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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 Data unknown, not to be published or not meaningful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 economic output likely to show strong countermovement following slump in second quarter

The German economy is gradually recovering from its severe slump in the wake of the coronavirus pandemic. The progressive easing of the constraints on economic and social life led to economic activity picking up from May 2020 onwards. This catch-up movement continued in July and probably also in August, albeit with waning momentum. The massive seasonally adjusted decline in gross domestic product (GDP) in spring of almost one-tenth on the quarter is likely to be followed by a strong countermovement in the third quarter of 2020. Nevertheless, the third quarter will still be significantly down on the level before the crisis. This applies equally to industry and to services as a whole.

Recovery is likely to continue at slower pace

The recovery is likely to continue over the course of the year, albeit at a slower pace. In the industrial sector, enterprises are looking with greater optimism to the future again, with the majority expecting to step up their production again in the coming months, according to the results of the Ifo business survey. However, expectations regarding export business are still subdued and the inflow of orders was perceptibly losing momentum towards the end of the period under review. Various restrictions remain in place in the case of services, and activity is still significantly below its pre-crisis level in many areas. This is particularly true of the hotel and restaurant sector and of many leisure and cultural services. Moreover, the GfK consumer climate index shows that – after showing a marked recovery – consumer sentiment suffered a setback in August owing to reduced income prospects. Another factor in this may have been that rising infection rates and concerns about a renewed tightening of containment measures were weighing on consumer sentiment at the time of the survey.

Industry

Industrial output continuing to recover at a slower pace in July

German industry continued its recovery in July 2020, although the catch-up movement in industrial production was clearly losing momentum. Owing to the rapid pace of growth in the two preceding months, there was nevertheless a strong increase compared with the average of the second quarter (+13½%). While this meant that there was a further narrowing of the gap compared with the pre-crisis level, the shortfall was still significant. Seasonally adjusted industrial output in the reporting month was around one-tenth lower than the average of the fourth quarter of 2019. At the beginning of the third quarter, the decline was particularly large in the case of capital goods with the automotive sector being most affected. A markedly smaller decrease was registered by manufacturers of consumer goods, who also had smaller losses to cope with in April, however.

Orders in July with profile similar to output

In July 2020, new orders in German industry showed a profile similar to that of output. In seasonally adjusted terms, demand for German industrial products showed a further rise (+2¾%) compared with the previous month, the figure for which has been revised upwards somewhat. This meant that the increase was far smaller than in May and June (+10½% and +28¾%). Compared with the strongly depressed second quarter overall, a significant improvement was recorded in the reporting month (+24½%). Broken down by sector, demand in the capital goods sector rose particularly sharply compared with the second quarter, although it should be borne in mind that this industry also had to cope with the largest decline in the second quarter. In a regional breakdown, the growth in domestic demand compared with the second quarter (+12½%) was markedly smaller than the corresponding increase in demand for exports (+34½%). In this regional comparison, the strong inflow of

Economic conditions in Germany*

Seasonally adjusted

Period	Orders received (volume); 2015 = 100			
	Industry			
	Total	of which: Domestic	of which: Foreign	Main construction
2019 Q4	100.4	95.1	104.5	131.3
2020 Q1	98.0	92.9	101.7	125.7
Q2	75.8	80.0	72.6	117.1
May	71.2	74.0	69.0	110.3
June	91.7	100.1	85.3	124.0
July	94.3	89.9	97.6	…

Period	Output; 2015 = 100			
	Industry			
	Total	of which: Intermediate goods	of which: Capital goods	Construction
2019 Q4	99.4	100.0	98.3	113.0
2020 Q1	97.5	101.0	93.4	118.5
Q2	78.7	84.2	70.1	113.8
May	78.2	82.6	70.9	113.0
June	86.9	86.9	83.8	115.6
July	89.3	90.4	85.6	110.6

Period	Foreign trade; € billion			Memo item:
	Exports	Imports	Balance	Current account balance in € billion
2019 Q4	334.63	276.91	57.72	64.34
2020 Q1	322.78	270.48	52.30	63.06
Q2	252.24	227.15	25.09	38.14
May	82.26	74.80	7.46	11.53
June	94.49	80.00	14.49	17.40
July	98.89	80.88	18.01	21.32

Period	Labour market			
	Employment	Vacancies[1]	Unemployment	Unemployment rate
	Number in thousands			%
2019 Q4	45,327	731	2,278	5.0
2020 Q1	45,318	705	2,267	5.0
Q2	44,709	593	2,817	6.2
June	44,618	564	2,941	6.4
July	44,671	560	2,924	6.4
Aug.	…	564	2,915	6.4

Period	Prices; 2015 = 100			
	Import prices	Producer prices of industrial products	Construction prices[2]	Harmonised consumer prices
2019 Q4	101.5	104.6	116.4	106.0
2020 Q1	99.3	104.8	117.8	106.3
Q2	95.5	103.0	118.3	106.2
June	96.1	102.9	.	106.4
July	96.6	103.1	.	105.5
Aug.	…	103.2	.	105.5

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

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large-scale domestic orders in June was, to a considerable extent, the key factor. Excluding large orders, the gap was very much smaller. Compared with the level in the final quarter of 2019, German industrial enterprises received only 5½% fewer domestic orders and 6½% fewer export orders in July.

Continued growth in industrial sales and exports of goods

There was a further rise in nominal industrial turnover in July 2020, although there was also a slowdown in the pace of recovery, albeit not quite as strong as in the case of production. Following the marked growth in May and June (+9½% and +13% respectively), seasonally adjusted sales continued to rise perceptibly on the month (+5¼%). Compared with the previous quarter, which had been marked by the downturn in April, growth was significantly higher still (+17%). Broken down by sector, the increase in turnover was due mainly to a strong countermovement in sales of capital goods (+32½%). In this context, the catch-up movement in the automotive sector – following the dramatic slump in April – stood out in particular. From a regional perspective, sales to export customers rose more strongly than those to domestic business partners (+21½% and +13¼% respectively), although there had also been a more distinct decline in export sales in the second quarter. In line with industrial sales, nominal exports of goods in July 2020 showed a marked increase on the month in seasonally adjusted terms (+4¾%), and were also well up on the average of the second quarter (+17% in both real and nominal terms). In price-adjusted terms, deliveries of goods in July were more than one-tenth below their average in the fourth quarter of 2019. Imports of goods have shown a profile similar to that of exports of goods in recent months, with the decline in April and the subsequent recovery being less pronounced than in the case of exports. In July, however, imports were still down considerably on the final quarter of 2019 (8% after price adjustment).

Construction

Construction still fairly stable

Compared with other sectors, the construction sector has so far been relatively unaffected by the economic impact of the coronavirus crisis. A case in point is indicated by utilisation of machinery in the main construction sector, which, according to the ifo Institute, was still significantly higher than its long-term average in August 2020. Seasonally adjusted construction output in July fell by a quite significant 4¼% on the month and was also well down on the average of the second quarter (-2¾%). However, this was due mainly to the sharp decline in the finishing trades (-5%), where the initial data on output are very prone to revision. By contrast, activity in the main construction sector was only slightly lower (-½%), although new orders in the second quarter – statistical data are available up to then – fell markedly in seasonally adjusted terms compared with the previous quarter (-6¾%).

Labour market

Employment rose slightly in July for first time since start of pandemic

The labour market is showing first signs of recovery. Employment rose slightly in July 2020 for the first time since the start of the pandemic, following the sharp decline since March. The number of persons in work in Germany increased by 53,000, or 0.1%, on the month in seasonally adjusted terms, with something of a recovery evident in both part-time low-paid work and jobs subject to social security contributions. In particular, some previously hard-hit services sectors, such as the hotel and restaurant sector and the wholesale and retail trade, have been taking on staff again. By contrast, the decline in manufacturing continued.

Short-time work still at high level, but declining

Short-time working is still being deployed on a considerable scale, although there was already a marked decline in the use of this instrument in June. As the Federal Employment Agency revised its estimates for the preceding months downwards, the latest data show the peak had already been reached in April, with almost 6 million short-time workers. By June, their number had fallen by one-tenth to just under 5.4 million. As there was also a marked fall in the average number of hours worked per short-time worker, the volume of labour lost through short-time work had already shrunk by more than one-quarter compared with the peak in April.

Unemployment broadly unchanged in August

As in July, the number of persons officially registered as unemployed in August remained roughly at the previous month's level in seasonally adjusted terms. The unemployment rate remained constant at 6.4% for the third consecutive month. Unemployment within the unemployment insurance scheme, with its cyclical character, continued to rise slightly, while a somewhat smaller number of persons were receiving the basic welfare allowance. According to leading labour market indicators, the recovery trends in employment and unemployment look set to continue.

Prices

Crude oil prices barely higher

Crude oil prices continued their upward trend in August 2020 against the backdrop of recovering global demand and production cuts in producer nations. They were 3½% higher compared with July, but were still one-quarter down on the year. Crude oil prices decreased again somewhat in the first half of September, however. As this report went to press, the price of a barrel of Brent crude oil stood at US$43. Crude oil futures were trading at a slight premium. The premium on crude oil futures was US$2 for deliveries six months ahead and US$3½ for deliveries 12 months ahead.

Import and producer prices increasing due to energy, but still clearly below previous year's level

Import prices increased again markedly in July on the back of higher energy prices. By contrast, imported other goods were cheaper. Domestic industrial sales prices, for which data on August are already available, were also higher because of energy. By contrast, sales prices of other goods remained unchanged. Towards the end of the period under review, import

prices and industrial producer prices were 4½% and 1% down on the year respectively.

Consumer prices unchanged in August

Consumer prices (HICP) were unchanged in August in seasonally adjusted terms, after falling sharply in July as a result of the lowering of VAT rates. Energy prices declined somewhat in spite of higher crude oil prices. Consumers were paying around the same amount for food and services as in the previous month. Industrial goods excluding energy became slightly more expensive. Annual headline HICP inflation was negative for the first time since 2016 and stood at -0.1%, compared with zero in the previous month.[1] Excluding energy and food, the rate was also down slightly from +0.7% to +0.6%. In the coming months, headline inflation is likely to be even more sharply down on the year, owing to the renewed decline in crude oil prices and base effects. The rates are not likely to become positive again until the cut in VAT rates is rescinded in January 2021. Relatively high inflation rates are then likely in the second half of 2021 owing to the fact that prices are currently being dampened by the VAT cut.

Public finances[2]

Statutory health insurance scheme

Slightly higher deficit for SHI scheme

The statutory health insurance (SHI) scheme – comprising the health insurance institutions and the health fund – posted a deficit of €1½ billion in the second quarter of 2020. This represented a rise of €½ billion compared with the previous year. The pandemic impacted both the statutory health insurance institutions and the health fund in very different ways.

Lower expenditure on services, mainly for hospital treatment

Health insurance institutions performed significantly better than in the previous year, recording a surplus of 2½ billion (following a deficit of €½ billion). This was mainly due to the decline in institutions' expenditure (-1%) on account of the lower utilisation of services and lower billing for these overall due to the pandemic. Spending on hospital treatment, in particular, decreased (-8%). As a result of the coronavirus pandemic, hospitals were instructed to postpone operations and procedures as far as possible in order to keep sufficient capacity free to treat COVID-19 patients. Due to the number of infections then also being rapidly contained, significantly fewer operations and procedures were thus carried out overall.[3] Spending on dental procedures, remedies and therapeutic appliances, health spa treatments, and preventative healthcare and health promotion measures likewise decreased strongly in some cases. By contrast, sickness benefits rose very sharply, probably driven by short-time working: if an employee is ill and continues to have their salary paid by their employer when short-time work commences, short-time working benefits (including social contributions) are reimbursed by the health insurance institutions in the form of sickness benefits. Revenue climbed steadily, however. It consists mainly of transfers from the health fund, which are fixed in advance, and with the average supplementary contribution rate remaining unchanged, it grew by 4%. Thanks to the resulting surplus, the health insurance institutions' financial reserves rose to almost €21 billion.

Health fund runs large deficit due to economic downturn and pandemic-related special payments

The health fund, by contrast, posted a significant deficit of €4 billion (just over 3½ billion higher than last year). This is largely due to contribution shortfalls as a result of the economic downturn caused by the pandemic. Employees' contributions fell by almost 1%.

1 The national consumer price index (CPI) stood at its previous year's level, after having been 0.1% down on the year in July.
2 In the short commentaries on public finances, the emphasis is on recent outturns. The quarterly editions of the Monthly Report (published in February, May, August and November), by contrast, contain an in-depth description of public finance developments during the preceding quarter. For detailed data on budgetary developments and public debt, see the statistical section of this report.
3 Hospitals receive financial compensation from central government for reserving capacity. Together with resources made available by the health insurance institutions for operations and procedures, payments to hospitals rose by 22% overall in the second quarter.

New tax estimate presented

The first official tax estimate to be produced since the onset of the coronavirus pandemic was drawn up in May of this year, at which time the general situation was extremely uncertain. On 10 September 2020, the Working Party on Tax Revenue Estimates therefore submitted an update outside the standard cycle for presenting such estimates, calculated using a new Federal Government macroeconomic projection. This is the basis for drafting the central government budget for 2021 and for the medium-term fiscal plan up to 2024. The decisions by the Federal Cabinet concerning this matter were announced on 23 September. The passing of the 2021 central government budget by the Bundestag will then be based on the next tax estimate, which is due in November 2020.

Tax revenue patterns according to the new estimate

According to the updated estimate, general government tax revenue is set to contract by 10% year on year in 2020, largely on the back of the projected declines in key macroeconomic reference variables. As average wages are also in decline, progressive taxation will push revenue down further, while short-time working benefits, which effectively replace a large part of lost income, are not taxed.[1] On top of this, changes to tax legislation are throttling revenue. Most of these steps were taken to alleviate the effects of the coronavirus pandemic. The second Coronavirus Tax Assistance Act (*Zweites Corona-Steuerhilfegesetz*), passed at the end of June, will cause the bulk of these losses. Amongst other measures, this legislation brought in a temporary VAT cut, applicable throughout the second half of 2020, as well as a one-off "bonus" child benefit payment. Moreover, the (first) Coronavirus Tax Assistance Act, adopted a short time beforehand, substituted the standard VAT rate on meals consumed in

1 For the purposes of income tax assessment, however, short-time working benefits are factored in when determining the tax rate (*Progressionsvorbehalt*), thus (pushing up tax rates and in turn) leading to a moderate increase in tax revenue in the following year.

Tax revenue

Type of tax	January to July 2019 € billion	January to July 2020 € billion	Year-on-year change %	Estimate for 2020[1] Year-on-year change %
Tax revenue, total[2]	414.0	381.1	– 8.0	– 9.9
of which:				
Wage tax	124.4	122.2	– 1.8	– 5.5
Profit-related taxes	70.1	57.5	– 17.9	– 19.9
Assessed income tax[3]	32.9	29.1	– 11.5	– 16.1
Corporation tax	17.2	10.6	– 38.6	– 38.5
Non-assessed taxes on earnings	17.0	13.7	– 19.0	– 14.8
Withholding tax on interest income and capital gains	3.0	4.1	+ 36.3	+ 24.4
VAT[4]	138.5	124.3	– 10.3	– 10.1
Other consumption-related taxes[5]	50.0	47.8	– 4.3	– 4.6

Sources: Federal Ministry of Finance, Working Party on Tax Revenue Estimates and Bundesbank calculations. **1** According to official tax estimate of September 2020. **2** Including EU shares in German tax revenue, including customs duties, but excluding receipts from local government taxes. **3** Employee refunds deducted from revenue. **4** VAT and import VAT. **5** Taxes on energy, tobacco, insurance, motor vehicles, electricity, alcohol, air traffic, coffee, sparkling wine, intermediate products, alcopops, betting and lottery, beer and fire protection.

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Official tax estimate figures and the Federal Government's macroeconomic projection

Item	2019	2020	2021	2022	2023	2024
Tax revenue[1]						
€ billion	799.3	717.7	772.9	810.5	846.7	883.2
As % of GDP	23.2	21.7	22.0	22.4	22.8	23.1
Year-on-year change (%)	3.0	– 10.2	7.7	4.9	4.5	4.3
Revision of previous estimate (€ billion)	–	– 0.1	– 19.6	– 5.5	– 4.4	– 0.0
Real GDP growth (%)						
Interim projection (September 2020)	0.6	– 5.8	4.4	1.5	1.5	1.5
Spring projection (April 2020)	0.6	– 6.3	5.2	1.4	1.4	1.4
Autumn projection (October 2019)	0.5	1.0	1.3	1.1	1.1	1.1
Nominal GDP growth (%)						
Interim projection (September 2020)	2.8	– 4.0	6.0	3.0	3.0	3.0
Spring projection (April 2020)	2.7	– 4.7	6.8	3.0	3.0	3.0
Autumn projection (October 2019)	2.8	2.9	3.1	2.8	2.8	2.8

Sources: Working Party on Tax Revenue Estimates (September 2020) and Federal Ministry for Economic Affairs and Energy.
1 Including EU shares in German tax revenue, including customs duties, including receipts from local government taxes.

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catering establishments with the reduced rate; this will apply until the end of June 2021. Since March, sub-statutory provisions have made it easier for businesses to have advance payments of taxes on income reduced or reimbursed. Advance VAT payments, which are normally a prerequisite for extending payment deadlines by one month, were also reimbursed in some cases. Over and above this, upon request, firms can defer payment of taxes owed, with compulsory enforcement suspended until the end of the year.

Tax receipts are expected to rebound significantly in 2021 (+7½%), primarily on account of the macroeconomic catch-up process. Meanwhile, progressive taxation should boost revenue, as usual. Back-payments of taxes due (once coronavirus measures are no longer in place) will be offset by further shortfalls resulting from support measures and from the partial abolition of the solidarity surcharge. In the years thereafter, i.e. from 2022 to 2024, revenue is projected to rise annually by between 5% and 4½%, largely reflecting the assumptions made regarding nominal macroeconomic developments and progressive taxation.

The working party only takes account of the tax legislation applicable when it draws up a tax estimate. As a consequence, it takes no account of the second Family Relief Act (*Zweites Familienentlastungsgesetz*) that was only recently adopted by the Federal Cabinet and which provides for a rise in the basic tax allowance as well as in the child tax allowance in 2021 and 2022. Under this legislation, the other income tax brackets are set to be shifted to the right in a continued effort to counterbalance bracket creep. Furthermore, as stipulated in the coalition agreement, child benefits are to be raised significantly again in 2021.

Revisions since previous projections

With respect to this year, the current tax estimate confirms the May projection. While the new macroeconomic assumptions,[2] taken in isolation, effectively lift the estimate, the legislative changes that were finally enacted in June will result in almost equally sizeable shortfalls. In its estimate for 2021, the working party envisages a cut of €19½ billion (½% of GDP), chiefly arising from the effects of the additional support measures. By contrast, the small downward revisions made to the macroeconomic

2 This estimate is based on the Federal Government's interim projection of 1 September 2020.

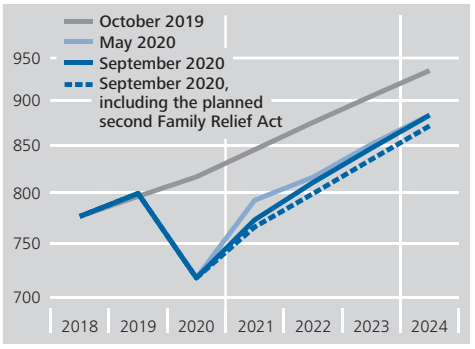
assumptions are of minor significance. The estimates for 2022 and 2023 were adjusted downwards by about €5 billion in each instance, while the projection for 2024 is virtually unchanged. The small revision in 2024 is due to the fact that the financial impact of expanded tax write-off options under the second Coronavirus Tax Assistance Act will taper off.

Compared with the last pre-coronavirus estimate (autumn 2019), the broad outline has thus changed only to a moderate degree vis-a-vis the May figures. This year's expected tax receipts are down by almost €100 billion (3% of GDP). The annual revenue losses are expected to subsequently wane, though a shortfall of just over €50 billion (as compared with the autumn 2019 estimate) is still anticipated by the end of the projection period in 2024. According to the revised projection, these drops in revenue are mainly due to the fact that economic activity will be unable to match the macroeconomic expectations from prior to the coronavirus pandemic. Although revenue shortfalls caused by legislative changes (notably the partial abolition of the solidarity surcharge) will continue to play a role in the medium term, the magnitude of these is not on a par with the effects of the revised macroeconomic expectations.

Compared with the May estimate, the current tax estimate is more sound, not least because it takes account of additional figures for months affected by the pandemic. As a result, considerably more information has become available on the economic consequences of the pandemic and the financial impact of support measures for this year. Nevertheless, the level of uncertainty remains pronounced, not just in relation to macroeconomic development but also to the tax estimate in the narrower sense, as well as to any further fiscal policy measures that might be taken.

Tax estimates: revisions made in the wake of the coronavirus pandemic*

€ billion, log scale



Sources: Working Party on Tax Revenue Estimates, Federal Ministry of Finance and Bundesbank calculations. * General government tax revenue according to the official tax estimates.

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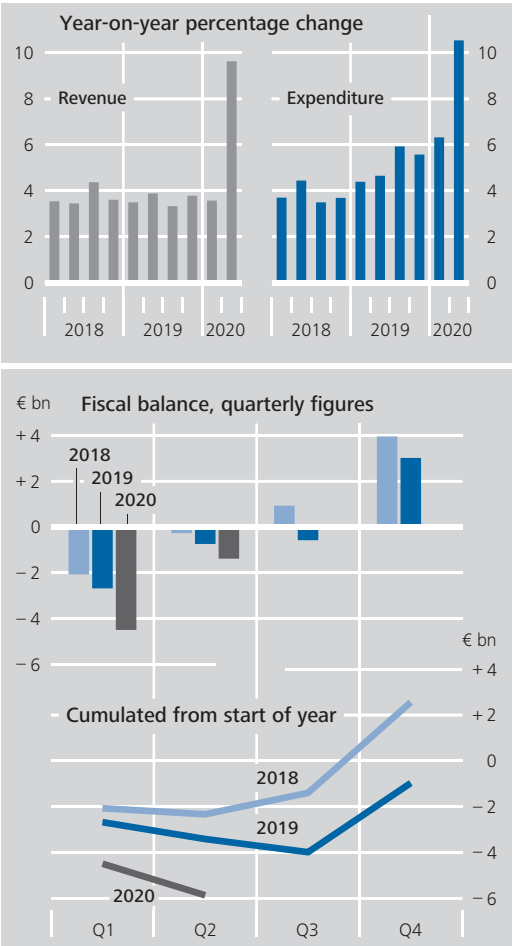
In this context, activating the debt brake escape clause, both in the current year and in 2021, makes sense. This strategy does away with the need for immediate action to offset the large shortfalls in tax revenue compared with previous fiscal plans and the non-tax stabilisation measures, thus boosting the economic revival as much as possible and minimising potential output losses. The better this can be achieved, the smaller the structural fiscal gaps caused by the crisis will be. From today's perspective, there is a need for medium-term fiscal action compared to previous fiscal plans inasmuch as the tax estimate still contains structural revenue shortfalls. Other fiscal challenges also exist, for example as a result of demographic developments. Moreover, the adjustments necessary in connection with climate action and digitalisation also need to be accompanied by government funding. In this respect, it is important that any further budgetary support measures be implemented on a temporary basis. Given the prevailing elevated level of uncertainty, however, the extent of the actual medium-term need for structural adjustment cannot yet be reliably determined. It would therefore also seem appropriate to refrain from adopting concrete medium-term consolidation measures for the time being.

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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The effects of lower levels of employment were cushioned by contributions payable on short-time working benefits. Enterprises' deferral of contribution payments in the period from March to May is likely to have had a minimally negative impact on the quarterly figures on balance, according to data provided by the Federal Office for Social Security. Overall, however, contribution receipts were still up slightly (+½%). This was due to growing contributions payable on unemployment benefits and pensions. On the expenditure side, the above-mentioned significantly higher transfers to the health insurance institutions played a major role. In addition, special tasks were conferred on the health fund by way of exception, which saw it grant financial assistance to providers of therapeutic treatment and pay investment grants for additional intensive care beds (almost €1½ billion in total). In addition, hospitals received compensation for vacant beds (just over €5½ billion). However, as central government reimbursed the health fund for these payments in a timely manner, they had no impact on its balance.

Health fund to record high deficit in 2020

The health fund was initially likely to record a deficit of €2 billion for 2020 as a whole. The same amount was to be withdrawn from the reserves to finance lower contributions for occupational pensions and transfers to the Innovation and Structural Funds. The reserves totalled just over €10 billion at the beginning of the year (with a minimum reserve level of €4 billion). For the reasons outlined above, the deficit will now be significantly higher. In order to support the health fund, central government is paying an additional lump sum of €3½ billion this year, as set out in its second supplementary budget. This is likely to prevent the minimum reserve level from being undercut at the end of the year.

Health institutions' result likely to be better than expected at beginning of year

Despite the coronavirus pandemic, health institutions are likely to post a better result for the year as a whole than expected at the beginning of the year. The figures projected by the group of SHI estimators[4] indicated an annual deficit of €1½ billion, assuming no change in the average supplementary contribution rates (which has been the case so far). At the end of the first half of the year, the health insurance institutions recorded a surplus of €1½ billion. The annual result will now largely depend on the extent to which the utilisation of services returns to normal and to which it is possible to catch up on postponed procedures in a timely man-

4 Last autumn, the group of SHI estimators was unable to mutually agree on an expenditure estimate. Taking the somewhat higher expenditure figure projected by the health insurance institutions would go so far as to result in a deficit of around €3 billion, assuming supplementary contribution rates remain unchanged.

ner. Due in part to lower VAT saving health insurance institutions €½ billion on spending on pharmaceuticals in the second half of the year, the institutions' result is likely to be more favourable than in the previous year (2019: -€1½ billion).

Strong financial pressure among health insurance institutions expected in 2021

The health fund's financial situation will probably ease next year, as its regular transfers are likely to grow only moderately if contribution rates remain unchanged. By contrast, there is expected to be a high degree of financial pressure on the health insurance institutions, whose expenditure on services could rise significantly again, as it was before the coronavirus crisis. This fundamental spending pressure could temporarily intensify even further during a catch-up period for procedures postponed from 2020. In addition, a vaccine against the novel coronavirus is expected to be available next year, which would bring marked additional expenditure along with it. If average supplementary contribution rates remain unchanged, there is therefore a risk of a high deficit.

Health insurance institutions: overestimation of expenditure and rising reserves

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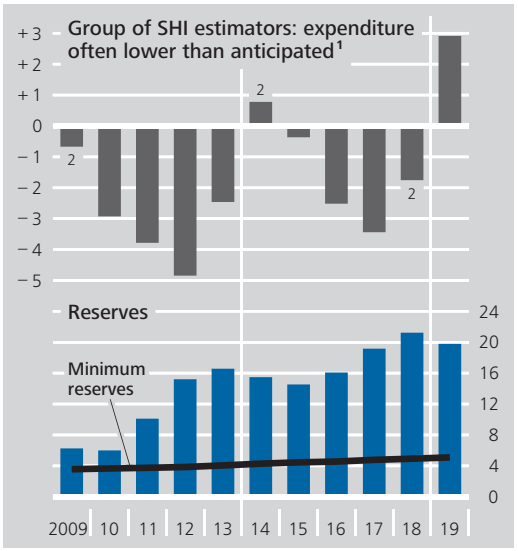

Sources: Federal Ministry of Health, Federal Office for Social Security. **1** Health insurance institutions' expenditure as defined by the group of SHI estimators, excluding institution-specific additional benefits. **2** In an exception to the rule, no mutually agreed estimate. The National Association of Statutory Health Insurance Funds anticipated higher expenditure: almost €3 ½ billion in 2009, €1 ½ billion in 2014 and €1 billion in 2018.

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Funding gap of €18 billion currently expected for 2021

In the autumn, the group of SHI estimators will present an official forecast assessing financial developments. In the past, expenditure growth has often been overestimated – in some cases significantly. As a result, the supplementary contribution rates were often set too high and the health insurance institutions' reserves rose sharply (see the chart above). According to press reports, the Federal Ministry of Health and the National Association of Statutory Health Insurance Funds currently expect additional funding of €18 billion to be required for 2021 (assuming an unchanged average supplementary contribution rate of 1%). In order to cover such a gap through contributions, the current average supplementary contribution rate would have to rise by 1.2 percentage points.

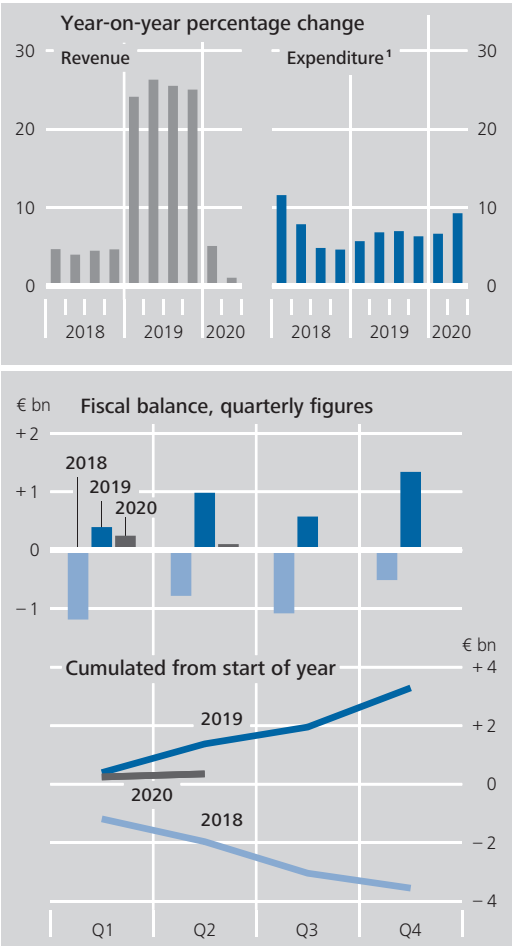
However, in view of the coronavirus crisis, the Federal Government had announced that it would widely limit an increase in contribution rates this year and next. Forgoing a rise in contributions in this way is to be welcomed in the current tough economic climate. According to press reports, central government is currently aiming for a combination of three variables in total to plug the funding gap. First, the central government grant is to be raised on a one-time basis through higher debt (+€5 billion). Second, health insurance institutions with high reserves should draw on these funds and, in some cases, also make them available to other health insurance institutions (in the order of €8 billion). Third, the remaining gap (around €5 billion) is to be plugged by increasing the average supplementary contribution rate by 0.3 percentage point (or by further recourse to reserves).

Additional central government funds and reserves to limit increase in supplementary contribution rates

Continued funding pressure in 2022 and greater central government relief in 2021 worth considering

It would currently appear that no additional central government funds are envisaged for health insurance institutions in 2022. Based on current expectations, the contribution base could be growing markedly again at this point and coronavirus-related burdens largely taper-

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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ing off. However, it is unlikely that the funding gap will be anywhere near closed, not least because of the longer-term expenditure trend which is independent of the coronavirus pandemic. Given the then significantly lower reserves, the average supplementary contribution rate is likely to rise steeply in 2022. In view of the prevailing economic risks, it would be worth considering a gradual phasing-out of support measures. In order to achieve this, central government assistance could be higher next year. Greater recourse to health insurance institutions' reserves could thus be partly postponed until 2022, and the increase in supplementary contribution rates could be smoothed somewhat. However, this does not reduce the pressure to raise supplementary contribution rates in the longer term. The SHI scheme therefore still needs to ensure the cost-efficient provision of healthcare.

Public long-term care insurance scheme

Economic slump and additional expenditure weigh heavily

The public long-term care insurance scheme closed the second quarter of 2020 with a balanced budget in the core area.[5] It had posted a surplus of €1 billion in the previous year. This deterioration was caused, in large part, by two factors: contribution shortfalls as a result of the economic downturn and expenditure relating to the pandemic. Revenue went up by 1%. Higher contributions payable on unemployment benefits and pensions were offset by a slight decline in employees' contributions. Expenditure grew by a very substantial €9½%. The increase in cash benefits was somewhat stronger still (+12%), mainly due to a higher number of recipients of benefits while long-term care benefit rates remained unchanged. Contributions to the pension insurance scheme for relatives who act as family carers also rose steeply. Spending on non-cash benefits, a very large expenditure item, rose by 8½%. Growth in spending on full inpatient care continued to be weak. However, pandemic-related compensation (€½ billion) made itself felt, with outpatient, day-patient and full inpatient facilities receiving compensation for revenue shortfalls caused by the non-utilisation of long-term care services[6] on account of the coronavirus and for extraordinary expenses (e.g. personal protective equipment and additional personnel). In addition, a first part of the coronavirus bonus

5 The developments outlined here and in the remainder of the text exclude the provident fund. This fund uses grants financed by contributions from the core area to accumulate assets. These assets are to be depleted again in the 2030s to dampen the expected contribution rate rise. At the end of the first half of 2020, the accumulated reserves stood at €7 billion.
6 Non-utilisation can, for example, be the result of a facility closing or freezing admission of new patients to curb the risk of infection.

was paid out to nursing staff in the second quarter. Adjusted for the special pandemic-related payments, expenditure on services would have been 3½% higher.

Additional central government funds compensate for extraordinary expenditure in connection with coronavirus pandemic

It is likely that a surplus will still be recorded for the year as a whole, though this figure will be markedly lower than in the previous year (2019: just over €3 billion). Although central government is providing a one-off grant of just under €2 billion to compensate for the extraordinary expenditure resulting from the pandemic, contribution receipts are still likely to be weak over the remainder of the year and the underlying pace of growth in expenditure is likely to remain rapid.

Deficit next year due to weak revenue growth and regular raising of benefit rates

Only a moderate increase in the revenue base is expected at present. At the same time, benefit rates will rise in a rule-based manner. As a result, there are likely to be marked deficits. It will be possible, initially, to cover these using the relatively high general reserves (end-2019: €7 billion). However, contribution rate increases are likely going forward on account of demographic changes; these will dampen the expansion of the revenue base and push up expenditure significantly.

Securities markets

Bond market

High net issuance of debt securities in July

At €172.2 billion, gross issuance in the German bond market in July 2020 was slightly up on the previous month's figure, which was already very high (€168.2 billion). After taking account of redemptions, which also increased somewhat, and changes in issuers' holdings of their own debt securities, the outstanding volume of domestic bonds expanded by €49.5 billion after having increased by €47.0 billion in June. Foreign debt securities worth €0.7 billion were placed in the German market, which meant that the outstanding volume of domestic and foreign debt instruments in Germany rose by €50.2 billion on balance.

Sales and purchases of debt securities

€ billion

Item	2019 July	2020 June	2020 July
Sales			
Domestic debt securities[1]	– 7.9	47.0	49.5
of which:			
Bank debt securities	0.7	6.7	– 2.0
Public debt securities	– 7.6	35.0	35.6
Foreign debt securities[2]	6.1	18.7	0.7
Purchases			
Residents	1.8	37.1	28.8
Credit institutions[3]	4.5	9.1	– 15.5
Deutsche Bundesbank	– 2.6	25.5	25.7
Other sectors[4]	– 0.1	2.6	18.6
of which:			
Domestic debt securities	– 3.4	– 9.3	7.5
Non-residents[2]	– 3.5	28.6	21.4
Total sales/purchases	– 1.8	65.7	50.2

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

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Sharp rise in public sector capital market debt

The public sector issued own bonds in the amount of €35.6 billion net in the reporting month. Central government, in particular, increased its capital market debt substantially on balance (€35.6 billion), mainly issuing Treasury discount paper (Bubills: €17.5 billion). The new maturity segments of 7-year and 15-year Federal bonds were also topped up further – by €9.0 billion and €3.2 billion respectively. In addition, central government issued two-year Federal Treasury notes (Schätze) and five-year Federal notes (Bobls) (€5.5 billion and €5.2 billion respectively). This contrasted with net redemptions of ten-year Federal bonds (Bunds) totalling €10.2 billion. State and local governments issued bonds to the tune of €0.1 billion on balance.

Net issuance by enterprises

Domestic enterprises placed debt securities worth €15.9 billion net in the market in July. This was mainly attributable to non-financial corporations, which on balance solely issued paper with a maturity of more than one year.

Fall in credit institutions' capital market debt

By contrast, domestic credit institutions scaled back their capital market debt by €2.0 billion net in the reporting month, primarily redeeming mortgage Pfandbriefe on balance (€1.4 billion). The outstanding volume of public Pfandbriefe and other bank debt securities that can be structured flexibly also fell (by €0.7 billion and €0.6 billion respectively). Only debt securities issued by specialised credit institutions (which include public promotional banks, for example) saw net issuance (of €0.6 billion).

Purchases of debt securities

The Bundesbank was the main buyer in July, acquiring debt securities worth €25.7 billion net, for the most part under the Eurosystem's asset purchase programmes. These purchases almost exclusively involved domestic paper issued by public sector entities. Foreign investors, meanwhile, acquired German bonds worth €21.4 billion net. Domestic non-banks expanded their bond portfolios by €18.6 billion, while domestic credit institutions sold debt securities worth €15.5 billion net.

Equity market

Net issuance in the German equity market

In July, domestic enterprises placed €2.1 billion worth of new shares in the German equity market. Sales of foreign shares in Germany rose by €6.8 billion in the same period. Domestic non-banks were dominant on the buyers' side of the market, adding shares worth €24.2 billion net to their portfolios. Domestic credit institutions acquired equities for €0.7 billion net, while foreign investors offloaded domestic fund shares worth €16.0 billion net.

Mutual funds

German mutual funds record moderate inflows

Domestic mutual funds registered moderate inflows amounting to €7.4 billion in July. The vast majority of these funds were channelled into specialised funds (€5.7 billion), which are reserved for institutional investors. Of the various asset classes, bond funds were the main beneficiaries of the new funds (€9.6 billion), while mixed securities-based funds redeemed shares (€5.2 billion). Foreign mutual funds sold share certificates on the German market for €11.0 billion in net terms. On balance, domestic non-banks were practically the sole purchasers of mutual fund shares in the reporting month (€17.6 billion); foreign investors purchased mutual fund shares worth €0.9 billion net, while domestic credit institutions reduced their fund portfolio by €0.1 billion.

