätze) to the tune of €11.9 billion and five-year Federal notes (Bobls) in the amount of €5.6 billion. It also issued Treasury discount paper (Bubills, €3.7 billion) and ten and 30-year Federal bonds (Bunds) totalling €2.9 billion and €1.6 billion respectively. State and local governments redeemed their own bonds worth €1.8 billion net.

Net issuance by credit institutions

Domestic credit institutions raised their capital market debt by €20.1 billion net in May, following net redemptions of €8.3 billion in April. Increases were seen primarily in the outstanding volume of debt securities issued by specialised credit institutions (€13.5 billion), which include, for example, public promotional banks. Mortgage Pfandbriefe and other bank securities that can be structured flexibly were also placed in the market totalling €4.0 billion and €3.6 billion net, respectively.

Slight rise in enterprises' capital market debt

Domestic enterprises issued bonds with a net value of €1.6 billion in the reporting month, compared with €5.1 billion one month earlier. On balance, short-term commercial paper accounted for the majority of issuance activity.

Purchases of debt securities

Foreign investors were the main buyers of bonds in May (€28.4 billion). Domestic non-banks also acquired bonds amounting to €15.0 billion net. Domestic credit institutions purchased bonds worth €4.1 billion net. Holdings of debt securities in the Bundesbank's portfolio increased by €4.0 billion net. The vast majority of these were German debt securities issued by the public sector. As of 2019, the Eurosystem is no longer making net purchases under the expanded asset purchase programme (APP).

However, principal payments will be smoothly reinvested over time so that individual months will ultimately see net acquisition or net redemption.

Equity market

Net issuance in the German equity market

In the reporting month, domestic enterprises placed new shares worth €1.1 billion net in the German equity market. The volume of foreign equities in the German market rose by €1.8 billion over the same period. On balance, shares were purchased chiefly by domestic non-banks (€3.0 billion), but domestic credit institutions were likewise active in the market (€1.2 billion). By contrast, foreign investors reduced their equity exposure in Germany by €1.3 billion on balance.

Mutual funds

German mutual funds record muted inflows

In May, German mutual funds recorded muted net inflows of €3.7 billion (April: €9.5 billion). On balance, specialised funds reserved for institutional investors were the chief beneficiaries (€2.3 billion). Among the asset classes, mixed securities-based funds, in particular, engaged in selling new shares (€2.5 billion). Bond funds, on the other hand, recorded outflows of equity funds amounting to €0.9 billion. The outstanding volume of foreign mutual fund units distributed in Germany decreased by €1.5 billion in the reporting month. On balance, domestic non-banks were the only purchasers of mutual fund shares in May (€5.5 billion). The bulk of these were domestic securities. By contrast, domestic credit institutions and foreign investors sold mutual fund shares.

Balance of payments

Decrease in current account surplus

Germany's current account recorded a surplus of €16.5 billion in May 2019. The result was €6.4 billion down on the previous month's level. Although the surplus in the goods account expanded, the balance in invisible current transactions, which comprises the services account as well as primary and secondary income, narrowed to a much greater degree.

Sales and purchases of debt securities

€ billion

Item	2018 May	2019 April	2019 May
Sales			
Domestic debt securities[1]	20.3	– 18.3	42.7
of which:			
Bank debt securities	6.7	– 8.3	20.1
Public debt securities	11.0	– 15.1	21.0
Foreign debt securities[2]	0.5	4.3	8.8
Purchases			
Residents	1.6	– 3.1	23.1
Credit institutions[3]	– 1.6	– 8.0	4.1
Deutsche Bundesbank	7.7	1.3	4.0
Other sectors[4]	– 4.5	3.7	15.0
of which:			
Domestic debt securities	– 3.9	– 1.8	8.0
Non-residents[2]	19.2	– 10.9	28.4
Total sales/purchases	20.9	– 13.9	51.5

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

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Surplus in goods account up

In the reporting month, the surplus in the goods account increased by €2 billion on the month to €21.3 billion, with exports of goods rising more sharply than imports.

Turnaround in balance of invisible current transactions

Germany recorded a deficit of €4.8 billion in invisible current transactions in May, compared with a surplus of €3.6 billion in April. This was mainly caused by a decline in the primary income balance which outweighed the upturn in the secondary income balance. Moreover, the deficit in the services account widened.

The primary income account recorded net expenditure in the amount of €4.2 billion, compared with net receipts of €7.8 billion in April. The turnaround in the balance in May was chiefly attributable to higher dividend pay-

Major items of the balance of payments

€ billion

Item	2018r May	2019 April	2019 Mayp
I. Current account	+ 13.0	+ 22.9	+ 16.5
1. Goods[1]	+ 19.1	+ 19.3	+ 21.3
Exports (f.o.b.)	106.3	110.1	113.1
Imports (f.o.b.)	87.2	90.8	91.8
Memo item:			
Foreign trade[2]	+ 20.0	+ 17.9	+ 20.6
Exports (f.o.b.)	109.1	110.0	113.9
Imports (c.i.f.)	89.0	92.1	93.4
2. Services[3]	– 1.4	– 0.5	– 1.1
Receipts	23.8	24.3	24.5
Expenditure	25.1	24.8	25.5
3. Primary income	– 4.9	+ 7.8	– 4.2
Receipts	18.7	18.9	19.4
Expenditure	23.6	11.1	23.6
4. Secondary income	+ 0.1	– 3.6	+ 0.5
II. Capital account	– 0.0	+ 0.1	– 0.4
III. Financial account (increase: +)	+ 20.5	+ 18.5	+ 10.9
1. Direct investment	+ 15.0	+ 5.2	– 1.8
Domestic investment abroad	+ 18.0	+ 15.3	+ 10.1
Foreign investment in the reporting country	+ 3.0	+ 10.1	+ 11.9
2. Portfolio investment	– 15.7	+ 19.9	– 17.1
Domestic investment in foreign securities	+ 3.7	+ 7.8	+ 8.7
Shares[4]	+ 0.0	+ 0.6	+ 1.4
Investment fund shares[5]	+ 3.1	+ 2.9	– 1.5
Long-term debt securities[6]	+ 1.5	+ 7.0	+ 2.3
Short-term debt securities[7]	– 1.0	– 2.6	+ 6.5
Foreign investment in domestic securities	+ 19.4	– 12.0	+ 25.8
Shares[4]	+ 0.6	– 0.9	– 1.3
Investment fund shares	– 0.4	– 0.3	– 1.3
Long-term debt securities[6]	+ 10.1	– 0.2	+ 18.8
Short-term debt securities[7]	+ 9.1	– 10.7	+ 9.6
3. Financial derivatives[8]	+ 3.5	+ 5.1	+ 4.4
4. Other investment[9]	+ 17.6	– 12.2	+ 25.3
Monetary financial institutions[10]	– 6.6	– 12.3	+ 7.5
of which: Short-term	– 10.3	– 13.8	+ 7.3
Enterprises and households[11]	– 7.5	– 1.8	– 8.7
General government	– 1.0	– 2.6	+ 2.7
Bundesbank	+ 32.8	+ 4.5	+ 23.8
5. Reserve assets	+ 0.1	+ 0.5	+ 0.2
IV. Errors and omissions[12]	+ 7.4	– 4.5	– 5.1

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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ments on portfolio investments by non-residents in that month. In the secondary income account, the balance shifted from net expenditure (€3.6 billion) in April to net receipts (€0.5 billion). This increase was mainly due to higher general government tax revenue from non-residents owing to the higher dividend payments on portfolio investments. In the services account, the deficit widened by €0.5 billion to €1.1 billion. Revenue saw rises in a number of items, but the increase in expenditure, largely on the back of higher private spending on travel, was stronger.

Net capital imports in portfolio investment …

In May 2019, the international capital markets were influenced by a gloomier economic outlook and the expectation that the low interest rate environment would become entrenched. Germany's cross-border portfolio investment generated net capital imports in the amount of €17.1 billion, compared with net capital exports of €19.9 billion in April. Foreign investors added German securities worth €25.8 billion net to their portfolios. They focused on domestic debt securities (€28.4 billion), purchasing both public and private bonds (€18.8 billion) and money market paper (€9.6 billion). By contrast, they parted with German shares and investment fund shares (€1.3 billion each). Domestic investors also purchased foreign securities on balance (€8.7 billion). They acquired debt securities in particular (€8.8 billion), with demand split between money market paper (€6.5 billion) and bonds (€2.3 billion). Furthermore, they invested in foreign shares (€1.4 billion), while parting with investment fund shares (€1.5 billion).

… and in direct investment

Direct investment recorded net capital imports of €1.8 billion in May, compared with net capital exports of €5.2 billion in April. Foreign enterprises stepped up their direct investment in Germany by €11.9 billion net, predominantly through intra-group lending (€10.8 billion). This stemmed chiefly from short-term financial credits, in particular, granted by foreign affiliates to their parent companies in Germany (reverse flows). Moreover, foreign enterprises

boosted their equity capital (€1.1 billion). Enterprises resident in Germany invested a net €10.1 billion abroad. They mainly bolstered their equity capital, the bulk of which was accounted for by reinvested earnings. In addition, they channelled funds to their foreign affiliates via intra-group financial and trade credits (€2.9 billion).

Outflows in other investment

Other statistically recorded investment, which comprises financial and trade credits (where these do not constitute direct investment), bank deposits and other investment, saw capital in the net amount of €25.3 billion flow abroad in May (as opposed to net inflows of €12.2 billion in April). This was mainly driven by net capital exports by the banking system amounting to €31.2 billion. The Bundesbank's net asset position grew by €23.8 billion. Increased TARGET2 claims in the amount of €14.9 billion contributed to the Bundesbank's higher net claims. Monetary financial institutions (excluding the Bundesbank) also recorded net capital outflows (€7.5 billion). These were primarily attributable to lower liabilities to foreign counterparties. By contrast, non-banks generated net funds of €6.0 billion. This was largely down to transactions by enterprises and households (€8.7 billion), which cut back, in particular, their deposits with foreign institutions. Transactions by public sector entities resulted in capital outflows (€2.7 billion).

Reserve assets

The Bundesbank's reserve assets grew slightly – at transaction values – by €0.2 billion in May.

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Parallels in the exchange rate movements of major currencies

Parallel exchange rate movements of individual currencies can often be seen on the foreign exchange markets. These striking patterns can have a variety of different causes. For example, pegging one currency to another necessarily leads to a co-movement of their exchange rates vis-à-vis a third currency. But co-movement is also often seen between floating exchange rates, brought about, among other things, by spillover effects. Such parallel exchange rate developments stand out particularly after events that lead to pronounced market reactions, for example after the announcement of the Eurosystem's expanded asset purchase programme, the turmoil on the foreign exchange markets in connection with the Turkish lira in the summer of 2018, and after the referendum on the United Kingdom leaving the European Union.

In order to examine whether these illustrative observations represent a systematic pattern, relationships between the exchange rates of major advanced economies are estimated using an econometric model. This identifies three currency blocs whose exchange rates display systematic relationships and even recognises contemporaneous causal relationships between the exchange rates using a machine learning algorithm.

Key determinants for inclusion in the identified currency blocs include the intensity of trade links and financial ties, patterns of trade and expectations regarding economic policy risks. One of these blocs comprises three European currencies (the euro, the Swedish krona and the Norwegian krone), the underlying economies of which are all part of the European Economic Area. A second bloc comprises the Australian dollar, the Canadian dollar and the New Zealand dollar, i.e. currencies of countries that are relatively major commodity exporters. Finally, the approach identifies a bloc comprising the Swiss franc, the US dollar and the Japanese yen. These are safe haven currencies or carry trade financing currencies, which tend to appreciate in times of high financial market stress.

Introduction

Parallels in exchange rate movements can have several causes, …

On the foreign exchange markets, parallels can often be observed in bilateral exchange rate movements. These parallels can have a variety of different causes. However, similar exchange rate movements often indicate that the currency areas concerned have common economic characteristics. For example, similar exchange rate movements can indicate that the respective central banks have the same monetary policy anchor or at least a similar monetary policy orientation. Co-movement of exchange rates often also reflects market participants' expectations and assessments. If, for example, country-specific market turmoil results in a number of other currencies also depreciating, this could be because market participants in these countries regard the risk of contagion effects to be particularly high.

… which makes them more difficult to interpret

Although common exchange rate movements often reflect economic ties or economic policy linkages, the fact that they are observed does not, in itself, provide any indication of the specific cause of such relationships. Precisely because there are so many possible causes, observation must be paired with expert knowledge for a meaningful interpretation.[1] The purpose of this article is therefore to present parallels in the movements of selected exchange rates, identify systematic relationships, and analyse them with theoretical considerations in mind.

The phenomenon of parallel exchange rate movements by way of three examples

Parallel exchange rate responses following the adoption of the Eurosystem's expanded asset purchase programme

Adoption of the APP …

On 22 January 2015, the Governing Council of the ECB adopted the expanded asset purchase programme (APP) in response to a series of negative surprises in the inflation rate and declining inflation expectations in the euro area. It included, among other things, a public sector purchase programme and thus enabled the Eurosystem to greatly increase the volume of its asset purchases from its previous level. Such a monetary policy easing can lead to a depreciation of the euro via a number of channels.[2]

… led to strong reactions on the foreign exchange markets

Indeed, immediately afterwards, there was a sharp depreciation of the euro against a number of major currencies. As the ECB reference rates had already been determined (14:15 CET) by the time the decision on the APP was announced (during a press conference as of 14:30), the earliest visible market reactions were the changes in the reference rates from 22 to 23 January 2015. Measured by the daily rate of change in effective terms, this period saw the second-largest depreciation of the euro ever. However, developments in the effective euro exchange rate do not allow any conclusions to be drawn on co-movements between currencies. For this to be done, it is necessary to examine bilateral or, if necessary, additional effective exchange rates.[3]

1 See Kühl (2010).
2 See Deutsche Bundesbank (2017).
3 Effective exchange rates are not examined in the analyses covered by this article. Such an approach would entail additional difficulties such as the fact that different countries weight partner currencies differently.

The importance of the reference currency in estimating the relationships between bilateral exchange rates

In an econometric estimation of the relationships between bilateral exchange rates, the results depend crucially on the choice of reference currency. A reference currency is the currency to which a bilateral exchange rate refers. For example, in the case of an exchange rate for the euro and the US dollar of US$1.14 per euro, the euro is the reference currency. But the same exchange rate can also be expressed with the US dollar as the reference currency: €0.88 per US dollar. Each of the quotations is the inverse of the other, in this example:

$$1.14\frac{\text{US\$}}{\text{€}} = \frac{1}{0.88\frac{\text{€}}{\text{US\$}}}.$$

If potential parallels are to be drawn between the exchange rate movements of different currencies, it makes sense to express the exchange rates under review in a single reference currency. Only then are exchange rate developments comparable. But this also means that no relationships can be observed for the reference currency itself. Put in more general terms, for $N+1$ different currencies, only the relationships between N bilateral exchange rates can be analysed.[1]

Correlation or regression analysis is often employed to measure the relationships between exchange rates.[2] In the case of a regression analysis, for example, the impact of the rates of change in the exchange rate of one currency pair on the rates of change of another pair are estimated, with the reference currency being the same for all exchange rates under review. However, such an analysis is problematic if the exchange rate of one (or both) of the currency pairs under review is pegged against the reference currency or kept by and large stable by central bank measures. The rate of change used in the analysis would then be at least broadly constant, and the correlation or regression coefficient would contain scarcely any information on possible relationships. In such an instance, it would not be possible to establish, even for the currencies whose possible relationship is to be determined, whether or not they are related by a fixed exchange rate regime.

An appropriate reference currency for these analyses should therefore on no account be firmly pegged to one of the other currencies under review, nor should it be an anchor currency for the other currencies.[3] Ideally, the reference currency should not generally be correlated with other currencies under review.[4] As the correlations vary according to the currencies under review and the observation period, it is not possible to make a general statement about the ideal reference currency that would apply to all analyses. For this reason, completely different reference currencies are

1 Much the same would apply for effective exchange rates if an effective exchange rate were calculated for each currency. The effective exchange rate of currency $N+1$ could be derived from the exchange rates of the N other currencies. One drawback of using effective exchange rates, however, is that the weights on which their calculation is based vary from country to country. As a result, the observed rates of change are comparable to only a limited extent.
2 See Haldane and Hall (1991); Frankel and Wei (1994).
3 The crawling peg exchange rate regime, in which one of the two currencies depreciates against the reference currency by a static percentage in each period, would also cause statistical problems if, for instance, the other currency were pegged against the reference currency. If, in a regression equation, the rates of change in one exchange rate were regressed on the rates of change in the other as normal, the constant in the equation would reflect the exchange rate change trend caused by the central bank. By contrast, the regression coefficient of the rate of change in the exchange rate would not point to any relationship.
4 One way in which this could be assessed is to carry out additional estimations with alternative reference currencies. The literature also provides some suggestions (see, for example, Aloosh and Bekaert (2019) or International Monetary Fund (2019)).

Correlation coefficients for the rates of change of exchange rates based on the euro*

Currency	BGN	CNY	DKK	GBP	USD
BGN	1.00	.	.	.	.
CNY	0.01	1.00	.	.	.
DKK	– 0.01	0.13	1.00	.	.
GBP	0.02	0.41	0.03	1.00	.
USD	0.01	0.92	0.14	0.38	1.00

* The correlation coefficients provide information on the strength of the relationships between daily exchange rates in the period from the start of 2014 to the end of 2018. Currencies: BGN: Bulgarian lev, CNY: Chinese renminbi, DKK: Danish krone, GBP: pound sterling, USD: US dollar.

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Correlation coefficients for the rates of change of exchange rates based on the pound sterling*

Currency	BGN	CNY	DKK	EUR	USD
BGN	1.00	.	.	.	.
CNY	0.58	1.00	.	.	.
DKK	1.00	0.58	1.00	.	.
EUR	1.00	0.58	1.00	1.00	.
USD	0.56	0.94	0.56	0.56	1.00

* The correlation coefficients provide information on the strength of the relationships between daily exchange rates in the period from the start of 2014 to the end of 2018. Currencies: BGN: Bulgarian lev, CNY: Chinese renminbi, DKK: Danish krone, EUR: euro, USD: US dollar.

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often used in various studies in the literature.[5]

A correlation analysis of bilateral exchange rates with two alternative reference currencies clearly illustrates the problem.[6] The above tables show the correlation coefficients between the rates of change in each of the bilateral exchange rates. In the upper table, these are based on rates of change in euro exchange rates, while, in the lower table, they are based on exchange rates in which the pound sterling serves as the reference currency.

The currencies compared with each other here include the Bulgarian lev and the Danish krone. These two currencies are more or less firmly pegged to the euro – the Bulgarian lev via a currency board and the Danish krone as part of Exchange Rate Mechanism II. The exchange rates of these currencies therefore follow a very similar course over time, and the corresponding correlation coefficient should be very high and close to one. However, opting for the euro as the reference currency in the analysis would give rise to the problems described above. Despite the obvious co-movement of the two currencies, the correlation coefficient of -0.01 between them incorrectly suggests that the Bulgarian lev and the Danish krone are not correlated. By contrast, the table shows a high correlation between the US dollar and the Chinese renminbi (0.92). Indeed, the daily fluctuation band of the Chinese renminbi vis-à-vis the US dollar is tight. The pound sterling, too, is slightly correlated with these two currencies (0.38 and 0.41, respectively). The remaining correlation coefficients for the euro exchange rates are small.

Using the pound sterling as the reference currency shows clearer, economically plausible patterns: first, the Bulgarian lev, the Danish krone and the euro are perfectly correlated (1.00), while, second, the table also shows a high correlation between the Chinese renminbi and the US dollar (0.94). As the flexibility of both of these currencies is not restricted versus either the euro or the pound sterling, their correlation coefficient realistically captures their relationship to each other for both reference currencies. The two currency groups are also positively correlated with each other. However, the correlation between the groups, with correlation coefficients of 0.56 and 0.58, is significantly lower than within the groups. Nevertheless, there seems to be a not insig-

5 Instead of individual reference currencies, the literature also considers alternatives such as the currency basket of the International Monetary Fund's (IMF) special drawing rights as a reference (see Frankel and Wei (1993)).
6 The euro foreign exchange reference rates published by the ECB are used for the purpose of this analysis. They are therefore based on daily rates from the start of 2014 to the end of 2018.

nificant relationship between them. This is due in part to the fact that all exchange rates with the pound sterling have a common reference currency which influences the development of all of the exchange rates.

This example illustrates the grave implications that the choice of reference currency may have for the estimation results. Taking the euro as the reference currency completely eliminates the actually very high correlation between the Bulgarian lev and the Danish krone, as both currencies are pegged to the euro. As a result, it erroneously appears that the currencies are not linked. As described above, it is therefore impossible, when using euro exchange rates for the Bulgarian lev and the Danish krone, to differentiate in statistical terms between fixed and floating exchange rate regimes.

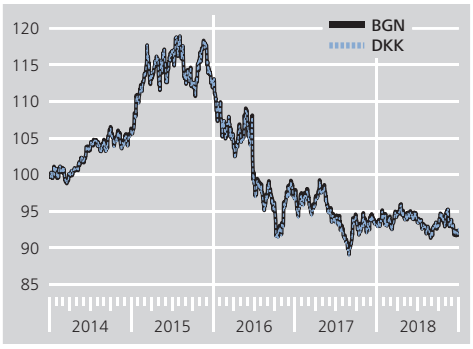
The need to select a reference currency that is, as far as possible, highly flexible against all currencies covered by the analysis is made more difficult by the fact that currencies are, de facto, often not as independent as portrayed by the authorities de jure. Some countries report that their currency is flexible, even though flexibility is in fact limited.[7] An overview of the actual exchange rate regimes of virtually all currencies is published at regular intervals by the IMF in its Annual Report on Exchange Arrangements and Exchange Restrictions.[8,9]

Moreover, some currencies tend to follow similar trends even without monetary policy intervention – in times of heightened financial stress, for example.[10] For the reasons cited above, such relationships should likewise be taken into account when selecting the reference currency.

For a time, use of the Swiss franc as reference currency was very widespread in the econometric analysis of possible relationships between exchange rates. However, the Swiss National Bank introduced a minimum exchange rate against the euro in September 2011, which it then repealed in January 2015. During this period, there were times where the Swiss franc's exchange rate against the euro barely deviated from the aforementioned minimum exchange rate. For that reason, the Swiss franc is, as a rule, no longer a suitable reference currency for this period. Instead, the pound sterling currently appears to be a relatively attractive reference currency. First, the Bank of England does not have an active exchange rate policy. Second, the pound sterling is not an anchor currency for any other currencies.[11] Third, it appears, generally speaking, to be only relatively weakly correlated with other currencies and to be relatively independent, even in times of heightened financial stress.[12]

Bilateral exchange rates of the pound sterling*

Daily rates, 2 January 2014 = 100



Sources: ECB and Bundesbank calculations. * A rise in values indicates an appreciation of the pound sterling. Currency codes: BGN: Bulgarian lev, DKK: Danish krone.

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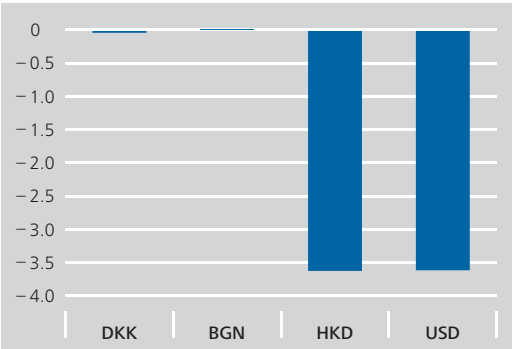
7 See Calvo and Reinhart (2002).
8 See International Monetary Fund (2019).
9 Some central banks, such as the Monetary Authority of Singapore, gear their exchange rate policy towards a basket of several currencies. What tend to be most problematic in statistical terms, however, are fixed exchange rates vis-à-vis individual currencies.
10 See Deutsche Bundesbank (2014).
11 See International Monetary Fund (2019). However, it may well be that some central banks which gear their exchange rate policy towards a basket of currencies also take account of the pound sterling.
12 See Hossfeld and MacDonald (2014) as well as Aloosh and Bekaert (2019).

Rates of change in the euro's exchange rates from 22 January to 23 January 2015*

%



Sources: ECB and Bundesbank calculations. * A negative value indicates a depreciation of the euro. Currency codes: DKK: Danish krone, BGN: Bulgarian lev, HKD: Hong Kong dollar, USD: US dollar.

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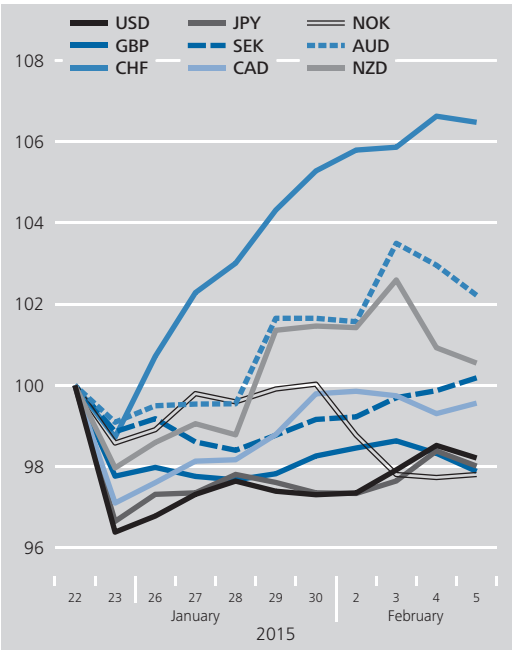
Bilateral euro exchange rates*

Daily rates, 22 January 2015 = 100



Sources: ECB and Bundesbank calculations. * A rise in values indicates an appreciation of the euro. Currency codes: AUD: Australian dollar, CAD: Canadian dollar, CHF: Swiss franc, EUR: euro, GBP: pound sterling, NOK: Norwegian krone, NZD: New Zealand dollar, SEK: Swedish krona, USD: US dollar, JPY: Japanese yen.

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Exchange rate regime decisive factor in exchange rate response

When looking at the response of bilateral euro exchange rates to the adoption of the APP, a distinction should first of all be made between fixed and floating exchange rate regimes. In the case of a fixed exchange rate regime, a central bank will, if necessary, intervene on the foreign exchange market to stabilise the exchange rate of its own currency vis-à-vis an anchor currency. This may, for example, be sensible if there are very close trade links or it may serve to enhance the credibility of the central bank in pursuing a stability-oriented monetary policy.

Fixed exchange rates often lead automatically to parallel developments

Fixed exchange rate regimes regularly directly lead to parallel exchange rate movements. This can also be seen in the response of bilateral euro exchange rates to the adoption of the APP, for example for currencies that are pegged either to the euro or the US dollar. As can be seen in the euro reference exchange rates at that time, there were no marked changes in the euro against the Bulgarian lev or the Danish krone. By contrast, the euro's movements against the US dollar and the Hong Kong dollar were relatively sharp, with the euro depreciating against both currencies by 3.6% the following day. Nevertheless, the movements of both euro exchange rates follow an almost identical pattern. Even over a longer period, the euro exchange rates of the Bulgarian lev and the Danish krone, on the one hand, and of the US dollar and the Hong Kong dollar, on the other hand, remain close to each other. In both cases, the reason for the co-movement of the exchange rates is the way the exchange rates of these currencies are set. While the Eurosystem and the Federal Reserve System allow the exchange rates of their currencies to be freely determined by the supply and demand of foreign exchange, the authorities in Bulgaria and Denmark peg their currencies to the euro and those in Hong Kong peg their currency to the US dollar.[4]

After adoption of APP, co-movement also observable between currencies with floating exchange rates, …

Fixed exchange rate regimes should therefore be noted as a first source of parallel exchange rate developments. Following the adoption of the APP, however, there were also parallels in the exchange rate movements of currencies which are subject to a flexible exchange rate

4 The International Monetary Fund (2019) provides an overview of the exchange rate regimes of almost all countries.

regime. From 22 to 23 January 2015, i.e. immediately following the announcement of the adoption of the APP, the euro depreciated significantly not only against the US dollar, but also against the Japanese yen (-3.4%). Comparatively large losses were also seen against the Canadian dollar (-2.9%), the pound sterling (-2.2%) and the New Zealand dollar (-2.0%). The euro fell less strongly against a group of European currencies comprising the Norwegian krone (-1.4%), the Swiss franc (-1.3%) and the Swedish krona (-1.1%). It depreciated only slightly against the Australian dollar (-0.9%).

… for example between the Australian dollar and New Zealand dollar or between the US dollar and the Japanese yen

The immediate exchange rate response was, for instance, fairly similar in terms of the sharp depreciation of the euro against the US dollar and the Japanese yen. The same is true of the somewhat less pronounced reactions of European currencies. These correlations between the aforementioned euro exchange rates remained largely intact for the remainder of the period under review. For example, in the two weeks following the adoption of the APP, a significant co-movement is observable for the currencies of Australia and New Zealand, despite the initially divergent responses. Furthermore, over this two-week period, the US dollar and the Japanese yen also move virtually in unison. Finally, the sharp appreciation of the euro against the Swiss franc is striking, decoupling the Swiss currency from its co-movement with the Swedish krona and the Norwegian krone.[5] Possible reasons for these parallel exchange rate movements of currencies not subject to a fixed exchange rate regime are discussed below, following the analysis of two further exemplary episodes of exchange rate co-movement.

Parallel exchange rate reactions after the UK referendum on leaving the European Union

On 23 June 2016, a referendum was held in the United Kingdom on whether the country should leave the European Union (EU). A majority of just under 52% of votes cast were in favour of withdrawal. This outcome of the referendum appeared to come as a surprise to many market participants, which can be seen, among other things, from the response on the foreign exchange markets. The pound sterling depreciated very sharply against all other currencies of advanced economies, both on a daily and two-week view.

Massive depreciation of the pound sterling in the wake of the referendum on leaving the EU …

The exchange rates of all currencies under consideration against the pound sterling followed a rather similar path in the two weeks following the vote. A further reason (besides the exchange rate regime) for the co-movement in exchange rates is even more apparent here than after the adoption of the APP: if the exchange rate of all other currencies is expressed vis-à-vis a single reference currency, such as the pound sterling in this case, parallel movements in exchange rates occur if the reference currency is shaken by an event of such magnitude that it overshadows stimuli from all other currency areas. In this case, it can therefore be assumed that the depreciation of the pound was primarily attributable to the referendum result and not to country-specific events in the other currency areas.

… as an example of co-movement caused by an extraordinary impulse to the reference currency

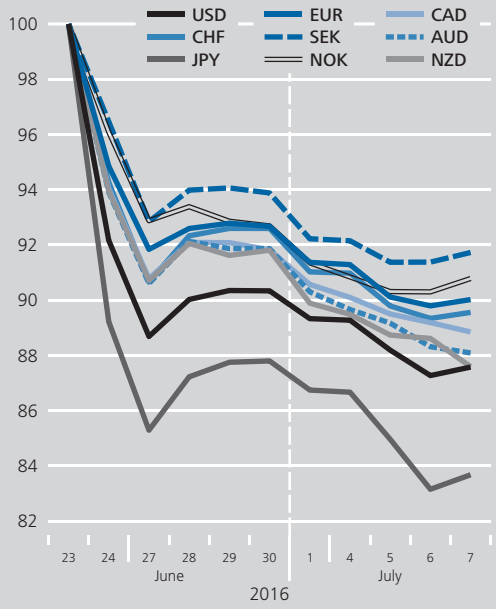
Despite the above-mentioned similarities across all pound sterling exchange rates, differences can also be observed, as co-movement between certain exchange rates is tighter than between others. For example, the pound sterling depreciated less strongly against the European currencies under consideration than against non-European currencies. This implies that non-European currencies not only appreciated against the pound sterling, but also against other European currencies. Market par-

Parallel exchange rate movements as a result of common reassessment of economic outlook

5 The Swiss franc experienced relatively large exchange rate fluctuations in this period. On 15 January 2015, i.e. before the announcement of the APP, the Swiss National Bank suspended the franc's exchange rate floor vis-à-vis the euro, resulting in strong reactions in the foreign exchange markets. This triggered a marked short-term appreciation of the Swiss franc against the euro, followed by a counter-reaction. This can be seen clearly in the chart on p. 22.

Bilateral exchange rates of the pound sterling*

Daily rates, 23 June 2016 = 100



Sources: ECB and Bundesbank calculations. * A rise in values indicates an appreciation of the pound sterling. Currency codes: AUD: Australian dollar, CAD: Canadian dollar, CHF: Swiss franc, EUR: euro, GBP: pound sterling, NOK: Norwegian krone, NZD: New Zealand dollar, SEK: Swedish krona, USD: US dollar, JPY: Japanese yen.
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ticipants clearly assumed that the now expected withdrawal from the EU would weaken not only the British economy, but also the economic development of other European countries, albeit to a lesser extent. The parallel exchange rate developments are therefore a reflection of a similar reassessment of the economic outlook in some countries, in divergence from the assessment of other countries.

Correlations in exchange rate movements seen on a recurring basis

A look at the percentage changes in various pound sterling exchange rates from the day of the referendum on 23 June 2016 to the following day, calculated from the euro reference exchange rates, reveals a further peculiarity. For example, as in the case of the adoption of the APP, exchange rate movements against the Japanese yen (-10.8%) and the US dollar (-7.8%) were particularly pronounced. There were almost identical percentage changes against the Australian dollar (-6.1%), the New Zealand dollar (-6.0%) and the Canadian dollar (-6.0%). The pound sterling also lost slightly more ground against the Swiss franc (-5.7%) than against other European currencies. As mentioned above, the depreciation against European currencies such as the euro (-5.1%), the Norwegian krone (-3.9%) and the Swedish krona (-3.5%) was less marked. These rates show that, in most cases, the currencies with similar exchange rate movements are the same as those following the adoption of the APP. Once again, the Japanese yen and the US dollar exhibit the strongest exchange rate reaction. In addition, parallels are observable between the currencies of commodity exporting countries and between some European currencies. These relationships are also strikingly persistent over time. Parallel exchange rate movements of unpegged currencies are therefore also not necessarily a one-off phenomenon, but can be observed on a recurring basis.

Parallel exchange rate reactions to the Turkish lira's weak streak in the summer of 2018

Strong depreciation of the Turkish lira against the US dollar in the summer of 2018

In the summer of 2018, the Turkish lira fell sharply against the currencies of advanced economies.[6] The appreciation of the world's most important currency, the US dollar, against the Turkish lira was partly attributable to a trade conflict between Turkey and the United States. A number of monetary policy measures were only able to slow the lira's slide temporarily. The US dollar's appreciation against the Turkish lira from 9 to 10 August 2018 (+12%) as well as over the weekend of 10 to 13 August 2018 (a further +14%) was particularly striking, bringing the US currency to a new all-time high against the lira.

6 To analyse these exchange rate movements, the exchange rates used here are expressed against the US dollar as the reference currency. This is because a number of emerging market economies tend to orientate their monetary policy to the US dollar without operating a genuine fixed exchange rate regime. As the US dollar is used as the reference currency, US dollar effects between the exchange rates are masked. At the same time, the links of the observed emerging market currencies to the US dollar are not so strict as to make it impossible to interpret correlations between US dollar-based exchange rates.

Appreciation of the US dollar also against currencies of advanced economies

Such a sharp appreciation in the foreign exchange markets is comparatively rare and therefore drew a lot of attention from market participants. From Thursday, 9 August, to Monday, 13 August 2018, the US dollar also rose against the currencies of most other major economies. The currency appreciation was, however, far smaller than against the Turkish lira: +1.7% against the euro, +1.0% against the pound sterling, +1.9% against the Swedish krona, +0.9% against the Canadian dollar, +1.5% against the Norwegian krone, +2.0% against the Australian dollar, and +1.2% against the New Zealand dollar. The exchange rate remained virtually unchanged against the Swiss franc. The US dollar depreciated only against the Japanese yen.

Co-movement between currencies considered particularly safe

The US dollar therefore gained in value against all observed currencies except for the Swiss franc and the Japanese yen. This is interesting, as the latter two currencies are considered safe haven currencies or carry trade financing currencies and tend to appreciate in times of financial market turmoil.[7] The exchange rate responses at the time thus suggest that uncertainty on the foreign exchange markets increased over these days and the security of safe haven currencies and carry trade financing currencies was sought after (as carry trades became less attractive). A co-movement of exchange rates can therefore also arise if several currencies are considered to be particularly safe in times of crisis. A parallel movement of exchange rates already stood out in the aforementioned examples, at least for the US dollar and the Japanese yen.

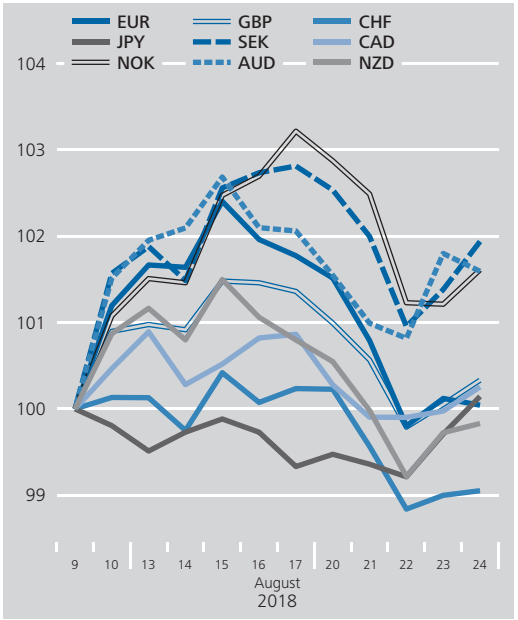
Appreciation of the US dollar also against other emerging market currencies

Ultimately, the question arises as to whether a correlation existed between the Turkish lira and other emerging market currencies during this period. Indeed, between 9 and 13 August 2018, the US dollar not only appreciated against the Turkish lira, it also rose by 6.5% against the South African rand. It also gained markedly against the Brazilian real (+3.1%), the Indian

7 See Deutsche Bundesbank (2014).

Bilateral US dollar exchange rates of currencies of advanced economies*

Daily rates, 9 August 2018 = 100



Sources: ECB and Bundesbank calculations. * A rise in values indicates an appreciation of the US dollar. Currency codes: AUD: Australian dollar, CAD: Canadian dollar, CHF: Swiss franc, EUR: euro, GBP: pound sterling, NOK: Norwegian krone, NZD: New Zealand dollar, SEK: Swedish krona, USD: US dollar, JPY: Japanese yen.

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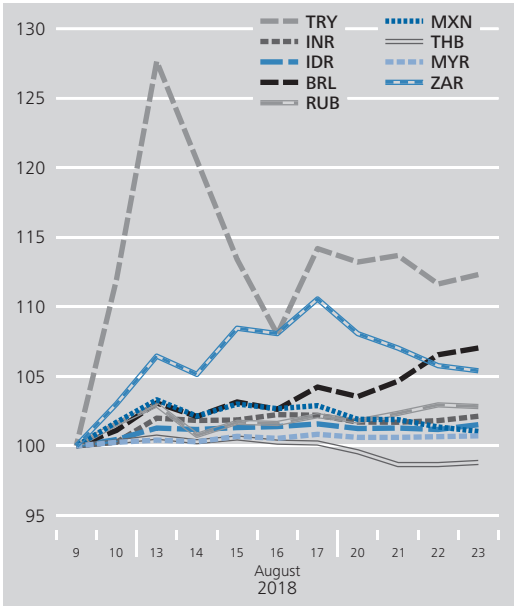
Bilateral US dollar exchange rates of currencies of emerging market economies*

Daily rates, 9 August 2018 = 100



Sources: ECB and Bundesbank calculations. * A rise in values indicates an appreciation of the US dollar. Currency codes: BRL: Brazilian real, INR: Indian rupee, IDR: Indonesian rupiah, MXN: Mexican peso, MYR: Malaysian ringgit, RUB: Russian rouble, THB: Thai baht, TRY: Turkish lira, ZAR: South African rand.

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rupee (+2.0%), the Indonesian rupiah (+1.3%), the Mexican peso (+3.3%) and the Russian rouble (+2.9%).

Spillover of the crisis from Turkey to other emerging market economies?

Looking at subsequent exchange rate developments, the reactions of the South African rand and the Brazilian real were the most pronounced – alongside those of the Turkish lira. The exchange rates of other emerging market economies followed paths that were more in line with those of the advanced economies. The relatively strong appreciation of the US dollar against the rand could indicate that investors may have expected the crisis to spill over from Turkey to South Africa. With regard to such a conclusion, however, it should be noted that country-specific events may also have contributed to the simultaneous depreciation of the South African rand. For example, discussions at the time about expropriations of land in South Africa led to uncertainty among investors, which also weighed on the rand. This example shows that it is very difficult to distinguish between economic developments that happen to occur at the same time and contagion effects as the cause of parallel exchange rate developments.

Empirical analysis of the relationships between exchange rates of advanced economies

Systematic relationships between currencies?

In the above examples, recurring parallel exchange rate movements were identified for some currencies, for example for the US dollar and the Japanese yen. In addition, the exchange rates of some European currencies such as the euro, the Swedish krona and the Norwegian krone followed relatively similar paths. Finally, co-movement in exchange rates was also repeatedly observed for the Australian dollar and the New Zealand dollar.

Analysis of connectedness using empirical methods

The observation of co-movements in these examples arises thus far only from descriptive statistics and is not in itself evidence of systematic relationships. In order to be able to draw any substantive conclusions, it is necessary to estimate connectedness using statistical methodologies.

Analytical framework of the estimation

For analysing issues of this kind, an approach developed by Diebold and Yılmaz (2009, 2014) has become established in the economic literature. It is based on the underlying assumption that there are simultaneous and lagged correlations between economic time series, such as those on exchange rates, and that developments in these time series are driven by unexpected events, known as shocks or innovations. In this analytical framework, there is a strong connectedness between two time series if the innovations of one time series have a relatively high impact on the development of the other time series.[8]

Machine learning methods for estimating causal links

Since then, this general approach has been further enhanced and applied to different economic variables such as bond yields, default risk, and even rates of change in exchange rates. It became clear that it was particularly difficult to determine contemporaneous causal relationships.[9] Bettendorf and Heinlein (2019) show how this can be achieved using machine learning methods.[10]

Estimate for the period from January 2010 to December 2017 confirms the existing assumptions …

This approach was used to estimate the relationships between the rates of change for the currencies of the advanced economies already analysed in the examples. It involved observing the daily rates of change in the exchange rates of the currencies, with the pound sterling as the reference currency.[11] The pound sterling was selected as the reference currency because it displays relatively low correlation with other currencies (see pp. 19 ff.). The picture that

8 This approach is designed to estimate connectedness between the variables. Such connectedness is also identified if the variables systematically move in opposite directions.
9 In this context, causality does not refer to an economic model, meaning that the relationships between the exchange rates cannot be explained using economic reasons. Instead, it should be considered as a purely data-based, statistical concept in this case.
10 See pp. 29 ff.
11 The ECB's euro reference exchange rates for each trading day are used as the data source.

emerges for the analysis period from January 2010 to December 2017 confirms the relationships previously observed in the examples.

… and identifies three blocs with parallel exchange rate movements

The model measures strong connections within a bloc of European currencies (the euro, the Swedish krona and the Norwegian krone). It also identifies a bloc of currencies comprising the Canadian, Australian and New Zealand dollar. The strong co-movement between the exchange rates of these three currencies can be put down to the fact that they represent countries that rely relatively heavily on commodities exports. Finally, the model assigns the Swiss franc, the US dollar and the Japanese yen to a common bloc. Indeed, these currencies do also appear to share common ground. They are used in the financial markets as safe haven currencies or carry trade financing currencies and therefore tend to appreciate during periods of financial market turmoil.

Spillover effects significant in terms of exchange rate variability

Overall, 62.2% of the total variability in the rates of change in the exchange rate can be explained by reasons that are specific to the exchange rate under review.[12] The remaining 37.8% of the total variability, on the other hand, can be attributed to the influence of other exchange rates – spillover effects, in other words.

Estimation results largely consistent with those of other studies

All in all, the empirical model can prove the existence of systematic links between individual exchange rates, which, to a large extent, could already be observed in the examples shown above. The currency blocs identified appear economically plausible and are also consistent with the findings of other studies. Greenwood-Nimmo et al. (2016), for example, find similarly strong relationships between the Australian dollar and the New Zealand dollar, as well as between the European currencies mentioned above. However, their study cannot reach any definite conclusions regarding the contemporaneous direction of causality. Because the study uses the US dollar as the reference currency, the relationships between safe haven currencies and carry trade financing currencies are not clear, either.[13]

Rates of change of various exchange rates after selected events*

Currency	APP decision EUR	Brexit referendum GBP	Turmoil in emerging market economies USD
CHF	– 1.3	– 5.7	0.1
JPY	– 3.4	– 10.8	– 0.5
SEK	– 1.1	– 3.5	1.9
CAD	– 2.9	– 6.0	0.9
NOK	– 1.4	– 3.9	1.5
AUD	– 0.9	– 6.1	2.0
NZD	– 2.0	– 6.0	1.2
EUR	–	– 5.1	1.7
GBP	– 3.6	–	1.0
USD	– 2.2	– 7.8	–

Sources: ECB and Bundesbank calculations. * The table shows the rates of change for bilateral exchange rates after selected events: decision to adopt the expanded asset purchase programme (APP) (change from 22 to 23 January 2015), euro rates; Brexit referendum (change from 23 to 24 June 2016), pound sterling rates; turmoil in emerging market economies (change from 9 to 13 August 2018), US dollar rates. Currency codes: AUD: Australian dollar, CAD: Canadian dollar, CHF: Swiss franc, EUR: euro, GBP: pound sterling, NOK: Norwegian krone, NZD: New Zealand dollar, SEK: Swedish krona, USD: US dollar, JPY: Japanese yen.

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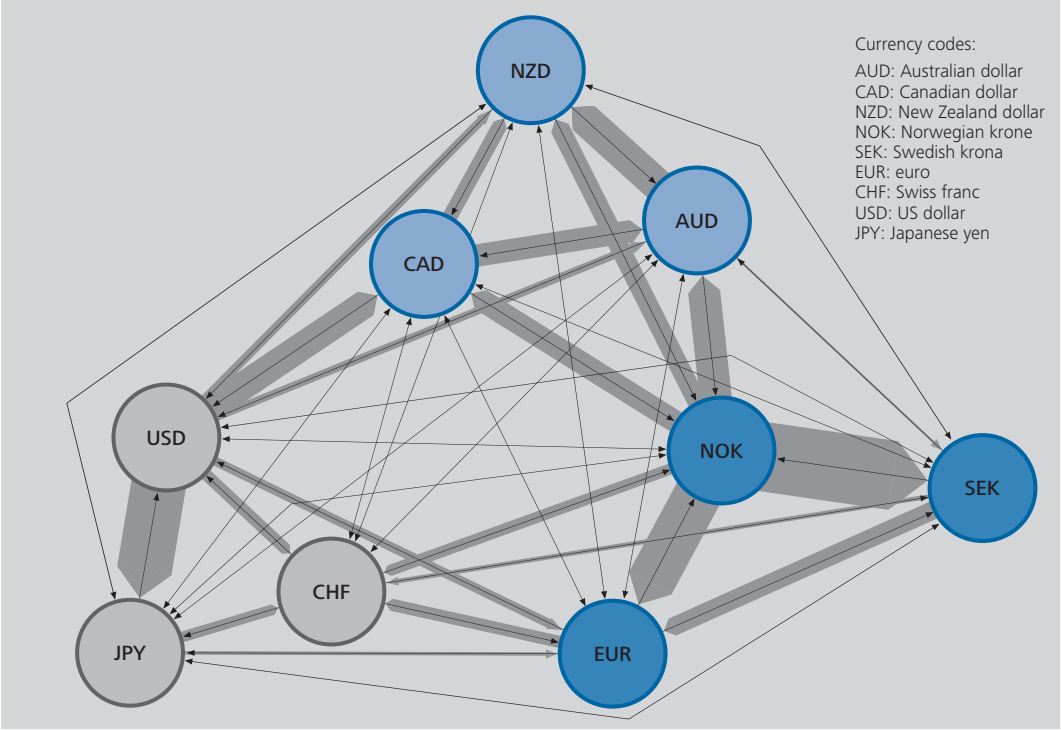
Causes of parallel exchange rate movements

Classifying the economic causes of parallel exchange rate developments

Together with the empirical analysis, the examples above show that it is possible to provide evidence of systematic relationships between the exchange rates of different currencies. Examples of potential economic causes for the parallel movements identified have already been put forward. These causes can be divided into four categories:

12 The term "total variability" refers to the total forecast error variance of the underlying model. A description of the variance decomposition can be found on pp. 29 ff.
13 Greenwood-Nimmo et al. (2016) perform a generalised forecast error variance decomposition. This approach does not allow any conclusions to be drawn about contemporaneous causal effects.

Connectedness between currencies of advanced economies*



* The width of the connecting lines reflects the estimated strength of the connectedness between the currencies. Currency blocs estimated by Bettendorf and Heinlein (2019) are indicated by different background colours.

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A fixed exchange rate regime

– If a country's monetary policy is geared towards stabilising the exchange rate of the domestic currency vis-à-vis a particular anchor currency, the exchange rates of these two currencies expressed in an independent third currency are, naturally, very similar or even identical. This was illustrated by the example above, which showed different exchange rate responses to the Eurosystem's decisions regarding the APP. The US dollar and the Hong Kong dollar – which is pegged to the US dollar – each appreciated against the euro by exactly the same percentage. Parallel exchange rate movements that result from fixed exchange rate regimes are not deemed to be spillover effects because the choice of exchange rate regime – in this case fixing or stabilising rates – is an independent decision taken by each individual country.

– Leaving aside fixed exchange rate regimes, the causes of parallel developments in flexible exchange rates can be assigned to three other categories. For instance, co-movement between exchange rates develops vis-à-vis a reference currency if the currency is hit by a domestic impulse strong enough to overshadow all other disruptive factors stemming from the other currency areas. Again, this phenomenon could be observed in the euro exchange rates in the wake of the adoption of the APP – but particularly after the announcement of the results of the United Kingdom's referendum on withdrawing from the EU. The exchanges rates of many other currencies against the pound sterling showed fairly similar movements for weeks thereafter. Here, too, it is not a spillover effect between exchange rates that is responsible for their co-movement. On the contrary, if there were spillover effects from the reference currency to other currencies, the relationship between the other currencies would tend to weaken.

Major fluctuations in the reference currency

Estimating the causal relationships between bilateral exchange rates using machine learning methods

Relationships between time series can be estimated in various different ways. The current analysis presents an econometric method of estimating relationships between the rates of change of bilateral exchange rates following the approach of Diebold and Yılmaz (2009, 2014), which is established in the economic literature. This method is based on a reduced-form vector autoregression (VAR) model:

$$y_t = \Phi y_{t-1} + \epsilon_t,$$

where y_t represents a vector with observations of all K endogenous variables. In the case at hand, these variables are the rates of change of bilateral exchange rates, defined in relation to a single reference currency. The $(K \times K)$ Φ matrix contains regression coefficients that relate to the observations of endogenous variables, lagged by one period (y_{t-1}). The variable ϵ_t denotes the error term that cannot be explained by the model.[1] In the VAR model, therefore, the exchange rates at time t are explained by the rates of the preceding period. The VAR model above can also be expressed in the form

$$y_t = \Theta(L)\epsilon_t$$

(moving average representation), where L is the operator for delayed error terms (lag operator). This is defined by $Ly_t = y_{t-1}$. The lag polynomial is thus given as $\Theta(L) = (\mathrm{I} - \Phi L)^{-1}$,[2] meaning that the exchange rates at time t represent the sum of all previous disturbances.

In structural form, i.e. when the VAR model is transformed in such a way that the u_t error terms (shocks) are uncorrelated, the model is written as

$$y_t = A(L)u_t.$$

Here, $A(L) = \Theta(L)B_0^{-1}$ and $u_t = B_0\epsilon_t$, where B_0 in Diebold und Yılmaz (2009) corresponds to the Cholesky decomposition of the covariance matrix of ϵ_t.[3] However, these results are, to a certain extent, arbitrary, as they are dependent on the order of the variables in y_t on account of the Cholesky decomposition.[4]

In the following, the forecast error variance of the observed variables is decomposed into the contributions made by individual shocks.[5] This allows us to determine how strongly the shock to a particular equation of the system impacts upon other exchange rates. Using an appropriate reference currency,[6] these effects can thus be interpreted as spillover effects. The optimal forecast value for y_{t+1} at time t is calculated as $y_{t+1,t} = \Phi y_t$, where the forecast error is $e_{t+1,t} = y_{t+1} - y_{t+1,t} = \mathrm{A}_0 u_{t+1}$.[7] This has the covariance matrix $E(e_{t+1,t}e'_{t+1,t}) = A_0 A'_0$, whereby, according to the definition, vari-

1 A constant term and additional lags are dispensed with in order to present the methods as clearly as possible. When estimating the model, the number of lags is determined with the help of the Akaike information criterion.
2 A geometric series is used here to present the time series in the form of an infinite weighted sum of the error terms.
3 In Diebold and Yılmaz (2009), a Cholesky decomposition (see Lütkepohl (2007)) is used to orthogonalise the error terms. However, other appropriate approaches exist, such as the PC algorithm described below.
4 From an economic perspective, a specific order cannot be assumed in the case of a VAR model consisting solely of exchange rates, either.
5 The difference between an observation and a point estimate calculated with the model is known as a forecast error. It can be explained by individual innovations (u_t). As the difference can assume positive or negative values, the forecast error variance is calculated by means of squaring. Breaking this down into the contributions of innovations therefore yields general information about the innovations that are significant to the development of individual variables.
6 See pp. 19 ff.
7 A_0 refers to the contemporaneous element of the lag polynomial $A(L)$, i.e. B_0^{-1}.

ances lie on the diagonals and the off-diagonal entries contain the covariances.

The share of forecast error variance of the j^{th} variables, which is explained by variable k following h periods (forecasting horizon), is the product of

$$\omega_{jk,h} = \frac{\Sigma_{i=0}^{h-1}(c_j' A_i c_k)^2}{\Sigma_{i=0}^{h-1}\Sigma_{k=1}^{K}(c_j' A_i c_k)^2} = \frac{\Sigma_{i=0}^{h-1} a_{jk,i}^2}{\Sigma_{i=0}^{h-1}\Sigma_{k=1}^{K} a_{jk,i}^2},$$

where c_k is the k^{th} column of the identity matrix I_K.

Calculated in this way, the shares of the individual variables as a proportion of the total forecast error variance of other variables can be directly interpreted as spillovers. This clearly demonstrates that both the simultaneous and the lagged relationships between the variables play a role here. However, this approach has the disadvantage that its results are strongly dependent on the underlying structure of contemporaneous exchange rate effects, and therefore the order of exchange rates in vector y_t, on account of the Cholesky decomposition. This means that the estimated connectedness is also influenced by the order of the variables. Contemporaneous causal effects based on such estimates can therefore only be meaningfully interpreted if information about the causal structure between the variables is available a priori. This is, however, generally not the case, especially where financial market variables such as exchange rates are concerned.