Balance of payments

Current account surplus down slightly in July

Germany's current account posted a surplus of €20.0 billion in July 2020, down €0.5 billion from the previous month's level. The surplus in the goods account expanded significantly, while the surplus in invisible current transactions, which comprise services as well as primary and secondary income, contracted somewhat more sharply.

Goods account surplus widened noticeably, …

In July, the surplus in the goods account increased by €3.5 billion on the month to €18.8 billion. Economic activity in Germany and many partner countries continued to recover gradually in July. Consequently, both German goods exports and goods imports rose further, with goods exports noticeably outpacing imports.

… but balances in the services account and in secondary income down more sharply

In July, the surplus on invisible current transactions fell by €4.0 billion to €1.2 billion. This was due to declining balances in the services account and in secondary income, which outweighed the gains in primary income. Net receipts in primary income expanded by €2.2 billion to €7.1 billion. A major factor here was that dividend payments for portfolio investment to non-residents continued to fall following the usual significant increase in May. By contrast, a €3.9 billion decline in the services account balance pushed it into a deficit of €2.4 billion. Income increased slightly. However, expenditure rose significantly more strongly than receipts, also due to the recovery in travel after the measures taken to contain the pandemic were eased starting from June. In addition, the

deficit in secondary income went up by €2.2 billion to €3.6 billion, mainly driven by lower government revenue from current taxes on income and wealth of non-residents and higher general government payments to the EU budget made in connection with financing related to gross national income.

Inflows in portfolio investment

In July 2020, the effects of the COVID-19 pandemic continued to shape events in the international financial markets. Concerns about a second wave of new infections in many European countries and the stalemate in the negotiations on the extension of the stimulus package in the United States increased market participants' uncertainty. These developments were also reflected in Germany's cross-border portfolio investment, which recorded capital inflows of €2.4 billion in July (June: outflows of €1.2 billion). Foreign investors acquired German securities worth €21.8 billion net, purchasing bonds (€12.2 billion, with an emphasis on bonds issued by the private sector) money market paper (€9.2 billion) and investment fund shares (€0.9 billion). By contrast, they divested themselves of shares issued by German enterprises (€0.4 billion). Domestic investors purchased foreign securities worth a total of €19.4 billion net. On balance, they acquired foreign investment fund shares (€11.0 billion), regular shares (€7.8 billion) and money market paper (€1.9 billion). By comparison, German investors sold bonds issued abroad (€1.2 billion). On balance, they parted exclusively with euro-denominated paper, while maintaining net demand for foreign currency bonds.

Financial derivatives

Financial derivatives recorded net capital exports of €11.6 billion in July (June: €12.1 billion).

Direct investment sees net capital imports

Turning to direct investment, German enterprises saw net capital imports of €7.6 billion in July (following capital exports of €6.5 billion in June). Foreign firms stepped up their direct investment in Germany by €14.4 billion. On balance, they did so exclusively through additional intra-group lending (€24.5 billion), with a focus

Major items of the balance of payments

€ billion

Item	2019r July	2020 June	2020 Julyp
I. Current account	+ 19.4	+ 20.4	+ 20.0
1. Goods	+ 21.5	+ 15.3	+ 18.8
Receipts	113.5	94.2	100.4
Expenditure	92.0	78.9	81.6
Memo item:			
Foreign trade[1]	+ 21.3	+ 15.5	+ 19.2
Exports	115.0	96.1	102.3
Imports	93.7	80.6	83.1
2. Services	− 4.7	+ 1.5	− 2.4
Receipts	26.4	21.3	21.4
Expenditure	31.1	19.8	23.8
3. Primary income	+ 7.3	+ 4.9	+ 7.1
Receipts	18.3	16.2	16.1
Expenditure	11.0	11.3	9.0
4. Secondary income	− 4.6	− 1.4	− 3.6
II. Capital account	+ 0.2	+ 0.3	− 0.9
III. Financial account (increase: +)	+ 8.5	+ 28.5	+ 21.5
1. Direct investment	− 0.4	+ 6.5	− 7.6
Domestic investment abroad	− 1.0	+ 10.0	+ 6.9
Foreign investment in the reporting country	− 0.6	+ 3.5	+ 14.4
2. Portfolio investment	+ 13.1	+ 1.2	− 2.4
Domestic investment in foreign securities	+ 10.6	+ 29.0	+ 19.4
Shares[2]	+ 0.6	+ 7.3	+ 7.8
Investment fund shares[3]	+ 3.8	+ 3.0	+ 11.0
Short-term debt securities[4]	− 1.2	+ 5.1	+ 1.9
Long-term debt securities[5]	+ 7.3	+ 13.6	− 1.2
Foreign investment in domestic securities	− 2.5	+ 27.7	+ 21.8
Shares[2]	+ 1.5	− 1.3	− 0.4
Investment fund shares	− 0.5	+ 0.4	+ 0.9
Short-term debt securities[4]	+ 2.5	+ 15.2	+ 9.2
Long-term debt securities[5]	− 6.1	+ 13.3	+ 12.2
3. Financial derivatives[6]	+ 2.8	+ 12.1	+ 11.6
4. Other investment[7]	− 7.3	+ 9.4	+ 20.5
Monetary financial institutions[8]	+ 33.5	− 43.8	− 26.4
of which: Short-term	+ 34.0	− 32.6	− 23.8
Enterprises and households[9]	+ 2.2	− 20.8	+ 4.5
General government	+ 0.5	− 1.0	+ 1.7
Bundesbank	− 43.5	+ 75.0	+ 40.7
5. Reserve assets	+ 0.3	− 0.7	− 0.6
IV. Errors and omissions[10]	− 11.1	+ 7.9	+ 2.4

1 Special trade according to the official foreign trade statistics (source: Federal Statistical Office). **2** Including participation certificates. **3** Including reinvestment of earnings. **4** Short-term: original maturity of up to one year. **5** Long-term: original maturity of more than one year or unlimited. **6** Balance of transactions arising from options and financial futures contracts as well as employee stock options. **7** Includes, in particular, loans and trade credits as well as currency and deposits. **8** Excluding the 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. **10** 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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on financial loans. By contrast, foreign enterprises reduced their equity stakes in Germany (€10.1 billion). Domestic enterprises increased their foreign direct investment by €6.9 billion, boosting the equity capital of foreign branches by €4.1 billion and granting additional loans of €2.8 billion to affiliated enterprises.

Outflows in other investment

Other statistically recorded investment – which comprises loans and trade credits (where these do not constitute direct investment), bank deposits and other investment – registered net outflows amounting to €20.5 billion in July (following outflows totalling €9.4 billion in June). Net capital exports were generated, in particular, by cross-border transactions settled via the Bundesbank's accounts (€40.7 billion); these were attributable to an increase in TARGET2 claims but also to a decline in deposits by non-residents. Meanwhile, monetary financial institutions (excluding the Bundesbank) recorded net inflows of €26.4 billion. In other investment, transactions by enterprises and households (€4.5 billion) and general government (€1.7 billion) led to net outflows of funds abroad.

Reserve assets

The Bundesbank's reserve assets fell slightly – at transaction values – by €0.6 billion in July.

The impact of monetary policy on the euro's exchange rate

The monetary policy of central banks is a key determinant of the exchange rate. Although exchange rates are not a target variable of the Eurosystem's monetary policy, the interest rate environment – with monetary policy as one of its major determinants – is of fundamental importance for developments in the euro's exchange rate. After introducing the basic theoretical mechanisms, this article presents a number of empirical studies on the impact of euro area monetary policy on the euro's exchange rate.

Initial indications of a significant relationship between monetary policy and foreign exchange markets are provided by the observation that there is a marked increase in the volatility of bilateral euro exchange rates during the communication of monetary policy decisions. In line with this, many of the largest single-day losses and gains of the euro also have a monetary policy background. Moreover, the exchange rate movements of the euro on days when monetary policy meetings are held are more pronounced than otherwise. This discrepancy appears to have increased yet further over time.

In order to say anything about causality, however, monetary policy impulses first have to be carefully disentangled from other determinants relevant to financial markets and the real economy. In event studies, this is done by looking at interest rates only in a very narrow window surrounding monetary policy announcements. Results of such an event study show that a contractionary monetary policy impulse of the Eurosystem leads directly to a significant appreciation of the euro, although the effect appears to be weaker if the impulse works mainly through short-term interest rates. According to the event study, the impact of monetary policy on the euro's exchange rate has increased over time.

Vector autoregressive (VAR) models are more complex than event studies and model interdependencies between monetary policy and other economic developments. An analysis of this kind suggests for the euro/US dollar exchange rate that the impact of monetary policy over the past few years was considerable even compared with other macroeconomic determinants.

Above and beyond an inherent impulse, however, monetary policy communication can also supply additional information that is likewise of great importance for financial markets. One example of this is the central bank's assessment of the economic situation and outlook. "Information impulses" of this kind work on the exchange rate in a way that is different from direct monetary policy signals. Furthermore, these indirect effects vary depending on the currency against which the euro's exchange rate is defined. Currencies that are perceived more strongly as speculative respond differently from "safe haven" currencies. How the observed partner currency typically responds to variations in investors' risk appetite is therefore a factor.

Introduction

Importance of exchange rates in economic policy

In a globally interconnected world, exchange rates play a major economic role. Not only trade flows, but also international flows of capital are crucially determined by the exchange rates between currencies. For open economies, especially, a depreciation of the domestic currency can, for example, lead – at least in the short to medium term – to price competition advantages, since domestic goods then become cheaper for major trading partners.[1] There is also an attendant downside that mirrors this, however: imported goods become more expensive in relative terms, lowering domestic purchasing power as a result. Along with the depreciation, there is, moreover, an increase – from a domestic perspective – in the value of (external) assets and (external) liabilities denominated in foreign currency. In the case of assets, a depreciation leads to a gain in wealth in the domestic currency.[2] A high level of foreign debt in foreign currency is relevant, above all, for developing and emerging market economies, in which the bond markets are often underdeveloped and bonds are issued in foreign currency, mainly US dollar. The major importance of exchange rates in economic policy calls for an examination of the factors that influence them.

Monetary policy and exchange rates

It is, above all, monetary policy that has a key role to play here. For one thing, central banks have the option to intervene directly in the foreign exchange market by buying and selling.[3] Above and beyond that, however, they exert an indirect influence on exchange rates through their interest rate policy. Although the exchange rate is not a target variable for the Eurosystem, for example,[4] monetary policy measures inevitably have side effects on foreign exchange markets that are transmitted to other countries. Especially a period in which there is a substantial difference in the monetary policy stance of two countries can bring with it marked movements in the bilateral exchange rate. This illustrates how important it is to understand and, as far as possible, quantify the effects on the markets of a monetary policy geared to domestic targets such as price stability.

Theoretical considerations and initial empirical evidence

Exchange rate as a target variable of monetary policy then and now

In the post-war period up to the collapse of the Bretton Woods system in the early 1970s, the monetary policy of even advanced economies was, as a rule, geared to an exchange rate target. One of the chief tasks of central banks was to maintain the peg to the US dollar by means of their monetary policy stance and direct interventions in the foreign exchange market. The progressive liberalisation of cross-border capital flows increasingly restricted the options for shaping monetary policy in this regime, however. If an overly accommodative interest rate policy led to net capital outflows that were not solely temporary in nature, there was a danger of the central bank's US dollar holdings running out because of foreign exchange market interventions. This meant that the central bank had to tighten monetary policy regardless of the economic situation at home and had to follow the objective of upholding the exchange rate peg.

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1 For indicators of price competitiveness and their impact on real exports of goods, see Deutsche Bundesbank (2013) and Deutsche Bundesbank (2016). Deutsche Bundesbank (2013) as well as Deutsche Bundesbank (2016).

2 In the first quarter of 2020, for example, Germany's net international investment position amounted to almost €2.4 trillion (see the International investment position and external debt tables in the Bundesbank's Statistical series https://www.bundesbank.de/en/publications/statistics/statistical-series/statistical-series-international-investment-position-and-external-debt-841806). Of this amount, the share of Germany's external assets denominated in foreign currency was significantly larger than the foreign currency share of external liabilities.

3 The scale of foreign currency reserves held by central banks is also sufficiently large to be able to cause significant exchange rate effects by their use. The International Monetary Fund gives the official foreign exchange reserves of the 149 reporting countries for the first quarter of 2020 as the equivalent of almost US$12 trillion (see https://data.imf.org/cofer).

4 See ECB President Mario Draghi, press conference on 25 July 2019 (https://www.ecb.europa.eu/press/pressconf/2019/html/ecb.is190725~547f29c369.en.html). On this occasion, he stressed that "We have a mandate which is price stability … we don't target exchange rates."

The role of the euro exchange rate in ECB press conferences

Monetary policy impulses are usually identified in the literature as a key determinant of the exchange rate. However, many major central banks, such as the Eurosystem, do not regard the exchange rate as a target variable. This raises the question of the extent to which exchange rate topics play any role at all in monetary policy communication.

One way of answering this question is to examine the ECB's press conferences following monetary policy meetings. However, this is a complex undertaking, as 236 press conferences were held following monetary policy meetings in the period from the ECB's founding in June 1998 to March 2020,[1] and the transcripts of these press conferences contain almost 1.4 million words. This is why so-called text mining approaches are used here.[2] Unlike the analysis of prepared data, which is the norm in economic research, text is unstructured and highly dimensional, especially compared with macroeconomic data. A different approach is therefore required for the analysis of text data. An analysis using methods from the field of machine learning is presented below.[3]

This analysis uses a topic modelling approach that draws on statistical methods to assign topics to individual sentences.[4] These topics consist of a collection of words that occur together at a certain frequency in the examined sentences. In specific terms, a latent Dirichlet allocation (LDA) is estimated.[5] As part of this process, a probability vector over the unobserved ("latent") topics is assigned to each sentence. At the same time, each topic consists of a distribution across all words in the text. A Dirichlet distribution is assumed a priori for the parameters of both distributions. In addition to the parameters for these two Dirichlet distributions,[6] the number of topics to be determined must also be set a priori. Following the literature, this number is set at 40.[7]

However, before the analysis of the text can begin, it must be put into an analysable form. After the html code downloaded from the ECB website was broken down into individual words and sentences, the text was adapted for the analysis as follows:

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1 These are all the press conferences published on https://www.ecb.europa.eu/press/pressconf/html/index.en.html between 9 June 1998 and 12 March 2020, with the exception of those on 13 October 2003 and 26 October 2014, which dealt specifically with a cooperation agreement with the Russian central bank and the comprehensive assessment and thus did not address the Eurosystem's monetary policy.

2 Text-mining approaches are becoming increasingly popular in the area of monetary policy analysis, particularly using the minutes and transcripts of meetings of the Federal Open Market Committee (FOMC), whether it be to measure the impact of different forms of communication on financial markets and the real economy (Hansen and McMahon (2016)), examine the effect of greater transparency on decision-making (Hansen et al. (2018)), determine the Federal Reserve's objectives (Shapiro and Wilson (2019)), or determine whether stock prices have an important impact on monetary policy decisions (Cieslak and Vissing-Jørgensen (2020)).

3 For an overview of various methods in the field of text mining in relation to economic issues, see Gentzkow et al. (2019).

4 It would also be possible to analyse paragraphs instead of sentences. However, paragraphs could prove to be too comprehensive, especially if the topics to be analysed are more specific. Therefore, sentences are chosen as the unit of text, with each sentence being assigned one topic, much like the analysis of FOMC statements in Hansen and McMahon (2016).

5 See Blei et al. (2003).

6 A small and symmetrical value is selected for the parameters of both distributions, so that both the probability vectors over the topics for the respective sentences and the probability vectors over the words for the respective topics have many zeros. As a result, only a small number of topics are assigned to the individual sentences and the individual topics are dominated by only a few words.

7 See Hansen et al. (2018) for a brief discussion of methods for determining the number of topics. In their analysis of the transcripts of FOMC meetings, the authors likewise set the number of topics at 40. By contrast, procedures that optimise the goodness of fit are often said to select too many topics.

Frequency of selected words or groups of words in ECB press conferences*

The 10 most common words or groups of words		Other words or groups of words	
Word	Frequency	Word	Frequency
question	8,523	monetary policy	2,650
growth	5,194	interest rate	2,448
euro area	4,792	price stability	2,091
rate	4,340	euro	1,771
market	3,835	fiscal	1,129
inflation	3,743	exchange rate	832
time	3,459	currency	403
first	3,255	foreign exchange	62
ecb	3,181	purchasing power	44
govern council	3,076	carry trade	14
Total number of words and groups of words			527,266

* Period under review: 9 June 1998 to 12 March 2020. As the words were already reduced to their root form before the groups of words were formed, this is also reflected in the groups of words (e.g. "govern council" instead of "governing council").

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– All non-alphabetical "words", except common economic terms such as the money aggregates M1 to M3, are removed; the names of the respective presidents and vice-presidents are also excluded from the analysis. This seems sensible, as both numbers and these names are frequently mentioned without being of material relevance to the present analysis.

– Other words that occur very frequently but are scarcely of material relevance, such as "the", "and" or "they", are also removed. These make up around half of all the words in the text corpus and would thus dominate any statistical analysis of the text.

– The remaining words are reduced to their root form.[8]

– Groups of up to four words are formed by extracting particularly common word combinations such as "exchange rate" or "monetary policy" from the text.[9]

– Finally, words that only occur once in the entire text as well as some other words that are very frequent yet not materially significant[10] are excluded from the analysis. As the topics searched for are determined on the basis of individual sentences, sentences that have fewer than three words after these steps have been taken are also discarded.

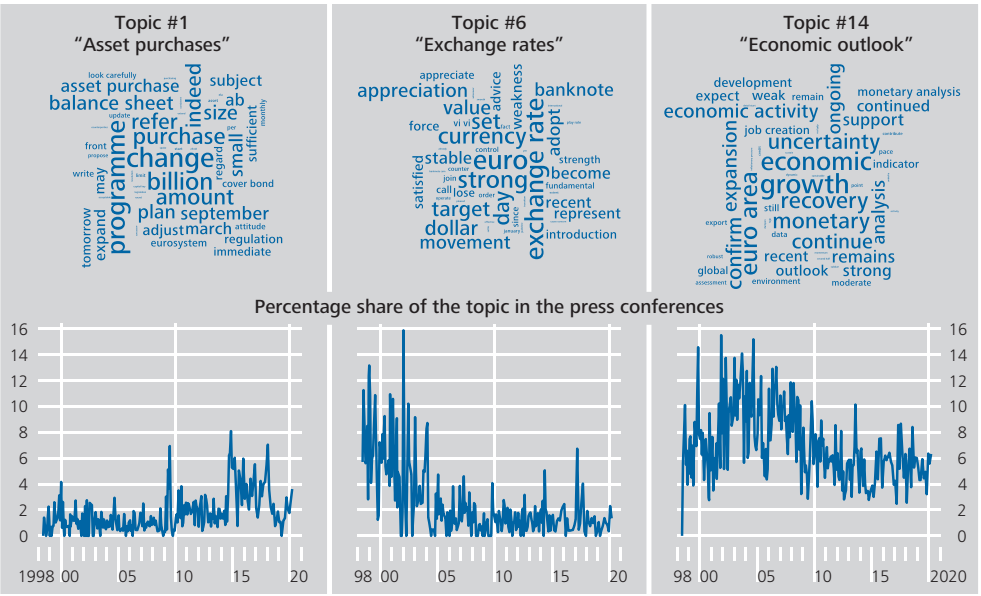
The text corpus is thus reduced from the aforementioned 1.4 million words to just under 530,000 words.

The adjacent table shows the frequency of selected words in ECB press conferences. Just looking at this table, it is apparent that, consistent with the ECB's mandate, issues relating to the euro exchange rate are not given a central role in communication. Although the word "euro" appears more than 1,700 times, it can be used in various contexts. Other words used in connection with the exchange rate appear much less frequently. This becomes particularly clear when comparing the frequency of these words with terms that do relate to the core topics of monetary policy communication, such as "interest rate" or "price stability". However, the most frequently used terms are usually less specific and can be used in relation to various topics.

The chart on p. 23 shows three selected topics from the LDA analysis, including their respective "word cloud" and the share that each topic represents in all sentences con-

8 For example, the words "took" and "taken" are both reduced to their root form "take". This is done using the WordNet lexical database (https://wordnet.princeton.edu).
9 See Mikolov et al. (2013). The groups of words formed in this way are subsequently treated as words in their own right.
10 This word list consists of "say", "would", "also", "see", "think", "could" and "however".

Selected topics from the LDA analysis and their share in press conferences following monetary policy meetings of the ECB Governing Council*



* The word clouds show the most significant words for each topic, with the size of each word increasing with its importance. The topics shown can be interpreted as asset purchases (topic #1), exchange rates (topic #6) and economic outlook (topic #14). The share of the respective topics in the press conferences during the period 9 June 1998 to 12 March 2020 is determined by the share of sentences in the press conferences that are assigned to each topic. Each sentence is assigned to the one topic that is most likely according to latent Dirichlet allocation (LDA) analysis.

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tained in ECB press conferences over time. Word clouds visualise the words that constitute a topic. The larger the word appears in the cloud, the more important it is for the topic.[11] Topic #6, for example, is dominated by exchange rate-related terms such as "euro", "exchange rate", "currency" or "dollar". It can therefore be labelled as an "exchange rate topic". The accompanying chart shows that in the first few years after the introduction of the euro, the exchange rate topic played a somewhat greater role in communication. One press conference of note here is that of 3 January 2002, for example. Not only was this the first monetary policy meeting following the introduction of euro banknotes, it also took place during a period of pronounced euro weakness. As a result, there was speculation about possible ECB intervention in the foreign exchange markets in favour of the euro. It is therefore not surprising that the first four questions asked by journalists following the introductory remarks of the then ECB President Wim Duisenberg related to the euro exchange rate. With few exceptions, however, the exchange rate topic played only a small part in ECB communication in subsequent years. One of these exceptions was 9 March 2017. In response to criticism by the new US administration of the current account surpluses of some euro area countries, Mario Draghi, the ECB President at the time, emphasised – following questions from journalists – that the euro was not undervalued compared with the long-term average. These two examples suggest that the exchange rate topic may have taken on a more prominent role mainly as a result of questions from journalists.

In order to assess the quality of the LDA analysis, it is also worth taking a brief look at other topics. Topic #1 in the chart deals

11 How important a word is for a topic is determined by the entry in the respective probability vector for the topic over all words in the text corpus.

with the Eurosystem's asset purchase programmes. Large fluctuations in the importance of this topic in ECB communication first appear in mid-2009, when the first covered bond purchase programme (CBPP) was announced and implemented, with even greater volatility seen later as of October 2014 with the announcement of the asset-backed security purchase programme (ABSPP) and the now third CBPP.[12] Topic #14, by contrast, focuses on the economic outlook, which is generally part of the introductory remarks. This topic therefore plays a particularly important role in all press conferences.

The text-mining approach used here therefore gives the following answer to the question asked at the beginning of this box on the role of the euro exchange rate in Eurosystem communication. In line with the widespread notion that the exchange rates of large, advanced economies should be determined by market forces, exchange rates play a fairly minor role in the ECB's communication. Any monetary policy impulses on the exchange rate resulting from Eurosystem communication are therefore very likely not the primary objective of this communication.

12 It should be noted here that the LDA analysis determines the topics without any economics-based specifications and solely on a statistical basis ("unsupervised learning"). Topic #1 can therefore be interpreted as in the text, but it also takes up other issues, albeit to a lesser extent. It is therefore not surprising that the share of topic #1 is greater than zero even in the press conferences held before the first CBPP was announced. Isolated keywords on asset purchase programmes are also found in word clouds not listed here, for example in a topic with a strong link to forward guidance. However, the exchange rate topic, which is the main focus here, is fairly clearly distinguished from the other topics by the LDA analysis.

Exchange rate matters play a secondary role in the communication of the ECB Governing Council

In today's system of flexible exchange rates in many medium-sized and large advanced economies, there is no longer this conflict of aims between the free movement of capital and scope for monetary policy decision-making,[5] as balance of payments imbalances tend to be reduced by adjustments to the exchange rate. Net capital outflows would then result in a depreciation of the domestic currency and thus tend to lead to an improvement in the current account balance that would offset the financial account deficit. Owing to the changeover to systems of flexible exchange rates, exchange rates are nowadays no longer a target variable for the Eurosystem and most other central banks of large advanced economies,[6] which is why interventions in the foreign exchange market are undertaken by them only in exceptional cases.[7]

This is also reflected in the Eurosystem's communication of monetary policy. A breakdown of all the press conferences following monetary policy meetings of the Governing Council of the ECB employing state-of-the-art text mining techniques produces a clear-cut picture (see the box on pp. 21ff.) Apart from in the initial phase following the introduction of the euro, exchange rate matters have played no more than a secondary role in this important means

5 The conflict of aims between the free flow of capital, fixed exchange rates, and scope for independent monetary decision-making is also known as the "impossible trinity". Only two of these objectives can be achieved at the same time. Recently, however, there has been discussion about whether this trilemma has not changed into a dilemma; see Rey (2015) and the literature building on it.
6 The exchange rate does, however, affect the general domestic price level through its impact on import prices and may thus – at least in the event of major fluctuations – also be of monetary policy relevance when pursuing an inflation target.
7 The most recent event of this kind for the Eurosystem was a coordinated foreign exchange market intervention in March 2011, when the Bank of Japan, the Bank of Canada, the Federal Reserve, the Bank of England as well as the ECB intervened jointly to counter upward pressure on the Japanese yen. The yen began to rise in value in the aftermath of a devastating earthquake in Japan, prompting a response that included repatriation of Japanese external assets and increased demand for yen from insurers.

of communication for the Eurosystem. This is indicated firstly by a straightforward breakdown of how frequently certain words are used in the press conferences and is backed up by a more in-depth statistical analysis. Matters concerning exchange rates are brought to the fore, at most, in exceptional cases.

Uncovered interest parity …

Monetary policy nevertheless still plays a crucial role in determining exchange rates. One key mechanism for this in economic theory is uncovered interest parity (UIP). This theory states that the expected return on a secure investment in domestic currency must be same as that on an equivalent secure investment in foreign currency.[8] If domestic interest rates are lower than those on a comparable investment abroad, say, UIP requires that the investor expects an appreciation of the domestic currency over time which balances out the expected return on both investments. Otherwise, the expected higher return externally should prompt increased investment in foreign bonds, leading, along with other effects, to their prices rising and their interest rates falling until uncovered interest parity had been restored. According to this theory, these mechanisms ensure that uncovered interest parity is maintained.[9]

… as a key component of monetary models for determining exchange rates

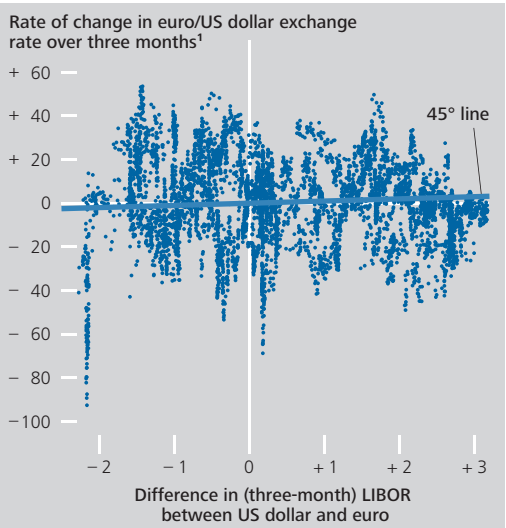
Uncovered interest parity is also a key component of many theoretical models for determining the exchange rate, as it is in the class of monetary models.[10] These make the simplifying assumption that government bonds of different countries differ, at most, in terms of their interest rates, which – under the additional assumption of rational expectations among market agents – already implies uncovered interest parity. A further major component of such models is purchasing power parity theory. In its simplest form (assuming fully flexible goods prices), this theory states that, after conversion into a single currency, an equivalent basket of goods in two countries must have the same price.[11]

"Overshooting" exchange rates

In the most widely used version of the monetary model, it is additionally assumed that goods prices adjust only gradually to market conditions. In this case, purchasing power parity theory holds only in the long term. An increase in the nominal money supply then also leads, at least temporarily, to an increase in the real money supply, as prices in the goods market are raised only with a time lag. If the additional funds are invested, say, in fixed interest securities, the nominal interest rate falls, leading to rising money demand which brings the money

Uncovered interest parity between the United States and the euro area*

Annualised %, daily data, 4 Jan. 1999 to 17 Aug. 2020



Sources: Refinitiv and ECB. * A single dot is derived from the difference between the US dollar-denominated and euro-denominated three-month London Interbank Offered Rate (LIBOR) on a given trading day and the rate of change in the euro/US dollar exchange rate over the next three months. When uncovered interest parity holds, the dots should be near the indicated 45° line, which appears very flat owing to the different scales of the axes. Deviations from this should be randomly distributed. **1** A positive value indicates an appreciation of the euro against the US dollar.

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8 "Equivalent" is to be construed here as both investments being risk-free, having the same maturity with no differences in potential transaction costs. This definition is a comparatively good fit in general for government bonds, particularly those of industrial nations like the United States and Germany.

9 More on the concept of interest parity (both covered and uncovered) may be found in Deutsche Bundesbank (2005).

10 Monetary models gained great popularity in the late 1970s and the 1980s after the end of the Bretton Woods system and the changeover to flexible exchange rate systems in many countries. Frenkel (1976) is regarded as pioneering the model with flexible prices and Dornbusch (1976) as the pioneer of the model with rigid prices.

11 For a more in-depth analysis of purchasing power parity theory and its use for assessing price competitiveness, see Deutsche Bundesbank (2004).

market into equilibrium again. In this environment, there are two factors at once which act to bring about a depreciation: the foreseeable price increase via purchasing power parity theory and the lower interest rates through uncovered interest parity. This means that, in this model framework, monetary expansion results directly in a disproportionate depreciation of the domestic currency. By virtue of the accompanying decline in the real money supply, the ensuing successive upward adjustment of the general price level also leads to the interest rate level returning to normal again. Because of this, what remains in the end is a depreciation of the domestic currency proportionate to the monetary expansion. This phenomenon in the model developed by Dornbusch is known as "overshooting the exchange rate".

Hardly any indication that UIP applies to euro/US dollar exchange rate

While the monetary approach yields simple and readily comprehensible mechanisms for the response of exchange rates to monetary policy impulses and it is repeatedly possible to observe the "overshooting" of exchange rates, empirical studies find very little evidence for the validity of one essential model component: uncovered interest parity.[12] This becomes immediately apparent when comparing the interest rate differential of comparable investments in the euro area and the United States with developments in the euro/US dollar exchange rate. If, for example, the interest rate on a three-month euro-denominated debt security is 1 percentage point above that on an equivalent security denominated in US dollar, UIP requires an expected, annualised 1% depreciation of the euro against the US dollar. In reality, though, the actual annualised depreciation of the euro follows this rules only in exceptional cases. Rather, it is possible to observe a very wide dispersion of exchange rate changes. In fact, contrary to the prediction of UPI, there are often cases where the euro even appreciates against the US dollar in the above case. Among the reasons for such scant evidence for UIP could be risk and liquidity premia for currencies, departures from rational expectations among market agents, the "peso problem",[13] as well as shortcomings in the economic approaches used.[14]

Reasons for departure from UIP

More recent models building on microfoundations and explanatory approaches for empirical findings

More recent approaches provide the model assumptions with a microfoundation. Consideration of firms' and consumers' intertemporal decision-making problems permits a dynamic analysis. Goods prices that adjust only gradually, as in the Dornbusch model, are captured here through a combination of monopolistic competition and limited power to set prices.[15] Refinements of these dynamic general equilibrium models of open economies also attempt to incorporate empirical evidence regarding the model assumptions. Thus, departures from purchasing power parity can be taken into account through introducing non-tradeable goods, for example, as well as through firms that set their prices on the (external) sales market (pricing-to-market), or through consumers having a preference for domestic goods.[16] Among the responses to a violation of UIP are the introduction of noise traders[17] or a time-varying currency risk premium.[18] The decoupling of

12 See Hansen and Hodrick (1980) and Fama (1984) for early influential studies in this direction. In the case of the second major component of the model, purchasing power parity theory, the results are more multifaceted. See Deutsche Bundesbank (2004) as well as Rogoff (1996) where this point was already brought up.
13 The peso problem describes a situation in the foreign exchange market where investors price in an extreme event with a small probability. Owing to the rarity of such events, empirical studies lack the relevant observations, leading to a biasing of the results. The name comes from a situation in the 1970s when the Mexican peso was pegged to the US dollar, but investors suspected that Mexico's central bank might not be able to maintain the peg on a permanent basis. Accordingly, despite the fixed exchange rate, there was a persistently positive interest rate differential between Mexican and US bonds. Following the end of the Bretton Woods system, a depreciation of the Mexican peso against the US dollar did indeed occur in 1976.
14 See Engel (2014) for an overview of the state of more recent research on interest parity.
15 Obstfeld and Rogoff (1995) are regarded as the pioneers of this new open economy macroeconomics (NOEM) model framework.
16 Both the existence of non-tradeable goods (see Obstfeld and Rogoff (1995)) and pricing-to-market (see Betts and Devereux (2000)) or home bias (see Warnock (2003)) can cause an "overshooting" of the exchange rate as in the Dornbusch model.
17 See Devereux and Engel (2002). Conditional forecasts of future exchange rates by noise traders are biased, which can lead to a departure from the assumption of rational expectations.
18 See Obstfeld and Rogoff (2003).

exchange rates and economic fundamentals – frequently observed empirically – can be better explained in this way. These refinements provide important insights into the way open economies function; the fundamental qualitative response of exchange rates to monetary policy impulses, however, resembles that of the monetary models. For example, there is indeed empirical evidence for an "overshooting "of the exchange rate, as was already predicted by the monetary model with rigid prices.

Empirical evidence for "overshooting" exchange rates greater

Indicators of the importance of monetary policy for euro exchange rate developments

Volatility on days of ECB Governing Council meetings an indicator in general …

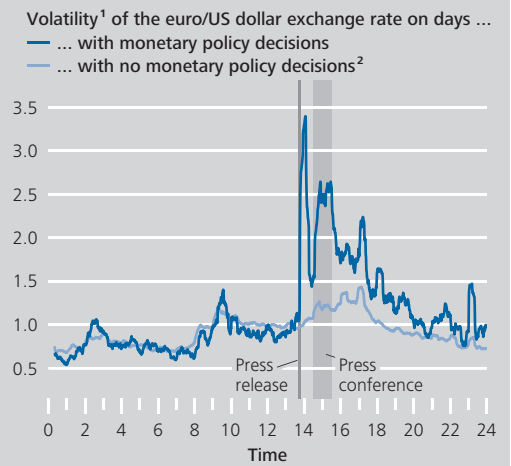
One way to gain an initial descriptive impression of the effects of monetary policy on exchange rates is to look at the development and fluctuation band of euro exchange rates within very short periods of time on days when the ECB Governing Council's monetary policy meetings take place. This shows a spike in such volatility calculated for the euro/US dollar exchange rate at 13:45 Central European Time (CET), which is when the press release is published. A second increase in volatility occurs during the subsequent press conference beginning at 14:30 CET. This pattern contrasts with days on which no monetary policy meeting takes place, when similar surges in volatility are not observed. This suggests that monetary policy communication plays a major role in foreign exchange markets.

… and based on examples

In this context, it is also unsurprising that several of the largest daily changes in the nominal effective exchange rate of the euro are linked to monetary policy announcements. Amongst other examples, these include 22 January 2015, when the ECB Governing Council's decision on the first major asset purchase programme (APP) triggered one of the largest ever depreciations of the euro. A similar situation was observed after the monetary policy meeting on 22 October 2015, after which the euro also experienced a particularly steep single-day loss.

Intraday volatility of the euro/US dollar exchange rate on days of the ECB Governing Council's monetary policy decisions*

Minute data



Sources: Refinitiv and Bundesbank calculations. * Scheduled meetings of the ECB Governing Council between 25 July 2019 and 10 September 2020. **1** Calculated using the standard deviation of minute-by-minute changes in the euro/US dollar exchange rate in rolling 20-minute windows. The average standard deviation across all observations is normalised to 1, meaning that values higher than 1 denote above average volatility. **2** Days within the specified time window on which neither the ECB Governing Council nor the Federal Open Market Committee made any monetary policy decisions.

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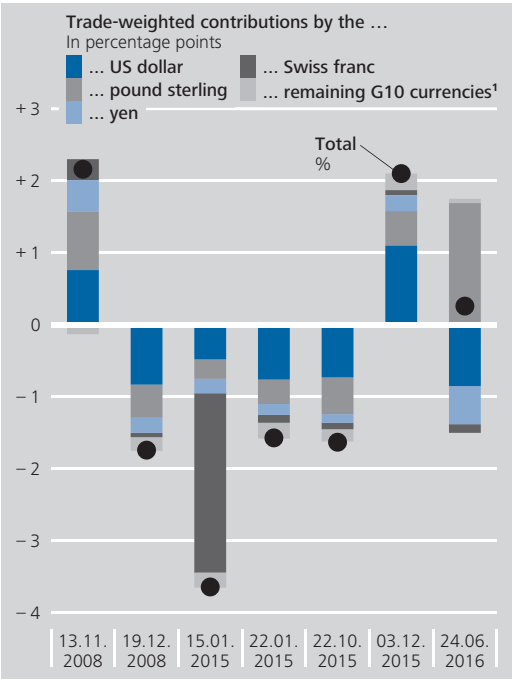
Owing to low inflationary pressures, the ECB Governing Council at that time announced a review of the monetary policy stance, which market agents saw as a signal for an expansion of the asset purchase programme. At the next ECB Governing Council meeting on 3 December 2015, the interest rate on the deposit facility was lowered by 10 basis points and the duration of the asset purchase programme was extended, though the monthly purchase volume remained unchanged. Despite what were, in fact, expansionary measures, the euro effective exchange rate then experienced one of its most marked single-day appreciations. This shows the crucial importance of expectation formation among financial market players for the impact of monetary policy announcements on foreign exchange markets.

Sharp movements in the euro exchange rate can be caused, moreover, by direct intervention in the foreign exchange market, or by the lack thereof. On 15 January 2015, for example, the

Selected effective daily gains and losses by the euro against the G10 currencies



Sources: Bloomberg (exchange rate fixing: 23:00 Central European Time) and ECB. **1** Australian dollar, Canadian dollar, New Zealand dollar, Norwegian krone and Swedish krona.

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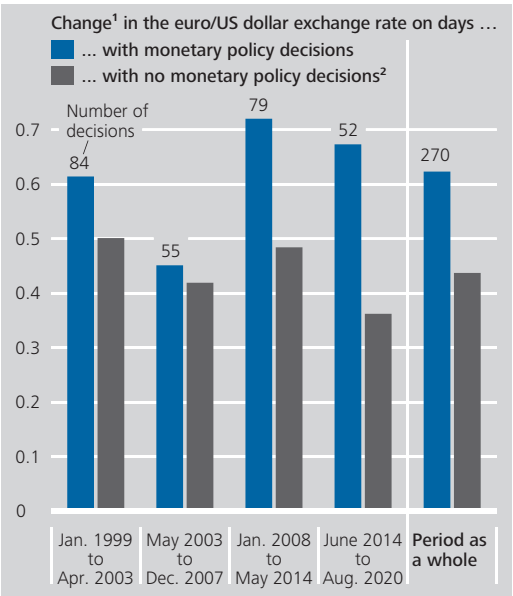
Daily changes in the euro/US dollar exchange rate on days of the ECB Governing Council's monetary policy decisions

%



Source: Bloomberg (exchange rate fixing: 23:00 Central European Time). **1** Average absolute daily changes. **2** Days on which neither the ECB Governing Council nor the Federal Open Market Committee made any monetary policy decisions.

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euro depreciated by almost 19% against the Swiss franc[19] when the Swiss National Bank discontinued the minimum exchange rate against the euro. As Switzerland is one of the euro area's most important trading partners, this measure had tangible consequences far beyond the bilateral euro/franc exchange rate.

Other factors also significant

However, this is not to say that the exchange rate developments of the euro are determined solely by central bank decisions. In addition to monetary policy, other events can also cause major shifts in foreign exchange markets. For example, the UK referendum on 23 June 2016 on a withdrawal from the EU led, amongst other things, to the euro appreciating by 6.2% against the pound sterling on the following day. At the same time, the euro depreciated, in some cases significantly, against currencies which tend to benefit from increased risk aversion amongst investors. During that day, the euro was 6.0% lower against the yen, for instance. Furthermore, several of the euro's strongest same-day movements occurred in the period when tensions were highest during the global financial crisis and are not necessarily directly related to monetary policy events.

Impact of euro area monetary policy on the euro exchange rate …

Based on this simple descriptive analysis, it is also possible to examine the extent to which the impact of monetary policy on the euro exchange rate, as measured in this way, may have changed over the euro's 20-year history. To do this, euro area monetary policy can be divided into four time periods:[20]

– the Eurosystem's beginnings until the first major adjustment of the monetary policy strategy (January 1999 to April 2003);

19 According to Bloomberg fixing at 23:00 CET.
20 This breakdown is more or less the same as that used by Vítor Constâncio, former Vice-President of the ECB, in his speech "Past and future of the European Central Bank monetary policy" at the conference "Central Banks in Historical Perspective: What Changed After the Financial Crisis?", held on 4 May 2018 in Valletta, Malta.

– the subsequent period until the onset of the financial crisis (May 2003 to December 2007);

– the outbreak of the global financial crisis plus the euro area debt crisis and their repercussions (January 2008 to May 2014);

– the low interest rate period and the launch of asset purchase programmes (from June 2014).

… has grown discernibly over time

To gain an initial overview of potential differences in the transmission of monetary policy to exchange rates across the aforementioned periods, it is worth looking at the average absolute daily changes in the euro/US dollar exchange rate. Generally, in each of these periods it can be seen that the daily changes in the euro/US dollar exchange rate were, on average, greater on days when monetary policy meetings of the ECB Governing Council were held than on other days. Moreover, it is possible to identify a change in this discrepancy over time as well. In the post-financial crisis period, in particular, exchange rate movements on days of monetary policy decisions become much more pronounced than movements on other days. During the most recent phase of exceptionally low interest rates, the discrepancy is becoming even greater. In fact, exchange rate fluctuations on days when the Governing Council makes monetary policy decisions are now, on average, almost as high as during the financial and debt crisis. On the other days, by contrast, they are smaller than ever before, on average. However, it is not possible to clearly conclude from this that the impact of Eurosystem monetary policy on exchange rates has increased over time.

However, the longer intervals between monetary policy meetings of the ECB Governing Council should be considered …

One factor that could put the above statement into perspective is the greater frequency of monetary policy meetings of the ECB Governing Council prior to the financial crisis in the euro area than since then. In the first three years after monetary union was established, they took place every two weeks, before a switch was made to a monthly cycle. The current six-week cycle was only introduced in 2015. As a result, individual decision-making days were probably less important in the early phase of the Eurosystem. It is therefore unsurprising that exchange rate movements on days of monetary policy decisions during this period are only marginally larger than on the other days. In the period following the interest rate cut in June 2003, in particular, no further interest rate adjustment was made over the next 29 monetary policy meetings. During this phase, then, monetary policy news from the euro area was presumably less significant for the development of the euro/US dollar exchange rate.[21]

… as should the strong monetary policy response during and after the financial crisis …

With the onset of the financial crisis, monetary policy once again took on greater significance for the exchange rate. In response to the lack of inflationary pressures associated with the economic downturn, the main refinancing rate was gradually lowered from 4.25% to 1% over a period of less than one year. Although the rate was raised again slightly two years later, the euro area debt crisis ultimately led to greater monetary policy accommodation, as a result of which the main refinancing rate was lowered to 0% by 2016. Against this background, it comes as no surprise that exchange rate movements on days of monetary policy decisions during this period were more pronounced than in the first decade after the launch of the euro.

… as well as possibly waning impulses from other factors

In the last phase, the expansion of the monetary policy toolkit to include non-standard measures, such as forward guidance and asset purchase programmes, also increased the com-

21 By contrast, this period probably saw stronger monetary policy impulses for the bilateral exchange rate emanating from the United States. A contractionary monetary policy cycle had already been set in motion there in mid-2004, with a gradual increase in monetary policy rates. However, the daily data used for this article make it difficult to directly compare the exchange rate effects on days of monetary policy meetings held by the two central banks. The Bloomberg fixing at 23:00 CET may not include the full effect of the decisions made by the Federal Open Market Committee, which are published and explained from 20:00.

plexity of monetary policy announcements. This phase of the Eurosystem's monetary policy is noteworthy for the strength that exchange rate movements continue to show on days of monetary policy decisions and the significant decrease in volatility on the other days.[22] There could be several reasons for the latter phenomenon. The period from mid-2014 to the end of 2019 was characterised by comparatively high economic growth and low inflation, for instance, which could have helped keep volatility at a generally low level in foreign exchange markets.

To sum up, there is much to suggest that monetary policy impulses play an important role, that perhaps varies over time, in exchange rate movements. However, in order to ultimately confirm this assumption and quantify this impact, an approach that can also capture causalities is needed.

Results of econometric approaches to determining the causal effect of monetary policy impulses on the exchange rate

Isolating the monetary policy impulse is a particular challenge, …

Early empirical studies on flexible exchange rates mainly focused on examining the assumptions underpinning the monetary model, particularly uncovered interest parity and purchasing power parity theory. By contrast, the more recent empirical literature increasingly addresses the question of the direct causal effect of monetary policy impulses on the exchange rate. One of the key difficulties here is determining the monetary policy impulse. Specifically, it is a matter of carefully disentangling a monetary policy impulse and its causal effects on exchange rates from the influences of other factors ("identifying" the monetary policy impulse). One challenging aspect is that monetary policy does not act of its own accord, but responds, above all, to economic developments.

… for example, in the case of a COVID-19-induced slump in demand

A slump in aggregate demand, for example, as was triggered by coronavirus,[23] tends to have price-dampening effects. Central banks have responded to this by cutting interest rates and expanding asset purchase programmes, to name two examples. These measures have to be regarded at least in large part as a response to market developments, otherwise the effect ascribed to monetary policy impulses would be inaccurate. In other words, instead of attributing the decline in inflation to the weak demand, it could be wrongly concluded that expansionary monetary policy leads to falling inflationary pressures.

Event studies

An event study …

One way of roughly quantifying the monetary policy impulse is to incorporate the aforementioned very narrow time windows surrounding monetary policy announcements into econometric estimates. In these event studies, the monetary impulse is usually measured using a short-term market interest rate (often an overnight index swap rate[24]). Assuming that absolutely no other relevant information was published in the specified period, the change in the interest rate measured in that period can be attributed solely to the monetary policy announcement. Assuming further that all previously published information has already been fully processed in financial markets, the change in the interest rate can be attributed entirely to a departure from the expectations of financial market agents, meaning that it reflects a mon-

22 Euro exchange rate volatility reached its lowest point in 2019. Against the G10 currencies, for example, this period exhibits the lowest average absolute daily changes in the nominal effective exchange rate of the euro since its launch. Implied volatilities – a measure of volatility derived from options – also reached historical lows in 2019 for key bilateral euro exchange rates.

23 The spread of coronavirus has undoubtedly had a negative impact not just on aggregate demand but also on aggregate supply. On balance, however, the dampening effect on demand prevailed – at least in the short term – as far as price pressures are concerned.

24 These are interest rate swaps whose variable interest rate depends on the average overnight interest rate in the interbank market (for the euro area, this is the EONIA).

etary policy impulse. As a final step, a simple regression can be used, for example, to determine the quantitative effect of the monetary policy impulse on the exchange rate.

… shows a significant impact of monetary policy impulses on the euro, which has in fact grown further over time

An event study such as this on the impact of the ECB's monetary policy announcements on the exchange rate of the euro against the US dollar, yen and pound sterling finds significant effects that are consistent with the theory (see p. 32). Thus, a contractionary monetary policy impulse is immediately followed by an appreciation of the euro against all three currencies. In quantitative terms, this effect is particularly pronounced when the monetary policy impulse works through medium and long-term interest rates. According to the estimate, an impulse which increases the yield on five-year German government bonds by 10 basis points causes the euro to appreciate by around 0.7% against the three currencies. In contrast to this, a monetary policy announcement of a comparable magnitude which works mainly through short-term interest rates only causes the euro to appreciate by just under 0.2% against the US dollar and the pound sterling. Its appreciation against the yen is even statistically insignificant in this scenario. The results of a time-varying estimate also confirm the above assumption that the impact of monetary policy impulses on the euro exchange rate has grown over time.

Quantitative and scientific context of the results

These results are relatively similar to those from comparable event studies for different currencies and the monetary policy of different central banks. According to those studies, a conventional, contractionary monetary policy impulse which increases short-term interest rates by 10 basis points leads directly to an appreciation of the domestic currency by between 0.1% and 0.3%.[25] Since, in reality, the movement in the short-term interest rates used for the analysis is barely more than roughly these 10 basis points in response to a typical policy rate adjustment of 25 basis points, the effect on the exchange rate appears to be small. However, it should be borne in mind, first, that expectations of monetary policy decisions have already been formed beforehand in the market, which have already influenced the exchange rate and market interest rates. The event study only identifies the effect of monetary policy decisions above and beyond these expectations. Second – as mentioned above – the present study shows, amongst other things, that measures targeting longer-term interest rate developments, such as asset purchases, have a stronger impact on the exchange rate.[26]

Vector autoregressive (VAR) models

VAR models with sign restrictions as an alternative

A second way of isolating a monetary policy impulse is to model the interdependencies between monetary policy and economic developments. Estimates of this kind are more complex than event studies and require theoretical considerations to be properly applied to the estimation procedure, but can do without minute-by-minute data. Unlike event studies, they also allow the dynamics of exchange rate responses to monetary policy shocks to be depicted. To this end, many studies employ vector autoregressive (VAR) models,[27] often using sign restrictions. The procedure can be illustrated using the above example of a COVID-19-induced decline in demand. According to the theory, the decline in demand leads to interest rate cuts in the money market, reduces economic output and has a disinflationary effect. The sign restrictions mentioned above can be used to calibrate the model such that the estimation only allows solutions that necessarily assume such a causal relationship. By contrast, an expansionary mon-

25 See, inter alia, Zettelmeyer (2004) for Australia, Canada and New Zealand; Kearns and Manners (2006) for the same countries and the United Kingdom; or Faust et al. (2007) for the United States.
26 Gürkaynak et al. (2005) pioneered such analyses; they use a "target shock" to cover short-term monetary policy rate adjustments and a "path shock" to cover the future path of monetary policy. Hausman and Wongswan (2011) predominantly attribute exchange rate movements following monetary policy impulses of the Federal Reserve System to such "path shocks".
27 VAR models assume that all of the observed variables are determined by their own past values as well as the past values of the other variables in the model.

An event study on the effects of monetary policy impulses on the euro's exchange rate

An event study can be used to quantify the effect of monetary policy impulses from the euro area on various euro exchange rates. It is also possible to examine whether this effect varies over time. This event study looks at the changes in euro exchange rates, equity prices and interest rates in a very narrow time period surrounding the ECB's monetary policy announcements. In this way, it attempts to separate the influence of monetary policy impulses on the euro's exchange rate from that of other factors. Specifically, all days of monetary policy meetings of the ECB Governing Council on which a press release was published and/or a press conference was held are taken into account. On these days, the median of the exchange rate quotations and interest rate quotations in the period of time between 13:25 and 13:35 and between 15:40 and 15:50 was determined. The change in exchange rates and interest rates during this period of time (i.e. the difference between the two quotations determined) therefore includes both the immediate responses to the press release published at 13:45 and to the roughly one-hour press conference commencing at 14:30.[1]

In traditional event studies, the measured change in interest rates would be interpreted as a simple measure of the monetary policy impulse. However, more modern analyses take into account the fact that monetary policy communication is multifaceted: for example, not only can it contain changes in the direct monetary policy stance, it can also deliver insights into the future monetary policy path and provide information on macroeconomic indicators. Especially in the latter case, economic effects can occur, inter alia, on the exchange rate, which are fundamentally different from those of purely monetary policy impulses.[2] If this is not taken into account in the analysis, its results may be distorted.[3]

In distinguishing between the three aspects of monetary policy communication mentioned above, the now established method of separating them by means of a principal component analysis is used.[4] Consider

$$X = F\Lambda + \eta,$$

where X is a $(T \times n)$ matrix containing the changes in n financial market variables surrounding T ECB monetary policy announcements. In particular, X here includes the changes in one-month, three-month and one-year OIS yields,[5] two-year, five-year, ten-year and 30-year yields on German government bonds and the Euro STOXX 50. Using the principal component analysis, X should now be reduced to $k=3$ unobserved factors, which describe the changes observed in financial market variables consolidated in X as accurately as possible.[6] F is a $(T \times k)$ matrix with the $k=3$ unobserved factors, Λ is a $(k \times n)$ matrix with the corresponding factor loadings, the coefficients of the factors, and η is an error term.

1 The data are taken from the Euro Area Monetary Policy Database of Altavilla et al. (2019).
2 See Jarociński and Karadi (2020). The effects of such "information shocks" and their influence on exchange rates are examined in more detail on pp. 42-45.
3 See Miranda-Agrippino and Ricco (2020).
4 See Gürkaynak et al. (2005).
5 Overnight index swaps (OIS) are interest rate swaps whose variable interest rate depends on the average overnight interest rate in the interbank market (for the euro area, this is the EONIA).
6 Swanson (2017) describes changes in financial market variables surrounding monetary policy decisions by the Federal Open Market Committee (FOMC), for example, also with three factors.

Results of the event study[o]

Impulse	EUR/USD	EUR/JPY	EUR/GBP	OIS 1M	DE 5Y
(1) Monetary policy (through short-term interest rates), β_1	0.19** (0.08)	0.08 (0.08)	0.17*** (0.06)	10.00*** (0.62)	2.65*** (0.49)
(2) Monetary policy (through medium and long-term interest rates), β_2	0.76*** (0.11)	0.77*** (0.11)	0.62*** (0.07)	0.68 (0.64)	10.00*** (0.52)
(3) Central bank information, β_3	– 0.10 (0.18)	0.26 (0.17)	– 0.07 (0.13)	4.09*** (0.81)	10.00*** (0.42)

o The table shows the estimated response (%) of the euro/US dollar exchange rate (EUR/USD), the euro/Japanese yen exchange rate (EUR/JPY) and the euro/pound sterling exchange rate (EUR/GBP), as well as the yields on one-month OIS (OIS 1M) and five-year German government bonds (DE 5Y) to the impulse shown in the first column. A positive coefficient indicates that the impulse leads to an appreciation of the euro. The impulses are normalised as follows: a monetary policy impulse on interest rates for short maturities increases the one-month OIS rate by 10 basis points (indicates an impulse of 2.8 standard deviations); a monetary policy impulse on the interest rates of longer-term government bonds and an impulse attributable to new central bank information each increase the yield on five-year German government bonds by 10 basis points (indicates an impulse of 3.1 and 4.9 standard deviations respectively). Standard errors of the estimated coefficients are shown in parentheses. * significant at the 10%, ** the 5% and *** the 1% level.

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The factors determined using the principal component analysis cannot initially be interpreted in a structural manner, i.e. in the sense of the three communication aspects. This results from a "factor rotation"

$$Z = FU,$$

with which, using the $(k \times k)$ matrix U from the original factors, F, new, structurally interpretable factors, Z, are calculated.[7] The matrix U was chosen such that the first two factors lead to an increase in yields and to price declines in the equity market, which is in line with the theoretical response to a contractionary monetary policy impulse. They differ in that the first impulse, known as a "target shock", has a greater impact on interest rates for short maturities (one-month and three-month yields), while the second impulse, a "path shock", has a greater impact on those for longer maturities (from one-year yields).[8] The first monetary policy impulse should, therefore, tend to reflect conventional monetary policy measures, while the second should also reflect, inter alia, unconventional measures such as forward guidance and asset purchases, which have a greater impact on medium to long-term interest rates. Finally, the third factor is intended to reflect the disclosure of central bank information, which, in the event of surprisingly positive information, leads to both yield and equity price increases.

A measure for the two monetary policy impulses $z_{1,t}$ and $z_{2,t}$ as well as for the impulse attributable to new central bank information $z_{3,t}$ is then derived from the standardised factors in the relevant columns of the matrix Z. Finally, their influence on the euro's exchange rate can be estimated using the following regression equation:

$$y_t = \beta_0 + \sum_{i=1}^{k=3} \beta_i z_{i,t} + \varepsilon_t,$$

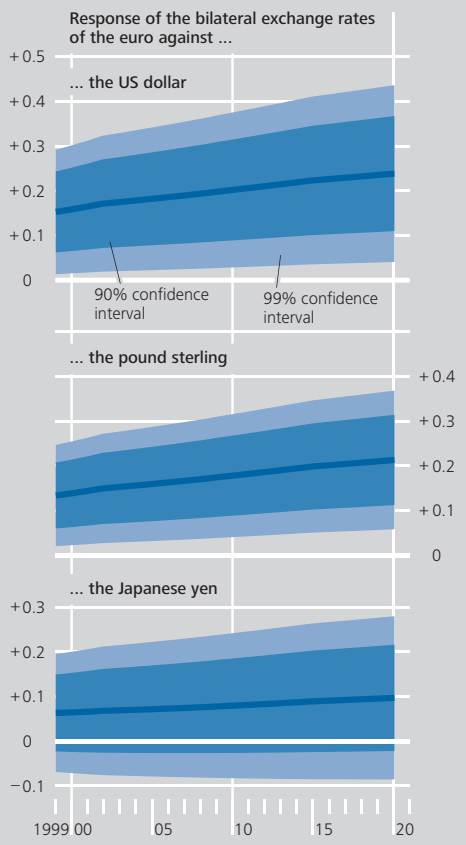
where y_t stands for the rate of change of the bilateral euro exchange rate against the

7 The factors of the matrix are orthogonal to each other and explain the observed data in the matrix X to the same degree as the factors of the matrix F previously.

8 The sign restrictions are implemented using the algorithm developed by Rubio-Ramírez et al. (2010). The appropriate factor rotation is then determined using the median target method developed by Fry and Pagan (2011).

Estimation of the monetary policy effect on euro exchange rates through short-term interest rates*

Response to monetary policy impulses (%)[1]



* Immediate response of euro exchange rates to monetary policy impulses over time. **1** Impulses each normalised such that they increase the one-month OIS yield by 10 basis points. A positive value indicates an appreciation of the euro against the respective currency.

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US dollar (or the Japanese yen or the pound sterling) within the above-mentioned period of just over two hours on days of monetary policy decisions.

The table on p. 33 shows the estimation results of the event study for the coefficients β_1 to β_3. It shows that monetary policy impulses have a statistically significant influence on the three exchange rates, but the quantitative effect depends on whether interest rates for short or for long maturities are more likely to be affected. According to the estimation, the latter impulses, in particular, have a significant influence on the euro's exchange rate, also from an economic perspective. For example, an impulse that increases the yield on five-year German government bonds by 10 basis points leads to an appreciation of the euro from 0.62% against the pound sterling to 0.77% against the Japanese yen.[9] By contrast, impulses attributable to new central bank information do not immediately have a significant effect on any of the three euro exchange rates. One reason for this could be that the impact of such information impulses in foreign exchange markets is more complex than purely monetary policy impulses and thus takes longer than the just over two hours considered here to be reflected in exchange rate movements.[10]

The event study presented here assumes thus far that the influence of monetary policy impulses does not change over time. However, particularly as a result of the convergence towards key interest rates of 0% or below and the use of unconventional monetary policy measures that this entails, the transmission of monetary policy to exchange rates might have changed. Whether this is actually the case or not can be tested using an estimation with time-varying coefficients, $\beta_{i,t}$:

$$y_t = \beta_{0,t} + \sum_{i=1}^{k=3} \beta_{i,t} z_{i,t} + \varepsilon_t$$

However, this equation cannot be estimated without further assumptions, as the number of coefficients exceeds the number of observations. One method of dealing

9 Such a stronger effect of monetary policy impulses which work mainly through interest rates with longer maturities is also found, for instance, by Hausman and Wongswan (2011).

10 In line with this, when using daily exchange rate changes, there is a significant effect of information impulses on various euro exchange rates. See Kerssenfischer (2019).

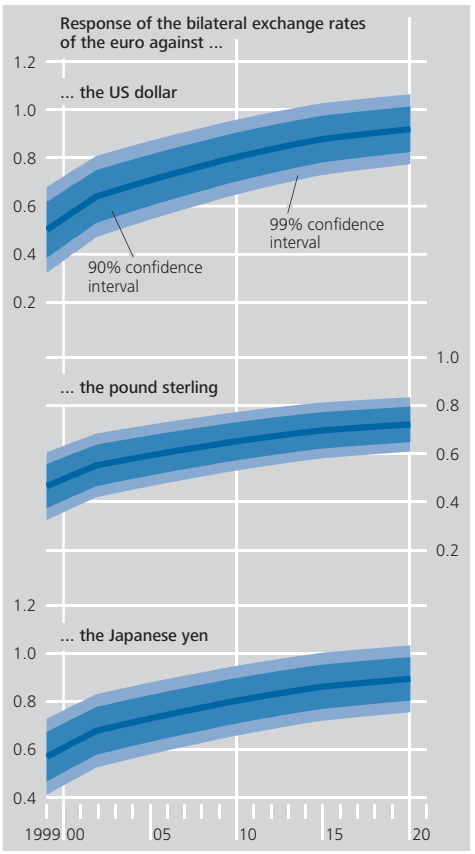
with this problem is a kernel estimation, where at any point in time $\tau = 1, ..., T$ all observations are assigned a weight. In this case, the kernel follows a normal distribution, meaning that the further the observation is from τ, the lower the weight assigned.[11]

The chart on p. 34 and the adjacent chart show the evolution of the estimated values for the coefficients of the two monetary policy shocks over time. Especially in the case of monetary policy impulses that have an impact on interest rates on government bonds with a medium and long-term residual maturity, the influence on euro exchange rates appears to have increased over time. At least since the use of explicit forward guidance from mid-2013 onwards and the launch of the public sector purchase programme (PSPP) in early 2015, unconventional monetary policy measures might have caused this development.[12] However, a corresponding trend can already be observed from the beginning of the observation period. Moreover, such a stronger response of euro exchange rates over time can likewise be seen, although to a lesser extent, in monetary policy measures which mainly have an impact on short maturities.

Another explanation could be the downward trend in interest rates observed worldwide. For example, interest rates might have been transmitted only to a lesser extent internationally since central banks' room for interest policy manoeuvre has tended to diminish over time. In this case, uncovered interest parity would predict larger exchange rate adjustments. Technological progress might also have led to information being priced into the market more quickly, for example, through increased algorithmic trading.[13] The response period selected here of just over two hours

Estimation of the monetary policy effect on euro exchange rates through medium and long-term interest rates*

Response to monetary policy impulses (%)[1]



* Immediate response of euro exchange rates to monetary policy impulses over time. **1** Impulses each normalised such that they increase the yield on five-year German government bonds by 10 basis points. A positive value indicates an appreciation of the euro against the respective currency.

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11 The actual weighting of the individual observations depends on the choice of bandwidth, h. The higher the bandwidth selected, the higher temporally more distant observations are weighted, meaning that, as h increases, there is convergence towards the linear case with coefficients which are constant over time. The choice of h here follows the optimisation method developed by Ang and Kristensen (2012). The same estimation method is also applied by Ferrari et al. (2017) to exchange rate changes following monetary policy announcements.

12 For a detailed discussion of the effect of the asset purchase programmes on the euro's exchange rate, see Deutsche Bundesbank (2017). This also shows that particularly the announcements regarding the purchase programme caused major movements in the foreign exchange markets.

13 See Ferrari et al. (2017).

for the first few years might then be too short to fully capture the effects of monetary policy measures. Ultimately, the frequency of monetary policy meetings of the ECB Governing Council could play a role: in the first three years after the launch of the euro, monetary policy decisions were taken every two weeks; between 2002 and 2014 they were taken every four weeks; and since 2015 they have only been taken every six weeks. It is conceivable that this decreasing frequency of meetings of the ECB Governing Council has increased the average strength of certain impulses over time. If euro exchange rates additionally respond disproportionately to larger shocks, this could also help explain the phenomenon of an increasing influence of monetary policy on euro exchange rates. However, such non-linearities are not the subject of this study, and a glance at the data fails to provide any definitive evidence of the possible increasing strength of monetary policy impulses.[14]

14 Not surprisingly, the strength of monetary policy impulses which have a stronger impact on interest rates with short maturities has declined, while the strength of monetary policy impulses which have a stronger impact on interest rates with medium and long-term maturities has increased.

etary policy impulse has a stimulating effect on the economy by lowering interest rates, thus raising the price level. These responses, too, can be imposed on the estimation using sign restrictions. Since the two impulses, falling demand and a monetary policy easing, are assumed to have different effects, they can be clearly distinguished from one another.

From mid-2014, weak euro largely due to monetary policy impulses

If, in addition to the monetary policy impulse, a VAR model then identifies other impulses, such as a real economic impulse, it is possible to calculate the extent to which these impulses have caused the historical development of the euro exchange rate, according to the model estimate. This kind of historical decomposition of the development of the euro/US dollar exchange rate suggests, amongst other things, that monetary policy is largely responsible for the euro's weakness from mid-2014 onwards (see the box on pp. 37 ff.). The euro/US dollar exchange rate was depressed not only by the expansion of asset purchases in the euro area, but also later by the Federal Reserve's gradual policy rate hike. The euro partially recovered in 2017, not least owing to the tapering of the Eurosystem's net asset purchases, but the US dollar was supported by the US economy, which had been booming up until the coronavirus crisis. Generally speaking, such historical decompositions are a useful analytical tool, precisely because they also make it possible to quantify the individual contributions of the impulses. Nevertheless, it should be noted that VAR models isolate just a limited number of such impulses,[28] meaning that they can only depict complex dynamics, for instance in the event of extreme events such as the coronavirus crisis, to a limited extent.

28 In principle, the number of impulses is unlimited. However, the calculation intensity for identification using sign restrictions increases exponentially, which means that, in practice, models will rarely include more than five different impulses.

Determinants of the cumulative change in the euro-US dollar exchange rate: a historical decomposition in a VAR model

When analysing the causes of movements in the euro-US dollar exchange rate, it should be borne in mind that the various determinants can affect the exchange rate not only immediately but also with a time lag. Information on the historical (lagged and non-lagged) determinants of the euro exchange rate is provided by an analytical procedure known as historical decomposition from a structural vector autoregressive (VAR) model. This procedure decomposes the euro-US dollar exchange rate movements into the contributions of the determinants identified in the model; the impulses they impart to the economy are termed "structural shocks" in this context. In order to calculate these shocks, such as the impulses generated by the Eurosystem's monetary policy over a given period of time, theory-based assumptions are made as to the direction in which they act on the economic variables observed in the VAR model over the same period (the shocks are "identified" by means of "sign restrictions"). The VAR model used here incorporates variables from two currency areas: the euro area and the United States.[1]

In mathematical terms, for a reduced-form VAR model with n variables, one of which is the euro-US dollar exchange rate, the following equation is to be estimated:

$$y_t = c + B_1 y_{t-1} + \ldots + B_p y_{t-p} + u_t,$$

where y_t is the $(n \times 1)$ vector of the endogenous variables, c is the $(n \times 1)$ vector of the constants, B_i is the $(n \times n)$ coefficients matrix of the endogenous variables lagged by $i = 1, \ldots, p$ periods and u_t is the $(n \times 1)$ vector of the error terms. As usual, u_t is normally distributed, with $E(u_t) = 0$ and $E(u_t u_t') = \sum$ assumed.

A special feature of this VAR model is that weekly financial market data are used as variables for the estimation instead of the monthly or quarterly macroeconomic data which are often used otherwise.[2] This lends the analysis a maximum of timeliness, which is of major interest, especially when looking at financial market variables such as the exchange rate. A total of five variables are incorporated into the model (and thus into vector y_t): the euro-US dollar rate, the Euro Stoxx 50 index, the S&P 500 index and the yields on ten-year Bunds and on ten-year US Treasuries. The model is estimated for the period since the introduction of the euro until mid-August 2020 using the least squares method and a maximum lag of $p = 5$ weeks, selected using the Akaike Information Criterion (AIC).

Although the coefficients $(c, B_1, \ldots, B_p)$ and the covariance matrix of the reduced-form VAR model, $\sum$, can be estimated without any problems, it is not possible to interpret the identified error terms, u_t, as structural shocks, as these error terms are correlated with one another. The VAR model is therefore converted into a structural form by imposing sign restrictions on the impulse-response functions, which allows an economic interpretation of the in-

1 The basic idea behind the model used here is to build on the approaches of Matheson and Stavrev (2014) as well as Farrant and Peersman (2006).
2 Not only are many types of macroeconomic data published only monthly or even quarterly, they are also often published only with a long time lag, which makes it difficult or virtually impossible to investigate current developments using these data.

Sign restrictions of the structural VAR model

Variable[1]	Contractionary monetary policy shock in the euro area	Positive macroeconomic shock in the euro area	Positive macroeconomic shock in the United States	Contractionary monetary policy shock in the United States	Residual shock
Euro-US dollar exchange rate[2]	+	+	–	–	–
Euro Stoxx 50	–	+			
Yield on ten-year Bunds	+	+	+	+	+
S&P 500			+	–	
Yield on ten-year US Treasuries			+	+	–

1 A + (–) indicates an immediate increase (decrease) in the value of the respective variable. **2** + indicates an appreciation of the euro against the US dollar.

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dividual shocks.[3] In the present VAR model, a total of four structural shocks and one residual shock are identified in this manner, the sign restrictions of which are given in the table above.

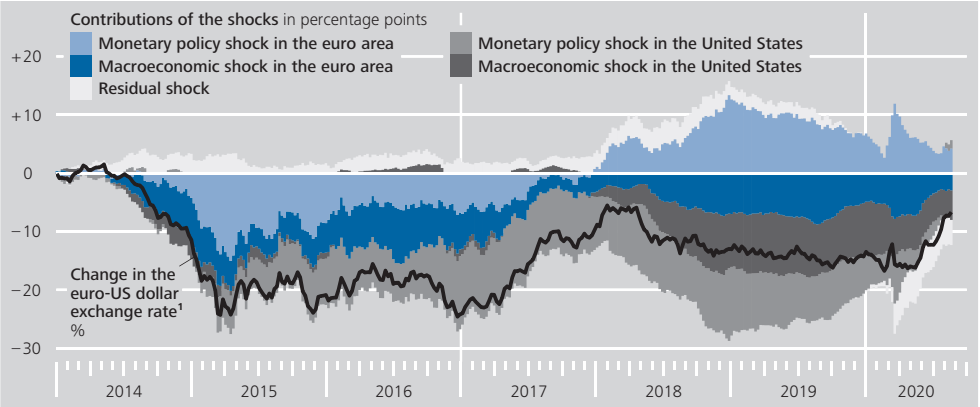
The model distinguishes between monetary policy shocks and other macroeconomic shocks, as well as between shocks originating in the euro area and those emanating from the United States. It is assumed that a contractionary monetary policy shock and a positive macroeconomic shock (e.g. the publication of surprisingly positive economic data) will both lead to a rise in domestic interest rates and thus to an appreciation of the domestic currency. However, the two shocks differ in terms of their impact on the stock market: a positive macroeconomic shock is assumed to increase the valuation of domestic equities, whereas the contractionary monetary policy shock will reduce the dividend discount value of equities through a deterioration in the economic outlook and a higher discount factor. In order to be able to additionally disentangle euro area shocks from US shocks, it is assumed that the United States, as the world's most important economy, plays a pivotal role in the global financial system inasmuch as changes in US interest rates are transmitted to euro area interest rates.[4] This means that both a positive macroeconomic US shock and a contractionary US monetary policy shock, each taken in isolation, will push up interest rates not only in the United States but also in Germany. Since it is assumed, however, that the interest rate hike in the United States will be passed through less than proportionately and that the increase will therefore remain larger there than in Europe, both shocks cause the euro to depreciate against the US dollar (see "uncovered interest parity"). Ultimately, a minimum number of sign restrictions are assigned to the residual shock in order to differentiate it clearly from the other shocks and thus not diminish its explanatory power.

The chart on p. 39 shows the historical decomposition of the euro-US dollar exchange rate. The black line indicates its cumulative percentage change since the end of 2013. The differently shaded areas reflect the respective contributions of the shocks identified in the model to the change in the euro-US dollar exchange rate. It can be seen that, from the end of 2013 – when the euro

3 The reader is referred to Chapter 10 of Kilian and Lütkepohl (2017) for a detailed and technical discussion of sign restrictions.
4 This is also consistent with the idea that US monetary policy is at the centre of the global financial cycle (see Rey (2015)).

Historical decomposition of the euro-US dollar exchange rate

Cumulative change since end-2013, weekly averages



1 An increase indicates an appreciation of the euro against the US dollar.

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was still trading at close to US$1.40 – up to the first quarter of 2015, the euro had lost nearly 25% of its value against the US dollar. The historical decomposition suggests that a large part of this was due to an accommodative monetary policy stance in the euro area. Important announcements and decisions on the Eurosystem's bond purchase programmes were made during this period, in particular including the adoption of the expanded asset purchase programme (APP). It is true that there was initially an easing of the downward pressure on the euro against the US dollar as the year progressed. From the end of 2015, however, the positive outlook for the US economy encouraged the Federal Reserve to raise the fed funds rate in increments again. Taken in isolation, this strengthened the US dollar. According to the analysis, the monetary policy stance on both sides of the Atlantic led, at the end of 2016, to the euro falling to its lowest level against the US dollar since 2002.

The euro subsequently recovered significantly, however, mainly supported by the gradual tapering of the net asset purchases by the Eurosystem. This perceived contractionary effect of monetary policy persisted into 2019. Nevertheless, from as early as the end of 2017, the upward tendency of the euro this originally triggered was already being thwarted by steady US economic growth during this period, along with other factors. This is reflected in an increasing importance of the US macroeconomic shock (see the chart above). Placing an additional strain on the euro was the somewhat gloomier economic outlook on the other side of the Atlantic, as evidenced by the intensifying effect of the macroeconomic shock from the euro area. On balance, this caused the euro to trend downward moderately but continuously up to end-2019.

The model also provides clues about the causes of current exchange rate developments during the coronavirus crisis. Since the euro area is more closely interconnected with China – the first country to be affected by the novel coronavirus – than the US economy is, the euro area economic outlook began to deteriorate as early as January 2020, putting downward pressure on the euro against the US dollar. Monetary policy impulses from the euro area were also weighing on the euro during this period. However, with the global spread of

the virus, this was increasingly counteracted by the similarly deteriorating outlook for growth in the United States. At the end of February, according to the estimation results, the contribution of euro area monetary policy area did a sudden about-face towards supporting the euro. This may have been due to market participants seeing the Eurosystem, with a main refinancing rate of 0% and a deposit rate of -0.5%, as having barely any room left for any further interest rate cuts compared with other central banks. However, beginning with the announcement of the pandemic emergency purchase programme (PEPP), upward pressure on the euro being applied by euro area monetary policy gradually subsided from the second half of March. By contrast, the US Federal Reserve had only just begun to cut its rates again following multiple policy rate hikes in the second half of the previous year. This gave the Federal Reserve the leeway it needed to lower the fed funds rate several times in response to the spread of the COVID-19 pandemic. On balance, US monetary policy was, at this stage, applying pressure on the euro to appreciate against the US dollar, unlike before the crisis. Toward the end of the observation horizon, both macroeconomic shocks also support the euro against the US dollar, presumably owing to differences between the two currency areas regarding the speed at which the pandemic spread and the associated revisions to the respective economic outlook.

It should be borne in mind, however, that such an analysis – as is usual in economics – rests on a large number of assumptions and should therefore be interpreted with caution. This is particularly true for the current year, as the COVID-19 pandemic ushered in developments, especially in the equity markets, which are difficult to model, and a model based solely on financial market variables cannot adequately represent the attendant complex dynamics of supply and demand shocks. Particularly in crisis situations, investors, irrespective of interest rate developments, temporarily shift funds to "safe haven" currencies such as the US dollar, which is something the present VAR model cannot adequately capture. On the whole, however, such historical decompositions from VAR models can be a useful avenue to understanding exchange rate movements.