In such cases, then, it makes sense to use alternative methods for which the order of the variables is unimportant.[8] Bettendorf and Heinlein (2019) applied such a method to the rates of change of the following currencies' exchange rates[9] against the pound: the Australian dollar (AUD), the Canadian dollar (CAD), the Swiss franc (CHF), the euro (EUR), the Japanese yen (JPY), the Norwegian krone (NOK), the New Zealand dollar (NZD), the Swedish krona (SEK) and the US dollar (USD). The ECB's euro reference exchange rates (daily data) were used as the data source for the period from the start of 2010 to the end of 2017.

The causal structure of the contemporaneous effects is not predetermined in this case; rather, it is estimated with an algorithm featured in the literature on machine learning, namely the PC algorithm, which is now used in many structural VAR analyses (see Kilian and Lütkepohl (2017)).[10] On the basis of (partial) correlation tests, this algorithm seeks to identify the causal structure between the residuals of the reduced form VAR model (ϵ_t).[11] If the causal structure of the residuals has been estimated, the matrix B_0, which depicts the contemporaneous effects, can be defined accordingly.[12] Here, a zero restriction is set if no significant stimulus is simultaneously transmitted from one exchange rate to another. If the algorithm recognises that no relationships exist between a sufficient number of variables,

8 Diebold and Yılmaz (2014), for instance, use a generalised forecast error variance decomposition. This produces results which are independent of the sequence of the variables in the vector y_t. However, it does not allow any conclusions to be drawn about contemporaneous causal effects.

9 In the present study, rates of change in the exchange rates are approximated by the first differences of the logarithmic exchange rates.

10 The PC algorithm derives its name from those of its developers, Peter Spirtes and Clark Glymour.

11 Owing to the complexity of the algorithm, we forego a description here and refer only to Spirtes et al. (2001).

12 In this context, it is important that the algorithm detects a directed acyclic graph, or in other words, that no bidirectional, undirected or cyclic relationships exist between the residuals. The model would otherwise not be identified. In cases where the PC algorithm can identify no such graphs, it makes sense to subject the reduced form VAR model to a bootstrapping process and to save the results of the PC algorithm for each estimate. The direction of the relationships, which could not be clearly ascertained by the PC algorithm originally, can ultimately be determined by their relative frequency in the bootstrapping process. This approach is based on that of Hoover and Demiralp (2003) and Demiralp et al. (2008).

more than the single $(K-1)\times K$ zero restriction necessary to identify the model can be applied to the matrix B_0, making the structural VAR model overidentified. Assuming that the restrictions are correct, this tends to produce a more detailed picture of connectedness.

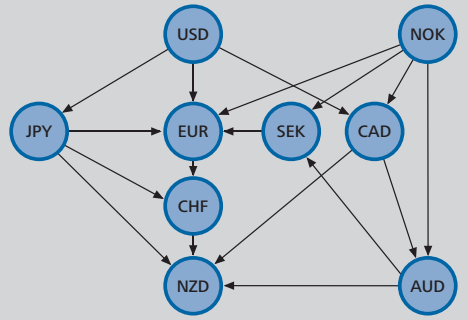
The algorithm yields the graphs shown on the right. It describes the structure of the contemporaneous effects between the residuals of the estimate (ϵ_t). It can be seen that the US dollar and the Norwegian krone are both relatively independent of each other, and that they affect other currencies at the same time. By contrast, movements in the exchange rates of the Swiss franc and the New Zealand dollar in relation to the pound sterling are largely in response to price movements in other currencies. However, these are only the contemporaneous effects. In order to also take lagged influencing factors into account, a structural VAR model (SVAR model) is estimated using the obtained information on the contemporaneous causal structure of the residuals.[13] The forecast error variance decomposition can also be calculated using the method described above.

The results for a forecast horizon of ten days are presented in the table on p. 32.[14] The analysis suggests that, during the period under review, 37.8% of the total forecast error variance determined using the model for all nine observed exchange rates was explained by foreign shocks, i.e. spillover effects. This share corresponds to the sum of the entries on the off-diagonals divided by the total share of the nine variables (900%).

In light of all the uncertainty surrounding such econometric analyses, it can be said that the results confirm the assessment already derived from an examination of the contemporaneous causalities alone. Over the review period, the US dollar and the Norwegian krone in particular were relatively independent of influences from abroad, looking at the calculations based on their exchange rates against the pound, but they had a comparatively strong impact on other currencies. The influence of the US dollar on the Japanese yen and the Canadian dollar was particularly strong. The Norwegian krone had a relatively strong influence on considerably more currencies, but chiefly the Swedish krona and the euro. The Swiss franc and the New Zealand dollar, by contrast, barely influenced other currencies. Exchange rate movements of the euro were influenced not only by the US dollar, but also by the Norwegian krone and the Swedish krona. The euro itself influenced, in particular, the Swiss franc, which was probably due to the temporary introduction of a minimum exchange rate against the euro by the Swiss National Bank.

The comparatively strong influence of the Norwegian krone on other currencies is a surprising finding. These spillover effects

Estimated causal structure of the residuals of the VAR model*



* Currency codes: AUD: Australian dollar, CAD: Canadian dollar, NZD: New Zealand dollar, NOK: Norwegian krone, SEK: Swedish krona, EUR: euro, CHF: Swiss franc, USD: US dollar, JPY: Japanese yen.

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13 If the causal structure is known, the model can be estimated on an equation-by-equation basis using the method of least squares.

14 The forecast horizon of ten days is customary in the literature (see, for example, Diebold and Yılmaz (2009, 2014)). Here it is assumed that financial market shocks are processed no later than ten days after the event.

Variance decomposition of forecast errors*

Share (%)

Currency	AUD	CAD	CHF	EUR	NOK	NZD	SEK	USD	JPY	Total
AUD	53.0	16.8	0.1	0.0	24.1	0.0	0.0	5.9	0.1	100.0
CAD	0.1	61.6	0.1	0.1	16.8	0.0	0.0	21.2	0.1	100.0
CHF	0.1	0.0	61.9	9.1	8.4	0.0	3.5	8.9	8.0	100.0
EUR	0.5	0.3	0.1	39.6	36.1	0.0	13.8	6.9	2.7	100.0
NOK	0.4	0.1	0.0	0.0	98.6	0.0	0.2	0.2	0.5	100.0
NZD	24.3	11.2	0.4	0.0	14.5	42.3	0.0	6.6	0.6	100.0
SEK	1.6	0.6	0.0	0.0	52.0	0.0	45.1	0.3	0.5	100.0
USD	0.2	0.1	0.0	0.1	0.2	0.0	0.0	99.3	0.0	100.0
JPY	0.0	0.0	0.0	0.0	0.3	0.0	0.1	41.2	58.4	100.0

* Respective share of the variance of the forecast error of the variables in row j which is explained by shocks to the variables in column k ($\omega_{jk;10}$). All currencies as exchange rates based on the pound sterling. Currency codes: AUD: Australian dollar, CAD: Canadian dollar, CHF: Swiss franc, EUR: euro, NOK: Norwegian krone, NZD: New Zealand dollar, SEK: Swedish krona, USD: US dollar, JPY: Japanese yen.

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could be due to a commodity factor impacting on different currencies. This may also affect currencies that are not classified as commodity currencies. Similarly, the established impact of the Swedish krona on the euro may ultimately be a Norwegian krone-based secondary effect.

The results of the estimation can be used to group the currencies under review into currency blocs with the aid of a cluster analysis. A currency bloc is defined in such a way that it includes only those currencies that are relatively closely connected to each other.[15] In contrast to the approach used in Deutsche Bundesbank (2012), only the relationships estimated from the rates of change in the exchange rates in the model are taken into account.[16] The results suggest that the observed currencies can be divided into three blocs: commodity currencies, comprising the Australian dollar, the Canadian dollar and the New Zealand dollar; a bloc of European currencies, namely the euro, the Norwegian krone and the Swedish krona; and a bloc of safe haven currencies and carry trade financing currencies comprising the Swiss franc, the US dollar and the yen. The distinction between these blocs can also be seen in relation to events which had a significant influence on the pound sterling. While the pound depreciated against all major currencies in the first two weeks following the referendum on the United Kingdom remaining in the European Union, for example, it depreciated by very similar amounts against the currencies within each individual bloc.[17]

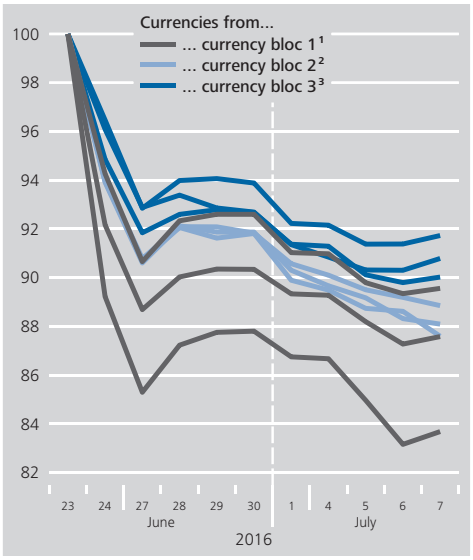
This approach is not above criticism.[18] For instance, when examining the results, it must be borne in mind that in the absence of any theoretical specifications, the shocks are identified using empirical tests alone (at a significance level of 10%, in this case). Amongst other things, therefore, there is a risk that the null hypothesis will (erroneously) not be rejected. Consequently, under the null hypothesis, the model is not necessarily correct. Furthermore, Kilian and Lütkepohl (2017) criticise this approach as being ill-suited to revealing economically significant structures. However, this criticism is less relevant to the approach presented here, as only a general exchange

15 The Louvain algorithm created by Blondel et al. (2008), which is commonly used in the literature, and the proposed extension of modularity for directed graphs in Dugué und Perez (2015) were used to achieve this.
16 Alternatively, currency blocs can be obtained from the data on de facto exchange rate regimes provided by the International Monetary Fund; see Deutsche Bundesbank (2012) and Fischer (2016).
17 However, the bloc of safe haven currencies and carry trade financing currencies is an exception in this case.
18 See Kilian and Lütkepohl (2017).

rate-specific shock has to be identified, without it being split into economically interpretable components. This approach merely identifies empirical causalities between the exchange rates without trying to interpret them. Simulations also show that in spite of potential distortions, such relationships are often estimated considerably more accurately than when using the methods hitherto employed.[19]

Bilateral exchange rates of the pound sterling by currency bloc*

Daily rates, 23 June 2016=100



Sources: ECB and Bundesbank calculations. * A rise in values indicates an appreciation of the pound sterling. **1** Safe haven currencies and carry trade financing currencies: the Swiss franc, the US dollar and the Japanese yen. **2** Commodity currencies: the Australian dollar, the Canadian dollar and the New Zealand dollar. **3** European currencies: the euro, the Norwegian krone and the Swedish krona.

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19 See the Monte Carlo experiments in Bettendorf and Heinlein (2019), which indicate this under equivalent assumptions.

Coincidences

– Exchange rates also show parallel movements when two currencies happen to be influenced by domestic stimuli which are independent of one another, but cause unidirectional exchange rate movements. It is not usually possible to provide solid evidence of such a phenomenon. However, it is possible that this was the case in the summer of 2018, when the Turkish lira was weakened by trade disputes, inter alia, and the South African rand by uncertainty regarding land ownership. Naturally, there is no question of these cases being attributable to spillover effects.

Spillover effects and similarities

– Spillover effects involve one currency having a real systematic impact on another. Here, the cause of the co-movement may originate in one of the two currency areas in question (spilling over from one to the other). However, it may also stem from events in third countries that spill over to the two currencies being observed. A similar situation occurs when foreign exchange market participants attribute a shared characteristic relating to foreign exchange investments to several currency areas. One example of this would be a currency area whose main characteristic is that it exports commodities. The currencies of these countries would thus tend to respond in similar ways to changes in commodities prices. It is not always possible to separate spillover effects from similarities because the underlying cause of a change in commodities prices, for example, could be attributable to a country-specific event whose economic effects spread to other countries and exchange rates. Spillover effects and similarities are usually the focus of economic, but also academic, interest. This is because they are typically responsible when the exchange rate of a currency shifts vis-à-vis a number of other currencies as a result of external factors.

Spillover effects between exchange rates can be triggered by a variety of economic phenom-

Spillover effects and exchange rate determinants

ena. To be able to explain them, it makes sense to first provide a brief overview of the key factors determining exchange rates. Following on from this, the causes of spillover effects between exchange rates can then be deduced.

Determinants of exchange rate movements: inflation differentials, …

In the medium to long term, differences between price movements in individual countries play an important role in determining exchange rates (purchasing power parity theory). If prices in one country increase comparatively slowly, demand for the goods this country supplies – which are now cheap in relative terms – goes up, as does demand for its currency. The currency in question tends to appreciate. It should be noted, however, that a corresponding adjustment process can take a long time. In the short term, especially where inflation differentials are comparatively low, the opposite effect can often be seen. If a surprisingly low inflation rate is published for a currency area, its currency initially tends to depreciate because market participants then see a greater likelihood of domestic monetary policy being eased.

… interest rate spreads, monetary policy and real income

According to the theory of uncovered interest parity, an unexpected domestic interest rate cut leads, all else being equal, to a depreciation of the local currency because rational investors adjust their portfolios towards investments that promise higher returns.[14] Similar effects on the exchange rate are posited for an expansion of the money supply or quantitative easing of monetary policy. All other things being equal, a rise in domestic real income ultimately increases currency demand, thus leading to an appreciation of the relevant currency.

Market participants' expectations, effects from third countries, and global factors

Of course, in many cases, it is not variations in the actual determinants themselves that lead to an adjustment in the exchange rate. Instead, exchange rates tend to react as soon as indicators lead market participants to change their expectations of the determinants. Moreover, the causes of the changes in the determinants are not necessarily to be found in the observed currency areas themselves. Global risks or changes in third countries, for instance, can also influence these determinants.[15] For example, an increase in global risk perception often sees market participants transfer capital to "safe haven" countries such as the United States or Switzerland. The US dollar and the Swiss franc tend to appreciate as a result of these capital flows.

The following section now presents channels via which unidirectional movements in the above-described determinants of exchange rates, and hence spillover effects, may take place.

Common changes in determinants as a result of international trade, …

One classic transmission channel is the international trade in goods and services. International trade links make it easier for economic cycles to spill over to other countries. Take, for example, an economic crisis that is initially limited to one country and whose effects include a decline in real incomes and lower aggregate demand.[16] Not only would this tend to lead to a depreciation of the domestic currency, but also to a reduction in imports of goods from other countries. As a result, the country's major trading partners would also see a decline in aggregate demand and thus a reduction in income. In turn, the currencies of the countries indirectly affected would also tend to depreciate. In this case, the collective depreciation of the currencies would reflect the intensity of the trade links between the countries involved.

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14 Empirical evidence for uncovered interest parity, however, is not very strong (see, for example, Deutsche Bundesbank (2005) or Chinn (2006)). In contrast to the interest rate parity theory, the monetary model of exchange rate determinants argues that rising interest rates increase the propensity to save and reduce demand for currency for transaction purposes. This causes the domestic currency to depreciate.

15 See Bettendorf (2019).

16 According to the monetary model of exchange rate determination, lower real income leads to reduced demand for currency. If the money supply were to stay the same, this would lead to a higher (goods) price level. As a result, the domestic currency depreciates according to the purchasing power parity theory. It should be noted that this model only describes the long term, in which prices are usually assumed to be flexible. Nonetheless, in the short term, too, international investors tend to move their funds away from countries that are starting to show signs of an economic downturn. This then also tends to be accompanied by a depreciation in the short term.

… international financial markets …

The international financial markets represent another transmission channel. For example, if close financial links exist, both domestic and foreign investors will be affected by asset price losses in a particular country. As a consequence, negative wealth effects could unfold in both countries.[17] Lower demand for goods would reduce the gross domestic product of both countries. A historical example of spillover effects via international financial markets is the financial crisis of 2008. Credit defaults in the United States caused both US and foreign banks significant losses. Some of these foreign banks had purchased securitised loans in the United States and were thus directly affected by the credit defaults and asset price losses there. This was among the factors that caused lending to decline in several countries simultaneously and the crisis to spread internationally. Ultimately, the currencies of countries hit harder by the crisis would be expected to depreciate against the currencies of those countries that were less strongly affected. In this example, the degree of international financial interconnectedness plays a crucial role. As a result of the spillover described above, parallel movements would become apparent in the exchange rates of countries that tend to have close financial ties with the country in which the crisis originated.[18]

… or market participants' expectations

Market participants' expectations represent a further transmission channel. These expectations can affect the exchange rates as described above, even if their usual determinants remain unchanged. If said expectations relate to several different currency areas, for example because they are deemed to have shared characteristics, this can lead directly to parallel movements. Generally speaking, expectations can apply to all determining factors such as the interest rate differential, inflation differentials or even common risks (risks for emerging market economies).

Potential transmission channels within the identified currency blocs

The described spillover effects and similarities between currency areas presumably also played a part in the co-movement of the exchange rates within the currency blocs identified. The relatively strong trade and financial links between the euro area and the Scandinavian countries could have an important bearing on the clear connections between the euro, the Norwegian krone and the Swedish krona. These links can transmit changes in the determinants of the exchange rates, thus resulting in parallel movements. A second bloc containing safe haven currencies and carry trade financing currencies consists of the Swiss franc, the Japanese yen and the US dollar. As described above, these countries' currencies are influenced in part by market participants' expectations of global risk, which can lead to parallel movements in their rates. The third bloc comprises the Australian dollar, the Canadian dollar and the New Zealand dollar. The currencies of commodity exporting countries often respond in similar ways because these countries have similar trade patterns.

Conclusion

Parallel exchange rate developments can take place due to a range of factors. If, say, the currency of one country is pegged to that of another as a result of a fixed exchange rate regime, the exchange rates of both currencies vis-à-vis a third currency will, of course, be very similar over time. But even without a fixed regime, systematic relationships between different exchange rates are apparent. Among the major currencies of the advanced economies, an empirical analysis identifies three blocs which show evidence of systematic parallel exchange rate movements since 2010. The mechanisms that bring about such co-movement in flexible exchange rates are many and varied. In the case of the blocs identified in the analysis, however, there are indications that important factors include the intensity of trade links and financial ties, patterns of trade, and expectations regarding economic policy risks.

17 Negative wealth effects ensue if falling asset prices mean that economic agents feel less affluent and therefore scale back their demand for goods.
18 See Borio (2012).

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Crypto tokens in payments and securities settlement

For some ten years now, it has been possible, using blockchain technology, to transfer digitally defined units of value, such as Bitcoin, as "crypto tokens" electronically within a network via a cryptographic process that leaves a distinct traceable record without the involvement of intermediaries. The financial sector believes that blockchain technology has the potential to carry out the entire process of settling financial transactions on the basis of digitised values. Existing units of value, such as gold or securities, could be represented by a digitally generated token and made digitally transferable (tokenisation).

Financial service providers and technology companies are currently stepping up their efforts to develop tokens for payment purposes that have a stable value. The effectiveness of most of the crypto tokens currently used for payments is primarily limited by the relatively large fluctuations in their value. However, with the progressive development and use of stablecoins, which are comparatively stable in value, crypto tokens demonstrate that they possess the potential for greater use in transactions. These also include the plans published recently by a consortium of large platform providers such as Facebook as well as international payment service providers under the name "Libra", according to which blockchain technology would be used to create globally available stablecoins. Whether and to what extent stablecoins will be used in the future as a means of payment remains to be seen. If stablecoin projects of this size were to quickly play a significant role in payment transactions, this could have a noticeable and lasting impact on the financial system and central banks. In light of this, policymakers and academics have been discussing from various angles whether central banks should issue digital central bank money to the general public. From today's perspective, however, the Bundesbank does not see a need for digital central bank money to be made available to non-banks.

In the area of securities settlement, the financial sector also assumes that the use of blockchain technology will enable transactions to be settled more efficiently. While German securities law currently does not permit the purely digital issuance or transfer of values, it is expected that the legal situation will be revised and that current settlement processes and structures will evolve further.

From the Bundesbank's perspective, efforts to tokenise assets using blockchain technology are to be welcomed in principle on account of the attendant impetus for innovation and efficiency. The Bundesbank will continue to monitor current developments closely. The guiding principle of its assessment will be to ensure that payment systems remain secure and efficient and that its other statutory objectives, primarily monetary and financial stability, are not compromised.

Tokens as catalysts of digitalisation

Digitalisation is changing processes and structures in settlement

Digitalisation impacts on payments and securities settlement in particular. The conversion of analogue processes, with their many manual operating steps and numerous system discontinuities, into digital, automated processes is especially important in high-volume payment transactions. Major advances have been achieved on this front since the 1980s thanks to the standardisation, harmonisation and automation of processes. In recent years, an entirely new dynamic has unfolded, driven, inter alia, by new technologies and the emergence of digital ecosystems, especially in the form of communication platforms and in e-commerce. This dynamic means that many of the IT systems used by financial service providers have to be overhauled.

Digital tokens enable electronic transfers within networks

For a number of years, the financial sector has been expecting digital tokens in conjunction with distributed ledger technology (DLT)[1] to transform processes and structures in payment and securities settlement systems. While the vast majority of payment transactions and securities settlement transactions are currently already cleared electronically, this nevertheless requires accounts or securities deposit accounts held at banks or other central intermediaries. If values are to be transferred, these central entities must be involved in order for a booking to be made on the corresponding accounts. The possibility of settling digital assets more and more decentrally in the form of tokens is intended to speed up the execution of many transactions, reduce the costs of the associated processes and open up new areas of business. The corresponding gains in efficiency will materialise particularly wherever a large number of participants in a network interact with each other and where there are frequent exchanges between the parties involved, such as in payment systems or on trading platforms. Tokens are digital units that are transferable and that can take on a great number of functions in a network. In order to transfer the tokens, the participants interact with each other directly via technical protocols in a peer-to-peer network. The Bitcoin network, for instance, functions as an independent payment system between connected computers. In the meantime, however, both blockchain technology and the concepts and business models behind digital tokens have seen noticeable progress.

Crypto tokens to enable secure and immediate transferability

Digital tokens can be generated and transferred both in public permissionless networks and in private, closed networks. Since the transfers or transactions within a network are carried out using a technical protocol based on cryptographic procedures, this type of token will be referred to below as "crypto tokens". The aim is to fully dematerialise means of payment and assets in order to transfer them between participants in the network securely and immediately.

Crypto tokens and their ecosystem

Publicly accessible crypto tokens remain a niche phenomenon

Crypto tokens were initially known as a substitute means of payment in public, decentralised networks on the internet. In recent years, they have increasingly been used as an object of speculation, giving rise to a large number of centralised and decentralised trading platforms. In the meantime, a number of traditional financial actors are now also offering products and services for publicly accessible crypto tokens. Owing to the use of unregulated crypto trading platforms and, in some cases, widely varying terminology, published statistics on the number, value and volume of existing crypto tokens should be interpreted with caution. The oft-cited source coinmarketcap.com lists over 2,000 different crypto tokens, with a market

1 The term "blockchain", or more generally "distributed ledger" (DL), is normally used to describe a database shared across a network which gives participants joint rights to write, read and store entries to the ledger. The most common DLT applications are based on blockchain technology, which has proven to be particularly useful for recording transaction histories; see also Deutsche Bundesbank (2017a).

capitalisation of around US$335 billion.[2] Bitcoin alone accounted for more than half of this figure. Most of the crypto tokens listed are of little importance in terms of their value, with several hundred of them reporting a daily turnover of less than US$10,000. Even the narrow monetary aggregate for the euro area, M1 (cash in circulation plus sight deposits of non-banks), is more than 25 times the value of all crypto tokens.[3]

Payment tokens, security tokens and utility tokens – distinction is often unclear

In the public debate, crypto tokens are generally divided into three categories for the sake of simplicity:[4]

- Payment tokens: These fulfil a payment function. Aside from this, they have little or no other function.
- Security tokens: Users have claims on assets arising from participation or contractual rights, similar to shares and bonds.
- Utility tokens: They can be used in the issuer's network to purchase goods and services.

In practice, it is often difficult to classify tokens distinctly into one of the three categories.

Development of the market environment

Crypto tokens originally arose as a substitute means of payment in public peer-to-peer networks and became known as an object of speculation

Crypto tokens arose and became known as privately generated digital tokens that can be transferred as a substitute mean of payment in publicly accessible peer-to-peer networks in a largely anonymous manner and without any intermediaries. On the whole, they are not used as means of payment predominantly due to their strong price fluctuations compared with legal tender as well as the lack of stability mechanisms on the part of an issuer or an anchoring in the real economy. At the turn of 2017-18, Bitcoin registered a multiplication of its value within a few weeks, as did many copycat coins. This boom was followed by a value adjustment that lasted several months. The value trajectory that was observed during this period strongly resembled the pattern of historical speculative bubbles[5] and provided an enormous boost to the prominence of crypto tokens, especially among speculative investors.[6]

Partial shift in focus from payment and speculation purposes to digital rights of use

In spring 2018, this development was followed by strong growth in the number of newly issued crypto tokens via "Initial Coin Offerings" (ICOs). These initiatives are a kind of crowdfunding where investors purchase newly issued crypto tokens for money or other crypto tokens in order to fund the development of products, typically software. This type of approach is especially interesting for newer start-up companies that are not readily able to cover their capital requirements via bank loans or the traditional capital market. The design of ICOs and particularly the rights and obligations associated with the issued crypto tokens vary considerably: in some cases, investors can use crypto tokens to purchase the rights of use to products that are often still in development, while in other cases they are looking at the prospect of real participation rights. Frequently, however, they are simply crypto tokens whose value could rise.

ICOs entail high risks

In the past, the rapidly growing ICO market, utilised as a form of direct finance, was structurally susceptible to abuse and fraud, however.[7] White papers that described the projects were sometimes formulated so vaguely that in many cases it was difficult to make a realistic assessment of the market opportunities.[8] Nevertheless, even these ICOs were in demand: blockchain or DLT were considered key future technologies that were expected to change many market structures. A large number of

2 See https://coinmarketcap.com.
3 See European Central Bank (2019), value for April 2019.
4 See Fußwinkel and Kreiterling (2018).
5 See Financial Stability Board (2018).
6 See Deutsche Bundesbank (2018a).
7 See Fußwinkel and Kreiterling (2018).
8 See Fußwinkel and Kreiterling (2018) and European Securities and Markets Authority (2017).

investors wished to have a share in the returns of seemingly promising developments.

In general, the issuers of the tokens placed on the market via ICOs determine themselves which information they disclose. Investors are not sufficiently able to verify this information. Since many of the ICOs initiated so far are initiatives that operate outside of the relevant regulatory provisions and jurisdictions, investors are not protected by consumer protection regulations.[9]

Centralised trading platforms

Market infrastructures have emerged for crypto tokens

The formation of a market for crypto tokens has entailed the increasing appearance of centralised and decentralised internet-based crypto trading platforms. Centralised trading platforms enable the purchase and sale of various crypto tokens against currencies issued by central banks. Similarly, most platforms allow different crypto tokens to be traded for one another. The most liquid crypto tokens on these trading platforms currently include Bitcoin, Ether and the Ripple token. Some trading platform operators additionally offer a significantly broader range of less liquid crypto tokens. The trading volume on the largest crypto trading platforms varies widely. Several studies in the past have also raised doubts regarding the reported trading volumes.[10] After some trading platforms pulled out of countries such as China due to stronger regulation, they are now chiefly located in Malta, South Korea, Singapore, Hong Kong and the United States. According to publicly available information, these include Binance (Malta, formerly China and Japan), OKEx (Malta), Coinbase (United States), HitBTC (Hong Kong), Huobi (Singapore, previously China, with additional locations in Hong Kong, South Korea, Japan and the United States), Upbit (South Korea) and Bitfinex (British Virgin Islands).[11]

The functioning, governance, transparency, scope and quality of services of the various centralised trading platforms can vary substantially. A key distinctive feature is the role of the platform operator in the trading of crypto tokens: while some providers merely provide the platform itself, on which customers can place their purchase and sales bids and carry them out against each other, other providers act as intermediaries by acting themselves as buyers or sellers to their customers. Moreover, the platforms can also play different roles regarding the custody of crypto tokens. Platform operators can therefore either custody the tokens on behalf of their customers ("custodial exchanges") or they can leave the custody of the token to the customer ("non-custodial exchanges").[12] Since crypto tokens exist purely in digital form, a private key is required to transfer crypto tokens. This key has a function similar to a password and is only known to the owner. If the platform assumes the custody of crypto tokens, it acts as a trustee. It then holds the private key, which entitles its owner to transfer the crypto tokens in the original peer-to-peer network, on behalf of the customer. In this respect, the situation is comparable to online banking or an online securities deposit account. On the other hand, if customers keep their private key themselves, they alone are able to transfer the crypto tokens and are solely responsible for safeguarding the key.

Services and quality of centralised trading platforms vary considerably

Not all operators of centralised trading platforms are subject to financial market regulation

Operators of centralised trading platforms are private companies that are sometimes not subject or only partially subject to financial regulation and supervisory regimes depending on the country of residence and business model. Therefore, in some cases, there are only very few or even no requirements for risk management, IT security and consumer protection. In addition, these platforms are typically relatively

9 See BaFin (2017).
10 See, for example, Bitwise Asset Management (2019), Presentation to the U.S. Securities and Exchange Commission (SEC), https://www.sec.gov/comments/sr-nysearca-2019-01/srnysearca201901-5164833-183434.pdf. This study was presented to the SEC at a meeting where a rule change was proposed to permit a Bitcoin ETF issued by Bitwise to be listed and traded.
11 For an overview, see https://www.bti.live/exchanges/
12 See Rauchs et al. (2018).

new enterprises or start-ups whose security policies are often still in their early stages of development and less tried-and-tested.[13] These trading platforms have experienced attacks by cybercriminals on several occasions due to insufficient security precautions.[14]

Security flaws and weak governance harbour high risk for customers of trading platforms

Besides cyber-attacks, cases of fraud and loss events owing to the operator's poor governance structures have frequently been observed in recent years. In some cases, it can be assumed that the market was targeted and manipulated in order to achieve profits illicitly.[15] Furthermore, some providers have been criticised for forgoing know-your-customer (KYC) checks required for banking business. Waiving the requirement to establish customers' identities opens the door to anonymous or pseudonymous participation in the network, meaning that illicit transactions such as money laundering and terrorist financing can be concealed. That said, there are indications in the sector of a trend towards the clear identification of customers, not least to build up trusting customer relationships and to achieve a broader customer base in the financial market.

Decentralised trading platforms

Decentralised trading platforms are only suitable for exchanging crypto tokens

Besides centralised trading platforms, an increasing number of decentralised trading platforms (also known as "decentralised exchanges") have been set up recently; on these trading platforms, users can exchange crypto tokens, in some cases entirely without intermediaries. The transaction takes place directly between the seller and the buyer and is cleared automatically by a program code (smart contract) developed specifically for that purpose.[16] However, only a very small number of decentralised exchanges operate exclusively on blockchain technology. As the matching of bids on the blockchain is very time-consuming and expensive, special websites are employed to match supply and demand via a trading book.

Traditional financial market actors increasingly integrating individual crypto tokens in their product range

In addition to the centralised or decentralised exchanges, the traditional financial sector is also gradually developing its own growing range of crypto token services, with some traditional actors offering custodial services for crypto tokens. Others are basing their index or derivative products on crypto tokens, enabling institutional and private investors to speculate on the prices of individual or multiple crypto tokens without having to hold them directly.

Crypto tokens such as Bitcoin do not fulfil functions of money owing to a lack of stable value

To sum up, although a diverse infrastructure for trading and storing crypto tokens has emerged in recent years, many of the crypto tokens that have been around for longer, such as Bitcoin, have, on the whole, not proven to be stable in terms of their value compared with currencies issued by central banks. As a result, they have not been able to establish themselves as a general means of payment, nor are they suited to being a store of value. Instead, they are a niche product used predominantly by speculative investors. Furthermore, the tokens and the infrastructure required for their trade and storage are often not subject to financial market regulation. There are also indications that crypto tokens are being used for illicit transactions.

Stablecoins

Stablecoins are crypto tokens designed to have a stable value …

In response to the sharp price volatility of many existing crypto tokens, there have been attempts for some time now to develop crypto tokens that are stable in value. Stablecoins are crypto tokens whose value is often pegged to an existing currency (or basket of currencies) and backed by matching collateral.[17] Stablecoins are therefore not payment tokens which have an inherently stable value.

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13 See Hileman and Rauchs (2017).
14 See Rauchs et al. (2018).
15 See Xu and Livshits (2018) and Li et al. (2018).
16 See Lin (2019).
17 As a general rule, there is no perfectly positive correlation between the stablecoin and its respective reference currency, as the price of a stablecoin is additionally determined by fluctuations in supply and demand on digital trading platforms.

… and could be used for settling payments in digital infrastructures

Stablecoins have been receiving a particularly large amount of attention over the past few weeks as a result of the plan by Facebook and other large global players (collectively in the Libra Association) to establish a global payment system with stablecoins. In these cases, the stablecoin is designed for settling payments in digital networks or infrastructures, such as messenger services. So far, stablecoins have been used mainly as a unit of account or a vehicle currency for trading between different crypto tokens, especially for arbitrage trading between different trading platforms.[18]

Settlement based on tokens encouraged by stable value

Tokens having a stable value encourages their use for payments. In the simplest case, the value of the token can be pegged to the value or price of an existing asset outside the network, such as a currency issued by a central bank or a security. What is crucial for their stability is how stable the value of the underlying collateral is and how legally binding any claim to convertibility is.[19]

Backing stablecoins with collateral

Fundamentally, there are two different approaches to maintaining the stability of the stablecoin's value: backing with off-chain or on-chain collateral and utilising algorithms to control the supply of tokens (see the chart on p. 45).

Backing with off-chain collateral

Off-chain collateral refers to values that are not stored on a blockchain in digital form, but stored in a traditional way. These mainly consist of claims in currencies issued by central banks, such as secured account balances at a bank or securities. However, off-chain collateral may also take the form of commodities, such as gold. Many initiatives, some of which have been launched by established companies, are aimed at a stablecoin backed by a local currency. The remarks below therefore mainly relate to this approach.

Often no right of redemption for the buyer

The stablecoin issuer assures the buyer that the issuer will hold the stablecoin's equivalent value in the respective collateral currency or in equivalent collateral assets. Redemption of the stablecoin in question in currency is often not guaranteed, however. The holder has no legally enforceable entitlement to reimbursement. In this respect, the situation is different from that concerning a bank deposit, which constitutes a legally enforceable claim against the bank in question (for example, payment in cash). However, it is also conceivable for the provider to hold the posted collateral as a trustee for the users. As a general rule, users of stablecoins incur credit risk if the provider is insolvent upon redemption. Liquidity risk may arise if, for example, the relevant collateral cannot be liquidated at short notice. It should also be noted that the nature of the assets used as collateral for individual stablecoins may vary widely.

Collateralistion with central bank money would reduce risk

If the collateral is in the form of liquid deposits held with commercial banks, there remains an inherent credit risk. Backing with central bank money would not have these disadvantages, but would not eliminate a priori the credit risk stemming from the collateralising entity. There would have to be specific legal arrangements for this, say, in the form of trusteeship agreements that would safeguard the collateralising character for the stablecoin in the event of the collateralising entity becoming insolvent.

Economic implications of stablecoins difficult to gauge from today's perspective

At the present stage, it is very difficult to gauge how widely and how quickly stablecoins will come into use in the future and what repercussions this would have for the economy and the financial system, particularly as the extent and speed both depend on the concrete implementation. In highly developed economic areas with efficient payment systems and stable currencies, the market potential of stablecoins as a

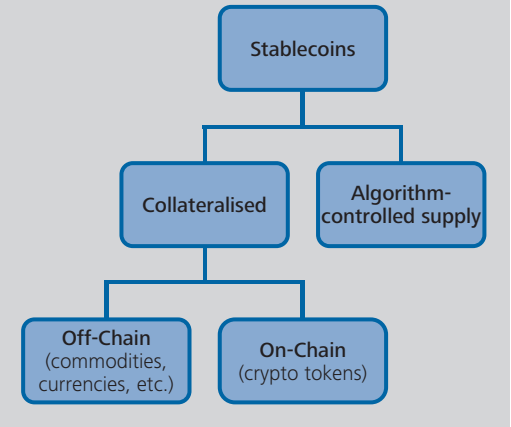
18 See Rauchs et al. (2018).
19 If the backing collateral is a currency basket, the holder always bears an additional exchange rate risk if the token is to be exchanged for US dollar or euro, for example. This risk essentially depends on the share of the respective currency in the overall basket.

means of payment is likely to be modest given the then uncertain additional benefit. However, globally functioning, low-cost settlement with a relatively stable token which is issued and credibly collateralised by a consortium of several large and solvent companies might have the potential to displace some currencies, especially those which are less stable in value, to a certain extent.

Stablecoins from solvent companies could have far-reaching implications

Stablecoins actually achieving large volumes and being backed by baskets of currencies might have a macroeconomic impact, say, owing to shifts in exchange rate relationships. This is conceivable, for example, if a currency were to have a larger share in the currency basket than warranted by its use in the international trade of goods and services or for the portfolio selection of international reserve currencies. In this scenario, far-reaching effects could also occur for the existing players in the respective financial system if stablecoins were to replace giro money as a means of payment, thus reducing banks' earnings in the field of payments. Although banks are already exposed to increased competition in payments from new providers, this has been concentrated so far on the "customer interface", while actual payment settlement still takes place on bank accounts. Banks' traditional business models would possibly come under pressure if sight deposits were to become less attractive compared with holding tokens, resulting in portfolio shifts into longer-term forms of investment. This might lead to a change in, for example, the refinancing conditions for lending and, indirectly, also in the transmission of monetary policy impulses.[20] In particular, if such shifts were to happen abruptly, effects on financial stability could not be ruled out. Over the longer term, once businesses and consumers have adjusted to it, it is likely that the financial system will have adapted to the more widespread use of stablecoins. Much the same applies to any monetary policy implications of the highlighted developments. As long as there is still a sufficient demand for central bank money, monetary policymakers will still be in a position to achieve their aims effectively. What also has to be taken into account in a financial system changed by stablecoins is that demand for tokens could become very volatile in the event of individual stablecoin issuers experiencing economic difficulties or threats to their reputation.

Types of stablecoins



Deutsche Bundesbank

Central banks' mandate must not be put at risk

Stablecoins also harbour opportunities in the form of aggregate welfare gains, say, if they lower the still very high fees for some cross-border transfers.[21] Particularly stablecoins that are broadly or even globally widely accepted could indeed have implications for some traditional tasks of the central bank, such as safeguarding the effective transmission of monetary policy, ensuring stable payments, and financial stability. The fulfilment of statutory central bank tasks must take priority over private sector business interests, however. If the sovereign fulfilment of the central banks' mandate were to be jeopardised by stablecoins in the future, the statutory and regulatory frameworks would have to be adapted accordingly. Owing to the potentially global dimension of tokenisation and its settlement infrastructures, close cooperation between regulators and central banks is indispensable for ensuring a stable financial

20 See Deutsche Bundesbank (2017b).
21 See pp. 46 ff.

system and similar competitive conditions internationally without the possibility of regulatory arbitrage.

Backing with on-chain collateral

Backing option with on-chain collateral, as a rule, less stable

A further option is to back stablecoins with on-chain collateral. In this system, collateral, such as existing crypto tokens, is deposited on a blockchain. As existing crypto tokens do not have an intrinsic stable value, additional stabilising measures are generally put in place. These include, inter alia, incentives for active management of the collateral as well as the over-collateralisation of the respective stablecoin. The stabilising mechanisms envisaged for this might act only with a time lag, however. Furthermore, liquidity shortages in the crypto token used as collateral as well as the generally very volatile market environment can lead to insufficient collateralisation. Price stability in relation to a reference currency can thus, in principle, be ensured only approximately in the case of crypto tokens with on-chain collateral. There is still the risk of a downward spiral given a fall in the price of the crypto token used as collateral.

Algorithm-controlled supply

Stabilisation through algorithmically controlled supply virtually non-existent and not functional, either

In contrast to the two variants that have already been described, stablecoins whose supply is algorithm-controlled are not backed by traditional or digital assets. Instead, the supply is intended to be controlled variably by the relevant blockchain protocol or an individual smart contract. The idea behind this is that of an algorithmic issuing agency that is supposed to manage the token supply automatically, so that a stable exchange rate to a selected benchmark (e.g. the US dollar or the euro) is ensured.[22] One of the unresolved issues here is how a fall in the price of the token could be prevented in the event of a speculative attack or a crisis. In practice, stablecoins with an algorithmically controlled supply have not been used on a notable scale so far.

Tokenisation in the settlement of payment transactions

Tokenisation as a catalyst for efficient settlement

Tokenisation allows for extensive digitalisation in the settlement of payment transactions so that, in several cases, confirmations and reconciliation processes can be carried out more quickly and some steps in the process chain can even be omitted entirely. As a result, benefits can be expected particularly for complex, labour-sharing processes. In the financial sector, this primarily affects securities settlement, but also cross-border payments.[23] By contrast, the national payment systems in many countries have already attained a high level of efficiency. In addition, there is a perceptible global trend towards introducing real-time retail payment systems, which make it possible to settle payments instantly and at any time via bank accounts.

Cross-border payments traditionally settled via correspondent banking

Until now, cross-border payments between banks have been settled via an international network of bilateral accounts (correspondent banking). In a number of cases, lines of credit are provided in order to settle payments; trust between the counterparties in correspondent banking therefore plays a key role. In some cases, there exist inefficiencies that can result from the long settlement chains and lack of standardisation, which are then reflected in relatively high fees and long processing times compared to national payments. In addition, some regions have seen a decline in correspondent banking relationships and tendencies towards consolidation in recent years.[24]

The use of tokens as vehicles for settlement provides the opportunity of leveraging poten-

22 See He (2018).
23 See Deutsche Bundesbank (2017a).
24 See Bank for International Settlements (2016).

Tokens could increase efficiency of cross-border payments

tial for optimisation in cross-border payments. Tokens can serve as a common medium of exchange within a network and thereby replace bilateral account management.[25] Through tokenisation, counterparties can exchange values and securities across countries and currency areas on a uniform basis.[26] The use of tokens in digital cross-border networks could enable those processes which, so far, have required manual intervention in some cases to be automated and carried out more efficiently. Furthermore, the use of tokens could be attractive for large, international providers if they integrate them into their cross-border platforms as a worldwide, user-friendly means of payment.

Trade finance could benefit from automated settlement

Trade finance also plays a major role in international payments. Alongside the use of digital tokens, an additional potential benefit is afforded by the use of smart contracts for simultaneously settling trading obligations. Using smart contracts, digitalised values are transferred on a blockchain – in a way that is verifiable and resistant to counterfeiting – depending on their documented progress in the process. This means that smart contracts act as technological trustees which automatically forward or return the funds entrusted to them upon the occurrence of certain events, such as the dispatch of goods. In a closed network with defined roles, the trade finance documentation, which often consists of several thousand pages nowadays, could be used in digitalised form.

Digital format templates must reflect contractual agreements

For this purpose, a number of prerequisites must be fulfilled: the contracts used must be standardised, such as in the form of digital format templates; the rights of the individual counterparties must be defined in a legally binding manner; and a common platform must be used. The platform could be operated jointly by all or several of the participants and would thereby avoid the problem of the participants needing to agree on a central, trustworthy intermediary, which can sometimes be a difficult issue in an international context. As smart contracts do not create contracts but settle them, the contractual basis for cooperation between the participants using a common technology in a process chain must be prepared initially. By using a common network with standardised contracts, risks can be reduced and processes that have so far been largely manual can be simplified and accelerated. Uniform data storage within the network may be expected to provide additional benefits.

Tokenisation could strengthen financial inclusion and lower costs for remittances

Improvements in cross-border payment transactions should also be seen as a way of increasing financial inclusion. These simplifications could allow for considerable welfare gains in some countries by facilitating people's access to payment services. In a considerable number of countries,[27] a significant portion of national income consists of transfers from emigrants back to their home country (remittances). In 2018, remittances to low and middle-income countries amounted to around US$529 billion[28] and are at times associated with high transaction costs. According to the World Bank, the costs were, on average, 7% of the transfer amount.[29] This means there is a high potential saving that could be leveraged through the use of new technologies. In order to make full use of this potential, it would also have to be possible to use tokens in the recipient country, which would avoid the cumbersome process of exchanging them for cash. At the same time, the stringent regulatory standards – for example, with regard to anti-money laundering and counter-terrorist financing measures – must be taken into account.

25 See, for example, Ripple, Solution Overview, https://ripple.com/files/ripple_solutions_guide.pdf.
26 See Clark-Jones et al. (2018).
27 In 2018, the highest share of remittances in terms of GDP were recorded in Tonga (35.2%), Kyrgyzstan (33.6%), Tajikistan (31%), Haiti (30.7%) and Nepal (28%) (World Bank, 2019).
28 See World Bank (2019).
29 These costs refer to the average costs of sending US$200 to a low or middle-income country.

Discussion about digital central bank money

Digital central bank money for non-banks currently promises little utility

Today, the vast majority of payment transactions between non-banks are settled in commercial bank money. Nevertheless, central bank money in the form of cash also continues to play an important role for payments in general. For this reason, following the emergence of crypto tokens, there was soon talk of issuing digital central bank money for non-banks – the "retail" variant – as a stable means of payment within DLT-based systems. However, such a connection is anything but compelling. As things stand today, this comprehensive variant of digital central bank money offers only minor perceptible benefits for payment settlement. Many use cases could be covered through the use of tokenised commercial bank money. If, for example, a token were to be issued by a commercial bank and could be exchanged for legal tender with that bank, this would constitute digital commercial bank money, known from a regulatory perspective as electronic money (e-money).[30] From the Bundesbank's perspective, there is therefore no need to introduce this comprehensive variant of digital central bank money at the current juncture. Nevertheless, some central banks have begun to systematically investigate the possibility of issuing digital central bank money. Differences result based on the scenarios analysed and the motive.[31]

Public accessibility as a motive for digital central bank money

One motive for introducing digital central bank money could be to ensure the accessibility of the financial system and central bank money to the general public. In some countries, the declining use of cash in payments has prompted a debate on whether households and enterprises need an electronic form of central bank money for payment settlement.[32] In addition, it is being discussed whether it could become necessary to issue digital central bank money if private payment structures with significant market power were to evolve. In this context, a payment system with digital central bank money should ensure competition and access to the payment system for all consumers as well as guarantee the security of payment transactions in crisis situations through a publicly provided service.

Digital central bank money for non-banks harbours certain risks

However, if digital central bank money were to be issued, far-reaching implications would have to be taken into consideration.[33] Digital central bank money that would also be available to non-banks could, for example, be used as a substitute for commercial bank money. The financing of commercial banks through (sight) deposits could be made more difficult or more expensive, which could also potentially have an impact on the credit supply.[34] Irrespective of this, bank deposits would likely be subject to greater volatility, particularly during times of crisis or economic strain in the financial markets.

Central bank money plays key role in banks' payment settlement

If digital central bank money were only to be used in a closed-loop system containing selected participants for a limited purpose – the "wholesale" variant – the consequences for monetary policy, bank stability and the financial system would be considerably less pronounced. The fact that commercial bank money harbours risks of insolvency and illiquidity plays a significant role in banks' payment settlement and in the cash settlement of financial market transactions. At present, private actors' access to accounts at the central bank, and thus the possibility of holding and transferring central bank funds, is largely confined to monetary financial institutions. The non-bank private sector generally only has access to central bank money in the form of cash. If these access criteria for central bank money were to remain unchanged,

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30 In simplified terms, e-money is an electronic representation of money that is issued in exchange for payment of an amount of money (prepaid), represents a claim against the issuer and is also accepted by parties other than the issuer.
31 See Barontini and Holden (2019).
32 See Sveriges Riksbank (2018).
33 For a detailed discussion of the issue, see, for example, Bank for International Settlements (2018).
34 Alternatively, banks would have to compensate for the loss of sight deposits, for example by attracting time deposits and savings or by issuing bank debt securities. However, these liabilities are regularly associated with higher funding costs.

structural effects in the financial sector would be expected only to a limited extent. The rationale behind establishing such a system would mainly be the expected gains in efficiency achieved through DLT-based settlement.

Collateralisation in central bank money envisaged

In this context, market participants are also discussing stablecoins, which would be used to settle very large-value financial market transactions. In order to minimise credit risks as far as possible, collateralisation in central bank money is under consideration in this regard. However, only a central bank's liabilities can be non-cash central bank money. As a result, tokens issued by commercial banks or a group of commercial banks backed by central bank money would not be considered central bank money.

"Trigger solution" conceivable

Settlement in central bank money could also be achieved by technically connecting DLT-based networks to existing payment systems. Existing payment systems, such as the TARGET2 real-time gross settlement system operated by the Eurosystem, would be used for the cash settlement of transactions carried out on DLT-based platforms. In this case, the DLT would act as a messaging platform that triggers payments. This "trigger solution" would require the development of a technical interface between DLT networks and payment systems, the creation of a legally binding, digitalised payment instruction, as well as the continuous provision of real-time settlement in RTGS systems by extending operating hours. However, the conditions for accessing the systems, and thus central bank money, would not need to be fundamentally changed.

Tokenisation may provide impetus for harmonisation

Ideas and initiatives with regard to tokenisation may, in conjunction with innovative technologies, provide impetus for increased harmonisation and standardisation. Heterogeneous rules and standards are often responsible for complex settlement structures. By establishing uniform standards, settlement can also be sped up within the existing structures and made more transparent. One example of this is the SWIFT Global Payments Innovation Initiative, which, under certain conditions, allows for same-business-day payments, payment tracking, and transparent processing fees in the field of international payments. In this regard, credit institutions are falling back on the existing infrastructure, but the potential for optimisation is being fully exhausted through the implementation of uniform rules and improved procedures.[35]

Tokens in securities settlement

Two types of tokenised securities

Alongside the use of tokens in payment transactions, there are especially high hopes for the use of tokenised securities. Conceptually, there is a distinction between digital representations of securities already issued through traditional channels, on the one hand, and securities that exist purely in digital form as tokens, on the other.

Tokenisation may enable significant efficiency gains in post-trade

A sizeable number of market participants believe that significant efficiency gains in post-trade could be achieved through tokenisation in the future. Post-trade comprises the settlement, custody and, optionally, clearing of securities. In this area, the processing of securities transactions should also be simplified and accelerated by the improved data quality and the omission of intermediaries. Ideally, it is expected that issuers and investors would be able to conclude transactions with each other directly without intermediation by other participants, such as central securities depositories (CSDs) or custody banks. The long custody chains that are typical in securities business at present could then be shortened considerably. The resulting leaner processes in post-trade would likely lead to efficiency gains and cost savings.[36] In addition, smart contracts are well suited to settling various corporate actions (e.g. coupon payments) in a more efficient way. Some steps in the process could be automated and the need for reconciliation as well as the

35 See Hofmann (2019).
36 See Bank for International Settlements (2017).

number of errors arising from the reconciliation process are likely to decrease as a result of common data storage.

Tokenised collateral baskets may significantly simplify mobilisation of collateral

One specific area that already features concrete use of tokens in the market is collateral management. Here, the focus is on what are known as "collateral baskets", i.e. baskets of collateral of predefined quality that are used to collateralise various transactions or to ensure compliance with regulatory requirements. As an initial step, these collateral baskets can be formed using tokens.[37] Employing DLT, these tokens can then be transferred between the counterparties involved virtually in real time. In particular, internationally active market participants whose securities are held at various locations could provide collateral in this way without the underlying individual securities having to be repeatedly moved along long custody chains. Utilising tokenised securities as collateral could allow residual frictions to be reduced. At the same time, the market is seeing strong demand for high-quality liquid assets (HQLA).[38] Tokenisation-based market solutions currently in development are approaching this problem by enabling easy mobilisation of these securities without the need for cumbersome physical transfer.

"Delivery-versus-payment" settlement not yet achieved

While only mutual exchange of securities or collateral baskets is envisaged at present, exchanging securities tokens for commercial bank money or central bank money (delivery versus payment, or DvP) is also already under consideration. DvP settlement links the transfer of securities resulting from their purchase or sale or from a repo transaction to the transfer of commercial bank money or central bank money. Here, securities are only delivered once the corresponding transfer of money has occurred, and vice versa. The idea behind such DvP settlement is to eliminate advance delivery risk; in existing settlement systems, it is standard procedure. Settlement with DLT and tokenised securities could either be done in connection with existing payment systems (as described above) or would require tokenised money on the blockchain. This could include representations of commercial bank money. However, due to its systemic importance, it is much more common, and also required by international standards, to settle such transactions in central bank money, for example on the TARGET2-Securities platform operated by the Eurosystem.

Operators already planning migration from existing market infrastructure to systems based on tokenisation

At present, a number of market infrastructure operators are looking into migrating some of their systems to DLT. For instance, the Australian stock exchange operator ASX is intending to replace its CHESS (Clearing House Electronic Subregister System) post-trade system, which has been in operation for more than 25 years, with a DLT-based solution.[39] The new system is based on a closed-loop network (permissioned distributed ledger). This means, for example, that, unlike well-known public blockchain systems such as Bitcoin or Ethereum, this new blockchain has an administrator (the stock exchange) and that transactions can only be carried out by participants approved by the exchange.

Entire process chain for securities could potentially be based on tokenisation in future

In future, it is conceivable that the entire value chain in the field of securities – from issuance through trade, clearing, and settlement to custody – could be processed using a single system based on tokenised securities and DLT. Until this is actually possible, however, a variety of technical, organisational, legal and regulatory issues will have to be resolved. In terms of technical issues, it must be guaranteed above all that tokens can be transferred in a way that is resistant to counterfeiting. The organisational side is concerned with integrating all participants into an effective framework of governance that also sets out clearly defined responsibilities and, if necessary, provides for interconnectivity with other blockchains. At least in Germany, there is currently no legal basis for

37 The underlying securities are ringfenced and temporarily blocked at a custodian so that they cannot be used for other purposes.
38 See Deutsche Bundesbank (2018b).
39 See ASX (2019).

BLOCKBASTER

In the BLOCKBASTER project (blockchain-based settlement technology research), Deutsche Börse and the Deutsche Bundesbank used a prototype to jointly research how the settlement of digitalised securities or digitalised units of value based on blockchain could work. This included building a blockchain prototype based on the implementation of the Hyperledger Fabric framework.[1] At the same time, the company Digital Asset was commissioned to develop an identical prototype to gain experience based on different implementations of DLT. Performance and load tests were subsequently carried out and analysed for both prototypes. The results of the tests undertaken in the spring of 2018 show that both prototypes are, in principle, suitable in terms of scalability for the live operation of financial market infrastructure and can serve as a basis for further developments.[2] At present, blockchain technology is still progressing rapidly, meaning that additional improvements with regard to productive use can be expected. With respect to the speed of the settlement of a single transaction, blockchain proved somewhat slower and somewhat more expensive (more time required, more resources consumed) than conventional central architecture.

This made it clear that, in the case of simple settlement tasks without significant follow-up processes (i.e. in large segments of payments), conventional central architecture may remain superior. However, in the case of more complex settlement procedures, such as in trade finance or securities, the advantages of using a common database could have a greater impact. The common database could allow follow-up processes, interim steps and reconciliation to be omitted or accelerated. Overall, only a comprehensive, more detailed cost-benefit analysis – including a comparison with traditional technologies over the full life cycle of a security – can provide a robust assessment of the advantages of the new technology. Furthermore, the research project made clear that the use of blockchain requires the close cooperation of all players in the settlements-as-a-network industry.