Proxy VAR models

Combination of event studies with VAR models …

And finally, methodological refinements over the past few years now allow estimates in which monetary policy impulses are, like in event studies, isolated at very high frequency surrounding monetary policy announcements by altering variables, and a dynamic exchange rate response can nevertheless be determined using a VAR model.[29] Interestingly, first studies that apply this method confirm the theoretical idea that exchange rates "overshoot" almost immediately after monetary policy impulses.[30] It is worth highlighting this result as many studies with VAR models find only a lagged "overshooting" of exchange rates following monetary policy impulses.[31]

… allows dynamic analysis of impulses triggered by the announcement of central bank information

Although a very short-term definition of events that are relevant from a monetary policy perspective is used in an attempt to isolate a monetary policy impulse as exactly as possible, the question remains as to how successful this is in such event studies. This would be the case if the interest rate changes observed in the market during monetary policy announcements or shortly thereafter really are completely caused by monetary policy impulses in the stricter sense. This is not necessarily the case, however. Alongside the monetary policy decision, central banks regularly also communicate (explicitly or implicitly) additional information on their assessment of the economic situation and the outlook for the economy and for inflation.[32] If interest rates rise in the minutes following a monetary policy decision, this could equally be because, for instance, the central bank has communicated unexpectedly upbeat economic prospects. However, the effects of such information impulses are fundamentally different from those of genuine monetary policy impulses. Rather than depressing prices and economic output, the usual response to a contractionary monetary policy impulse, the rise in interest rates in the markets triggered by the brighter economic prospects is, in this case, actually associated with rising output and appreciating prices. The macroeconomic responses are therefore more comparable to those of a demand impulse.[33]

Positive information impulses triggered by ECB communication cause heterogeneous responses by the euro, …

Interest rate increases triggered by information impulses also have a different effect on exchange rates than pure monetary policy impulses – as demonstrated by a new Bundesbank study[34] (see pp. 42 ff.). If the ECB communication following one of its monetary policy meetings triggers a pure monetary policy impulse, this results in an "overshooting" of almost all examined bilateral euro exchange rates in line with the predictions of the Dornbusch model.[35] In the case of a positive information impulse, meanwhile, where the central bank communication improves the economic outlook, the response of euro exchange rates differs depending on the partner currency.

… where the euro depreciates against the currencies of commodity-exporting countries …

Despite the increase in interest rates at home, the euro depreciates in some instances, for example against the Australian dollar or the Norwegian krone. According to the results of the study, this has to do with the fact that the information impulse also has a considerable, positive impact on investors' global appetite for risk. Irrespective of interest rate developments, demand for speculative currencies, in particular, is high when markets experience rising risk

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29 In such an approach, the change in an interest rate at very high frequency surrounding monetary policy announcements is used as a proxy for the actual monetary policy impulse. The underlying idea behind these proxy VAR models, which are also termed VAR IV because of their similarity to an instrument variable approach, was developed by Stock and Watson (2012) and Mertens and Ravn (2013).
30 See Franz (2020) for an immediate "overshooting" following Eurosystem monetary policy impulses and Rüth (2020) for a comparable result for the United States.
31 See Eichenbaum and Evans (1995) and Scholl and Uhlig (2008), to name just two.
32 Romer and Romer (2000) already showed that market participants adjust their own forecasts in response to such communications.
33 See Jarociński and Karadi (2020).
34 See Franz (2020).
35 This is the case against the pound sterling, yen, Canadian dollar, Australian dollar, New Zealand dollar and the Norwegian krone. There is evidence for a lagged "overshooting" only against the US dollar. By contrast, the response of the euro exchange rate against the Swedish krona is statistically not significant.

The impact of central bank communication on the euro exchange rate

Analyses of high-frequency data surrounding monetary policy meetings often identify a co-movement of yields and equity prices. Theoretically, though, a contractionary monetary policy "shock" ought to drive yields higher, clouding the economic outlook and raising the discount factor. Both of these impacts imply that equity prices should fall and thus that equity prices and yields should move in opposite directions. The observed co-movement of yields and equity prices can, however, be explained by shocks triggered by new central bank information. These are primarily impulses which occur when financial market agents change their view of the general economic situation or of certain macroeconomic variables in response to communication from the central bank. Specifically, central bank communication on short and longer-term forecasts of macroeconomic variables could give rise to impulses of this kind.[1] Not only are these central bank information shocks, as they are known, a frequent occurrence following announcements by the ECB or the Federal Reserve;[2] they also have altogether different implications for the economy than those triggered by pure monetary policy shocks.[3]

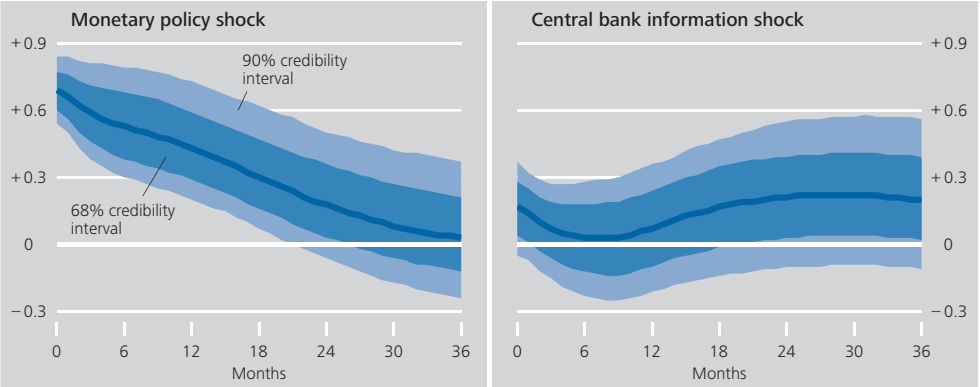
A recently published Bundesbank discussion paper investigates the impact of these central bank information shocks as well as the effect of pure monetary policy shocks on the euro exchange rate using a vector autoregressive (VAR) model.[4] This VAR model uses a total of eight variables as inputs. From the euro area, these are two-year yields on German government bonds, the EURO STOXX 50 index, industrial output, the consumer price index and a bank credit spread.[5] To capture the international dimension, foreign consumer prices as well as two-year yields and the euro nominal exchange rate are used.[6] The estimate is based on data from January 1999 to September 2018.[7] The reduced-form VAR model is estimated with Bayesian techniques.

In methodological terms, an approach known as a proxy VAR is used to disentangle, as far as possible, the two shocks observed in the model – the pure monetary policy shock and the central bank information shock – from other influences.[8] Short-term responses by yields on two-year German government bonds and the EURO STOXX 50 index are observed, as in an

1 Romer and Romer (2000) already tested for the existence of asymmetric information between the Federal Reserve and the public in inflation forecasting and demonstrated that monetary policy announcements provide signals for commercial forecasts. Expanding on this finding, Nakamura and Steinsson (2018) find evidence for an increase in professional forecasts of output growth following an unexpected rise in the real interest rate triggered by announcements by the Federal Open Market Committee; they label this a "Fed information effect."
2 See Cieslak and Schrimpf (2019).
3 See Jarociński and Karadi (2020).
4 See Franz (2020). A more formal presentation of the VAR model can be found on p. 37.
5 The bank credit spread is taken from Gilchrist and Mojon (2018) and denotes the difference in yields between bonds issued by commercial banks in the euro area and German government bonds. The spread aims to describe time-varying risk premia as a way of better approximating firms' and households' actual funding costs in the euro area. Gertler and Karadi (2015) support the inclusion of a variable of this kind since monetary policy measures can have a self-reinforcing effect on funding costs through these premia.
6 The VAR model is estimated, first, against 12 major trading partners such that the foreign variables are inputted in trade-weighted terms but, second, also bilaterally against the G10 currencies with the exception of Switzerland.
7 The maximum number of lags in the VAR model is set to 12 as is common for monthly data.
8 Since only two shocks are examined here, partial identification of the VAR model is sufficient. See Stock and Watson (2012) and Mertens and Ravn (2013) for an explanation of the workings of the proxy VAR method.

Impulse response functions of the euro effective exchange rate*

Percentage response to shocks[1]



* Relative to 12 trading partners. **1** Shocks normalised such that they increase the yield on German government bonds with a two-year residual maturity by 10 basis points. A positive value indicates an appreciation of the euro.

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event study.[9] This is done in a narrow window surrounding central bank announcements following monetary policy meetings of the ECB Governing Council.[10] These short-term yield and price responses are collated to form time series, which are then inputted into the model as proxies. It is thought that these responses capture the pure monetary policy shock and central bank information shock well if no further information that has a bearing on the aggregate economy was released during the period of the measured response and the two shocks largely cover the surprises from the ECB statement.[11] To ensure that this is the case, interest rate and price responses on days of monetary policy meetings of the ECB Governing Council were measured over a fairly short period of time, starting ten minutes before publication of the ECB press release at 13:45 CET and ending 20 minutes after the end of the press conference scheduled for 14:30 CET.

As a final step, the pure monetary policy shock then needs to be disentangled from the central bank information shock. This is done by additionally applying the sign restrictions mentioned above to the model. It is presumed that a contractionary monetary policy shock will raise domestic government bond yields and lower equity prices, while a positive central bank information shock will increase both yields and equity prices.[12]

The above chart shows how the effective exchange rate of the euro against 12 major trading partners responds to a positive central bank information shock and a contractionary monetary policy shock as impulse response functions. The shocks are normalised in terms of their magnitude such that the yield on German government bonds with a two-year residual maturity immediately responds with a 10 basis point increase. In the pure monetary policy shock, the rise in the interest rate leads to an economically and statistically significant appreciation of the effective exchange rate of the euro. The response is strongest at first (0.7%) and diminishes over time. This observation is consistent with the theoretical

9 See pp. 32 ff.
10 Data source: Kerssenfischer (2019).
11 Expressed in technical terms, valid restrictions can be obtained for identification if the proxies, much like an instrument variable estimation, are sufficiently correlated with the structural shocks of interest, but not with other possible structural shocks in the model.
12 These identifying sign restrictions are also used in Cieslak and Schrimpf (2019) and Jarociński and Karadi (2020).

Immediate response of the euro's bilateral exchange rate against various currencies[o]

%

Currency/variable	Monetary policy shock	Central bank information shock	Currency classification as per Hossfeld and MacDonald (2015)
US dollar	1.17*	0.98*	Carry trade funding/ safe haven
Pound sterling	1.03*	– 0.19	Not clear
Yen	0.48*	1.55*	Carry trade funding
Swedish krona	0.14	0.00	Speculative
Canadian dollar	1.38*	0.18	Speculative
Australian dollar	0.43*	– 0.33*	Speculative
Norwegian krone	0.53*	– 0.30*	Speculative
New Zealand dollar	0.70*	– 0.46*	Speculative
Effective	0.69*	0.17	Euro: hedge
VIX index	3.23*	– 8.00*	–

o The first and second columns show the immediate percentage response by the euro against the currencies indicated following a monetary policy shock or a central bank information shock which each increase the yield on German government bonds with a two-year residual maturity by 10 basis points. Besides the currencies shown in the table, the group of countries used to calculate the euro effective exchange rate includes Switzerland, the Czech Republic, Poland and Denmark. * denotes that the response shown is significant at the 10% level.

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framework of the Dornbusch model.[13] The central bank information shock, by contrast, does not trigger a statistically significant response by the effective exchange rate of the euro, despite the increase in the domestic interest rate.

To find out why the effective exchange rate of the euro responds differently to the two shocks, it is worth taking a look at bilateral euro exchange rates, specifically by estimating the VAR model for the euro exchange rate separately against each of the currencies listed in the above table,[14] which shows how the euro exchange rate immediately responded against each currency. As the table shows, the euro appreciated against all the currencies following a pure monetary policy shock, and did so in a statistically and economically significant manner, except against the Swedish krona. A central bank information shock, by contrast, elicited a very mixed response from the euro, depending on the partner currency concerned. As a case in point, the euro is estimated to appreciate very strongly against the yen, say, (by 1.6%), but lose value against other currencies, such as the New Zealand dollar (by 0.5% in this case).

What could be behind this distinctly mixed exchange rate response to central bank information shocks? Research on this matter suggests that different responses by the respective interest rate differential between the euro area and the country of the partner currency are not the main cause.[15] Things look more promising when the currencies under investigation are classified by the role they each play in the foreign exchange market (see the right-hand column of the table).[16] Analysis based on this classification approach identifies the low-yielding yen as a currency that is used to fund investment strategies such as currency carry trades. Investments in currencies of commodity-exporting countries such as Australia or Norway, on the other hand, have often carried higher rates of interest in the past, making them generally attractive to speculative investors. On the whole, it can be said that net capital flows into speculative currencies increase as global risk appetite picks up, subjecting them to up-

13 See Dornbusch (1976).
14 These are all the G10 currencies except the Swiss franc. Between September 2011 and January 2015, the Swiss National Bank pursued an exchange rate policy which prevented the Swiss franc from falling below a minimum exchange rate of CHF 1.20 per euro. As a result of this policy action, the Swiss franc was not free floating across a significant part of the period under observation. This complicated a comparison with the euro exchange rates of the other currencies, which is why the Swiss franc is disregarded here.
15 See Franz (2020).
16 Classification taken from Hossfeld and MacDonald (2015). This classification is derived from an estimation which attributes exchange rate movements to factors that go beyond interest rate and price developments.

ward pressure, whereas currencies used as safe havens, for hedging and to fund carry trades tend to depreciate as global risk appetite grows. If, then, it can be demonstrated that the risk appetite of global investors increases in response to a positive central bank information shock, this would make sense of the mixed response shown by various bilateral euro exchange rates to this particular type of shock.

The last row in the table shows the immediate response of the VIX index (which is a measure of the implied volatility of S&P 500 index options) to monetary policy and central bank information shocks. The VIX index is often used as an indicator of global risk appetite, with a decline signifying a rise in investors' risk appetite.[17] Following a positive central bank information shock, the estimate does indeed identify an immediate sharp rise in risk appetite, which ought to benefit speculative currencies. It is not surprising, then, that the euro depreciates against the very currencies that are classified as speculative or, at least, does not appreciate significantly against them. What is likely, though, is that the rise in risk appetite triggered by the positive central bank information shock will weigh on the exchange rates of currencies used to fund carry trades. And the analysis does indeed find that the euro gains in value against the US dollar and the yen, two currencies that belong to this category when classified according to this scheme. A pure monetary policy shock elicits a far weaker response by the VIX index than a central bank information shock, which is why the reduced risk appetite estimated in this case has no major bearing on euro exchange rates.

The analysis implies that central bank information shocks materialising concurrently with monetary policy shocks need to be borne in mind when investigating how monetary policy impulses impact on the euro's exchange rate. This is because the two shocks have substantially different effects on exchange rates. As a result, an estimation that disregards central bank information shocks might yield a distorted picture of the effect of monetary policy impulses on the euro's exchange rate.

17 The response by the VIX index shown in the table is derived from an estimation of the VAR model as described above, with the S&P 500 index and the VIX index serving as additional inputs.

appetite.[36] These frequently include the currencies of commodity-exporting countries, like the Australian dollar and the Norwegian krone mentioned above. It is consequently not surprising that the euro depreciates against these currencies in particular in response to a positive information impulse.

… and appreciates against currencies that are in demand when risk aversion is high

Conversely, a positive information impulse causes the euro to appreciate against other currencies, the US dollar or the yen, say. This appreciation appears to be strongest against currencies that tend to be in demand in times of high risk aversion. Unlike positive information impulses, purely contractionary monetary policy impulses do not lower risk aversion; if anything they increase it. As this effect appears to be relatively small, however, adjustments in investors' attitude to risk play no more than a secondary role in terms of pure monetary policy impulses.

Effect of non-standard monetary policy

Non-standard monetary policy and exchange rates: theoretical considerations …

Finally, in recent years, research has also focused on the question of how exchange rates respond to non-standard monetary policy measures, such as many central banks' asset purchase programmes or the use of forward guidance.[37] In particular, the following two theoretical transmission channels are being discussed. The portfolio rebalancing channel states that an expansion of central bank asset purchases in the secondary market will boost the prices of long-term bonds, thereby lowering their yields. Some investors will therefore restructure their own portfolio to include more foreign assets, amongst other things. The resulting capital outflows lead to a depreciation of the domestic currency. By contrast, the signalling channel acts by influencing investors' formation of expectations. The news of an expansion in asset purchases suggests a longer-term expansionary stance, which means that the expected level of future short-term interest rates will also adjust downwards. This will therefore again lead to a depreciation of the domestic currency.

… and empirical results

Empirical studies on non-standard monetary policy measures usually identify an economically and statistically significant effect on the exchange rate in the direction predicted by theory. The exchange rate effects identified in many studies are comparable in terms of their magnitude to those of conventional monetary policy.[38] However, some even consider the effect of non-standard measures to be greater.[39] This result may, however, be partly attributable to the fact that the sensitivity of exchange rates to monetary policy impulses has grown over time, as shown above.[40] Although most studies on non-standard monetary policy measures look at the Federal Reserve's monetary policy, there is certainly also evidence of a similar transmission to the exchange rate for the Eurosystem, especially in relation to the euro/US dollar exchange rate.[41] For other currency pairs, meanwhile, the effects appear to be fairly heterogeneous.[42] It can generally be concluded that exchange rates appear to be influenced by both long-term and short-term interest rate changes. It is therefore not surprising that non-standard monetary policy impulses are a significant factor in foreign exchange markets at times when short-term interest rates are 0%, given their impact on the longer end of the yield curve.

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36 See Hossfeld and MacDonald (2015) for a classification of G10 currencies.
37 A comprehensive analysis of Eurosystem bond purchases and their impact on the exchange rate of the euro can be found in Deutsche Bundesbank (2017).
38 See Rogers et al. (2014), Neely (2015) or Swanson (2017).
39 See Glick and Leduc (2018). This would also be compatible with the result that euro exchange rates are more sensitive to monetary policy impulses that work more through longer-term interest rates (see pp. 32 ff.).
40 See pp. 32 ff. and Ferrari et al. (2017).
41 See Deutsche Bundesbank (2017), Altavilla et al. (2015) or Dedola et al. (2020). The latter estimate, for instance, that an announcement on asset purchases which increases the Eurosystem's balance sheet by 20% as compared to the Federal Reserve's balance sheet, results in a 7% depreciation of the euro against the US dollar.
42 See Bluwstein and Canova (2016) or Fratzscher et al. (2016).

Conclusion

Monetary policy impulses have a significant impact on euro exchange rate developments. From a theoretical perspective alone, interest rate differentials are, alongside the price level, a key factor in determining the exchange rate. However, empirical evidence also suggests that the Eurosystem, for example, has a decisive influence on the exchange rate of the euro through its influence on the yield curve. Several analyses using very different methods evidence the large importance of monetary policy announcements for the exchange rate of the euro. It is consequently not surprising that some of the euro's largest single-day gains and losses are the result of just such monetary policy events. There are also signs that this influence has actually even intensified over time.

However, quantifying the effect of monetary policy impulses on euro exchange rates is proving complicated. For example, it is methodologically difficult to clearly identify a monetary policy impulse. In recent years, however, considerable progress has been made in quantifying monetary policy impulses and analysing their effects on exchange rates, mainly through the development of new statistical methods and the wider availability of high-frequency financial market data.

Another challenge is that monetary policy communication may also contain information that is relevant to financial markets but that does not directly relate to monetary policy but more to the economic outlook, say. Looking at the exchange rate of the euro, however, the effects of such information impulses differ significantly from those of pure monetary policy impulses and also vary considerably depending on which exchange rate pair is considered.

The results presented here suggest that a monetary policy impulse by the Eurosystem that raises the yield on five-year German government bonds by 10 basis points leads to an immediate appreciation of the euro against the US dollar, the yen and the pound sterling by around 0.7% in each case. By contrast, the estimated appreciation is much smaller on average if the monetary policy impulse works mainly through short-term interest rates. However, this result may have been partly caused by the general rise in the influence of monetary policy impulses on the euro. The analyses presented here also show that this impact has been considerable in recent years in terms of the euro/US dollar exchange rate, also compared with other macroeconomic factors. This suggests that monetary policy communication should not lose sight of the potential effects on the exchange rate of the euro.

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Global financial interconnectedness and spillovers between the G20 countries

Even after the global financial crisis of 2008-09, the international interconnectedness of national financial systems continued to deepen, albeit at a slower pace than before. The extent to which the coronavirus pandemic has influenced this trend can only be assessed in greater detail once a certain amount of time has passed. Despite this, the pandemic has once again emphatically raised the question of the extent to which the deepening interconnectedness between financial systems has changed advanced and emerging market economies' susceptibility to shocks.

A look at the development of global capital flows and their volatility shows that an abrupt outflow or reversal of capital flows can pose significant challenges, particularly for countries with less developed financial systems. As demonstrated by the global financial crisis, however, financial crises and the risk of contagion are not problems that affect only emerging market economies. As open economies are interconnected in financial and real economic terms, shocks in one country can also have an impact on other countries, which can in turn have feedback effects on the country in which the shock originated. To an increasing degree, this also applies to the relationships between advanced economies and emerging market economies. The analysis of spillover effects in the equity markets of the G20 countries shows that spillovers from advanced economies to emerging market economies continue to surpass those from emerging market economies to advanced economies. It is also shown that spillover effects can rise sharply and abruptly during periods of stress, such as the present phase triggered by the outbreak of the COVID-19 pandemic. Furthermore, the COVID-19 pandemic has also revealed increased vulnerabilities in individual G20 emerging market economies.

First and foremost, this has presented substantial challenges to national economic policy. Alongside stability-oriented economic policy, the further expansion of local capital markets, the build-up of foreign currency reserves and the implementation of macroprudential measures are appropriate for containing these vulnerabilities. Capital flow measures can also help to ensure financial stability. However, national policy measures alone are not always sufficient to combat the negative repercussions of highly volatile capital flows. In such cases, assistance from the international community, such as financial support from the International Monetary Fund (IMF), can supplement national efforts.

Development of cross-border capital flows

Growing capital flows increase interconnectedness within the global financial system

The international interconnectedness of financial systems has risen considerably since the 1980s. While the majority of international capital flows still take place between advanced economies, the share of capital flows attributable to emerging market economies has risen to a globally significant level. This development has been driven by advances in information and communication technologies, which have made it considerably easier to transfer assets across borders. In addition, emerging market economies have sought to take advantage of the benefits of international capital flows by opening up and developing their financial markets, which had previously been closed.

International capital flows can have considerable benefits …

Capital flows can have a positive impact on the recipient country if foreign capital is used to fund investment and stimulate economic growth. Furthermore, an international dispersion of financial assets allows investors to purchase higher-yielding assets as well as to better diversify risks and thereby reduce the total risk of investment.

… but also harbour risks

However, for emerging market economies in particular, inflows and outflows of capital can often present major challenges to financial stability, especially if the capital flows exhibit a high level of volatility. In relatively underdeveloped institutional environments, sudden stops in inflows or sharp rises in outflows can more quickly result in financial and currency crises, sometimes at considerable cost to the affected countries. However, very sharp increases in inflows can also pose challenges to macroeconomic and financial stability.

Increasing focus on gross flows instead of net flows in order to assess potential vulnerabilities

In order to more effectively identify potential vulnerabilities, the analysis of capital flows has changed in recent years. Up until the global financial crisis, analyses had centred mostly on net capital flows; since then, the focus has shifted to gross capital flows. Here, it should be noted that the gross flows have already been netted out and therefore may also have negative values.[1] This change in focus is due, amongst other reasons, to the fact that both components of the net figure – gross inflows from non-resident investors and gross outflows from resident investors – are generally larger and more volatile than net inflows. They can thus be indicative of spillover effects and vulnerabilities that, due to netting, are not necessarily reflected in equivalent changes in net capital flows. In addition, looking at gross figures allows for an analysis of different behavioural patterns between resident and non-resident investors. For example, the economic policy implications of strong net capital inflows can differ depending on whether these inflows are the result of increased investment from abroad or the repatriation of funds by resident investors.[2]

Following a sharp rise before the global financial crisis, gross capital inflows have since seen more subdued development …

The development of capital flows is shown in the balance of payments data for the G20 countries (see the chart on p. 55).[3] In this context, the strongest growth in gross capital flows worldwide was recorded in the first few years of the new millennium.

The trend of rising capital flows was interrupted by the global financial crisis. Following the collapse of Lehman Brothers in September 2008, there was initially a massive slump in global gross capital inflows. Although these

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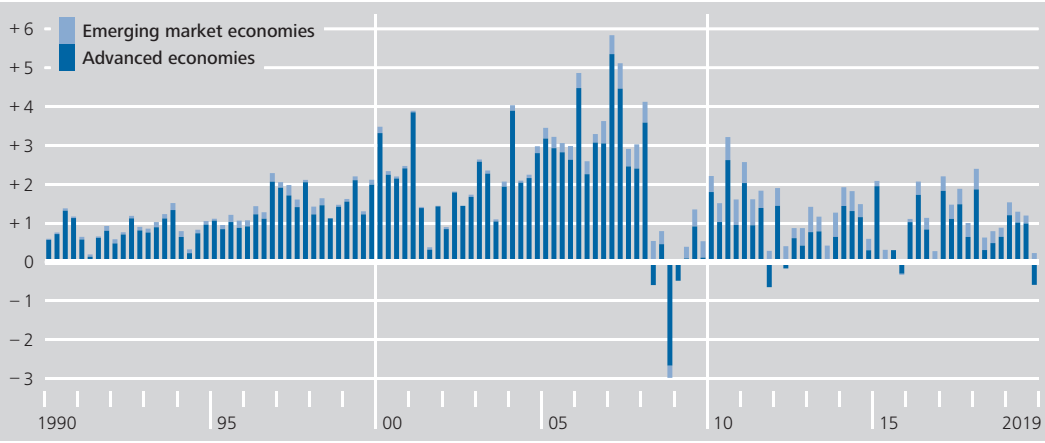
1 "Gross capital inflows" refer to the purchases less sales of domestic assets by non-residents within a specific period. Accordingly, "gross capital outflows" are the purchases less sales of foreign assets by residents. "Net capital inflows" are the difference between gross capital inflows and gross capital outflows. See Committee on the Global Financial System (2009). Net capital flows can be interpreted as the financial counterpart to the current account balance and thus provide an opportunity for approximating the impact of non-resident investors on the domestic economy. See Borio and Disyatat (2015).

2 See Obstfeld (2014) and Forbes and Warnock (2012).

3 Here and in the rest of this article, the focus is on the countries belonging to the Group of 20 (G20). The European Union, which is also a G20 member, is disregarded. The G20 emerging market economies comprise Argentina, Brazil, China, India, Indonesia, Mexico, Russia, Saudi Arabia, South Africa and Turkey. The advanced economies in the G20 are Australia, Canada, France, Germany, Italy, Japan, South Korea, the United Kingdom and the United States.

Gross capital inflows

As a percentage of total GDP of the G20 countries



Source: IMF Balance of Payments.
Deutsche Bundesbank

subsequently recovered, they have grown much more slowly than they had before the global financial crisis. Over time, a growing proportion of gross capital inflows have been attributable to the emerging market economies.[4] Against the backdrop of adjustments to the financial system in the wake of the global financial crisis, the rising attractiveness of the emerging market economies to investors led to comparatively robust capital inflows, while the inflows to and outflows from the advanced economies declined.[5]

… with a changed structure of capital flows

In addition to their volumes, the composition of capital flows also changed significantly in the aftermath of the global financial crisis (see the chart on p. 56). For example, their structure reveals a decline in cross-border loans, especially from banks.[6] This applies mainly to advanced economies, but also, to a lesser extent, to some of the G20 emerging market economies.[7] In several emerging market economies, the withdrawal of foreign banks was offset by increasing significance of the bond market. Bank loans and portfolio investment now fund emerging market economies in roughly equal measure.

Sharp decline in gross capital flows expected due to COVID-19

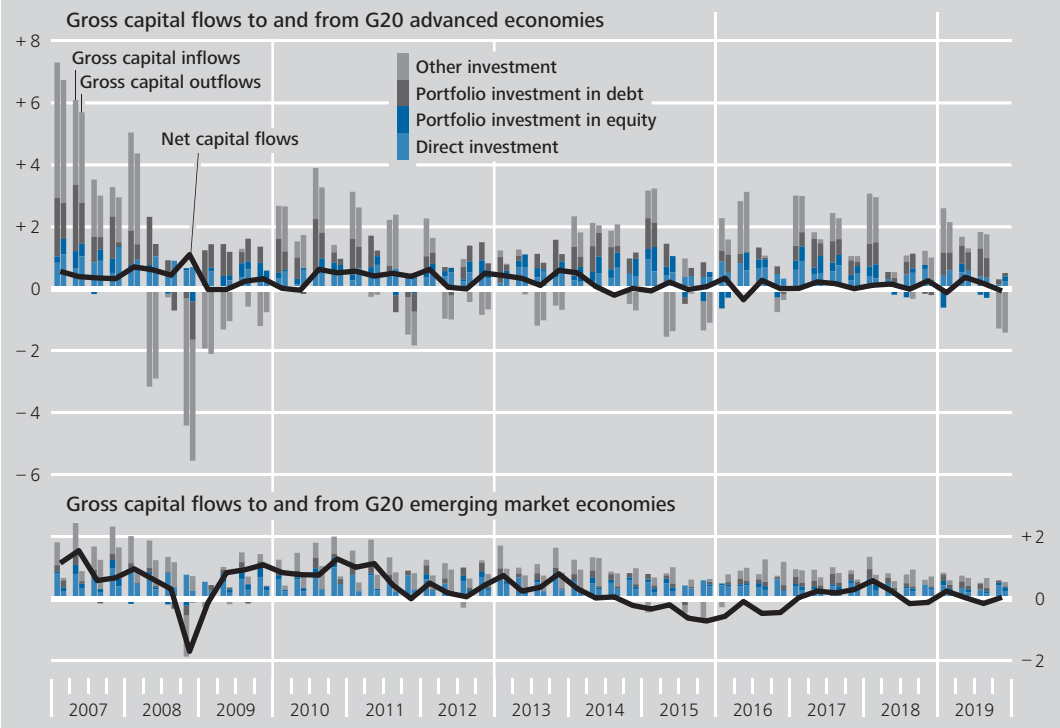
The extent to which the COVID-19 pandemic has changed global capital flows cannot be precisely assessed at present due to the lagged availability of balance of payments data. Nevertheless, in March this year, the inflows to investment funds that invest in equity and bond funds in G20 emerging market economies fell by an unprecedented amount. These capital flows are generally considered to be a good approximation of portfolio investment.[8] In the second quarter of 2020, strong outflows from equity funds continued to be observed, while inflows to bond funds stabilised somewhat. Compared with other crisis episodes that were characterised by high outflows of funds from emerging market economies, not only the volume, but also the rapid speed of the outflows from the emerging market economies over the past few months was especially noteworthy (see the chart on p. 57).[9]

The respective capital flows are determined by differing underlying factors, which are trad-

4 The degree of financial openness – which is calculated as the sum of a country's external claims and liabilities divided by its gross domestic product – has risen significantly faster among the G20 emerging market economies than the G20 advanced economies since the global financial crisis.
5 Although some individual countries, such as China, account for a very large share of capital flows, this article does not discuss specific countries in detail.
6 See Buch and Goldberg (2020).
7 Based on the Consolidated Banking Statistics of the Bank of International Settlements.
8 See Koepke and Paetzold (2020).
9 The EPFR data on inflows to equity and bond funds used here refer to net inflows.

Gross capital flows by type of capital flow*

As a percentage of the GDP of the respective group of countries, quarterly data



Source: IMF Balance of Payments. * Gross capital inflows correspond to the balance of purchases less sales of domestic assets by non-residents; gross capital outflows correspond to the balance of purchases less sales of foreign assets by residents.
Deutsche Bundesbank

Capital flows have different underlying factors

itionally categorised into "pull" and "push" factors. Pull factors comprise influencing factors that originate from the recipient country and affect investors, while push factors are the causes that prevail in the capital-exporting country.[10] In addition, more recent approaches examine what are known as "pipes", which reflect structural factors in the international monetary system.[11]

Portfolio investment and bank loans are more likely to be subject to short-term influences

These factors may exert a stronger or weaker influence depending on the country and situation. Portfolio investment, like other investment, appears to be based more on short-term considerations. It exhibits a significantly negative correlation with the level of risk aversion and interest rates in the capital-exporting country. However, it appears to be increasingly influenced by the prevailing domestic fundamentals and the local risk situation in the recipient country. This suggests that investors are differentiating more clearly between individual emerging market economies.[12]

The volatility of capital flows is driven largely by global factors

While domestic factors, such as growth differentials, can exert a considerable influence on the volume of capital flows in the recipient country, global factors, such as risk aversion or the US monetary policy stance, appear to have a larger impact than domestic factors on the volatility of capital flows in emerging market economies.[13]

Global financial spillover effects

Spillovers increasingly occur between emerging market economies and advanced economies, too

The global financial crisis demonstrated that financial crises and the risk of contagion are not problems that affect only emerging market economies. As open economies are significantly interconnected in financial and real eco-

10 See Calvo et al. (1996).
11 See Carney (2019).
12 See Ahmed et al. (2015).
13 See Bussière et al. (2016), Cerutti et al. (2015) and Pagliari and Hanan (2017).

nomic terms, shocks – i.e. unexpected events – in one country can also have an impact on other countries, which can in turn have feedback effects on the country in which the shock originated; in the literature, these effects are known, respectively, as "spillover" and "spillback". To an increasing degree, this also applies to the relationships between advanced economies and emerging market economies.

Spillover effects are driven by a variety of interconnections between the real economy and financial system

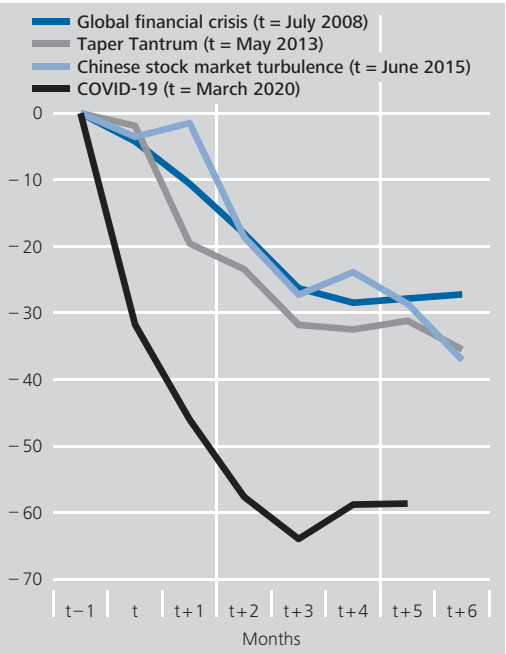
The spillover of shocks can occur through direct and indirect trade channels as well as through direct and indirect financial channels. Direct financial linkages are the result of the cross-border claims and liabilities of banks, other financial institutions, governments, enterprises and households, which can invest or obtain funding abroad via loans, direct investment or portfolio investment. Indirect financial linkages can, for example, arise due to connections via third parties, such as common investors. The wide range of cross-border interconnectivities and dependencies within the global financial system and the real economy are ultimately responsible for the spillover effects between countries and regions. Spillovers can occur through a variety of transmission channels. In this article, spillover effects are measured without focusing on the channels through which the shock is transmitted. The aim of this analysis is to map the development and changes in the spillover effects over time. This allows for an assessment of whether, in the light of the growing significance of the emerging market economies, the mutual dependence between the advanced economies and the emerging market economies has changed permanently or in specific phases over recent years.

Greater focus on financial spillovers in the literature

In recent years, the empirical literature has increasingly been exploring the issue of cross-border spillover effects. While empirical analyses used to look, in particular, at real economic transmission channels such as trade or commodity markets, increasing financial globalisation has lately brought a greater focus on analysing financial spillover effects.[14]

Inflows to G20 emerging market funds during various periods of crisis*

US$ billion, cumulative



Source: EPFR. * Monthly data on inflows to investment funds that invest in equity and bond funds in G20 emerging market economies, t=month of crisis, t+1=month of crisis plus one month.
Deutsche Bundesbank

There are two major strands to the literature on this topic. The first comprises network models aimed at investigating the causal mechanisms of financial contagion. Such analyses are based on balance sheet and macroeconomic fundamentals. Network models gained in importance following the Asian financial crisis of 1997-98 and the global financial crisis of 2007-08, with the work of Allen and Gale (2000) as well as Forbes and Rigobon (2002) representing seminal contributions.[15]

The second strand of the literature is concerned with econometric models that use market data to identify spillover effects without making any further assumptions about the dynamics of shock transmission.[16] For example, the ap-

14 See IMF (2016) and Bank for International Settlements (2018).
15 Comprehensive overviews of existing methods for modelling contagion effects can be found in Upper (2011), Dungey et al. (2005) and Glasserman and Young (2016).
16 See Bricco and Xu (2019).

proach of Diebold and Yılmaz, discussed back in the July 2019 issue of the Bundesbank's Monthly Report, centres on a simple and widely applicable quantitative measure for spillovers and their evolution over time, revealing trends, cycles and breaks.[17] This method does not focus on how shocks are transmitted, but rather provides a measure for estimating the intensity of spillover effects. The methodology can thus be applied to measure the strength of spillovers between the G20 countries.

At the same time, the approach offers a way of assessing spillover effects in the current COVID-19 pandemic (see p. 62).

Estimating spillovers between the equity markets of the G20 member states

The outbreak of the pandemic saw share prices tumble heavily across all G20 countries – including countries where case numbers had hitherto not been quite as high as elsewhere. In the first half of 2020, the German stock market index DAX and the Euro Stoxx 50 dropped by more than 35% at the peak of the slump and the US stock market index S&P 500 fell by more than 30% compared with the end of 2019. Stock market price data are available at high frequency and respond quickly to news, so the spillover index described earlier is calculated for the yields of G20 benchmark stock indices (see the box on pp. 59 ff.). These are daily price data in local currency for the period from January 1999 to August 2020. In order to control for the different time zones, the yield on each individual stock index is calculated from Friday to Friday. A spillover index value of 100 indicates that the total variance of a variable is attributable to spillovers of shocks in other variables. A value of zero, on the other hand, signals an absence of discernible spillovers.

A country transmits more spillovers than it receives when the difference between its index of spillovers to other countries and its index of spillovers from other countries is greater than zero. In the literature, this is also referred to as the net spillover index.[18] The analysis suggests that certain countries tend to act more as a sender rather than as a recipient of spillovers: Germany, with a net spillover index of 32, sends on average more spillovers to other G20 countries, while Turkey (-26) and Argentina (-17), for example, are on the receiving end of spillovers from the other G20 countries. As is to be expected, spillovers between countries belonging to the same region, for example in Europe between Germany and Italy (11 from Germany to Italy and 9 in the other direction) or between Mexico and Brazil in Latin America (8 from Mexico to Brazil and 7 vice versa) are typically larger than those between two countries from different regions, such as between Germany and Brazil (from Germany to Brazil 6, 4 vice versa). At 62.5, the spillover index measuring the average spillovers between the countries of the G20 indicates that a large proportion of the variance of all variables is attributable to spillover effects from other variables.

Spillovers within the emerging market economies and advanced economies groupings appear more pronounced than between them

Since the focus is on looking at the countries as groups, the next step is to analyse the average spillovers between the emerging market economies and the advanced economies. A simultaneous shock in all G20 emerging market economies or all G20 advanced economies is assumed (for more, see the bottom of the box on p. 62). It is apparent at aggregated level, too, that spillovers within the two country groupings are larger than spillovers from emerging market economies to advanced economies and vice versa. Moreover, averaged over the complete analysis period from January 1999 to June 2020, advanced economies transmitted more spillovers to emerging market economies than they received from them, with the spillover index reaching 42. However, at 29, the spillover index from emerging market economies is not negligible.

Applying a dynamic analysis …

Repeating the analysis for rolling windows of 100 weeks each (i.e. roughly two years) makes it possible to represent the spillover matrix for all G20 countries and the group spillover matrix in chart form. The value of the spillover index

17 See Deutsche Bundesbank (2019).
18 See Diebold and Yılmaz (2015).

The Diebold and Yılmaz spillover index

Unlike other methods based on macroeconomic or balance sheet data, which are usually published only a few times per year, the Diebold and Yılmaz (2009, 2012, 2015) approach to estimating spillover effects uses daily market data. This enables their approach to produce a high-frequency measure of spillover effects that adapts more quickly than other indicators to changes in the data,[1] lending this spillover measure some of the greatest predictive power amongst existing indicators.[2]

Since the Diebold and Yılmaz spillover index also requires only minimal assumptions, this methodology is employed in a wide variety of papers. It can be applied to price-based analyses as well as to quantitative variables and can also be used to model potential transmission channels. In this box, the approach will be used to estimate financial spillovers based on equity market returns of the benchmark indices of G20 countries.

The spillover index is based on a rolling estimate of VAR models in which the variances of the forecast errors are decomposed. On this basis, a time-varying index is then constructed.

The estimate for a single time window then follows the reduced-form $\mathrm{VAR}(p)$ model:

$$y_t = \sum_{h=1}^{p} \Phi_h y_{t-h} + \varepsilon_t,$$

where y_t is a vector with observations of all N endogenous variables. In the present case, these are the daily returns of the benchmark indices[3] of the G20 countries.[4] Φ represents an $N \times N$ matrix with regression coefficients that refer to the observations of the endogenous variable (y_{t-h}) lagged by p units of time. ε_t denotes the error term not explained by the model, where $(\varepsilon_t)_{t \geq 0} \overset{iid}{\sim} (0, \Sigma)$ and $E[\varepsilon_t \varepsilon_{t'}'] = 0 \ \forall \ t \neq t'$. In the analysis of G20 benchmark equity index[5] returns, an autoregressive lag of $p = 2$ is selected.[6]

The $\mathrm{VAR}(p)$ is then transformed into a "moving average":[7]

$$y_t = \sum_{h=0}^{\infty} A_h \varepsilon_{t-h}.$$

1 See Diebold and Yılmaz (2009). Diebold and Yılmaz argue that, with increasing data frequency, an empirical model is better able to correctly track the time variation of spillover effects. In addition, for certain countries – including some of the G20 emerging market economies – it is difficult to obtain reliable data on the macroeconomic fundamentals and the balance sheets of general government, financial institutions and enterprises.
2 See Arsov et al. (2013). Moreover, the spillover measure is closely related to other known systemic measures of risk such as the CoVaR, introduced by Adrian and Brunnermeier (2016), and the Marginal Expected Shortfall, published in Acharya et al. (2016).
3 Here and in the rest of this box, the focus is on the countries belonging to the Group of 20 (G20). The European Union, which is also a G20 member, is disregarded. In this box, the G20 emerging market economies comprise Argentina, Brazil, China, India, Indonesia, Mexico, Russia, Saudi Arabia, South Africa and Turkey, and the advanced economies in the G20 are Australia, Canada, France, Germany, Italy, Japan, South Korea, the United Kingdom and the United States.
4 The VIX is additionally used in the estimate in order to control for global risk aversion, which could be a powerful driver of data patterns. The VIX serves here as a sort of "quasi-exogenous" variable that is omitted when calculating the spillover indices. The analysis is also rerun as a VARX model with the VIX as an exogenous variable, which leads to similar results.
5 The benchmark equity indices used here are MERVAL, S&P/ASX 200, Bovespa, S&P/TSX, Shanghai SSE, DAX, CAC 40, FTSE 100, IDX Composite, Nifty50, FSTE MIB, Nikkei 225, KOSPI, S&P/BMV IPC, MOEX, Tadawul All Share, S&P 500 and JSE, and they are called up via Bloomberg. The vast majority of these are price indices. Only the DAX and Bovespa are performance indices. The selected benchmark indices are used in this fashion in other research papers, too.
6 Based on the Akaike Information Criterion (AIC), $p = 2$ is selected.
7 See Lütkepohl (2005) and Kilian and Lütkepohl (2017).

Here, the $N \times N$ coefficient matrix A_h follows the recursion $A_h = \Phi_1 A_{h-1} + \Phi_2 A_{h-2} + \ldots + \Phi_p A_{h-p}$ where A_0 represents an $(N \times N)$ identity matrix. In addition, $A_h = 0$ if $h < 0$. Accordingly, in the "moving average" representation, the current value of a variable is defined via a function of its current and past error terms.

In the next step, impulse response functions are created in order to estimate the time profile of a shock δ which hits the system at time t up to time $t + H$ given the absence of any other shocks to the system. The forecasting horizon $H = 10$ is chosen here.[8] Instead of the Cholesky decomposition, the generalised VAR framework of Koop, Pesaran and Potter (1996) and Pesaran and Shin (1998) is used. The advantage of the generalised framework is that no assumptions regarding the causal relationships between the disturbance terms are necessary. However, the downside is that contemporaneous causal effects cannot be modelled.[9] Instead of shocking all elements of ε_t, only the jth element in ε_t is shocked, and the impacts of other shocks are disregarded assuming multivariate normal distribution of ε_t. The shock δ_j in the variable $\varepsilon_{j,t}$ of one standard deviation $\sigma_{jj}^{\frac{1}{2}}$ at time t creates a generalised impulse response function (GIRF) of:

$$\begin{aligned} GIRF(h) = {} & E[y_{t+h} | \varepsilon_{j,t} = \delta_j, \omega_{t-1}] \\ & - E[y_{t+h} | \omega_{t-1}] \\ = {} & \sigma_{jj}^{\frac{1}{2}} A_h \Sigma e_j \end{aligned}$$

where $h = 0, 1, \ldots, H$ is the forecast horizon, $\sigma_{jj}^{\frac{1}{2}}$ the standard deviation of the error term of the jth equation, A_h the coefficient matrix, $\sum$ the covariance matrix of the error term ε_t and e_j a selection vector of dimension $(N \times 1)$ where the jth element takes a value of one and all other elements take a value of zero. $\omega_{(t-1)}$ comprises all information known up until time $(t-1)$. The $GIRF$s model the dependent variables' responses to shocks to each variable in the system. A shock with a magnitude of one standard deviation to each error term is simulated separately on each equation, producing a total of N^2 $GIRF$s.

In the next step, the impulse response functions are used to calculate the forecast error variance (FEV) for each variable. It gives the dispersion of each variable which, owing to the shock that occurred in ε_t, would have been impossible to forecast between t and $t+H$. For the variable y_i the FEV is given as $FEV(y_{i,t+H} | \omega_t) = \sum_{h=0}^{H-1} e_j' A_h \sum A_h' e_j$. A shock to the variable j directly impacts the variable itself but, due to the dynamic structure of the VAR model, can also affect all other variables in the system. The contributions by each of the individual shocks to the FEVs of the respective variables can be calculated using a forecast error variance decomposition $(FEVD)$. The FEV of variable i (H steps ahead) explained by a shock in the equation of variable j is calculated as:

$$\Theta_{ij}(H) = \frac{\sigma_{jj}^{-1} \sum_{h=0}^{H-1} (e_j' A_h \sum e_j)^2}{\sum_{h=0}^{H-1} (e_i' A_h \sum A_h' e_i)}.$$

The results for all i variables and j shocks can be represented in an $N \times N$ matrix where the element Θ_{ij} represents the share in the FEV of variable i explained by a

8 The ten-step-ahead forecasting horizon is a standard assumption in the literature. See Diebold and Yılmaz (2009).

9 Alternative approaches generally require additional assumptions. Although a Cholesky decomposition leads to orthogonal shocks and thus allows for unequivocal identification, it also requires additional assumptions concerning the contemporaneous causal relationships between the variables. The approach proposed by Bettendorf and Heinlein (2019) presented in the July 2019 issue of the Bundesbank's Monthly Report (see Deutsche Bundesbank (2019)) likewise presumes the existence of a clear causal structure between the error terms.

Spillover matrix

$i \downarrow$ $j \rightarrow$	Country 1	Country 2	…	…	Country N	Index of spillovers to country i from countries $j \neq i$
Country 1	$\widetilde{\Theta}_{11}$	$\widetilde{\Theta}_{12}$	…	…	$\widetilde{\Theta}_{1N}$	$\widetilde{\Theta}_{1\leftarrow j,j\neq 1}$
Country 2	$\widetilde{\Theta}_{21}$	$\widetilde{\Theta}_{22}$	…	…	$\widetilde{\Theta}_{2N}$	$\widetilde{\Theta}_{2\leftarrow j,j\neq 2}$
⋮	⋮	⋮	⋱	⋱	⋮	⋮
⋮	⋮	⋮	⋱	⋱	⋮	⋮
Country N	$\widetilde{\Theta}_{N1}$	$\widetilde{\Theta}_{N2}$	…	…	$\widetilde{\Theta}_{NN}$	$\widetilde{\Theta}_{N\leftarrow j,j\neq N}$
Index of spillovers from country j to countries $i \neq j$	$\widetilde{\Theta}_{i\leftarrow 1,i\neq 1}$	$\widetilde{\Theta}_{i\leftarrow 2,i\neq 2}$	…		$\widetilde{\Theta}_{i\leftarrow N,i\neq N}$	SI

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shock to variable j.[10] Element $\Theta_{AR,DE}$, for instance, would be the share in the FEV of the return of Argentina's equity price index attributable to shocks in the model equation for the return of the German DAX. Since, in the generalised framework, shocks in each variable are not necessarily orthogonal, the shares in the FEV of a variable explained by shocks do not necessarily add up to 100%. Accordingly, each element of the $FEVD$ matrix is normalised with the respective row total, i.e. $\widetilde{\Theta}_{ij} = \frac{\Theta_{ij}}{\sum_{j=1}^{N}\Theta_{ij}}$, which means that $\sum_{j=1}^{N}\widetilde{\Theta}_{ij} = 1$ and $\sum_{i,j=1}^{N}\widetilde{\Theta}_{ij} = N$. The FEV of each variable in the system is thus equally weighted, which means that the rows of the normalised matrix can be compared with one another. This enables the variance shares in both the rows and the columns of the normalised matrix to be added up and compared for different variables.

Off-diagonal entries in the normalised $FEVD$ matrix ($\widetilde{\Theta}_{ij}$ where $i \neq j$) are used as a measure of spillover effects between the variables in the system. In order to obtain a spillover index SI for the estimated period, the total of all off-diagonal entries is divided by the total of all entries in the matrix:

$$SI = \frac{\sum_{i,j=1,i\neq j}^{N}\widetilde{\Theta}_{ij}}{\sum_{i,j=1}^{N}\widetilde{\Theta}_{ij}} = \frac{\sum_{i,j=1,i\neq j}^{N}\widetilde{\Theta}_{ij}}{N}.$$

This measure can also be used to measure directional spillovers from variable j to all other variables $i = 1, \ldots, N$:

$$\widetilde{\Theta}_{\blacksquare\leftarrow j} = \frac{\sum_{i=1,i\neq j}^{N}\widetilde{\Theta}_{i\leftarrow j}}{N},$$

and, by analogy, directional spillovers to variable i from all variables $j = 1, \ldots, N$:

$$\widetilde{\Theta}_{i\leftarrow\blacksquare} = \frac{\sum_{j=1,i\neq j}^{N}\widetilde{\Theta}_{i\leftarrow j}}{N}.$$

For each variable in the system, the directional "from" and "to" spillover indices can be used to calculate a net spillover index that shows whether a variable is more likely to be the source or recipient of spillover effects. The normalised $FEVD$ matrix, the directional spillover indices, the net spillover index and the total spillover index are presented in a spillover matrix (see the table above).

To gain an overview of the development and intensity of spillovers between ad-

10 In the generalised framework, causal spillovers – in the sense that spillover effects are only propagated from one given country to another country – can be modelled only using lagged variables. The results would be skewed accordingly if such effects materialised and spilled over at the same time (see Bettendorf and Heinlein (2019)).

vanced economies and emerging market economies, a measure of a group spillover index is formed. This is done by assuming a systemic shock in all countries within a group G (in this case, the nine advanced economies of the G20, AE, and the ten G20 emerging market economies, EME) and then analysing their combined impact on all countries outside the group. When looking at the group as a whole, a spillover matrix in which the row total for each of the individual entries equals one is additionally created by transforming the entries into $\widetilde{\Theta}_{AE\leftarrow j} = \frac{\sum_{i\in AE}\sum_{j=1}^{G}\widetilde{\Theta}_{ij}}{AE}$ and $\widetilde{\Theta}_{EME\leftarrow j} = \frac{\sum_{i\in EME}\sum_{j=1}^{G}\widetilde{\Theta}_{ij}}{EME}$.

The index of spillovers from emerging market economies to advanced economies is given as:

$$\widetilde{\Theta}_{AE\leftarrow EME} = \frac{\frac{1}{AE}\sum_{i\in AE}\sum_{i\in EME}\widetilde{\Theta}_{ij}}{G}$$

and, conversely, the index of spillovers from advanced economies to emerging market economies as:

$$\widetilde{\Theta}_{EME\leftarrow AE} = \frac{\frac{1}{EME}\sum_{i\in EME}\sum_{i\in AE}\widetilde{\Theta}_{ij}}{G}.$$

The spillover matrix described above and the reduced-form group spillover matrix are estimated repeatedly for rolling time windows of length w in order to identify the dynamics of the spillover effects over time. The $T-w$ spillover matrices which this produces can be displayed in spillover plots.

for a given point in time is calculated on the basis of the corresponding window covering the last 100 weeks.[19]

The group spillover index between emerging market economies and advanced economies (black line) is lower than that between all G20 countries (grey dashed line). This is because the latter also reflects spillovers between advanced economies amongst themselves and emerging market economies amongst themselves, and these tend to be relatively high. For the purposes of the grouped perspective, these are, however, included in the respective own share for the grouping – i.e. the diagonal entries in the group spillover matrix.

… reveals an increase in spillovers during periods of stress

The adjacent table shows the indices of group spillover (the non-diagonal entries) from emerging market economies to advanced economies and vice versa. These are plotted in the chart on p. 63 as light blue and dark blue lines. This dynamic representation allows an assessment of how spillovers have evolved over time. One can see that spillover effects have in-

Very significant rise in spillover effects during the COVID-19 pandemic

Index of spillovers between emerging market economies and advanced economies in the G20*

G20 benchmark equity indices, average values, January 1999 to August 2020

Item	from …		Spillover index
	emerging market economies	advanced economies	
Emerging market economies	58	42	.
Advanced economies	29	71	.
Spillover index	.	.	36

Sources: Bloomberg and Bundesbank calculations. * For the purposes of this analysis, the G20 emerging market economies comprise Argentina, Brazil, China, India, Indonesia, Mexico, Russia, Saudi Arabia, South Africa and Turkey, and the advanced economies in the G20 are Australia, Canada, France, Germany, Italy, Japan, South Korea, the United Kingdom and the United States.

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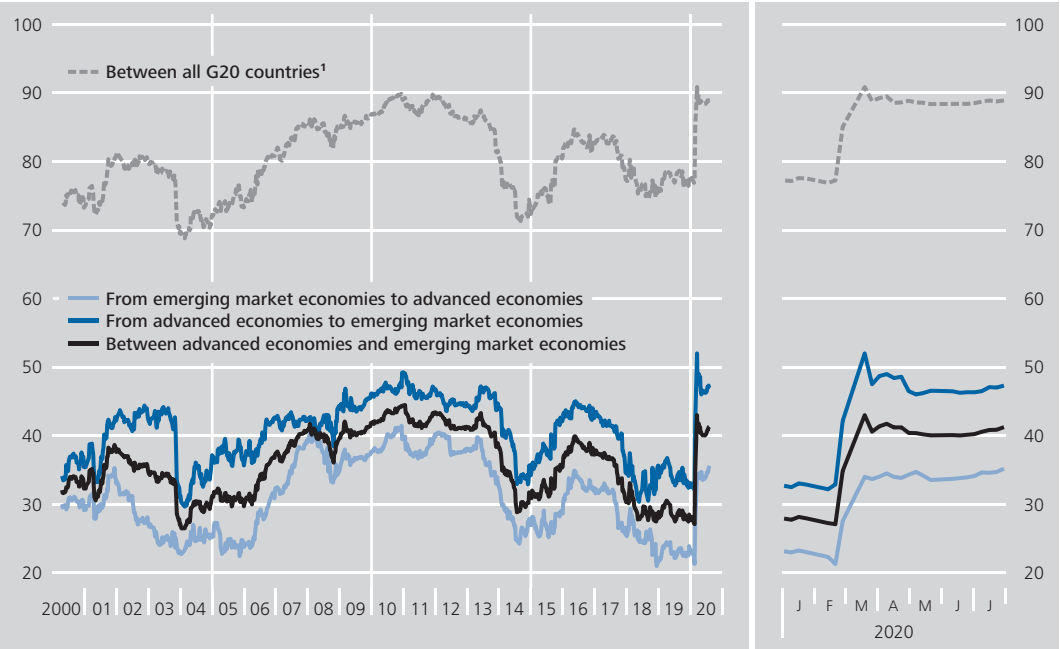
19 Note that the calculations discounted points in time for which there were no data for one or more variables. This means that any 100-week window refers to the last 100 weeks when data were available for all variables.

Spillover index* for G20 benchmark equity indices

%, weekly data, averages calculated on a rolling basis over the preceding 100 weeks



Sources: Bloomberg and Bundesbank calculations. * Spillover indices measure the strength of spillover effects. They are calculated by performing a generalised forecast error variance decomposition in a VAR(2) model with a ten-day forecast horizon and row normalisation based on Koop et al. (1996), Pesaran and Shin (1998) and Diebold and Yılmaz (2009, 2012). The spillover indices describe the percentage of the variance explained by foreign shocks in the respective periods. 1 Includes spillover effects from advanced economies to emerging market economies and vice versa but also spillover effects within the group of advanced economies and that of emerging market economies – for instance, spillovers from Germany to France.

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creased especially when financial markets have experienced phases of heightened stress, such as the bursting of the dotcom bubble in 2000, the global financial crisis and the onset of the COVID-19 pandemic. These final two events represent the strongest and, above all, most rapid rise in spillovers in the period covered by the analysis. That the COVID-19 pandemic is so clearly reflected in the estimation results is striking. Having said that, compared with other crisis periods, this pandemic has hit all countries hard and, most importantly, unexpectedly. It remains to be seen how spillover effects will evolve over time and whether a prolonged period of high spillovers will set in, as it did in the wake of the global financial crisis.

Vulnerabilities in emerging market economies

The rise in international capital flows and the rapidity with which capital markets respond have fundamentally changed the conditions for national economic policy in open economies.

Crises in individual emerging market economies can spread to others …

In particular, as shown above, countries are vulnerable to shocks or spillovers emanating from other countries. In the past, crises in one country have already been known to spread to other emerging market economies or induce wake-up calls for investors.[20] With emerging market economies now more deeply integrated into the global financial system, this could also increasingly entail spillbacks to advanced economies.

… and can also exert spillback effects on advanced economies

It is also conceivable that, where investors harbour mistrust towards a country with high levels of debt and pursuing economic policies that do not inspire confidence, such sentiments may spread to other countries with similar issues, be they an emerging market economy

20 See Ahnert and Bertsch (2015).

A heatmap for the external stability of selected emerging market economies

Similarly to international institutions, the Bundesbank calculates and assesses a variety of metrics that shed light on the external stability of selected emerging market economies (EMEs).[1] These include a metric for assessing a country's foreign currency reserve adequacy (ARA), exchange market pressure (EMP), and inflows from investment funds that invest in EMEs. Warning signals can be derived from these indicators in the event that certain thresholds are exceeded or undershot. By colour-coding the number of such warning signals for each country and each point in time, they can be presented visually in the form of a heatmap.

The three selected indicators and the definition of the warning signals are described in more detail below.

The ARA indicator shows whether a country has sufficient reserves to compensate for an outflow of foreign currency in the event of a temporary crisis. The magnitude of potential outflows is determined on the basis of historical experience (i.e. from past balance of payments crises) and current macroeconomic conditions. If the existing foreign currency reserves are lower than the threshold value derived from them, a warning signal is emitted in the corresponding quarter. The indicator was originally developed by the International Monetary Fund (IMF). The Bundesbank uses a slightly modified version.[2]

The EMP indicator measures the exchange market pressure affecting a country's currency (i) at time t. Various options for estimating the EMP indicator are discussed in the literature.[3] The indicator used here is derived from the unweighted average of the bilateral rate of change in the exchange rate against the US dollar $(\Delta\% S)$,[4] the percentage change in foreign reserves $(\Delta\% R)$ and the difference in short-term domestic interest rates relative to the short-term interest rate level of the United States (ΔI):[5]

$$EMP_{i,t} = \frac{1}{3}(\Delta I_{i,t} - \Delta\% S_{i,t} - \Delta\% R_{i,t}).$$

A warning signal is triggered when the value of the EMP indicator exceeds its long-term, country-specific average by 1.5 times the standard deviation of the index.[6]

Overall, the EMP indicator is less persistent than the ARA indicator. Warning signals thus only appear for relatively short periods of time in the EMP indicator. One reason for this is that in contrast to the ARA indicator, the EMP indicator is not based on levels, but rather on rates of change (within a quarter). The latter generally revert quickly to their average values. The variables exam-

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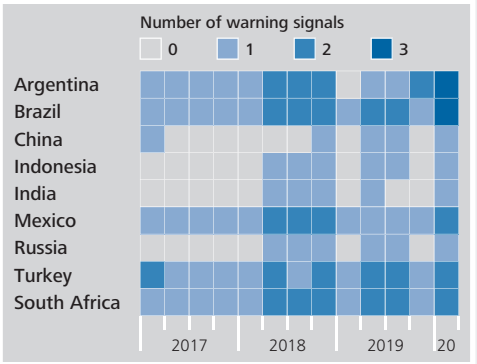
1 The EMEs are a selection of those represented in the G20 (Argentina, Brazil, China, India, Indonesia, Mexico, Russia, South Africa and Turkey). In addition to this, the Bundesbank also studies individual countries that are currently subject to especial external exposure on account of particular events or that are in the spotlight for any other reason on an ad hoc basis.
2 See IMF (2011, 2015) and Deutsche Bundesbank (2017).
3 See Hossfeld and Pramor (2018).
4 Indirect quotation: an increase in the exchange rate represents an appreciation of the respective domestic currency.
5 The indicator based on the unweighted average has proven to be a particularly robust measure in empirical studies.
6 The EMP indices are adjusted for statistical outliers when calculating the standard deviation. Without such adjustment, particularly severe crises would distort the standard deviation upwards to such an extent that smaller crises would no longer be identified. An outlier is defined as an absolute value that exceeds the country-specific absolute minimum of the EMP index by 100. This threshold value was chosen so that known crisis periods from the past could be identified as successfully as possible.

ined by the EMP indicator would thus have to experience above-average change over a relatively long period of time to trigger a signal lasting over several quarters. By contrast, if holdings of foreign currency reserves fall under the threshold value and remain there, this is enough to trigger a persistent signal in the ARA indicator.

The inflows from investment funds that invest in a specific country serve as a timely indicator for the gross capital flows into that country.[7] A warning signal is triggered as soon as the sum of investment in debt securities and equity instruments demonstrates that international investors have withdrawn funds from a country over one quarter. In this context, it is rather unusual for the countries under observation to display an outflow of funds exceeding a period of three months. The threshold value is therefore selected to ensure that even marginal outflows trigger a warning signal. This indicator correlates strongly across the individual EMEs, suggesting that investors tend to make their investment decisions for several EMEs at the same time. That said, country-specific factors, which may even occasionally outweigh cross-border influences, also play a role.

Each of the three indicators can be studied individually in order to identify tensions in a specific area of international capital flows. However, severe tensions often appear in several different indicators at the same time, as the individual indicators are not independent of each other. If, for example, international investors shift their focus away from a particular investment location, the effect of this is unlikely to be restricted to capital outflows. The currency of the affected country may also come under pressure, resulting in a persistent outflow of foreign reserves if the central bank attempts to bolster the national currency. This may ultimately mean that the critical mass of foreign reserves is undershot.

Heatmap for warning signals regarding the external stability of emerging market economies' capital flows



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The three indicators can be summarised in a heatmap, which paints a clear yet nuanced picture of a country's external vulnerability. The total number of warning signals from the various indicators is added up for each point in time and each country. The corresponding sum is then colour-coded to provide a general overview. For instance, a country's cell is shaded light grey if no warning signal appears at the corresponding point in time across all indicators. If there is a single warning signal, the cell is shaded light blue. If there are two or three warning signals, the cell is shaded medium blue or dark blue respectively. A dark blue signal is thus interpreted to mean that, at the point in question, a country's foreign currency reserves are too low, it is subject to exchange rate pressure and, at the same

7 The data are based on the monthly reports of EPFR Global. These reports depict the inflows from investment funds that submit information to EPFR Global. The values can therefore only be taken as an approximation of the official balance of payments data. As the official data are generally only published after a significant delay, developments in international capital flows can be assessed considerably sooner with the data used here.

time, international investors are withdrawing funds from that country.

The heatmap (see the chart on p. 65) shows the results for the EMEs of the G20. The period under review runs from the first quarter of 2017 to the first quarter of 2020.

The chart clearly illustrates the increase in external vulnerability associated with the COVID-19 pandemic in the first quarter of 2020. On account of the pandemic-related uncertainty regarding future global economic developments, investors appear to have withdrawn capital from EMEs to a greater extent. This resulted in the relevant indicator showing a warning signal for all countries under observation during the first three months of 2020, and also explains why there is at least a light blue signal on the heatmap for each country.

As the estimated ARA indicator in the first quarter of 2020 also confirms an insufficient stock of foreign currency reserves in the case of Argentina, Brazil, Mexico, Turkey and South Africa, these countries display at least a medium blue signal.

The heatmap even shows dark blue signals for two of the countries under observation. This can be attributed to the fact that heightened exchange market pressure could be observed for Argentina and Brazil in addition to the aforementioned warning signals.

A heatmap can be used to depict key developments and relationships in a timely and concise manner. Even so, it should always be embedded into a more comprehensive analysis rather than serving as a replacement for this; in spite of the extensive analyses behind the individual indicators, external sector developments are ultimately presented in a highly simplified manner. This reflects the fact that the warning signals and indicators are, in part, based on strong assumptions and are subject to estimation uncertainty. For example, a stable relationship between the observable variables during past and possible current crises is assumed. Even summarising the indicators by giving all warning signals the same weighting represents a considerable simplification. Ultimately, the three indicators under consideration deliver only a limited overview of the developments in international capital movements. Nevertheless, the results provide key indications as to which countries' capital flows merit closer analysis with regard to external stability.

or an advanced economy. The magnitude of the distortions experienced in the countries is therefore contingent not only on the external impulse but also on the domestic vulnerabilities of the countries.

Vulnerabilities in G20 emerging market economies significantly higher in some cases as a result of COVID-19

The box on pp. 64 ff. takes a closer look at the external vulnerability of emerging market economies belonging to the G20. Analysing past financial market and balance of payments crises reveals that exchange market pressure on the domestic currency, foreign currency reserve holdings and the behaviour of international investors are key factors. Critical values are determined for these three indicators; whenever they exceed or fall below these markers, a warning signal is triggered. The investigation shows that the external stability of certain countries deteriorated sharply during the COVID-19 pandemic. This is particularly true of Argentina and Brazil, which breached the predefined thresholds for all three criteria. This does not necessarily mean that the other countries are less at risk of external imbalance, however. Examining the selected indicators and the warning signals triggered can only furnish initial reference points for a more in-depth analysis. This is partly because it is not possible to take all potential threats into account. Furthermore, the threshold values in question were calculated on the basis of historical crisis patterns and with transmission mechanisms assumed to hold constant. These may change over time, however.

Economic policy options for utilising the benefits of cross-border capital flows

Appropriate economic policy can influence the impact of capital flows

Capital flows to emerging market economies have, in recent decades, been highly volatile: periods of strong inflows have been followed by times where inflows have suddenly dried up or where there have even been massive outflows. The forces driving these phenomena may lie in the emerging market economies themselves, but may also be the product of global trends.

By implementing appropriate policy measures, emerging market economies can help ensure that capital inflows do not have a destabilising effect and instead bring sustainable economic benefits. Well-developed and regulated financial systems and, above all, sound macroeconomic policies can bolster resilience; they can help to prevent crises and to give economic policymakers room for manoeuvre when challenging economic conditions arise.

Developing local capital markets can lessen vulnerability to crises

A potential starting point in terms of expanding this scope for economic policy action lies in developing local capital markets. This would improve access to borrowing in local currency, and therefore reduce financing needs in foreign currency for a given debt level, which is considered one of the major reasons behind heightened financial system vulnerability. This has prompted many emerging market economies to push forward with the development of local capital markets in recent years.[21] Almost everywhere, this has been accompanied by a significant increase in the proportion of local currency debt, which shifts the exchange rate risk for that portion of debt to foreign creditors. While issuance in local currency has become established practice for government securities, corporate debt continues to be predominantly denominated in foreign currency. Moreover, events in spring 2020 showed that markets for debt instruments denominated in domestic currency are also exposed to heightened volatility not least due to international investors selling off debt instruments issued by emerging market economies.[22] Since foreign investors' investment motives need not be geared only to local circumstances but also to regional developments or to the behaviour of other investors, building up a sufficiently large base of domestic investors might be helpful in

21 This has also been accompanied by a significant increase in debt, however. According to the BIS, public debt on the capital market rose across a broad base of emerging market economies from 18% of gross domestic product in 2000 to 37% in 2017. See Wooldridge (2020).
22 This appears to be due to the presence of a small number of large investment funds in these countries and a tendency toward herd behaviour. See Wooldridge (2020).

limiting volatility from this source. However, emerging market economies often still lack the supporting infrastructure, such as liquid derivatives markets, which facilitate local trading.

When capital flows exhibit a high degree of volatility, flexible exchange rates can, in principle, absorb some of the external shocks. Monetary policy can also respond, with the classic instruments being interest rate adjustment or interventions in the foreign exchange market. Recent IMF analyses suggest that, contrary to previous assumptions, the transmission of interest rate policy decisions in emerging market economies which have adopted inflation targeting can be as effective as in advanced economies.[23]

Foreign exchange reserves are an important tool in avoiding crises

Sufficiently large foreign exchange reserves can increase the options available to emerging market economies. First, foreign exchange reserves built up in good times have an important positive signalling function, meaning that, in a best-case scenario, the mere existence of high reserves can prevent investors from losing confidence and a crisis from breaking out. Second, solid reserve buffers can be used to temporarily offset capital outflows in the event of a crisis and thus limit excessive exchange rate fluctuations. However, interventions of this type should only function as an adjustment mechanism during periods of heightened volatility in capital flows. They should not be used to replace necessary economic policy corrections or prevent fundamentally necessary adjustments to the (real) exchange rate in the long term.

Isolated foreign exchange market interventions during the COVID-19 pandemic

Given the current economic turmoil, it is difficult to unequivocally assess the intervention behaviour of most countries as these data are often confidential. According to the IMF, individual countries such as Brazil, Russia, Turkey and Indonesia have intervened in the foreign exchange market on a number of occasions since February 2020 or, like India, have carried out foreign exchange swaps.[24]

Macroprudential measures may also influence capital flows and are often implemented

In addition to the instruments mentioned above, countries may also implement measures to influence capital flows more directly. This category covers macroprudential policies but also capital controls. Since the financial crisis, macroprudential measures have increasingly been employed as an economic policy tool and are mostly used to influence credit growth and financial institutions' leverage by curbing or facilitating the inflow of capital. They are often used as preventative measures to stop imbalances from emerging in the financial system, and typically tend to be long-term. Despite their growing use, however, there has so far been little empirical evidence on the extent to which macroprudential measures are able to reduce spillover effects.[25] The easing of macroprudential measures is one of the most frequently used economic policy responses to the COVID-19 crisis alongside fiscal and monetary policy responses. Almost every country made use of them in one form or another with the primary objective of facilitating access to liquidity across the individual G20 member states.[26]

Capital controls are often subject to criticism, …

Macroprudential measures may also take the form of capital controls when they affect capital flows. Academic literature and international organisations are largely critical of such measures due to their distortionary effects on capital allocation. However, those taken as part of a longer-term strategy to liberalise capital movements are largely undisputed. They should be used to prevent imbalances from building up as long as the financial systems in question remain relatively underdeveloped.

… but they may have a positive impact on financial stability

As experience of the global financial crisis has shown, capital controls are increasingly being seen as a potential means of safeguarding financial stability. For example, they could be used to change the composition of capital

23 See Brandao-Marques et al. (2020).
24 See IMF (2020a). In the case of Russia, sales of foreign currency from the National Welfare Fund on 10 March 2020 are due to the oil price falling below the reference value. See also IMF (2020b).
25 See Buch and Goldberg (2020).
26 See IMF (2020a).

flows in favour of capital flows with low volatility. In the case of critical capital outflows, capital controls could also be regarded as a legitimate policy instrument under certain conditions. This thinking is outlined in the Institutional View,[27] authored by the IMF in 2012, which considers the deployment of capital controls as a possible policy option depending on country-specific considerations. Owing to the side effects associated with this instrument, for instance with regard to circumventions, measures regulating capital movements should be transparent and temporary. As soon as the critical situation is over, these controls should be lifted. Under no circumstances should they be used to delay necessary macroeconomic adjustments. According to the IMF, no G20 country has yet introduced additional capital controls in the context of the current COVID-19 pandemic.

International community can provide support

The grave global consequences of the COVID-19 pandemic have once again made it clear that the associated challenges at the national level may be beyond the financial capacities of less developed countries in particular. These require supplementary international policy approaches, policy advice and financial support. The latter can be provided through official financial assistance from countries and organisations, the IMF, multilateral and regional development banks and/or regional institutions (Regional Financing Arrangements). In addition, the central banks of reserve currency countries may, within their mandate, grant swap lines or repo facilities to other central banks in order to safeguard the liquidity of the money market in foreign currency.[28]

IMF responded swiftly and comprehensively to the COVID-19 pandemic

Owing to its global membership, its mandate and its expertise, the IMF plays a prominent role in helping to combat balance of payments problems. With permanent resources of around €570 billion, funds from credit lines worth around €600 billion for crisis situations and additional trust funds for financial assistance to low-income countries, it has ample financial resources to support members when needed.

During the COVID-19 pandemic, the IMF has already provided financial support to over 85 member countries and has taken a number of measures to assist members more effectively. For example, the access limits for emergency credit (Rapid Credit Facility (RCF) and Rapid Financing Instrument (RFI)) and the annual access limits for financial assistance were temporarily increased. In addition, the priorities of the IMF work programme and internal processes have been revised in order to enable the Fund to respond more quickly to members' requests for assistance. In addition, a new temporary short-term liquidity line was set up for members with very strong economic fundamentals in order to cushion moderate balance of payments needs arising due to tension in the international capital markets.

Conclusion

Still not possible to assess the COVID-19 pandemic's impact on financial market integration

The global interconnectedness of national financial systems has continued to increase over the past two decades, although this trend has lessened somewhat since the global financial crisis. It is not possible at this stage to conclusively assess how the COVID-19 pandemic will affect this trend. Given the high level of global economic integration achieved, emerging market economies and, increasingly, advanced economies are vulnerable to external shocks. Global capital flows are a key transmission channel, and their volatility can present a challenge, especially to countries with less developed financial systems. The current COVID-19 pandemic has shown once again that, dur-

27 The full title is The Liberalization and Management of Capital Flows: An Institutional View. See IMF (2012).
28 Since the global financial crisis, there has been an arrangement between the Federal Reserve, the ECB, the Bank of Japan, the Bank of England, the Bank of Canada and the Swiss National Bank. Following the outbreak of the COVID-19 pandemic, the ECB additionally agreed on temporary and limited swap lines with Bulgaria, Croatia and Denmark. The US Federal Reserve set up similar swap lines with Australia, Brazil, Denmark, Mexico, New Zealand, Norway, Singapore, South Korea and Sweden. Both the Federal Reserve and the ECB have also established securities repurchase agreements with other central banks. See Federal Reserve Board (2020) and European Central Bank (2020).

ing periods of stress, a flight to safe investments, domestic assets and cash can exacerbate tensions for emerging market economies. However, the analysis also shows that, as financial spillovers to and spillbacks from emerging market economies increase, domestic economic policy in advanced economies may also be exposed to potentially destabilising influences.