1 The Hyperledger Fabric framework is a special, open-source framework for the development of blockchain applications. The BLOCKBASTER prototype is based on version 1.0.5.
2 See Deutsche Bundesbank and Deutsche Börse AG (2018).

treating digital tokens like securities, which fall under German property law. In particular, the legal nature of the tokens and the statutory requirements in terms of custody (e.g. the role of the registrar) would need to be clarified.

Development of prototypes for a range of use cases

For many of the use cases currently under investigation, there are prototypes that have not yet been deployed in regular operations. In some cases, DLT-based settlement has been accompanied by parallel conventional settlement for legal reasons so that, except for not having legal force, the prototypes' full functionality can be demonstrated.[40]

Regulatory aspects

Innovations may require regulatory framework to be adapted

With the emergence of new technologies in the financial sector, the question arising time and again is whether they are adequately covered by the existing regulatory framework, or whether the framework needs to be adapted. In particular, the principle of "same business, same risks, same rules" should be taken into account. On the one hand, the protective function of the rules, e.g. regarding the stability of the financial system and consumer protection, as well as the general fulfilment of public sector mandates such as maintaining price stability or ensuring stable payment systems, must not be undermined. Yet on the other hand, regulation should be as technology-neutral as possible for the financial sector to make use of the benefits of innovation. The phenomenon of tokenisation and the establishment of new transaction infrastructures have raised numerous regulatory issues which are currently the subject of intense debate by the competent authorities at the national and international level.

Current classification of crypto tokens

There are many different types of crypto token. The uses and risks vary greatly depending on their features, which is why the regulatory classification of crypto tokens ultimately needs to be determined on a case-by-case basis. For example, the Federal Financial Supervisory Authority (BaFin) is looking into whether individual crypto tokens fall within the scope of already existing financial market regulation (e.g. on securities, financial instruments or investment), bearing in mind the principle of technological neutrality. The regulatory classification can imply far-reaching obligations for issuers, inter alia regarding due diligence with regard to anti-money laundering regulations and investor protection.

Regulatory classification on a case-by-case basis

Repeated warnings of loss risks associated with crypto tokens

Over the past few years, crypto tokens have increasingly been used as speculative financial assets. Given their high volatility, the European supervisory authorities, BaFin and the Bundesbank have in the past repeatedly warned investors of the associated risks. It would therefore be highly desirable to apply investor protection rules to securities-like crypto tokens as these usually represent early-stage investments in start-ups which can involve a particularly high risk of loss. Added to this is the fact that crypto tokens are traded on unregulated secondary markets, which correspondingly harbours additional risk.

Pure utility tokens could remain untouched by financial regulation, but are rare

As a general rule, pure utility tokens – even though they are occasionally used as a speculative form of investment – are generally unlikely to be governed by existing financial regulation. Therefore, neither the investor protection rules under financial market legislation nor anti-money laundering provisions would apply. However, it should be borne in mind that crypto tokens are mostly also used to make payments.

Need for further regulation yet to be assessed

A recent report by the European Securities and Markets Authority (ESMA) from January 2019[41] suggests that risk disclosure requirements vis-à-

40 See Fries and Kohl-Landgraf (2019) and Hirtschulz and Pehoviak (2019).
41 See European Securities and Markets Authority (2019).

Early integration of the first crypto tokens into the existing regulatory framework

As early as 2013, the Federal Financial Supervisory Authority (BaFin) stated publicly that – in their assessment – Bitcoins are units of account pursuant to section 1 (11) sentence 1 of the German Banking Act *(Kreditwesengesetz)* and are therefore financial instruments within the meaning of the Banking Act. This supervisory classification meant that authorisation is not required for the mining and mere use of Bitcoins and other crypto tokens classified as units of account. By contrast, financial services including the commercial purchase or sale of such crypto tokens – for example, by operating a crypto trading platform – require authorisation, and the operators of such financial services must comply with the requirements of the Money Laundering Act *(Geldwäschegesetz)*. This unambiguous approach by BaFin was an early response in Germany – unlike in many other countries – to potential risks posed by crypto tokens to the integrity of the financial system. At the same time, it provided clarity with respect to the supervisory classification of the crypto tokens which were most relevant at that time.

However, BaFin's administrative practice came in for criticism in a widely noted decision by the Berlin Court of Appeals *(Kammergericht Berlin)* in September 2018. In particular, it was stressed that BaFin had gone too far in its classification of Bitcoin and other crypto tokens as units of account, since it is not within the remit of the executive to intervene in matters of law-making.

Even though the existing administrative practice of BaFin is not immediately affected by this ruling in a criminal case and BaFin plans to adhere to its administrative practice, there have since been increasing calls for legislative initiatives to create legal certainty with regard to the supervisory treatment of crypto tokens[1] and the tokenisation of securities.

1 The draft law transposing the amending directive to the Fourth EU Anti-Money Laundering Directive *(Entwurf eines Gesetzes zur Umsetzung der Änderungsrichtlinie zur Vierten EU-Geldwäscherichtlinie)* defines the term "crypto value" and classifies it as a financial instrument, which is likely to lead to services akin to banking and financial services (such as investment or contract broking) being offered. Furthermore, "crypto custody business" is being introduced as a financial service.

vis investors be put in place. The European Banking Authority (EBA) also published a report at the beginning of 2019[42] in which it reaches the conclusion that the divergent treatment of crypto tokens by national authorities could lead to risks for consumers and possibly allow regulatory arbitrage on account of the unlevel playing field. Hence, the advice to the European Commission by ESMA and the EBA is to assess whether crypto tokens require additional regulation.

Can stablecoins be classified as e-money or deposit business or do they require their own set of rules?

Another question of particular interest is how payment tokens in the form of stablecoins are to be classified from a regulatory perspective, especially in the dominant variant of off-chain backing with a currency. Depending on the coins' form of issuance, use, remuneration and repayment claims, they could, for example, qualify as deposits, money market funds, investment funds or e-money. Given that individual stablecoins were potentially created to be used globally and that each jurisdiction has its own definition of what elements require regulation, it might become necessary to jointly enhance the regulatory framework.

Oversight of settlement infrastructures

Financial market infrastructures are held to high risk-mitigation standards

Besides the legal status of tokens, the underlying transaction infrastructure also plays a role. Where financial market infrastructures are involved, for instance, the bar has to be set high for those infrastructures which play an important role in the financial system, especially if they are systemically important. These requirements include risk provisioning in accordance with the Principles for Financial Market Infrastructures (PFMI) established by the CPSS and IOSCO.[43] Amongst other things, the principles stipulate that legal, liquidity and credit risk be mitigated. Operational risk – cyber risk in particular – should also be taken into account in the context of innovative technologies. In the event that DLT-based procedures become systemically important, the PFMI as well as other relevant rules for financial market infrastructures might become applicable under certain conditions. One particular challenge here is that the PFMI address the system operator, whereas DLT-based infrastructures generally exhibit highly decentralised elements.

Anti-money laundering and countering the financing of terrorism

Expansion of anti-money laundering legislation from 2020 onwards

If crypto tokens are used as a means of payment, they may also serve money laundering or terrorist financing purposes, especially where they allow anonymous or pseudonymous participation. The decentralised issuance of crypto tokens – without any natural persons or legal entities as an issuer or intermediary – raises the issue of how to best subject them to anti-money laundering provisions. The intention is therefore that implementing the amendments to the Fourth EU Anti-Money Laundering Directive will bring crypto trading platforms and commercial wallet providers, i.e. the interface between crypto token ecosystems and the traditional financial system,[44] into the general scope of anti-money laundering legislation. However, similar to cash transactions, purely decentralised transactions, which are carried out on a peer-to-peer basis, remain unaffected by this.

In view of the fact that crypto token networks often operate across borders, close international cooperation will be essential in order to prevent crypto tokens from being used for criminal purposes. The relevant guidelines of the Finan-

42 See European Banking Authority (2019).
43 See Bank for International Settlements (2012).
44 In order to facilitate the exchange between real currency and crypto tokens, crypto exchanges have no choice but to hold accounts in real currency. This is where anti-money laundering legislation comes into play because holding an account in the traditional financial system requires clear identification of the account holder, be they a natural person or legal entity. Commercial crypto token wallet providers are likewise rooted in the traditional financial system and therefore likewise open the door to anti-money laundering rules.

cial Action Task Force, as well as their rigorous international implementation and continued evolution, are thus particularly important.[45]

Efforts to modernise German law

Tokenisation may change legal nature of financial instruments

In order to make use of the potential offered by new technologies, the coalition agreement by the parties that constitute the Federal Government sets out plans to develop a blockchain strategy and create an appropriate regulatory framework for trading with crypto tokens. Using tokens in a comprehensive manner – something that is technically possible – may also change the legal nature of individual financial instruments. Tokenisation would lead to a greater standardisation of financial instruments, rendering them more easily transferable and fungible. Individual token-based investments may then assume securities-like properties within the meaning of the Securities Trading Act *(Wertpapierhandelsgesetz)*.[46] Given that, in the case of some financial instruments, interest in customisation outweighs the desire for fungibility, there will also be limits to tokenisation.[47]

Interim solution conceivable for utility tokens

In this context, the possibility of putting national transitional provisions into place for utility tokens is currently being reviewed; this would ensure legal certainty and investor protection at the national level and could function as a bridging solution until a common European regulatory framework for utility tokens is established.

Refinement of a technology-neutral securities law appears reasonable

As a further element of the blockchain strategy, it is being discussed whether German law should be opened up to the issuance of electronic securities, making physical certification no longer obligatory.[48] This should make it possible for securities[49] to be issued in line with the Federal Government Debt Management Act *(Bundesschuldenwesengesetz)* by entering them in a register. The register should be run by a government entity, or by a government-supervised entity, so as to rule out the possibility of manipulation. An exception to this register being managed or supervised by a government entity should be possible if manipulation can be ruled out by using certain technologies.[50] In such cases, it will be possible for issuers themselves or a designated third party to operate the register. Modernising German securities legislation by opening it up to technology-neutral electronic securities is something the Bundesbank would welcome, in principle.[51] Moreover, it would be desirable for a single regulatory framework to be established at the European level. In this way, cross-border settlement could be made more efficient, especially with regard to the capital markets union.

Outlook and further areas of action

Focus of financial sector on using DLT …

Irrespective of the volatile price spikes in publicly accessible crypto tokens, the financial sector is increasingly focusing on the application-oriented use of DLT. In order to apply the digital transfer of values effectively, the financial sector is aiming for tokenisation to become embedded in the regulatory framework.[52]

… within existing regulatory framework

The various technical solutions for implementing DLT are increasingly being tailored to the needs of the financial sector. The major initial problem of the blockchain procedure's lack of scalability has been resolved in that it no longer appears to be a significant obstacle in closed-loop applications for financial market infrastructures. In DLT prototypes pursued by financial service providers, the saved transaction his-

45 See Rolker and Strauß (2019); Read (2018); Klair (2018); as well as Financial Action Task Force (2019).
46 See Weiß (2019); in a similar vein, see also Koch (2018).
47 See Koch (2018).
48 See Federal Ministry of Finance and Federal Ministry of Justice and Consumer Protection (2019).
49 Initially limited to debt securities.
50 In this context, the key-issues paper uses the term blockchain technology. However, in the light of the paper's technology-neutral approach, we believe that the term can be understood as a pars pro toto.
51 See Deutsche Bundesbank (2019).
52 See Federal Reserve Bank of Boston (2019).

tory is no longer visible to all participants, addressing the legitimate need for confidentiality.

Closed-loop blockchains appear better suited for financial transactions

What is more, by displacing materially significant information, the sector is preventing the unauthorised disclosure of information resulting from possible future decryption through improved computing by, say, quantum computers. Financial service providers active in the field normally opt for a closed-loop, permissioned blockchain, where all parties involved need to be approved by the operator. This allows for transparent governance, avoids any anonymous and thus potentially illegal transactions and ensures that operators have a clear responsibility, including a competent contact person for issues regarding operational security. Open blockchains do not appear to be a suitable option for either financial transactions or any form of confirming personal data.

Insular solutions must become interoperable

The cooperation between various institutions has gradually produced functioning insular solutions for DLT-based settlement of individual transactions involving these institutions. For reasons of operational efficiency and in order not to split liquidity across individual markets, the aim should be to make these insular solutions used by individual consortia interoperable.

Digitalisation accelerated by combining DLT with tokenisation

Against this backdrop, the efforts of the financial industry to create technically secure as well as formal and legally binding tokens represent the next logical step. Through the process of tokenisation, DLT can accelerate the digitalisation of payment and securities settlements. Traditional crypto tokens in open permissionless networks are likely to play only a minor role. Stablecoins, ideally connected to stable currencies issued by central banks, or simply to commercial bank money, can help accelerate settlement and partially replace intermediaries. Digital central bank money, by contrast, is not required for this purpose.

A technically secure and efficient tokenisation of values is the prerequisite for a functioning decentralised settlement mechanism. In order for tokens to actually be used for financial transactions, as things now stand, the legal framework in Germany would need to be adapted to include a definition of the legal status of tokens in general and of crypto tokens in particular; in addition, DLT-based solutions as transfer and issuance channels would need to be legally recognised.

Challenge for tokenisation: technical functionality and definition of legal nature

Central bank mandates affected

Two recent developments may have a particularly great impact on the role of central banks. First, the call for the authorisation of stablecoins which are backed by central bank money, and, second, the creation of large consortia to develop stablecoins that can be used worldwide, e.g. Libra. In the first case, although no digital central bank money would formally be generated, market participants might associate stablecoins backed with central bank money with a high level of security, helping them to widely penetrate the market. Compared with clearing in commercial bank money only, this could make settlements in the field of innovate financial market infrastructure more secure, even without digital central bank money. However, payments would then take place outside the real-time payment systems operated and monitored by central banks (e.g. TARGET2), with potential implications for the role played by central banks and for market participants' liquidity management. Even more far-reaching implications would be conceivable in the latter case, where stablecoins are issued by international consortia. At present, important technical, organisational and regulatory questions concerning the approach of the Libra consortium remain open. Considering potential effects is therefore still speculative. Nevertheless, it seems appropriate that supervisory authorities and central banks are already carefully monitoring and assessing these developments. Innovations which are able to increase welfare and lower transaction costs should be facilitated. However, key objectives such as price stability, financial stability and the security of payments must not be compromised. Moreover, competition in the European payments

market should continue to be ensured. With all this in mind, it would seem advisable for the European banking industry to press ahead more resolutely than in the past with its efforts to modernise the payments landscape and find European solutions.

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Statistical Section

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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 Sep.	9.7	5.3	5.1	5.1	3.9	2.4	– 0.9	– 0.36	– 0.33	1.0
Oct.	9.5	5.4	5.0	5.0	3.8	2.5	– 1.4	– 0.36	– 0.33	1.1
Nov.	9.1	5.2	4.9	4.9	3.9	2.9	– 1.3	– 0.35	– 0.33	0.9
Dec.	8.8	5.2	4.7	4.7	3.6	2.6	– 1.1	– 0.34	– 0.33	0.9
2018 Jan.	8.8	5.2	4.6	4.5	3.5	2.9	– 0.6	– 0.36	– 0.33	1.1
Feb.	8.4	4.8	4.2	4.2	3.3	2.6	– 1.0	– 0.36	– 0.33	1.2
Mar.	7.5	4.3	3.6	3.9	2.8	2.4	– 0.6	– 0.36	– 0.33	1.1
Apr.	7.1	4.2	3.8	3.8	2.8	2.7	– 0.5	– 0.37	– 0.33	1.0
May	7.5	4.6	4.0	4.0	3.3	3.2	– 0.8	– 0.36	– 0.33	1.1
June	7.4	4.7	4.3	4.1	3.1	2.8	– 0.9	– 0.36	– 0.32	1.1
July	7.0	4.4	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	3.3	3.4	– 0.7	– 0.36	– 0.32	1.1
Sep.	6.9	4.3	3.6	3.6	3.2	3.2	0.0	– 0.36	– 0.32	1.2
Oct.	6.8	4.4	3.8	3.7	2.9	2.9	0.6	– 0.37	– 0.32	1.3
Nov.	6.7	4.3	3.7	3.9	2.6	2.8	0.6	– 0.36	– 0.32	1.2
Dec.	6.6	4.3	4.1	3.9	2.8	3.0	0.7	– 0.36	– 0.31	1.1
2019 Jan.	6.2	4.0	3.7	4.0	2.8	2.9	0.8	– 0.37	– 0.31	1.0
Feb.	6.6	4.5	4.2	4.2	3.0	3.2	1.3	– 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	1.1	– 0.37	– 0.31	0.8
May	7.2	5.2	4.8	...	2.2	2.7	1.2	– 0.37	– 0.31	0.7
June	...	...	...	...	...	...	...	– 0.36	– 0.33	0.4

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								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 Sep.	+ 47,719	+ 31,894	+ 89,394	+ 57,928	+ 12,827	– 1,813	+ 14,040	+ 6,413	1.1915	99.0	93.6
Oct.	+ 38,522	+ 27,778	+ 24,605	+ 14,555	+ 54,152	+ 1,530	– 42,938	– 2,695	1.1756	98.6	93.1
Nov.	+ 39,121	+ 33,281	– 5,116	– 58,948	+ 24,346	+ 1,610	+ 21,712	+ 6,164	1.1738	98.5	93.1
Dec.	+ 46,006	+ 29,489	+ 104,577	+ 51,429	– 8,935	+ 2,518	+ 61,170	– 1,604	1.1836	98.8	93.3
2018 Jan.	+ 8,881	+ 10,354	+ 4,616	+ 41,911	+ 2,085	– 4,354	– 37,226	+ 2,201	1.2200	99.4	93.9
Feb.	+ 18,586	+ 22,067	+ 28,042	+ 3,299	+ 63,969	– 492	– 38,686	– 49	1.2348	99.6	93.9
Mar.	+ 44,364	+ 34,091	+ 51,820	+ 79,303	– 60,033	– 597	+ 23,987	+ 9,160	1.2336	99.7	94.2
Apr.	+ 31,891	+ 23,177	+ 6,912	+ 30,997	+ 22,556	+ 13,894	– 56,884	– 3,651	1.2276	99.5	94.0
May	+ 9,347	+ 22,618	+ 20,946	– 3,194	+ 51,932	+ 15,231	– 45,382	+ 2,358	1.1812	98.1	92.8
June	+ 30,678	+ 27,654	+ 13,927	– 12,103	– 20,925	+ 8,508	+ 30,586	+ 7,861	1.1678	97.9	92.6
July	+ 30,160	+ 24,756	– 7,221	– 4,292	+ 1,306	+ 13,966	– 13,914	– 4,287	1.1686	99.2	93.8
Aug.	+ 28,158	+ 17,979	+ 40,493	– 11,823	+ 76,859	+ 14,225	– 41,988	+ 3,220	1.1549	99.0	93.4
Sep.	+ 27,028	+ 18,879	+ 51,985	– 911	– 29,694	+ 6,687	+ 73,571	+ 2,331	1.1659	99.5	93.9
Oct.	+ 33,991	+ 24,183	– 26,513	+ 4,595	– 7,187	+ 11,698	– 34,869	– 750	1.1484	98.9	93.4
Nov.	+ 30,445	+ 27,825	+ 37,568	– 47,528	+ 13,476	+ 16,128	+ 52,036	+ 3,456	1.1367	98.3	92.9
Dec.	+ 42,186	+ 25,726	+ 56,782	– 44,432	+ 101,998	+ 2,045	– 5,951	+ 3,122	1.1384	98.4	92.7
2019 Jan.	+ 11,379	+ 9,694	+ 2,614	+ 14,789	– 21,599	+ 972	+ 11,164	– 2,711	1.1416	97.8	92.1
Feb.	+ 18,884	+ 26,262	+ 2,792	+ 12,871	– 23,727	– 1,108	+ 14,536	+ 220	1.1351	97.4	91.7
Mar.	+ 33,326	+ 31,759	+ 52,137	+ 24,314	– 44,128	+ 6,764	+ 59,970	+ 5,218	1.1302	96.9	91.0
Apr.	+ 19,204	+ 22,302	– 31,705	– 43,681	+ 12,562	+ 3,604	– 7,354	+ 3,164	1.1238	96.7 p	91.0
May	...	...	...	...	...	...	...	...	1.1185	97.4 p	91.4
June	...	...	...	...	...	...	...	...	1.1293	97.9	91.8

***** 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	3.5	2.8	1.1	– 0.2	3.7	1.1	2.1
2017	2.4	1.7	2.2	4.9	3.0	2.3	1.5	8.1	1.7	4.6
2018	1.9	1.4	1.4	3.9	1.7	1.7	1.9	8.2	0.9	4.8
2017 Q4	2.8	1.9	2.2	4.8	3.3	2.9	2.1	6.5	1.5	4.3
2018 Q1	2.5	1.5	1.4	3.3	2.1	2.2	2.3	12.1	1.2	4.0
Q2	2.2	1.5	2.3	3.9	2.1	1.8	1.4	10.4	1.2	5.3
Q3	1.7	1.6	1.1	4.0	1.8	1.7	2.4	7.4	0.5	4.5
Q4	1.2	1.2	0.9	4.3	0.7	1.2	1.6	3.6	0.4	5.2
2019 Q1	1.2	1.3	0.6	4.5	0.9	0.8	0.9	6.3	– 0.3	3.0
Industrial production [2]										
Annual percentage change										
2016	1.6	4.5	1.2	3.0	4.1	0.5	2.6	1.8	1.9	4.9
2017	2.9	2.9	3.4	4.3	3.4	2.4	4.1	– 2.2	3.6	8.4
2018	0.9	1.2	1.0	4.2	3.5	0.3	1.8	– 0.1	0.6	2.0
2017 Q4	4.2	1.9	5.0	1.5	4.3	4.1	1.3	0.5	4.0	4.9
2018 Q1	3.0	2.7	3.8	4.6	6.2	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	3.2	0.1	2.5	5.9	– 0.3	3.0
Q4	– 1.9	1.1	– 2.3	5.1	2.1	– 1.8	2.6	– 6.4	– 2.4	0.9
2019 Q1	– 0.3	3.9	p – 2.2	3.4	0.5	0.5	1.9	2.6	– 0.6	– 0.8
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 Q1	84.2	82.1	88.2	75.5	83.1	86.2	70.4	77.0	78.3	75.8
Q2	84.0	81.2	87.8	73.9	84.3	85.9	71.2	76.1	78.1	76.3
Q3	83.8	79.9	87.8	75.2	84.7	85.9	70.7	74.6	77.9	77.4
Q4	83.6	80.8	87.1	73.0	84.1	85.7	70.9	77.0	77.9	75.9
2019 Q1	83.6	81.5	86.3	75.2	83.2	85.2	70.2	80.3	78.4	77.0
Q2	82.8	81.3	85.3	73.5	80.8	84.8	71.7	76.9	77.5	76.9
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 Jan.	7.8	5.7	3.2	4.3	6.7	8.8	18.6	5.2	10.4	6.8
Feb.	7.8	5.5	2.9	4.6	6.7	8.7	18.5	5.0	10.5	6.6
Mar.	7.6	5.5	3.4	4.1	6.8	8.7	18.2	4.7	10.1	6.5
Apr.	7.6	5.5	3.1	5.0	6.8	8.6	17.6	4.6	10.1	6.4
May	7.5	5.5	3.1	...	6.8	8.6	...	4.5	9.9	6.4
June	...	...	...	...	...	...	...	4.5	...	...
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 Jan.	1.4	1.8	1.7	2.8	1.2	1.4	0.5	0.8	0.9	2.9
Feb.	1.5	2.0	1.7	1.9	1.3	1.6	0.8	0.7	1.1	2.8
Mar.	1.4	2.2	1.4	2.2	1.1	1.3	1.0	1.1	1.1	2.7
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
General government financial balance [5]										
As a percentage of GDP										
2016	– 1.6	– 2.4	0.9	– 0.3	– 1.7	– 3.5	0.5	– 0.7	– 2.5	0.1
2017	– 1.0	– 0.8	1.0	– 0.4	– 0.8	– 2.8	0.7	– 0.3	– 2.4	– 0.6
2018	– 0.5	– 0.7	1.7	– 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	68.5	9.2	63.0	98.0	178.5	73.5	131.4	40.3
2017	87.1	103.4	64.5	9.2	61.3	98.4	176.2	68.5	131.4	40.0
2018	85.1	102.0	60.9	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
2.4	2.4	5.6	2.2	2.0	1.9	3.1	3.1	3.2	4.8	2016
4.1	1.5	6.8	2.9	2.6	2.8	3.2	4.9	3.0	4.5	2017
3.5	2.6	6.7	2.6	2.7	2.1	4.1	4.5	2.6	3.9	2018
3.8	3.0	5.1	2.6	2.4	2.4	3.7	6.3	3.2	3.7	2017 Q4
3.7	3.1	5.1	2.8	3.6	2.1	3.7	4.8	2.8	4.0	2018 Q1
3.8	3.1	6.7	3.0	2.7	2.6	4.5	4.1	2.6	4.0	Q2
2.6	2.6	7.3	2.5	2.2	2.1	4.6	5.0	2.3	3.8	Q3
3.8	1.7	7.6	2.2	2.4	1.7	3.6	4.1	2.6	3.8	Q4
4.0	1.6	4.9	1.7	1.4	1.9	3.7	3.2	2.0	3.2	2019 Q1
										Industrial production [2]
										Annual percentage change
2.7	0.0	– 7.3	1.3	2.8	2.4	4.7	7.7	1.7	9.1	2016
6.8	3.7	8.8	1.3	5.5	3.5	3.3	8.4	3.3	7.5	2017
5.2	– 1.3	1.2	0.6	3.7	0.1	4.4	5.0	0.4	7.1	2018
7.1	5.7	8.6	2.3	6.5	2.4	3.7	11.0	5.4	6.9	2017 Q4
7.1	1.7	2.0	2.4	5.0	2.2	1.3	8.7	2.9	5.2	2018 Q1
5.2	– 2.0	0.8	1.5	5.1	0.9	5.7	6.9	1.3	10.5	Q2
2.9	– 2.7	– 2.0	0.1	2.4	– 1.3	6.0	3.6	0.4	6.1	Q3
5.7	– 2.2	4.2	– 1.6	2.3	– 1.4	4.6	0.9	– 2.9	6.3	Q4
4.8	– 1.4	– 1.4	– 1.2	5.5	– 4.1	6.7	4.4	– 0.2	5.5	2019 Q1
										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
77.8	83.1	81.1	83.9	88.8	81.6	83.7	85.0	79.7	60.4	2018 Q1
77.5	82.0	77.6	83.6	88.7	81.4	86.3	86.0	80.3	60.9	Q2
77.2	80.8	83.2	84.4	88.7	82.0	84.0	84.6	79.3	61.8	Q3
77.4	79.0	79.1	84.0	88.5	81.2	87.6	85.6	78.6	62.5	Q4
77.5	80.1	77.1	84.4	87.0	77.8	88.2	85.2	80.8	61.5	2019 Q1
76.9	79.7	78.2	84.3	87.2	79.4	89.1	84.8	80.4	66.0	Q2
										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
5.9	5.2	3.5	3.6	4.7	6.6	5.8	4.5	14.3	7.5	2019 Jan.
6.0	5.4	3.5	3.4	4.7	6.5	5.7	4.6	14.2	7.3	Feb.
6.0	5.7	3.5	3.3	4.8	6.5	5.6	4.5	14.0	7.2	Mar.
5.8	5.7	3.5	3.3	4.7	6.6	5.5	4.5	13.8	6.8	Apr.
5.8	5.7	3.5	3.3	4.7	6.6	5.4	4.4	13.6	6.5	May
...	...	...	...	...	...	...	...	...	...	June
										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
1.6	1.6	1.0	2.0	1.7	0.6	2.2	1.2	1.0	2.1	2019 Jan.
2.0	2.1	1.3	2.6	1.4	0.9	2.3	1.3	1.1	0.8	Feb.
2.6	2.4	1.3	2.9	1.7	0.8	2.7	1.6	1.3	1.1	Mar.
2.7	2.2	1.7	3.0	1.7	0.9	2.4	1.8	1.6	1.2	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
										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]
2017 Oct.	63.6	52.0	– 10.2	11.7	11.5	– 68.6	87.8	156.4	– 30.0	– 27.0	– 0.6	– 7.2	4.8
Nov.	127.5	98.8	21.8	28.7	34.8	18.4	– 1.0	– 19.4	5.5	4.4	– 0.8	– 1.5	3.4
Dec.	– 107.5	– 89.3	– 8.8	– 18.2	– 8.6	16.9	– 151.8	– 168.7	– 2.0	11.4	– 0.6	– 7.9	– 4.9
2018 Jan.	124.7	83.9	26.4	40.8	27.6	– 43.9	152.4	196.3	11.6	– 8.5	– 0.1	22.0	– 1.8
Feb.	7.6	3.4	– 0.3	4.2	20.8	– 11.5	46.9	58.3	– 16.3	– 0.8	– 0.5	– 13.3	– 1.8
Mar.	65.8	60.9	1.5	4.9	6.9	81.5	– 66.0	– 147.6	13.2	– 5.9	– 0.4	1.9	17.6
Apr.	66.3	65.2	52.5	1.1	– 0.7	– 75.3	42.0	117.3	– 5.5	– 1.2	– 0.5	– 2.5	– 1.3
May	122.3	88.1	11.0	34.2	39.9	– 35.5	120.6	156.1	– 4.5	– 7.4	– 0.4	1.2	2.1
June	– 5.6	– 23.0	– 22.3	17.3	20.5	77.3	– 67.6	– 144.9	– 8.4	– 4.8	– 0.4	– 7.7	4.6
July	67.7	66.9	19.9	0.8	3.4	– 25.3	41.6	66.9	10.4	6.1	– 0.6	– 8.3	13.1
Aug.	– 2.2	– 13.6	– 4.8	11.4	22.7	– 27.3	– 1.3	26.0	4.1	– 8.3	– 0.4	1.4	11.4
Sep.	25.3	22.4	– 11.2	2.9	7.1	65.6	– 26.5	– 92.1	23.9	– 12.5	– 0.5	22.3	14.6
Oct.	11.8	17.5	3.1	– 5.7	– 7.5	– 13.2	72.4	85.6	8.0	– 6.5	– 0.2	3.8	10.9
Nov.	92.0	91.5	12.1	0.5	2.0	72.9	35.0	– 37.9	3.7	– 4.2	– 1.0	4.0	4.9
Dec.	– 89.0	– 69.5	– 21.2	– 19.5	– 21.4	– 0.4	– 162.8	– 162.4	4.3	16.4	0.1	– 7.9	– 4.4
2019 Jan.	128.7	70.9	15.8	57.7	46.3	2.9	202.0	199.1	18.9	– 8.8	0.1	24.5	3.1
Feb.	52.7	42.3	17.3	10.4	24.1	19.9	– 32.6	– 52.5	20.4	0.6	– 0.1	26.0	– 6.1
Mar.	13.6	41.1	1.6	– 27.5	– 27.5	62.1	– 3.4	– 65.5	10.9	– 1.6	0.0	– 4.4	16.9
Apr.	68.9	89.9	26.9	– 21.0	– 20.6	– 9.5	113.8	123.3	– 19.2	– 5.9	0.2	– 11.7	– 1.8
May	33.5	31.6	6.6	1.9	2.7	64.2	67.9	3.7	4.9	– 2.3	0.6	7.1	– 0.6

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]
2017 Oct.	15.9	8.6	0.4	7.3	6.5	6.1	– 11.4	– 17.5	– 11.4	– 1.0	– 0.8	– 9.5	– 0.1
Nov.	27.2	16.7	6.4	10.5	11.2	23.1	– 2.6	– 25.7	2.6	3.3	– 0.6	0.1	– 0.1
Dec.	– 5.4	– 3.5	4.3	– 1.8	1.0	– 48.9	– 8.1	40.8	2.6	– 0.3	– 0.6	– 1.9	5.3
2018 Jan.	19.1	21.3	2.0	– 2.2	– 1.3	10.1	28.1	18.0	4.9	– 3.0	– 0.7	14.2	– 5.6
Feb.	5.1	10.7	– 1.7	– 5.6	– 0.2	– 20.7	11.6	32.4	– 5.3	– 0.9	– 0.6	– 1.0	– 2.9
Mar.	7.2	9.7	– 2.2	– 2.5	– 0.6	7.9	– 5.2	– 13.1	3.1	– 2.6	– 0.4	4.0	2.2
Apr.	7.3	7.2	0.9	0.1	– 0.7	– 5.0	– 13.9	– 8.9	– 2.3	– 0.6	– 0.5	– 3.1	1.9
May	19.2	21.2	5.0	– 2.1	2.4	– 10.7	29.8	40.6	– 0.1	0.6	– 0.2	4.1	– 4.6
June	16.7	17.9	2.1	– 1.1	1.3	– 18.2	– 20.4	– 2.1	2.3	– 2.2	– 0.5	– 3.1	8.1
July	12.7	9.7	0.0	2.9	0.9	26.0	– 0.3	– 26.3	2.4	– 0.4	– 0.5	– 2.7	5.9
Aug.	4.1	5.7	– 8.7	– 1.6	2.8	– 8.5	– 11.6	– 3.1	– 3.5	– 3.2	– 0.4	– 1.7	1.8
Sep.	19.3	18.3	1.8	1.0	4.1	– 4.1	7.9	12.0	12.0	– 3.1	– 0.3	7.6	7.8
Oct.	7.0	8.7	1.4	– 1.7	– 5.0	34.2	2.8	– 31.4	1.6	0.1	– 0.5	4.1	– 2.0
Nov.	20.0	18.5	0.9	1.5	2.5	15.1	– 3.7	– 18.8	0.8	– 0.2	– 0.6	3.0	– 1.4
Dec.	– 5.6	– 1.5	– 0.4	– 4.0	– 0.7	– 33.5	3.6	37.1	– 1.1	0.7	– 0.3	– 9.1	7.5
2019 Jan.	16.3	15.0	0.3	1.3	– 1.3	67.9	21.1	– 46.8	2.1	– 5.7	– 0.5	14.0	– 5.7
Feb.	12.5	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	19.7	0.5	– 0.5	1.4	11.9	2.6	– 9.3	9.1	– 1.7	0.6	7.5	2.6

***** 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)										
				Money stock M2									
					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]	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 [4]	of which: Intra-Eurosystem liability/ claim related to banknote issue	Total	Total	Total	Currency in circulation	Overnight deposits [5]						Period
– 43.4	53.0	–	15.4	12.0	22.7	1.9	20.8	– 8.0	– 2.7	19.8	9.0	– 7.8	2017 Oct.
– 8.8	71.7	–	77.4	73.2	81.7	0.9	80.7	– 7.6	– 0.8	17.2	– 3.8	0.1	Nov.
– 21.5	– 89.3	–	22.2	63.8	66.3	16.1	50.2	– 6.6	4.1	– 31.8	– 26.5	– 7.1	Dec.
40.9	20.0	–	8.3	– 2.4	– 19.6	– 15.2	– 4.5	5.6	11.7	– 7.8	20.1	– 12.7	2018 Jan.
13.8	10.7	–	– 12.0	– 9.0	5.7	0.3	5.4	– 17.4	2.7	– 4.8	– 11.3	4.9	Feb.
13.9	49.4	–	70.8	67.4	64.6	8.7	55.9	– 3.5	6.4	8.2	– 1.4	8.3	Mar.
– 19.9	– 32.6	–	49.0	30.0	48.7	4.2	44.4	– 20.7	2.0	– 3.8	11.3	0.8	Apr.
7.1	15.5	–	68.7	93.1	95.8	4.9	90.9	– 10.0	7.2	24.9	– 12.3	– 6.7	May
21.4	– 43.5	–	102.2	108.7	91.1	11.4	79.6	14.2	3.4	– 5.6	– 8.9	4.8	June
7.6	34.1	–	– 9.7	– 9.5	– 6.0	6.7	– 12.8	– 8.1	4.6	6.7	10.3	– 7.1	July
2.9	– 41.1	–	4.6	– 1.5	– 0.0	2.9	– 3.0	– 6.7	5.2	3.8	– 1.6	1.2	Aug.
40.6	6.0	–	20.5	45.4	69.3	2.1	67.2	– 20.8	– 3.2	– 10.7	– 19.5	1.0	Sep.
– 38.8	– 5.4	–	34.8	13.3	8.0	1.8	6.3	8.3	– 3.0	– 10.2	23.8	– 2.4	Oct.
7.3	64.7	–	89.3	88.2	97.7	5.3	92.4	– 11.6	2.2	31.5	0.3	– 1.8	Nov.
– 59.9	– 86.5	–	52.7	50.2	49.3	18.0	31.3	– 4.4	5.4	– 14.2	0.6	7.1	Dec.
66.1	72.4	–	– 25.9	– 21.5	– 39.0	– 13.1	– 25.9	3.3	14.2	15.6	– 0.2	– 8.1	2019 Jan.
18.6	– 3.4	–	37.0	45.5	39.3	3.2	36.1	– 0.4	6.6	0.2	– 8.4	– 1.2	Feb.
– 20.8	– 36.2	–	121.9	139.5	133.0	6.2	126.9	– 6.2	12.7	– 7.2	– 0.5	– 18.4	Mar.
– 33.9	37.8	–	74.7	55.7	46.7	7.4	39.3	2.5	6.6	22.2	14.2	0.4	Apr.
17.6	– 9.8	–	85.0	89.2	88.7	5.1	83.6	– 12.5	13.0	– 7.7	– 5.7	5.1	May

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]								
		of which:			Components of the money stock							
	Total	Intra-Eurosystem liability/ claim related to banknote issue [9,11]	Currency in circulation	Total	Overnight deposits	Deposits with an agreed maturity of up to 2 years	Deposits at agreed notice of up to 3 months [6]	Repo transactions	Money market fund shares (net) [7,8]	Debt securities with maturities of up to 2 years (incl. money market paper)(net) [7]	Period
– 14.2	43.1	2.1	0.8	4.5	14.3	– 9.3	0.5	– 0.3	– 0.3	– 0.5	2017 Oct.
6.2	8.7	1.2	– 0.0	32.7	33.8	– 1.7	0.2	0.3	0.0	0.2	Nov.
10.0	– 58.0	3.8	2.0	– 8.8	– 10.1	0.4	2.4	0.7	– 0.3	– 1.8	Dec.
– 24.3	35.5	– 0.0	– 2.8	13.1	11.5	2.4	0.2	1.0	– 0.0	– 2.0	2018 Jan.
9.2	– 21.2	2.0	– 0.3	1.7	5.2	– 4.4	0.3	– 0.5	0.3	0.7	Feb.
8.3	0.6	6.9	– 1.5	3.1	– 0.5	6.0	– 0.5	– 0.9	0.2	– 1.1	Mar.
– 15.2	14.5	1.3	1.9	5.3	14.7	– 8.6	– 0.3	– 0.5	– 0.0	– 0.0	Apr.
11.7	– 42.5	5.4	– 0.1	39.3	38.8	– 0.5	– 0.1	– 0.8	– 0.2	2.1	May
17.7	– 26.3	3.6	2.5	4.8	– 6.4	14.6	– 0.5	– 0.3	0.1	– 2.6	June
– 21.0	57.8	3.1	2.2	– 0.5	6.6	– 6.1	– 0.6	0.6	– 0.1	– 0.9	July
13.7	– 14.2	5.3	0.5	– 0.4	2.4	– 3.5	– 0.2	– 0.6	– 0.0	1.7	Aug.
12.2	– 32.9	3.9	– 0.3	23.8	27.3	– 2.1	0.0	0.1	– 0.1	– 1.5	Sep.
– 17.8	43.5	3.8	0.1	13.8	11.1	– 0.8	0.2	1.0	0.0	2.3	Oct.
9.7	– 8.2	2.5	1.0	32.8	38.6	– 4.1	0.5	– 1.0	0.4	– 1.5	Nov.
– 5.4	– 27.6	4.0	2.8	– 5.0	– 1.3	– 3.3	2.0	– 0.6	– 0.0	– 1.8	Dec.
– 18.5	103.9	– 9.6	7.5	– 3.4	– 14.3	9.6	0.3	0.9	0.0	0.0	2019 Jan.
– 2.7	20.3	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.
19.1	– 19.9	4.0	0.8	22.9	23.7	0.4	– 0.3	– 1.3	0.1	0.3	May

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

II. Overall monetary survey in the euro area

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

End of year/month	Total assets or liabilities	Assets										
		Lending to non-banks (non-MFIs) in the euro area									Claims on non-euro area residents	Other assets
			Enterprises and households				General government					
		Total	Total	Loans	Debt securities 2	Shares and other equities	Total	Loans	Debt securities 3			
	Euro area (€ billion) 1											
2017 Apr.	27,097.0	17,594.2	13,129.6	10,897.5	1,429.3	802.9	4,464.6	1,075.7	3,388.9	5,447.2	4,055.6
May	27,012.9	17,632.3	13,145.1	10,895.9	1,451.1	798.2	4,487.1	1,062.5	3,424.6	5,357.9	4,022.7
June	26,689.9	17,610.8	13,132.6	10,895.2	1,441.2	796.1	4,478.3	1,063.1	3,415.2	5,192.9	3,886.2
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	13,086.6	10,852.9	1,444.0	789.6	4,523.2	1,054.6	3,468.6	5,199.9	3,874.3
Sep.	26,562.4	17,656.1	13,131.0	10,905.8	1,434.3	790.9	4,525.1	1,046.0	3,479.1	5,171.5	3,734.8
Oct.	26,760.5	17,733.1	13,189.5	10,968.3	1,423.0	798.2	4,543.6	1,046.2	3,497.4	5,292.7	3,734.6
Nov.	26,790.2	17,846.3	13,272.1	11,037.5	1,430.9	803.7	4,574.2	1,038.3	3,535.9	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.	26,335.6	17,818.8	13,240.9	10,990.5	1,448.8	801.7	4,577.8	1,041.6	3,536.2	5,253.9	3,262.9
Feb.	26,299.5	17,821.0	13,239.7	10,993.3	1,456.5	790.0	4,581.2	1,025.2	3,556.0	5,342.9	3,135.6
Mar.	26,291.7	17,880.1	13,279.0	11,032.1	1,466.5	780.4	4,601.1	1,023.3	3,577.8	5,257.7	3,154.0
Apr.	26,515.2	18,032.6	13,432.7	11,127.7	1,490.0	814.9	4,599.9	1,025.1	3,574.8	5,334.9	3,147.6
May	26,916.0	18,104.0	13,514.0	11,201.8	1,504.5	807.7	4,590.1	1,019.9	3,570.2	5,543.5	3,268.5
June	26,771.9	18,098.7	13,482.1	11,193.5	1,501.6	786.9	4,616.7	1,016.8	3,599.9	5,455.8	3,217.3
July	26,782.0	18,156.2	13,547.0	11,235.8	1,523.9	787.2	4,609.3	1,012.7	3,596.5	5,466.1	3,159.6
Aug.	26,815.7	18,127.4	13,530.6	11,227.3	1,523.9	779.3	4,596.8	1,001.7	3,595.1	5,485.0	3,203.4
Sep.	26,769.6	18,147.6	13,539.4	11,248.0	1,509.2	782.1	4,608.3	1,000.7	3,607.5	5,462.0	3,159.9
Oct.	27,088.7	18,151.6	13,555.2	11,266.4	1,510.8	778.0	4,596.4	1,002.6	3,593.9	5,679.3	3,257.9
Nov.	27,225.8	18,243.2	13,637.8	11,338.0	1,515.9	783.9	4,605.5	1,001.0	3,604.5	5,704.0	3,278.5
Dec.	26,994.6	18,172.5	13,567.9	11,295.9	1,501.8	770.3	4,604.6	1,002.8	3,601.8	5,563.5	3,258.6
2019 Jan.	27,408.9	18,311.7	13,638.1	11,345.5	1,518.2	774.5	4,673.6	1,015.9	3,657.7	5,786.6	3,310.6
Feb.	27,446.6	18,356.2	13,684.1	11,368.4	1,529.2	786.5	4,672.1	1,001.2	3,670.9	5,774.3	3,316.1
Mar.	27,740.6	18,397.0	13,735.5	11,413.7	1,526.3	795.6	4,661.5	1,001.3	3,660.2	5,848.8	3,494.8
Apr.	27,899.4	18,468.0	13,828.4	11,472.8	1,530.1	825.6	4,639.6	1,001.0	3,638.5	5,955.4	3,476.0
May	28,194.2	18,493.6	13,851.3	11,498.4	1,550.5	802.4	4,642.3	1,000.4	3,641.8	6,038.5	3,662.1
	German contribution (€ billion)										
2017 Apr.	6,174.4	4,103.1	3,143.3	2,709.1	170.4	263.9	959.8	342.3	617.5	1,264.2	807.1
May	6,160.2	4,114.5	3,157.3	2,719.6	172.6	265.0	957.2	332.2	624.9	1,234.6	811.2
June	6,106.3	4,120.6	3,165.9	2,722.5	173.2	270.2	954.7	330.8	623.9	1,238.6	747.1
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	6,524.9	4,402.6	3,446.8	2,995.6	190.0	261.1	955.8	293.1	662.8	1,284.6	837.7

***** 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]
1,089.7	12,140.9	11,322.9	11,456.1	6,022.2	888.7	278.2	2,013.3	2,190.1	63.7	2017	Apr.
1,090.2	12,151.7	11,338.9	11,444.1	6,044.1	862.7	272.6	2,003.3	2,199.3	62.0		May
1,099.7	12,214.1	11,384.0	11,483.6	6,113.3	854.2	265.6	1,986.7	2,201.9	61.9		June
1,105.6	12,209.8	11,392.9	11,476.5	6,123.4	848.8	262.8	1,976.5	2,206.6	58.4		July
1,103.3	12,226.5	11,422.5	11,504.8	6,146.4	857.8	260.6	1,969.4	2,213.0	57.7		Aug.
1,104.2	12,271.6	11,432.3	11,519.7	6,196.5	843.3	256.2	1,956.5	2,210.4	56.8		Sep.
1,106.2	12,217.1	11,420.3	11,507.4	6,216.9	846.4	250.5	1,929.6	2,207.7	56.2		Oct.
1,107.1	12,249.2	11,471.4	11,544.6	6,291.1	832.2	245.9	1,912.7	2,207.2	55.5		Nov.
1,123.2	12,285.7	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	11,608.3	6,347.5	840.6	236.7	1,915.0	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	11,580.0	11,659.1	6,416.1	831.5	226.4	1,909.0	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	12,639.6	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	11,989.5	6,799.2	800.9	200.7	1,888.5	2,248.7	51.5		Dec.
1,162.4	12,765.3	11,909.1	11,974.8	6,778.5	798.4	199.3	1,885.1	2,262.1	51.3	2019	Jan.
1,165.5	12,830.5	11,958.0	12,003.9	6,807.0	795.6	196.8	1,885.3	2,268.0	51.2		Feb.
1,171.7	12,948.2	12,078.7	12,135.5	6,931.8	786.3	199.6	1,886.0	2,280.4	51.3		Mar.
1,179.1	12,957.1	12,120.5	12,180.4	6,971.2	788.8	201.8	1,879.5	2,287.5	51.5		Apr.
1,184.2	13,057.9	12,198.0	12,256.8	7,050.2	776.0	201.3	1,876.3	2,300.8	52.2		May
											German contribution (€ billion)
249.3	3,540.9	3,447.5	3,317.0	1,895.9	170.7	40.0	624.7	536.6	49.0	2017	Apr.
248.6	3,566.1	3,465.8	3,327.4	1,910.5	167.5	40.2	624.1	536.4	48.7		May
249.5	3,590.5	3,482.0	3,339.9	1,928.7	165.5	40.3	621.4	535.7	48.3		June
251.6	3,583.1	3,472.8	3,333.0	1,927.8	162.6	40.3	619.5	537.9	44.9		July
250.4	3,600.7	3,483.1	3,338.6	1,938.3	159.0	40.3	619.3	537.5	44.1		Aug.
250.1	3,616.3	3,486.8	3,345.9	1,945.0	162.3	39.6	617.9	537.5	43.5		Sep.
250.9	3,606.4	3,490.8	3,352.9	1,958.5	158.8	38.6	616.2	538.0	42.7		Oct.
250.9	3,646.8	3,521.5	3,383.7	1,990.6	157.1	37.4	618.2	538.3	42.1		Nov.
252.9	3,647.9	3,515.8	3,378.5	1,976.2	162.0	37.7	620.4	540.7	41.5		Dec.
250.1	3,632.5	3,522.3	3,390.7	1,994.6	161.5	36.4	616.5	539.5	42.2	2018	Jan.
249.8	3,642.4	3,523.0	3,388.4	1,995.9	160.2	35.3	615.5	540.0	41.5		Feb.
248.3	3,652.2	3,524.1	3,389.6	1,998.1	164.6	34.2	612.1	539.4	41.0		Mar.
250.3	3,641.8	3,529.8	3,395.0	2,013.5	157.6	33.6	610.6	539.1	40.6		Apr.
250.2	3,693.8	3,568.4	3,425.0	2,048.0	154.6	33.0	610.2	539.0	40.3		May
252.7	3,716.5	3,574.0	3,423.0	2,039.4	165.5	32.6	607.2	538.5	39.8		June
256.0	3,694.1	3,571.0	3,429.7	2,053.1	161.2	32.2	605.8	538.0	39.4		July
256.4	3,703.1	3,568.1	3,417.3	2,051.8	153.7	34.0	601.1	537.7	38.9		Aug.
256.1	3,737.2	3,588.3	3,437.1	2,076.9	153.2	33.2	597.4	537.8	38.6		Sep.
256.3	3,730.6	3,595.8	3,453.9	2,092.2	155.1	33.6	596.9	538.0	38.1		Oct.
257.2	3,774.2	3,632.0	3,482.3	2,127.4	149.8	33.2	595.9	538.5	37.4		Nov.
260.0	3,766.4	3,629.3	3,481.1	2,120.4	152.5	33.7	596.7	540.6	37.2		Dec.
267.6	3,737.2	3,622.2	3,471.2	2,113.7	154.3	33.5	592.1	540.9	36.7	2019	Jan.
268.0	3,747.2	3,634.2	3,474.2	2,117.5	153.9	33.2	591.0	541.8	36.7		Feb.
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	3,689.0	3,523.2	2,176.6	149.4	32.7	582.9	543.7	37.9		May

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 Apr.	318.6	366.2	176.4	92.4	23.7	44.7	23.5	5.5	250.4	249.7	529.6	2,156.4	1,464.9
May	332.1	375.5	181.6	94.5	25.3	45.2	24.2	4.7	238.4	237.7	524.9	2,164.7	1,489.4
June	352.5	378.0	181.2	95.7	26.6	45.8	24.0	4.7	221.7	221.0	504.1	2,147.8	1,477.6
July	345.0	388.3	191.0	95.2	26.7	46.2	24.4	4.8	197.4	196.8	517.0	2,127.0	1,469.9
Aug.	326.7	395.0	197.1	94.8	27.8	46.2	24.4	4.7	199.6	198.9	526.4	2,112.1	1,462.7
Sep.	362.5	389.5	193.2	91.9	28.1	47.5	24.1	4.7	206.6	205.9	522.1	2,092.5	1,446.5
Oct.	318.9	390.9	197.9	87.6	28.3	48.3	24.1	4.7	226.5	225.8	531.3	2,083.4	1,429.2
Nov.	310.2	394.4	197.6	89.5	29.8	49.0	23.8	4.6	243.4	242.8	527.6	2,096.7	1,444.2
Dec.	289.4	380.5	191.5	81.5	31.5	46.8	24.6	4.6	211.2	210.7	501.2	2,076.2	1,433.0
2018 Jan.	330.3	379.3	186.4	84.3	31.1	47.5	25.1	5.0	203.0	202.5	521.3	2,070.6	1,439.3
Feb.	344.1	384.3	192.0	83.4	30.4	47.8	25.8	4.8	198.5	198.0	510.0	2,072.8	1,430.6
Mar.	358.1	376.4	181.7	85.8	29.5	48.6	25.9	4.8	206.7	206.1	508.5	2,077.7	1,435.4
Apr.	338.2	384.1	190.5	84.7	28.4	49.7	26.0	4.7	227.6	227.1	519.7	2,085.5	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	2,097.7	1,439.2
June	366.7	403.3	199.6	91.7	29.9	51.9	25.7	4.7	247.4	246.8	498.2	2,095.1	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	2,075.6	1,432.2
Aug.	377.4	415.2	208.7	90.6	31.0	54.4	25.9	4.6	257.8	257.3	507.1	2,081.7	1,438.6
Sep.	414.4	416.3	211.2	87.8	32.4	54.8	25.5	4.6	247.2	246.7	487.6	2,109.0	1,457.1
Oct.	375.6	415.5	213.2	84.0	32.3	55.7	25.8	4.5	237.4	236.9	511.4	2,163.6	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	2,162.4	1,469.4
Dec.	322.4	401.4	203.7	78.6	34.2	56.9	23.8	4.3	254.5	254.2	512.5	2,153.7	1,466.4
2019 Jan.	388.5	402.0	196.7	85.9	34.8	55.8	24.2	4.5	270.1	269.6	513.3	2,170.0	1,477.8
Feb.	407.2	419.4	207.3	92.1	34.2	56.3	25.1	4.5	270.5	269.7	505.0	2,197.9	1,499.5
Mar.	386.2	426.5	212.0	92.4	35.4	56.7	25.5	4.4	272.8	272.4	506.5	2,178.9	1,483.7
Apr.	352.4	424.4	212.1	91.2	34.5	56.9	25.3	4.4	295.0	294.5	518.8	2,166.9	1,480.5
May	370.0	431.2	216.7	94.7	33.4	57.0	25.1	4.4	287.4	286.9	513.2	2,181.7	1,489.1
	German contribution (€ billion)												
2017 Apr.	25.0	198.9	59.0	79.4	18.8	38.2	3.0	0.6	3.5	3.5	2.1	546.7	264.9
May	32.7	206.1	61.6	81.6	20.6	38.7	3.1	0.6	2.4	2.4	2.1	542.6	263.2
June	39.8	210.9	63.4	82.6	22.0	39.3	3.0	0.6	1.8	1.8	2.1	542.7	266.0
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	60.4	240.6	77.3	81.7	28.3	49.6	3.2	0.5	11.2	11.2	2.0	560.1	300.0

***** 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]													
30.1	40.5	2,085.8	4,405.2	2,662.8	– 2.2	3,864.2	–	7,406.4	10,927.1	11,602.1	6,875.7	142.1	2017 Apr.
37.0	40.9	2,086.8	4,337.9	2,658.7	– 0.2	3,846.5	–	7,437.0	10,939.6	11,618.3	6,860.8	145.0	May
37.6	39.8	2,070.4	4,139.0	2,631.0	6.5	3,726.0	–	7,515.8	11,007.6	11,656.5	6,800.5	145.5	June
35.1	38.7	2,053.2	4,184.5	2,615.9	9.4	3,683.8	–	7,544.1	11,032.5	11,692.4	6,755.1	148.0	July
30.6	38.7	2,042.7	4,181.0	2,647.7	– 0.9	3,688.2	–	7,571.6	11,073.6	11,744.4	6,768.5	148.5	Aug.
39.4	38.3	2,014.8	4,159.3	2,650.8	17.0	3,538.2	–	7,620.4	11,098.3	11,764.0	6,731.1	150.4	Sep.
33.6	36.4	2,013.4	4,340.8	2,666.0	13.3	3,575.8	–	7,646.1	11,114.4	11,783.8	6,718.2	148.7	Oct.
37.4	36.7	2,022.6	4,290.9	2,657.3	45.9	3,572.1	–	7,724.0	11,175.5	11,852.9	6,701.7	151.3	Nov.
32.5	34.8	2,008.9	4,099.4	2,730.9	26.5	3,266.5	–	7,786.3	11,233.9	11,869.9	6,771.4	146.0	Dec.
24.9	28.7	2,017.1	4,416.9	2,714.8	– 43.9	3,026.7	–	7,767.2	11,220.5	11,865.8	6,755.2	148.1	2018 Jan.
32.0	27.2	2,013.6	4,507.8	2,708.1	– 28.7	2,892.9	–	7,777.1	11,217.7	11,861.0	6,745.3	147.5	Feb.
39.8	27.1	2,010.8	4,350.1	2,719.4	– 8.1	2,926.9	–	7,840.1	11,282.8	11,928.6	6,747.4	147.5	Mar.
41.3	26.9	2,017.3	4,495.8	2,720.5	10.0	2,933.4	–	7,892.1	11,316.8	11,985.0	6,753.8	148.4	Apr.
35.6	26.7	2,035.3	4,710.5	2,699.6	13.6	3,005.6	–	7,994.8	11,419.6	12,064.8	6,745.5	147.0	May
41.4	26.0	2,027.7	4,564.3	2,670.0	31.6	2,914.0	–	8,086.7	11,529.2	12,167.8	6,703.1	150.2	June
33.0	27.1	2,015.5	4,614.5	2,665.2	18.6	2,894.1	–	8,080.7	11,518.8	12,157.1	6,691.2	152.4	July
34.4	27.1	2,020.2	4,651.8	2,661.0	25.8	2,887.0	–	8,082.1	11,519.5	12,164.2	6,683.3	155.5	Aug.
37.0	25.1	2,046.9	4,574.1	2,660.3	27.3	2,851.7	–	8,152.5	11,566.6	12,186.0	6,696.6	157.9	Sep.
35.1	26.5	2,102.0	4,706.5	2,705.9	– 2.6	2,974.8	–	8,164.0	11,585.4	12,228.6	6,792.2	153.6	Oct.
37.9	21.9	2,102.6	4,660.5	2,708.5	15.7	3,021.3	–	8,260.7	11,672.4	12,316.6	6,789.8	157.4	Nov.
47.9	20.4	2,085.4	4,503.4	2,724.8	14.8	2,942.0	–	8,307.2	11,719.3	12,367.5	6,811.3	154.1	Dec.
36.3	23.7	2,110.0	4,706.8	2,750.7	23.9	3,046.4	–	8,264.8	11,694.2	12,338.6	6,857.4	151.7	2019 Jan.
32.1	25.8	2,139.9	4,672.3	2,738.2	22.9	3,043.9	–	8,305.7	11,742.0	12,377.3	6,875.5	150.4	Feb.
15.0	22.5	2,141.4	4,668.4	2,766.0	22.0	3,206.1	–	8,443.1	11,887.3	12,505.1	6,905.8	151.9	Mar.
16.8	21.5	2,128.7	4,790.5	2,760.4	21.1	3,210.5	–	8,489.5	11,943.0	12,578.2	6,881.4	151.5	Apr.
22.5	22.2	2,137.0	4,793.9	2,767.2	31.4	3,377.3	–	8,577.8	12,033.3	12,665.8	6,894.0	150.9	May
German contribution (€ billion)													
17.7	16.9	512.1	985.8	597.9	– 965.5	1,463.1	335.2	1,954.8	2,803.4	2,843.5	1,822.6	–	2017 Apr.
18.4	16.8	507.4	957.7	595.0	– 967.6	1,461.9	338.1	1,972.1	2,821.5	2,861.2	1,814.4	–	May
19.3	16.4	507.0	946.6	591.5	– 981.1	1,412.1	342.8	1,992.1	2,841.2	2,880.9	1,808.1	–	June
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	–	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.
18.8	8.4	532.9	944.9	702.5	– 1,016.3	1,496.3	404.8	2,253.9	3,092.9	3,133.3	1,906.3	–	May

euro banknotes actually issued by the Bundesbank and the amount disclosed in accordance with the accounting regime chosen by the Eurosystem (see also footnote 2 on banknote circulation in Table III.2). **10** Overnight deposits (excluding central governments' deposits), and (for the euro area) currency in circulation, central governments' overnight monetary liabilities, which are not included in the consolidated balance sheet. **11** M1 plus deposits with agreed maturities of up to 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.

II. Overall monetary survey in the euro area

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 Jan.	674.7	34.6	548.9	0.2	1,670.8	434.4	0.0	1,119.1	143.1	313.6	919.0	2,472.6
Feb.	.	.	.	.	.	.	.	.	.	.	.	.
Mar.	662.4	29.0	554.3	0.3	1,787.5	479.2	0.0	1,110.8	160.3	322.2	960.9	2,550.9
Apr.	.	.	.	.	.	.	.	.	.	.	.	.
May	678.6	18.5	707.4	0.3	1,905.3	550.0	0.0	1,118.4	182.0	378.8	1,081.1	2,749.4
June	683.1	13.7	767.4	0.2	1,995.0	593.7	0.0	1,126.0	163.6	397.4	1,178.7	2,898.5
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
Deutsche Bundesbank												
2017 Jan.	163.8	0.9	62.0	0.0	361.5	132.7	0.0	264.2	35.4	– 146.1	302.0	698.9
Feb.	.	.	.	.	.	.	.	.	.	.	.	.
Mar.	159.4	0.8	63.5	0.0	386.6	153.7	0.0	262.3	23.1	– 169.8	341.0	757.0
Apr.	.	.	.	.	.	.	.	.	.	.	.	.
May	164.4	1.0	86.0	0.1	412.4	181.4	0.0	264.1	29.7	– 185.3	374.0	819.5
June	165.8	0.3	95.0	0.0	431.8	181.2	0.0	266.2	32.4	– 204.9	418.0	865.4
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

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]												
− 12.7	+ 0.6	+ 37.1	± 0.0	+ 100.6	− 5.0	± 0.0	+ 16.0	− 16.6	+ 36.0	+ 95.1	+ 106.3	2017 Jan.
− 12.3	− 5.6	+ 5.4	+ 0.1	+ 116.7	+ 44.8	± 0.0	− 8.3	+ 17.2	+ 8.6	+ 41.9	+ 78.3	Feb.
+ 16.2	− 10.5	+ 153.1	± 0.0	+ 117.8	+ 70.8	± 0.0	+ 7.6	+ 21.7	+ 56.6	+ 120.2	+ 198.5	Mar.
+ 4.5	− 4.8	+ 60.0	− 0.1	+ 89.7	+ 43.7	± 0.0	+ 7.6	− 18.4	+ 18.6	+ 97.6	+ 149.1	Apr.
− 26.2	− 4.3	± 0.0	± 0.0	+ 81.1	+ 1.6	± 0.0	+ 10.3	+ 66.2	− 18.0	− 9.5	+ 2.3	May
− 17.9	− 3.9	+ 1.2	+ 0.1	+ 74.1	+ 16.1	± 0.0	+ 6.2	− 48.0	+ 5.7	+ 73.5	+ 95.9	June
− 4.0	+ 1.2	− 3.3	− 0.1	+ 89.0	+ 36.7	± 0.0	+ 0.3	+ 36.5	− 1.2	+ 10.6	+ 47.5	July
− 0.5	− 3.7	− 1.6	± 0.0	+ 94.3	+ 34.4	± 0.0	+ 3.8	− 29.8	+ 23.7	+ 56.4	+ 94.6	Aug.
+ 1.2	− 0.1	− 3.1	± 0.0	+ 64.7	+ 6.7	± 0.0	+ 11.6	− 0.4	+ 79.4	− 34.5	− 16.3	Sep.
− 4.8	− 1.4	− 0.1	− 0.2	+ 37.3	− 2.9	± 0.0	− 10.0	+ 15.5	− 12.1	+ 40.4	+ 27.6	Oct.
− 3.8	+ 0.4	− 1.0	+ 0.1	+ 41.3	− 18.3	± 0.0	+ 10.8	+ 43.9	+ 20.7	− 20.3	− 27.8	Nov.
− 1.9	− 0.1	− 2.2	± 0.0	+ 43.1	− 8.5	± 0.0	+ 11.4	− 29.5	+ 6.9	+ 58.6	+ 61.5	Dec.
+ 9.9	+ 0.3	− 13.1	± 0.0	+ 38.5	− 7.3	± 0.0	+ 13.2	+ 45.4	+ 31.3	− 47.0	− 41.2	2018 Jan.
+ 2.4	+ 0.9	− 4.3	± 0.0	+ 31.3	+ 19.0	± 0.0	+ 8.6	− 24.3	− 14.7	+ 41.8	+ 69.4	Feb.
− 12.3	+ 3.9	− 12.1	± 0.0	+ 33.1	− 39.4	± 0.0	+ 2.1	+ 44.0	− 14.7	+ 20.3	− 16.9	Mar.
− 0.1	− 0.1	− 1.4	± 0.0	+ 19.5	+ 4.1	± 0.0	+ 8.1	− 42.9	+ 38.5	+ 10.4	+ 22.6	Apr.
+ 30.7	+ 1.1	− 2.6	± 0.0	+ 10.5	+ 4.1	± 0.0	+ 16.4	− 8.9	+ 75.3	− 47.3	− 26.8	May
+ 9.7	− 1.9	− 0.7	± 0.0	− 7.0	− 2.4	± 0.0	− 9.6	+ 26.0	− 46.8	+ 32.7	+ 20.8	June
+ 13.1	− 0.3	− 2.8	± 0.0	− 9.9	− 18.0	± 0.0	+ 6.6	+ 13.2	− 15.8	+ 14.2	+ 2.7	2019 Jan.
+ 11.1	− 0.2	− 1.7	+ 0.3	− 5.3	− 17.7	± 0.0	+ 12.4	− 22.3	+ 6.3	+ 25.6	+ 20.3	Feb.
												Mar.
												Apr.
												May
												June
Deutsche Bundesbank												
− 4.0	− 0.1	+ 8.1	− 0.0	+ 22.3	+ 3.0	± 0.0	+ 3.9	− 8.3	− 4.3	+ 31.9	+ 38.8	2017 Jan.
− 4.4	− 0.0	+ 1.4	+ 0.0	+ 25.1	+ 21.0	± 0.0	− 1.9	− 12.2	− 23.6	+ 39.0	+ 58.1	Feb.
+ 4.9	+ 0.1	+ 22.6	+ 0.0	+ 25.9	+ 27.7	± 0.0	+ 1.8	+ 6.6	− 15.6	+ 33.0	+ 62.5	Mar.
+ 1.5	− 0.7	+ 9.0	− 0.1	+ 19.4	− 0.2	± 0.0	+ 2.1	+ 2.6	− 19.6	+ 44.0	+ 45.9	Apr.
− 6.2	+ 0.2	+ 0.0	+ 0.0	+ 16.1	− 11.1	± 0.0	+ 2.8	+ 20.3	+ 3.3	− 5.3	− 13.6	May
− 4.4	− 0.2	− 0.1	+ 0.0	+ 15.4	− 4.6	± 0.0	+ 0.9	− 0.2	+ 9.0	+ 5.8	+ 2.1	June
− 0.4	− 0.1	− 0.1	− 0.0	+ 18.3	+ 5.5	± 0.0	− 0.5	+ 13.5	− 5.0	+ 4.2	+ 9.2	July
− 0.6	+ 0.2	− 0.0	− 0.0	+ 19.9	+ 16.5	± 0.0	+ 0.9	− 9.9	− 21.0	+ 33.1	+ 50.4	Aug.
+ 1.3	+ 0.4	− 1.6	− 0.0	+ 13.3	+ 16.9	± 0.0	+ 2.5	− 1.1	+ 26.4	− 31.3	− 11.9	Sep.
− 4.0	− 0.3	+ 0.1	+ 0.0	+ 8.2	+ 3.5	± 0.0	− 1.7	+ 1.9	− 29.1	+ 29.4	+ 31.1	Oct.
− 0.8	+ 0.5	− 0.0	+ 0.0	+ 7.7	− 17.0	± 0.0	+ 2.8	+ 4.2	+ 30.0	− 13.0	− 27.3	Nov.
− 0.6	+ 0.0	− 0.2	− 0.0	+ 10.0	+ 9.5	± 0.0	+ 3.6	− 1.8	− 26.6	+ 25.1	+ 38.1	Dec.
+ 1.8	− 0.6	− 1.3	+ 0.0	+ 7.0	− 3.5	± 0.0	+ 2.6	+ 10.2	+ 23.9	− 26.4	− 27.2	2018 Jan.
+ 0.2	+ 0.0	− 0.3	− 0.0	+ 8.6	− 3.9	± 0.0	+ 2.0	− 4.2	+ 15.2	− 0.6	− 2.5	Feb.
− 4.0	+ 0.0	− 3.0	+ 0.0	+ 7.3	− 32.9	± 0.0	+ 0.6	+ 16.1	− 4.5	+ 21.1	− 11.2	Mar.
− 1.1	+ 0.1	− 0.5	+ 0.0	+ 6.6	− 12.0	± 0.0	+ 1.1	− 11.7	− 1.8	+ 29.5	+ 18.5	Apr.
+ 8.8	+ 1.2	− 0.4	+ 0.0	+ 0.4	+ 5.0	± 0.0	+ 9.7	− 9.2	+ 40.2	− 35.9	− 21.1	May
+ 2.5	− 1.1	− 0.1	− 0.1	− 0.9	+ 10.3	± 0.0	+ 1.0	− 11.2	− 12.0	+ 12.3	+ 23.6	June
+ 2.6	− 0.0	− 0.9	+ 0.0	− 5.8	+ 9.1	± 0.0	+ 1.8	+ 12.0	− 42.5	+ 15.6	+ 26.5	2019 Jan.
+ 2.8	+ 0.0	− 0.6	− 0.0	+ 1.4	− 6.2	± 0.0	+ 3.5	− 3.2	− 14.2	+ 23.7	+ 21.0	Feb.
												Mar.
												Apr.
												May
												June

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]									
2018 Dec. 21	4,674.9	355.5	328.4	76.2	252.2	20.7	20.9	20.9	–
28	4,669.0	355.5	329.2	76.3	252.8	20.6	20.3	20.3	–
2019 Jan. 4	4,694.4	389.8	329.0	76.9	252.0	16.3	20.9	20.9	–
11	4,703.4	389.8	327.9	76.9	250.9	17.2	19.3	19.3	–
18	4,705.9	389.8	327.6	76.9	250.7	18.8	18.1	18.1	–
25	4,708.9	389.8	327.9	77.0	251.0	20.8	19.0	19.0	–
Feb. 1	4,695.5	389.8	326.9	76.9	250.0	21.7	22.3	22.3	–
8	4,696.5	389.8	328.2	76.8	251.4	21.3	20.2	20.2	–
15	4,702.8	389.8	329.0	76.9	252.1	20.8	23.0	23.0	–
22	4,692.1	389.8	328.8	76.9	251.9	20.4	19.1	19.1	–
Mar. 1	4,686.3	389.8	327.7	76.9	250.8	20.9	21.8	21.8	–
8	4,691.3	389.8	328.5	76.9	251.6	21.0	23.6	23.6	–
15	4,680.6	389.8	329.3	76.9	252.4	19.5	19.7	19.7	–
22	4,677.0	389.8	331.2	76.8	254.4	19.0	18.6	18.6	–
29	4,695.8	402.3	340.2	78.1	262.1	20.2	19.0	19.0	–
2019 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	–
Deutsche Bundesbank									
2018 Dec. 21	1,808.6	110.8	50.9	19.7	31.1	1.6	2.7	2.7	–
28	1,822.3	110.8	50.9	19.7	31.1	1.6	1.1	1.1	–
2019 Jan. 4	1,794.5	121.4	51.6	19.9	31.7	0.0	2.4	2.4	–
11	1,766.7	121.4	51.6	19.9	31.8	0.0	1.9	1.9	–
18	1,772.0	121.4	51.6	19.9	31.8	0.0	1.1	1.1	–
25	1,737.6	121.4	52.1	19.9	32.2	0.0	2.8	2.8	–
Feb. 1	1,745.8	121.4	51.9	19.8	32.0	0.0	6.5	6.5	–
8	1,753.1	121.4	51.7	19.8	31.9	0.0	4.1	4.1	–
15	1,773.9	121.4	51.7	19.9	31.9	0.0	6.5	6.5	–
22	1,745.1	121.4	51.6	19.9	31.8	0.0	2.7	2.7	–
Mar. 1	1,741.6	121.4	52.0	19.9	32.1	0.0	4.7	4.7	–
8	1,742.8	121.4	52.3	19.9	32.4	0.0	6.9	6.9	–
15	1,745.6	121.4	52.0	19.9	32.2	0.0	3.2	3.2	–
22	1,751.0	121.4	51.7	19.9	31.8	0.0	2.0	2.0	–
29	1,812.7	125.3	52.8	20.2	32.6	0.0	2.9	2.9	–
2019 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	–

***** 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]													
733.5	9.6	723.8	–	–	0.0	–	25.4	2,909.0	2,660.0	249.0	24.0	257.6	2018 Dec. 21
733.5	9.6	723.8	–	–	0.1	–	19.9	2,907.4	2,658.5	248.9	24.0	258.7	28
732.1	8.2	723.8	–	–	0.1	–	29.1	2,892.6	2,645.7	246.9	23.9	260.8	2019 Jan. 4
731.2	7.3	723.8	–	–	0.0	–	33.6	2,898.4	2,651.3	247.2	23.9	262.0	11
730.2	6.3	723.8	–	–	0.1	–	35.0	2,898.0	2,651.2	246.8	23.9	264.5	18
730.5	6.6	723.8	–	–	0.0	–	38.5	2,899.1	2,651.9	247.3	23.9	259.3	25
730.0	6.6	723.3	–	–	0.1	–	35.5	2,890.2	2,644.5	245.7	23.9	255.3	Feb. 1
728.8	5.4	723.3	–	–	0.1	–	33.9	2,892.7	2,646.8	245.9	23.9	257.9	8
729.3	5.9	723.3	–	–	0.1	–	35.3	2,895.3	2,649.5	245.8	23.9	256.6	15
729.3	5.9	723.2	–	–	0.1	–	35.4	2,891.7	2,646.3	245.4	23.9	253.6	22
729.1	6.5	722.6	–	–	–	–	32.6	2,879.3	2,639.7	239.6	23.9	261.3	Mar. 1
728.5	5.8	722.6	–	–	0.1	–	37.7	2,883.1	2,643.2	240.0	23.9	255.3	8
728.7	6.1	722.6	–	–	0.0	–	36.1	2,878.1	2,639.1	239.0	23.9	255.4	15
728.2	5.6	722.6	–	–	–	–	38.2	2,877.0	2,637.1	239.9	23.9	251.1	22
725.3	6.1	718.7	–	–	0.5	–	39.1	2,868.5	2,629.7	238.8	23.9	257.2	29
724.1	5.4	718.7	–	–	–	–	40.8	2,873.5	2,634.9	238.6	23.9	258.7	2019 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
Deutsche Bundesbank													
89.6	1.9	87.6	–	–	0.0	–	4.3	573.3	573.3	–	4.4	971.1	2018 Dec. 21
89.6	1.9	87.6	–	–	0.1	–	0.6	573.3	573.3	–	4.4	989.9	28
90.3	2.6	87.6	–	–	–	–	6.2	567.2	567.2	–	4.4	951.0	2019 Jan. 4
89.8	2.1	87.6	–	–	0.0	–	6.6	568.9	568.9	–	4.4	921.9	11
88.4	0.8	87.6	–	–	0.0	–	7.5	570.2	570.2	–	4.4	927.1	18
88.8	1.2	87.6	–	–	0.0	–	7.7	569.4	569.4	–	4.4	890.8	25
88.2	0.6	87.6	–	–	0.0	–	6.8	569.6	569.6	–	4.4	896.9	Feb. 1
88.2	0.5	87.6	–	–	0.0	–	5.9	570.5	570.5	–	4.4	906.9	8
88.2	0.6	87.6	–	–	0.0	–	7.9	571.4	571.4	–	4.4	922.2	15
88.2	0.7	87.6	–	–	0.0	–	6.3	567.8	567.8	–	4.4	902.6	22
88.3	0.7	87.6	–	–	–	–	7.3	567.4	567.4	–	4.4	896.0	Mar. 1
88.1	0.5	87.6	–	–	–	–	7.6	568.6	568.6	–	4.4	893.4	8
88.2	0.6	87.6	–	–	0.0	–	7.0	565.2	565.2	–	4.4	904.1	15
88.2	0.6	87.6	–	–	–	–	5.9	563.5	563.5	–	4.4	913.7	22
87.3	0.7	86.2	–	–	0.5	–	5.5	562.2	562.2	–	4.4	972.3	29
86.8	0.6	86.2	–	–	–	–	6.6	564.0	564.0	–	4.4	932.1	2019 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

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														
2018 Dec.	21	4,674.9	1,227.9	1,978.6	1,364.7	613.9	–	–	0.0	10.7	–	327.5	201.8	125.7
	28	4,669.0	1,231.5	1,913.4	1,299.7	613.6	–	–	0.1	20.4	–	324.3	201.4	122.9
2019 Jan.	4	4,694.4	1,224.7	1,971.6	1,304.8	666.4	–	–	0.3	12.9	–	321.3	197.8	123.5
	11	4,703.4	1,215.8	2,026.4	1,356.6	669.5	–	–	0.2	7.6	–	334.2	213.5	120.8
	18	4,705.9	1,209.9	1,988.3	1,350.4	637.8	–	–	0.1	8.6	–	387.7	258.3	129.4
	25	4,708.9	1,206.4	1,985.1	1,344.8	640.2	–	–	0.1	8.4	–	404.3	281.7	122.6
Feb.	1	4,695.5	1,209.2	2,015.1	1,341.9	673.0	–	–	0.2	8.5	–	356.3	230.6	125.7
	8	4,696.5	1,208.3	2,024.9	1,366.2	658.6	–	–	0.0	7.6	–	355.0	232.4	122.6
	15	4,702.8	1,207.9	1,977.1	1,342.2	634.9	–	–	0.0	10.0	–	405.0	286.1	118.8
	22	4,692.1	1,207.2	1,971.1	1,337.0	634.1	–	–	0.0	7.9	–	414.3	289.1	125.2
Mar.	1	4,686.3	1,212.2	2,021.2	1,380.2	641.0	–	–	0.0	7.6	–	361.6	234.2	127.4
	8	4,691.3	1,213.6	2,044.6	1,412.8	631.8	–	–	0.0	9.6	–	349.1	219.4	129.7
	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
2019 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
Deutsche Bundesbank														
2018 Dec.	21	1,808.6	293.5	609.7	451.8	157.9	–	–	0.0	2.9	–	137.2	79.3	57.9
	28	1,822.3	293.5	593.9	440.3	153.6	–	–	0.0	5.9	–	123.1	65.1	57.9
2019 Jan.	4	1,794.5	295.9	616.6	456.1	160.5	–	–	0.1	7.5	–	101.0	38.8	62.3
	11	1,766.7	293.8	615.2	462.6	152.6	–	–	0.0	3.9	–	105.6	51.5	54.1
	18	1,772.0	292.7	622.7	472.0	150.7	–	–	0.0	4.5	–	118.5	60.8	57.7
	25	1,737.6	292.1	607.5	456.5	150.9	–	–	0.0	4.6	–	104.0	55.0	48.9
Feb.	1	1,745.8	293.6	625.4	453.2	172.2	–	–	0.0	4.6	–	87.6	39.4	48.2
	8	1,753.1	294.1	634.1	466.7	167.4	–	–	0.0	3.7	–	90.3	41.8	48.5
	15	1,773.9	294.6	624.1	463.0	161.0	–	–	0.0	6.6	–	115.1	67.4	47.7
	22	1,745.1	294.9	619.5	463.2	156.2	–	–	0.0	4.5	–	104.3	57.4	47.0
Mar.	1	1,741.6	294.5	639.9	470.4	169.4	–	–	0.0	4.4	–	88.7	41.3	47.4
	8	1,742.8	295.0	646.1	477.5	168.6	–	–	0.0	5.7	–	89.4	41.4	48.0
	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
2019 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

***** 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]										
364.0	4.8	11.1	11.1	–	56.0	247.6	–	342.3	104.4	2018 Dec. 21
412.3	4.3	10.8	10.8	–	56.0	249.2	–	342.3	104.4	28
364.1	4.3	10.4	10.4	–	56.5	248.1	–	376.2	104.4	2019 Jan. 4
317.6	4.5	10.2	10.2	–	56.5	250.1	–	376.1	104.5	11
305.6	5.1	10.2	10.2	–	56.5	253.8	–	376.1	104.3	18
296.0	6.0	11.1	11.1	–	56.5	254.7	–	376.1	104.2	25
298.2	7.2	9.7	9.7	–	56.5	254.6	–	376.1	104.2	Feb. 1
290.6	7.8	9.9	9.9	–	56.5	255.6	–	376.1	104.2	8
291.8	8.0	9.4	9.4	–	56.5	256.8	–	376.1	104.2	15
279.2	7.6	9.3	9.3	–	56.5	258.1	–	376.1	104.8	22
270.9	6.6	9.5	9.5	–	56.5	259.1	–	376.1	104.9	Mar. 1
262.2	6.9	9.8	9.8	–	56.5	258.0	–	376.1	104.9	8
255.5	5.6	10.1	10.1	–	56.5	256.9	–	376.1	106.2	15
245.3	6.3	9.6	9.6	–	56.5	256.0	–	376.1	106.2	22
302.5	5.6	9.8	9.8	–	57.5	256.6	–	397.5	106.8	29
239.3	6.2	10.4	10.4	–	57.5	251.7	–	397.3	107.2	2019 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
Deutsche Bundesbank										
209.7	0.0	– 0.0	– 0.0	–	14.5	30.9	397.1	107.5	5.7	2018 Dec. 21
250.2	0.0	– 0.0	– 0.0	–	14.5	30.9	397.1	107.5	5.7	28
211.7	0.0	–	–	–	14.7	31.2	391.9	118.5	5.7	2019 Jan. 4
186.2	0.0	0.0	0.0	–	14.7	31.2	391.9	118.5	5.7	11
171.6	0.0	0.0	0.0	–	14.7	31.2	391.9	118.5	5.7	18
166.4	0.0	0.6	0.6	–	14.7	31.7	392.0	118.5	5.7	25
171.9	0.0	0.4	0.4	–	14.7	31.9	391.5	118.5	5.7	Feb. 1
168.2	0.0	0.4	0.4	–	14.7	31.9	391.5	118.5	5.7	8
170.9	0.0	0.3	0.3	–	14.7	31.9	391.5	118.5	5.7	15
159.1	0.0	0.2	0.2	–	14.7	32.3	391.5	118.5	5.7	22
150.6	0.0	0.4	0.4	–	14.7	29.8	394.4	118.5	5.7	Mar. 1
142.8	0.0	0.7	0.7	–	14.7	29.8	394.4	118.5	5.7	8
134.0	0.0	0.4	0.4	–	14.7	30.1	394.4	118.5	5.7	15
126.7	0.0	0.1	0.1	–	14.7	30.2	394.4	118.5	5.7	22
172.9	0.0	0.1	0.1	–	14.9	29.4	396.9	123.1	5.7	29
126.7	0.0	0.3	0.3	–	14.9	29.5	396.9	123.1	5.7	2019 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

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 Aug.	7,807.7	27.5	2,243.1	1,828.2	1,553.7	274.5	415.0	286.9	128.0	3,792.2	3,377.0	2,876.6	2,576.3
Sep.	7,811.3	28.4	2,262.7	1,847.3	1,578.3	269.0	415.4	288.4	127.0	3,799.4	3,385.3	2,890.2	2,589.5
Oct.	7,825.7	28.4	2,285.3	1,873.3	1,604.0	269.2	412.1	285.1	127.0	3,804.7	3,393.5	2,899.1	2,598.2
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	8,281.1	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	3,085.4	2,790.5
	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 Sep.	4.8	0.9	21.8	21.5	26.0	– 4.5	0.3	1.2	– 0.9	6.9	7.1	12.0	13.5
Oct.	8.6	0.1	21.9	25.5	25.4	0.1	– 3.7	– 3.7	0.1	4.6	8.0	8.6	8.6
Nov.	33.4	– 0.4	28.9	28.8	29.4	– 0.6	0.0	1.2	– 1.1	14.8	18.7	19.0	13.5
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	126.6	– 0.3	22.4	25.4	23.4	2.0	– 3.0	– 3.7	0.7	16.2	16.5	17.5	16.3

***** 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
300.4	500.4	293.4	207.0	415.2	283.8	165.2	131.4	30.0	101.4	1,011.0	765.3	733.9	2017 Aug.
300.7	495.1	289.0	206.1	414.1	283.0	167.9	131.1	29.8	101.3	1,021.2	776.3	699.6	Sep.
301.0	494.4	289.2	205.3	411.2	281.6	167.7	129.6	30.4	99.2	1,014.2	768.9	693.0	Oct.
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	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	1,101.2	839.3	820.6	May
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
– 1.5	– 4.9	– 4.2	– 0.7	– 0.2	0.2	2.4	– 0.4	– 0.2	– 0.2	8.3	9.0	– 33.1	2017 Sep.
0.1	– 0.7	0.2	– 0.9	– 3.4	– 1.8	– 0.4	– 1.6	0.6	– 2.2	– 11.3	– 11.3	– 6.6	Oct.
5.6	– 0.4	– 0.1	– 0.3	– 3.9	– 4.3	– 3.1	0.4	– 0.6	1.0	– 2.5	– 3.6	– 7.3	Nov.
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	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	– 0.2	2.2	2.9	– 2.4	– 0.2	– 2.2	1.8	– 1.1	86.4	May

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

IV. Banks

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

€ billion

Period	Balance sheet total [1]	Deposits of banks (MFIs) in the euro area			Deposits of non-banks (non-MFIs) in the euro area								
						Deposits of non-banks in the home country						Deposits of non-banks	
			of banks					With agreed maturities		At agreed notice			
		Total	in the home country	in other Member States	Total	Total	Overnight	Total	of which: up to 2 years	Total	of which: up to 3 months	Total	Overnight
	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 Aug.	7,807.7	1,243.3	1,065.8	177.4	3,486.1	3,368.4	1,880.5	905.5	285.7	582.4	537.9	108.3	47.5
Sep.	7,811.3	1,256.2	1,071.9	184.3	3,494.8	3,371.4	1,886.8	902.8	284.3	581.8	537.9	114.7	50.7
Oct.	7,825.7	1,272.0	1,081.9	190.1	3,505.8	3,388.0	1,912.7	893.9	277.3	581.5	538.4	109.2	46.3
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	8,281.1	1,291.2	1,057.1	234.1	3,721.9	3,599.2	2,147.2	869.5	277.3	582.5	544.4	108.1	50.1
	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 Sep.	4.8	3.0	– 3.8	6.7	8.4	2.9	6.1	– 2.6	– 1.5	– 0.6	0.0	6.4	3.2
Oct.	8.6	15.2	9.8	5.5	10.3	16.0	25.5	– 9.1	– 7.1	– 0.3	0.5	– 5.6	– 4.4
Nov.	33.4	4.6	– 0.3	4.9	37.9	30.2	27.9	2.8	– 0.2	– 0.5	0.2	4.6	5.9
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	126.6	– 7.0	– 4.1	– 2.9	32.6	29.6	30.2	– 0.8	0.6	0.3	– 0.3	2.3	2.7

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

IV. Banks

in other Member States [2]				Deposits of central governments				Debt securities issued [3]					
With agreed maturities		At agreed notice											
Total	of which: up to 2 years	Total	of which: up to 3 months	Total	of which: domestic central governments	Liabilities arising from repos with non-banks in the euro area	Money market fund shares issued [3]	Total	of which: with maturities of up to 2 years [3]	Liabilities to non-euro area residents	Capital and reserves	Other Liabilities [1]	Period
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
57.8	18.3	3.0	2.6	9.4	7.9	3.4	2.4	1,024.7	42.6	643.1	608.1	796.7	2017 Aug.
61.0	20.5	2.9	2.6	8.7	8.0	2.6	2.4	1,015.2	42.2	669.5	612.4	758.2	Sep.
59.9	18.3	2.9	2.6	8.6	7.9	2.3	2.2	1,008.9	40.7	667.9	612.7	753.9	Oct.
58.6	16.7	2.9	2.6	11.8	8.3	2.6	2.2	1,004.7	40.1	664.4	609.8	747.9	Nov.
63.2	19.7	2.9	2.6	9.4	8.7	3.3	2.1	994.5	37.8	603.4	686.0	658.8	Dec.
61.3	18.9	2.9	2.6	10.0	8.9	4.3	2.1	1,002.6	35.4	682.4	666.5	670.0	2018 Jan.
59.7	18.2	2.9	2.6	10.7	8.8	3.8	2.1	1,006.3	36.0	690.3	678.6	625.9	Feb.
63.8	22.6	2.9	2.6	9.1	8.3	2.9	2.3	1,014.0	35.2	641.0	675.0	635.6	Mar.
59.2	18.0	2.9	2.5	11.7	8.4	2.4	2.2	1,016.6	34.7	672.9	677.3	624.6	Apr.
58.8	16.8	2.9	2.5	10.4	8.8	1.6	2.0	1,031.1	36.4	707.2	679.7	646.6	May
62.2	21.7	2.9	2.5	10.2	9.3	1.3	2.1	1,022.2	33.7	670.8	680.2	620.5	June
61.5	19.0	2.9	2.5	12.4	10.0	1.8	2.0	1,016.9	33.1	681.9	682.2	586.7	July
58.9	16.4	2.8	2.5	13.9	10.6	1.2	2.0	1,021.2	35.0	690.5	684.5	603.8	Aug.
57.8	17.4	2.8	2.5	11.5	9.2	1.3	2.0	1,034.7	33.9	681.7	687.2	578.7	Sep.
58.6	17.2	2.8	2.5	11.4	9.7	2.4	2.0	1,044.7	36.2	666.9	687.8	600.0	Oct.
56.3	15.0	2.8	2.5	12.5	10.0	1.3	2.4	1,048.3	34.6	643.3	688.1	607.3	Nov.
56.7	15.8	2.8	2.5	11.3	10.5	0.8	2.4	1,034.0	31.9	575.9	695.6	610.7	Dec.
56.2	15.3	2.8	2.5	11.5	10.1	1.7	2.4	1,048.1	32.1	636.9	688.3	640.1	2019 Jan.
55.9	14.9	2.8	2.5	11.7	10.0	2.0	2.3	1,067.9	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	14.5	12.1	11.2	2.0	1,071.8	32.3	688.6	703.5	790.8	May
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
3.2	2.2	– 0.0	– 0.0	– 0.8	0.0	– 0.7	0.0	– 10.2	– 0.5	25.3	4.7	– 25.6	2017 Sep.
– 1.2	– 2.2	– 0.0	0.0	– 0.1	– 0.2	– 0.3	– 0.3	– 9.6	– 1.6	– 3.8	– 0.5	– 2.6	Oct.
– 1.3	– 1.5	– 0.0	– 0.0	3.0	0.3	0.3	0.0	– 0.2	– 0.5	– 0.6	– 1.5	– 7.1	Nov.
4.7	3.0	0.0	0.0	– 2.4	0.3	0.7	– 0.0	– 7.3	– 2.3	– 59.2	5.6	– 16.1	Dec.
– 1.5	– 0.8	– 0.0	– 0.0	0.6	0.2	1.0	– 0.0	15.8	– 2.2	84.0	– 17.5	11.0	2018 Jan.
– 1.7	– 0.8	– 0.0	– 0.0	0.6	– 0.1	– 0.5	– 0.0	– 0.5	0.6	5.0	10.8	– 1.0	Feb.
4.1	4.4	– 0.0	– 0.0	– 1.6	– 0.4	– 0.9	0.2	9.4	– 0.8	– 48.1	– 3.0	12.1	Mar.
– 4.6	– 4.6	– 0.0	– 0.0	2.7	0.1	– 0.5	– 0.1	– 0.9	– 0.3	28.0	1.7	– 8.4	Apr.
– 0.5	– 1.4	– 0.0	– 0.0	– 1.4	0.3	– 0.8	– 0.2	7.3	1.4	29.3	0.1	23.6	May
3.3	4.9	– 0.0	– 0.0	– 0.1	0.5	– 0.4	0.1	– 9.2	– 2.7	– 36.6	0.4	– 24.3	June
– 0.6	– 2.7	– 0.0	– 0.0	2.2	0.7	0.6	– 0.1	– 3.6	– 0.6	12.3	2.6	– 32.6	July
– 2.6	– 2.6	– 0.0	– 0.0	1.4	0.6	– 0.6	– 0.0	2.8	1.9	7.5	2.3	17.3	Aug.
– 1.2	0.9	– 0.0	– 0.0	– 2.4	– 1.3	0.1	– 0.0	11.8	– 1.1	– 10.0	2.2	– 23.7	Sep.
0.8	– 0.3	0.0	0.0	– 0.0	0.5	1.0	0.1	5.5	2.2	– 18.1	– 0.7	24.1	Oct.
– 2.3	– 2.2	– 0.0	– 0.0	1.2	0.5	– 1.0	0.3	4.4	– 1.6	– 23.1	0.5	7.6	Nov.
0.5	0.9	– 0.0	– 0.0	– 1.2	0.5	– 0.6	0.0	– 12.7	– 2.6	– 66.2	8.0	4.7	Dec.
– 0.6	– 0.5	– 0.0	– 0.0	0.2	– 0.4	0.9	0.0	13.9	0.2	61.2	– 7.3	31.7	2019 Jan.
– 0.3	– 0.4	– 0.0	– 0.0	0.5	0.2	0.3	– 0.1	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	0.7	0.7	– 1.3	0.0	11.9	0.2	– 9.8	7.2	93.0	May

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

IV. Banks

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

€ billion

End of month	Number of reporting institutions	Balance sheet total 1	Cash in hand and credit balances with central banks	Lending to banks (MFIs)			Lending to non-banks (non-MFIs)						
					of which:			of which:					
								Loans					
				Total	Balances and loans	Securities issued by banks	Total	for up to and including 1 year	for more than 1 year	Bills	Securities issued by non-banks	Participating interests	Other assets 1
All categories of banks													
2018 Dec.	1,583	7,823.7	464.0	2,337.6	1,855.6	480.2	4,156.4	348.6	3,130.8	0.6	671.9	113.2	752.4
2019 Jan.	1,578	7,949.9	497.6	2,378.0	1,894.5	481.4	4,189.6	373.7	3,140.5	0.5	667.9	112.6	772.1
Feb.	1,579	7,984.1	516.1	2,393.6	1,904.1	487.0	4,195.5	367.4	3,150.9	0.5	670.6	112.8	766.2
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
Commercial banks 6													
2019 Apr.	263	3,391.7	319.1	1,049.1	963.7	85.0	1,353.8	230.2	918.2	0.4	201.9	52.1	617.7
May	263	3,458.2	330.2	1,022.8	937.4	85.0	1,367.7	238.8	924.0	0.4	201.1	52.1	685.3
Big banks 7													
2019 Apr.	4	1,937.8	112.2	603.6	571.1	32.5	627.3	119.1	401.8	0.1	104.3	45.4	549.2
May	4	2,002.5	105.1	602.7	570.5	32.2	637.2	124.0	405.4	0.1	105.3	45.4	612.0
Regional banks and other commercial banks													
2019 Apr.	151	1,023.4	98.3	235.7	185.3	50.2	623.1	78.7	453.2	0.3	90.2	6.0	60.4
May	151	1,037.2	105.3	236.4	185.7	50.6	624.3	81.3	453.7	0.2	88.2	6.0	65.1
Branches of foreign banks													
2019 Apr.	108	430.6	108.6	209.8	207.2	2.2	103.4	32.4	63.1	0.1	7.4	0.7	8.2
May	108	418.6	119.8	183.7	181.2	2.2	106.2	33.4	64.9	0.0	7.5	0.7	8.2
Landesbanken													
2019 Apr.	6	804.9	69.4	253.5	193.3	59.1	391.6	46.7	296.6	0.0	46.0	9.0	81.5
May	6	826.0	72.3	258.5	197.4	60.1	396.0	49.1	297.7	0.0	46.8	9.3	89.9
Savings banks													
2019 Apr.	385	1,299.8	51.2	190.3	71.8	118.4	1,024.4	51.8	809.7	0.0	162.7	14.2	19.7
May	385	1,309.2	53.3	193.3	73.8	119.3	1,027.7	50.8	813.8	0.0	162.9	14.3	20.5
Credit cooperatives													
2019 Apr.	875	943.8	21.4	173.1	65.7	107.1	712.4	35.1	564.0	0.0	113.1	17.3	19.6
May	874	951.0	20.6	177.4	69.1	108.0	716.0	34.2	568.4	0.0	113.2	17.4	19.6
Mortgage banks													
2019 Apr.	11	233.8	4.6	30.4	20.2	10.3	192.3	2.5	168.7	–	21.0	0.2	6.3
May	11	235.6	5.4	28.4	18.6	9.8	193.4	2.6	170.0	–	20.8	0.2	8.2
Building and loan associations													
2019 Apr.	20	235.7	1.3	54.4	38.3	16.2	175.5	1.2	148.7	.	25.6	0.3	4.2
May	19	236.3	1.1	53.9	37.8	16.2	176.3	1.2	149.5	.	25.6	0.3	4.6
Banks with special, development and other central support tasks													
2019 Apr.	18	1,295.6	79.1	719.2	628.6	88.9	386.8	17.6	272.4	–	94.9	20.1	90.3
May	18	1,315.5	81.0	727.9	636.4	89.8	388.6	18.9	273.2	–	94.9	20.2	97.9
Memo item: Foreign banks 8													
2019 Apr.	144	1,222.4	165.9	415.8	378.0	37.3	527.6	98.0	343.9	0.3	84.3	3.4	109.8
May	144	1,227.5	180.0	389.3	351.5	37.4	533.9	100.6	348.9	0.3	83.0	3.5	120.8
of which: Banks majority-owned by foreign banks 9													
2019 Apr.	36	791.9	57.3	206.0	170.8	35.1	424.2	65.6	280.8	0.3	76.9	2.8	101.6
May	36	808.9	60.2	205.6	170.3	35.2	427.7	67.2	284.0	0.2	75.5	2.8	112.7

***** 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														
1,664.0	476.1	1,187.8	3,769.1	2,190.3	260.8	691.2	38.8	585.6	547.3	41.2	1,130.3	531.3	729.0	2018 Dec.
1,714.0	520.3	1,193.6	3,809.3	2,212.1	284.4	686.8	70.9	585.4	547.6	40.6	1,143.3	531.3	752.0	2019 Jan.
1,744.9	549.0	1,195.8	3,796.2	2,199.0	285.3	685.5	49.5	586.5	548.7	40.0	1,159.7	533.6	749.8	Feb.
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	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	550.6	39.1	1,178.2	539.6	901.3	May
Commercial banks 6														
928.2	414.3	513.8	1,567.2	991.7	181.8	275.1	56.5	102.7	95.2	15.9	173.8	196.2	526.3	2019 Apr.
912.6	432.2	480.3	1,567.8	997.6	177.9	273.1	54.0	103.5	95.1	15.9	175.2	197.2	605.3	May
Big banks 7														
467.5	188.2	279.3	774.0	465.7	104.1	114.4	46.9	86.3	79.7	3.6	123.9	110.1	462.2	2019 Apr.
454.3	192.4	261.9	779.0	469.4	106.0	112.9	44.3	87.0	79.7	3.6	123.2	110.1	535.8	May
Regional banks and other commercial banks														
209.9	67.0	142.9	633.2	413.0	54.1	137.6	9.6	16.3	15.3	12.2	49.0	77.1	54.2	2019 Apr.
212.2	82.1	130.1	637.2	422.3	49.0	137.5	9.7	16.2	15.2	12.2	51.0	78.1	58.6	May
Branches of foreign banks														
250.8	159.1	91.7	159.9	113.0	23.6	23.1	–	0.2	0.2	0.1	0.9	9.0	9.9	2019 Apr.
246.1	157.7	88.4	151.7	105.9	22.8	22.7	–	0.2	0.2	0.1	0.9	9.0	10.9	May
Landesbanken														
256.3	54.0	202.3	234.6	105.4	43.8	77.9	2.1	7.2	7.1	0.3	187.3	40.0	86.7	2019 Apr.
264.6	71.9	192.8	239.1	111.3	42.7	77.6	2.4	7.2	7.1	0.3	189.4	40.0	92.8	May
Savings banks														
133.3	4.1	129.2	983.7	642.7	17.0	15.7	–	291.7	269.3	16.7	18.8	117.5	46.6	2019 Apr.
133.3	3.4	129.9	992.4	651.6	17.3	15.6	–	291.3	269.1	16.5	18.8	118.7	46.0	May
Credit cooperatives														
117.5	1.1	116.3	704.9	465.8	33.1	14.0	–	187.0	178.9	4.9	9.9	79.8	31.8	2019 Apr.
118.1	1.0	117.0	711.5	472.2	33.6	14.0	–	186.9	178.8	4.8	9.8	81.2	30.5	May
Mortgage banks														
48.7	5.2	43.6	73.6	2.1	2.9	68.6	–	–	–	.	94.1	10.4	6.9	2019 Apr.
49.7	5.5	44.2	74.0	2.3	3.4	68.3	–	–	–	.	94.6	10.4	6.9	May
Building and loan associations														
23.9	3.3	20.6	185.7	3.2	2.2	179.7	–	0.5	0.5	0.1	3.2	11.9	11.1	2019 Apr.
23.0	2.8	20.2	186.3	3.2	2.2	180.4	–	0.5	0.5	0.1	3.1	11.9	11.8	May
Banks with special, development and other central support tasks														
340.0	91.2	248.9	100.7	35.9	14.7	48.6	1.9	–	–	.	674.1	80.1	100.6	2019 Apr.
338.8	87.0	251.8	101.5	35.3	16.6	48.1	1.7	–	–	.	687.2	80.1	107.9	May
***Memo item:* Foreign banks 8**														
459.7	235.0	224.6	569.9	408.2	58.9	77.3	11.5	19.9	19.5	5.7	28.1	58.8	105.9	2019 Apr.
457.8	249.6	208.2	561.5	405.9	53.7	76.5	11.4	19.8	19.4	5.6	31.1	58.9	118.2	May
***of which:* Banks majority-owned by foreign banks 9**														
208.9	75.9	133.0	410.0	295.2	35.3	54.3	11.5	19.7	19.3	5.6	27.2	49.8	95.9	2019 Apr.
211.7	91.9	119.8	409.8	300.0	30.8	53.8	11.4	19.6	19.2	5.5	30.2	49.8	107.4	May

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

IV. Banks

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

€ billion

Period	Cash in hand (euro area banknotes and coins)	Credit balances with the Bundesbank	Lending to domestic banks (MFIs)						Lending to domestic non-banks (non-MFIs)				
			Total	Credit balances and loans	Bills	Negotiable money market paper issued by banks	Securities issued by banks	Memo item: Fiduciary loans	Total	Loans	Bills	Treasury bills and negotiable money market paper issued by non-banks	Securities issued by non-banks [1]
													End of year or month *
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
2017 Dec.	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 Jan.	29.0	448.1	1,421.7	1,176.0	0.0	0.7	245.1	2.5	3,339.3	2,904.9	0.3	1.0	433.1
Feb.	29.3	460.7	1,409.5	1,165.3	0.0	0.8	243.3	2.9	3,338.3	2,910.6	0.2	1.2	426.4
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
													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
2017 Dec.	+ 4.1	– 64.6	– 10.3	– 7.3	– 0.0	– 0.2	– 2.9	+ 0.1	– 11.1	– 5.6	+ 0.1	– 0.5	– 5.1
2018 Jan.	– 2.9	+ 55.6	+ 13.7	+ 12.1	–	+ 0.0	+ 1.7	+ 0.6	+ 6.9	+ 11.0	– 0.1	+ 0.3	– 4.4
Feb.	+ 0.3	+ 12.7	– 12.3	– 10.7	+ 0.0	+ 0.1	– 1.7	+ 0.4	– 1.0	+ 5.6	– 0.1	+ 0.2	– 6.7
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

***** 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
–	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 Dec.
–	18.9	88.2	1,060.1	116.0	944.1	0.0	5.0	3,428.9	1,949.3	854.1	582.4	42.9	30.4	2018 Jan.
–	19.0	88.5	1,056.6	110.3	946.4	0.0	5.0	3,425.8	1,949.6	851.6	582.2	42.3	30.9	Feb.
–	18.9	88.5	1,056.3	118.6	937.7	0.0	5.0	3,421.8	1,948.0	850.7	581.3	41.8	31.5	Mar.
–	18.8	89.2	1,052.8	118.2	934.6	0.0	5.0	3,439.5	1,971.4	846.3	580.5	41.3	31.9	Apr.
–	18.8	93.8	1,035.9	107.1	928.9	0.0	5.0	3,471.4	2,002.6	847.7	580.2	40.9	32.4	May
–	18.7	94.0	1,034.3	122.0	912.2	0.0	4.9	3,473.1	1,996.6	856.7	579.3	40.6	32.6	June
–	18.5	94.4	1,041.4	118.8	922.6	0.0	4.9	3,473.2	2,002.6	852.3	578.2	40.0	32.8	July
–	18.4	88.0	1,042.8	117.3	925.5	0.0	4.8	3,485.0	2,020.0	847.9	577.6	39.5	33.1	Aug.
–	18.3	87.9	1,033.4	117.1	916.2	0.0	4.8	3,482.9	2,022.5	844.0	577.3	39.1	33.9	Sep.
–	17.9	87.9	1,032.9	111.3	921.6	0.0	4.8	3,504.0	2,044.7	843.7	577.0	38.6	33.7	Oct.
–	17.9	87.7	1,045.8	115.5	930.3	0.0	4.7	3,537.4	2,079.6	843.0	576.9	37.9	33.7	Nov.
–	18.0	90.9	1,020.9	105.5	915.4	0.0	4.7	3,537.6	2,080.1	841.5	578.6	37.3	33.9	Dec.
–	17.8	90.8	1,039.4	114.9	924.6	0.0	4.7	3,540.8	2,079.4	846.3	578.5	36.7	33.8	2019 Jan.
–	17.8	90.8	1,045.6	118.2	927.4	0.0	4.7	3,554.5	2,088.8	850.1	579.5	36.1	34.0	Feb.
–	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
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
–	– 0.3	+ 0.5	– 27.3	– 15.0	– 12.2	– 0.0	– 0.2	– 5.9	– 3.0	– 4.2	+ 1.9	– 0.6	– 0.1	2017 Dec.
–	– 0.1	– 0.0	+ 11.9	+ 5.2	+ 6.7	+ 0.0	– 0.1	+ 7.6	+ 8.0	+ 0.9	– 0.4	– 0.8	+ 0.4	2018 Jan.
–	– 0.0	+ 0.4	– 3.5	– 5.8	+ 2.3	–	+ 0.0	– 3.1	+ 0.3	– 2.5	– 0.3	– 0.6	+ 0.5	Feb.
–	– 0.1	+ 0.0	– 0.3	+ 8.3	– 8.7	+ 0.0	– 0.0	– 4.0	– 1.7	– 0.9	– 0.9	– 0.5	+ 0.5	Mar.
–	– 0.1	+ 0.7	– 3.0	+ 0.3	– 3.2	– 0.0	– 0.0	+ 18.6	+ 23.4	– 3.5	– 0.8	– 0.5	+ 0.4	Apr.
–	+ 0.0	+ 4.6	– 16.9	– 11.2	– 5.7	+ 0.0	– 0.0	+ 31.9	+ 31.3	+ 1.4	– 0.3	– 0.5	+ 0.5	May
–	– 0.1	+ 0.2	– 1.6	+ 15.0	– 16.6	–	– 0.1	+ 1.8	– 6.0	+ 9.1	– 0.9	– 0.4	+ 0.3	June
–	– 0.2	+ 0.4	+ 7.7	– 2.7	+ 10.4	+ 0.0	– 0.1	+ 0.1	+ 6.1	– 4.4	– 1.0	– 0.6	+ 0.2	July
–	+ 0.0	– 6.0	+ 2.8	– 1.5	+ 4.2	– 0.0	– 0.0	+ 11.9	+ 17.3	– 4.3	– 0.6	– 0.5	+ 0.5	Aug.
–	– 0.1	– 0.0	– 9.5	– 0.2	– 9.3	–	– 0.0	– 1.9	+ 2.7	– 3.9	– 0.3	– 0.4	+ 0.6	Sep.
–	– 0.4	– 0.1	– 0.5	– 5.8	+ 5.3	+ 0.0	– 0.0	+ 21.2	+ 22.2	– 0.2	– 0.3	– 0.5	– 0.2	Oct.
–	– 0.0	– 0.2	+ 13.0	+ 4.2	+ 8.8	+ 0.0	– 0.0	+ 33.4	+ 34.8	– 0.5	– 0.1	– 0.7	– 0.0	Nov.
–	+ 0.1	+ 3.2	– 24.9	– 8.9	– 16.1	– 0.0	– 0.0	+ 0.2	+ 0.8	– 1.8	+ 1.7	– 0.6	+ 0.2	Dec.
–	– 0.2	– 0.0	+ 18.6	+ 9.4	+ 9.2	– 0.0	– 0.0	+ 3.2	– 0.7	+ 4.7	– 0.2	– 0.6	– 0.0	2019 Jan.
–	–	– 0.0	+ 5.9	+ 3.3	+ 2.6	+ 0.0	+ 0.0	+ 13.6	+ 9.3	+ 3.9	+ 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