The G20 countries present a mixed picture in this respect: some countries tend to transmit spillover effects on balance, whilst others mainly receive them. The effects within country groups are more pronounced than between advanced and emerging market economies, although the advanced economies are still responsible for stronger spillovers to the emerging market economies than vice versa. Worth noting is the stark rise in transmission effects at the onset of the COVID-19 pandemic, which exceeded the level of the global financial crisis at an early stage.

The extent of the vulnerabilities is not determined solely by the spillover effects, but also needs to be assessed together with local conditions in the individual countries. This shows that the potential vulnerabilities of individual G20 members have increased markedly in the current crisis. The extent to which these vulnerabilities will materialise is partly determined by each country's economic policy. The development of local capital markets and a sufficient stock of foreign exchange reserves are useful components of a stability-oriented macroeconomic policy. From a financial stability perspective, it may make sense to deploy macroprudential measures as well as – under certain circumstances – measures designed to manage capital flows. Where necessary, the international community can also provide support.

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The performance of German credit institutions in 2019

Overall, German credit institutions' profitability deteriorated in 2019 compared with the previous year, although this was due primarily to the overshadowing impact of a negative one-off effect stemming from strategic restructuring at one big bank. This effect solely concerned the big banks category and eclipsed the growth in profit for the financial year observed for all other categories of banks. In total, profit for the financial year before tax fell by more than two-thirds to €5.7 billion. Whilst institutions' equity base was strengthened again, their return on equity was down by 2.66 percentage points to just 1.07%.

Despite the challenging market environment and persistently low interest rates, operating income declined moderately by €1.9 billion to €118.6 billion, with declining net interest income and a smaller trading result being offset in part by higher net commission income and an improved other operating result. Administrative spending edged upwards by €2.0 billion to €90.2 billion in the period under review. With net valuation charges of €6.7 billion, the result from the valuation of assets was virtually unchanged compared with 2018. The negative balance recorded in the other and extraordinary account more than doubled to €16.1 billion, mainly as a result of high value adjustments to participating interests in affiliated enterprises at one big bank.

Besides the persistence of the low interest rate setting, the impact of the real economic crisis in the wake of the coronavirus pandemic is another factor that is likely to weigh on German credit institutions' profitability this year. Depending on the speed of the economic recovery, credit default risks could first materialise and then necessitate value adjustments and depreciation. There is considerable uncertainty surrounding the future course of the crisis and its implications for the economy.

Profitability and cost efficiency of the categories of banks

Business environment characterised by continued cyclical slowdown and expansionary monetary policy

As in previous years, the market environment was challenging for German credit institutions in 2019. Overall, the downturn in German industry continued in the 2019 reporting year. Added to this was the uncertainty swirling around Brexit and intensifying international trade conflicts. However, sectors with a more domestic focus remained on an expansionary path. There was thus no recession in the sense of a persistent, broad-based and distinct drop in economic activity. Averaged across the year, real gross domestic product (GDP) rose by 0.6% on the year in 2019, having expanded by 1.5% in 2018.

Despite much weaker growth in corporate profits, valuations in the global bond markets, and in some cases the equity markets, were still high, historically speaking. Gains were recorded in all categories of assets traded in the financial markets, with equity markets scoring particularly well, though Bunds and US Treasuries also benefited.

In view of the slight deterioration in the price outlook over the summer, the ECB Governing Council lowered the deposit rate slightly in September of last year and also adopted a package of measures intended to comprehensively ease monetary policy. This included the resumption of net asset purchases and adjustments to its communications on the conditions for a first policy rate hike (forward guidance). To preserve favourable bank lending conditions and ensure the smooth transmission of monetary policy, the Governing Council also agreed on a third series of targeted longer-term refinancing operations (TLTRO-III).

Operating income down overall

Individual accounts prepared in accordance with the German Commercial Code (*Handelsgesetzbuch*) indicate that operating income[1] for the 1,440 credit institutions analysed below fell by €1.9 billion compared with 2018 to €118.6 billion in 2019. This decline was due, in particular, to a €4.7 billion decrease in net interest income compared with 2018 and to around €1.1 billion being wiped off the trading result. Although net commission income and the other operating result saw year-on-year increases of €1.7 billion and €2.1 billion, respectively, this was not enough to offset the lower net interest income and trading result figures.

Heterogeneity across categories of banks

Looking at each category of banks individually, it is clear that big banks were the main drivers of the overall decline in profitability. Due, in particular, to a negative one-off effect stemming from strategic restructuring at one institution,[2] big banks' net interest income and net commission income fell, as a result of which they recorded a sharp €3.1 billion decline in their operating income to €27.6 billion. At €29.7 billion, operating income generated by savings banks was €0.9 billion lower in 2019 than in the year before. By contrast, credit cooperatives were able to raise their operating income slightly by €0.2 billion on the previous year to €22.1 billion. The largest increase in operating income – a rise of €1.6 billion to €20.8 billion in 2019 – was recorded by regional banks and other commercial banks. Besides higher net commission income, their improved other operating result was a major contributing factor here.

Profit for the financial year

Profit for 2019 total of €13.2 billion lower than in 2018

In 2019, German credit institutions reported profit for the financial year before tax totalling €5.7 billion. This amounted to a year-on-year decline of €13.2 billion (around 70%). In addition to lower operating income, this development was driven primarily by the negative bal-

1 Sum of net interest income, net commission income, the result from the trading portfolio and the other operating result.
2 For more information, see the annual financial statements of the institution concerned: https://www.db.com/ir/en/download/Annual_Financial_Statements_and_Management_Report_of_Deutsche_Bank_AG_2019.pdf

Methodological notes

Data based on individual accounts prepared in accordance with the German Commercial Code and on monthly balance sheet statistics

The results from the profit and loss accounts are based on the published annual reports of the individual institutions in accordance with the provisions set forth in the German Commercial Code (*Handelsgesetzbuch*) and the Regulation on the Accounting of Credit Institutions (*Verordnung über die Rechnungslegung der Kreditinstitute*). In terms of their conception, structure and definitions, they differ from the International Financial Reporting Standards (IFRS)[1] for publicly traded banking groups. This means that – from a methodological viewpoint – business performance and certain balance sheet or individual profit and loss items are not comparable across the national and international accounting frameworks. For reasons of comparability within Germany, it is advisable to consider the individual accounts when analysing financial performance. The figures for balance sheet capital (total equity), total assets and other stock variables are not obtained from the annual reports but are taken as annual average values on the basis of the monthly balance sheet statistics reported for the institution as a whole.

Reporting group

The reporting group for statistics on banks' profit and loss accounts (profit and loss statistics) includes all banks that are monetary financial institutions (MFIs) which conform to the definition of a CRR credit institution as set forth in Article 4(1) number 1 of Regulation (EU) No 575/2013 and are domiciled in Germany. Branches of foreign banks that are exempted from the provisions of Section 53 of the German Banking Act (*Kreditwesengesetz*), banks in liquidation and banks with a financial year of less than 12 months (truncated financial year) are not included in this performance analysis.

Calculation of the long-term average

At the launch of monetary union in 1999, the reporting group relevant for calculating the money supply and for monetary analysis was uniformly defined by the ECB for the euro area as a whole and designated as the monetary financial institutions (MFI) sector. Unlike the population of banks used for the Bundesbank analysis up to that point, building and loan associations are also included. Except where another time period is explicitly mentioned, the calculations with regard to the longer-term average cover the years since the launch of monetary union, i.e. from 1999 to 2019.

1 IFRS-based financial statements are of relevance, for instance, to matters of macroprudential analysis and oversight concentrating on systemically important banks and their international business activities (including their foreign subsidiaries). For details, see Deutsche Bundesbank (2013).

Major income and cost items for individual categories of banks in 2019[p]

As a percentage of operating income

Item	All categories of banks	Big banks	Regional banks and other commercial banks	Landesbanken	Savings banks	Credit cooperatives	Mortgage banks	Building and loan associations	Banks with special, development and other central support tasks
Net interest income	69.5	58.5	66.4	73.0	71.4	73.5	105.2	128.4	73.8
Net commission income	26.3	36.9	23.4	16.8	28.5	24.6	– 6.0	– 28.9	23.1
Result from the trading portfolio	2.0	4.7	1.1	6.4	0.0	0.0	0.0	– 2.3	6.2
Other operating result	2.1	– 0.1	9.1	3.8	0.1	1.9	0.8	2.7	– 3.1
Operating income	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
General administrative spending	– 76.0	– 100.9	– 64.4	– 78.5	– 71.4	– 67.1	– 51.2	– 96.8	– 59.7
of which:									
Staff costs	– 37.5	– 39.2	– 28.9	– 38.4	– 44.0	– 38.5	– 23.6	– 34.1	– 29.3
Other administrative spending	– 38.5	– 61.7	– 35.5	– 40.1	– 27.4	– 28.6	– 27.6	– 62.7	– 30.4
Result from the valuation of assets	– 5.6	– 17.1	– 4.9	– 4.6	– 1.0	2.1	– 6.9	2.6	– 9.9
Other and extraordinary result	– 13.6	– 45.3	– 14.9	– 5.6	0.1	– 0.8	– 12.0	16.0	– 0.9
Memo item:									
Profit or loss (–) for the financial year before tax	4.8	– 63.4	15.8	11.3	27.7	34.1	29.9	21.7	29.5
Taxes on income and earnings	– 6.5	– 3.6	– 6.2	– 2.7	– 8.2	– 9.6	– 8.8	– 3.3	– 6.2
Profit or loss (–) for the financial year after tax	– 1.8	– 67.0	9.6	8.6	19.5	24.5	21.1	18.5	23.3

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ance in the other and extraordinary account,[3] which more than doubled on the previous year to -€16.1 billion in 2019. Overall, this left a loss of €2.1 billion for the financial year after tax. In 2018, German institutions had posted a significant profit for the financial year after tax of €12.2 billion.

A breakdown by category of banks shows here, too, that declining profit for the financial year before tax was mainly attributable to burdens stemming from strategic restructuring at one institution belonging to the big banks category. Big banks' profit of €1.1 billion for the 2018 financial year before tax thus made way for a loss of €17.5 billion in 2019. The lion's share of the decline was due to the balance in the other and extraordinary account moving further into negative territory: due in large part to the depreciation of and value adjustments to partici-

3 Extraordinary income and charges that do not arise from ordinary operating activities are recorded in this item. This includes depreciation of and value adjustments to participating interests, shares in affiliated enterprises and securities treated as fixed assets, income from value readjustments to participating interests, shares in affiliated enterprises and securities treated as fixed assets, charges and income from loss transfers, transfers to special reserves and income from the release of special reserves, extraordinary charges and income as well as profits transferred under profit pooling, a profit transfer agreement or a partial profit transfer agreement.

pating interests, shares in affiliated enterprises and securities treated as fixed assets at one institution, the loss increased almost sixfold compared with 2018 to reach -€12.5 billion. In addition, lower operating income, slightly higher administrative spending and a €4.3 billion increase in net valuation charges also had a negative impact on big banks' profit for the financial year before tax.

Unlike big banks, all other categories of banks[4] increased their profit for the 2019 financial year compared with 2018. Landesbanken recorded an increase of €1.8 billion, mainly on account of an improved result from the valuation of assets. After reporting losses in 2018, Landesbanken thus recorded an overall profit of €0.8 billion for the financial year before tax in 2019. Regional banks and other commercial banks raised their profit for the financial year by €1.1 billion to €3.3 billion in 2019.

In 2019, credit cooperatives recorded a significant increase in their profit for the financial year before tax, which climbed by €1.2 billion compared with 2018 to around €7.6 billion. By contrast, at €8.2 billion, this figure was virtually unchanged on the previous year for savings banks. This development is largely down to two factors. First, in 2019, savings banks' operating income fell comparatively sharply owing to a €0.7 billion decline in net interest income and a €0.7 billion decrease in their other operating result. By contrast, credit cooperatives were able to raise their operating income slightly by €0.2 billion. Second, the favourable development of the result from the valuation of assets had a less pronounced impact on savings banks than on credit cooperatives. While savings banks cut their net valuation charges by €0.4 billion to €0.3 billion, credit cooperatives' valuation result was €1.4 billion higher on the year and thus even ventured into positive territory, at €0.5 billion.

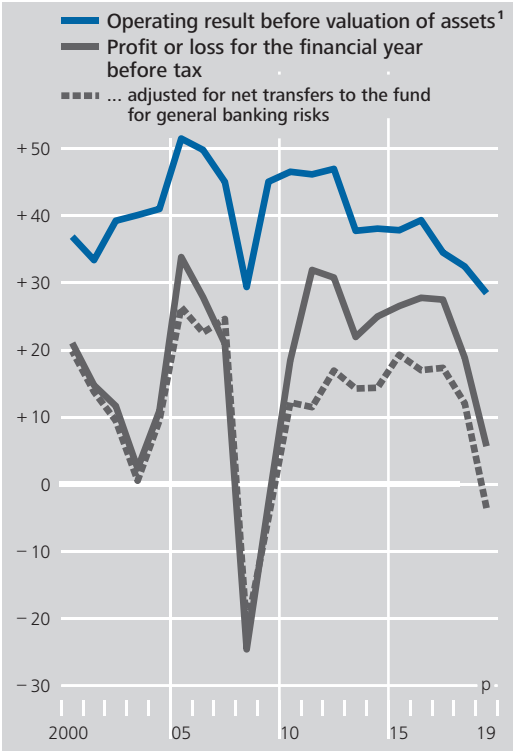
For the first time since the two crisis years of 2008 and 2009, there were net withdrawals from the reserves[5] in 2019 totalling €13.2 billion, marking a departure from the net transfers of €8.4 billion in the previous year. However, this was driven primarily by the offsetting of a loss that was incurred as a result of strategic restructuring at one big bank. Overall, there were thus withdrawals from reserves and participation rights capital of €21.7 billion in the big banks category.

Net capital withdrawals from capital reserves for first time since crisis years of 2008 and 2009

By contrast, as in previous years, savings banks and credit cooperatives were the main categories of banks to strengthen their equity base in 2019, with net transfers to reserves (€4.4 billion

Credit institutions' performance

€ billion



1 Operating income less general administrative spending.
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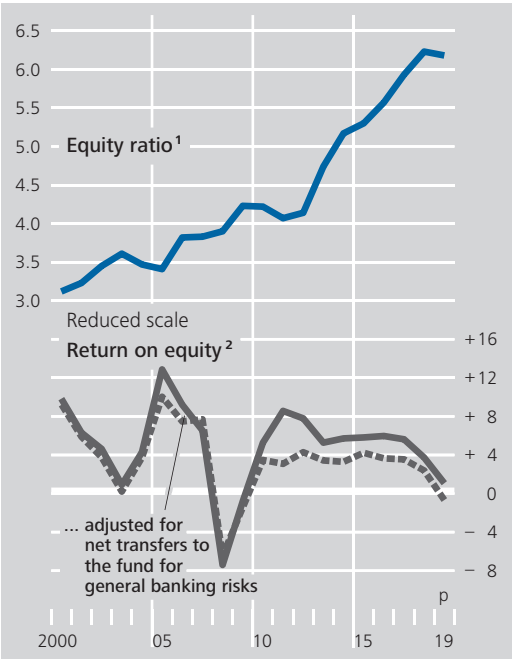
4 Regional banks and other commercial banks, branches of foreign banks, Landesbanken, savings banks, credit cooperatives, mortgage banks, building and loan associations as well as banks with special, development and other central support tasks.
5 Withdrawals from capital reserves, from revenue reserves and participation rights capital or transfers to revenue reserves and participation rights capital. This item comprises transfers to and withdrawals from the fund for general banking risks pursuant to Section 340g of the Commercial Code, transfers to reserves and participation rights capital as well as withdrawals from reserves and participation rights capital.

Credit institutions' equity ratio and return on equity

%



1 Equity (including the fund for general banking risks, but excluding participation rights capital) as a percentage of total assets as an annual average. **2** Profit or loss for the financial year before tax as a percentage of average equity.

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and €4.2 billion, respectively). Transfers to the fund for general banking risks pursuant to the Section 340g of the Commercial Code accounted for the lion's share of these (around €4.1 billion for savings banks and around €3.6 billion for credit cooperatives).

Return on equity and return on assets

Return on equity lower overall than in previous year

Overall, the return on equity (profit for the financial year before tax in relation to balance sheet equity) before tax fell by 2.66 percentage points compared to 2018 to 1.07% in the reporting year, leaving it far below the long-term average (5.36%). The reduction reflects, first, the decline in profit for the financial year. Second, in the period under review, German credit institutions' balance sheet equity increased by €21.7 billion to €527.2 billion, amounting to growth of 4.3%.[6] The balance sheet equity ratio decreased marginally from 6.23% to 6.18% due to annual average total assets rising more strongly than equity in 2019.

The decline in the return on equity was also driven largely by the one-off effect at one institution belonging to the big banks category. The return on equity before tax in this category of banks fell from 1.14% in the previous year to -16.63% in the current reporting year.

Savings banks' return on equity dipped slightly by 0.33 percentage point to 6.86%. By contrast, credit cooperatives increased their return on equity by 1.04 percentage points to 9.23%, thus bringing them closer to their long-term average (10.76%), unlike savings banks.

Landesbanken also saw a particularly sharp rise. While their return on equity was still negative in 2018 (-2.45%), the 2019 figures were, at 2.03%, significantly higher than the long-term average of 1.27%, primarily on account of the strong improvement in the result from the valuation of assets compared with the previous year. Excluding big banks, the other categories of banks[7] raised their return on equity by 1.1 percentage points on aggregate to 5.48% in the reporting period.

Return on assets also down significantly overall

An analysis of the return on assets (profit for the financial year before tax in relation to annual average total assets) paints a generally similar picture to the one for the return on equity. All in all, the return on assets contracted from 0.23% in 2018 to 0.07% in the reporting year. However, this decline is also mainly attributable to the aforementioned developments at one big bank. The other categories of banks

6 When interpreting the data on the equity base, which are calculated as annual average values, it should be borne in mind that the amounts transferred from the profit for the respective financial year do not increase balance sheet equity until the year after the annual accounts are adopted, while withdrawals from equity items are to be deducted at the latest when the annual accounts are prepared.

7 Regional banks and other commercial banks, branches of foreign banks, Landesbanken, savings banks, credit cooperatives, mortgage banks, building and loan associations as well as banks with special, development and other central support tasks.

Return on equity of individual categories of banks*

%

Category of banks	2015		2016		2017		2018		2019p	
All categories of banks	5.82	(3.97)	5.97	(4.27)	5.63	(4.08)	3.73	(2.41)	1.07	(– 0.40)
Commercial banks	3.54	(2.18)	4.51	(3.20)	3.95	(2.79)	2.07	(1.54)	– 7.69	(– 8.98)
of which:										
Big banks	3.01	(1.81)	3.45	(2.50)	2.88	(2.30)	1.14	(1.24)	– 16.63	(– 17.58)
Regional banks and other commercial banks	4.22	(2.71)	6.30	(4.45)	5.31	(3.33)	3.30	(1.89)	4.46	(2.72)
Landesbanken	3.27	(1.89)	– 1.01	(– 1.95)	1.85	(0.98)	– 2.45	(– 3.89)	2.03	(1.55)
Savings banks	9.68	(6.54)	10.42	(7.42)	9.44	(6.72)	7.19	(4.83)	6.86	(4.83)
Credit cooperatives	10.74	(7.36)	11.54	(8.39)	10.11	(7.05)	8.19	(5.50)	9.23	(6.63)
Mortgage banks	4.94	(4.29)	5.54	(4.20)	5.49	(3.56)	2.09	(0.88)	5.31	(3.75)
Building and loan associations	4.49	(3.66)	8.87	(7.28)	9.18	(7.74)	2.21	(1.02)	3.47	(2.95)

* Profit or loss for the financial year before tax (in brackets: after tax) as a percentage of equity as shown in the balance sheet (including the fund for general banking risks, but excluding participation rights capital).

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raised their return on assets on aggregate by 0.07 percentage point compared with the previous year to 0.38% in 2019.

Cost efficiency

Overall further deterioration in cost efficiency compared with previous year

Measured by the cost/income ratio under its broad definition (administrative spending relative to operating income), German credit institutions' cost efficiency deteriorated overall compared with the previous year,[8] with the cost/income ratio rising by 2.9 percentage points year on year to 76.0%.

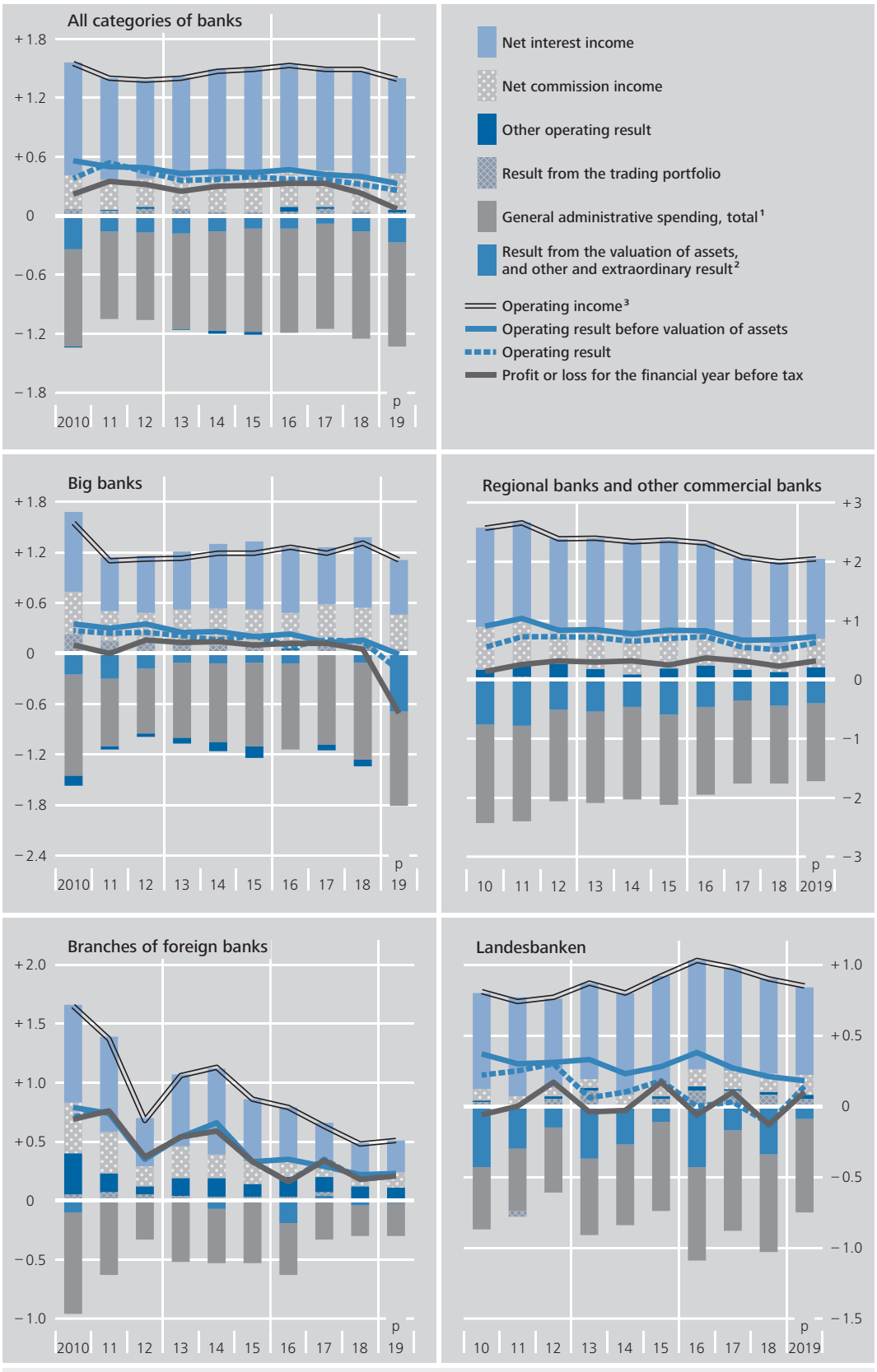
This increase was attributable, first, to higher administrative spending than in the previous year. This was on account of both a slight rise in staff costs and to higher other administrative spending, the increase in which, according to institutions' annual reports, was due in particular to additional costs in connection with ongoing digitalisation. Second, operating income declined in 2019, mainly on the back of the one-off effect at one big bank, as explained above. As a result, the deterioration in the overall cost/income ratio was also driven to a large extent by this one-off effect. In the reporting period, big banks' cost/income ratio rose significantly by 13.0 percentage points to 100.9%.

By contrast, mortgage banks, in particular, were able to improve their cost/income ratio by 8.6 percentage points. The cost/income ratio of savings banks and Landesbanken deteriorated by 3.1 percentage points and 1.9 percentage points, respectively, in 2019 compared with the previous year. In both cases, this was attributable to rising administrative costs; savings banks also reported a decline in operating income. Credit cooperatives recorded only a

8 Looking at the cost/income ratio in the narrower sense (administrative spending relative to gross earnings, i.e. the sum of net interest income and net commission income) paints a similar picture.

Return on assets and its components by category of banks*

As a percentage of total assets; the charts below use different scales



* Where credit institutions have been reassigned to a different category of banks, this is taken into account as of the date of reclassification. **1** Including depreciation of and value adjustments to tangible and intangible assets. **2** Other than tangible or financial fixed assets.

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As a percentage of total assets; the charts below use different scales

3 Gross earnings plus result from the trading portfolio and other operating result.

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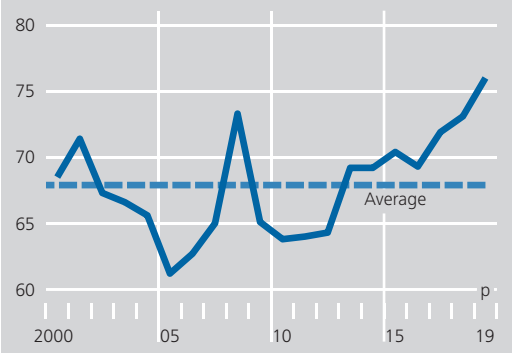
Ratio of credit institutions' administrative spending to operating income*

%



* Sum of net interest income, net commission income, result from the trading portfolio and other operating result.

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Cost/income ratios by category of banks

%

Category of banks	General administrative spending in relation to … 2017	2018	2019p
	… gross earnings[1]		
All categories of banks	76.2	75.5	79.3
Commercial banks	86.1	82.0	91.4
Big banks	95.3	88.9	105.8
Regional banks and other commercial banks	74.2	70.7	71.7
Branches of foreign banks	71.9	71.5	67.9
Landesbanken	83.0	86.0	87.4
Savings banks	67.5	70.0	71.5
Credit cooperatives	67.1	67.4	68.4
Mortgage banks	68.4	59.0	51.6
Building and loan associations	87.8	89.2	97.2
Banks with special, development and other central support tasks	63.0	68.2	61.6
	… operating income[2]		
All categories of banks	71.9	73.1	76.0
Commercial banks	79.4	79.3	84.9
Big banks	88.7	87.9	100.9
Regional banks and other commercial banks	67.8	66.1	64.4
Branches of foreign banks	53.3	55.0	54.3
Landesbanken	72.5	76.6	78.5
Savings banks	67.1	68.3	71.4
Credit cooperatives	65.7	66.2	67.1
Mortgage banks	70.2	59.8	51.2
Building and loan associations	66.3	88.6	96.8
Banks with special, development and other central support tasks	59.2	65.6	59.7

1 Sum of net interest income and net commission income. 2 Gross earnings plus result from the trading portfolio and other operating result.

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slight year-on-year deterioration of 1.0 percentage point in their cost/income ratio, as they were able to partly offset their higher administrative costs with higher operating income.

Breakdown of profit for the financial year

Net interest income

Net interest income remains most important income component

Measured by operating income, net interest income was, at 69.5%, once again the most important income component for German credit institutions in 2019. Owing to their interest-driven business model, net interest income as a share of operating income was particularly high at credit cooperatives (73.5%), Landesbanken (73.0%) and savings banks (71.4%). In the case of big banks, by contrast, it accounted for a comparatively small share of operating income (58.5%).

Net interest income down significantly again

Totalling €82.5 billion in 2019, net interest income was significantly below the already low level recorded in the previous year (€87.2 billion). This was mainly due to a €5.0 billion decline in interest income in the broader sense[9] to €162.8 billion, compared with only a slight reduction in interest expenditure by €0.3 billion to €80.3 billion. By contrast, net interest income in the narrower sense, at €71.9 billion, was almost on a par with the previous year's figure of €71.8 billion.

Primary institutions again generated majority of total net interest income

Despite a slight decline compared with the previous year, primary institutions again generated just under half of total net interest income in 2019, making €37.5 billion (previous year: €38.3 billion). However, big banks' net interest income fell by €3.6 billion to €16.1 billion. Although big banks generated less than one-fifth

9 Interest income in the narrower sense plus current income from variable-yield securities, participating interests and shares in affiliated enterprises as well as income from profit pooling, profit transfer agreements and partial profit transfer agreements.

of net interest income overall, they were thus responsible for around three-quarters of the total year-on-year decline. This was due to a €2.6 billion decrease in current income from variable-yield securities, participating interests and shares in affiliated enterprises compared with 2018, as well as a €2.7 billion reduction in income from profit transfers in connection with the restructuring measures undertaken at one big bank.

Overall, interest income in narrower sense virtually unchanged on the year

Although, on the whole, interest income in the narrower sense remained virtually unchanged on the year, developments varied to some extent across the individual categories of banks. Compared with the previous year, only big banks and Landesbanken succeeded in generating significantly higher interest income. Big banks' interest income in the narrower sense rose by €2.2 billion (7.5%) year on year to €31.6 billion in 2019. Landesbanken recorded an increase of €2.8 billion (11.6%) to €26.7 billion in the same period. In both cases, however, a mixed picture emerged when looking at institutions individually: while some institutions recorded significant growth, the interest income generated by the remaining institutions remained unchanged at – or fell short of – the previous year's level.

Savings banks recorded a decline in their interest income in the narrower sense, which fell by €0.9 billion (3.7%) to €24.1 billion. Credit cooperatives also saw their interest income decrease by €0.4 billion (2.1%) to €17.6 billion.

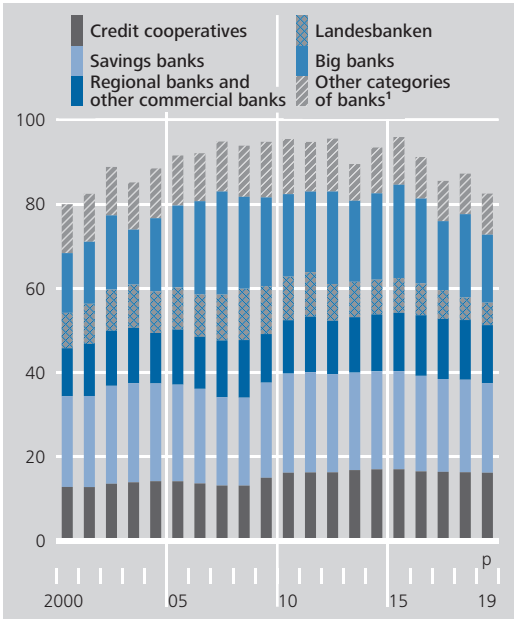
The reduction in interest income in the narrower sense at regional banks and other commercial banks by €2.5 billion (10.9%) to €20.1 billion was due to one institution being removed from the reporting group of regional banks and other commercial banks.[10]

Low interest income despite credit growth

With an annual growth rate of 4.8%, lending to the domestic private non-financial sector rose more strongly in the reporting year than in the year before for the sixth consecutive year. A higher rate of credit growth was last recorded

Net interest income generated by credit institutions*

€ billion



* Where credit institutions have been reassigned to a different category of banks, this is taken into account as of the date of reclassification. **1** Branches of foreign banks, regional institutions of credit cooperatives, mortgage banks, banks with special, development and other central support tasks, and building and loan associations.

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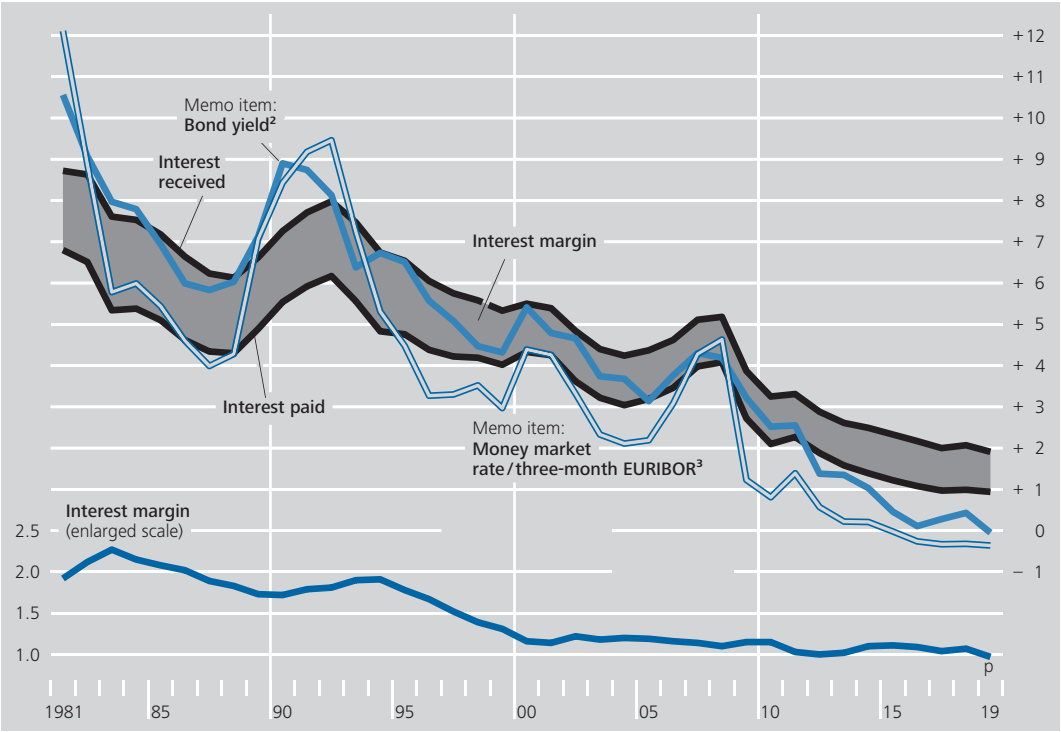
in 2000. All the same, interest income in the narrower sense decreased again for most categories of banks. According to the monthly balance sheet statistics, loans to the private sector rose by €137.5 billion net in absolute terms across all categories of banks, with around half being attributable loans to households for house purchase. Many of these loans were granted by savings banks and credit cooperatives (around 29% and 25%, respectively), which are particularly dependent on deposit and lending business. Big banks contributed only around 14% to growth in loans.[11]

10 The acquisition of Dexia Kommunalbank Deutschland by Landesbank Hessen-Thüringen was completed in the second half of 2019. Dexia Kommunalbank was initially renamed KOFIBA-Kommunalfinanzierungsbank GmbH in May 2019 and was not merged with Landesbank Hessen-Thüringen until September 2019.

11 Banks reported in the Bank Lending Survey (BLS) that demand for loans, especially loans to households for house purchase, had increased owing to the low general interest rate level (see also Deutsche Bundesbank 2019/2020, January 2020 survey round).

Interest received and interest paid by credit institutions

As a percentage of total assets[1]



1 Up to end-1998, as a percentage of the average volume of business. **2** Average yield on domestic bearer debt securities. **3** Up to end-1998, money market rate for three-month funds in Frankfurt am Main.

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Interest margins reached new lows

The interest margin generated by German credit institutions (net interest income in relation to total assets) fell by 0.1 percentage point on the year to 0.97% in 2019. As credit cooperatives and savings banks make most of their income from interest-related business, they generated the highest interest margins, as in the past: these stood at 1.70% (-0.1 percentage point compared with 2018) and 1.61% (-0.12 percentage point compared with 2018), respectively. By contrast, big banks' interest margin amounted to only 0.65% in the 2019 reporting year (previous year: 0.84%).

Further flattening of yield curve reduces structural margin and prevents interest income from rising

A breakdown by asset/liability and structural margins[12] reveals that the latter was largely responsible for the diminishing interest margin. Whilst asset margins tended to widen in 2019,[13] the interest rate spread between short-term and long-term risk-free investments in the low interest rate setting amounted to only 0.5 percentage point at the end of 2019 (end-2018: 0.95 percentage point).[14] The further flattening

12 The asset/liability margin is the assets/liabilities-side margin contribution expressed in percentage points. This represents the difference between the interest rate charged on a loan/interest paid on a deposit and an alternative transaction of equal maturity in the money or capital market. The structural margin is the structural contribution to net interest income expressed in percentage points. This contribution is generated by banks' maturity transformation, the process in which assets such as loans with longer interest rate fixation periods are generally higher-yielding than the liabilities used to finance them, e.g. deposits with short interest rate fixation periods. See Deutsche Bundesbank (2018), p. 42.

13 The institutions participating in the Bank Lending Survey reported a widening of asset margins on both average and riskier loans to firms and riskier loans to households for house purchase in 2019. At the same time, credit standards and credit terms and conditions were tightened for loans to firms, in particular, in the first three quarters of 2019 owing to worsening costs of funds or elevated balance sheet constraints and an increased perception of risk. See Deutsche Bundesbank (2019/2020), April 2019, July 2019, October 2019 and January 2020 survey rounds.