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

* 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
12.1	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 Dec.
12.0	24.2	711.8	450.8	261.0	172.7	88.3	0.0	275.0	130.5	144.6	82.2	62.3	0.3	2018 Jan.
12.1	23.7	715.7	441.2	274.5	185.5	89.0	0.0	279.6	134.8	144.8	85.5	59.3	0.3	Feb.
12.2	24.0	668.6	385.6	283.0	196.4	86.5	0.0	272.9	126.3	146.6	87.8	58.8	0.3	Mar.
12.3	23.6	685.3	410.6	274.7	188.3	86.4	0.0	282.6	138.4	144.2	85.2	59.0	0.3	Apr.
12.2	23.7	730.1	452.6	277.4	188.0	89.4	0.0	285.8	140.5	145.4	86.9	58.5	0.3	May
12.1	23.7	713.1	432.8	280.3	187.1	93.1	0.0	259.1	123.3	135.8	78.9	56.9	0.3	June
11.9	23.0	708.4	420.2	288.2	197.2	91.0	0.0	273.1	129.4	143.7	84.1	59.6	0.3	July
11.9	23.1	709.8	404.3	305.5	217.7	87.8	0.0	278.8	129.5	149.2	90.1	59.1	0.3	Aug.
11.8	22.4	711.7	426.7	285.0	197.3	87.7	0.0	269.3	133.2	136.1	79.2	56.9	0.1	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
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
– 0.3	– 0.4	– 33.3	– 38.4	+ 5.1	+ 3.5	+ 1.5	–	– 42.5	– 31.0	– 11.6	– 13.4	+ 1.8	– 0.1	2017 Dec.
– 0.1	– 0.0	+ 57.4	+ 63.5	– 6.1	– 5.0	– 1.1	–	+ 35.0	+ 21.4	+ 13.6	+ 14.4	– 0.8	– 0.0	2018 Jan.
+ 0.1	– 0.5	+ 1.1	– 10.9	+ 12.0	+ 11.7	+ 0.3	– 0.0	+ 3.9	+ 4.0	– 0.2	+ 3.0	– 3.2	+ 0.0	Feb.
+ 0.1	+ 0.3	– 45.8	– 55.0	+ 9.1	+ 11.5	– 2.3	–	– 6.4	– 8.3	+ 1.9	+ 2.3	– 0.4	– 0.0	Mar.
+ 0.1	– 0.5	+ 13.1	+ 22.9	– 9.8	– 9.3	– 0.5	+ 0.0	+ 9.1	+ 11.9	– 2.8	– 2.9	+ 0.0	+ 0.0	Apr.
– 0.0	+ 0.1	+ 39.7	+ 40.1	– 0.4	– 2.7	+ 2.3	–	+ 1.9	+ 1.4	+ 0.5	+ 1.2	– 0.7	+ 0.0	May
– 0.2	–	– 17.3	– 19.9	+ 2.7	– 1.0	+ 3.7	–	– 26.8	– 17.2	– 9.6	– 8.0	– 1.6	–	June
– 0.1	– 0.6	– 3.0	– 12.2	+ 9.2	+ 9.1	+ 0.1	–	+ 13.9	+ 6.3	+ 7.6	+ 5.4	+ 2.2	–	July
– 0.1	+ 0.1	– 0.1	– 16.4	+ 16.3	+ 20.0	– 3.7	–	+ 5.7	– 0.1	+ 5.8	+ 5.8	– 0.1	– 0.0	Aug.
– 0.0	– 0.7	+ 0.9	+ 22.1	– 21.2	– 20.9	– 0.3	–	– 9.8	+ 3.6	– 13.3	– 11.2	– 2.2	– 0.2	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

IV. Banks

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

€ billion

Period	Lending to domestic non-banks, total		Short-term lending							Medium and long-term	
				to enterprises and households			to general government				to enterprises
	including negotiable money market paper, securities, equalisation claims	excluding negotiable money market paper, securities, equalisation claims	Total	Total	Loans and bills	Negotiable money market paper	Total	Loans	Treasury bills	Total	Total
	End of year or month *										
2009	3,100.1	2,692.6	347.3	306.3	306.2	0.1	41.0	37.1	3.9	2,752.8	2,299.7
2010	3,220.9	2,771.3	428.0	283.0	282.8	0.2	145.0	117.2	27.7	2,793.0	2,305.6
2011	3,197.8	2,775.4	383.3	316.5	316.1	0.4	66.8	60.7	6.0	2,814.5	2,321.9
2012	3,220.4	2,786.1	376.1	316.8	316.3	0.5	59.3	57.6	1.7	2,844.3	2,310.9
2013	3,131.6	2,693.2	269.1	217.7	217.0	0.6	51.4	50.8	0.6	2,862.6	2,328.6
2014	3,167.3	2,712.6	257.5	212.7	212.1	0.6	44.8	44.7	0.1	2,909.8	2,376.8
2015	3,233.9	2,764.4	255.5	207.8	207.6	0.2	47.8	47.5	0.2	2,978.3	2,451.4
2016	3,274.3	2,824.2	248.6	205.7	205.4	0.3	42.9	42.8	0.1	3,025.8	2,530.0
2017	3,332.6	2,894.4	241.7	210.9	210.6	0.3	30.7	30.3	0.4	3,090.9	2,640.0
2018	3,394.5	2,990.4	249.5	228.0	227.6	0.4	21.5	21.7	– 0.2	3,145.0	2,732.8
2017 Dec.	3,332.6	2,894.4	241.7	210.9	210.6	0.3	30.7	30.3	0.4	3,090.9	2,640.0
2018 Jan.	3,339.3	2,905.2	249.7	217.4	216.8	0.6	32.3	31.9	0.4	3,089.6	2,645.2
Feb.	3,338.3	2,910.8	247.6	219.8	219.3	0.6	27.8	27.1	0.6	3,090.7	2,650.4
Mar.	3,342.5	2,919.9	253.5	225.6	224.9	0.7	27.9	27.6	0.2	3,089.0	2,653.3
Apr.	3,348.5	2,926.9	254.0	223.0	222.1	0.9	31.0	30.3	0.7	3,094.5	2,664.6
May	3,350.0	2,928.9	254.5	226.6	225.4	1.2	27.9	26.8	1.1	3,095.5	2,667.7
June	3,361.8	2,942.2	257.0	229.8	228.9	0.9	27.2	26.3	0.9	3,104.7	2,681.4
July	3,368.0	2,950.1	256.7	225.4	224.7	0.7	31.3	29.8	1.5	3,111.3	2,692.5
Aug.	3,368.5	2,957.0	250.5	223.9	223.1	0.8	26.6	25.7	0.9	3,118.0	2,700.6
Sep.	3,384.0	2,971.9	255.9	232.3	231.6	0.7	23.6	22.5	1.1	3,128.1	2,711.1
Oct.	3,384.4	2,977.3	252.6	228.0	227.4	0.6	24.6	24.7	– 0.1	3,131.8	2,718.7
Nov.	3,397.3	2,992.2	251.7	227.9	227.4	0.5	23.9	23.6	0.3	3,145.6	2,732.7
Dec.	3,394.5	2,990.4	249.5	228.0	227.6	0.4	21.5	21.7	– 0.2	3,145.0	2,732.8
2019 Jan.	3,405.3	3,003.5	255.8	230.8	230.3	0.5	25.0	24.5	0.5	3,149.4	2,738.4
Feb.	3,413.6	3,014.2	257.6	235.4	234.9	0.5	22.2	22.4	– 0.2	3,156.0	2,746.4
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	2,785.7
	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
2017 Dec.	– 11.1	– 5.5	– 6.4	– 4.5	– 4.3	– 0.2	– 1.9	– 1.6	– 0.3	– 4.7	+ 3.6
2018 Jan.	+ 6.9	+ 11.0	+ 8.0	+ 6.5	+ 6.1	+ 0.3	+ 1.6	+ 1.6	– 0.1	– 1.2	+ 4.7
Feb.	– 1.0	+ 5.5	– 2.1	+ 2.4	+ 2.5	– 0.1	– 4.5	– 4.8	+ 0.3	+ 1.1	+ 5.0
Mar.	+ 4.2	+ 9.2	+ 5.9	+ 5.8	+ 5.7	+ 0.2	+ 0.1	+ 0.5	– 0.4	– 1.7	+ 2.9
Apr.	+ 6.4	+ 7.0	+ 0.5	– 2.6	– 2.8	+ 0.2	+ 3.1	+ 2.6	+ 0.5	+ 5.9	+ 11.7
May	+ 10.4	+ 10.8	+ 0.5	+ 3.6	+ 3.3	+ 0.3	– 3.1	– 3.5	+ 0.4	+ 9.9	+ 12.4
June	+ 11.8	+ 13.3	+ 2.5	+ 3.2	+ 3.5	– 0.3	– 0.7	– 0.5	– 0.2	+ 9.3	+ 13.6
July	+ 6.2	+ 7.9	– 0.3	– 4.5	– 4.3	– 0.2	+ 4.2	+ 3.6	+ 0.6	+ 6.5	+ 9.9
Aug.	+ 0.7	+ 7.1	– 6.2	– 1.5	– 1.5	+ 0.0	– 4.7	– 4.1	– 0.6	+ 6.9	+ 8.2
Sep.	+ 15.5	+ 14.9	+ 5.6	+ 8.6	+ 8.7	– 0.0	– 3.1	– 3.3	+ 0.2	+ 9.9	+ 10.3
Oct.	+ 0.5	+ 5.3	– 4.8	– 5.8	– 5.7	– 0.1	+ 1.1	+ 2.2	– 1.1	+ 5.2	+ 9.1
Nov.	+ 12.9	+ 14.9	– 0.9	– 0.1	+ 0.0	– 0.1	– 0.8	– 1.1	+ 0.3	+ 13.8	+ 14.0
Dec.	– 2.9	– 1.8	– 2.2	+ 0.1	+ 0.3	– 0.1	– 2.4	– 1.9	– 0.5	– 0.6	+ 0.1
2019 Jan.	+ 10.8	+ 13.1	+ 6.3	+ 2.8	+ 2.7	+ 0.1	+ 3.5	+ 2.8	+ 0.7	+ 4.5	+ 5.6
Feb.	+ 8.3	+ 10.7	+ 1.8	+ 4.6	+ 4.5	+ 0.0	– 2.8	– 2.1	– 0.7	+ 6.5	+ 8.0
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

***** 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
2,399.5	273.5	2,125.9	240.6	17.4	450.9	254.0	22.5	231.5	196.9	–	1.7	2017 Dec.
2,405.7	274.8	2,130.8	239.5	17.4	444.4	250.9	22.0	228.9	193.6	–	1.5	2018 Jan.
2,414.1	275.1	2,139.0	236.3	17.5	440.3	250.3	21.9	228.4	190.1	–	1.5	Feb.
2,419.5	275.2	2,144.2	233.8	17.4	435.8	247.9	22.1	225.8	187.9	–	1.6	Mar.
2,428.6	277.1	2,151.5	236.0	17.3	430.0	245.9	21.9	224.1	184.0	–	1.5	Apr.
2,431.2	270.8	2,160.4	236.6	17.3	427.7	245.5	21.9	223.6	182.2	–	1.5	May
2,443.3	275.3	2,168.0	238.1	17.2	423.4	243.7	21.0	222.7	179.7	–	1.5	June
2,454.6	277.7	2,176.9	237.9	17.0	418.7	241.0	20.3	220.8	177.7	–	1.5	July
2,467.5	279.3	2,188.2	233.1	17.0	417.4	240.6	21.1	219.5	176.8	–	1.3	Aug.
2,476.9	280.1	2,196.8	234.1	16.9	417.1	241.0	20.5	220.5	176.1	–	1.3	Sep.
2,484.5	279.7	2,204.9	234.1	16.6	413.1	240.7	20.2	220.5	172.5	–	1.3	Oct.
2,500.3	284.2	2,216.1	232.4	16.6	412.9	240.9	20.0	220.9	171.9	–	1.3	Nov.
2,499.4	282.6	2,216.8	233.4	16.5	412.1	241.7	19.7	222.0	170.4	–	1.4	Dec.
2,507.3	283.1	2,224.2	231.1	16.5	411.1	241.4	19.3	222.0	169.7	–	1.3	2019 Jan.
2,516.1	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
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
+ 1.7	– 0.9	+ 2.5	+ 2.0	– 0.4	– 8.3	– 1.3	– 0.3	– 1.0	– 7.1	–	+ 0.1	2017 Dec.
+ 5.7	+ 1.6	+ 4.2	– 1.0	– 0.0	– 5.9	– 2.5	– 0.5	– 2.0	– 3.4	–	– 0.1	2018 Jan.
+ 8.2	+ 0.3	+ 8.0	– 3.2	– 0.0	– 3.9	– 0.4	– 0.1	– 0.3	– 3.5	–	– 0.0	Feb.
+ 5.4	+ 0.2	+ 5.2	– 2.5	– 0.1	– 4.6	– 2.4	+ 0.1	– 2.5	– 2.2	–	+ 0.0	Mar.
+ 9.1	+ 1.8	+ 7.3	+ 2.5	– 0.1	– 5.8	– 1.9	– 0.2	– 1.8	– 3.9	–	– 0.0	Apr.
+ 11.8	+ 2.6	+ 9.3	+ 0.6	– 0.0	– 2.6	– 0.8	+ 0.1	– 0.8	– 1.8	–	+ 0.0	May
+ 12.1	+ 4.5	+ 7.6	+ 1.5	– 0.1	– 4.3	– 1.8	– 0.9	– 0.8	– 2.6	–	– 0.1	June
+ 10.1	+ 2.5	+ 7.6	– 0.2	– 0.2	– 3.4	– 1.4	– 0.7	– 0.7	– 1.9	–	– 0.0	July
+ 13.1	+ 1.6	+ 11.5	– 4.9	– 0.0	– 1.3	– 0.4	+ 0.8	– 1.2	– 0.9	–	+ 0.0	Aug.
+ 9.2	+ 0.5	+ 8.7	+ 1.1	– 0.1	– 0.4	+ 0.3	– 0.6	+ 0.9	– 0.7	–	– 0.0	Sep.
+ 9.2	+ 1.0	+ 8.2	– 0.0	– 0.3	– 3.9	– 0.3	– 0.3	+ 0.0	– 3.6	–	– 0.0	Oct.
+ 15.8	+ 4.6	+ 11.2	– 1.7	– 0.0	– 0.3	+ 0.3	– 0.1	+ 0.4	– 0.5	–	– 0.0	Nov.
– 0.9	– 1.6	+ 0.7	+ 1.0	– 0.1	– 0.7	+ 0.8	– 0.3	+ 1.1	– 1.5	–	+ 0.2	Dec.
+ 8.0	+ 0.5	+ 7.5	– 2.4	– 0.0	– 1.1	– 0.4	– 0.4	– 0.0	– 0.7	–	– 0.2	2019 Jan.
+ 8.7	+ 1.1	+ 7.6	– 0.7	–	– 1.5	– 0.5	– 0.4	– 0.1	– 1.0	–	–	Feb.
+ 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

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 Mar.	2,644.4	1,317.6	1,338.2	1,061.5	276.7	1,429.5	373.4	136.0	115.2	69.4	137.5	50.1	51.2	151.4
June	2,672.2	1,333.8	1,357.5	1,074.2	283.3	1,445.5	380.1	139.2	114.2	71.9	136.5	50.5	51.0	152.8
Sep.	2,708.5	1,349.5	1,377.7	1,086.8	290.9	1,476.9	389.6	140.5	115.9	73.0	138.8	53.5	50.8	157.0
Dec.	2,727.0	1,382.2	1,391.2	1,116.4	274.8	1,483.6	392.7	139.3	116.5	71.9	138.7	53.2	50.6	157.3
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
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 Mar.	224.9	–	6.8	–	6.8	195.3	3.8	36.6	5.0	14.9	48.4	3.5	4.2	29.1
June	228.9	–	7.1	–	7.1	199.2	4.0	36.7	4.8	16.6	47.3	3.9	4.2	28.5
Sep.	231.6	–	7.4	–	7.4	201.9	4.3	37.3	4.2	16.6	48.7	4.2	4.0	29.4
Dec.	227.6	–	7.2	–	7.2	195.9	4.1	35.5	4.9	14.7	48.3	3.7	4.9	28.0
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
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 Mar.	275.2	–	34.0	–	34.0	194.0	14.4	23.3	5.0	11.7	18.6	4.2	10.4	47.0
June	275.3	–	34.7	–	34.7	195.1	15.0	25.5	4.4	11.8	18.2	4.2	10.4	47.5
Sep.	280.1	–	35.6	–	35.6	199.4	15.6	24.9	4.4	12.2	18.3	4.4	11.1	48.0
Dec.	282.6	–	35.4	–	35.4	202.5	15.4	24.9	4.5	12.5	19.0	4.5	10.6	49.0
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
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 Mar.	2,144.2	1,317.6	1,297.3	1,061.5	235.8	1,040.2	355.2	76.1	105.2	42.8	70.4	42.3	36.7	75.3
June	2,168.0	1,333.8	1,315.7	1,074.2	241.5	1,051.1	361.1	77.0	105.0	43.5	71.0	42.4	36.4	76.8
Sep.	2,196.9	1,349.5	1,334.6	1,086.8	247.8	1,075.6	369.7	78.4	107.4	44.2	71.8	44.9	35.7	79.6
Dec.	2,216.8	1,382.2	1,348.6	1,116.4	232.2	1,085.2	373.2	78.9	107.2	44.7	71.4	45.0	35.1	80.3
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
Lending, total														**Change during quarter ***	
2018 Q1	+ 33.6	+ 10.6	+ 11.1	+ 8.1	+ 3.0	+ 26.0	+ 4.8	+ 4.7	+ 1.7	+ 2.0	+ 4.2	+ 0.3	– 0.3	+ 2.4
Q2	+ 37.0	+ 15.4	+ 17.8	+ 11.8	+ 6.0	+ 23.1	+ 6.6	+ 4.1	– 0.6	+ 2.9	– 0.6	+ 1.1	+ 0.1	+ 1.6
Q3	+ 35.2	+ 12.9	+ 19.4	+ 11.1	+ 8.3	+ 19.3	+ 6.0	+ 1.3	+ 0.3	+ 1.0	+ 2.3	+ 0.9	– 0.3	+ 4.1
Q4	+ 18.5	+ 10.8	+ 15.2	+ 8.9	+ 6.2	+ 6.8	+ 4.8	– 1.1	+ 0.7	– 1.0	+ 0.1	– 0.3	– 0.2	+ 0.0
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
Short-term lending															
2018 Q1	+ 14.3	–	+ 0.3	–	+ 0.3	+ 14.4	+ 0.3	+ 4.1	+ 0.9	+ 1.3	+ 3.3	+ 0.4	+ 0.1	+ 1.7
Q2	+ 4.0	–	+ 0.3	–	+ 0.3	+ 4.0	+ 0.1	+ 0.3	– 0.2	+ 1.7	– 1.3	+ 0.4	+ 0.1	– 0.6
Q3	+ 2.8	–	+ 0.3	–	+ 0.3	+ 2.3	+ 0.2	+ 0.5	– 0.7	+ 0.0	+ 1.7	+ 0.1	– 0.2	+ 0.9
Q4	– 5.5	–	– 0.1	–	– 0.1	– 6.2	– 0.1	– 1.7	+ 0.6	– 2.0	– 0.4	– 0.5	+ 0.9	– 1.4
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
Medium-term lending															
2018 Q1	+ 2.0	–	+ 0.0	–	+ 0.0	+ 1.2	+ 0.4	– 0.2	– 0.1	+ 0.4	+ 0.4	– 0.0	– 0.1	+ 0.1
Q2	+ 8.9	–	+ 0.6	–	+ 0.6	+ 7.3	+ 0.6	+ 3.0	– 0.4	+ 0.4	+ 0.2	+ 0.1	+ 0.3	+ 0.6
Q3	+ 4.6	–	+ 0.9	–	+ 0.9	+ 3.6	+ 0.5	– 0.6	– 0.1	+ 0.3	– 0.2	+ 0.1	+ 0.6	+ 0.5
Q4	+ 3.9	–	+ 0.6	–	+ 0.6	+ 3.4	+ 0.6	+ 0.1	+ 0.2	+ 0.4	+ 0.9	+ 0.1	– 0.5	+ 0.9
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
Long-term lending															
2018 Q1	+ 17.4	+ 10.6	+ 10.8	+ 8.1	+ 2.7	+ 10.3	+ 4.2	+ 0.7	+ 0.9	+ 0.4	+ 0.5	– 0.1	– 0.4	+ 0.6
Q2	+ 24.1	+ 15.4	+ 16.9	+ 11.8	+ 5.1	+ 11.7	+ 5.8	+ 0.8	+ 0.1	+ 0.7	+ 0.6	+ 0.6	– 0.3	+ 1.6
Q3	+ 27.8	+ 12.9	+ 18.2	+ 11.1	+ 7.1	+ 13.5	+ 5.3	+ 1.4	+ 1.1	+ 0.6	+ 0.8	+ 0.6	– 0.7	+ 2.7
Q4	+ 20.1	+ 10.8	+ 14.7	+ 8.9	+ 5.8	+ 9.6	+ 4.3	+ 0.6	– 0.1	+ 0.6	– 0.4	+ 0.2	– 0.6	+ 0.5
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

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

IV. Banks

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

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 June	3,473.1	1,996.6	856.7	221.2	635.6	51.4	584.2	579.3	40.6	32.6	15.3	0.7
July	3,473.2	2,002.6	852.3	218.3	634.0	52.0	582.1	578.2	40.0	32.8	14.9	1.5
Aug.	3,485.0	2,020.0	847.9	215.1	632.8	53.8	579.0	577.6	39.5	33.1	14.9	0.5
Sep.	3,482.9	2,022.5	844.0	210.9	633.0	54.7	578.3	577.3	39.1	33.9	14.8	0.3
Oct.	3,504.0	2,044.7	843.7	210.3	633.4	55.1	578.3	577.0	38.6	33.7	14.9	0.7
Nov.	3,537.4	2,079.6	843.0	208.1	635.0	55.8	579.2	576.9	37.9	33.7	14.9	0.4
Dec.	3,537.6	2,080.1	841.5	203.4	638.2	56.8	581.4	578.6	37.3	33.9	14.9	0.5
2019 Jan.	3,540.8	2,079.4	846.3	212.7	633.6	57.1	576.4	578.5	36.7	33.8	14.9	0.8
Feb.	3,554.5	2,088.8	850.1	217.9	632.2	56.2	576.0	579.5	36.1	34.0	15.1	0.6
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
												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 June	+ 1.8	– 6.0	+ 9.1	+ 10.3	– 1.2	– 0.5	– 0.7	– 0.9	– 0.4	+ 0.3	+ 0.5	– 0.0
July	+ 0.1	+ 6.1	– 4.4	– 2.9	– 1.5	+ 0.6	– 2.1	– 1.0	– 0.6	+ 0.2	– 0.3	+ 0.8
Aug.	+ 11.9	+ 17.3	– 4.3	– 3.2	– 1.1	+ 1.9	– 3.1	– 0.6	– 0.5	+ 0.5	– 0.0	– 1.0
Sep.	– 1.9	+ 2.7	– 3.9	– 4.1	+ 0.2	+ 0.9	– 0.6	– 0.3	– 0.4	+ 0.6	– 0.1	– 0.1
Oct.	+ 21.2	+ 22.2	– 0.2	– 0.6	+ 0.4	+ 0.4	– 0.0	– 0.3	– 0.5	– 0.2	+ 0.0	+ 0.4
Nov.	+ 33.4	+ 34.8	– 0.5	– 2.3	+ 1.7	+ 0.7	+ 1.0	– 0.1	– 0.7	– 0.0	+ 0.0	– 0.3
Dec.	+ 0.2	+ 0.8	– 1.8	– 4.7	+ 2.9	+ 1.0	+ 1.9	+ 1.7	– 0.6	+ 0.2	– 0.0	+ 0.1
2019 Jan.	+ 3.2	– 0.7	+ 4.7	+ 9.3	– 4.6	+ 0.3	– 4.9	– 0.2	– 0.6	– 0.0	– 0.0	+ 0.4
Feb.	+ 13.6	+ 9.3	+ 3.9	+ 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
	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 June	221.4	63.3	150.0	79.3	70.7	24.9	45.8	3.8	4.3	25.8	2.2	–
July	214.9	57.0	149.9	77.3	72.6	25.8	46.8	3.8	4.3	25.7	2.2	0.7
Aug.	223.9	62.7	153.2	79.1	74.0	25.7	48.3	3.8	4.3	25.7	2.2	–
Sep.	221.1	60.4	152.7	76.9	75.9	27.1	48.8	3.8	4.3	25.6	2.2	–
Oct.	216.5	57.5	151.1	73.8	77.3	27.3	50.0	3.7	4.2	25.3	2.2	–
Nov.	224.6	62.6	154.0	74.8	79.1	27.9	51.2	3.8	4.2	25.3	2.2	–
Dec.	218.9	62.7	148.2	67.9	80.3	28.5	51.8	3.7	4.2	25.3	2.2	–
2019 Jan.	221.7	59.2	154.7	74.8	79.8	29.2	50.6	3.7	4.2	25.2	2.2	–
Feb.	230.4	63.0	159.5	80.1	79.4	28.4	51.0	3.8	4.1	25.2	2.2	–
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
												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 June	+ 5.3	+ 0.5	+ 4.9	+ 4.5	+ 0.4	– 0.2	+ 0.6	+ 0.0	– 0.0	– 0.2	– 0.0	–
July	– 6.4	– 6.3	– 0.1	– 2.0	+ 1.9	+ 0.9	+ 1.0	– 0.0	+ 0.0	– 0.0	– 0.0	+ 0.7
Aug.	+ 9.1	+ 5.7	+ 3.3	+ 1.9	+ 1.4	– 0.1	+ 1.5	+ 0.0	– 0.0	+ 0.1	+ 0.0	– 0.7
Sep.	– 2.9	– 2.5	– 0.4	– 2.3	+ 1.9	+ 1.3	+ 0.5	– 0.0	– 0.0	– 0.0	+ 0.0	–
Oct.	– 4.7	– 2.9	– 1.7	– 3.0	+ 1.3	+ 0.2	+ 1.1	– 0.0	– 0.0	– 0.3	+ 0.0	–
Nov.	+ 8.1	+ 5.1	+ 3.0	+ 1.0	+ 2.0	+ 0.7	+ 1.3	+ 0.0	– 0.0	+ 0.0	+ 0.0	–
Dec.	– 5.7	+ 0.1	– 5.7	– 6.9	+ 1.2	+ 0.6	+ 0.6	– 0.0	– 0.0	– 0.0	+ 0.0	–
2019 Jan.	+ 2.7	– 3.5	+ 6.3	+ 6.9	– 0.6	+ 0.6	– 1.2	– 0.1	– 0.0	– 0.1	+ 0.0	–
Feb.	+ 8.7	+ 3.8	+ 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

***** 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 June	3,251.8	1,933.3	706.7	141.8	564.9	26.5	538.4	575.5	36.3	6.9	13.1	0.7
July	3,258.2	1,945.7	702.4	141.0	561.4	26.1	535.3	574.5	35.7	7.0	12.8	0.8
Aug.	3,261.1	1,957.3	694.7	135.9	558.8	28.1	530.7	573.8	35.3	7.4	12.7	0.5
Sep.	3,261.8	1,962.1	691.2	134.1	557.1	27.6	529.5	573.5	34.8	8.2	12.6	0.3
Oct.	3,287.5	1,987.2	692.6	136.5	556.1	27.8	528.3	573.3	34.4	8.4	12.7	0.7
Nov.	3,312.8	2,017.0	689.1	133.3	555.8	27.8	528.0	573.1	33.7	8.4	12.7	0.4
Dec.	3,318.7	2,017.4	693.3	135.4	557.9	28.3	529.6	574.9	33.1	8.6	12.7	0.5
2019 Jan.	3,319.1	2,020.2	691.6	137.9	553.7	27.9	525.8	574.8	32.5	8.7	12.7	0.8
Feb.	3,324.1	2,025.8	690.6	137.8	552.8	27.8	525.0	575.8	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
												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 June	– 3.6	– 6.5	+ 4.2	+ 5.8	– 1.6	– 0.3	– 1.3	– 0.9	– 0.4	+ 0.5	+ 0.5	– 0.0
July	+ 6.6	+ 12.4	– 4.2	– 0.8	– 3.4	– 0.4	– 3.1	– 1.0	– 0.6	+ 0.2	– 0.3	+ 0.1
Aug.	+ 2.8	+ 11.6	– 7.7	– 5.1	– 2.6	+ 2.0	– 4.6	– 0.7	– 0.5	+ 0.4	– 0.0	– 0.4
Sep.	+ 1.0	+ 5.2	– 3.5	– 1.8	– 1.7	– 0.5	– 1.2	– 0.3	– 0.4	+ 0.6	– 0.1	– 0.1
Oct.	+ 25.8	+ 25.1	+ 1.5	+ 2.4	– 1.0	+ 0.1	– 1.1	– 0.3	– 0.4	+ 0.1	+ 0.0	+ 0.4
Nov.	+ 25.3	+ 29.8	– 3.6	– 3.3	– 0.3	+ 0.1	– 0.4	– 0.1	– 0.7	– 0.0	+ 0.0	– 0.3
Dec.	+ 5.9	+ 0.8	+ 3.9	+ 2.2	+ 1.7	+ 0.4	+ 1.3	+ 1.8	– 0.6	+ 0.2	– 0.0	+ 0.1
2019 Jan.	+ 0.5	+ 2.8	– 1.6	+ 2.4	– 4.0	– 0.3	– 3.7	– 0.1	– 0.6	+ 0.1	– 0.0	+ 0.4
Feb.	+ 4.9	+ 5.6	– 1.1	– 0.1	– 0.9	– 0.1	– 0.8	+ 1.0	– 0.6	+ 0.1	+ 0.2	– 0.2
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
	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 June	1,030.4	562.4	448.5	92.7	355.8	14.2	341.6	7.2	12.4	2.9	10.7	0.7
July	1,033.0	569.8	444.0	91.5	352.5	14.0	338.5	7.2	12.1	2.6	10.4	0.8
Aug.	1,028.5	573.1	436.2	86.3	349.9	16.3	333.6	7.2	12.0	2.5	10.3	0.5
Sep.	1,021.9	570.3	432.5	84.5	348.0	16.0	332.0	7.2	11.9	2.6	10.3	0.3
Oct.	1,039.7	586.7	434.0	86.6	347.4	16.4	331.0	7.1	11.8	2.6	10.3	0.7
Nov.	1,040.8	590.9	431.3	84.2	347.1	16.5	330.6	7.1	11.6	2.6	10.3	0.4
Dec.	1,035.4	584.0	432.9	86.0	346.9	17.2	329.7	7.0	11.4	2.8	10.3	0.5
2019 Jan.	1,036.9	587.8	430.7	88.3	342.4	16.9	325.5	7.0	11.4	2.6	10.2	0.8
Feb.	1,026.7	579.2	429.1	88.2	340.9	16.7	324.2	7.0	11.4	2.7	10.4	0.6
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
												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 June	– 11.9	– 15.9	+ 4.1	+ 5.8	– 1.8	– 0.4	– 1.4	– 0.0	– 0.0	+ 0.0	+ 0.5	– 0.0
July	+ 2.7	+ 7.4	– 4.4	– 1.2	– 3.3	– 0.2	– 3.0	– 0.0	– 0.3	– 0.2	– 0.3	+ 0.1
Aug.	– 4.5	+ 3.4	– 7.8	– 5.2	– 2.6	+ 2.3	– 4.9	+ 0.1	– 0.1	– 0.1	– 0.1	– 0.4
Sep.	– 6.5	– 2.7	– 3.6	– 1.8	– 1.9	– 0.2	– 1.6	– 0.1	– 0.1	+ 0.1	– 0.1	– 0.1
Oct.	+ 17.8	+ 16.4	+ 1.5	+ 2.1	– 0.5	+ 0.4	– 0.9	– 0.0	– 0.1	+ 0.0	– 0.0	+ 0.4
Nov.	+ 1.1	+ 4.1	– 2.8	– 2.4	– 0.4	+ 0.1	– 0.5	– 0.0	– 0.2	– 0.0	+ 0.0	– 0.3
Dec.	– 5.4	– 6.6	+ 1.3	+ 1.9	– 0.5	+ 0.6	– 1.2	– 0.1	– 0.1	+ 0.2	– 0.0	+ 0.1
2019 Jan.	+ 1.6	+ 3.9	– 2.2	+ 2.2	– 4.4	– 0.2	– 4.2	– 0.0	– 0.1	– 0.1	– 0.0	+ 0.4
Feb.	– 10.3	– 8.7	– 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

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

IV. Banks

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

€ billion

Period	Deposits of domestic households and non-profit institutions, total	Sight deposits						Time deposits [1,2]					
		Total	by creditor group					Total	by creditor group				
			Domestic households				Domestic non-profit institutions		Domestic households				
			Total	Self-employed persons	Employees	Other individuals			Total	Self-employed persons	Employees	Other individuals	
	End of year or month*												
2016	2,094.5	1,222.0	1,186.9	206.0	828.6	152.3	35.1	262.1	248.6	25.0	182.0	41.5	
2017	2,179.7	1,323.1	1,286.6	223.4	907.6	155.7	36.5	257.5	243.5	23.4	182.9	37.1	
2018	2,283.4	1,433.5	1,396.1	248.4	991.3	156.4	37.4	260.4	246.7	21.3	188.6	36.7	
2018 Dec.	2,283.4	1,433.5	1,396.1	248.4	991.3	156.4	37.4	260.4	246.7	21.3	188.6	36.7	
2019 Jan.	2,282.2	1,432.4	1,395.7	251.2	988.1	156.4	36.6	260.9	247.2	21.4	188.8	37.0	
Feb.	2,297.4	1,446.6	1,408.9	252.6	999.8	156.5	37.7	261.5	247.7	21.5	189.3	36.9	
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	
	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	
2018 Dec.	+ 11.3	+ 7.3	+ 7.2	– 0.2	+ 6.3	+ 1.1	+ 0.2	+ 2.6	+ 2.3	+ 0.1	+ 1.9	+ 0.3	
2019 Jan.	– 1.1	– 1.1	– 0.3	+ 2.8	– 3.3	+ 0.1	– 0.7	+ 0.6	+ 0.5	+ 0.0	+ 0.2	+ 0.3	
Feb.	+ 15.2	+ 14.2	+ 13.2	+ 1.4	+ 10.9	+ 0.8	+ 1.1	+ 0.6	+ 0.6	+ 0.1	+ 0.5	– 0.1	
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	

* 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
2018 Dec.	218.9	10.5	4.7	1.7	4.1	0.1	12.2	39.0	13.4	11.5	13.0	1.2	13.0
2019 Jan.	221.7	10.1	4.8	1.2	4.1	0.1	12.2	43.3	12.1	18.4	11.7	1.2	12.9
Feb.	230.4	10.0	5.0	1.0	4.0	0.1	12.2	49.9	12.7	24.0	12.1	1.2	13.0
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
	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
2018 Dec.	– 5.7	+ 0.5	– 0.2	+ 0.3	+ 0.4	–	– 0.2	– 1.6	+ 2.2	– 2.6	– 1.2	– 0.0	+ 0.2
2019 Jan.	+ 2.7	– 0.4	+ 0.0	– 0.5	– 0.0	+ 0.0	+ 0.0	+ 4.2	– 1.3	+ 6.9	– 1.3	– 0.0	– 0.1
Feb.	+ 8.7	+ 0.2	+ 0.2	– 0.0	– 0.0	+ 0.0	– 0.0	+ 6.4	+ 0.7	+ 5.5	+ 0.3	– 0.0	+ 0.0
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

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

IV. Banks

Savings deposits [3]								Memo item:			
	by maturity										
		more than 1 year [2]									
			of which:								
Domestic non-profit institutions	up to and including 1 year	Total	up to and including 2 years	more than 2 years	Total	Domestic households	Domestic non-profit institutions	Bank savings bonds [4]	Fiduciary loans	Subordinated liabilities (excluding negotiable debt securities) [5]	Liabilities arising from repos	Period
End of year or month*												
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	49.4	211.0	11.1	199.9	567.9	560.6	7.2	21.7	5.8	2.4	–	2018 Dec.
13.8	49.6	211.3	11.1	200.3	567.8	560.5	7.3	21.1	6.0	2.4	–	2019 Jan.
13.8	49.6	211.9	11.1	200.8	568.7	561.5	7.3	20.6	6.1	2.4	–	Feb.
13.7	49.8	212.1	11.1	201.0	571.2	563.7	7.5	20.2	6.2	2.5	–	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
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
+ 0.2	+ 0.3	+ 2.2	– 0.2	+ 2.5	+ 1.9	+ 2.0	– 0.1	– 0.4	+ 0.0	+ 0.0	–	2018 Dec.
+ 0.1	+ 0.2	+ 0.4	– 0.1	+ 0.4	– 0.1	– 0.1	+ 0.0	– 0.5	+ 0.2	+ 0.0	–	2019 Jan.
– 0.0	– 0.0	+ 0.6	+ 0.1	+ 0.5	+ 1.0	+ 1.0	– 0.0	– 0.5	+ 0.1	+ 0.0	–	Feb.
– 0.1	+ 0.2	+ 0.2	– 0.0	+ 0.2	+ 2.5	+ 2.3	+ 0.2	– 0.4	+ 0.0	+ 0.0	–	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

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						
		Time deposits [3]						Time deposits				
Total	Sight deposits	for up to and including 1 year	for more than 1 year	Savings deposits and bank savings bonds [2,4]	Memo item: Fiduciary loans	Total	Sight deposits	for up to and including 1 year	for more than 1 year	Savings deposits and bank savings bonds [2]	Memo item: Fiduciary loans	Period
End of year or month*												
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
65.4	35.1	9.8	14.9	5.7	0.0	103.9	9.5	45.0	48.4	1.0	–	2018 Dec.
57.7	28.0	9.2	14.9	5.6	0.0	110.6	14.4	46.1	49.1	1.0	–	2019 Jan.
61.6	31.5	9.6	14.9	5.7	0.0	108.8	13.7	45.6	48.5	1.0	–	Feb.
60.3	30.4	9.5	14.8	5.6	0.0	106.2	14.0	41.8	49.2	1.0	–	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
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
+ 2.7	+ 2.6	+ 0.1	– 0.1	+ 0.0	+ 0.0	– 7.2	– 4.5	– 4.7	+ 2.1	– 0.0	–	2018 Dec.
– 7.8	– 7.1	– 0.6	+ 0.0	– 0.1	– 0.0	+ 6.7	+ 4.9	+ 1.1	+ 0.7	– 0.0	–	2019 Jan.
+ 3.9	+ 3.5	+ 0.3	+ 0.0	+ 0.0	–	– 1.7	– 0.6	– 0.5	– 0.7	+ 0.0	–	Feb.
– 1.4	– 1.2	– 0.1	– 0.1	– 0.0	–	– 2.7	+ 0.3	– 3.8	+ 0.8	+ 0.0	–	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

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

IV. Banks

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

€ billion

Period	Savings deposits [1]								Memo item: 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 Jan.	585.4	578.5	541.4	331.6	37.0	26.9	7.0	6.2	0.1	40.6	36.7	27.4	3.9
Feb.	586.5	579.5	542.5	329.9	37.1	27.0	7.0	6.2	0.1	40.0	36.1	26.9	3.9
Mar.	588.9	582.0	544.7	330.4	37.3	27.3	6.9	6.2	0.1	39.7	35.8	26.7	3.9
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	544.5	326.9	38.1	28.1	6.9	6.1	0.1	39.1	35.2	26.4	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 Jan.	– 0.2	– 0.2	+ 0.3	– 1.7	– 0.5	– 0.2	– 0.0	– 0.0	.	– 0.6	– 0.6	– 0.5	+ 0.0
Feb.	+ 1.1	+ 1.1	+ 1.0	– 1.7	+ 0.1	+ 0.1	– 0.0	– 0.0	.	– 0.6	– 0.6	– 0.4	+ 0.0
Mar.	+ 2.5	+ 2.5	+ 2.2	+ 0.3	+ 0.2	+ 0.3	– 0.0	– 0.0	.	– 0.3	– 0.3	– 0.2	+ 0.0
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

***** 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 Jan.	1,112.4	138.1	30.0	358.3	84.6	105.8	3.2	21.6	5.8	985.1	0.7	0.1	30.9	0.4
Feb.	1,128.7	139.1	30.4	359.7	81.8	103.0	3.1	21.0	5.5	1,004.7	0.8	0.1	30.9	0.4
Mar.	1,139.1	139.4	31.9	374.4	92.4	115.6	2.9	20.8	5.4	1,002.7	0.7	0.1	29.9	0.7
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
	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 Jan.	+ 12.7	– 1.3	+ 2.5	+ 2.3	– 3.7	– 0.4	+ 0.1	– 0.4	– 0.3	+ 13.6	+ 0.1	+ 0.0	+ 0.2	–
Feb.	+ 16.3	+ 1.0	+ 0.4	+ 1.4	– 2.8	– 2.7	– 0.1	– 0.6	– 0.3	+ 19.7	+ 0.1	+ 0.0	+ 0.1	–
Mar.	+ 10.4	+ 0.3	+ 1.5	+ 14.7	+ 10.6	+ 12.5	– 0.2	– 0.1	– 0.1	– 2.0	– 0.1	+ 0.0	– 1.0	+ 0.1
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

***** 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).

IV. Banks

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

€ billion

End of year/month	Number of associations	Balance sheet total 13	Lending to banks (MFIs)			Lending to non-banks (non-MFIs)				Deposits of banks (MFIs) 5		Deposits of non-banks (non-MFIs)		Bearer debt securities outstanding	Capital (including published reserves) 7	Memo item: New contracts entered into in year or month 8
			Credit balances and loans (excluding building loans) 1	Building loans 2	Bank debt securities 3	Building loans			Securities (including Treasury bills and Treasury discount paper) 4	Deposits under savings and loan contracts	Sight and time deposits	Deposits under savings and loan contracts	Sight and time deposits 6			
						Loans under savings and loan contracts	Interim and bridging loans	Other building loans								
All building and loan associations																
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 Mar.	20	235.3	39.9	0.0	16.0	11.8	111.6	26.1	25.5	2.8	20.6	175.7	9.9	3.2	11.8	7.4
Apr.	20	235.7	39.5	0.0	16.2	11.8	111.9	26.2	25.6	2.9	21.0	175.7	10.0	3.2	11.9	7.4
May	19	236.3	38.9	0.0	16.2	11.8	112.5	26.4	25.6	2.9	20.1	176.4	10.0	3.1	11.9	7.9
Private building and loan associations																
2019 Mar.	12	163.3	24.2	–	6.5	8.9	86.6	22.4	11.3	1.7	18.8	114.1	9.7	3.2	8.2	4.7
Apr.	12	163.6	23.8	–	6.8	8.9	86.9	22.4	11.5	1.7	19.2	113.9	9.7	3.2	8.3	4.6
May	11	163.6	23.1	–	6.7	8.8	87.4	22.4	11.4	1.7	18.3	114.4	9.6	3.1	8.3	4.8
Public building and loan associations																
2019 Mar.	8	72.0	15.7	0.0	9.4	3.0	24.9	3.7	14.2	1.1	1.8	61.7	0.3	–	3.7	2.7
Apr.	8	72.2	15.7	0.0	9.4	3.0	25.0	3.8	14.2	1.1	1.8	61.8	0.3	–	3.7	2.7
May	8	72.6	15.9	0.0	9.5	2.9	25.2	4.0	14.1	1.1	1.9	62.0	0.4	–	3.7	3.1

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 Mar.	2.2	0.0	0.6	3.9	2.0	3.5	1.3	0.3	0.4	0.3	1.7	17.2	6.9	0.6	1.3	0.0
Apr.	2.2	0.0	0.7	4.7	2.8	3.9	1.6	0.4	0.5	0.4	1.8	17.6	7.2	0.7		0.0
May	2.6	0.0	0.7	4.1	2.0	3.5	1.3	0.3	0.4	0.3	1.8	17.8	7.2	0.6		0.0
Private building and loan associations																
2019 Mar.	1.5	0.0	0.3	2.9	1.4	2.6	1.0	0.2	0.3	0.2	1.4	12.2	3.8	0.5	1.0	0.0
Apr.	1.4	0.0	0.4	3.3	1.8	3.0	1.2	0.3	0.4	0.3	1.4	12.2	3.8	0.6		0.0
May	1.6	0.0	0.3	3.0	1.3	2.6	0.9	0.2	0.3	0.2	1.5	12.4	3.7	0.5		0.0
Public building and loan associations																
2019 Mar.	0.8	0.0	0.3	1.0	0.6	0.8	0.4	0.1	0.1	0.1	0.3	4.9	3.1	0.1	0.3	0.0
Apr.	0.8	0.0	0.3	1.5	1.0	0.9	0.4	0.1	0.1	0.1	0.4	5.3	3.4	0.1		0.0
May	1.0	0.0	0.4	1.1	0.7	0.8	0.4	0.1	0.1	0.1	0.4	5.4	3.5	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 July	48	183	1,523.3	472.0	459.9	186.8	273.1	12.1	523.2	443.2	23.6	419.6	80.0	528.1	328.8
Aug.	48	182	1,501.4	450.4	438.8	183.2	255.6	11.6	524.4	442.6	22.5	420.1	81.8	526.6	328.2
Sep.	48	183	1,494.1	452.1	441.2	185.4	255.8	10.8	541.6	456.5	21.9	434.7	85.1	500.5	318.4
Oct.	49	184	1,487.3	439.9	428.6	205.9	222.7	11.3	535.8	448.0	20.3	427.8	87.8	511.6	336.0
Nov.	49	184	1,456.1	454.1	443.4	206.9	236.5	10.8	519.7	433.1	20.7	412.4	86.6	482.2	313.7
Dec.	49	183	1,401.2	403.8	392.8	192.1	200.7	11.0	516.8	427.7	20.0	407.7	89.1	480.5	309.0
2019 Jan.	50	184	1,451.6	419.4	408.0	190.8	217.2	11.4	541.3	453.3	19.8	433.5	88.0	491.0	309.4
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
															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 Aug.	–	– 1	– 22.4	– 23.1	– 22.6	– 3.6	– 19.0	– 0.5	– 0.5	– 2.2	– 1.1	– 1.1	+ 1.7	– 2.0	– 1.5
Sep.	–	+ 1	– 7.7	+ 0.6	+ 1.4	+ 2.3	– 0.9	– 0.8	+ 15.3	+ 12.3	– 0.6	+ 12.9	+ 3.0	– 26.6	– 10.6
Oct.	+ 1	+ 1	– 8.5	– 16.3	– 16.7	+ 20.5	– 37.2	+ 0.4	– 12.1	– 14.1	– 1.6	– 12.5	+ 1.9	+ 9.5	+ 15.0
Nov.	–	–	– 30.9	+ 14.9	+ 15.4	+ 1.0	+ 14.4	– 0.5	– 14.9	– 13.8	+ 0.5	– 14.3	– 1.1	– 29.1	– 21.8
Dec.	–	– 1	– 54.5	– 49.4	– 49.7	– 14.8	– 34.9	+ 0.3	– 1.2	– 3.9	– 0.7	– 3.3	+ 2.8	– 1.3	– 3.9
2019 Jan.	+ 1	+ 1	+ 50.5	+ 15.5	+ 15.2	– 1.3	+ 16.5	+ 0.3	+ 24.1	+ 25.4	– 0.2	+ 25.6	– 1.3	+ 10.5	+ 0.4
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.	± 0	+ 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
	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 July	19	47	248.5	62.2	56.0	24.5	31.5	6.3	136.5	112.6	13.5	99.1	23.8	49.8	–
Aug.	19	47	245.8	56.7	50.6	21.1	29.5	6.1	137.9	113.2	13.4	99.8	24.7	51.1	–
Sep.	18	46	244.8	55.2	49.4	19.8	29.6	5.8	138.8	114.5	13.7	100.8	24.4	50.8	–
Oct.	17	45	243.8	52.1	46.2	19.5	26.7	5.9	139.3	114.2	13.5	100.7	25.1	52.4	–
Nov.	17	45	239.8	51.0	45.0	20.4	24.7	6.0	136.8	110.8	13.6	97.2	26.1	52.0	–
Dec.	17	43	237.2	51.2	45.4	20.1	25.3	5.8	136.4	111.7	13.8	97.8	24.7	49.6	–
2019 Jan.	16	42	234.8	49.0	42.8	18.1	24.6	6.2	135.4	109.4	13.9	95.4	26.0	50.5	–
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	–
															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 Aug.	–	–	– 3.4	– 6.0	– 5.7	– 3.3	– 2.4	– 0.2	+ 1.2	+ 0.3	– 0.1	+ 0.4	+ 0.9	+ 1.4	–
Sep.	– 1	– 1	– 1.3	– 1.7	– 1.5	– 1.3	– 0.1	– 0.3	+ 0.8	+ 1.1	+ 0.3	+ 0.8	– 0.3	– 0.4	–
Oct.	– 1	– 1	– 2.1	– 3.8	– 3.6	– 0.3	– 3.3	– 0.1	+ 0.0	– 0.7	– 0.2	– 0.6	+ 0.7	+ 1.6	–
Nov.	–	–	– 3.8	– 1.0	– 1.1	+ 0.9	– 2.0	+ 0.1	– 2.4	– 3.4	+ 0.1	– 3.4	+ 1.0	– 0.4	–
Dec.	–	– 2	– 2.2	+ 0.4	+ 0.5	– 0.3	+ 0.8	– 0.1	– 0.3	+ 1.1	+ 0.2	+ 0.8	– 1.3	– 2.4	–
2019 Jan.	– 1	– 1	– 2.2	– 2.1	– 2.5	– 2.0	– 0.5	+ 0.4	– 1.0	– 2.3	+ 0.1	– 2.4	+ 1.3	+ 0.8	–
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	–

* 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
972.2	662.1	405.8	256.3	310.1	10.8	9.3	1.5	299.3	101.5	53.1	396.5	323.8	2018 July
957.3	651.9	404.6	247.4	305.3	10.4	8.8	1.5	295.0	108.1	53.2	382.8	325.2	Aug.
964.0	648.5	417.8	230.7	315.4	10.8	9.3	1.5	304.6	101.5	53.5	375.2	313.0	Sep.
938.4	608.2	400.9	207.3	330.2	8.8	7.3	1.5	321.4	100.2	53.9	394.7	330.9	Oct.
931.9	611.9	392.8	219.1	319.9	13.1	11.3	1.8	306.8	101.4	53.8	369.0	307.1	Nov.
897.1	607.2	428.8	178.4	290.0	11.4	9.7	1.8	278.5	91.2	54.0	358.9	302.6	Dec.
928.8	622.0	420.2	201.8	306.7	9.5	7.7	1.7	297.3	93.9	54.0	375.0	304.6	2019 Jan.
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.
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
– 16.4	– 11.5	– 1.2	– 10.3	– 4.8	– 0.5	– 0.5	+ 0.0	– 4.4	+ 6.1	+ 0.1	– 13.6	+ 0.4	2018 Aug.
+ 5.7	– 4.3	+ 13.2	– 17.6	+ 10.0	+ 0.4	+ 0.4	+ 0.0	+ 9.5	– 7.1	+ 0.4	– 7.7	– 13.1	Sep.
– 29.3	– 43.9	– 16.9	– 26.9	+ 14.6	– 2.0	– 2.0	–	+ 16.6	– 2.9	+ 0.4	+ 19.5	+ 15.0	Oct.
– 5.9	+ 4.3	– 8.0	+ 12.3	– 10.2	+ 4.3	+ 4.0	+ 0.3	– 14.5	+ 1.4	– 0.1	– 25.7	– 23.3	Nov.
– 33.9	– 4.0	+ 36.0	– 40.0	– 29.9	– 1.7	– 1.6	– 0.1	– 28.2	– 9.8	+ 0.1	– 10.1	– 3.7	Dec.
+ 31.7	+ 14.9	– 8.6	+ 23.5	+ 16.8	– 2.0	– 1.9	– 0.0	+ 18.7	+ 2.7	– 0.0	+ 16.1	+ 2.0	2019 Jan.
+ 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.
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
184.1	77.4	40.3	37.2	106.7	12.3	6.3	5.9	94.4	12.7	22.9	28.8	–	2018 July
181.4	78.7	40.2	38.5	102.8	9.5	5.6	3.8	93.3	12.7	22.9	28.7	–	Aug.
178.9	75.0	37.8	37.3	103.9	10.1	6.1	3.9	93.8	13.9	22.8	29.2	–	Sep.
175.5	73.4	36.5	36.8	102.1	9.6	6.0	3.6	92.6	14.1	22.8	31.3	–	Oct.
172.2	72.6	35.7	37.0	99.5	9.1	5.5	3.6	90.4	13.7	22.5	31.4	–	Nov.
171.5	71.6	36.1	35.5	100.0	9.1	6.4	2.7	90.8	14.3	22.4	29.0	–	Dec.
168.3	70.9	35.5	35.4	97.4	7.0	4.3	2.7	90.4	16.1	21.8	28.7	–	2019 Jan.
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.
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
– 3.0	+ 1.1	– 0.1	+ 1.2	– 4.0	– 2.8	– 0.7	– 2.1	– 1.3	+ 0.0	+ 0.0	– 0.5	–	2018 Aug.
– 2.8	– 3.8	– 2.4	– 1.4	+ 1.0	+ 0.6	+ 0.5	+ 0.1	+ 0.4	+ 1.2	– 0.1	+ 0.4	–	Sep.
– 4.3	– 2.1	– 1.2	– 0.9	– 2.1	– 0.5	– 0.2	– 0.3	– 1.6	+ 0.2	+ 0.0	+ 1.9	–	Oct.
– 3.2	– 0.7	– 0.8	+ 0.2	– 2.5	– 0.4	– 0.4	– 0.0	– 2.1	– 0.4	– 0.3	+ 0.1	–	Nov.
– 0.3	– 0.9	+ 0.4	– 1.3	+ 0.6	+ 0.0	+ 0.9	– 0.9	+ 0.6	+ 0.6	– 0.1	– 2.4	–	Dec.
– 3.2	– 0.6	– 0.6	– 0.0	– 2.5	– 2.1	– 2.1	–	– 0.4	+ 1.8	– 0.6	– 0.3	–	2019 Jan.
– 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.

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 Apr.	12,922.4	129.2	128.8	1,404.6	1,275.8	0.0
May	.	.	.	.	.	.
June p	13,184.5	131.8	131.5	...	...	...

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 Apr.	3,588,173	27.8	35,882	35,729	505,273	469,544	0
May	.	.	.	.	.	.	.
June p	3,687,704	28.0	36,877	36,724	...	...	...

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 Apr.	7,551	5,159	2,896	11,609	6,723	98	1,693
May	.	.	.	.	.	.	.
June	7,768	5,379	3,038	11,866	6,789	91	1,793

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 Apr.	2,504,513	1,338	396,918	579,681	105,717
May	.	.	.	.	.
June	2,551,214	1,569	438,879	582,485	113,552

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					
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 June 19	6,213	6,213	0.00	–	–	–	7
June 26	6,426	6,426	0.00	–	–	–	7
July 3	5,071	5,071	0.00	–	–	–	7
July 10	2,927	2,927	0.00	–	–	–	7
July 17	2,892	2,892	0.00	–	–	–	7
Long-term refinancing operations							
2019 Apr. 25	860	860	[2] ...	–	–	–	98
May 30	1,399	1,399	[2] ...	–	–	–	91
June 27	966	966	[2] ...	–	–	–	91

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

4. Money market rates, by month *

% per annum

Monthly average	EONIA [1]	EURIBOR [2]: One-week funds	One-month funds	Three-month funds	Six-month funds	Twelve-month funds
2018 Dec.	– 0.36	– 0.38	– 0.37	– 0.31	– 0.24	– 0.13
2019 Jan.	– 0.37	– 0.38	– 0.37	– 0.31	– 0.24	– 0.12
Feb.	– 0.37	– 0.37	– 0.37	– 0.31	– 0.23	– 0.11
Mar.	– 0.37	– 0.38	– 0.37	– 0.31	– 0.23	– 0.11
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

***** 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 May	0.27	64,743	1.28	216,238	0.06	68,665	0.97	26,848
June	0.26	64,554	1.27	216,143	0.03	68,825	0.94	26,966
July	0.26	64,623	1.26	215,907	0.03	67,013	0.93	26,859
Aug.	0.25	64,215	1.25	216,126	0.03	67,659	0.92	27,206
Sep.	0.24	63,849	1.25	216,273	0.03	66,871	0.90	27,188
Oct.	0.24	63,652	1.24	215,766	0.04	66,681	0.89	27,535
Nov.	0.24	62,369	1.23	215,502	0.03	68,118	0.88	28,176
Dec.	0.23	63,057	1.23	217,570	0.01	68,323	0.87	28,597
2019 Jan.	0.23	62,837	1.21	217,168	0.01	68,701	0.86	28,839
Feb.	0.23	62,576	1.20	217,250	0.01	69,389	0.85	28,815
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

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 May	2.31	4,024	1.93	25,609	2.58	1,162,731	7.04	48,209	3.76	84,759	3.89	312,220
June	2.27	4,139	1.92	25,721	2.56	1,169,692	7.03	48,827	3.74	85,404	3.88	311,756
July	2.27	4,217	1.90	25,586	2.54	1,174,210	7.00	48,360	3.75	85,994	3.86	312,593
Aug.	2.28	4,215	1.89	25,643	2.52	1,180,809	7.00	48,053	3.75	86,634	3.85	313,801
Sep.	2.27	4,306	1.89	26,196	2.50	1,186,420	7.00	49,160	3.74	86,205	3.85	313,297
Oct.	2.25	4,311	1.87	26,171	2.48	1,191,048	7.17	50,033	3.54	85,254	3.83	313,604
Nov.	2.25	4,299	1.87	26,265	2.46	1,196,579	7.01	49,658	3.53	85,715	3.83	314,344
Dec.	2.27	4,242	1.86	26,203	2.44	1,199,525	7.10	51,196	3.53	85,387	3.81	312,896
2019 Jan.	2.27	4,379	1.85	25,867	2.42	1,200,982	7.19	49,709	3.52	85,499	3.79	314,143
Feb.	2.28	4,300	1.85	25,861	2.41	1,204,756	7.17	49,608	3.51	85,678	3.78	314,960
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	4,535	1.79	26,212	2.35	1,224,628	7.13	49,274	3.49	87,408	3.76	314,341

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 May	2.26	149,325	1.78	138,956	2.15	678,530
June	2.29	149,189	1.76	140,052	2.13	680,131
July	2.20	148,897	1.74	142,697	2.12	684,893
Aug.	2.22	148,026	1.74	144,021	2.11	688,709
Sep.	2.22	150,891	1.74	144,942	2.10	691,969
Oct.	2.21	147,714	1.73	147,743	2.08	696,222
Nov.	2.20	148,399	1.72	151,603	2.07	702,286
Dec.	2.24	146,721	1.72	150,727	2.06	703,722
2019 Jan.	2.22	151,176	1.70	152,824	2.04	707,410
Feb.	2.22	154,912	1.70	154,061	2.03	712,194
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

***** 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 May	0.02	1,360,605	0.36	4,235	0.42	446	0.62	587	0.16	538,616	0.27	40,277
June	0.02	1,370,363	0.30	4,294	0.51	597	0.66	737	0.16	538,165	0.26	39,811
July	0.02	1,375,299	0.27	5,005	0.40	626	0.63	693	0.16	537,703	0.26	39,331
Aug.	0.01	1,383,683	0.30	5,135	0.43	516	0.67	677	0.15	537,459	0.26	38,903
Sep.	0.01	1,391,356	0.31	4,831	0.40	476	0.64	645	0.15	537,477	0.25	38,579
Oct.	0.01	1,399,998	0.28	4,853	0.38	772	0.70	803	0.15	537,728	0.25	38,051
Nov.	0.02	1,425,632	0.30	4,599	0.39	752	0.65	752	0.15	538,222	0.25	37,420
Dec.	0.02	1,432,861	0.28	5,439	0.26	642	0.65	702	0.14	540,271	0.25	37,155
2019 Jan.	0.02	1,432,335	0.28	6,375	0.44	603	0.69	1,074	0.14	540,608	0.24	36,693
Feb.	0.02	1,446,689	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	543,433	0.26	37,857

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 May	– 0.03	440,268	– 0.04	9,576	0.11	490	0.34	587
June	– 0.03	424,633	– 0.10	11,185	0.06	240	0.23	447
July	– 0.02	429,934	– 0.13	11,466	0.08	354	0.29	754
Aug.	– 0.02	436,893	– 0.06	10,147	0.07	303	0.46	723
Sep.	– 0.02	433,078	– 0.10	9,835	0.07	347	0.23	375
Oct.	– 0.03	445,427	– 0.07	12,291	0.17	518	0.66	891
Nov.	– 0.03	448,301	– 0.08	12,192	0.13	376	0.78	1,035
Dec.	– 0.03	445,954	– 0.07	15,012	0.14	308	0.55	1,109
2019 Jan.	– 0.03	443,971	0.01	16,527	0.08	549	0.40	545
Feb.	– 0.03	439,934	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	460,121	– 0.03	12,080	0.23	641	0.40	311

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 May	5.87	5.85	9,002	7.40	1,846	6.12	292	4.42	3,737	6.91	4,973
June	5.87	5.85	9,052	7.39	1,870	6.25	279	4.39	3,737	6.92	5,036
July	6.02	6.00	9,543	7.42	2,140	6.64	312	4.57	3,715	6.93	5,516
Aug.	6.08	6.02	9,242	7.44	1,938	7.95	395	4.59	3,702	6.91	5,145
Sep.	5.96	5.91	8,166	7.33	1,629	8.14	372	4.41	3,239	6.79	4,555
Oct.	6.06	5.99	8,915	7.34	1,797	7.68	421	4.60	3,527	6.83	4,967
Nov.	5.84	5.83	8,668	7.19	1,694	7.21	489	4.40	3,599	6.80	4,580
Dec.	5.80	5.81	6,514	7.04	1,133	7.58	518	4.45	2,820	6.72	3,176
2019 Jan.	5.98	5.98	9,985	7.13	2,196	8.08	544	4.53	3,696	6.72	5,745
Feb.	5.80	5.83	9,354	6.98	1,934	7.98	486	4.44	3,556	6.55	5,312
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	5.79	9,899	6.79	1,839	8.80	428	4.46	3,770	6.45	5,701

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 +

Reporting period	Loans to households (cont'd)									
	Loans to households for other purposes [5] with an initial rate fixation of									
	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 May	2.04	5,257	1.84	1,476	1.87	2,165	2.48	737	2.07	2,355
June	2.06	6,370	1.93	1,713	1.87	2,607	2.58	903	2.07	2,860
July	2.06	6,380	1.88	2,123	1.94	2,532	2.35	910	2.08	2,938
Aug.	2.07	5,365	1.83	1,452	1.99	2,124	2.51	756	2.00	2,485
Sep.	2.08	4,952	1.76	1,425	1.98	2,265	2.51	634	2.05	2,053
Oct.	2.11	5,549	1.84	1,952	2.01	2,413	2.48	810	2.08	2,326
Nov.	1.96	5,394	1.75	1,743	1.76	2,263	2.51	720	1.98	2,411
Dec.	1.89	5,777	1.79	1,716	1.76	2,554	2.42	717	1.87	2,506
2019 Jan.	1.96	5,889	1.84	2,160	1.81	2,541	2.39	860	1.96	2,488
Feb.	1.99	4,707	1.78	1,409	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	5,255	1.75	1,397	1.79	2,318	2.44	813	1.82	2,124
	of which: Loans to sole proprietors									
2018 May	2.11	3,558	.	.	2.09	1,373	2.50	560	2.00	1,625
June	2.07	4,528	.	.	1.92	1,869	2.58	692	2.02	1,967
July	2.13	4,266	.	.	2.09	1,755	2.46	647	2.05	1,864
Aug.	2.13	3,553	.	.	2.12	1,431	2.56	563	1.98	1,559
Sep.	2.04	3,403	.	.	1.91	1,586	2.52	491	2.02	1,326
Oct.	2.11	3,858	.	.	2.04	1,691	2.49	597	2.04	1,570
Nov.	1.96	3,869	.	.	1.81	1,526	2.50	561	1.93	1,782
Dec.	1.96	4,139	.	.	1.94	1,777	2.42	546	1.83	1,816
2019 Jan.	2.00	4,236	.	.	1.94	1,774	2.46	640	1.89	1,822
Feb.	2.02	3,331	.	.	1.94	1,502	2.61	504	1.89	1,325
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	3,854	.	.	1.91	1,705	2.54	593	1.76	1,556

Reporting period	Loans to households (cont'd)													
	Housing loans [3] 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 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 May	1.96	1.91	19,514	1.97	3,803	2.09	2,193	1.74	1,735	1.77	6,847	2.00	8,739
June	1.95	1.90	21,464	1.98	4,691	2.07	3,226	1.76	1,882	1.75	6,771	1.97	9,585
July	1.94	1.88	22,177	1.94	4,907	2.16	2,675	1.74	1,994	1.73	7,666	1.95	9,842
Aug.	1.93	1.87	20,493	1.96	3,401	2.13	2,337	1.70	1,753	1.71	6,974	1.97	9,429
Sep.	1.92	1.86	17,864	1.96	3,046	2.11	1,973	1.71	1,544	1.69	5,923	1.94	8,424
Oct.	1.91	1.86	21,275	1.94	4,124	2.08	2,443	1.68	1,884	1.71	7,669	1.97	9,279
Nov.	1.94	1.88	20,357	1.94	3,423	2.02	2,313	1.74	1,779	1.72	6,738	1.98	9,527
Dec.	1.90	1.85	17,630	1.89	3,168	2.02	2,113	1.71	1,519	1.70	6,088	1.94	7,910
2019 Jan.	1.92	1.86	20,907	1.93	4,619	2.09	2,475	1.69	1,962	1.70	7,080	1.95	9,390
Feb.	1.84	1.78	19,352	1.84	3,469	2.04	2,163	1.65	1,749	1.63	6,344	1.85	9,095
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	22,438	1.74	3,588	2.00	2,560	1.50	2,029	1.46	7,312	1.67	10,537
	of which: Collateralised loans [11]												
2018 May	.	1.84	8,392	.	.	2.02	733	1.55	834	1.71	3,043	1.96	3,782
June	.	1.83	9,040	.	.	2.00	1,087	1.61	901	1.71	3,025	1.94	4,027
July	.	1.83	9,622	.	.	2.06	914	1.60	960	1.69	3,575	1.94	4,173
Aug.	.	1.82	8,424	.	.	2.02	807	1.54	792	1.65	2,911	1.96	3,914
Sep.	.	1.82	7,495	.	.	2.13	664	1.51	715	1.65	2,604	1.95	3,512
Oct.	.	1.81	9,201	.	.	1.98	880	1.51	846	1.67	3,351	1.96	4,124
Nov.	.	1.83	8,504	.	.	1.95	750	1.53	771	1.67	2,910	1.98	4,073
Dec.	.	1.79	7,242	.	.	2.02	694	1.49	670	1.64	2,592	1.93	3,286
2019 Jan.	.	1.81	9,238	.	.	2.04	922	1.50	948	1.65	3,196	1.96	4,172
Feb.	.	1.72	8,040	.	.	2.07	682	1.45	859	1.56	2,709	1.84	3,790
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	9,393	.	.	1.90	945	1.30	879	1.39	3,113	1.65	4,456

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 May	8.29	39,115	8.38	30,991	14.79	4,376	3.35	71,010	3.37	70,690
June	8.26	39,717	8.34	31,627	14.77	4,370	3.30	74,485	3.32	74,136
July	8.19	39,373	8.29	31,035	14.74	4,430	3.25	73,268	3.26	72,921
Aug.	8.20	39,040	8.27	30,862	14.73	4,390	3.21	72,775	3.23	72,415
Sep.	8.18	40,096	8.27	31,781	14.79	4,421	3.18	76,148	3.19	75,723
Oct.	8.16	39,591	8.24	31,353	14.79	4,366	3.13	74,312	3.15	73,892
Nov.	7.88	40,395	7.93	31,901	14.77	4,429	3.11	74,306	3.13	73,881
Dec.	7.86	41,799	7.96	32,782	14.75	4,585	3.14	73,787	3.16	73,380
2019 Jan.	8.01	40,499	7.96	32,586	14.78	4,389	3.09	76,006	3.10	75,622
Feb.	7.99	40,394	7.99	32,324	14.76	4,384	3.09	78,104	3.10	77,717
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

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 May	1.20	72,958	1.36	17,150	2.31	9,732	2.40	1,395	1.95	1,290	0.85	51,023	1.59	2,988	1.73	6,530
June	1.31	84,383	1.42	24,657	2.24	11,612	2.44	1,531	1.97	1,470	0.97	55,948	1.64	3,981	1.73	9,841
July	1.19	81,709	1.41	22,096	2.09	10,235	2.41	1,466	1.93	1,578	0.85	55,149	1.53	3,956	1.74	9,325
Aug.	1.18	66,072	1.41	16,124	2.05	9,274	2.44	1,316	1.86	1,311	0.85	44,950	1.73	2,130	1.64	7,091
Sep.	1.26	76,448	1.40	22,010	2.04	9,668	2.49	1,315	1.94	1,180	0.98	53,010	1.78	3,023	1.66	8,252
Oct.	1.28	78,085	1.39	21,850	2.04	10,699	2.50	1,580	1.92	1,403	0.98	52,918	1.64	3,158	1.72	8,327
Nov.	1.27	74,844	1.47	18,178	2.05	9,884	2.46	1,578	1.91	1,400	0.96	50,045	1.80	3,422	1.63	8,515
Dec.	1.29	96,525	1.46	25,307	2.06	10,205	2.40	1,480	1.85	1,434	1.02	62,907	1.72	5,156	1.60	15,343
2019 Jan.	1.24	74,566	1.42	20,900	2.01	10,992	2.43	1,491	1.94	1,376	0.96	50,703	1.46	2,676	1.58	7,328
Feb.	1.25	65,642	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	75,593	1.38	19,249	2.12	9,981	2.52	1,587	1.76	1,368	0.90	51,680	1.45	3,206	1.40	7,771
of which: Collateralised loans 11																
2018 May	1.61	7,425	.	.	1.93	540	2.47	158	1.77	354	1.38	4,223	1.82	639	1.92	1,511
June	1.68	12,565	.	.	1.88	647	2.60	182	1.82	380	1.42	7,324	2.60	1,202	1.83	2,830
July	1.55	9,982	.	.	1.95	707	2.74	155	1.81	468	1.25	5,263	1.81	1,205	1.85	2,184
Aug.	1.56	7,174	.	.	2.10	507	2.74	151	1.76	302	1.32	4,296	2.50	348	1.68	1,570
Sep.	1.56	10,319	.	.	1.89	576	2.57	124	1.83	309	1.33	6,391	2.52	646	1.79	2,273
Oct.	1.55	9,237	.	.	1.96	640	2.64	138	1.84	376	1.32	5,296	1.77	627	1.80	2,160
Nov.	1.61	9,181	.	.	1.96	528	2.64	140	1.79	379	1.41	5,283	2.15	824	1.72	2,027
Dec.	1.50	16,695	.	.	1.90	607	2.55	122	1.68	411	1.37	8,845	2.04	1,266	1.51	5,444
2019 Jan.	1.42	9,732	.	.	1.83	630	2.46	149	1.84	429	1.20	5,503	1.90	464	1.57	2,557
Feb.	1.42	7,982	.	.	1.90	485	2.59	151	1.70	323	1.23	4,383	1.46	648	1.56	1,992
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	379	1.50	6,360	2.17	355	1.49	2,136

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 Q3	2,219.9	378.7	397.3	387.3	280.2	613.9	5.3	46.1	31.4	79.9
Q4	2,189.4	361.5	371.0	374.6	308.6	623.2	3.3	44.1	32.4	70.6
2017 Q1	2,189.7	355.4	377.5	367.7	297.7	635.8	2.8	50.4	32.5	69.7
Q2	2,178.4	344.0	378.9	365.2	302.0	643.8	3.1	49.1	32.6	59.6
Q3	2,188.1	331.2	386.1	371.0	305.6	650.5	3.1	49.5	32.7	58.4
Q4	2,212.2	320.9	387.0	354.3	336.1	671.3	2.9	48.2	34.3	57.3
2018 Q1	2,217.9	344.3	394.6	327.1	343.3	663.1	2.3	50.7	33.9	58.5
Q2	2,226.3	347.5	400.2	320.1	347.1	668.0	2.2	53.6	34.1	53.6
Q3	2,224.8	327.3	401.2	328.7	350.5	675.0	2.0	52.9	35.7	51.6
Q4	2,213.4	318.2	400.4	330.4	349.8	665.8	2.0	55.4	36.8	54.6
2019 Q1	2,349.8	332.1	431.7	329.3	389.4	706.7	2.6	59.5	37.1	61.6
Life insurance										
2016 Q3	1,247.0	242.9	203.0	241.2	47.0	445.8	4.0	10.2	18.7	34.0
Q4	1,197.3	231.3	182.7	223.0	50.7	456.9	2.1	9.6	19.1	21.9
2017 Q1	1,170.5	223.8	185.3	217.2	37.2	462.6	1.8	8.2	19.1	15.3
Q2	1,172.8	215.7	189.5	217.6	38.6	467.1	2.0	8.0	19.1	15.3
Q3	1,177.5	207.6	193.6	220.6	38.4	472.5	1.9	7.9	19.1	16.0
Q4	1,193.2	199.2	192.4	226.1	41.4	487.8	1.8	8.6	20.0	16.0
2018 Q1	1,187.6	213.0	199.0	207.0	43.1	480.9	1.2	8.5	19.4	15.5
Q2	1,195.2	216.2	202.0	201.1	46.3	486.1	1.1	8.8	19.5	14.2
Q3	1,194.1	201.0	202.2	209.8	47.4	491.2	1.0	8.8	19.3	13.4
Q4	1,185.3	194.5	200.1	208.5	50.4	484.7	1.0	11.6	20.3	14.3
2019 Q1	1,236.2	202.6	213.2	205.6	52.7	515.6	1.6	10.4	20.2	14.1
Non-life insurance										
2016 Q3	592.3	123.8	103.2	93.6	50.8	154.4	0.5	28.5	8.6	28.8
Q4	583.5	118.9	98.6	91.8	56.8	152.0	0.5	26.8	9.0	29.0
2017 Q1	606.7	120.3	102.5	92.1	56.9	157.3	0.3	34.1	9.1	34.2
Q2	603.7	116.8	103.9	91.2	58.5	160.4	0.4	33.3	9.1	30.1
Q3	603.1	111.9	106.2	92.9	58.6	162.9	0.4	32.5	9.2	28.4
Q4	606.7	111.6	108.1	82.2	70.8	165.9	0.4	31.4	9.7	26.5
2018 Q1	623.1	120.1	112.5	75.1	72.3	166.9	0.3	34.6	9.8	31.4
Q2	621.6	120.0	115.3	72.9	73.4	167.4	0.3	35.6	9.8	27.0
Q3	618.0	116.2	115.6	72.9	74.4	168.8	0.2	34.9	9.8	25.1
Q4	616.2	113.7	117.4	73.7	73.9	167.5	0.2	33.4	10.8	25.5
2019 Q1	655.4	119.2	128.0	74.2	75.7	177.1	0.3	38.3	11.1	31.6
Reinsurance 3										
2016 Q3	380.7	12.0	91.0	52.5	182.3	13.8	0.8	7.3	4.0	17.0
Q4	408.6	11.3	89.7	59.7	201.0	14.3	0.7	7.7	4.3	19.7
2017 Q1	412.5	11.4	89.8	58.4	203.6	15.9	0.8	8.1	4.3	20.2
Q2	401.9	11.6	85.5	56.5	204.8	16.3	0.8	7.9	4.4	14.2
Q3	407.5	11.7	86.3	57.5	208.6	15.1	0.9	9.2	4.4	13.9
Q4	412.3	10.2	86.5	45.9	223.9	17.6	0.7	8.2	4.7	14.7
2018 Q1	407.2	11.2	83.1	45.0	227.8	15.3	0.8	7.6	4.8	11.6
Q2	409.5	11.3	82.9	46.1	227.4	14.6	0.8	9.1	4.8	12.4
Q3	412.7	10.0	83.4	46.0	228.7	14.9	0.8	9.3	6.6	13.1
Q4	412.0	10.1	82.9	48.2	225.5	13.7	0.7	10.3	5.7	14.8
2019 Q1	458.3	10.2	90.5	49.5	260.9	14.0	0.7	10.8	5.8	15.9
Pension funds 4										
2016 Q3	608.0	107.7	63.5	29.3	19.1	326.2	–	6.3	35.4	20.5
Q4	609.6	106.4	61.1	29.7	19.9	328.1	–	6.7	37.0	20.8
2017 Q1	617.0	103.4	60.3	30.1	20.3	337.7	–	6.7	37.5	20.9
Q2	624.5	102.7	60.6	30.3	20.7	344.3	–	6.8	38.1	21.1
Q3	633.7	100.6	61.7	30.3	21.2	353.1	–	7.0	38.6	21.3
Q4	645.5	96.0	63.5	30.6	21.6	364.5	–	7.1	40.3	21.8
2018 Q1	646.8	94.8	63.1	31.0	22.0	366.1	–	7.2	40.6	21.9
Q2	652.7	95.2	62.8	31.5	22.9	369.9	–	7.3	41.1	22.1
Q3	656.4	92.0	62.6	31.6	23.3	376.3	–	7.3	41.5	21.9
Q4	663.0	91.4	63.4	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

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 Q3	2,219.9	30.7	73.7	383.0	1,579.4	1,396.9	182.5	1.5	151.5	–
Q4	2,189.4	30.7	70.3	441.0	1,494.4	1,313.3	181.1	2.3	150.7	–
2017 Q1	2,189.7	30.5	57.2	448.6	1,511.9	1,309.6	202.3	1.8	139.6	–
Q2	2,178.4	28.6	57.0	450.8	1,505.5	1,308.5	197.0	2.1	134.3	–
Q3	2,188.1	28.5	58.4	455.6	1,513.1	1,317.2	195.9	2.3	130.2	–
Q4	2,212.2	28.3	62.6	466.0	1,521.6	1,334.2	187.4	2.2	131.6	–
2018 Q1	2,217.9	28.0	61.9	460.5	1,538.9	1,333.5	205.4	1.5	127.1	–
Q2	2,226.3	27.7	64.0	457.1	1,553.3	1,347.6	205.7	1.9	122.3	–
Q3	2,224.8	27.5	65.1	462.6	1,545.0	1,343.7	201.4	2.0	122.5	–
Q4	2,213.4	29.3	64.6	463.1	1,530.3	1,332.4	197.8	1.6	124.6	–
2019 Q1	2,349.8	31.6	68.3	488.8	1,623.4	1,401.2	222.2	1.5	136.2	–
Life insurance										
2016 Q3	1,247.0	3.8	25.9	96.0	1,066.2	1,066.2	–	0.7	54.4	–
Q4	1,197.3	4.1	25.0	116.3	993.7	993.7	–	1.2	56.9	–
2017 Q1	1,170.5	4.1	12.5	116.3	991.8	991.8	–	0.9	44.8	–
Q2	1,172.8	4.0	12.1	119.8	989.6	989.6	–	1.0	46.2	–
Q3	1,177.5	4.1	12.3	121.5	994.0	994.0	–	1.1	44.5	–
Q4	1,193.2	4.1	12.8	122.2	1,007.1	1,007.1	–	1.1	45.9	–
2018 Q1	1,187.6	4.0	13.3	119.8	1,007.0	1,007.0	–	0.7	42.7	–
Q2	1,195.2	4.1	13.0	119.6	1,017.0	1,017.0	–	0.8	40.8	–
Q3	1,194.1	4.1	12.6	121.2	1,013.3	1,013.3	–	0.9	42.0	–
Q4	1,185.3	4.1	15.2	122.7	1,000.7	1,000.7	–	0.5	42.2	–
2019 Q1	1,236.2	4.1	14.3	120.5	1,056.0	1,056.0	–	0.4	40.9	–
Non-life insurance										
2016 Q3	592.3	0.9	6.6	120.0	407.4	310.1	97.3	0.0	57.3	–
Q4	583.5	1.1	6.3	130.4	390.1	300.5	89.7	0.2	55.4	–
2017 Q1	606.7	1.1	7.3	134.1	409.0	300.8	108.2	0.1	55.1	–
Q2	603.7	1.1	6.8	135.7	406.8	302.5	104.3	0.1	53.1	–
Q3	603.1	1.1	6.9	137.5	406.8	305.8	101.1	0.1	50.7	–
Q4	606.7	1.1	6.7	141.2	405.7	309.7	96.0	0.1	51.9	–
2018 Q1	623.1	1.1	7.7	141.4	422.8	311.1	111.7	0.0	50.0	–
Q2	621.6	1.1	8.1	140.6	424.5	314.3	110.2	0.1	47.2	–
Q3	618.0	1.1	8.0	141.7	420.7	314.0	106.7	0.0	46.4	–
Q4	616.2	1.0	8.3	140.3	416.6	315.5	101.0	0.0	50.0	–
2019 Q1	655.4	1.1	9.3	144.5	449.6	329.5	120.1	0.0	50.9	–
Reinsurance [3]										
2016 Q3	380.7	26.0	41.3	167.0	105.8	20.5	85.3	0.8	39.8	–
Q4	408.6	25.5	39.0	194.3	110.5	19.1	91.4	0.9	38.3	–
2017 Q1	412.5	25.3	37.4	198.2	111.1	17.0	94.1	0.8	39.7	–
Q2	401.9	23.5	38.1	195.2	109.1	16.4	92.6	1.1	35.0	–
Q3	407.5	23.3	39.3	196.6	112.3	17.5	94.9	1.1	35.0	–
Q4	412.3	23.1	43.1	202.6	108.8	17.4	91.4	1.0	33.8	–
2018 Q1	407.2	22.9	40.8	199.3	109.0	15.4	93.7	0.8	34.4	–
Q2	409.5	22.5	43.0	196.9	111.7	16.2	95.5	1.1	34.3	–
Q3	412.7	22.4	44.4	199.7	111.0	16.4	94.7	1.1	34.1	–
Q4	412.0	24.1	41.2	200.1	113.0	16.2	96.8	1.1	32.5	–
2019 Q1	458.3	26.5	44.6	223.8	117.9	15.7	102.2	1.1	44.4	–
Pension funds [4]										
2016 Q3	608.0	–	6.4	6.7	536.0	536.0	–	–	3.3	55.6
Q4	609.6	–	6.8	6.9	546.0	546.0	–	–	2.4	47.5
2017 Q1	617.0	–	6.9	7.0	552.9	552.9	–	–	2.5	47.8
Q2	624.5	–	6.9	7.1	558.7	558.7	–	–	2.5	49.4
Q3	633.7	–	6.9	7.2	565.2	565.2	–	–	2.5	51.9
Q4	645.5	–	7.1	7.4	576.1	576.1	–	–	2.5	52.4
2018 Q1	646.8	–	7.2	7.4	579.5	579.5	–	–	2.6	50.0
Q2	652.7	–	7.3	7.5	585.7	585.7	–	–	2.6	49.6
Q3	656.4	–	7.4	7.7	587.7	587.7	–	–	2.6	51.0
Q4	663.0	–	7.6	7.8	597.2	597.2	–	–	2.6	47.8
2019 Q1	680.4	–	7.7	7.9	606.0	606.0	–	–	2.7	56.0

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 July	– 3,825	– 9,880	– 7,055	3,563	– 6,389	6,055	11,980	– 3,117	5,835	9,262	– 15,805
Aug.	16,191	10,891	2,640	– 3,890	12,142	5,300	10,923	– 1,567	4,562	7,928	5,267
Sep.	19,809	11,015	8,990	– 84	2,109	8,794	19,310	5,189	7,652	6,470	499
Oct.	2,853	7,812	10,652	4,521	– 7,361	– 4,959	– 1,962	– 8,161	3,659	2,540	4,815
Nov.	18,500	13,260	6,849	– 693	7,104	5,240	11,009	3,159	3,945	3,904	7,492
Dec.	– 39,633	– 31,356	– 9,339	– 2,127	– 19,890	– 8,277	– 106	– 6,873	3,343	3,424	– 39,527
2019 Jan.	34,314	20,326	8,377	1,319	10,630	13,988	9,297	1,486	– 1,700	9,511	25,018
Feb.	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	51,486	42,665	20,104	1,599	20,962	8,821	23,099	4,099	4,010	14,990	28,387

€ 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 July	5,062	549	4,513	5,110	257	4,853	– 48
Aug.	4,698	193	4,505	6,240	473	5,767	– 1,542
Sep.	– 484	225	– 709	– 2,392	– 2,837	445	1,908
Oct.	– 13,611	1,227	– 14,838	– 16,477	– 1,242	– 15,235	2,866
Nov.	– 3,032	227	– 3,259	– 3,854	– 1,544	– 2,310	822
Dec.	11,300	482	10,818	13,017	– 637	13,654	– 1,717
2019 Jan.	4,206	671	3,535	5,804	– 55	5,859	– 1,598
Feb.	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	2,862	1,061	1,801	4,171	1,182	2,989	– 1,309

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.

VIII. Capital market

2. Sales of debt securities issued by residents *

€ million, nominal value

Period	Total	Bank debt securities [1]					Corporate bonds (non-MFIs) [2]	Public debt securities
		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
2018 Oct.	105,393	68,523	3,117	636	54,075	10,694	7,347	29,523
Nov.	92,380	53,292	3,214	39	39,121	10,918	5,917	33,171
Dec.	54,388	28,723	2,215	151	19,140	7,217	11,345	14,320
2019 Jan.	127,454	77,489	6,215	3,057	58,545	9,672	5,380	44,585
Feb.	123,547	81,698	5,742	1,909	57,017	17,030	5,091	36,758
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
	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
2018 Oct.	24,646	9,564	2,567	636	3,609	2,751	4,924	10,158
Nov.	32,905	15,498	2,686	39	9,850	2,924	5,015	12,391
Dec.	16,845	5,192	1,542	20	1,905	1,725	8,650	3,003
2019 Jan.	46,309	24,508	5,786	750	15,779	2,194	4,264	17,538
Feb.	42,078	23,849	3,661	1,726	13,196	5,266	3,505	14,723
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
	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
2018 Oct.	2,584	7,796	2,226	– 359	3,035	2,894	3,318	– 8,529
Nov.	13,993	3,367	1,184	– 662	1,476	1,370	– 574	11,200
Dec.	– 30,192	– 11,122	966	– 1,558	– 7,164	– 3,366	– 593	– 18,478
2019 Jan.	10,398	8,587	4,184	1,318	6,820	– 3,735	735	1,075
Feb.	16,523	17,671	2,937	0	9,033	5,702	2,320	– 3,468
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

***** 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
2018 Oct.	3,107,502	1,201,915	158,937	53,659	675,750	313,569	314,694	1,590,893
Nov.	3,121,495	1,205,282	160,121	52,996	677,226	314,938	314,120	1,602,093
Dec.	3,091,303	1,194,160	161,088	51,439	670,062	311,572	313,527	1,583,616
2019 Jan.	3,101,701	1,202,748	165,272	52,757	676,882	307,837	314,262	1,584,691
Feb.	3,118,224	1,220,419	168,209	52,757	685,915	313,538	316,582	1,581,223
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
Breakdown by remaining period to maturity 3						**Position at end-May 2019**		
less than 2	1,016,910	451,746	46,733	16,004	284,472	104,539	64,580	500,585
2 to less than 4	646,790	287,971	42,136	12,665	166,227	66,945	49,759	309,058
4 to less than 6	488,175	209,514	38,586	7,474	112,534	50,920	46,509	232,152
6 to less than 8	299,008	117,989	21,705	7,483	55,901	32,900	29,846	151,174
8 to less than 10	240,819	82,423	15,071	4,446	44,204	18,703	17,884	140,512
10 to less than 15	126,137	35,195	5,266	511	15,359	14,059	27,480	63,462
15 to less than 20	85,024	20,841	2,031	1,373	14,046	3,391	6,393	57,789
20 and more	251,956	30,912	1,584	248	6,572	22,507	78,626	142,418

***** 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	contribution of shares, GmbH shares, etc.	merger and transfer of assets	change of legal form	reduction of capital and liquidation	
2007	164,560	799	3,164	1,322	200	269	– 682	– 1,847	– 1,636	1,481,930
2008	168,701	4,142	5,006	1,319	152	0	– 428	– 608	– 1,306	830,622
2009	175,691	6,989	12,476	398	97	–	– 3,741	– 1,269	– 974	927,256
2010	174,596	– 1,096	3,265	497	178	10	– 486	– 993	– 3,569	1,091,220
2011	177,167	2,570	6,390	552	462	9	– 552	– 762	– 3,532	924,214
2012	178,617	1,449	3,046	129	570	–	– 478	594	– 2,411	1,150,188
2013	171,741	– 6,879	2,971	718	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
2018 Oct.	180,431	170	284	3	2	–	2	– 91	– 29	1,759,237
Nov.	180,307	– 123	106	19	3	–	0	0	– 252	1,729,978
Dec.	180,187	– 120	317	22	6	–	– 13	– 423	– 29	1,634,155
2019 Jan.	180,090	– 97	223	–	–	–	– 2	– 8	– 310	1,726,959
Feb.	180,116	26	116	–	–	–	–	– 37	– 52	1,755,552
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

***** 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 Jan.	0.3	0.2	0.1	0.1	0.5	0.9	3.3	142.15	110.01	505.55	11,173.10
Feb.	0.2	0.1	0.0	0.1	0.4	0.8	3.0	142.06	109.52	517.62	11,515.64
Mar.	0.2	0.0	0.0	0.0	0.4	0.6	2.7	143.19	111.35	516.84	11,526.04
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

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	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
2018 Nov.	11,824	11,097	1,729	378	542	580	9,368	727	11,966	– 1,338	– 718	13,304	1,445	– 143
Dec.	17,639	16,880	– 1,797	6	– 2,620	511	18,676	759	17,176	– 697	– 574	17,873	1,333	462
2019 Jan.	11,660	7,739	1,569	56	43	1,336	6,170	3,921	12,727	– 1,334	423	14,061	3,498	– 1,067
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	2,182	3,715	1,386	3	449	979	2,329	– 1,533	3,489	– 2,014	– 2,357	5,503	824	– 1,306

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	2017 Q4	2018 Q1	2018 Q2	2018 Q3	2018 Q4	2019 Q1
Acquisition of financial assets									
Currency and deposits	36.84	47.85	28.48	25.57	– 15.60	– 0.16	12.09	32.14	– 15.17
Debt securities	– 3.40	– 5.65	5.10	– 3.01	0.65	0.55	1.46	2.44	0.65
Short-term debt securities	– 0.58	– 2.26	1.00	– 0.34	– 0.12	– 0.02	0.38	0.77	0.41
Long-term debt securities	– 2.81	– 3.39	4.10	– 2.67	0.77	0.57	1.09	1.68	0.25
Memo item:									
Debt securities of domestic sectors	– 2.68	– 2.80	1.45	– 1.15	0.11	0.47	– 0.02	0.89	0.62
Non-financial corporations	0.67	– 0.56	0.51	– 0.14	– 0.01	0.32	– 0.13	0.33	0.74
Financial corporations	– 2.53	– 0.41	1.18	– 0.59	0.19	0.31	0.08	0.61	– 0.10
General government	– 0.82	– 1.82	– 0.25	– 0.43	– 0.07	– 0.15	0.03	– 0.05	– 0.03
Debt securities of the rest of the world	– 0.72	– 2.85	3.66	– 1.86	0.54	0.08	1.48	1.56	0.04
Loans	18.11	52.64	– 23.47	1.67	– 2.46	– 9.92	– 0.59	– 10.51	10.88
Short-term loans	18.80	28.74	4.73	4.31	5.71	– 4.96	– 0.62	4.59	13.72
Long-term loans	– 0.70	23.90	– 28.19	– 2.63	– 8.17	– 4.96	0.03	– 15.09	– 2.85
Memo item:									
Loans to domestic sectors	0.67	21.78	– 3.15	7.47	– 0.75	– 3.75	4.64	– 3.29	– 0.46
Non-financial corporations	– 4.78	15.23	– 9.64	4.18	– 2.41	– 4.52	2.50	– 5.20	– 2.47
Financial corporations	5.25	6.26	6.29	3.22	1.60	0.72	2.10	1.87	2.01
General government	0.20	0.29	0.20	0.07	0.05	0.05	0.05	0.05	0.00
Loans to the rest of the world	17.44	30.86	– 20.32	– 5.80	– 1.71	– 6.17	– 5.23	– 7.22	11.34
Equity and investment fund shares	91.82	58.61	115.70	19.13	29.99	38.16	42.44	5.12	4.60
Equity	85.99	50.05	114.03	9.42	26.47	37.18	42.34	8.04	1.84
Listed shares of domestic sectors	22.91	– 3.82	18.82	0.65	21.74	– 2.70	– 1.34	1.12	1.82
Non-financial corporations	22.59	– 3.76	18.27	0.80	21.64	– 2.90	– 1.38	0.91	1.84
Financial corporations	0.31	– 0.06	0.55	– 0.14	0.10	0.20	0.04	0.21	– 0.02
Listed shares of the rest of the world	10.84	7.16	2.12	0.42	0.80	16.15	– 15.14	0.32	0.29
Other equity [1]	52.25	46.71	93.09	8.35	3.93	23.73	58.82	6.61	– 0.28
Investment fund shares	5.83	8.55	1.67	9.71	3.52	0.98	0.10	– 2.93	2.76
Money market fund shares	0.36	– 0.46	– 0.53	0.89	– 0.63	– 0.03	– 0.14	0.27	– 0.03
Non-MMF investment fund shares	5.47	9.01	2.21	8.83	4.15	1.01	0.24	– 3.19	2.79
Insurance technical reserves	1.15	3.92	4.68	0.51	0.96	1.36	1.33	1.04	0.99
Financial derivatives	22.74	12.68	– 5.09	2.86	2.57	– 2.68	– 4.36	– 0.61	2.50
Other accounts receivable	7.36	163.84	4.85	33.36	33.28	8.93	– 0.86	– 36.49	26.75
Total	174.62	333.88	130.26	80.08	49.38	36.24	51.51	– 6.86	31.19
External financing									
Debt securities	23.71	8.56	7.08	0.55	2.79	2.36	0.90	1.03	5.77
Short-term securities	– 0.15	0.60	4.08	– 1.83	2.54	1.48	0.38	– 0.32	1.23
Long-term securities	23.85	7.95	3.00	2.37	0.24	0.89	0.53	1.35	4.54
Memo item:									
Debt securities of domestic sectors	10.82	7.13	3.80	1.83	2.48	1.65	– 0.94	0.61	3.95
Non-financial corporations	0.67	– 0.56	0.51	– 0.14	– 0.01	0.32	– 0.13	0.33	0.74
Financial corporations	10.06	9.13	3.27	2.39	2.19	1.38	– 0.54	0.24	2.32
General government	0.01	0.01	0.01	0.00	0.01	– 0.01	0.00	0.00	0.69
Households	0.08	– 1.45	0.01	– 0.42	0.29	– 0.05	– 0.27	0.04	0.20
Debt securities of the rest of the world	12.89	1.42	3.28	– 1.28	0.31	0.71	1.84	0.42	1.82
Loans	41.74	97.41	136.17	14.83	40.15	46.92	37.86	11.25	15.18
Short-term loans	14.98	21.51	69.62	– 6.31	26.97	22.86	23.49	– 3.71	13.52
Long-term loans	26.76	75.91	66.56	21.14	13.18	24.06	14.37	14.95	1.66
Memo item:									
Loans from domestic sectors	20.78	55.94	78.80	10.82	27.94	19.87	28.03	2.95	10.76
Non-financial corporations	– 4.78	15.23	– 9.64	4.18	– 2.41	– 4.52	2.50	– 5.20	– 2.47
Financial corporations	22.35	40.62	84.82	4.12	30.50	23.61	24.40	6.31	19.05
General government	3.22	0.09	3.61	2.52	– 0.15	0.78	1.13	1.85	– 5.81
Loans from the rest of the world	20.95	41.47	57.38	4.01	12.21	27.05	9.83	8.29	4.41
Equity	16.09	13.41	14.80	– 2.67	2.40	11.38	– 1.03	2.06	3.76
Listed shares of domestic sectors	27.35	8.53	73.29	5.75	20.00	4.49	5.21	43.60	4.48
Non-financial corporations	22.59	– 3.76	18.27	0.80	21.64	– 2.90	– 1.38	0.91	1.84
Financial corporations	– 2.06	11.14	46.76	4.22	– 5.05	4.52	4.11	43.19	– 0.24
General government	0.07	0.51	0.53	0.15	0.16	0.15	0.09	0.13	– 0.04
Households	6.74	0.65	7.72	0.59	3.26	2.71	2.38	– 0.63	2.92
Listed shares of the rest of the world	– 25.83	– 4.20	– 32.01	– 5.10	8.73	6.18	– 4.82	– 42.09	– 4.24
Other equity [1]	14.57	9.07	– 26.47	– 3.32	– 26.33	0.71	– 1.42	0.56	3.52
Insurance technical reserves	3.60	7.25	7.25	1.81	1.81	1.81	1.81	1.81	1.81
Financial derivatives and employee stock options	– 0.13	3.69	– 4.19	– 2.12	1.50	3.27	– 0.06	– 8.90	4.86
Other accounts payable	37.62	57.05	22.26	15.71	18.30	19.82	5.60	– 21.46	17.90
Total	122.62	187.37	183.37	28.11	66.95	85.55	45.08	– 14.21	49.28

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	2017 Q4	2018 Q1	2018 Q2	2018 Q3	2018 Q4	2019 Q1
Financial assets									
Currency and deposits	516.9	559.6	575.8	559.6	528.4	540.4	541.9	575.8	541.5
Debt securities	44.8	38.8	43.1	38.8	39.2	39.7	41.0	43.1	44.4
Short-term debt securities	5.5	3.3	4.2	3.3	3.1	3.1	3.5	4.2	4.7
Long-term debt securities	39.3	35.6	38.8	35.6	36.0	36.6	37.5	38.8	39.7
Memo item:									
Debt securities of domestic sectors	20.8	18.2	19.2	18.2	18.2	18.7	18.6	19.2	20.1
Non-financial corporations	4.4	3.9	4.3	3.9	3.8	4.1	4.0	4.3	5.1
Financial corporations	12.0	11.7	12.7	11.7	11.9	12.2	12.3	12.7	12.8
General government	4.4	2.5	2.3	2.5	2.4	2.3	2.3	2.3	2.2
Debt securities of the rest of the world	24.0	20.7	23.8	20.7	21.0	21.1	22.5	23.8	24.2
Loans	546.2	590.7	567.7	590.7	586.9	578.5	577.9	567.7	585.3
Short-term loans	450.7	475.0	480.2	475.0	480.1	476.0	475.5	480.2	500.2
Long-term loans	95.5	115.8	87.4	115.8	106.9	102.5	102.4	87.4	85.1
Memo item:									
Loans to domestic sectors	351.2	373.0	369.9	373.0	372.3	368.5	373.2	369.9	369.4
Non-financial corporations	282.6	297.8	288.2	297.8	295.4	290.9	293.4	288.2	285.7
Financial corporations	62.0	68.2	74.5	68.2	69.8	70.5	72.6	74.5	76.5
General government	6.7	7.0	7.2	7.0	7.1	7.1	7.2	7.2	7.2
Loans to the rest of the world	195.0	217.7	197.8	217.7	214.6	210.0	204.7	197.8	215.9
Equity and investment fund shares	2,029.0	2,175.4	2,140.0	2,175.4	2,172.4	2,219.8	2,252.8	2,140.0	2,228.5
Equity	1,869.1	2,005.3	1,975.7	2,005.3	2,001.5	2,047.0	2,079.0	1,975.7	2,054.2
Listed shares of domestic sectors	292.3	332.2	302.6	332.2	349.4	338.5	338.3	302.6	318.3
Non-financial corporations	286.2	325.3	296.0	325.3	342.2	330.9	330.4	296.0	311.3
Financial corporations	6.1	6.8	6.6	6.8	7.1	7.6	7.9	6.6	7.0
Listed shares of the rest of the world	44.4	48.5	46.3	48.5	49.3	64.8	49.7	46.3	49.9
Other equity [1]	1,532.4	1,624.7	1,626.9	1,624.7	1,602.8	1,643.7	1,690.9	1,626.9	1,686.0
Investment fund shares	159.9	170.1	164.3	170.1	170.9	172.8	173.9	164.3	174.3
Money market fund shares	1.9	1.5	1.0	1.5	0.9	0.9	0.7	1.0	0.9
Non-MMF investment fund shares	158.0	168.6	163.3	168.6	170.0	172.0	173.1	163.3	173.4
Insurance technical reserves	50.2	54.2	59.0	54.2	55.4	56.6	57.8	59.0	60.3
Financial derivatives	60.1	49.3	43.7	49.3	48.7	42.8	41.4	43.7	49.2
Other accounts receivable	969.1	1,081.0	1,111.0	1,081.0	1,137.2	1,146.3	1,145.7	1,111.0	1,156.9
Total	4,216.4	4,549.1	4,540.2	4,549.1	4,568.2	4,624.3	4,658.6	4,540.2	4,666.0
Liabilities									
Debt securities	183.8	210.6	187.8	210.6	185.4	189.0	185.8	187.8	196.4
Short-term securities	2.9	3.4	6.1	3.4	5.9	7.4	6.5	6.1	7.4
Long-term securities	180.9	207.2	181.6	207.2	179.4	181.6	179.2	181.6	189.1
Memo item:									
Debt securities of domestic sectors	72.1	82.8	78.9	82.8	79.6	80.1	78.9	78.9	84.8
Non-financial corporations	4.4	3.9	4.3	3.9	3.8	4.1	4.0	4.3	5.1
Financial corporations	51.9	64.3	60.6	64.3	61.2	61.5	60.6	60.6	64.6
General government	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.8
Households	15.7	14.4	13.9	14.4	14.4	14.3	14.1	13.9	14.3
Debt securities of the rest of the world	111.7	127.8	108.9	127.8	105.8	108.9	106.9	108.9	111.7
Loans	1,514.1	1,610.8	1,736.3	1,610.8	1,648.0	1,693.2	1,725.4	1,736.3	1,758.5
Short-term loans	598.0	624.1	688.9	624.1	650.1	674.1	692.7	688.9	705.7
Long-term loans	916.1	986.8	1,047.3	986.8	997.9	1,019.1	1,032.7	1,047.3	1,052.8
Memo item:									
Loans from domestic sectors	1,160.2	1,211.4	1,282.8	1,211.4	1,237.4	1,253.3	1,280.3	1,282.8	1,288.9
Non-financial corporations	282.6	297.8	288.2	297.8	295.4	290.9	293.4	288.2	285.7
Financial corporations	817.2	854.2	932.6	854.2	883.0	903.0	926.6	932.6	946.9
General government	60.4	59.5	62.0	59.5	59.0	59.5	60.4	62.0	56.4
Loans from the rest of the world	353.9	399.4	453.5	399.4	410.6	439.9	445.1	453.5	469.6
Equity	2,785.3	3,062.0	2,684.8	3,062.0	2,957.4	2,978.5	2,942.3	2,684.8	2,779.6
Listed shares of domestic sectors	654.2	748.2	683.9	748.2	737.4	726.8	733.2	683.9	733.3
Non-financial corporations	286.2	325.3	296.0	325.3	342.2	330.9	330.4	296.0	311.3
Financial corporations	144.8	171.8	180.2	171.8	155.4	156.3	160.2	180.2	193.2
General government	44.4	51.8	48.7	51.8	48.7	49.0	52.1	48.7	54.1
Households	178.7	199.2	159.0	199.2	191.1	190.7	190.5	159.0	174.7
Listed shares of the rest of the world	813.6	933.6	740.2	933.6	889.8	915.2	882.3	740.2	760.2
Other equity [1]	1,317.6	1,380.1	1,260.7	1,380.1	1,330.2	1,336.5	1,326.8	1,260.7	1,286.0
Insurance technical reserves	259.5	266.7	274.0	266.7	268.6	270.4	272.2	274.0	275.8
Financial derivatives and employee stock options	38.2	26.9	23.3	26.9	26.7	28.2	30.1	23.3	29.7
Other accounts payable	1,056.5	1,099.4	1,148.2	1,099.4	1,125.4	1,144.9	1,153.1	1,148.2	1,177.2
Total	5,837.4	6,276.4	6,054.3	6,276.4	6,211.4	6,304.2	6,308.9	6,054.3	6,217.2

1 Including unlisted shares.

IX. Financial accounts

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

€ billion

Item	2016	2017	2018	2017 Q4	2018 Q1	2018 Q2	2018 Q3	2018 Q4	2019 Q1
Acquisition of financial assets									
Currency and deposits	114.85	106.17	140.05	41.37	14.00	40.39	27.30	58.36	38.71
Currency	21.18	19.73	32.27	3.81	3.67	7.57	7.05	13.98	17.70
Deposits	93.68	86.45	107.78	37.57	10.33	32.83	20.24	44.38	21.01
Transferable deposits	105.26	99.72	109.62	35.86	12.14	33.90	21.35	42.23	17.20
Time deposits	1.28	– 4.03	6.79	2.34	1.15	1.99	1.43	2.23	1.86
Savings deposits (including savings certificates)	– 12.87	– 9.24	– 8.63	– 0.64	– 2.95	– 3.06	– 2.53	– 0.08	1.95
Debt securities	– 12.80	– 8.14	1.81	– 3.01	– 1.00	0.52	1.71	0.58	0.52
Short-term debt securities	– 0.16	– 0.20	– 0.13	– 0.41	– 0.37	– 0.01	– 0.02	0.26	– 0.22
Long-term debt securities	– 12.63	– 7.93	1.94	– 2.60	– 0.63	0.53	1.72	0.32	0.74
Memo item:									
Debt securities of domestic sectors	– 4.14	– 5.09	2.29	– 2.56	– 0.01	0.16	1.18	0.96	0.71
Non-financial corporations	– 0.01	– 1.43	– 0.09	– 0.40	0.08	– 0.23	– 0.12	0.19	0.22
Financial corporations	– 2.48	– 2.68	2.83	– 1.97	0.07	0.61	1.36	0.79	0.58
General government	– 1.65	– 0.99	– 0.46	– 0.19	– 0.17	– 0.22	– 0.06	– 0.02	– 0.09
Debt securities of the rest of the world	– 8.66	– 3.05	– 0.48	– 0.45	– 0.98	0.36	0.53	– 0.38	– 0.19
Equity and investment fund shares	45.78	55.13	39.42	16.62	17.73	8.06	11.79	1.84	11.41
Equity	21.65	14.69	18.92	3.97	7.35	2.79	7.01	1.76	6.76
Listed shares of domestic sectors	9.37	0.90	9.47	0.04	4.27	2.55	2.63	0.02	4.29
Non-financial corporations	6.09	0.54	6.33	0.47	3.12	1.63	2.27	– 0.69	2.52
Financial corporations	3.28	0.36	3.14	– 0.43	1.15	0.92	0.37	0.70	1.78
Listed shares of the rest of the world	6.93	9.65	4.41	2.77	1.47	– 0.83	2.82	0.95	0.93
Other equity [1]	5.35	4.13	5.04	1.15	1.61	1.07	1.57	0.79	1.54
Investment fund shares	24.13	40.44	20.51	12.65	10.38	5.27	4.77	0.08	4.65
Money market fund shares	– 0.53	– 0.28	– 0.33	0.05	– 0.40	– 0.03	– 0.06	0.16	– 0.12
Non-MMF investment fund shares	24.66	40.72	20.84	12.60	10.79	5.29	4.83	– 0.07	4.77
Non-life insurance technical reserves and provision for calls under standardised guarantees	15.58	20.23	16.93	7.75	4.22	4.24	4.21	4.26	4.37
Life insurance and annuity entitlements	24.79	37.68	32.64	8.20	11.79	8.20	7.46	5.19	9.42
Pension entitlement, claims of pension funds on pension managers, entitlements to non-pension benefits	32.58	30.84	21.91	3.49	4.30	4.84	4.51	8.26	5.81
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]	– 19.49	– 30.79	– 17.39	– 25.36	19.03	– 9.88	– 6.03	– 20.51	16.27
Total	201.31	211.12	235.38	49.06	70.09	56.37	50.94	57.98	86.52
External financing									
Loans	47.46	55.55	68.46	12.45	10.81	20.12	22.48	15.05	15.90
Short-term loans	– 4.31	– 2.19	2.44	– 0.40	– 0.02	0.11	1.83	0.53	0.47
Long-term loans	51.76	57.74	66.02	12.85	10.83	20.01	20.66	14.52	15.43
Memo item:									
Mortgage loans	41.92	47.41	57.47	12.15	9.00	15.79	19.58	13.11	9.10
Consumer loans	9.78	11.25	11.14	2.19	1.78	4.34	2.36	2.67	6.15
Entrepreneurial loans	– 4.24	– 3.11	– 0.14	– 1.89	0.04	– 0.01	0.55	– 0.73	0.65
Memo item:									
Loans from monetary financial institutions	42.87	49.99	61.72	10.42	11.00	17.65	19.41	13.67	12.51
Loans from other financial institutions	4.59	5.57	6.74	2.03	– 0.19	2.47	3.07	1.38	3.39
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	0.34	0.22	0.01	– 0.05	– 0.11	0.42
Total	47.23	56.09	68.53	12.79	11.03	20.13	22.43	14.94	16.32