14 In order to calculate the interest rate spread, the estimated interest rates of listed Federal securities with a residual term to maturity of one and ten years from the capital market statistics were compared. The term structure on the bond market shows the relationship between the interest rates and term to maturity of default-free zero coupon bonds. For information on estimating the term structure of interest rates, see also https://www.bundesbank.de/resource/blob/622360/81235d111935704c5c47a6f3a4f0e173/mL/1997-10-interest-rates-data.pdf

of the yield curve in the course of 2019 made it more difficult to generate earnings from maturity transformation, despite the fact that institutions continued the practice of maturity transformation on a large scale in the reporting year.[15]

In addition, the negative deposit facility rate dampened net interest income in the reporting year as well.[16] This initially stood at -0.4%, before dipping to -0.5% from mid-September 2019. By contrast, the two-tier system for remunerating excess liquidity holdings introduced in the fourth quarter of 2019 is likely to have had a positive impact.[17]

Limited pass-through of negative interest rates

Despite the negative deposit facility rate, the zero lower bound largely retained its binding effect, and institutions passed on negative interest rates to depositors to only a limited extent in the current reporting year, too. However, clear differences were observed between deposits from non-financial corporations and those from households. A large number of institutions charged negative interest rates on sight deposits from non-financial corporations in 2019.[18] For retail deposits, however, negative interest rates were still the exception. Nevertheless, interest rates on deposits from retail customers also saw further cuts.[19]

Net commission income

Net commission income includes income generated by the provision of services to customers. Institutions earn commission income, for example, through fees for account management, from the settlement of securities transactions as well as from the brokerage of real estate, savings and loan contracts, and insurance.[20]

Net commission income up significantly in 2019

The net commission income generated by German credit institutions in 2019 increased by €1.7 billion (5.8%) on the previous year to €31.2 billion. In relation to operating income, net commission income was the second most important source of income, accounting for 26.3%, and its significance has gone up considerably on the previous year. With the exception of 2008, it has now reached the highest level recorded since 1999. Net commission income has thus had a stabilising effect on income in the low interest rate environment of 2019. The commission margin (net commission income in relation to total assets) stood at 0.37% in the reporting year and remained virtually unchanged on the previous year (0.36%) owing to the increase in the aggregate of annual average total assets which was also recorded in the reporting year.

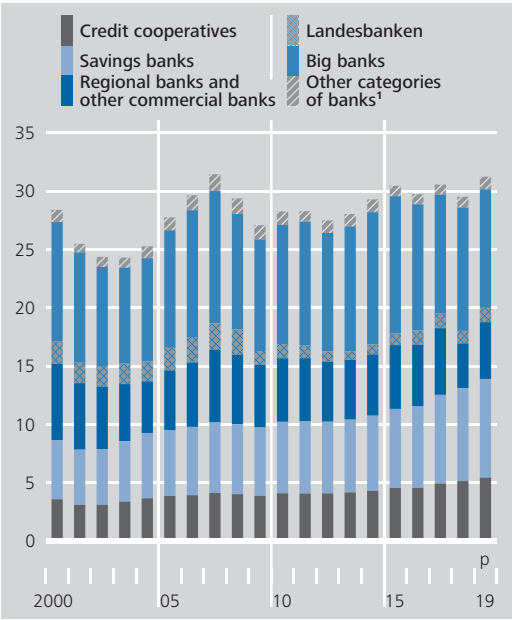
The net commission income of savings banks and credit cooperatives, in particular, increased, by €0.5 billion (6.2%) and €0.3 billion (5.7%), respectively. As commission margins in both categories of banks are more or less constant (savings banks: 0.64%; credit cooperatives: 0.57%), this would suggest that this development is due to a larger customer base rather than higher fees, as the expansion of credit and deposit business simultaneously pushed up total assets.

The net commission income of regional banks and other commercial banks also rose significantly by €1.0 billion (around 27%), which is

15 At around 46%, overall deposits as a percentage of annual average total assets remained virtually unchanged on the year in the period under review. By contrast, relative to annual average total assets, in 2019 the share of sight deposits rose slightly on the year, climbing by 0.6 percentage point to 27.6%, while the share of term deposits fell by around 1 percentage point to 10.8%. At the same time, 81.6% of loans issued by German institutions to domestic customers at the end of 2019 were loans of a long-term nature. Relative to annual average total assets, the share of long-term loans in 2019 remained unchanged year on year, at around 30%.
16 See Deutsche Bundesbank (2019/2020), April 2019, October 2019 and April 2020 survey rounds.
17 See Deutsche Bundesbank (2019/2020), April 2020 survey round.
18 According to the MFI interest rate statistics, the aggregate interest rate on overnight deposits from non-financial corporations was -0.05% in December 2019. In January of the reporting year, this figure was still -0.03%.
19 According to the MFI interest rate statistics, institutions offered an interest rate of only 0.008% on average for new overnight deposits from retail customers in December 2019. In January 2019, it was still 0.02%.
20 See Deutsche Bundesbank (2019).

Net commission income generated by credit institutions*

€ billion



* Where credit institutions have been reassigned to a different category of banks, this is taken into account as of the date of reclassification. **1** Branches of foreign banks, regional institutions of credit cooperatives, mortgage banks, banks with special, development and other central support tasks, and building and loan associations.

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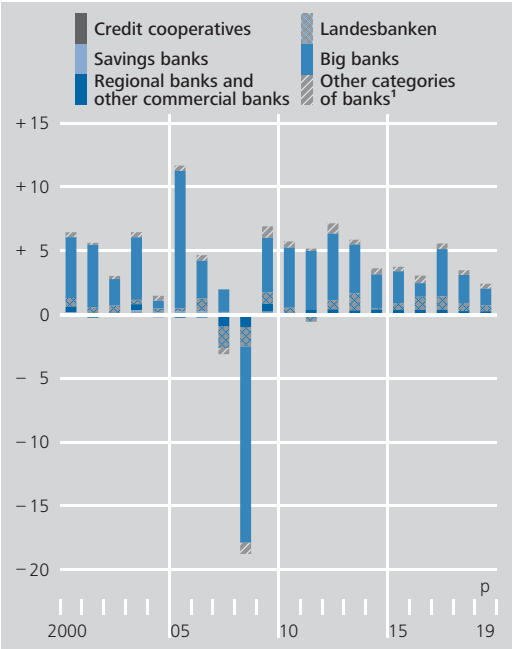
Credit institutions' trading result*

€ billion



* Where credit institutions have been reassigned to a different category of banks, this is taken into account as of the date of reclassification. **1** Branches of foreign banks, regional institutions of credit cooperatives, mortgage banks, banks with special, development and other central support tasks, and building and loan associations.

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likely to have been partly attributable to shifts in business lines as a result of Brexit. By contrast, big banks recorded a decline of €0.4 billion (4%) to €10.2 billion.

Net result from the trading portfolio

Reduced net result from the trading portfolio

The net result from the trading portfolio fell by €1.1 billion, or more than 30%, to €2.4 billion in 2019. Its share in operating income slipped to 2.0% (previous year: 2.9%). Although fluctuations of this magnitude are not exceptional, the year under review saw the lowest trading result since the 2008 financial crisis. The sharp decline was chiefly driven by losses from derivatives at one institution belonging to the big banks category.

Trading result primarily relevant for big banks and Landesbanken

The trading result represents a major component of income only for big banks (at €1.3 billion, or 4.7% of operating income) and Landesbanken (at €0.5 billion, or 6.4% of operating income). Together, both categories of banks generated around 73% (previous year: around 82%) of the overall trading result.

Other operating result

The other operating result is a summary item used to record income and charges from operating business that have no connection to net interest income, net commission income or the trading result.[21] At €2.5 billion (2.1% of operating income), it increased almost sevenfold on the previous year (2018: €0.4 billion). In 2019, the importance of this item for the German banking system as a whole was thus on a par with the trading result. This development is primarily attributable to both big banks, where

21 It includes leasing expenses and income, the gross result for transactions in goods and subsidiary transactions, depreciation of assets leased, other operating charges and income, and other taxes as well as withdrawals from and transfers to the fund required by the building and loan association rules (only for building and loan associations).

the increase of €1.8 billion virtually cancelled out the negative balance of €1.9 billion from the previous year, as well as regional banks and other commercial banks (+€0.9 billion).

Administrative spending

Administrative spending remains high

Administrative spending encompasses staff costs and other administrative spending. In the reporting year, this item rose by 2.3% to a total of €90.2 billion, thus remaining well above the long-term average of €83.5 billion. Staff costs recorded only a marginal increase of €0.2 billion to €44.5 billion. However, other administrative spending was up by €1.9 billion, or 4.3%, to €45.7 billion. This mainly affected big banks as well as regional banks and other commercial banks. In 2019, the year-on-year increase in other administrative spending amounted to €0.7 billion for big banks and €0.5 billion for regional banks and other commercial banks.

Share of staff costs in administrative spending virtually unchanged

Despite the ongoing consolidation process and further thinning down of the branch network, staff costs – at an average of 49.3% – still accounted for just under half of administrative spending (previous year: 50.2%). The share is still comparatively high for savings banks (61.7%) and credit cooperatives (57.3%). This largely reflects their staffing-intensive business model with many branches throughout Germany. By contrast, big banks' share of staff costs in administrative spending is comparatively small (38.9%). In relation to annual average total assets, savings banks and credit cooperatives also had the highest staffing costs (0.99% and 0.89%, respectively). Across all categories of banks, this share amounted to 0.52%.

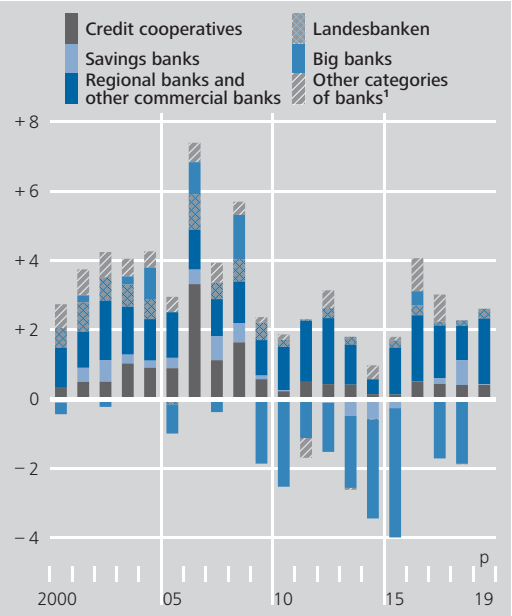
Ongoing digitalisation driving up other administrative spending

Other administrative spending includes, for example, investment in product development, information technology, and digitalisation.[22] In addition, other administrative spending also

22 See Deutsche Bundesbank (2019).

Credit institutions' other operating result*

€ billion



* Where credit institutions have been reassigned to a different category of banks, this is taken into account as of the date of reclassification. 1 Branches of foreign banks, regional institutions of credit cooperatives, mortgage banks, banks with special, development and other central support tasks, and building and loan associations.

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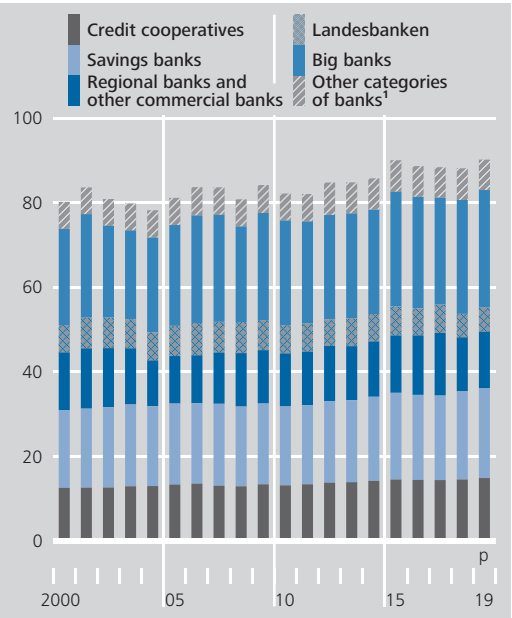
Credit institutions' administrative spending*

€ billion



* Where credit institutions have been reassigned to a different category of banks, this is taken into account as of the date of reclassification. 1 Branches of foreign banks, regional institutions of credit cooperatives, mortgage banks, banks with special, development and other central support tasks, and building and loan associations.

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Structural data on German credit institutions

End of year

Category of banks	Number of institutions[1]			Number of branches[1]			Number of employees[2]		
	2017	2018	2019p	2017	2018	2019p	2017	2018	2019p
All categories of banks	1,653	1,603	1,554	30,072	27,834	26,620	585,892	571,084	560,895
Commercial banks	283	281	275	9,004	7,732	7,601	[3] 158,100	[3] 156,200	[3] 153,250
Big banks	4	4	4	6,820	6,298	6,219	.	.	.
Regional banks and other commercial banks	164	158	154	2,024	1,274	1,215	.	.	.
Branches of foreign banks	115	119	117	160	160	167	.	.	.
Landesbanken	8	6	6	356	240	236	31,100	28,800	28,150
Savings banks	390	386	380	9,818	9,492	8,971	216,100	209,600	205,000
Credit cooperatives	918	878	844	9,442	8,942	8,471	[4] 146,400	[4] 142,850	[4] 140,650
Mortgage banks	13	11	10	38	44	38			
Building and loan associations	20	20	19	1,385	1,357	1,278	[5] 13,250	[5] 13,000	[5] 12,850
Banks with special, development and other central support tasks	21	21	20	29	27	25	[6] 20,942	[6] 20,634	[6] 20,995

1 Source: Bank office statistics, in Deutsche Bundesbank, Banking statistics, tables contained in the Statistical Series, IV. Structural figures, multi-office banks, p. 104. The term "credit institution" is used as in the Banking Act, resulting in divergences from data in "Balance sheet statistics" and "Statistics on the banks' profit and loss accounts". **2** Number of full-time and part-time employees excluding the Bundesbank. Sources: data provided by associations and Bundesbank calculations. **3** Employees in private banking, including mortgage banks established under private law. **4** Only employees whose primary occupation is in banking. **5** Only office-based employees. **6** Employees at public mortgage banks (mortgage banks established under public law), banks with special tasks established under public law and DZ BANK AG.

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comprises depreciation of and value adjustments to tangible and intangible assets; these were €1.0 billion up on the year. The increase thus accounted for just over half of the total increase in other administrative spending and was mainly attributable to big banks (+€0.9 billion).

According to German credit institutions' annual reports, ongoing digitalisation as well as consultancy costs and the costs of adapting IT systems to regulatory requirements drove their spending up further. As in the previous year, other administrative spending was reduced, inter alia, by the closure of branches and offices.

Result from the valuation of assets

The valuation result comprises the effects of value adjustments, write-ups and write-downs on accounts receivable and securities in the liquidity reserve.[23] In addition, income and charges in connection with transfers from and to loan-loss provisions are taken into account, as are transfers and releases relating to undisclosed reserves pursuant to Section 340f of the Commercial Code.[24]

Overall, valuation result virtually unchanged

Overall, at -€6.7 billion, the valuation result for 2019 remained virtually unchanged at the low level recorded in the previous year. Both income from value readjustments to loans and advances, and provisions for contingent liabilities and for commitments as well as depreciation of and value adjustments to loans and advances, and provisions for contingent liabilities and for commitments remained virtually unchanged on the year overall.

23 See Deutsche Bundesbank (2019).
24 However, due to the cross-offsetting option permissible under the Commercial Code, the annual accounts do not show the extent to which undisclosed reserves have been formed or released.

Sharp increase in net valuation charges at big banks

However, there was a sharp year-on-year increase in net valuation charges, primarily for big banks, where figures were up twelvefold to almost €4.7 billion. This development was driven primarily by intra-group value adjustments at one big bank.

By contrast, the net valuation charges for other categories of banks fell significantly in some cases compared with the previous year, thus virtually offsetting the negative development at big banks overall. Landesbanken improved their valuation result from -€2.6 billion in 2018 to -€0.3 billion in the reporting year. Here, too, the development was driven mainly by a single institution, where the reduction of its shipping loan portfolio had led to high depreciation in 2018, but this no longer weighed on the valuation result in 2019. In addition, Landesbanken released risk provisions they had set up in previous years.

Credit cooperatives improved their valuation result by €1.4 billion, in particular owing to positive valuation effects on the securities portfolio and the release of risk provisions from previous years, putting their net valuation income at €0.5 billion in 2019. Savings banks likewise recorded an improved valuation result for 2019 compared with the previous year, not least due to releasing risk provisions. However, unlike credit cooperatives, savings banks also reported a €0.4 billion fall in net valuation charges on the year to €0.3 billion in the reporting year.

Regional banks and other commercial banks reduced their net valuation charges by around €0.5 billion compared with the previous year to €1.0 billion in 2019, predominantly as a result of lower depreciation of and value adjustments to loans and advances, and provisions for contingent liabilities and for commitments.

Other and extraordinary result

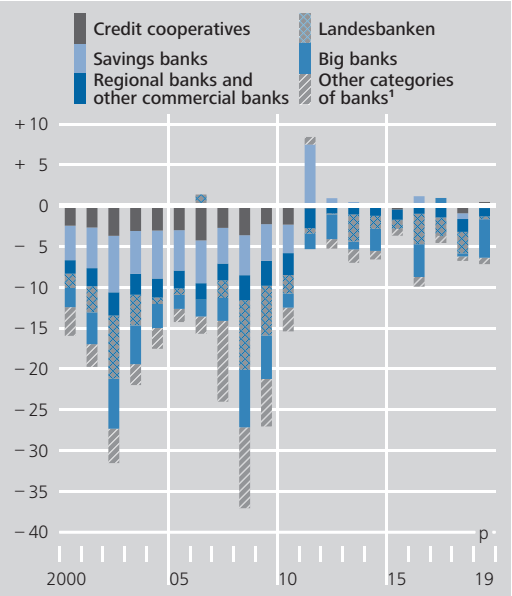
The negative balance in the other and extraordinary account[25] more than doubled compared with the previous year to €16.1 billion. This development was driven primarily by high value adjustments at one big bank, which caused the result from financial investment business in this category of banks to deteriorate massively by €11.2 billion to -€11.4 billion. Overall, big banks recorded a negative balance of -€12.5 billion in the other and extraordinary account in 2019 (previous year: -€2.2 billion).

Negative balance in other and extraordinary account more than doubled owing to one-off effect at big banks

In addition, regional banks and other commercial banks also recorded a negative balance of -€3.1 billion (previous year: -€2.7 billion), largely driven by subsidiaries of foreign institutions transferring profits of €3.4 billion to their par-

Credit institutions' risk provisioning (result from the valuation of assets)*

€ billion



***** Excluding investment in tangible and financial fixed assets. Where credit institutions have been reassigned to a different category of banks, this is taken into account as of the date of reclassification. **1** Branches of foreign banks, regional institutions of credit cooperatives, mortgage banks, banks with special, development and other central support tasks, and building and loan associations.

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25 This includes depreciation of and value adjustments to participating interests, shares in affiliated enterprises and securities treated as fixed assets, income from value readjustments to participating interests, shares in affiliated enterprises and securities treated as fixed assets, charges and income from loss transfers, transfers to special reserves and income from the release of special reserves, extraordinary charges and income as well as profits transferred under profit pooling, a profit transfer agreement or a partial profit transfer agreement.

Breakdown of extraordinary result

€ million

Item	2017	2018	2019p
Other and extraordinary result	– 3,398	– 6,831	– 16,100
Income (total)	5,318	2,779	4,224
Value readjustments to participating interests, shares in affiliated enterprises, and securities treated as fixed assets	3,100	876	1,609
from loss transfers	610	730	772
Extraordinary income	1,608	1,173	1,843
Charges (total)	– 8,716	– 9,610	– 20,324
Depreciation of and value adjustments to participating interests, shares in affiliated enterprises, and securities treated as fixed assets	– 1,466	– 1,723	– 12,154
from loss transfers	– 636	– 497	– 917
Extraordinary charges	– 2,317	– 1,700	– 3,137
Profits transferred under profit pooling, a profit transfer agreement or a partial profit transfer agreement	– 4,297	– 5,690	– 4,116

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ent institutions on the basis of profit pooling, a profit transfer agreement or a partial profit transfer agreement.

Savings banks improved the balance in the other and extraordinary account by €0.8 billion to around zero. This improvement was mainly due to lower depreciation of and value adjustments to participating interests, shares in affiliated enterprises and securities treated as fixed assets. In the previous year, depreciation of a Landesbank at certain savings banks had a negative impact on the group result. Credit cooperatives' balance (-€0.2 billion) was unchanged on the year.

Outlook

Since the end of 2019, the economic outlook has become bleaker again. In the second quarter of 2020, the coronavirus pandemic triggered the largest decline in economic output in Germany since the beginning of the quarterly calculations of GDP published by the Federal Statistical Office for the period from 1970 onwards.[26] This is also likely to have an adverse impact on the profitability of German credit institutions in 2020. However, due to the high degree of uncertainty regarding the pace of recovery in both the German and the global economy, it is currently difficult to reliably assess the impact of the crisis.

Economic crisis as a result of coronavirus pandemic also likely to have adverse impact on profitability in 2020

In contrast to the financial crisis of 2008 and 2009, the current situation is primarily affecting the real economy. Therefore, the main threat is likely to be depreciation and value adjustments in the corporate lending business. Deferrals of interest and redemption payments could also weigh on interest-related business and thus on net interest income, albeit to a lesser extent. Although German credit institutions have taken countermeasures and, since the first quarter of

In particular, credit defaults could lead to depreciation and value adjustments, and reduce income in interest-related business

26 See Deutsche Bundesbank (2020a), p. 5.

2020, have increasingly tightened both credit standards and credit terms and conditions in anticipation of higher risks of default,[27] these measures only affect new lending business.

Growing signs of economic recovery

However, positive developments can also be observed, at least with regard to crisis-related and cyclical credit risks. While the picture obtained from economic indicators in the second quarter of 2020 is mixed, there are growing signs that industrial output has already bottomed out and that the economic recovery will continue in the second half of 2020.[28] This is likely to have a positive impact on the development of credit risk for German banks and to curb the expected crisis-induced rise in credit defaults compared with 2019.

Factors unrelated to the pandemic still important

Furthermore, the profitability of German institutions is likely to continue to be affected by factors unrelated to the coronavirus pandemic. The foreseeable persistence of the low interest rate phase will keep weighing on traditional interest business and cause further considerable pressure to cut costs. In addition, investment in digitalisation will continue to pose a major challenge for the industry in the future.

27 See Deutsche Bundesbank (2019/2020), April 2020 and July 2020 survey rounds.
28 See Deutsche Bundesbank (2020a), p. 5 and Deutsche Bundesbank (2020b), p. 7.

List of references

Deutsche Bundesbank (2020a), Monthly Report, July 2020.

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The tables accompanying this article are printed on pp. 95 ff.

Major components of credit institutions' profit and loss accounts by category of banks*

As a percentage of total assets°

Financial year	All categories of banks	Commercial banks			Landesbanken[1]	Savings banks[1]	Credit cooperatives	Mortgage banks[1]	Building and loan associations	Banks with special, development and other central support tasks
		Total	of which: Big banks[1]	of which: Regional banks and other commercial banks[1]						
	Interest received[2]									
2013	2.61	1.70	1.29	3.09	3.49	3.40	3.40	3.91	3.61	2.58
2014	2.49	1.74	1.38	2.91	3.20	3.15	3.15	3.86	3.39	2.38
2015	2.33	1.66	1.33	2.71	3.04	2.90	2.84	4.07	3.18	2.21
2016	2.17	1.58	1.30	2.37	2.81	2.64	2.55	4.01	2.89	2.15
2017	2.00	1.54	1.26	2.25	2.74	2.42	2.33	3.35	2.63	1.78
2018	2.07	1.82	1.62	2.45	3.10	2.17	2.13	2.99	2.42	1.67
2019	1.91	1.58	1.41	2.08	3.23	2.03	2.00	2.80	2.34	1.52
	Interest paid									
2013	1.58	0.80	0.61	1.50	2.81	1.29	1.15	3.53	2.07	2.32
2014	1.39	0.77	0.60	1.30	2.47	1.06	0.94	3.38	1.95	1.95
2015	1.22	0.67	0.52	1.14	2.29	0.84	0.71	3.47	1.85	1.76
2016	1.08	0.61	0.52	0.85	2.04	0.68	0.55	3.47	1.73	1.73
2017	0.97	0.66	0.58	0.89	2.02	0.56	0.43	2.78	1.47	1.36
2018	0.99	0.82	0.77	0.98	2.43	0.44	0.33	2.25	1.29	1.28
2019	0.94	0.74	0.76	0.72	2.61	0.42	0.30	1.99	1.32	1.13
	Excess of interest received over interest paid = net interest income (interest margin)									
2013	1.02	0.89	0.69	1.60	0.68	2.10	2.25	0.38	1.54	0.26
2014	1.10	0.97	0.77	1.62	0.72	2.09	2.21	0.48	1.45	0.43
2015	1.11	0.99	0.81	1.56	0.76	2.06	2.14	0.60	1.32	0.45
2016	1.09	0.97	0.78	1.52	0.77	1.96	1.99	0.54	1.16	0.42
2017	1.04	0.87	0.68	1.36	0.73	1.87	1.90	0.58	1.16	0.42
2018	1.07	1.00	0.84	1.47	0.67	1.73	1.80	0.74	1.13	0.39
2019	0.97	0.84	0.65	1.36	0.62	1.61	1.70	0.81	1.03	0.38
	Excess of commissions received over commissions paid = net commission income (commission margin)									
2013	0.32	0.43	0.38	0.62	0.06	0.57	0.56	0.01	– 0.31	0.11
2014	0.35	0.47	0.43	0.63	0.07	0.58	0.56	0.00	– 0.26	0.12
2015	0.35	0.47	0.43	0.62	0.09	0.60	0.57	0.00	– 0.27	0.11
2016	0.36	0.45	0.42	0.56	0.12	0.60	0.55	– 0.01	– 0.23	0.10
2017	0.37	0.45	0.43	0.54	0.13	0.64	0.57	– 0.02	– 0.21	0.10
2018	0.36	0.43	0.45	0.40	0.13	0.63	0.57	– 0.03	– 0.21	0.11
2019	0.37	0.42	0.41	0.48	0.14	0.64	0.57	– 0.05	– 0.23	0.12

* The figures for the most recent date should be regarded as provisional in all cases. ° Excluding the total assets of the foreign branches of savings banks, excluding the total assets of the foreign branches of regional institutions of credit cooperatives until 2015 and, from 2016, excluding the total assets of the foreign branches of mortgage banks. For footnotes **1** and **2**, see p. 96.

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Major components of credit institutions' profit and loss accounts by category of banks* (cont'd)

As a percentage of total assets°

Financial year	All categories of banks	Commercial banks			Landesbanken1	Savings banks1	Credit cooperatives	Mortgage banks1	Building and loan associations	Banks with special, development and other central support tasks
		Total	of which:							
			Big banks1	Regional banks and other commercial banks1						
	General administrative spending									
2013	0.97	1.03	0.89	1.55	0.54	1.77	1.85	0.27	0.91	0.30
2014	1.01	1.08	0.93	1.57	0.57	1.79	1.84	0.29	0.90	0.32
2015	1.05	1.11	0.99	1.53	0.63	1.81	1.82	0.30	0.81	0.32
2016	1.06	1.14	1.02	1.49	0.66	1.74	1.73	0.32	0.83	0.33
2017	1.07	1.14	1.06	1.41	0.71	1.69	1.66	0.38	0.83	0.33
2018	1.09	1.17	1.15	1.32	0.69	1.65	1.59	0.42	0.82	0.34
2019	1.06	1.15	1.12	1.32	0.66	1.61	1.55	0.40	0.77	0.31
	Result from the trading portfolio									
2013	0.07	0.11	0.14	0.04	0.11	0.00	0.00	0.00	0.00	0.03
2014	0.04	0.09	0.10	0.04	0.01	0.00	0.00	0.00	0.00	0.04
2015	0.04	0.08	0.09	0.04	0.05	0.00	0.00	0.00	0.00	0.03
2016	0.04	0.04	0.04	0.04	0.11	0.00	0.00	0.00	0.00	0.04
2017	0.07	0.12	0.15	0.03	0.11	0.00	0.00	0.00	0.00	0.03
2018	0.04	0.07	0.09	0.03	0.08	0.00	0.00	0.00	0.00	0.03
2019	0.03	0.04	0.05	0.02	0.05	0.00	0.00	0.00	– 0.02	0.03
	Operating result before the valuation of assets									
2013	0.43	0.38	0.25	0.85	0.33	0.86	1.01	0.09	0.33	0.10
2014	0.45	0.39	0.26	0.78	0.23	0.83	0.95	0.21	0.26	0.29
2015	0.44	0.36	0.20	0.84	0.28	0.82	0.91	0.29	0.23	0.26
2016	0.47	0.39	0.23	0.83	0.38	0.83	0.87	0.21	0.43	0.25
2017	0.42	0.30	0.13	0.67	0.27	0.83	0.86	0.16	0.42	0.23
2018	0.40	0.31	0.16	0.68	0.21	0.77	0.81	0.28	0.11	0.18
2019	0.33	0.21	– 0.01	0.73	0.18	0.65	0.76	0.38	0.03	0.21
	Result from the valuation of assets									
2013	– 0.07	– 0.06	– 0.03	– 0.13	– 0.27	0.01	0.04	– 0.08	– 0.04	– 0.09
2014	– 0.08	– 0.11	– 0.10	– 0.12	– 0.14	0.00	– 0.03	– 0.07	0.14	– 0.08
2015	– 0.04	– 0.03	0.00	– 0.14	– 0.10	0.01	– 0.06	– 0.09	– 0.03	– 0.03
2016	– 0.10	– 0.14	– 0.16	– 0.10	– 0.38	0.09	0.01	– 0.04	0.01	– 0.07
2017	– 0.04	– 0.02	0.03	– 0.12	– 0.24	0.02	– 0.02	0.01	– 0.03	– 0.07
2018	– 0.08	– 0.06	– 0.02	– 0.16	– 0.33	– 0.06	– 0.10	– 0.15	0.01	– 0.02
2019	– 0.08	– 0.16	– 0.19	– 0.10	– 0.04	– 0.02	0.05	– 0.05	0.02	– 0.05

For footnotes * and °, see p. 95. **1** From 2018, DB Privat- und Firmenkundenbank AG (merger between Deutsche Postbank AG, belonging to the category "Big banks", with Deutsche Bank Privat- und Geschäftskunden AG, belonging to the category "Regional banks and other commercial banks") allocated to the category "Big banks". HSH Nordbank allocated to the category "Regional banks and other commercial banks" and Landesbank Berlin allocated to the category "Savings banks". DSK Hyp AG (formerly SEB AG) allocated to the category "Mortgage banks". Wüstenrot Bank Aktiengesellschaft Pfandbriefbank allocated to the category "Regional banks and other commercial banks". **2** Interest received plus current income and profits transferred under profit pooling, a profit transfer agreement or a partial profit transfer agreement.

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Major components of credit institutions' profit and loss accounts by category of banks* (cont'd)

As a percentage of total assets°

Financial year	All categories of banks	Commercial banks			Landesbanken[1]	Savings banks[1]	Credit cooperatives	Mortgage banks[1]	Building and loan associations	Banks with special, development and other central support tasks
		Total	of which:							
			Big banks[1]	Regional banks and other commercial banks[1]						
	Operating result									
2013	0.36	0.33	0.21	0.72	0.06	0.88	1.06	0.01	0.29	0.02
2014	0.37	0.28	0.16	0.65	0.10	0.83	0.93	0.14	0.39	0.21
2015	0.40	0.33	0.21	0.70	0.18	0.83	0.85	0.20	0.20	0.23
2016	0.37	0.25	0.08	0.73	0.00	0.92	0.88	0.17	0.44	0.18
2017	0.37	0.28	0.16	0.55	0.03	0.85	0.84	0.17	0.40	0.15
2018	0.32	0.25	0.14	0.51	– 0.12	0.71	0.71	0.14	0.11	0.17
2019	0.26	0.04	– 0.20	0.63	0.14	0.62	0.81	0.32	0.05	0.16
	Other and extraordinary result									
2013	– 0.11	– 0.16	– 0.08	– 0.41	– 0.10	– 0.09	– 0.04	0.02	– 0.07	– 0.07
2014	– 0.08	– 0.10	– 0.02	– 0.34	– 0.13	– 0.05	– 0.02	– 0.18	– 0.03	– 0.01
2015	– 0.09	– 0.19	– 0.11	– 0.45	– 0.01	– 0.03	– 0.02	– 0.01	0.00	– 0.01
2016	– 0.03	– 0.06	0.04	– 0.36	– 0.05	– 0.03	0.04	0.01	– 0.02	0.00
2017	– 0.04	– 0.10	– 0.05	– 0.23	0.07	– 0.01	0.00	0.03	0.04	– 0.04
2018	– 0.08	– 0.14	– 0.09	– 0.28	– 0.01	– 0.06	– 0.02	– 0.04	– 0.01	– 0.06
2019	– 0.19	– 0.43	– 0.50	– 0.30	– 0.05	0.00	– 0.02	– 0.09	0.13	0.00
	Profit or loss (–) for the financial year before tax									
2013	0.25	0.17	0.13	0.30	– 0.04	0.78	1.02	0.02	0.22	– 0.05
2014	0.30	0.19	0.14	0.32	– 0.03	0.78	0.91	– 0.04	0.36	0.20
2015	0.31	0.14	0.10	0.25	0.17	0.79	0.84	0.20	0.20	0.21
2016	0.33	0.19	0.12	0.37	– 0.06	0.89	0.93	0.18	0.41	0.17
2017	0.33	0.18	0.12	0.32	0.10	0.84	0.84	0.21	0.43	0.12
2018	0.23	0.10	0.05	0.23	– 0.13	0.65	0.69	0.09	0.11	0.11
2019	0.07	– 0.39	– 0.71	0.32	0.10	0.63	0.79	0.23	0.17	0.15
	Profit or loss (–) for the financial year after tax									
2013	0.17	0.12	0.09	0.22	– 0.08	0.54	0.76	0.01	0.12	– 0.07
2014	0.21	0.14	0.10	0.23	– 0.08	0.53	0.64	– 0.06	0.24	0.19
2015	0.21	0.09	0.06	0.16	0.10	0.54	0.57	0.17	0.16	0.17
2016	0.24	0.13	0.09	0.26	– 0.11	0.63	0.67	0.14	0.34	0.17
2017	0.24	0.13	0.09	0.20	0.05	0.60	0.58	0.13	0.37	0.13
2018	0.15	0.08	0.05	0.13	– 0.20	0.44	0.47	0.04	0.05	0.09
2019	– 0.02	– 0.45	– 0.75	0.20	0.07	0.44	0.57	0.16	0.15	0.12

For footnotes * and °, see p. 95. For footnote 1, see p. 96.
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Credit institutions' profit and loss accounts*

Financial year	Number of reporting institutions	Total assets[1]	Interest business			Commissions business			Result from the trading portfolio	Other operating result	Operating income[3] (col. 3 plus col. 6 plus col. 9 plus col. 10)
			Net interest income (col. 4 less col. 5)	Interest received[2]	Interest paid	Net commission income (col. 7 less col. 8)	Commissions received	Commissions paid			
	1	2	3	4	5	6	7	8	9	10	11
		€ billion									
2012	1,776	9,542.7	95.5	274.7	179.2	27.5	40.0	12.5	7.1	1.6	131.8
2013	1,748	8,755.4	89.5	228.2	138.7	28.0	40.6	12.6	5.9	– 0.8	122.6
2014	1,715	8,452.6	93.4	210.8	117.4	29.3	42.6	13.3	3.6	– 2.5	123.8
2015	1,679	8,605.6	95.9	200.9	105.0	30.5	44.5	14.1	3.7	– 2.2	127.9
2016	1,611	8,355.0	91.1	181.5	90.4	29.7	43.2	13.5	3.0	4.1	128.0
2017	1,538	8,251.2	85.5	165.4	79.9	30.6	44.2	13.6	5.6	1.3	122.9
2018	1,484	8,118.3	87.2	167.8	80.6	29.5	43.1	13.6	3.5	0.4	120.6
2019	1,440	8,532.7	82.5	162.8	80.3	31.2	45.8	14.5	2.4	2.5	118.6
	Year-on-year percentage change										
2013	– 1.6	– 8.2	– 6.3	– 16.9	– 22.6	2.0	1.7	1.0	– 18.0	.	– 7.0
2014	– 1.9	– 3.5	4.4	– 7.6	– 15.3	4.5	5.0	6.1	– 38.2	– 201.2	1.0
2015	– 2.1	1.8	2.7	– 4.7	– 10.6	4.0	4.5	5.5	3.0	11.1	3.3
2016	– 4.1	– 2.9	– 4.9	– 9.6	– 13.9	– 2.3	– 3.0	– 4.4	– 18.4	.	0.1
2017	– 4.5	– 1.2	– 6.2	– 8.9	– 11.6	2.7	2.3	1.3	82.9	– 67.9	– 4.0
2018	– 3.5	– 1.6	2.0	1.4	0.8	– 3.4	– 2.4	– 0.2	– 37.7	– 70.1	– 1.9
2019	– 3.0	5.1	– 5.4	– 3.0	– 0.4	5.8	6.1	6.8	– 30.5	547.9	– 1.6
	As a percentage of total assets										
2012	.	.	1.00	2.88	1.88	0.29	0.42	0.13	0.07	0.02	1.38
2013	.	.	1.02	2.61	1.58	0.32	0.46	0.14	0.07	– 0.01	1.40
2014	.	.	1.10	2.49	1.39	0.35	0.50	0.16	0.04	– 0.03	1.47
2015	.	.	1.11	2.33	1.22	0.35	0.52	0.16	0.04	– 0.03	1.49
2016	.	.	1.09	2.17	1.08	0.36	0.52	0.16	0.04	0.05	1.53
2017	.	.	1.04	2.00	0.97	0.37	0.54	0.17	0.07	0.02	1.49
2018	.	.	1.07	2.07	0.99	0.36	0.53	0.17	0.04	0.00	1.49
2019	.	.	0.97	1.91	0.94	0.37	0.54	0.17	0.03	0.03	1.39

* The figures for the most recent date should be regarded as provisional in all cases. **1** Excluding the total assets of the foreign branches of savings banks, excluding the total assets of the foreign branches of regional institutions of credit cooperatives until 2015 and, from 2016, excluding the total assets of the foreign branches of mortgage banks. **2** Interest received plus current income and profits transferred under profit pooling, a profit transfer agreement or a partial profit

General administrative spending										
Total (col. 13 plus col. 14)	Staff costs	Total other administrative spending[4]	Operating result before the valuation of assets (col. 11 less col. 12)	Result from the valuation of assets (other than tangible or financial fixed assets)	Operating result (col. 15 plus col. 16)	Other and extraordinary result	Profit or loss (–) for the financial year before tax (col. 17 plus col. 18)	Taxes on income and earnings	Profit or loss (–) for the financial year after tax (col. 19 less col. 20)	
12	13	14	15	16	17	18	19	20	21	Financial year
									€ billion	
84.8	44.6	40.2	47.0	– 4.3	42.7	– 11.9	30.8	8.8	22.0	2012
84.8	43.8	41.0	37.8	– 6.5	31.2	– 9.3	22.0	7.4	14.6	2013
85.8	44.0	41.8	38.1	– 6.6	31.5	– 6.5	25.0	7.6	17.4	2014
90.0	46.0	44.0	37.9	– 3.5	34.4	– 7.8	26.6	8.4	18.1	2015
88.7	44.6	44.0	39.4	– 8.8	30.6	– 2.8	27.8	7.9	19.9	2016
88.4	44.6	43.8	34.5	– 3.6	30.9	– 3.4	27.5	7.5	20.0	2017
88.1	44.3	43.9	32.4	– 6.8	25.7	– 6.8	18.9	6.7	12.2	2018
90.2	44.4	45.7	28.5	– 6.7	21.8	– 16.1	5.7	7.7	– 2.1	2019
									Year-on-year percentage change	
0.0	– 1.9	2.2	– 19.6	– 50.9	– 26.8	21.8	– 28.7	– 15.8	– 33.9	2013
1.1	0.5	1.8	0.9	– 0.6	0.9	29.8	13.9	3.0	19.4	2014
5.0	4.7	5.3	– 0.6	46.9	9.0	– 19.7	6.3	11.2	4.1	2015
– 1.5	– 3.1	0.1	4.0	– 150.3	– 10.9	63.9	4.6	– 6.7	9.9	2016
– 0.3	– 0.1	– 0.5	– 12.2	58.7	1.0	– 20.8	– 1.0	– 4.3	0.4	2017
– 0.3	– 0.6	0.1	– 6.0	– 86.9	– 16.9	– 101.0	– 31.5	– 11.2	– 39.1	2018
2.3	0.4	4.3	– 12.3	0.9	– 15.3	– 135.7	– 69.9	15.8	.	2019
									As a percentage of total assets	
0.89	0.47	0.42	0.49	– 0.05	0.45	– 0.12	0.32	0.09	0.23	2012
0.97	0.50	0.47	0.43	– 0.07	0.36	– 0.11	0.25	0.08	0.17	2013
1.01	0.52	0.49	0.45	– 0.08	0.37	– 0.08	0.30	0.09	0.21	2014
1.05	0.53	0.51	0.44	– 0.04	0.40	– 0.09	0.31	0.10	0.21	2015
1.06	0.53	0.53	0.47	– 0.10	0.37	– 0.03	0.33	0.09	0.24	2016
1.07	0.54	0.53	0.42	– 0.04	0.37	– 0.04	0.33	0.09	0.24	2017
1.09	0.55	0.54	0.40	– 0.08	0.32	– 0.08	0.23	0.08	0.15	2018
1.06	0.52	0.54	0.33	– 0.08	0.26	– 0.19	0.07	0.09	– 0.02	2019

transfer agreement. **3** Net interest and commission income plus result from the trading portfolio and other operating result. **4** Including depreciation of and value adjustments to tangible and intangible assets, but excluding depreciation of and value adjustments to assets leased ("broad" definition).