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	2017 Q4	2018 Q1	2018 Q2	2018 Q3	2018 Q4	2019 Q1
Financial assets									
Currency and deposits	2,208.7	2,313.7	2,455.5	2,313.7	2,327.7	2,368.1	2,397.1	2,455.5	2,494.2
Currency	174.4	194.1	226.3	194.1	197.8	205.3	212.3	226.3	244.0
Deposits	2,034.4	2,119.6	2,229.2	2,119.6	2,130.0	2,162.8	2,184.8	2,229.2	2,250.2
Transferable deposits	1,188.0	1,287.7	1,397.1	1,287.7	1,299.8	1,333.7	1,354.9	1,397.1	1,414.3
Time deposits	248.7	245.4	252.4	245.4	246.6	248.6	250.2	252.4	254.3
Savings deposits (including savings certificates)	597.7	586.5	579.7	586.5	583.6	580.5	579.8	579.7	581.6
Debt securities	127.4	120.5	115.7	120.5	117.7	118.1	119.3	115.7	119.4
Short-term debt securities	2.7	2.5	2.1	2.5	2.1	2.0	2.0	2.1	1.9
Long-term debt securities	124.7	118.0	113.6	118.0	115.6	116.0	117.3	113.6	117.5
Memo item:									
Debt securities of domestic sectors	85.6	82.5	79.9	82.5	81.2	81.4	82.5	79.9	83.1
Non-financial corporations	13.9	12.5	12.1	12.5	12.4	12.1	12.1	12.1	12.4
Financial corporations	66.7	66.1	64.4	66.1	65.1	65.7	67.0	64.4	67.3
General government	5.0	3.9	3.4	3.9	3.7	3.5	3.4	3.4	3.4
Debt securities of the rest of the world	41.8	37.9	35.9	37.9	36.4	36.7	36.9	35.9	36.3
Equity and investment fund shares	1,105.7	1,215.8	1,138.9	1,215.8	1,196.1	1,214.9	1,239.8	1,138.9	1,229.3
Equity	587.9	639.7	583.2	639.7	624.0	628.5	644.2	583.2	632.5
Listed shares of domestic sectors	200.8	226.4	183.0	226.4	217.3	214.2	217.2	183.0	202.6
Non-financial corporations	169.8	190.3	151.0	190.3	182.5	180.8	180.8	151.0	166.0
Financial corporations	31.0	36.1	32.0	36.1	34.8	33.4	36.5	32.0	36.6
Listed shares of the rest of the world	86.8	101.0	98.2	101.0	97.7	102.9	111.4	98.2	114.2
Other equity [1]	300.3	312.3	302.0	312.3	309.0	311.5	315.6	302.0	315.7
Investment fund shares	517.8	576.2	555.7	576.2	572.1	586.3	595.7	555.7	596.9
Money market fund shares	2.8	2.7	2.3	2.7	2.3	2.3	2.1	2.3	2.2
Non-MMF investment fund shares	515.0	573.5	553.4	573.5	569.8	584.1	593.5	553.4	594.7
Non-life insurance technical reserves and provision for calls under standardised guarantees	339.9	360.1	377.0	360.1	364.3	368.6	372.8	377.0	381.4
Life insurance and annuity entitlements	947.8	991.4	1,025.6	991.4	1,003.6	1,012.2	1,020.1	1,025.6	1,035.1
Pension entitlement, claims of pension funds on pension managers, entitlements to non-pension benefits	819.2	849.8	871.7	849.8	854.1	859.0	863.5	871.7	877.6
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	31.1	31.5	31.8	31.8	31.5	32.5
Total	5,581.4	5,882.5	6,016.0	5,882.5	5,895.1	5,972.6	6,044.4	6,016.0	6,169.5
Liabilities									
Loans	1,654.7	1,711.9	1,775.9	1,711.9	1,722.6	1,737.9	1,760.8	1,775.9	1,791.6
Short-term loans	56.6	54.4	58.1	54.4	54.4	54.5	56.3	58.1	58.5
Long-term loans	1,598.1	1,657.5	1,717.7	1,657.5	1,668.2	1,683.4	1,704.5	1,717.7	1,733.1
Memo item:									
Mortgage loans	1,195.8	1,247.4	1,308.1	1,247.4	1,257.4	1,275.0	1,295.0	1,308.1	1,317.1
Consumer loans	201.8	211.8	218.1	211.8	212.8	213.4	215.5	218.1	224.1
Entrepreneurial loans	257.0	252.7	249.7	252.7	252.5	249.5	250.4	249.7	250.4
Memo item:									
Loans from monetary financial institutions	1,558.3	1,610.0	1,667.2	1,610.0	1,620.9	1,633.7	1,653.5	1,667.2	1,679.6
Loans from other financial institutions	96.4	101.9	108.7	101.9	101.8	104.2	107.3	108.7	112.1
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	15.4	16.3	16.2	16.3	17.6	17.2	17.4	16.2	17.5
Total	1,670.1	1,728.3	1,792.1	1,728.3	1,740.3	1,755.1	1,778.2	1,792.1	1,809.1

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

X. Public finances in Germany

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

Period	General government	Central government	State government	Local government	Social security funds	General government	Central government	State government	Local government	Social security funds
	€ billion					As a percentage of GDP				
	Deficit/surplus[1]									
2012	– 0.9	– 16.1	– 5.5	+ 2.2	+ 18.4	– 0.0	– 0.6	– 0.2	+ 0.1	+ 0.7
2013	– 4.0	– 7.4	– 2.5	+ 0.5	+ 5.4	– 0.1	– 0.3	– 0.1	+ 0.0	+ 0.2
2014	+ 16.7	+ 13.7	+ 0.1	– 0.2	+ 3.1	+ 0.6	+ 0.5	+ 0.0	– 0.0	+ 0.1
2015 **p**	+ 23.9	+ 14.7	+ 2.2	+ 4.3	+ 2.7	+ 0.8	+ 0.5	+ 0.1	+ 0.1	+ 0.1
2016 **p**	+ 28.7	+ 11.5	+ 4.2	+ 4.8	+ 8.2	+ 0.9	+ 0.4	+ 0.1	+ 0.2	+ 0.3
2017 **p**	+ 34.0	+ 6.1	+ 8.3	+ 9.5	+ 10.1	+ 1.0	+ 0.2	+ 0.3	+ 0.3	+ 0.3
2018 **pe**	+ 57.3	+ 18.3	+ 10.2	+ 13.8	+ 15.0	+ 1.7	+ 0.5	+ 0.3	+ 0.4	+ 0.4
2017 H1 **p**	+ 19.8	+ 1.5	+ 5.1	+ 6.2	+ 7.0	+ 1.2	+ 0.1	+ 0.3	+ 0.4	+ 0.4
H2 **p**	+ 14.2	+ 4.6	+ 3.2	+ 3.3	+ 3.1	+ 0.9	+ 0.3	+ 0.2	+ 0.2	+ 0.2
2018 H1 **pe**	+ 48.1	+ 17.3	+ 14.4	+ 7.4	+ 9.0	+ 2.9	+ 1.0	+ 0.9	+ 0.4	+ 0.5
H2 **pe**	+ 9.2	+ 1.0	– 4.2	+ 6.4	+ 6.0	+ 0.5	+ 0.1	– 0.2	+ 0.4	+ 0.4
	Debt level[2]									End of year or quarter
2012	2,225.2	1,387.9	684.1	169.8	1.2	80.7	50.3	24.8	6.2	0.0
2013	2,210.7	1,390.4	663.5	172.9	1.3	78.2	49.2	23.5	6.1	0.0
2014	2,212.3	1,396.5	657.8	174.5	1.4	75.3	47.5	22.4	5.9	0.0
2015 **p**	2,182.0	1,372.6	654.5	174.4	1.4	71.6	45.0	21.5	5.7	0.0
2016 **p**	2,165.9	1,366.8	637.5	175.8	1.1	68.5	43.3	20.2	5.6	0.0
2017 **p**	2,115.4	1,351.3	610.5	171.7	0.8	64.5	41.2	18.6	5.2	0.0
2018 **p**	2,063.2	1,323.0	595.5	162.6	0.7	60.9	39.1	17.6	4.8	0.0
2017 Q1 **p**	2,140.2	1,351.0	628.1	174.7	1.2	67.0	42.3	19.7	5.5	0.0
Q2 **p**	2,133.9	1,353.6	620.5	174.6	0.9	66.4	42.1	19.3	5.4	0.0
Q3 **p**	2,127.5	1,353.0	618.5	173.1	0.8	65.5	41.7	19.1	5.3	0.0
Q4 **p**	2,115.4	1,351.3	610.5	171.7	0.8	64.5	41.2	18.6	5.2	0.0
2018 Q1 **p**	2,092.5	1,338.6	599.8	171.2	1.0	63.4	40.5	18.2	5.2	0.0
Q2 **p**	2,076.9	1,329.3	595.9	169.8	0.9	62.2	39.8	17.9	5.1	0.0
Q3 **p**	2,077.1	1,335.5	594.8	164.5	0.8	61.8	39.7	17.7	4.9	0.0
Q4 **p**	2,063.2	1,323.0	595.5	162.6	0.7	60.9	39.1	17.6	4.8	0.0
2019 Q1 **p**	2,077.7	1,325.1	607.7	164.3	0.7	61.0	38.9	17.8	4.8	0.0

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

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

Period	Revenue				Expenditure							Deficit/ surplus	Memo item: Total tax burden [1]
		of which:				of which:							
	Total	Taxes	Social contributions	Other	Total	Social benefits	Compensation of employees	Intermediate consumption	Gross capital formation	Interest	Other		
	€ billion												
2012	1,220.9	624.9	454.3	141.7	1,221.8	645.5	212.3	126.5	61.5	63.1	112.8	– 0.9	1,083.7
2013	1,259.0	651.0	465.0	143.0	1,263.0	666.4	217.8	133.0	60.1	55.5	130.2	– 4.0	1,120.3
2014	1,308.5	673.6	482.0	153.0	1,291.8	691.1	224.4	137.7	60.1	47.0	131.6	+ 16.7	1,160.2
2015 **p**	1,356.5	704.2	500.8	151.5	1,332.6	721.7	229.8	143.8	64.1	42.3	130.9	+ 23.9	1,212.0
2016 **p**	1,415.5	738.7	523.9	152.9	1,386.8	755.2	237.8	150.1	68.2	37.4	138.0	+ 28.7	1,269.5
2017 **p**	1,473.8	772.5	548.6	152.8	1,439.8	784.5	246.7	156.3	72.4	33.8	146.1	+ 34.0	1,327.9
2018 **pe**	1,544.9	807.9	571.6	165.4	1,487.6	806.2	256.0	163.0	78.6	31.3	152.4	+ 57.3	1,386.5
	As a percentage of GDP												
2012	44.3	22.7	16.5	5.1	44.3	23.4	7.7	4.6	2.2	2.3	4.1	– 0.0	39.3
2013	44.5	23.0	16.5	5.1	44.7	23.6	7.7	4.7	2.1	2.0	4.6	– 0.1	39.6
2014	44.5	22.9	16.4	5.2	44.0	23.5	7.6	4.7	2.0	1.6	4.5	+ 0.6	39.5
2015 **p**	44.5	23.1	16.4	5.0	43.7	23.7	7.5	4.7	2.1	1.4	4.3	+ 0.8	39.8
2016 **p**	44.8	23.4	16.6	4.8	43.9	23.9	7.5	4.8	2.2	1.2	4.4	+ 0.9	40.2
2017 **p**	45.0	23.6	16.7	4.7	43.9	23.9	7.5	4.8	2.2	1.0	4.5	+ 1.0	40.5
2018 **pe**	45.6	23.9	16.9	4.9	43.9	23.8	7.6	4.8	2.3	0.9	4.5	+ 1.7	40.9
	Percentage growth rates												
2012	+ 3.2	+ 4.4	+ 2.7	+ 0.0	+ 1.1	+ 1.8	+ 1.8	+ 2.0	+ 0.2	– 6.5	– 0.3	.	+ 3.6
2013	+ 3.1	+ 4.2	+ 2.4	+ 1.0	+ 3.4	+ 3.2	+ 2.6	+ 5.1	– 2.2	– 12.0	+ 15.4	.	+ 3.4
2014	+ 3.9	+ 3.5	+ 3.6	+ 6.9	+ 2.3	+ 3.7	+ 3.1	+ 3.5	– 0.1	– 15.4	+ 1.1	.	+ 3.6
2015 **p**	+ 3.7	+ 4.5	+ 3.9	– 0.9	+ 3.2	+ 4.4	+ 2.4	+ 4.5	+ 6.6	– 9.9	– 0.6	.	+ 4.5
2016 **p**	+ 4.4	+ 4.9	+ 4.6	+ 0.9	+ 4.1	+ 4.6	+ 3.5	+ 4.4	+ 6.5	– 11.7	+ 5.5	.	+ 4.7
2017 **p**	+ 4.1	+ 4.6	+ 4.7	– 0.1	+ 3.8	+ 3.9	+ 3.8	+ 4.1	+ 6.2	– 9.5	+ 5.9	.	+ 4.6
2018 **pe**	+ 4.8	+ 4.6	+ 4.2	+ 8.3	+ 3.3	+ 2.8	+ 3.7	+ 4.3	+ 8.5	– 7.4	+ 4.3	.	+ 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

	Central, state and local government [1]									Social security funds [2]			General government, total		
	Revenue			Expenditure											
		of which:			of which: [3]										
Period	Total [4]	Taxes	Financial transactions [5]	Total [4]	Personnel expenditure	Current grants	Interest	Fixed asset formation	Financial transactions [5]	Deficit/surplus	Revenue [6]	Expenditure	Deficit/surplus	Revenue	Expenditure	Deficit/surplus
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
2016 Q1 p	206.1	169.9	1.4	205.5	60.0	81.2	17.7	8.4	2.2	+ 0.6	143.0	146.6	– 3.6	322.2	325.3	– 3.0
Q2 p	216.7	176.6	2.4	194.1	60.7	77.7	5.4	10.4	2.4	+ 22.7	148.7	147.0	+ 1.7	338.5	314.2	+ 24.3
Q3 p	207.1	169.3	2.9	210.9	62.0	79.3	14.5	12.3	2.4	– 3.8	148.3	149.7	– 1.4	328.2	333.4	– 5.2
Q4 p	232.6	189.2	2.1	233.2	68.1	82.6	7.7	17.2	4.8	– 0.6	160.1	152.2	+ 7.8	365.3	358.1	+ 7.2
2017 Q1 p	216.0	180.4	0.9	199.6	62.9	80.3	13.8	10.2	1.9	+ 16.4	150.3	155.1	– 4.8	338.0	326.4	+ 11.6
Q2 p	217.9	177.3	1.2	206.6	63.9	83.6	6.6	8.8	3.6	+ 11.3	156.4	154.3	+ 2.1	346.1	332.7	+ 13.4
Q3 p	219.6	180.4	3.5	215.9	64.4	78.6	14.5	13.4	4.2	+ 3.8	154.8	155.7	– 0.9	346.1	343.2	+ 2.8
Q4 p	243.8	196.3	2.1	244.4	69.8	84.7	6.9	19.2	4.1	– 0.6	168.2	158.0	+ 10.2	383.4	373.8	+ 9.6
2018 Q1 p	225.7	189.1	1.1	210.0	66.0	81.7	14.6	9.1	2.5	+ 15.7	156.1	160.8	– 4.7	352.7	341.7	+ 11.0
Q2 p	239.9	194.7	1.0	206.2	65.9	80.9	5.8	11.4	2.1	+ 33.7	162.4	160.1	+ 2.3	373.3	337.3	+ 36.1
Q3 p	228.8	189.0	1.8	223.6	67.0	84.6	13.4	14.4	1.9	+ 5.2	161.8	161.1	+ 0.7	361.3	355.5	+ 5.9
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

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

	Central government			State government [2,3]			Local government [3]		
Period	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
2016 Q1 p	81.1	82.2	– 1.1	90.5	88.2	+ 2.4	49.0	55.1	– 6.1
Q2 p	87.5	73.6	+ 13.8	92.7	88.2	+ 4.4	61.1	57.9	+ 3.2
Q3 p	85.2	88.6	– 3.5	91.5	90.0	+ 1.5	60.7	60.7	+ 0.1
Q4 p	90.9	93.9	– 3.0	104.3	104.4	– 0.0	76.3	68.0	+ 8.3
2017 Q1 p	88.2	82.9	+ 5.3	95.6	90.0	+ 5.6	52.7	57.7	– 4.9
Q2 p	81.5	80.0	+ 1.4	96.3	93.6	+ 2.7	65.0	59.5	+ 5.5
Q3 p	88.6	93.6	– 5.0	98.9	91.4	+ 7.5	63.4	61.5	+ 1.9
Q4 p	99.5	96.2	+ 3.3	104.7	109.2	– 4.5	77.2	69.1	+ 8.2
2018 Q1 p	87.9	83.9	+ 4.0	100.0	92.7	+ 7.3	54.9	60.3	– 5.3
Q2 p	94.5	79.8	+ 14.6	104.3	91.8	+ 12.5	68.5	62.4	+ 6.1
Q3 p	91.7	95.9	– 4.2	100.7	95.4	+ 5.3	66.0	64.3	+ 1.7
Q4 p	100.4	103.9	– 3.5	113.4	118.5	– 5.1	80.4	73.1	+ 7.3

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

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	...	162,696	79,669	71,578	11,450	...	...	6,270
2018 Apr.	.	47,500	24,298	20,936	2,267	.	.	2,197
May	.	48,495	26,351	20,364	1,780	.	.	2,197
2019 Apr.	.	48,644	25,099	21,658	1,887	.	.	2,060
May	.	49,039	26,637	20,680	1,723	.	.	2,060

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
2018 Apr.	50,927	21,339	17,136	1,548	413	2,241	16,997	12,345	4,652	1,794	8,036	2,355	405	3,426
May	51,621	20,479	16,047	198	853	3,382	19,903	14,889	5,014	418	8,680	1,808	332	3,125
2019 Apr.	52,272	21,819	18,072	1,510	– 43	2,281	18,295	13,294	5,001	1,781	7,847	2,169	360	3,628
May	52,396	19,582	16,867	309	– 38	2,443	20,899	15,703	5,196	331	9,100	2,070	414	3,357

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	...	...	...
2018 Apr.	3,405	1,198	960	788	742	591	134	218	1,121	992	163	79	.	.	.
May	3,145	1,354	1,470	980	799	540	191	202	1,052	522	147	87	.	.	.
2019 Apr.	3,067	1,220	1,001	816	854	528	147	215	1,303	603	188	75	.	.	.
May	3,280	1,314	1,682	1,014	872	544	160	232	1,264	545	177	84	.	.	.

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
2016 Q1	68,182	47,397	20,665	70,076	60,143	4,239	– 1,894	33,865	31,194	2,406	179	86	4,223
Q2	71,291	50,372	20,548	70,418	60,097	4,238	+ 873	34,427	31,892	2,265	183	87	4,220
Q3	70,218	49,333	20,670	73,782	63,081	4,453	– 3,564	31,412	28,776	2,365	187	84	4,213
Q4	76,136	55,171	20,733	74,016	63,117	4,450	+ 2,120	34,088	31,529	2,315	192	53	4,161
2017 Q1	71,301	49,388	21,715	73,731	63,263	4,460	– 2,430	31,660	29,133	2,270	205	52	4,140
Q2	74,581	52,739	21,632	73,785	63,016	4,440	+ 796	32,535	30,372	1,901	210	52	4,136
Q3	73,295	51,374	21,738	75,569	64,628	4,560	– 2,274	30,801	28,831	1,701	214	54	4,115
Q4	79,956	57,910	21,790	75,842	64,694	4,562	+ 4,114	35,362	33,750	1,335	224	53	4,045
2018 Q1	74,368	51,726	22,489	75,482	64,885	4,569	– 1,114	34,219	32,775	1,146	240	58	4,029
Q2	77,824	55,186	22,451	75,747	64,742	4,557	+ 2,077	36,244	34,963	983	241	57	4,033
Q3	76,831	54,085	22,575	78,284	67,017	4,727	– 1,453	35,344	34,104	936	248	57	4,019
Q4	82,953	60,561	22,185	78,432	67,042	4,729	+ 4,521	40,353	38,332	1,713	252	56	4,018
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

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.

X. Public finances in Germany

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	–
2016 Q1	8,376	7,271	261	–	7,984	4,083	395	1,739	.	150	984	+ 393	–
Q2	8,991	7,737	278	–	7,807	3,648	203	1,847	.	147	1,288	+ 1,184	–
Q3	8,877	7,609	276	–	7,349	3,428	74	1,608	.	165	1,399	+ 1,529	–
Q4	10,108	8,569	299	–	7,750	3,276	77	1,841	.	134	1,642	+ 2,358	–
2017 Q1	8,859	7,564	204	–	8,834	3,973	478	1,772	.	146	1,749	+ 26	–
Q2	9,355	8,112	227	–	7,964	3,529	173	1,802	.	155	1,577	+ 1,391	–
Q3	9,159	7,897	210	–	7,281	3,360	63	1,646	.	171	1,402	+ 1,878	–
Q4	10,446	8,929	241	–	7,789	3,193	55	1,823	.	215	1,717	+ 2,657	–
2018 Q1	9,167	7,926	151	–	9,546	3,826	415	1,742	.	174	2,625	– 379	–
Q2	9,713	8,523	152	–	8,471	3,431	245	1,752	.	161	2,209	+ 1,243	–
Q3	9,515	8,355	152	–	7,288	3,296	50	1,623	.	114	1,514	+ 2,227	–
Q4	10,940	9,367	167	–	7,802	3,204	51	1,834	.	139	1,781	+ 3,138	–
2019 Q1	8,369	7,027	148	–	8,597	3,969	403	1,818	.	179	1,450	– 228	–

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
2016 Q1	53,320	49,292	3,500	55,424	18,044	8,879	9,374	3,470	3,419	2,955	2,458	– 2,104
Q2	54,988	51,009	3,500	55,603	17,686	9,005	9,362	3,478	3,528	2,963	2,599	– 615
Q3	55,632	51,377	3,500	55,114	17,421	8,929	9,166	3,399	3,585	2,842	2,628	+ 517
Q4	59,552	55,146	3,500	56,832	17,342	9,194	9,351	3,526	3,698	2,912	3,291	+ 2,720
2017 Q1	55,809	51,632	3,625	57,716	18,632	9,215	9,807	3,559	3,516	3,173	2,514	– 1,907
Q2	57,801	53,621	3,625	57,502	17,973	9,239	9,822	3,614	3,748	3,043	2,589	+ 298
Q3	57,617	53,442	3,625	57,202	17,802	9,330	9,629	3,374	3,679	2,980	2,731	+ 415
Q4	62,391	57,526	3,625	58,527	17,878	9,627	9,712	3,566	3,792	3,080	3,095	+ 3,865
2018 Q1	57,788	53,670	3,625	59,854	19,028	9,569	10,045	3,656	3,763	3,370	2,614	– 2,067
Q2	59,796	55,571	3,625	60,060	18,677	9,591	10,049	3,639	3,904	3,294	2,821	– 264
Q3	60,138	55,778	3,625	59,204	18,302	9,600	9,862	3,481	4,070	3,155	2,810	+ 934
Q4	64,645	59,893	3,625	60,689	18,537	9,806	10,067	3,677	4,157	3,272	3,236	+ 3,956
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

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 p	37,719	37,654	41,273	4,783	12,952	10,877	2,080	1,594	–	3,553
2016 Q1	7,600	7,578	7,587	941	2,703	1,613	238	389	+	13
Q2	7,918	7,901	7,659	949	2,724	1,665	244	331	+	259
Q3	7,958	7,942	7,810	961	2,746	1,682	247	373	+	147
Q4	8,550	8,535	7,941	975	2,741	1,877	250	322	+	608
2017 Q1	8,558	8,538	9,092	1,046	3,194	2,261	289	405	–	534
Q2	8,978	8,962	9,379	1,080	3,230	2,440	347	397	–	400
Q3	8,945	8,932	9,944	1,210	3,289	2,562	422	411	–	999
Q4	9,620	9,610	10,110	1,158	3,285	2,731	470	387	–	490
2018 Q1	8,961	8,948	10,146	1,192	3,233	2,603	496	424	–	1,185
Q2	9,338	9,322	10,118	1,160	3,217	2,658	509	389	–	780
Q3	9,349	9,334	10,428	1,202	3,251	2,781	515	397	–	1,079
Q4	10,071	10,050	10,581	1,229	3,251	2,835	561	384	–	510
2019 Q1	11,123	10,938	10,728	1,198	3,232	2,833	547	437	+	396

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
2016 Q1	+ 61,598	+ 10,650	+ 8,501	– 19,345
Q2	+ 60,691	+ 4,204	+ 3,694	+ 4,084
Q3	+ 33,307	– 13,887	– 18,398	– 4,864
Q4	+ 26,890	– 12,297	+ 3,872	+ 3,333
2017 Q1	+ 47,749	– 5,700	+ 6,178	– 2,428
Q2	+ 42,941	+ 5,281	+ 318	+ 4,289
Q3	+ 44,338	+ 3,495	+ 587	+ 941
Q4	+ 36,878	+ 1,455	+ 4,741	+ 95
2018 Q1	+ 42,934	– 4,946	– 5,138	+ 3,569
Q2	+ 43,602	– 5,954	– 166	– 6,139
Q3	+ 46,500	+ 4,856	+ 1,688	+ 1,871
Q4	+ 34,195	– 10,205	+ 3,525	– 971
2019 Q1	+ 56,654	+ 3,281	– 2,172	– 1,199

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	2,225,204	12,126	652,393	199,132	60,157	1,301,397
2013	2,210,739	12,438	660,140	190,555	43,994	1,303,612
2014	2,212,280	12,774	630,752	190,130	44,949	1,333,675
2015	2,181,972	85,952	617,681	186,661	45,028	1,246,650
2016	2,165,891	205,391	594,765	179,755	41,737	1,144,243
2017 p	2,115,397	319,159	547,973	175,617	38,678	1,033,970
2018 p	2,063,172	364,731	493,533	181,077	39,043	984,788
2016 Q1	2,190,308	108,746	632,259	183,160	41,396	1,224,747
Q2	2,193,776	142,139	620,966	181,372	39,602	1,209,696
Q3	2,187,329	172,567	607,540	179,359	38,912	1,188,950
Q4	2,165,891	205,391	594,765	179,755	41,737	1,144,243
2017 Q1 p	2,140,165	239,495	581,651	178,219	39,561	1,101,239
Q2 p	2,133,921	265,130	567,962	176,810	39,008	1,085,011
Q3 p	2,127,477	290,214	555,881	176,646	39,276	1,065,460
Q4 p	2,115,397	319,159	547,973	175,617	38,678	1,033,970
2018 Q1 p	2,092,470	329,387	525,588	176,495	37,574	1,023,426
Q2 p	2,076,933	344,279	509,060	179,856	36,929	1,006,809
Q3 p	2,077,122	356,899	497,343	180,464	37,203	1,005,212
Q4 p	2,063,172	364,731	493,533	181,077	39,043	984,788
2019 Q1 p	2,077,658	359,884	495,439	179,512	37,627	1,005,195

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

X. Public finances in Germany

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	2,225,204	9,742	106,945	1,441,406	124,389	542,722	.	.
2013	2,210,739	10,592	85,836	1,470,698	100,646	542,966	.	.
2014	2,212,280	12,150	72,618	1,501,494	95,945	530,073	.	.
2015	2,181,972	14,303	65,676	1,499,098	85,232	517,662	.	.
2016 Q1	2,190,308	11,976	69,372	1,491,129	104,397	513,434	.	.
Q2	2,193,776	12,181	76,710	1,485,041	111,107	508,737	.	.
Q3	2,187,329	15,370	77,249	1,491,971	98,090	504,648	.	.
Q4	2,165,891	15,845	69,715	1,484,378	91,406	504,547	.	.
2017 Q1 p	2,140,165	12,891	60,798	1,479,234	89,209	498,033	.	.
Q2 p	2,133,921	15,196	54,362	1,486,948	83,649	493,767	.	.
Q3 p	2,127,477	16,161	48,197	1,489,630	82,844	490,645	.	.
Q4 p	2,115,397	14,651	48,789	1,484,691	82,876	484,390	.	.
2018 Q1 p	2,092,470	12,472	48,449	1,479,750	70,445	481,354	.	.
Q2 p	2,076,933	12,636	54,968	1,466,057	66,345	476,927	.	.
Q3 p	2,077,122	15,607	60,047	1,466,370	63,884	471,215	.	.
Q4 p	2,063,172	14,833	52,674	1,456,412	71,008	468,245	.	.
2019 Q1 p	2,077,658	15,635	64,295	1,461,244	68,610	467,874	.	.
Central government								
2012	1,387,857	9,742	88,372	1,088,796	88,311	112,636	1,465	11,354
2013	1,390,440	10,592	78,996	1,113,029	64,970	122,852	2,696	10,303
2014	1,396,496	12,150	64,230	1,141,973	54,388	123,756	1,202	12,833
2015	1,372,604	14,303	49,512	1,139,039	45,256	124,494	2,932	13,577
2016 Q1	1,382,473	11,976	49,030	1,138,051	58,381	125,035	2,853	10,025
Q2	1,391,131	12,181	59,399	1,129,874	65,168	124,508	2,803	11,367
Q3	1,381,054	15,370	61,408	1,134,326	46,832	123,117	2,634	9,042
Q4	1,366,840	15,845	55,208	1,124,445	50,004	121,338	2,238	8,478
2017 Q1 p	1,350,988	12,891	45,510	1,124,430	48,082	120,075	2,465	7,469
Q2 p	1,353,600	15,196	40,225	1,132,686	44,682	120,811	2,547	8,136
Q3 p	1,352,975	16,161	34,216	1,136,873	45,235	120,490	2,674	10,160
Q4 p	1,351,290	14,651	36,297	1,132,542	47,758	120,041	2,935	10,603
2018 Q1 p	1,338,606	12,472	35,921	1,133,358	37,206	119,650	2,953	9,862
Q2 p	1,329,320	12,636	42,883	1,120,469	34,038	119,293	2,662	10,643
Q3 p	1,335,479	15,607	46,608	1,119,011	35,617	118,637	2,492	10,185
Q4 p	1,322,995	14,833	42,237	1,107,646	41,057	117,222	2,468	9,917
2019 Q1 p	1,325,052	15,635	50,024	1,103,040	38,989	117,365	2,460	11,427
State government								
2012	684,123	–	18,802	355,756	12,314	297,252	13,197	2,968
2013	663,514	–	6,847	360,706	11,862	284,099	12,141	2,655
2014	657,812	–	8,391	361,916	19,182	268,323	14,825	2,297
2015	654,484	–	16,169	362,376	18,707	257,232	15,867	4,218
2016 Q1	647,567	–	20,347	355,304	21,563	250,352	12,358	4,230
Q2	644,144	–	17,318	357,069	23,456	246,301	13,860	4,061
Q3	644,655	–	15,848	359,618	26,149	243,040	11,685	3,871
Q4	637,534	–	14,515	361,996	16,116	244,907	11,408	3,376
2017 Q1 p	628,149	–	15,308	356,832	15,938	240,071	10,407	3,527
Q2 p	620,539	–	14,167	356,647	14,792	234,933	11,180	3,578
Q3 p	618,534	–	14,021	355,342	16,358	232,813	13,313	3,581
Q4 p	610,473	–	12,543	354,941	15,154	227,835	14,325	3,609
2018 Q1 p	599,752	–	12,583	349,945	13,307	223,916	13,305	3,740
Q2 p	595,914	–	12,144	349,086	13,648	221,036	14,387	3,754
Q3 p	594,816	–	13,499	350,782	11,107	219,427	13,967	3,666
Q4 p	595,496	–	10,499	352,351	15,127	217,520	14,344	3,272
2019 Q1 p	607,708	–	14,335	362,029	15,809	215,535	15,498	3,679
Local government								
2012	169,839	–	–	423	24,791	144,625	3,124	802
2013	172,858	–	–	646	25,435	146,777	2,523	530
2014	174,527	–	–	1,297	26,121	147,109	1,959	734
2015	174,415	–	–	2,047	26,998	145,370	2,143	463
2016 Q1	176,617	–	–	2,076	26,908	147,633	2,348	476
Q2	176,233	–	–	2,453	26,469	147,312	2,216	503
Q3	177,037	–	–	2,455	26,788	147,794	2,123	527
Q4	175,839	–	–	2,404	26,521	146,914	1,819	566
2017 Q1 p	174,709	–	–	2,645	25,561	146,503	1,959	610
Q2 p	174,565	–	–	2,672	25,370	146,523	1,950	644
Q3 p	173,054	–	–	2,687	24,581	145,786	1,851	664
Q4 p	171,702	–	–	2,947	24,101	144,654	1,600	714
2018 Q1 p	171,159	–	–	2,427	22,887	145,846	1,765	719
Q2 p	169,777	–	–	2,561	22,551	144,665	1,912	724
Q3 p	164,544	–	–	2,703	20,604	141,236	2,049	757
Q4 p	162,623	–	–	2,914	18,823	140,887	1,804	770
2019 Q1 p	164,333	–	–	2,961	19,197	142,175	2,185	785

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: 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
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 Q1	1,211	–	–	–	458	753	–	2,828
Q2	1,147	–	–	–	443	704	–	2,948
Q3	1,025	–	–	–	334	691	–	3,002
Q4	1,143	–	–	–	473	670	–	3,044
2017 Q1 **p**	1,150	–	–	–	504	646	–	3,226
Q2 **p**	895	–	–	–	290	605	–	3,318
Q3 **p**	750	–	–	–	184	566	–	3,433
Q4 **p**	792	–	–	–	247	545	–	3,934
2018 Q1 **p**	975	–	–	–	424	551	–	3,702
Q2 **p**	883	–	–	–	383	500	–	3,840
Q3 **p**	790	–	–	–	400	390	–	3,900
Q4 **p**	674	–	–	–	372	302	–	4,659
2019 Q1 **p**	707	–	–	–	437	270	–	4,253

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)	Total [1]	Currency and deposits [2]: Total [1]	Currency and deposits [2]: of which: [3] Federal day bond	Debt securities: Total [1]	Debt securities: of which: [3] 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	Loans [1]
2007	984,256	6,675	.	917,584	564,137	173,949	10,019	3,444	506	102,083	37,385	10,287	59,997
2008	1,016,364	12,466	3,174	928,754	571,913	164,514	12,017	7,522	1,336	105,684	40,795	9,649	75,144
2009	1,082,644	9,981	2,495	1,013,072	577,798	166,471	16,982	7,748	1,369	113,637	104,409	9,471	59,592
2010	1,334,021	10,890	1,975	1,084,019	602,624	185,586	25,958	9,948	2,396	126,220	85,867	8,704	239,112
2011	1,344,082	10,429	2,154	1,121,331	615,200	199,284	29,313	14,927	3,961	130,648	58,297	8,208	212,322
2012	1,387,857	9,742	1,725	1,177,168	631,425	217,586	35,350	16,769	5,374	117,719	56,222	6,818	200,947
2013	1,390,440	10,592	1,397	1,192,025	643,200	234,759	41,105	10,613	4,730	110,029	50,004	4,488	187,822
2014	1,396,496	12,150	1,187	1,206,203	653,823	244,633	48,692	14,553	5,368	103,445	27,951	2,375	178,144
2015	1,372,604	14,303	1,070	1,188,551	663,296	232,387	59,942	14,553	5,607	96,389	18,536	1,305	169,750
2016	1,366,840	15,845	1,010	1,179,653	670,245	221,551	51,879	14,585	3,602	95,727	23,609	737	171,342
2017 **p**	1,351,290	14,651	966	1,168,840	693,687	203,899	58,365	14,490	4,720	91,013	10,037	289	167,800
2018 **p**	1,322,995	14,833	921	1,149,883	710,513	182,847	64,647	–	5,139	86,009	12,949	48	158,279
2016 Q1	1,382,473	11,976	1,051	1,187,081	666,565	225,678	61,893	14,603	4,395	98,232	20,526	1,205	183,416
Q2	1,391,131	12,181	1,033	1,189,273	675,794	220,840	49,675	14,550	3,099	99,417	28,369	1,108	189,676
Q3	1,381,054	15,370	1,021	1,195,734	664,034	231,375	50,869	14,570	3,097	102,053	30,626	922	169,949
Q4	1,366,840	15,845	1,010	1,179,653	670,245	221,551	51,879	14,585	3,602	95,727	23,609	737	171,342
2017 Q1 **p**	1,350,988	12,891	995	1,169,939	674,049	213,371	53,838	14,535	3,362	95,148	14,910	619	168,158
Q2 **p**	1,353,600	15,196	986	1,172,911	687,278	205,203	55,842	14,465	4,507	93,795	14,431	487	165,493
Q3 **p**	1,352,975	16,161	977	1,171,089	684,134	215,029	56,905	14,490	4,092	91,893	11,851	398	165,726
Q4 **p**	1,351,290	14,651	966	1,168,840	693,687	203,899	58,365	14,490	4,720	91,013	10,037	289	167,800
2018 Q1 **p**	1,338,606	12,472	951	1,169,279	699,638	193,811	60,778	14,455	4,421	94,282	9,031	219	156,855
Q2 **p**	1,329,320	12,636	941	1,163,353	710,784	185,042	62,863	–	4,276	92,639	15,049	141	153,330
Q3 **p**	1,335,479	15,607	932	1,165,619	703,682	194,356	64,304	–	4,548	90,575	17,340	75	154,254
Q4 **p**	1,322,995	14,833	921	1,149,883	710,513	182,847	64,647	–	5,139	86,009	12,949	48	158,279
2019 Q1 **p**	1,325,052	15,635	902	1,153,064	709,008	178,900	66,531	–	4,191	89,782	18,288	31	156,354

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 Q3	2017 Q4	2018 Q1	2018 Q2	2018 Q3	2018 Q4	2019 Q1
	Index 2010 = 100			Annual percentage change									
At constant prices, chained													
I. Origin of domestic product													
Production sector (excluding construction)	118.0	120.8	121.7	4.8	2.4	0.7	2.6	3.5	1.6	3.2	– 0.4	– 1.5	– 2.4
Construction	105.5	108.0	111.3	1.8	2.4	3.0	1.8	2.3	1.1	3.1	2.9	4.4	4.6
Wholesale/retail trade, transport and storage, hotel and restaurant services	110.6	114.3	116.8	1.3	3.4	2.2	3.5	2.8	2.1	2.9	1.7	2.0	1.7
Information and communication	132.9	137.6	142.4	3.4	3.6	3.5	3.4	3.4	3.4	3.8	3.2	3.6	3.1
Financial and insurance activities	104.5	105.0	105.7	0.4	0.4	0.7	0.4	0.5	0.2	0.7	0.5	1.5	1.1
Real estate activities	104.5	105.6	106.7	0.0	1.1	1.0	1.3	1.4	1.1	1.0	0.9	1.0	0.7
Business services [1]	109.5	112.3	114.2	1.0	2.6	1.7	2.9	2.3	1.6	2.8	1.5	1.0	1.0
Public services, education and health	108.2	109.7	111.3	2.6	1.4	1.4	1.4	0.8	1.5	1.3	1.4	1.5	1.5
Other services	98.9	100.1	100.5	– 1.1	1.2	0.4	1.4	0.4	0.1	0.9	0.1	0.5	0.8
Gross value added	111.1	113.5	115.1	2.2	2.2	1.4	2.3	2.3	1.5	2.3	1.0	0.9	0.5
Gross domestic product [2]	111.3	113.7	115.3	2.2	2.2	1.4	2.2	2.2	1.4	2.3	1.1	0.9	0.6
II. Use of domestic product													
Private consumption [3]	108.4	110.3	111.5	2.1	1.8	1.1	2.1	1.1	1.9	1.2	0.4	1.0	1.1
Government consumption	112.3	114.1	115.3	4.0	1.6	1.0	1.5	1.7	0.7	1.2	0.6	1.5	1.4
Machinery and equipment	113.8	118.0	123.0	2.2	3.7	4.2	4.1	4.7	4.8	5.4	3.4	3.5	2.3
Premises	112.3	115.6	118.4	3.8	2.9	2.4	3.0	1.8	0.5	2.7	2.5	3.9	5.3
Other investment [4]	124.7	126.3	126.8	5.2	1.3	0.4	0.4	1.5	0.4	0.4	0.4	0.5	– 0.1
Changes in inventories [5,6]	.	.	.	0.2	0.1	0.5	0.1	– 0.1	– 0.1	0.3	1.2	0.6	0.0
Domestic demand	109.5	111.7	113.9	3.0	2.0	1.9	2.2	1.5	1.5	1.9	2.2	2.2	1.6
Net exports [6]	.	.	.	– 0.5	0.3	– 0.4	0.1	0.8	0.0	0.6	– 1.0	– 1.1	– 0.9
Exports	127.8	133.7	136.4	2.3	4.6	2.0	4.9	4.7	2.2	4.3	1.2	0.4	1.5
Imports	125.5	131.6	136.0	4.1	4.8	3.3	5.5	3.7	2.6	3.6	3.8	3.2	4.1
Gross domestic product [2]	111.3	113.7	115.3	2.2	2.2	1.4	2.2	2.2	1.4	2.3	1.1	0.9	0.6
At current prices (€ billion)													
III. Use of domestic product													
Private consumption [3]	1,675.6	1,732.2	1,775.9	2.7	3.4	2.5	3.6	2.7	3.1	2.5	1.9	2.6	2.4
Government consumption	615.5	638.9	661.2	4.8	3.8	3.5	3.9	4.4	3.2	3.7	3.1	3.9	4.1
Machinery and equipment	206.5	215.2	225.7	2.6	4.2	4.9	4.5	5.7	5.1	6.0	4.1	4.3	3.2
Premises	307.1	326.6	350.6	5.6	6.4	7.3	6.5	5.8	4.8	7.3	7.8	9.3	10.7
Other investment [4]	120.4	123.9	127.1	6.0	2.9	2.6	2.1	3.1	2.6	2.6	2.6	2.7	2.7
Changes in inventories [5]	– 12.8	– 7.2	16.3	.	.	.	.	.	.	.	.	.	.
Domestic use	2,912.3	3,029.5	3,156.8	3.8	4.0	4.2	4.3	3.6	3.3	4.1	4.8	4.6	3.6
Net exports	247.5	247.8	229.2	.	.	.	.	.	.	.	.	.	.
Exports	1,450.2	1,541.9	1,590.2	1.5	6.3	3.1	6.5	6.0	2.7	4.9	2.9	2.1	3.0
Imports	1,202.8	1,294.1	1,361.0	1.5	7.6	5.2	7.2	5.5	2.9	4.7	7.1	5.9	5.2
Gross domestic product [2]	3,159.8	3,277.3	3,386.0	3.6	3.7	3.3	4.2	4.0	3.2	4.2	3.0	2.9	2.7
IV. Prices (2010 = 100)													
Private consumption	106.9	108.6	110.2	0.7	1.6	1.4	1.6	1.6	1.2	1.4	1.5	1.5	1.2
Gross domestic product	110.1	111.8	113.8	1.4	1.5	1.9	2.0	1.8	1.8	1.8	1.9	1.9	2.1
Terms of trade	103.9	102.8	102.2	1.7	– 1.0	– 0.7	– 0.1	– 0.5	0.2	– 0.4	– 1.5	– 0.9	0.4
V. Distribution of national income													
Compensation of employees	1,601.0	1,668.8	1,746.1	3.8	4.2	4.6	4.3	4.1	4.5	4.5	5.0	4.4	4.7
Entrepreneurial and property income	762.7	787.6	785.9	3.5	3.3	– 0.2	5.4	3.3	0.1	3.5	– 2.1	– 2.2	– 2.6
National income	2,363.7	2,456.4	2,532.0	3.7	3.9	3.1	4.7	3.9	3.0	4.2	2.6	2.6	2.2
Memo item: Gross national income	3,222.4	3,346.3	3,458.5	3.5	3.8	3.4	4.3	3.8	3.1	4.3	3.1	3.0	2.7

Source: Federal Statistical Office; figures computed in May 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 Q1	102.5	87.5	105.5	104.9	105.9	104.1	108.8	104.3	106.8	108.0	100.4	109.1
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	108.0	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 **x**	101.6	94.9	102.8	102.7	103.8	102.5	109.6	99.5	105.0	105.6	99.8	102.3
2018 May	106.0	110.9	90.7	106.4	107.9	104.6	102.7	108.9	109.0	105.5	101.6	108.0
June	109.8	113.5	89.2	110.8	109.5	112.4	110.2	109.0	111.9	112.4	112.5	111.8
July **3**	107.2	118.4	93.5	106.4	108.5	104.2	98.4	109.9	109.3	108.9	104.7	100.6
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. **x**	93.6	77.1	109.8	95.2	99.5	90.5	101.9	98.0	99.2	98.7	87.9	89.9
Feb. **x**	98.9	94.3	97.1	99.9	100.2	101.1	106.3	94.0	101.6	100.9	96.7	103.5
Mar. **x**	112.4	113.4	101.5	113.1	111.6	115.8	120.6	106.5	114.2	117.2	114.9	113.6
Apr. **x**	102.0	112.1	88.4	101.4	102.9	100.8	103.0	98.9	104.2	102.6	99.0	97.4
May **x,p**	102.1	111.0	84.1	102.0	102.3	102.1	102.7	100.5	102.8	102.6	99.1	100.9
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 Q1	+ 3.7	+ 3.2	+ 1.0	+ 4.0	+ 3.6	+ 4.2	+ 2.5	+ 5.0	+ 3.4	+ 5.6	+ 4.8	+ 3.9
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 **x**	− 0.9	+ 8.5	− 2.6	− 2.1	− 2.0	− 1.6	+ 0.8	− 4.6	− 1.7	− 2.2	− 0.6	− 6.2
2018 May	+ 2.9	+ 1.3	− 4.2	+ 3.8	+ 3.5	+ 2.9	− 0.5	+ 8.5	+ 2.4	+ 3.4	+ 2.9	+ 3.3
June	+ 2.5	− 1.0	− 2.3	+ 3.5	+ 2.5	+ 3.4	+ 2.0	+ 6.9	+ 2.6	+ 3.2	+ 3.1	+ 5.1
July **3**	+ 0.6	− 0.6	+ 2.4	+ 0.7	± 0.0	+ 0.1	− 3.1	+ 5.1	+ 0.6	− 0.3	+ 2.8	− 3.1
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. **x**	− 2.0	+ 2.1	+ 3.1	− 3.1	− 2.6	− 3.3	− 0.1	− 4.3	− 1.9	− 2.9	+ 0.1	− 9.2
Feb. **x**	+ 0.2	+ 13.5	− 4.8	− 1.3	− 2.1	+ 0.6	+ 0.6	− 5.1	− 2.7	− 3.1	− 0.3	− 1.3
Mar. **x**	− 0.9	+ 9.1	− 6.0	− 2.0	− 1.2	− 2.1	+ 1.7	− 4.6	− 0.7	− 0.9	− 1.4	− 8.0
Apr. **x**	− 2.3	+ 5.5	− 5.0	− 3.4	− 2.6	− 4.4	− 0.2	− 3.4	− 3.6	− 1.0	− 1.2	− 13.1
May **x,p**	− 3.7	+ 0.1	− 7.3	− 4.1	− 5.2	− 2.4	± 0.0	− 7.7	− 5.7	− 2.7	− 2.5	− 6.6

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	101.9	+ 2.1	100.6	+ 0.8	105.3	+ 5.6	99.1	– 0.7
2017	108.6	+ 7.8	109.4	+ 10.6	108.5	+ 6.5	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 May	109.6	+ 5.6	113.1	+ 6.2	107.8	+ 5.3	106.6	+ 4.9	121.0	+ 9.7	101.9	+ 3.1
June	112.3	+ 1.4	114.6	+ 3.3	110.4	– 0.9	115.2	+ 10.8	122.6	+ 4.3	112.8	+ 13.4
July	107.9	+ 2.0	113.6	+ 4.4	102.7	– 1.0	120.7	+ 12.1	120.0	+ 10.3	120.9	+ 12.7
Aug.	98.9	– 0.1	103.2	– 1.6	94.7	+ 0.5	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 p	101.1	– 7.8	102.4	– 9.5	99.9	– 7.3	104.1	– 2.3	113.2	– 6.4	101.0	– 0.9
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 May	106.0	+ 4.6	109.0	+ 5.1	103.4	+ 3.5	105.9	+ 9.7	127.3	+ 28.8	98.7	+ 3.1
June	107.7	– 0.9	110.9	+ 5.1	105.8	– 6.2	101.6	+ 1.7	115.5	+ 7.7	96.9	– 0.5
July	109.6	+ 2.2	112.9	+ 4.3	107.2	+ 0.4	106.3	+ 1.4	108.9	+ 6.6	105.4	– 0.3
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 p	99.1	– 6.5	99.2	– 9.0	99.3	– 4.0	96.9	– 8.5	106.3	– 16.5	93.7	– 5.1
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 May	112.4	+ 6.3	117.6	+ 7.3	110.5	+ 6.4	107.1	+ 1.4	115.9	– 3.0	104.3	+ 3.2
June	115.8	+ 3.2	118.6	+ 1.5	113.2	+ 2.4	125.8	+ 17.4	128.3	+ 1.9	125.0	+ 23.6
July	106.6	+ 1.7	114.3	+ 4.4	100.0	– 1.9	131.8	+ 19.9	128.9	+ 12.9	132.8	+ 22.3
Aug.	99.8	+ 2.6	105.1	+ 2.4	95.5	+ 2.2	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	114.2	+ 0.3	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 p	102.6	– 8.7	105.8	– 10.0	100.3	– 9.2	109.6	+ 2.3	118.8	+ 2.5	106.6	+ 2.2

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								Civil engineering		Industry		Public sector 2	
			Total		Housing construction		Industrial construction		Public sector construction							
	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 Apr.	135.8	+ 1.4	130.7	+ 1.2	141.1	+ 13.1	125.8	– 7.6	114.4	– 2.4	141.8	+ 1.7	127.0	+ 0.2	142.8	– 3.4
May	142.8	+ 14.8	136.9	+ 13.7	130.7	+ 7.9	143.0	+ 25.8	134.9	– 5.8	149.6	+ 16.0	142.7	+ 27.2	150.2	+ 7.0
June	147.1	+ 5.6	141.7	+ 0.7	142.5	– 1.0	136.1	+ 3.0	159.7	– 1.0	153.4	+ 11.3	136.8	+ 7.5	161.6	+ 7.4
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

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	109.5	+ 3.4	105.5	– 2.5	106.8	+ 0.6	103.0	± 0.0	112.4	+ 4.4	127.6	+ 6.0
2018 May	110.5	+ 2.7	106.9	+ 1.1	112.3	+ 5.1	110.0	– 1.0	89.5	+ 0.4	106.2	– 0.9	108.1	+ 1.4	119.3	+ 4.0
June	109.4	+ 3.4	106.2	+ 1.7	111.6	+ 5.9	106.2	– 4.0	99.7	+ 5.1	101.5	– 1.0	109.6	+ 3.4	114.2	+ 2.0
July	110.3	+ 2.6	107.9	+ 1.4	110.4	+ 2.5	105.5	– 2.0	96.5	– 4.5	102.8	– 1.2	115.6	+ 6.0	122.5	+ 9.0
Aug.	106.1	+ 3.0	103.4	+ 1.5	107.1	+ 3.1	98.3	– 1.1	96.9	– 0.2	96.3	– 0.8	109.2	+ 4.8	115.4	+ 4.6
Sep.	107.7	+ 1.9	103.8	+ 0.2	105.5	+ 2.6	108.6	– 8.4	107.6	+ 5.0	99.6	+ 0.4	109.7	+ 3.5	125.7	+ 7.5
Oct.	114.3	+ 3.6	110.0	+ 2.0	110.6	+ 4.2	115.9	– 2.6	107.2	– 1.8	108.5	– 0.3	114.6	+ 5.2	137.1	+ 12.7
Nov.	119.0	+ 3.6	114.8	+ 2.2	109.3	+ 0.9	112.3	– 0.1	130.7	+ 6.3	112.0	+ 2.0	117.8	+ 3.9	164.0	+ 8.6
Dec.	129.1	– 0.2	125.4	– 0.9	126.7	+ 0.8	121.6	– 4.9	157.0	– 2.9	109.3	– 2.5	124.9	+ 1.3	156.2	+ 1.2
2019 Jan.	103.8	+ 3.4	101.3	+ 2.8	101.9	+ 2.6	87.6	– 2.1	110.3	+ 0.2	91.7	+ 1.8	112.8	+ 4.4	131.1	+ 9.3
Feb.	101.5	+ 5.3	98.5	+ 4.3	101.1	+ 2.8	82.6	+ 5.4	93.1	+ 0.8	93.4	+ 5.1	110.2	+ 5.1	120.3	+ 10.5
Mar.	115.6	+ 4.1	111.9	+ 3.6	113.9	+ 3.3	104.1	+ 4.0	103.5	± 0.0	114.7	+ 7.2	117.4	+ 3.3	133.4	+ 5.5
Apr.	114.4	+ 1.3	110.2	+ 0.6	112.8	+ 0.4	109.1	– 9.0	92.7	+ 2.1	114.5	+ 0.5	116.1	+ 2.6	132.8	+ 8.9
May	112.4	+ 1.7	107.9	+ 0.9	111.4	– 0.8	102.5	– 6.8	93.8	+ 4.8	109.5	+ 3.1	114.3	+ 5.7	124.9	+ 4.7

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	42,670	+ 0.8	30,197	+ 1.6	8,860	20,332	770	5,029	134	49	2,898	933	6.7	490
2015	43,071	+ 0.9	30,823	+ 2.1	8,938	20,840	806	4,856	130	44	2,795	859	6.4	569
2016	43,642	+ 1.3	31,508	+ 2.2	9,028	21,407	834	4,804	128	42	2,691	822	6.1	655
2017	44,269	+ 1.4	32,234	+ 2.3	9,146	21,980	868	4,742	114	24	2,533	[7] 855	5.7	731
2018	44,841	+ 1.3	32,964	+ 2.3	9,349	22,532	840	4,671	118	25	2,340	802	5.2	796
2016 Q2	43,563	+ 1.3	31,350	+ 2.2	8,988	21,298	820	4,823	59	47	2,674	782	6.1	653
Q3	43,842	+ 1.3	31,593	+ 2.1	9,056	21,431	858	4,827	46	35	2,651	808	6.0	682
Q4	44,076	+ 1.4	32,014	+ 2.2	9,137	21,770	866	4,781	93	36	2,547	766	5.8	677
2017 Q1	43,729	+ 1.5	31,790	+ 2.3	9,040	21,697	830	4,728	307	41	2,734	[7] 987	6.2	671
Q2	44,195	+ 1.5	32,064	+ 2.3	9,110	21,857	852	4,762	36	25	2,513	822	5.6	717
Q3	44,479	+ 1.5	32,324	+ 2.3	9,172	22,011	892	4,766	28	16	2,504	833	5.6	763
Q4	44,672	+ 1.4	32,759	+ 2.3	9,263	22,354	900	4,711	82	15	2,381	780	5.3	771
2018 Q1	44,370	+ 1.5	32,563	+ 2.4	9,214	22,279	843	4,664	325	24	2,525	909	5.7	760
Q2	44,783	+ 1.3	32,802	+ 2.3	9,296	22,414	843	4,701	23	14	2,325	760	5.1	794
Q3	45,015	+ 1.2	33,040	+ 2.2	9,387	22,546	855	4,694	35	27	2,311	784	5.1	828
Q4	45,195	+ 1.2	33,452	+ 2.1	9,498	22,890	819	4,627	88	35	2,200	755	4.9	804
2019 Q1	[8] 44,851	[8] + 1.1	[9] 33,212	[9] + 2.0	[9] 9,421	[9] 22,801	[9] 761	[9] 4,571	...	[9] 39	2,360	892	5.2	780
Q2	...	...	...	...	...	...	...	...	...	...	[10] 2,227	778	[10,11] 4.9	795
2016 Feb.	43,049	+ 1.4	31,069	+ 2.4	8,923	21,127	793	4,769	343	50	2,911	947	6.6	614
Mar.	43,218	+ 1.4	31,209	+ 2.2	8,954	21,217	804	4,782	252	52	2,845	888	6.5	635
Apr.	43,386	+ 1.3	31,314	+ 2.2	8,983	21,279	809	4,806	67	55	2,744	817	6.3	640
May	43,580	+ 1.3	31,410	+ 2.3	9,000	21,337	826	4,838	57	45	2,664	774	6.0	655
June	43,724	+ 1.3	31,443	+ 2.2	9,010	21,339	846	4,865	54	42	2,614	754	5.9	665
July	43,704	+ 1.2	31,378	+ 2.1	9,007	21,273	853	4,863	43	31	2,661	805	6.0	674
Aug.	43,810	+ 1.3	31,675	+ 2.2	9,076	21,486	865	4,802	50	38	2,684	830	6.1	685
Sep.	44,011	+ 1.3	32,007	+ 2.2	9,157	21,729	869	4,768	46	35	2,608	787	5.9	687
Oct.	44,093	+ 1.3	32,045	+ 2.2	9,154	21,773	871	4,767	50	39	2,540	756	5.8	691
Nov.	44,140	+ 1.3	32,069	+ 2.2	9,147	21,807	876	4,794	52	40	2,532	756	5.7	681
Dec.	43,994	+ 1.4	31,848	+ 2.2	9,063	21,731	835	4,794	178	30	2,568	785	5.8	658
2017 Jan.	43,644	+ 1.5	31,707	+ 2.3	9,017	21,648	825	4,719	370	43	2,777	[7] 1,010	6.3	647
Feb.	43,694	+ 1.5	31,774	+ 2.3	9,032	21,690	828	4,706	335	42	2,762	1,014	6.3	675
Mar.	43,850	+ 1.5	31,930	+ 2.3	9,078	21,777	838	4,722	216	40	2,662	935	6.0	692
Apr.	44,024	+ 1.5	32,013	+ 2.2	9,101	21,831	838	4,748	39	27	2,569	861	5.8	706
May	44,205	+ 1.4	32,131	+ 2.3	9,124	21,900	859	4,775	36	25	2,498	810	5.6	714
June	44,356	+ 1.4	32,165	+ 2.3	9,135	21,902	878	4,802	33	22	2,473	796	5.5	731
July	44,375	+ 1.5	32,128	+ 2.4	9,123	21,869	890	4,803	30	18	2,518	842	5.6	750
Aug.	44,445	+ 1.4	32,396	+ 2.3	9,189	22,060	896	4,739	28	15	2,545	855	5.7	765
Sep.	44,618	+ 1.4	32,732	+ 2.3	9,272	22,304	901	4,711	28	16	2,449	800	5.5	773
Oct.	44,683	+ 1.3	32,778	+ 2.3	9,274	22,355	901	4,696	27	16	2,389	772	5.4	780
Nov.	44,737	+ 1.4	32,830	+ 2.4	9,278	22,395	916	4,720	26	16	2,368	772	5.3	772
Dec.	44,595	+ 1.4	32,609	+ 2.4	9,202	22,319	867	4,722	194	12	2,385	796	5.3	761
2018 Jan.	44,318	+ 1.5	32,504	+ 2.5	9,191	22,249	841	4,660	287	23	2,570	941	5.8	736
Feb.	44,340	+ 1.5	32,551	+ 2.4	9,223	22,262	838	4,642	359	23	2,546	927	5.7	764
Mar.	44,452	+ 1.4	32,660	+ 2.3	9,253	22,334	837	4,656	327	27	2,458	859	5.5	778
Apr.	44,626	+ 1.4	32,782	+ 2.4	9,291	22,404	840	4,686	23	13	2,384	796	5.3	784
May	44,813	+ 1.4	32,857	+ 2.3	9,310	22,450	845	4,718	21	12	2,315	751	5.1	793
June	44,911	+ 1.3	32,870	+ 2.2	9,325	22,439	853	4,742	25	16	2,276	735	5.0	805
July	44,922	+ 1.2	32,844	+ 2.2	9,339	22,396	860	4,736	22	14	2,325	788	5.1	823
Aug.	44,990	+ 1.2	33,131	+ 2.3	9,412	22,609	856	4,664	41	33	2,351	804	5.2	828
Sep.	45,132	+ 1.2	33,422	+ 2.1	9,496	22,827	842	4,619	42	34	2,256	759	5.0	834
Oct.	45,215	+ 1.2	33,488	+ 2.2	9,515	22,895	827	4,616	46	37	2,204	742	4.9	824
Nov.	45,264	+ 1.2	33,513	+ 2.1	9,513	22,934	822	4,638	51	43	2,186	745	4.8	807
Dec.	45,106	+ 1.1	33,286	+ 2.1	9,434	22,854	773	4,637	166	26	2,210	777	4.9	781
2019 Jan.	44,792	+ 1.1	[9] 33,150	[9] + 2.0	[9] 9,406	[9] 22,757	[9] 763	[9] 4,561	...	[9] 43	2,406	919	5.3	758
Feb.	44,817	+ 1.1	[9] 33,200	[9] + 2.0	[9] 9,419	[9] 22,792	[9] 759	[9] 4,551	...	[9] 31	2,373	908	5.3	784
Mar.	[8] 44,943	[8] + 1.1	[9] 33,288	[9] + 1.9	[9] 9,445	[9] 22,853	[9] 750	[9] 4,565	...	[9] 41	2,301	850	5.1	797
Apr.	[8] 45,110	[8] + 1.1	[9] 33,378	[9] + 1.8	[9] 9,462	[9] 22,917	[9] 752	[9] 4,585	...	[9] 44	2,229	795	4.9	796
May	[8] 45,275	[8] + 1.0	...	...	...	...	...	...	...	...	[10] 2,236	772	[10,11] 4.9	792
June	...	...	...	...	...	...	...	...	...	...	2,216	766	4.9	798

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, 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 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]	
	Total [2]	of which: [1] Food [3]	Non-energy industrial goods [4]	Energy [4, 5]	Services [2, 4]	of which: 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	[10] 108.9	101.9	102.7	124.6	106.2
2017 Aug.	103.0	103.8	101.7	96.3	105.2	103.1	102.6	105.7	101.1	112.4	100.3	98.6	90.1	103.3
Sep.	103.0	104.1	102.8	97.5	104.0	103.2	102.7		101.5	110.2	100.5	99.3	96.3	102.8
Oct.	102.7	104.8	103.1	97.4	103.1	103.3	102.5		101.6	109.6	100.6	99.9	101.6	102.7
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	[10] 111.5	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	111.3	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	111.6	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	111.5	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	111.4	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	112.0	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	112.9	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	115.5	102.5	102.7	116.6	106.6
June	106.0	108.4	104.1	104.9	106.6	106.1	105.7		...	...	...	...	102.8	108.6
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	[10] + 0.3	+ 1.2	+ 2.6	+ 25.1	– 0.8
2017 Aug.	+ 1.9	+ 2.9	+ 1.4	+ 2.1	+ 1.8	+ 1.7	+ 1.6	+ 3.4	+ 2.6	+ 13.3	+ 1.4	+ 2.0	+ 7.4	+ 4.8
Sep.	+ 1.9	+ 2.9	+ 1.3	+ 2.7	+ 1.7	+ 1.7	+ 1.7		+ 3.2	+ 11.7	+ 1.5	+ 2.8	+ 14.8	+ 6.0
Oct.	+ 1.5	+ 3.6	+ 1.1	+ 1.2	+ 1.1	+ 1.6	+ 1.3		+ 2.8	+ 8.5	+ 1.3	+ 2.5	+ 5.6	+ 2.9
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	[10] + 1.2	+ 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	+ 2.0	+ 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	+ 2.4	+ 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	+ 5.9	+ 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	+ 6.9	+ 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	+ 6.7	+ 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	+ 10.6	+ 0.7	– 0.2	– 10.2	– 5.2
June	+ 1.5	+ 1.4	+ 1.3	+ 2.4	+ 1.6	+ 1.5	+ 1.6		...	...	...	...	– 21.2	– 2.4

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 September 2018 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	1,088.6	4.8	729.4	3.9	380.4	– 1.3	1,109.8	2.0	1,653.7	2.9	158.2	– 1.2	9.6
2012	1,133.0	4.1	756.8	3.8	387.6	1.9	1,144.5	3.1	1,695.6	2.5	157.6	– 0.4	9.3
2013	1,167.4	3.0	778.3	2.8	388.1	0.1	1,166.4	1.9	1,717.2	1.3	153.7	– 2.5	8.9
2014	1,213.0	3.9	807.2	3.7	398.4	2.6	1,205.6	3.4	1,761.3	2.6	167.2	8.8	9.5
2015	1,261.4	4.0	837.2	3.7	416.5	4.5	1,253.7	4.0	1,805.7	2.5	174.8	4.5	9.7
2016	1,311.9	4.0	869.1	3.8	430.5	3.4	1,299.6	3.7	1,857.5	2.9	181.9	4.1	9.8
2017	1,366.6	4.2	902.9	3.9	444.8	3.3	1,347.7	3.7	1,922.0	3.5	189.8	4.3	9.9
2018	1,432.8	4.8	945.4	4.7	454.9	2.3	1,400.3	3.9	1,982.8	3.2	206.9	9.0	10.4
2017 Q4	377.6	4.0	249.2	3.7	110.3	2.9	359.5	3.5	485.1	2.9	42.0	6.0	8.7
2018 Q1	333.4	4.7	220.3	4.5	115.2	2.1	335.5	3.7	495.1	3.6	67.0	6.4	13.5
Q2	349.2	4.8	225.3	4.7	112.3	2.1	337.6	3.8	493.8	3.1	48.9	8.8	9.9
Q3	355.2	5.3	239.5	5.2	114.4	2.4	353.9	4.2	492.5	2.6	44.2	10.9	9.0
Q4	395.0	4.6	260.3	4.4	113.0	2.5	373.3	3.8	501.4	3.3	46.7	11.2	9.3
2019 Q1	348.6	4.6	231.2	4.9	119.0	3.3	350.2	4.4	510.7	3.2	72.4	8.0	14.2

Source: Federal Statistical Office; figures computed in May 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]			
	2010 = 100	Annual percentage change	2010 = 100	Annual percentage change	2010 = 100	Annual percentage change	2010 = 100	Annual percentage change	2010 = 100	Annual percentage change
2011	101.7	1.7	101.7	1.7	101.8	1.8	101.8	1.8	103.4	3.4
2012	104.4	2.7	104.4	2.6	104.7	2.8	104.7	2.8	106.2	2.7
2013	106.9	2.4	106.9	2.4	107.2	2.4	107.2	2.4	108.4	2.1
2014	110.0	2.9	109.9	2.8	110.1	2.7	110.1	2.7	111.5	2.8
2015	112.6	2.3	112.3	2.2	112.6	2.3	112.7	2.3	114.6	2.8
2016	114.9	2.1	114.7	2.1	115.0	2.1	115.2	2.2	117.3	2.4
2017	117.3	2.1	117.1	2.1	117.4	2.1	117.8	2.3	120.3	2.5
2018	120.7	2.9	120.4	2.9	120.6	2.7	121.0	2.7	124.1	3.2
2017 Q4	130.4	1.9	130.1	1.9	130.5	1.9	118.6	2.2	131.4	2.4
2018 Q1	111.5	2.3	111.3	2.3	111.4	2.1	119.4	2.2	116.8	2.9
Q2	113.7	3.3	113.4	3.3	113.4	3.0	121.1	3.0	121.3	3.1
Q3	123.3	2.9	123.1	2.9	123.5	2.9	121.6	2.8	122.8	3.7
Q4	134.1	2.9	133.9	2.9	134.1	2.8	122.0	2.8	135.5	3.1
2019 Q1	114.8	2.9	114.5	2.9	114.8	3.0	123.0	3.0	120.4	3.1
2018 Nov.	173.2	3.3	172.8	3.3	172.8	2.9	122.1	2.8	.	.
Dec.	115.7	2.9	115.5	2.9	115.8	2.9	122.1	2.9	.	.
2019 Jan.	114.6	3.1	114.4	3.2	114.7	3.1	122.9	3.1	.	.
Feb.	115.1	3.4	114.8	3.4	114.8	3.1	123.0	3.1	.	.
Mar.	114.7	2.2	114.4	2.2	114.8	2.8	123.0	2.8	.	.
Apr.	115.9	2.3	115.7	2.3	116.0	2.5	123.7	2.6	.	.
May	116.0	1.4	115.8	1.4	116.2	2.2	123.8	2.0	.	.

1 Current data are normally revised on account of additional reports. **2** Excluding one-off payments and covenants (capital formation benefits, special payments, such as annual bonuses, holiday pay, Christmas bonuses (13th monthly salary payment) and retirement provisions). **3** Source: Federal Statistical Office; figures computed in May 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 r	2018 r Q3	2018 r Q4	2019 Q1 r	2019 Feb. r	2019 Mar.	2019 Apr. p
A. Current account	+ 334,624	+ 362,825	+ 335,715	+ 85,346	+ 106,622	+ 63,589	+ 18,884	+ 33,326	+ 19,204
1. Goods									
Exports	2,116,412	2,251,144	2,342,609	576,498	616,274	594,057	191,813	212,915	198,038
Imports	1,769,839	1,933,352	2,063,300	514,885	538,540	526,343	165,551	181,157	175,736
Balance	+ 346,576	+ 317,788	+ 279,309	+ 61,614	+ 77,734	+ 67,715	+ 26,262	+ 31,759	+ 22,302
2. Services									
Receipts	818,021	874,456	915,324	240,678	239,956	215,733	66,805	76,996	73,674
Expenditure	774,459	770,519	805,581	205,667	219,296	194,471	60,642	67,254	67,842
Balance	+ 43,561	+ 103,936	+ 109,742	+ 35,010	+ 20,660	+ 21,263	+ 6,163	+ 9,742	+ 5,832
3. Primary income									
Receipts	668,424	694,825	768,040	181,253	209,094	178,661	57,814	60,276	62,247
Expenditure	585,226	616,494	669,878	157,293	157,911	152,097	48,254	54,588	60,668
Balance	+ 83,198	+ 78,332	+ 98,163	+ 23,960	+ 51,183	+ 26,563	+ 9,559	+ 5,688	+ 1,579
4. Secondary income									
Receipts	103,416	107,802	115,563	26,814	30,613	27,079	8,057	9,923	8,567
Expenditure	242,127	245,034	267,062	62,052	73,568	79,031	31,158	23,786	19,076
Balance	– 138,711	– 137,230	– 151,500	– 35,239	– 42,955	– 51,950	– 23,100	– 13,862	– 10,509
B. Capital account	+ 1,620	– 21,413	– 33,451	+ 3,022	– 42,323	– 4,286	– 427	– 3,160	+ 549
C. Financial account (increase: +)	+ 336,720	+ 376,168	+ 279,357	+ 85,257	+ 67,837	+ 57,543	+ 2,792	+ 52,137	– 31,705
1. Direct investment	+ 186,860	+ 78,533	+ 35,822	– 17,026	– 87,365	+ 51,974	+ 12,871	+ 24,314	– 43,681
By resident units abroad	+ 541,442	+ 435,361	– 260,922	– 110,612	– 269,645	+ 79,690	+ 20,647	+ 5,387	+ 30,195
By non-resident units in the euro area	+ 354,583	+ 356,827	– 296,743	– 93,585	– 182,280	+ 27,718	+ 7,776	– 18,926	+ 73,876
2. Portfolio investment	+ 460,718	+ 297,042	+ 216,342	+ 48,471	+ 108,287	– 89,454	– 23,727	– 44,128	+ 12,562
By resident units abroad	+ 386,628	+ 653,092	+ 195,807	+ 38,951	– 35,409	+ 52,883	– 750	+ 15,337	+ 5,335
Equity and investment fund shares	+ 19,665	+ 198,545	+ 40,638	+ 11,399	– 37,508	– 5,960	+ 6,630	– 23,854	+ 20,692
Long-term debt securities	+ 358,992	+ 376,615	+ 187,444	+ 67,123	+ 1,580	+ 60,296	+ 12,721	+ 31,390	+ 10,990
Short-term debt securities	+ 7,971	+ 77,936	– 32,275	– 39,570	+ 518	– 1,453	– 20,102	+ 7,801	– 26,347
By non-resident units in the euro area	– 74,091	+ 356,050	– 20,534	– 9,520	– 143,696	+ 142,337	+ 22,977	+ 59,465	– 7,227
Equity and investment fund shares	+ 112,111	+ 486,296	+ 154,211	– 3,038	+ 36,336	– 11,354	– 34,747	+ 49,727	+ 4,866
Long-term debt securities	– 238,070	– 135,984	– 98,240	+ 3,230	– 101,653	+ 127,659	+ 77,606	– 1,954	+ 4,480
Short-term debt securities	+ 51,868	+ 5,738	– 76,507	– 9,713	– 78,380	+ 26,032	– 19,883	+ 11,693	– 16,573
3. Financial derivatives and employee stock options	+ 15,229	+ 23,967	+ 96,939	+ 34,878	+ 29,871	+ 6,628	– 1,108	+ 6,764	+ 3,604
4. Other investment	– 341,566	– 21,975	– 94,720	+ 17,669	+ 11,216	+ 85,670	+ 14,536	+ 59,970	– 7,354
Eurosystem	– 152,798	– 175,527	– 132,123	+ 40,025	– 148,797	+ 141,268	+ 18,394	– 19,806	+ 28,877
General government	+ 12,593	+ 21,595	– 3,520	– 9,102	+ 15,745	– 9,404	– 8,922	– 5,694	– 5,034
MFIs (excluding the Eurosystem)	– 123,705	+ 144,138	+ 89,661	– 20,810	+ 169,458	– 13,656	– 6,153	+ 110,550	– 47,271
Enterprises and households	– 77,653	– 12,182	– 48,734	+ 7,556	– 25,189	– 32,538	+ 11,217	– 25,080	+ 16,074
5. Reserve assets	+ 15,480	– 1,400	+ 24,972	+ 1,264	+ 5,828	+ 2,727	+ 220	+ 5,218	+ 3,164
D. Net errors and omissions	+ 474	+ 34,755	– 22,907	– 3,112	+ 3,539	– 1,758	– 15,665	+ 21,972	– 51,457

* 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] Total	of which: Supplementary trade items [2]	Services [3]	Primary income	Secondary income		Total	of which: Reserve assets	
2004 r	+ 102,270	+ 152,851	– 7,174	– 35,201	+ 14,577	– 29,957	– 119	+ 112,867	– 1,470	+ 10,715
2005 r	+ 106,942	+ 156,563	– 6,515	– 37,580	+ 19,300	– 31,341	– 2,334	+ 96,436	– 2,182	– 8,172
2006 r	+ 137,674	+ 160,965	– 4,687	– 31,777	+ 40,499	– 32,014	– 1,328	+ 157,142	– 2,934	+ 20,796
2007 r	+ 171,493	+ 201,728	– 1,183	– 32,465	+ 35,620	– 33,390	– 1,597	+ 183,169	+ 953	+ 13,273
2008 r	+ 144,954	+ 184,160	– 3,947	– 29,122	+ 24,063	– 34,147	– 893	+ 121,336	+ 2,008	– 22,725
2009 r	+ 142,744	+ 140,626	– 6,605	– 17,642	+ 54,524	– 34,764	– 1,858	+ 129,693	+ 8,648	– 11,194
2010 r	+ 147,298	+ 160,829	– 6,209	– 25,255	+ 51,306	– 39,582	+ 1,219	+ 92,757	+ 1,613	– 55,760
2011 r	+ 167,340	+ 162,970	– 9,357	– 29,930	+ 69,087	– 34,787	+ 419	+ 120,857	+ 2,836	– 46,902
2012 r	+ 195,712	+ 199,531	– 11,388	– 30,774	+ 65,658	– 38,703	– 413	+ 151,417	+ 1,297	– 43,882
2013 r	+ 184,274	+ 203,802	– 12,523	– 39,399	+ 63,284	– 43,413	– 563	+ 225,371	+ 838	+ 41,660
2014 r	+ 210,735	+ 219,629	– 14,296	– 25,873	+ 57,858	– 40,880	+ 2,936	+ 240,117	– 2,564	+ 26,446
2015 r	+ 259,920	+ 248,394	– 15,405	– 19,242	+ 69,262	– 38,494	– 48	+ 234,404	– 2,213	– 25,467
2016 r	+ 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 r	+ 245,035	+ 221,674	– 24,490	– 20,686	+ 91,666	– 47,619	+ 1,858	+ 228,848	+ 392	– 18,045
2016 Q2 r	+ 69,036	+ 72,328	– 4,699	– 4,297	+ 4,459	– 3,453	– 799	+ 68,761	+ 761	+ 524
Q3 r	+ 60,302	+ 63,541	– 4,007	– 11,827	+ 20,320	– 11,733	+ 412	+ 60,148	– 261	– 566
Q4 r	+ 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 r	+ 69,966	+ 61,219	– 3,973	– 2,203	+ 25,279	– 14,329	+ 4,003	+ 67,340	+ 699	– 6,629
Q2 r	+ 60,605	+ 60,111	– 8,201	– 2,804	+ 8,504	– 5,205	– 2,563	+ 56,803	– 374	– 1,239
Q3 r	+ 48,036	+ 47,693	– 7,861	– 13,139	+ 25,305	– 11,823	– 1,050	+ 39,839	– 493	– 7,147
Q4 r	+ 66,428	+ 52,652	– 4,455	– 2,540	+ 32,578	– 16,262	+ 1,467	+ 64,866	+ 560	– 3,030
2019 Q1	+ 66,974	+ 60,164	– 1,896	– 2,309	+ 25,733	– 16,615	+ 1,408	+ 59,428	– 63	– 8,954
2016 Dec. r	+ 24,390	+ 13,891	– 5,408	+ 1,819	+ 12,733	– 4,053	+ 2,984	+ 38,976	– 38	+ 11,603
2017 Jan.	+ 15,714	+ 15,218	– 880	– 619	+ 7,919	– 6,803	– 104	+ 11,208	– 124	– 4,403
Feb.	+ 21,505	+ 21,492	– 336	– 817	+ 5,441	– 4,611	+ 252	+ 12,282	– 216	– 9,475
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. r	+ 21,070	+ 17,587	– 1,544	– 367	+ 8,866	– 5,016	+ 3,772	+ 27,335	– 121	+ 2,492
Feb. r	+ 19,495	+ 19,147	– 883	– 772	+ 6,465	– 5,346	+ 324	+ 13,905	+ 583	– 5,913
Mar. r	+ 29,401	+ 24,484	– 1,546	– 1,064	+ 9,948	– 3,967	– 92	+ 26,100	+ 236	– 3,208
Apr. r	+ 22,756	+ 20,264	– 2,447	+ 89	+ 4,958	– 2,556	+ 301	+ 30,453	– 670	+ 7,396
May r	+ 13,047	+ 19,112	– 2,380	– 1,360	– 4,851	+ 146	– 27	+ 20,458	+ 83	+ 7,438
June r	+ 24,802	+ 20,734	– 3,373	– 1,533	+ 8,396	– 2,795	– 2,838	+ 5,892	+ 213	– 16,072
July r	+ 13,874	+ 15,287	– 1,892	– 4,865	+ 8,090	– 4,638	– 231	+ 6,482	+ 266	– 7,161
Aug. r	+ 15,185	+ 15,923	– 2,680	– 5,693	+ 8,565	– 3,610	+ 97	+ 21,233	– 640	+ 5,952
Sep. r	+ 18,978	+ 16,483	– 3,289	– 2,581	+ 8,651	– 3,576	– 915	+ 12,124	– 119	– 5,938
Oct. r	+ 20,181	+ 19,801	– 512	– 4,338	+ 9,005	– 4,287	– 822	+ 4,021	+ 700	– 15,337
Nov. r	+ 23,688	+ 19,517	– 2,015	+ 521	+ 9,185	– 5,534	– 489	+ 26,596	– 124	+ 3,398
Dec. r	+ 22,560	+ 13,334	– 1,928	+ 1,277	+ 14,389	– 6,440	+ 2,779	+ 34,248	– 17	+ 8,910
2019 Jan.	+ 18,777	+ 15,789	– 1,006	– 1,088	+ 9,112	– 5,036	+ 2,133	+ 17,677	+ 158	– 3,233
Feb.	+ 17,328	+ 18,983	– 546	– 544	+ 6,868	– 7,979	+ 224	+ 23,417	+ 112	+ 5,866
Mar.	+ 30,869	+ 25,393	– 344	– 677	+ 9,754	– 3,600	– 949	+ 18,333	– 333	– 11,587
Apr.	+ 22,903	+ 19,255	– 972	– 516	+ 7,789	– 3,625	+ 79	+ 18,531	+ 547	– 4,451
May p	+ 16,490	+ 21,251	– 1,260	– 1,052	– 4,231	+ 523	– 405	+ 10,946	+ 182	– 5,139

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	2018 Dec.	2019 Jan.	2019 Feb.	2019 Mar.	2019 Apr.	2019 May p
All countries [1]	Exports	1,203,833	1,278,958	1,317,556	96,036	108,826	108,877	118,441	110,006	113,936
	Imports	954,917	1,031,013	1,089,832	81,753	94,308	91,125	95,864	92,113	93,367
	Balance	+ 248,916	+ 247,946	+ 227,724	+ 14,283	+ 14,518	+ 17,752	+ 22,577	+ 17,893	+ 20,569
I. European countries	Exports	818,644	872,427	900,177	63,377	74,923	75,834	81,303	74,740	77,115
	Imports	657,753	699,677	745,398	56,084	62,700	62,947	66,921	62,819	64,179
	Balance	+ 160,891	+ 172,749	+ 154,779	+ 7,293	+ 12,222	+ 12,887	+ 14,381	+ 11,921	+ 12,937
1. EU Member States (28)	Exports	705,548	749,850	778,645	55,201	65,316	65,731	70,633	64,164	66,039
	Imports	551,344	586,071	623,097	47,428	51,717	53,282	56,793	53,328	54,180
	Balance	+ 154,204	+ 163,780	+ 155,548	+ 7,773	+ 13,599	+ 12,449	+ 13,840	+ 10,836	+ 11,859
Euro area (19) countries	Exports	441,092	471,213	492,508	35,359	41,516	41,478	44,623	41,785	42,269
	Imports	358,848	378,700	404,700	31,385	33,746	34,983	37,050	34,950	35,783
	Balance	+ 82,244	+ 92,513	+ 87,807	+ 3,975	+ 7,770	+ 6,495	+ 7,573	+ 6,834	+ 6,486
of which:										
Austria	Exports	59,778	62,656	64,975	4,663	5,400	5,526	5,930	5,689	5,795
	Imports	38,543	40,686	43,115	3,138	3,620	3,664	3,915	3,885	3,944
	Balance	+ 21,235	+ 21,970	+ 21,860	+ 1,525	+ 1,781	+ 1,862	+ 2,015	+ 1,804	+ 1,851
Belgium and Luxembourg	Exports	46,931	50,071	50,396	3,663	4,307	4,280	4,630	4,413	4,508
	Imports	40,960	43,689	49,493	3,862	4,440	4,316	3,959	3,942	3,907
	Balance	+ 5,971	+ 6,381	+ 903	– 199	– 133	– 37	+ 671	+ 471	+ 601
France	Exports	101,106	105,687	105,282	7,853	9,017	9,270	9,682	9,280	9,053
	Imports	65,651	64,329	65,190	5,097	5,384	5,589	6,095	5,618	5,714
	Balance	+ 35,454	+ 41,359	+ 40,092	+ 2,755	+ 3,633	+ 3,681	+ 3,587	+ 3,661	+ 3,339
Italy	Exports	61,265	65,422	69,924	4,744	5,777	5,720	6,361	5,628	5,969
	Imports	51,737	55,342	60,325	4,171	4,502	4,731	5,076	4,735	4,796
	Balance	+ 9,528	+ 10,080	+ 9,599	+ 573	+ 1,275	+ 989	+ 1,285	+ 892	+ 1,173
Netherlands	Exports	78,433	84,661	91,125	6,731	7,876	7,642	8,362	7,713	7,684
	Imports	83,142	90,597	98,026	8,160	7,771	8,882	9,312	8,220	8,525
	Balance	– 4,709	– 5,935	– 6,900	– 1,429	+ 104	– 1,240	– 950	– 507	– 841
Spain	Exports	40,497	43,067	44,231	3,178	3,816	3,810	4,047	3,803	3,855
	Imports	27,870	31,396	32,472	2,600	2,885	2,665	3,082	2,697	3,355
	Balance	+ 12,627	+ 11,671	+ 11,759	+ 578	+ 931	+ 1,145	+ 965	+ 1,106	+ 501
Other EU Member States	Exports	264,456	278,638	286,138	19,842	23,800	24,254	26,010	22,380	23,770
	Imports	192,496	207,371	218,397	16,043	17,971	18,299	19,743	18,378	18,397
	Balance	+ 71,960	+ 71,267	+ 67,741	+ 3,798	+ 5,829	+ 5,955	+ 6,267	+ 4,002	+ 5,373
of which:										
United Kingdom	Exports	85,939	85,440	82,040	5,549	7,083	7,532	8,096	5,573	6,432
	Imports	35,654	36,820	37,118	2,818	3,120	2,967	3,429	2,765	2,686
	Balance	+ 50,285	+ 48,620	+ 44,922	+ 2,731	+ 3,962	+ 4,565	+ 4,667	+ 2,808	+ 3,746
2. Other European countries	Exports	113,096	122,576	121,531	8,176	9,607	10,103	10,670	10,576	11,076
	Imports	106,409	113,607	122,301	8,657	10,983	9,665	10,128	9,491	9,999
	Balance	+ 6,687	+ 8,969	– 770	– 481	– 1,376	+ 437	+ 541	+ 1,085	+ 1,078
of which:										
Switzerland	Exports	50,161	53,913	54,041	3,629	4,654	4,531	4,809	4,766	4,909
	Imports	43,896	45,689	45,940	3,105	4,127	3,603	4,007	3,587	4,223
	Balance	+ 6,265	+ 8,224	+ 8,101	+ 524	+ 527	+ 928	+ 802	+ 1,178	+ 686
II. Non-European countries	Exports	382,486	403,490	413,560	32,394	33,620	32,777	36,847	34,967	36,489
	Imports	297,164	328,606	343,106	25,549	31,481	27,826	28,759	29,119	29,010
	Balance	+ 85,322	+ 74,884	+ 70,454	+ 6,845	+ 2,139	+ 4,950	+ 8,089	+ 5,847	+ 7,479
1. Africa	Exports	24,434	25,431	22,639	1,894	1,957	1,926	2,128	1,878	2,136
	Imports	16,675	20,428	22,514	1,734	1,994	1,643	1,878	2,151	2,087
	Balance	+ 7,759	+ 5,003	+ 124	+ 161	– 37	+ 283	+ 250	– 273	+ 48
2. America	Exports	147,542	154,644	158,946	11,794	13,114	12,886	14,887	13,648	14,148
	Imports	83,499	89,927	92,434	6,796	8,333	8,127	8,213	8,148	8,457
	Balance	+ 64,043	+ 64,717	+ 66,512	+ 4,998	+ 4,781	+ 4,760	+ 6,675	+ 5,500	+ 5,691
of which:										
United States	Exports	106,822	111,805	113,293	8,475	9,442	9,075	10,608	9,788	10,133
	Imports	57,968	61,902	64,514	4,758	5,812	5,901	5,960	5,789	5,977
	Balance	+ 48,855	+ 49,903	+ 48,779	+ 3,717	+ 3,630	+ 3,174	+ 4,648	+ 3,999	+ 4,156
3. Asia	Exports	200,158	212,070	219,685	17,768	17,683	16,981	18,926	18,419	19,252
	Imports	193,979	214,393	224,520	16,766	20,880	17,822	18,295	18,523	18,055
	Balance	+ 6,179	– 2,323	– 4,835	+ 1,002	– 3,196	– 841	+ 632	– 104	+ 1,197
of which:										
Middle East	Exports	36,659	33,104	29,148	2,862	1,914	1,956	2,480	2,116	2,456
	Imports	6,581	6,963	8,144	574	663	535	610	618	603
	Balance	+ 30,079	+ 26,141	+ 21,003	+ 2,289	+ 1,251	+ 1,420	+ 1,870	+ 1,497	+ 1,853
Japan	Exports	18,307	19,546	20,441	1,662	1,961	1,643	1,832	1,644	1,657
	Imports	21,922	22,955	23,722	1,636	2,085	1,938	2,034	2,109	2,109
	Balance	– 3,615	– 3,410	– 3,280	+ 26	– 124	– 295	– 202	– 466	– 453
People's Republic of China [2]	Exports	76,046	86,141	93,037	7,103	7,812	7,428	8,287	8,295	8,183
	Imports	94,172	101,837	106,260	8,371	10,452	8,375	8,322	8,404	8,495
	Balance	– 18,126	– 15,695	– 13,223	– 1,267	– 2,640	– 946	– 35	– 108	– 312
New industrial countries and emerging markets of Asia [3]	Exports	51,921	53,425	54,926	4,033	4,470	4,310	4,607	4,396	4,841
	Imports	42,966	50,873	52,955	4,003	4,631	4,216	4,428	4,513	4,182
	Balance	+ 8,955	+ 2,552	+ 1,971	+ 31	– 161	+ 94	+ 179	– 118	+ 659
4. Oceania and polar regions	Exports	10,352	11,344	12,291	937	866	984	905	1,021	954
	Imports	3,011	3,857	3,638	253	275	235	373	297	411
	Balance	+ 7,341	+ 7,487	+ 8,653	+ 684	+ 591	+ 748	+ 532	+ 724	+ 543

***** 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 Q3	– 12,334	– 1,123	– 17,109	+ 2,693	+ 1,275	+ 128	+ 435	+ 558	– 822	+ 23,960	– 1,147
Q4	– 1,651	– 1,013	– 9,509	+ 2,970	+ 2,263	+ 1,084	– 72	+ 381	– 150	+ 26,848	+ 3,133
2018 Q1	– 2,203	– 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
2018 July	– 4,865	– 103	– 5,859	+ 744	+ 168	– 104	– 443	+ 256	– 332	+ 8,767	– 346
Aug.	– 5,693	– 271	– 6,570	+ 280	+ 989	– 171	– 271	+ 187	– 306	+ 9,198	– 327
Sep.	– 2,581	– 280	– 5,789	+ 752	+ 446	+ 562	+ 1,040	+ 379	– 281	+ 9,198	– 266
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 p	– 1,052	+ 127	– 3,401	+ 784	+ 934	– 125	– 114	+ 279	– 155	– 3,024	– 1,052

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	Total	General government			All sectors excluding general government [2]		
		Total	of which:		Total	of which:	
			Current international cooperation [1]	Current taxes on income, wealth, etc.		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 Q3	– 10,893	– 5,341	– 1,557	+ 1,780	– 5,552	– 1,157	– 1,153
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
2018 July	– 4,638	– 2,760	– 858	+ 184	– 1,878	– 430	– 429
Aug.	– 3,610	– 2,441	– 529	+ 281	– 1,169	– 429	– 429
Sep.	– 3,576	– 2,048	– 540	+ 760	– 1,527	– 429	– 429
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 p	+ 523	+ 2,199	– 334	+ 4,128	– 1,677	– 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 Q3	+ 766	+ 1,396	– 630
Q4	– 652	+ 216	– 868
2018 Q1	+ 4,003	+ 3,390	+ 613
Q2	– 2,563	– 48	– 2,515
Q3	– 1,050	– 297	– 753
Q4	+ 1,467	+ 2,329	– 862
2019 Q1	+ 1,408	+ 845	+ 563
2018 July	– 231	+ 85	– 316
Aug.	+ 97	+ 244	– 147
Sep.	– 915	– 626	– 289
Oct.	– 822	– 594	– 228
Nov.	– 489	– 313	– 176
Dec.	+ 2,779	+ 3,237	– 458
2019 Jan.	+ 2,133	+ 1,831	+ 302
Feb.	+ 224	– 241	+ 465
Mar.	– 949	– 745	– 203
Apr.	+ 79	+ 305	– 226
May p	– 405	– 537	+ 132

XII. External sector

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

€ million

Item	2016	2017	2018	2018 Q3	2018 Q4	2019 Q1	2019 Mar.	2019 Apr.	2019 May p
I. Net domestic investment abroad (increase: +)	+ 401,354	+ 376,599	+ 352,485	+ 58,020	+ 9,965	+ 128,959	+ 120,993	+ 13,114	+ 31,953
1. Direct investment	+ 99,180	+ 123,084	+ 132,671	+ 24,534	+ 2,237	+ 44,205	+ 20,724	+ 15,338	+ 10,074
Equity	+ 83,199	+ 76,326	+ 140,071	+ 24,116	+ 11,697	+ 24,175	+ 6,754	+ 17,275	+ 7,166
of which: Reinvestment of earnings [1]	+ 32,535	+ 24,572	+ 31,689	+ 8,735	+ 3,530	+ 12,762	+ 3,466	+ 4,398	+ 5,544
Debt instruments	+ 15,981	+ 46,758	– 7,400	+ 418	– 9,459	+ 20,030	+ 13,970	– 1,937	+ 2,909
2. Portfolio investment	+ 96,969	+ 106,469	+ 68,098	+ 27,974	– 8,940	+ 36,459	– 901	+ 7,819	+ 8,657
Shares [2]	+ 16,954	+ 14,229	+ 9,406	+ 3,866	– 504	+ 481	– 3,268	+ 550	+ 1,369
Investment fund shares [3]	+ 37,698	+ 50,094	+ 18,658	+ 3,959	– 441	+ 10,695	+ 3,000	+ 2,923	– 1,533
Long-term debt securities [4]	+ 48,544	+ 44,184	+ 44,648	+ 20,819	– 2,411	+ 17,978	– 2,422	+ 6,954	+ 2,309
Short-term debt securities [5]	– 6,227	– 2,038	– 4,613	– 671	– 5,585	+ 7,304	+ 1,789	– 2,608	+ 6,512
3. Financial derivatives and employee stock options [6]	+ 29,053	+ 11,618	+ 23,253	+ 10,660	+ 537	+ 6,184	+ 1,900	+ 5,120	+ 4,403
4. Other investment [7]	+ 174,467	+ 136,697	+ 128,070	– 4,656	+ 15,571	+ 42,174	+ 99,603	– 15,710	+ 8,636
Monetary financial institutions [8]	+ 18,509	– 20,986	+ 49,856	+ 1,171	+ 1,493	+ 51,097	+ 26,030	+ 21,613	– 3,872
Long-term	+ 44,861	+ 19,641	+ 4,456	+ 3,336	+ 3,023	+ 12,324	+ 3,997	+ 1,919	+ 875
Short-term	– 26,353	– 40,627	+ 45,400	– 2,165	– 1,530	+ 38,773	+ 22,033	+ 19,694	– 4,747
Enterprises and households [9]	– 13,510	+ 5,039	+ 30,233	+ 16,433	+ 5,877	+ 11,630	+ 7,492	– 11,626	– 6,506
Long-term	– 3,237	– 2,062	+ 10,456	+ 2,606	+ 2,393	– 14	– 1,247	+ 838	+ 945
Short-term	– 10,273	+ 7,102	+ 19,777	+ 13,826	+ 3,484	+ 11,645	+ 8,739	– 12,465	– 7,451
General government	– 1,022	– 3,993	– 8,814	– 4,063	+ 1,020	+ 1,764	+ 2,064	– 3,017	+ 2,538
Long-term	– 7,408	– 4,408	– 1,097	+ 714	– 121	– 358	– 750	– 215	+ 30
Short-term	+ 6,386	+ 415	– 7,717	– 4,777	+ 1,141	+ 2,122	+ 2,814	– 2,802	+ 2,508
Bundesbank	+ 170,491	+ 156,637	+ 56,795	– 18,197	+ 7,181	– 22,318	+ 64,017	– 22,680	+ 16,476
5. Reserve assets	+ 1,686	– 1,269	+ 392	– 493	+ 560	– 63	– 333	+ 547	+ 182
II. Net foreign investment in the reporting country (increase: +)	+ 141,635	+ 93,652	+ 123,637	+ 18,180	– 54,901	+ 69,531	+ 102,660	– 5,417	+ 21,007
1. Direct investment	+ 56,018	+ 74,395	+ 89,151	+ 17,882	+ 25,853	+ 8,953	– 2,635	+ 10,128	+ 11,885
Equity	+ 13,883	+ 21,255	+ 13,396	+ 2,282	+ 7,680	+ 8,138	+ 3,197	+ 1,063	+ 1,103
of which: Reinvestment of earnings [1]	+ 2,188	+ 8,115	+ 4,531	+ 211	+ 2,551	+ 4,062	+ 774	+ 1,064	+ 813
Debt instruments	+ 42,135	+ 53,140	+ 75,755	+ 15,600	+ 18,172	+ 815	– 5,832	+ 9,065	+ 10,783
2. Portfolio investment	– 102,008	– 90,176	– 44,980	– 11,969	– 27,860	+ 53,202	+ 21,309	– 12,038	+ 25,772
Shares [2]	– 221	– 715	+ 6,618	– 1,589	+ 14	– 3,977	– 913	– 869	– 1,309
Investment fund shares [3]	– 6,932	– 1,991	– 5,821	– 341	– 654	– 3,801	– 732	– 301	– 1,306
Long-term debt securities [4]	– 95,327	– 70,432	– 47,593	– 13,850	– 22,480	+ 38,800	+ 5,830	– 169	+ 18,770
Short-term debt securities [5]	+ 471	– 17,039	+ 1,815	+ 3,811	– 4,740	+ 22,179	+ 17,124	– 10,699	+ 9,616
3. Other investment [7]	+ 187,625	+ 109,433	+ 79,466	+ 12,268	– 52,893	+ 7,376	+ 83,985	– 3,507	– 16,650
Monetary financial institutions [8]	+ 86,742	+ 17,476	– 35,965	+ 8,519	– 108,955	+ 102,619	+ 38,269	+ 33,870	– 11,335
Long-term	+ 5,774	+ 7,541	– 8,496	– 3,878	– 509	+ 1,223	+ 755	+ 405	+ 706
Short-term	+ 80,968	+ 9,935	– 27,469	+ 12,397	– 108,446	+ 101,396	+ 37,514	+ 33,465	– 12,041
Enterprises and households [9]	– 4,658	+ 23,541	+ 15,750	+ 14,391	– 19,053	+ 26,964	+ 24,335	– 9,827	+ 2,190
Long-term	+ 78	+ 8,855	+ 8,259	– 2,054	– 1,417	+ 3,091	– 148	+ 2,934	– 2,239
Short-term	– 4,736	+ 14,687	+ 7,491	+ 16,445	– 17,636	+ 23,873	+ 24,483	– 12,761	+ 4,428
General government	– 5,309	– 8,719	+ 2,890	+ 4,069	– 4,205	+ 6,805	+ 4,523	– 369	– 200
Long-term	– 4,682	– 3,723	+ 660	+ 101	+ 402	– 1	– 11	– 55	– 16
Short-term	– 626	– 4,996	+ 2,230	+ 3,968	– 4,607	+ 6,807	+ 4,535	– 314	– 184
Bundesbank	+ 110,849	+ 77,135	+ 96,792	– 14,710	+ 79,319	– 129,012	+ 16,858	– 27,181	– 7,305
III. Net financial account (net lending: +/net borrowing: -)	+ 259,720	+ 282,947	+ 228,848	+ 39,839	+ 64,866	+ 59,428	+ 18,333	+ 18,531	+ 10,946

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)
	Total	Reserve assets					Other investment		Portfolio investment 2		
		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			
	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
2016 Oct.	947,718	181,623	126,245	14,708	6,631	34,039	720,795	708,029	45,300	542,995	404,723
Nov.	991,108	177,348	121,032	14,917	6,572	34,826	766,905	754,057	46,855	552,558	438,550
Dec.	990,450	175,765	119,253	14,938	6,581	34,993	767,128	754,263	47,557	592,723	397,727
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	639,150	484,019
Feb.	1,127,455	178,016	125,793	14,496	5,510	32,217	894,226	872,698	55,214	620,052	507,404
Mar.	1,190,416	178,088	125,302	14,629	5,561	32,596	958,243	941,310	54,086	637,050	553,366
Apr.	1,167,188	177,378	124,046	14,622	6,228	32,482	935,563	919,696	54,247	609,858	557,329
May	1,186,394	180,073	126,092	14,637	6,150	33,193	952,038	934,640	54,283	602,571	583,822
June	1,201,041	187,401	134,470	14,473	6,081	32,377	960,158	942,319	53,482	634,888	566,153

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
2018 Dec.	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 Jan.	920,513	231,959	688,554	456,365	232,189	218,067	14,121	1,186,689	149,754	1,036,935	837,130	199,805	128,847	70,958
Feb.	935,021	234,300	700,721	466,686	234,036	219,649	14,387	1,194,265	146,169	1,048,097	849,383	198,713	127,000	71,713
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	946,253	220,171	726,083	489,257	236,826	222,428	14,398	1,237,898	158,368	1,079,530	880,716	198,815	126,997	71,817
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
2018 Dec.	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 Jan.	797,882	227,225	570,657	411,689	158,968	146,553	12,415	1,071,055	134,564	936,492	797,253	139,239	104,035	35,204
Feb.	813,733	229,668	584,065	421,232	162,833	150,078	12,755	1,085,646	136,836	948,810	808,802	140,008	104,544	35,464
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	820,086	215,410	604,676	442,696	161,980	149,167	12,813	1,120,208	138,968	981,240	841,917	139,323	104,256	35,067
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
2018 Dec.	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 Jan.	636,908	205,944	430,964	320,731	110,233	100,652	9,582	877,374	118,330	759,045	663,219	95,825	71,078	24,747
Feb.	650,225	208,717	441,508	328,407	113,101	103,363	9,738	894,944	121,467	773,477	675,400	98,077	73,042	25,036
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	653,957	194,597	459,361	346,502	112,859	103,206	9,653	918,748	120,516	798,232	700,723	97,510	72,992	24,518
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
2018 Dec.	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 Jan.	467,975	156,211	311,764	240,030	71,734	64,716	7,018	710,224	72,176	638,047	572,881	65,166	49,197	15,969
Feb.	474,189	157,169	317,021	244,083	72,937	65,794	7,143	722,514	75,863	646,651	580,051	66,600	50,332	16,268
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	476,239	150,912	325,327	251,442	73,885	66,761	7,125	742,368	75,264	667,103	602,347	64,757	49,494	15,263
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
2018 Dec.	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 Jan.	120,577	2,946	117,630	44,548	73,082	71,376	1,707	101,471	1,299	100,172	39,677	60,496	24,780	35,716
Feb.	119,242	2,851	116,391	45,325	71,066	69,434	1,631	100,315	1,304	99,011	40,381	58,630	22,424	36,205
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	124,170	3,275	120,895	46,216	74,680	73,095	1,584	99,259	1,241	98,018	38,599	59,419	22,705	36,714

* 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 Mar.	1.5889	1.5943	7.7982	7.4490	130.86	9.5848	10.1608	1.1685	0.88287	1.2336
Apr.	1.5972	1.5622	7.7347	7.4479	132.16	9.6202	10.3717	1.1890	0.87212	1.2276
May	1.5695	1.5197	7.5291	7.4482	129.57	9.5642	10.3419	1.1780	0.87726	1.1812
June	1.5579	1.5327	7.5512	7.4493	128.53	9.4746	10.2788	1.1562	0.87886	1.1678
July	1.5792	1.5356	7.8504	7.4523	130.23	9.4975	10.3076	1.1622	0.88726	1.1686
Aug.	1.5762	1.5063	7.9092	7.4558	128.20	9.6161	10.4668	1.1413	0.89687	1.1549
Sep.	1.6189	1.5211	7.9930	7.4583	130.54	9.6205	10.4426	1.1286	0.89281	1.1659
Oct.	1.6158	1.4935	7.9481	7.4597	129.62	9.4793	10.3839	1.1413	0.88272	1.1484
Nov.	1.5681	1.4998	7.8880	7.4611	128.79	9.6272	10.2918	1.1377	0.88118	1.1367
Dec.	1.5849	1.5278	7.8398	7.4653	127.88	9.8055	10.2766	1.1293	0.89774	1.1384
2019 Jan.	1.5975	1.5196	7.7504	7.4657	124.34	9.7631	10.2685	1.1297	0.88603	1.1416
Feb.	1.5895	1.4995	7.6485	7.4627	125.28	9.7444	10.4986	1.1368	0.87264	1.1351
Mar.	1.5959	1.5104	7.5868	7.4625	125.67	9.7181	10.4999	1.1311	0.85822	1.1302
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

* Averages: Bundesbank calculations based on the daily euro foreign exchange reference rates published by the ECB; for additional euro foreign exchange reference rates, see Statistical Supplement 5 – Exchange rate statistics.

11. Euro area countries and irrevocable euro conversion rates in the third stage of Economic and Monetary Union

From	Country	Currency	ISO currency code	EUR 1 = currency units ...
1999 January 1	Austria	Austrian schilling	ATS	13.7603
	Belgium	Belgian franc	BEF	40.3399
	Finland	Finnish markka	FIM	5.94573
	France	French franc	FRF	6.55957
	Germany	Deutsche Mark	DEM	1.95583
	Ireland	Irish pound	IEP	0.787564
	Italy	Italian lira	ITL	1,936.27
	Luxembourg	Luxembourg franc	LUF	40.3399
	Netherlands	Dutch guilder	NLG	2.20371
	Portugal	Portuguese escudo	PTE	200.482
	Spain	Spanish peseta	ESP	166.386
2001 January 1	Greece	Greek drachma	GRD	340.750
2007 January 1	Slovenia	Slovenian tolar	SIT	239.640
2008 January 1	Cyprus	Cyprus pound	CYP	0.585274
	Malta	Maltese lira	MTL	0.429300
2009 January 1	Slovakia	Slovak koruna	SKK	30.1260
2011 January 1	Estonia	Estonian kroon	EEK	15.6466
2014 January 1	Latvia	Latvian lats	LVL	0.702804
2015 January 1	Lithuania	Lithuanian litas	LTL	3.45280

XII. External sector

12. Effective exchange rates of the euro and indicators of the German economy's price competitiveness *

1999Q1=100

Period	Effective exchange rate of the euro vis-à-vis the currencies of the group						Indicators of the German economy's price competitiveness						
	EER-19 1				EER-38 2		Based on the deflators of total sales 3 vis-à-vis				Based on consumer price indices vis-à-vis		
							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	96.0	96.0	96.5	95.8	97.9	99.5	95.9	97.6	98.3	98.1	97.7
2000	87.2	86.7	86.0	85.3	88.0	85.8	91.8	97.3	85.3	90.9	93.0	92.1	91.0
2001	87.8	87.0	86.5	86.0	90.6	86.8	91.7	96.4	86.2	90.2	93.1	91.5	90.9
2002	90.1	90.0	89.4	89.3	95.2	90.4	92.3	95.4	88.7	90.7	93.6	92.0	91.7
2003	100.7	101.1	100.3	100.5	107.1	101.2	95.7	94.4	97.8	94.8	97.0	96.6	96.7
2004	104.6	104.8	103.1	103.8	111.7	104.9	95.9	93.2	100.2	95.1	98.4	98.0	98.3
2005	102.9	103.3	100.9	101.9	109.6	102.3	94.8	91.9	99.3	92.9	98.4	96.9	96.6
2006	102.8	103.1	100.1	100.6	109.6	101.5	93.5	90.3	98.7	91.2	98.6	96.5	95.8
2007	106.1	105.8	101.9	102.8	113.0	103.4	94.4	89.5	102.5	91.4	100.9	97.9	97.1
2008	109.3	107.9	103.2	106.1	117.1	105.4	94.6	88.1	105.6	90.4	102.2	97.8	97.1
2009	110.7	108.7	104.1	111.0	120.2	106.4	94.8	88.8	105.0	91.0	101.8	98.0	97.5
2010	103.6	101.0	95.9	102.9	111.6	97.4	92.3	88.5	98.6	87.2	98.7	93.6	92.0
2011	103.3	99.9	93.7	101.4	112.3	96.9	92.0	88.3	97.9	86.4	98.2	92.8	91.3
2012	97.7	94.7	88.3	95.3	107.2	92.1	90.1	88.2	92.9	83.7	95.9	89.8	88.3
2013	101.0	97.5	91.0	97.8	111.8	94.9	92.4	88.7	98.1	85.6	98.2	91.5	90.2
2014	101.4	97.1	91.0	98.7	114.1	95.3	92.9	89.5	98.4	86.3	98.3	91.7	90.8
2015	91.7	87.6	82.9	88.5	105.7	87.0	90.1	90.4	89.7	82.6	94.7	87.0	86.3
2016	94.4	89.5	85.1	p 89.3	109.7	p 88.9	91.0	90.9	91.2	84.1	95.3	88.0	p 87.5
2017	96.6	91.4	86.0	p 89.8	112.0	p 90.0	92.3	91.1	94.2	85.0	96.6	89.1	p 88.3
2018	98.9	93.4	87.5	p 90.9	117.9	p 93.8	93.5	91.2	97.1	86.0	97.9	90.3	p 90.4
2016 July	94.6	89.8			109.5	p 88.7					95.3	88.1	p 87.4
Aug.	94.9	90.0	85.5	p 89.6	110.0	p 89.1	91.1	90.8	91.6	84.2	95.6	88.2	p 87.6
Sep.	95.1	90.2			110.2	p 89.2					95.6	88.3	p 87.7
Oct.	95.1	90.3			110.0	p 89.0					95.9	88.4	p 87.6
Nov.	94.6	89.7	84.8	p 88.8	109.6	p 88.6	91.0	90.8	91.2	83.9	95.5	88.1	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 87.9	108.1	p 87.4	90.8	90.8	90.6	83.5	95.1	87.7	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 88.8	110.5	p 88.8	91.7	91.2	92.5	84.5	96.0	88.6	p 87.6
June	96.3	91.2			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 91.4	115.0	p 92.3	93.3	91.3	96.5	86.1	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 91.1	115.0	p 92.0	93.5	91.2	97.0	86.0	97.9	90.2	p 89.7
Dec.	98.8	93.3			115.3	p 92.1					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	88.1	p 91.5	117.3	p 93.6	93.9	91.1	98.4	86.2	98.4	90.4	p 90.1
Mar.	99.7	94.2			117.7	p 93.9					98.4	90.6	p 90.3
Apr.	99.5	94.0			117.9	p 94.0					98.6	90.6	p 90.5
May	98.1	92.8	87.1	p 90.5	116.6	p 93.1	93.7	91.3	97.4	85.7	98.0	90.0	p 89.9
June	97.9	92.6			116.7	p 93.1					97.8	89.9	p 90.0
July	99.2	93.8			118.2	p 94.2					97.7	90.4	p 90.5
Aug.	99.0	93.4	87.7	p 91.3	119.0	p 94.6	93.5	91.3	96.8	86.2	97.6	90.3	p 90.7
Sep.	99.5	93.9			120.4	p 95.6					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	87.1	p 90.4	117.9	p 93.5	93.1	91.3	95.9	85.8	97.6	90.3	p 90.5
Dec.	98.4	92.7			118.0	p 93.3					97.4	90.0	p 90.2
2019 Jan.	97.8	92.1			117.3	p 92.7					97.0	89.5	p 89.7
Feb.	97.4	91.7	p 85.9	p 89.1	116.6	p 92.0	p 92.8	p 91.3	95.1	p 85.2	96.9	89.3	p 89.4
Mar.	96.9	91.0			116.2	p 91.5					96.5	88.8	p 88.9
Apr.	96.7	p 91.0			116.1	p 91.4					96.8	p 89.0	p 89.1
May	97.4	p 91.4	...	...	117.0	p 91.9	...	...	...	...	97.0	p 89.4	p 89.6
June	97.9	p 91.8			117.4	p 92.2					p 97.0	p 89.5	p 89.6

***** 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

August 2018
- The current economic situation in Germany

September 2018
- Models for short-term economic forecasts: an update
- The performance of German credit institutions in 2017

October 2018
- State government finances: comparison of developments, debt brakes and fiscal surveillance
- The macroeconomic impact of uncertainty
- Activities of multinational enterprise groups and national economic statistics
- The growing importance of exchange-traded funds in the financial markets

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

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*

16/2019
Extreme inflation and time-varying consumption growth

17/2019
Stress testing the German mortgage market

18/2019
Agricultural productivity shocks and poverty in India: The short- and long-term effects of monsoon rainfall

19/2019
Banks' holdings of risky sovereign bonds in the absence of the nexus – yield seeking with central bank funding or de-risking?

20/2019
The rise of part-time work: A German-French comparison

21/2019
Bank profitability, leverage constraints, and risk-taking

22/2019
Financial cycles across G7 economies: A view from wavelet analysis

23/2019
Bank loan supply shocks and alternative financing of non-financial corporations in the euro area

24/2019
Capital flows in the euro area and TARGET2 balances

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.