Profit and loss accounts by category of banks*

Financial year	Number of reporting institutions	€ million									
			Interest business			Commissions business					
		Total assets[1]	Net interest income (col. 4 less col. 5)	Interest received[2]	Interest paid	Net commission income (col. 7 less col. 8)	Commissions received	Commissions paid	Result from the trading portfolio	Other operating result	Operating income[3] (col. 3 plus col. 6 plus col. 9 plus col. 10)
	1	2	3	4	5	6	7	8	9	10	11
	All categories of banks										
2014	1,715	8,452,585	93,398	210,822	117,424	29,297	42,639	13,342	3,624	– 2,470	123,849
2015	1,679	8,605,560	95,887	200,861	104,974	30,461	44,542	14,081	3,734	– 2,196	127,886
2016	1,611	8,355,020	91,146	181,543	90,397	29,746	43,201	13,455	3,046	4,065	128,003
2017	1,538	8,251,175	85,486	165,387	79,901	30,559	44,190	13,631	5,572	1,304	122,921
2018	1,484	8,118,298	87,202	167,777	80,575	29,522	43,124	13,602	3,470	390	120,584
2019	1,440	8,532,738	82,467	162,759	80,292	31,240	45,762	14,522	2,412	2,527	118,646
	Commercial banks										
2014	183	3,532,938	34,370	61,502	27,132	16,686	24,065	7,379	3,026	– 2,335	51,747
2015	177	3,678,042	36,282	60,993	24,711	17,337	25,183	7,846	2,867	– 2,320	54,166
2016	171	3,580,912	34,768	56,451	21,683	16,204	23,873	7,669	1,429	2,427	54,828
2017	172	3,532,639	30,887	54,373	23,486	16,027	23,832	7,805	4,074	– 83	50,905
2018	167	3,404,697	34,140	62,134	27,994	14,514	22,145	7,631	2,462	– 779	50,337
2019	165	3,591,261	30,199	56,670	26,471	15,154	23,253	8,099	1,546	1,959	48,858
	Big banks[7]										
2014	4	2,647,559	20,491	36,414	15,923	11,336	14,269	2,933	2,635	– 2,844	31,618
2015	4	2,736,876	22,151	36,394	14,243	11,762	14,569	2,807	2,496	– 3,732	32,677
2016	4	2,575,072	20,126	33,572	13,446	10,817	13,510	2,693	1,069	405	32,417
2017	4	2,400,315	16,369	30,216	13,847	10,205	12,929	2,724	3,701	– 1,712	28,563
2018	4	2,346,111	19,751	37,924	18,173	10,573	13,478	2,905	2,196	– 1,866	30,654
2019	4	2,475,076	16,126	34,920	18,794	10,154	13,650	3,496	1,302	– 32	27,550
	Regional banks and other commercial banks[7]										
2014	160	833,806	13,500	24,305	10,805	5,245	9,674	4,429	375	428	19,548
2015	154	884,457	13,832	23,939	10,107	5,469	10,492	5,023	353	1,348	21,002
2016	148	942,665	14,369	22,343	7,974	5,286	10,245	4,959	340	1,916	21,911
2017	149	1,048,189	14,237	23,545	9,308	5,712	10,779	5,067	350	1,516	21,815
2018	145	962,520	14,149	23,562	9,413	3,827	8,543	4,716	261	986	19,223
2019	142	1,013,378	13,793	21,103	7,310	4,863	9,456	4,593	238	1,893	20,787
	Branches of foreign banks										
2014	19	51,573	379	783	404	105	122	17	16	81	581
2015	19	56,709	299	660	361	106	122	16	18	64	487
2016	19	63,175	273	536	263	101	118	17	20	106	500
2017	19	84,135	281	612	331	110	124	14	23	113	527
2018	18	96,066	240	648	408	114	124	10	5	101	460
2019	19	102,807	280	647	367	137	147	10	6	98	521
	Landesbanken[7]										
2014	9	1,139,438	8,243	36,437	28,194	847	2,632	1,785	112	– 37	9,165
2015	9	1,087,623	8,230	33,092	24,862	995	2,816	1,821	535	210	9,970
2016	9	975,957	7,558	27,464	19,906	1,216	2,810	1,594	1,026	289	10,089
2017	8	940,293	6,833	25,797	18,964	1,238	2,867	1,629	1,059	114	9,244
2018	6	803,978	5,365	24,895	19,530	1,074	2,408	1,334	634	160	7,233
2019	6	862,346	5,327	27,818	22,491	1,226	2,617	1,391	466	280	7,299

For footnotes * and **1**-**7**, see pp. 102 f.
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General administrative spending			Operating result before the valuation of assets (col. 11 less col. 12)	Result from the valuation of assets (other than tangible or financial fixed assets)	Operating result (col. 15 plus col. 16)	Other and extraordinary result	Profit or loss (–) for the financial year before tax (col. 17 plus col. 18)	Taxes on income and earnings[5]	Profit or loss (–) for the financial year after tax (col. 19 less col. 20)	Withdrawals from or transfers to (–) reserves and participation rights capital[6]	Balance sheet profit or loss (–) (col. 21 plus col. 22)	Financial year
Total (col. 13 plus col. 14)	Staff costs	Total other administrative spending[4]										
12	13	14	15	16	17	18	19	20	21	22	23	
All categories of banks												
85,756	43,979	41,777	38,093	– 6,583	31,510	– 6,510	25,000	7,596	17,404	– 15,454	1,950	2014
90,033	46,039	43,994	37,853	– 3,497	34,356	– 7,791	26,565	8,445	18,120	– 15,436	2,684	2015
88,653	44,615	44,038	39,350	– 8,754	30,596	– 2,812	27,784	7,875	19,909	– 15,395	4,514	2016
88,389	44,563	43,826	34,532	– 3,619	30,913	– 3,398	27,515	7,536	19,979	– 16,777	3,202	2017
88,135	44,282	43,853	32,449	– 6,763	25,686	– 6,831	18,855	6,692	12,163	– 13,116	– 953	2018
90,180	44,446	45,734	28,466	– 6,700	21,766	– 16,100	5,666	7,749	– 2,083	6,647	4,564	2019
Commercial banks												
37,990	16,216	21,774	13,757	– 3,797	9,960	– 3,367	6,593	1,776	4,817	– 2,812	2,005	2014
40,961	17,530	23,431	13,205	– 1,183	12,022	– 6,890	5,132	1,969	3,163	– 1,870	1,293	2015
40,723	17,379	23,344	14,105	– 5,130	8,975	– 2,248	6,727	1,954	4,773	148	4,921	2016
40,400	17,160	23,240	10,505	– 540	9,965	– 3,536	6,429	1,885	4,544	– 4,064	480	2017
39,899	16,558	23,341	10,438	– 1,992	8,446	– 4,918	3,528	906	2,622	– 4,264	– 1,642	2018
41,472	16,934	24,538	7,386	– 5,772	1,614	– 15,571	– 13,957	2,344	– 16,301	17,507	1,206	2019
Big banks[7]												
24,683	10,450	14,233	6,935	– 2,717	4,218	– 559	3,659	993	2,666	– 729	1,937	2014
27,101	11,422	15,679	5,576	85	5,661	– 2,953	2,708	1,082	1,626	– 216	1,410	2015
26,378	11,134	15,244	6,039	– 4,021	2,018	1,127	3,145	864	2,281	1,918	4,199	2016
25,324	10,489	14,835	3,239	666	3,905	– 1,126	2,779	559	2,220	– 433	1,787	2017
26,944	10,660	16,284	3,710	– 382	3,328	– 2,179	1,149	– 97	1,246	22	1,268	2018
27,805	10,806	16,999	– 255	– 4,723	– 4,978	– 12,480	– 17,458	988	– 18,446	21,922	3,476	2019
Regional banks and other commercial banks[7]												
13,068	5,655	7,413	6,480	– 1,042	5,438	– 2,808	2,630	672	1,958	– 2,066	– 108	2014
13,562	5,987	7,575	7,440	– 1,267	6,173	– 3,937	2,236	802	1,434	– 1,633	– 199	2015
14,065	6,121	7,944	7,846	– 988	6,858	– 3,375	3,483	1,022	2,461	– 1,750	711	2016
14,795	6,538	8,257	7,020	– 1,252	5,768	– 2,405	3,363	1,257	2,106	– 3,612	– 1,506	2017
12,702	5,781	6,921	6,521	– 1,574	4,947	– 2,739	2,208	945	1,263	– 4,258	– 2,995	2018
13,384	6,001	7,383	7,403	– 1,027	6,376	– 3,090	3,286	1,282	2,004	– 4,393	– 2,389	2019
Branches of foreign banks												
239	111	128	342	– 38	304	0	304	111	193	– 17	176	2014
298	121	177	189	– 1	188	0	188	85	103	– 21	82	2015
280	124	156	220	– 121	99	0	99	68	31	– 20	11	2016
281	133	148	246	46	292	– 5	287	69	218	– 19	199	2017
253	117	136	207	– 36	171	0	171	58	113	– 28	85	2018
283	127	156	238	– 22	216	– 1	215	74	141	– 22	119	2019
Landesbanken[7]												
6,498	3,261	3,237	2,667	– 1,580	1,087	– 1,455	– 368	511	– 879	1,406	527	2014
6,893	3,488	3,405	3,077	– 1,114	1,963	– 158	1,805	764	1,041	– 580	461	2015
6,412	2,889	3,523	3,677	– 3,725	– 48	– 499	– 547	505	– 1,052	182	– 870	2016
6,699	3,083	3,616	2,545	– 2,257	288	656	944	443	501	– 741	– 240	2017
5,538	2,789	2,749	1,695	– 2,625	– 930	– 91	– 1,021	603	– 1,624	– 128	– 1,752	2018
5,729	2,805	2,924	1,570	– 337	1,233	– 410	823	196	627	– 575	52	2019

Profit and loss accounts by category of banks* (cont'd)

Financial year	Number of reporting institutions	€ million									
			Interest business			Commissions business					
		Total assets[1]	Net interest income (col. 4 less col. 5)	Interest received[2]	Interest paid	Net commission income (col. 7 less col. 8)	Commissions received	Commissions paid	Result from the trading portfolio	Other operating result	Operating income[3] (col. 3 plus col. 6 plus col. 9 plus col. 10)
	1	2	3	4	5	6	7	8	9	10	11
	Savings banks[7]										
2014	416	1,110,362	23,237	35,028	11,791	6,441	6,854	413	8	– 563	29,123
2015	413	1,130,688	23,285	32,807	9,522	6,776	7,211	435	– 7	– 260	29,794
2016	403	1,154,475	22,667	30,520	7,853	6,975	7,423	448	10	7	29,659
2017	390	1,179,915	22,018	28,577	6,559	7,590	8,069	479	6	169	29,783
2018	386	1,267,726	21,949	27,541	5,592	7,965	8,778	813	1	718	30,633
2019	380	1,315,579	21,214	26,758	5,544	8,455	9,402	947	10	23	29,702
	Credit cooperatives										
2014	1,047	771,932	17,063	24,305	7,242	4,324	5,266	942	10	143	21,540
2015	1,021	798,178	17,077	22,705	5,628	4,564	5,570	1,006	5	132	21,778
2016	972	832,181	16,578	21,180	4,602	4,577	5,601	1,024	10	495	21,660
2017	915	868,255	16,475	20,250	3,775	4,957	6,071	1,114	10	437	21,879
2018	875	911,385	16,375	19,424	3,049	5,160	6,318	1,158	4	408	21,947
2019	841	957,859	16,261	19,156	2,895	5,455	6,717	1,262	6	410	22,132
	Mortgage banks[7]										
2014	17	421,014	2,007	16,232	14,225	14	225	211	– 4	108	2,125
2015	16	376,908	2,245	15,323	13,078	– 11	212	223	– 2	9	2,241
2016	15	289,800	1,565	11,623	10,058	– 43	176	219	0	14	1,536
2017	13	236,414	1,360	7,921	6,561	– 48	158	206	0	– 35	1,277
2018	11	233,165	1,732	6,975	5,243	– 80	97	177	6	– 27	1,631
2019	10	234,978	1,908	6,576	4,668	– 109	116	225	0	15	1,814
	Building and loan associations										
2014	21	210,066	3,037	7,126	4,089	– 547	1,339	1,886	0	– 53	2,437
2015	21	214,613	2,841	6,818	3,977	– 590	1,375	1,965	0	– 2	2,249
2016	20	215,668	2,503	6,233	3,730	– 503	1,260	1,763	0	717	2,717
2017	20	227,924	2,634	5,995	3,361	– 481	1,226	1,707	0	701	2,854
2018	20	233,865	2,653	5,661	3,008	– 500	1,295	1,795	0	14	2,167
2019	19	237,363	2,438	5,566	3,128	– 548	1,309	1,857	– 43	52	1,899
	Banks with special, development and other central support tasks										
2014	22	1,266,835	5,441	30,192	24,751	1,532	2,258	726	472	267	7,712
2015	22	1,319,508	5,927	29,123	23,196	1,390	2,175	785	336	35	7,688
2016	21	1,306,027	5,507	28,072	22,565	1,320	2,058	738	571	116	7,514
2017	20	1,265,735	5,279	22,474	17,195	1,276	1,967	691	423	1	6,979
2018	19	1,263,482	4,988	21,147	16,159	1,389	2,083	694	363	– 104	6,636
2019	19	1,333,352	5,120	20,215	15,095	1,607	2,348	741	427	– 212	6,942
	Memo item: Banks majority-owned by foreign banks[8]										
2014	35	680,177	8,347	14,546	6,199	3,025	4,966	1,941	343	– 45	11,670
2015	33	735,491	8,383	13,502	5,119	2,919	4,834	1,915	435	456	12,193
2016	34	762,620	8,950	13,098	4,148	3,157	5,057	1,900	718	402	13,227
2017	34	765,500	8,801	12,037	3,236	3,589	5,218	1,629	812	891	14,093
2018	33	763,177	9,252	12,327	3,075	3,042	4,711	1,669	436	– 340	12,390
2019	32	849,008	9,692	12,860	3,168	3,520	5,338	1,818	532	1,188	14,932

* The figures for the most recent date should be regarded as provisional in all cases. **1** Excluding the total assets of the foreign branches of savings banks, excluding the total assets of the foreign branches of regional institutions of credit cooperatives until 2015 and, from 2016, excluding the total assets of the foreign branches of mortgage banks. **2** Interest received plus current income and profits transferred under profit pooling, a profit transfer agreement or a partial profit transfer agreement. **3** Net interest and commission income plus result from the trading portfolio and other operating result. **4** Including depreciation of and value adjustments to tangible and intangible assets, but excluding depreciation of and value adjustments to assets leased ("broad" definition). **5** In part, including taxes paid by legally dependent building and loan associations affiliated to Landesbanken. **6** Including profit or loss brought forward and withdrawals from or transfers

General administrative spending			Operating result before the valuation of assets (col. 11 less col. 12)	Result from the valuation of assets (other than tangible or financial fixed assets)	Operating result (col. 15 plus col. 16)	Other and extraordinary result	Profit or loss (–) for the financial year before tax (col. 17 plus col. 18)	Taxes on income and earnings	Profit or loss (–) for the financial year after tax (col. 19 less col. 20)	Withdrawals from or transfers to (–) reserves and participation rights capital[6]	Balance sheet profit or loss (–) (col. 21 plus col. 22)	Financial year
Total (col. 13 plus col. 14)	Staff costs	Total other administrative spending[4]										
12	13	14	15	16	17	18	19	20	21	22	23	
											Savings banks[7]	
19,891	12,606	7,285	9,232	1	9,233	– 593	8,640	2,794	5,846	– 4,288	1,558	2014
20,517	12,946	7,571	9,277	92	9,369	– 392	8,977	2,913	6,064	– 4,491	1,573	2015
20,110	12,587	7,523	9,549	1,062	10,611	– 386	10,225	2,939	7,286	– 5,728	1,558	2016
19,991	12,646	7,345	9,792	283	10,075	– 153	9,922	2,861	7,061	– 5,517	1,544	2017
20,930	13,012	7,918	9,703	– 704	8,999	– 786	8,213	2,694	5,519	– 4,070	1,449	2018
21,210	13,076	8,134	8,492	– 286	8,206	35	8,241	2,436	5,805	– 4,360	1,445	2019
											Credit cooperatives	
14,201	8,538	5,663	7,339	– 198	7,141	– 153	6,988	2,077	4,911	– 3,480	1,431	2014
14,509	8,754	5,755	7,269	– 453	6,816	– 134	6,682	2,103	4,579	– 3,226	1,353	2015
14,423	8,649	5,774	7,237	103	7,340	361	7,701	2,104	5,597	– 4,246	1,351	2016
14,382	8,583	5,799	7,497	– 186	7,311	– 33	7,278	2,199	5,079	– 3,774	1,305	2017
14,520	8,564	5,956	7,427	– 926	6,501	– 172	6,329	2,078	4,251	– 2,978	1,273	2018
14,857	8,519	6,338	7,275	457	7,732	– 175	7,557	2,124	5,433	– 4,169	1,264	2019
											Mortgage banks[7]	
1,241	529	712	884	– 278	606	– 772	– 166	103	– 269	– 1,714	– 1,983	2014
1,147	492	655	1,094	– 327	767	– 20	747	98	649	– 1,385	– 736	2015
937	410	527	599	– 113	486	39	525	127	398	– 1,138	– 740	2016
897	411	486	380	32	412	75	487	171	316	– 722	– 406	2017
975	449	526	656	– 341	315	– 95	220	128	92	– 795	– 703	2018
929	428	501	885	– 125	760	– 217	543	160	383	– 229	154	2019
											Building and loan associations	
1,893	752	1,141	544	284	828	– 65	763	255	508	– 389	119	2014
1,749	721	1,028	500	– 72	428	– 2	426	78	348	– 4	344	2015
1,798	692	1,106	919	22	941	– 51	890	160	730	– 548	182	2016
1,891	719	1,172	963	– 61	902	89	991	155	836	– 622	214	2017
1,921	696	1,225	246	22	268	– 14	254	137	117	13	130	2018
1,838	647	1,191	61	49	110	303	413	62	351	– 139	212	2019
											Banks with special, development and other central support tasks	
4,042	2,077	1,965	3,670	– 1,015	2,655	– 105	2,550	80	2,470	– 4,177	– 1,707	2014
4,257	2,108	2,149	3,431	– 440	2,991	– 195	2,796	520	2,276	– 3,880	– 1,604	2015
4,250	2,009	2,241	3,264	– 973	2,291	– 28	2,263	86	2,177	– 4,065	– 1,888	2016
4,129	1,961	2,168	2,850	– 890	1,960	– 496	1,464	– 178	1,642	– 1,337	305	2017
4,352	2,214	2,138	2,284	– 197	2,087	– 755	1,332	146	1,186	– 894	292	2018
4,145	2,037	2,108	2,797	– 686	2,111	– 65	2,046	427	1,619	– 1,388	231	2019
											Memo item: Banks majority-owned by foreign banks[8]	
7,920	3,516	4,404	3,750	– 439	3,311	– 1,308	2,003	320	1,683	– 725	958	2014
8,503	3,992	4,511	3,690	– 479	3,211	– 1,723	1,488	430	1,058	– 396	662	2015
9,072	4,329	4,743	4,155	– 1,012	3,143	– 1,604	1,539	636	903	2,646	3,549	2016
8,817	4,070	4,747	5,276	– 590	4,686	– 1,819	2,867	808	2,059	– 565	1,494	2017
8,717	4,064	4,653	3,673	– 994	2,679	– 992	1,687	586	1,101	– 518	583	2018
9,601	4,612	4,989	5,331	– 162	5,169	– 1,952	3,217	1,177	2,040	2,064	4,104	2019

to the fund for general banking risks. **7** From 2018, DB Privat- und Firmenkundenbank AG (merger between Deutsche Postbank AG, belonging to the category "Big banks", with Deutsche Bank Privat- und Geschäftskunden AG, belonging to the category "Regional banks and other commercial banks") allocated to the category "Big banks". HSH Nordbank allocated to the category "Regional banks and other commercial banks" and Landesbank Berlin allocated to the category "Savings banks". DSK Hyp AG (formerly SEB AG) allocated to the category "Mortgage banks". Wüstenrot Bank Aktiengesellschaft Pfandbriefbank allocated to the category "Regional banks and other commercial banks". **8** Separate presentation of the (legally independent) banks majority-owned by foreign banks and included in other categories of banks.

Credit institutions' charge and income items*

Financial year	Number of reporting institutions	Charges, € billion										
							General administrative spending					
								Staff costs				
										Social security costs and costs relating to pensions and other benefits		
		Total	Interest paid	Commissions paid	Net loss from the trading portfolio	Gross loss on transactions in goods and subsidiary transactions	Total	Total	Wages and salaries	Total	of which: Pensions	Other administrative spending[1]
2011	1,801	367.1	208.3	12.8	1.2	0.0	78.6	42.5	34.7	7.8	2.4	36.1
2012	1,776	329.0	179.2	12.5	0.2	0.0	80.9	44.6	35.5	9.1	3.4	36.3
2013	1,748	285.8	138.7	12.6	0.3	0.0	81.1	43.8	35.2	8.6	2.9	37.4
2014	1,715	262.8	117.4	13.3	0.4	0.0	82.0	44.0	35.3	8.7	3.2	38.0
2015	1,679	256.6	105.0	14.1	0.5	0.0	86.0	46.0	36.4	9.6	3.7	39.9
2016	1,611	240.9	90.4	13.5	0.2	0.0	84.4	44.6	36.1	8.6	2.7	39.8
2017	1,538	224.1	79.9	13.6	0.0	0.0	84.0	44.6	35.6	8.9	2.9	39.4
2018	1,484	226.9	80.6	13.6	0.0	0.0	83.6	44.3	34.6	9.7	3.9	39.4
2019	1,440	241.9	80.3	14.5	0.1	0.0	84.7	44.4	34.9	9.6	3.6	40.3

Financial year	Income, € billion									
		Interest received			Current income					
	Total	Total	from lending and money market transactions	from debt securities and Debt Register claims	Total	from shares and other variable yield securities	from participating interests[2]	from shares in affiliated enterprises	Profits transferred under profit pooling, a profit transfer agreement or a partial profit transfer agreement	Commissions received
2011	392.0	288.8	246.1	42.7	11.2	6.7	1.2	3.3	3.0	41.1
2012	351.0	256.3	220.3	36.0	12.2	7.5	1.0	3.8	6.2	40.0
2013	300.4	213.6	184.9	28.7	10.0	6.0	1.0	3.0	4.6	40.6
2014	280.2	196.4	170.2	26.1	11.3	6.3	1.1	4.0	3.1	42.6
2015	274.7	183.1	160.1	22.9	15.0	6.7	1.8	6.5	2.8	44.5
2016	260.8	166.8	147.1	19.7	10.0	5.8	1.3	2.9	4.7	43.2
2017	244.1	151.0	134.4	16.5	11.0	6.9	1.1	3.0	3.4	44.2
2018	239.1	152.4	136.9	15.5	10.0	5.3	1.1	3.5	5.4	43.1
2019	239.8	152.2	137.4	14.7	7.6	4.8	1.1	1.7	3.0	45.8

***** The figures for the most recent date should be regarded as provisional in all cases. **1** Spending item does not include depreciation of and value adjustments to tangible and intangible assets, shown net of depreciation of assets leased ("narrow" definition). All other tables are based on a broad definition of "other administrative spending". **2** Including amounts paid up on cooperative society shares.

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Depreciation of and value adjustments to tangible and intangible assets		Other operating charges	Depreciation of and value adjustments to loans and advances, and provisions for contingent liabilities and for commitments	Depreciation of and value adjustments to participating interests, shares in affiliated enterprises and securities treated as fixed assets	Charges incurred from loss transfers	Transfers to special reserves	Extraordinary charges	Taxes on income and earnings	Other taxes	Profits transferred under profit pooling, a profit transfer agreement or a partial profit transfer agreement	Financial year
Total	of which: Assets leased										
5.4	2.0	17.2	11.9	11.2	6.6	0.0	2.7	7.0	0.6	3.6	2011
5.8	2.0	15.3	11.7	7.1	0.6	0.0	2.4	8.8	0.2	4.3	2012
5.5	1.9	16.8	10.6	3.6	0.7	0.0	3.4	7.4	0.2	4.9	2013
5.5	1.8	16.4	10.5	3.5	0.6	0.0	1.5	7.6	0.2	3.9	2014
5.9	1.8	17.9	7.2	3.6	1.2	0.0	2.5	8.4	0.3	4.1	2015
6.6	2.3	13.8	12.7	3.7	0.9	0.0	1.8	7.9	0.3	4.7	2016
7.0	2.6	14.8	8.3	1.5	0.6	0.0	2.3	7.5	0.3	4.3	2017
7.4	2.9	15.2	10.0	1.7	0.5	0.0	1.7	6.7	0.2	5.7	2018
9.2	3.7	14.7	10.0	12.2	0.9	0.0	3.1	7.7	0.2	4.1	2019

Net profit from the trading portfolio	Gross profit on transactions in goods and subsidiary transactions	Value readjustments to loans and advances, and provisions for contingent liabilities and for commitments	Value readjustments to participating interests, shares in affiliated enterprises and securities treated as fixed assets	Other operating income		Income from the release of special reserves	Extraordinary income	Income from loss transfers	Financial year
				Total	of which: from leasing business				
5.8	0.2	15.0	0.7	20.2	6.3	0.0	0.8	5.2	2011
7.4	0.2	7.4	1.4	18.9	5.1	0.0	0.7	0.5	2012
6.2	0.2	4.0	1.5	17.9	4.7	0.0	0.9	0.9	2013
4.0	0.2	4.0	1.7	15.7	4.5	0.0	0.8	0.4	2014
4.2	0.2	3.8	1.9	17.6	4.7	0.0	0.5	1.1	2015
3.3	0.2	4.0	3.4	20.3	5.5	0.0	4.9	0.0	2016
5.6	0.2	4.7	3.1	18.8	6.0	0.0	1.6	0.6	2017
3.5	0.2	3.3	0.9	18.5	6.3	0.0	1.2	0.7	2018
2.5	0.2	3.3	1.6	21.1	8.4	0.0	1.8	0.8	2019

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]							
Period	M1	M2		3-month moving average (centred)	MFI lending, total	MFI lending to enterprises and households	Monetary capital formation [4]	EONIA [5,7]	3 month EURIBOR [6,7]	Yield on European government bonds outstanding [8]
	Annual percentage change							% p.a. as a monthly average		
2018 Dec.	6.6	4.3	4.2	3.9	2.8	3.0	0.8	– 0.36	– 0.31	1.1
2019 Jan.	6.2	4.1	3.8	4.1	2.7	2.9	0.9	– 0.37	– 0.31	1.0
Feb.	6.7	4.5	4.3	4.3	3.0	3.2	1.4	– 0.37	– 0.31	0.9
Mar.	7.5	5.2	4.7	4.6	2.7	3.0	1.4	– 0.37	– 0.31	0.8
Apr.	7.4	5.3	4.8	4.8	2.7	3.2	1.2	– 0.37	– 0.31	0.7
May	7.1	5.2	4.8	4.8	2.2	2.8	1.4	– 0.37	– 0.31	0.7
June	7.2	5.0	4.6	4.9	2.2	3.1	2.2	– 0.36	– 0.33	0.4
July	7.8	5.5	5.2	5.2	2.1	3.0	2.0	– 0.37	– 0.36	0.2
Aug.	8.4	6.2	5.8	5.6	2.3	3.3	1.7	– 0.36	– 0.41	– 0.1
Sep.	7.9	5.9	5.7	5.7	2.2	3.3	1.8	– 0.40	– 0.42	– 0.1
Oct.	8.4	6.1	5.7	5.6	2.4	3.7	1.6	– 0.46	– 0.41	– 0.0
Nov.	8.3	5.9	5.6	5.4	2.1	3.4	1.8	– 0.45	– 0.40	0.1
Dec.	8.0	5.7	4.9	5.2	2.0	3.3	1.6	– 0.46	– 0.40	0.2
2020 Jan.	7.9	5.5	5.2	5.2	1.9	3.2	1.2	– 0.45	– 0.39	0.2
Feb.	8.1	5.6	5.5	6.0	1.9	3.2	0.8	– 0.45	– 0.41	– 0.0
Mar.	10.4	7.4	7.5	7.1	3.5	4.2	0.2	– 0.45	– 0.42	0.2
Apr.	11.9	8.3	8.2	8.2	4.7	4.2	0.0	– 0.45	– 0.25	0.3
May	12.5	9.1	9.0	8.8	6.1	4.8	0.1	– 0.46	– 0.27	0.2
June	12.6	9.2	9.2	9.5	6.8	4.5	– 0.5	– 0.46	– 0.38	0.2
July	13.5	10.1	10.2	...	7.4	4.7	– 0.6	– 0.46	– 0.44	0.0
Aug.	...	...	...	...	...	...	...	– 0.47	– 0.48	– 0.0

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

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]	
Period	Balance	of which: Goods	Balance	Direct investment	Portfolio investment	Financial derivatives [2]	Other investment	Reserve assets	Dollar rate	Nominal	Real [4]
	€ million								EUR 1 = USD ...	Q1 1999 = 100	
2018 Dec.	+ 38,106	+ 23,495	+ 58,244	– 39,918	+ 97,561	+ 277	– 2,800	+ 3,124	1.1384	99.3	94.8
2019 Jan.	+ 10,691	+ 8,203	+ 32,935	+ 30,759	– 18,911	+ 3,934	+ 19,714	– 2,561	1.1416	98.8	94.3
Feb.	+ 20,185	+ 25,388	– 8,869	+ 27,787	– 40,958	– 3,651	+ 7,668	+ 285	1.1351	98.4	93.8
Mar.	+ 39,447	+ 31,730	+ 70,407	+ 46,335	– 31,139	+ 5,097	+ 45,041	+ 5,073	1.1302	97.9	93.2
Apr.	+ 13,456	+ 23,780	– 30,376	– 5,349	– 44,236	+ 13,331	+ 2,641	+ 3,237	1.1238	97.7	93.0
May	+ 1,023	+ 26,462	+ 8,426	– 19,375	– 50,130	+ 9,017	+ 67,069	+ 1,845	1.1185	98.2	93.4
June	+ 15,038	+ 25,969	+ 14,314	– 61,807	+ 23,713	+ 10,415	+ 44,262	– 2,269	1.1293	98.8	93.9
July	+ 34,601	+ 34,551	+ 32,390	– 14,580	– 27,295	+ 10,250	+ 58,566	+ 5,449	1.1218	98.4	93.4
Aug.	+ 35,337	+ 22,724	+ 24,435	+ 31,806	– 8,150	– 3,913	+ 4,062	+ 629	1.1126	98.9	93.9
Sep.	+ 42,408	+ 28,326	+ 52,641	+ 12,639	– 6,831	– 2,134	+ 54,908	– 5,939	1.1004	98.2	93.1
Oct.	+ 35,923	+ 36,483	+ 45,091	+ 42,633	+ 35,411	+ 6,310	– 40,157	+ 894	1.1053	98.1	92.9
Nov.	+ 29,123	+ 29,422	+ 23,056	– 31,396	+ 42,268	+ 291	+ 15,765	– 3,870	1.1051	97.5	92.2
Dec.	+ 39,680	+ 30,759	+ 11,860	– 44,237	+ 66,412	– 12,133	+ 1,359	+ 458	1.1113	97.4	92.1
2020 Jan.	– 6,703	+ 9,183	– 9,579	+ 15,189	– 53,158	+ 16,440	+ 10,967	+ 984	1.1100	97.0	91.4
Feb.	+ 18,409	+ 29,131	+ 26,156	+ 19,395	– 31,268	+ 16,883	+ 22,255	– 1,108	1.0905	96.3	90.7
Mar.	+ 26,926	+ 38,086	+ 7,562	– 13,974	– 111,045	+ 8,927	+ 120,103	+ 3,551	1.1063	99.0	93.1
Apr.	+ 9,531	+ 13,265	– 6,495	– 12,667	+ 151,232	+ 3,950	– 150,694	+ 1,684	1.0862	98.2	92.7
May	– 7,426	+ 18,848	+ 8,101	– 19,622	+ 28,291	+ 3,462	– 5,687	+ 1,656	1.0902	98.4	92.8
June	+ 17,268	+ 28,641	+ 48,230	– 10,739	– 10,810	+ 21,504	+ 48,328	– 53	1.1255	99.8	94.0
July	...	...	...	...	...	...	...	...	1.1463	100.5	p 94.6
Aug.	...	...	...	...	...	...	...	...	1.1828	101.6	p 95.0

***** 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										
2017	2.6	1.9	2.6	5.5	3.3	2.3	1.5	9.1	1.7	3.8
2018	1.8	1.5	1.3	4.4	1.5	1.8	1.9	8.5	0.8	4.3
2019	1.3	1.4	0.6	5.0	1.2	1.5	1.9	5.6	0.3	2.2
2019 Q1	1.5	1.4	1.0	5.1	0.4	1.4	0.8	4.4	0.1	3.1
Q2	1.2	1.3	– 0.3	3.3	1.4	1.9	3.0	5.6	0.2	2.0
Q3	1.4	1.6	1.2	6.3	2.0	2.0	3.0	6.3	0.8	2.9
Q4	1.0	1.3	0.2	5.3	0.8	0.7	0.6	5.9	0.1	1.0
2020 Q1	– 3.2	– 2.3	– 1.8	– 0.7	– 1.4	– 5.3	– 1.0	5.7	– 5.8	– 1.5
Q2	– 14.7	– 14.5	– 11.3	– 6.9	– 6.4	– 19.2	– 15.3	– 3.0	– 18.0	– 8.9
Industrial production [2]										
Annual percentage change										
2017	3.0	2.9	3.4	4.3	3.4	2.4	4.1	– 2.2	3.6	8.6
2018	0.7	1.2	1.0	4.8	3.4	0.3	1.8	– 5.0	0.7	2.0
2019	– 1.3	4.8	– 4.3	0.1	1.9	0.4	– 0.7	2.8	– 1.1	0.8
2019 Q1	– 0.3	3.1	– 2.2	5.4	0.5	1.0	1.7	0.9	– 0.1	– 0.8
Q2	– 1.3	5.9	– 5.0	2.0	2.7	1.6	0.6	0.4	– 0.8	1.4
Q3	– 1.6	4.3	– 4.9	– 1.5	3.3	– 0.2	– 0.2	4.7	– 1.3	2.5
Q4	– 2.0	5.9	– 5.1	– 5.1	1.2	– 0.7	– 5.0	4.7	– 2.1	0.0
2020 Q1	– 6.1	– 0.3	– 6.7	– 4.7	– 0.2	– 7.6	– 1.2	6.8	– 11.4	– 2.3
Q2	– 20.2	– 11.7	p – 22.0	– 13.4	– 5.3	– 23.5	– 8.0	– 1.6	– 25.4	– 5.1
Capacity utilisation in industry [3]										
As a percentage of full capacity										
2017	82.9	81.8	86.6	74.9	82.3	84.7	70.0	79.5	76.8	74.5
2018	83.8	81.0	87.7	74.4	84.1	85.9	70.8	76.2	78.1	76.4
2019	82.3	81.2	84.5	72.8	81.1	84.5	71.5	77.3	77.4	76.3
2019 Q2	82.7	81.3	85.3	73.5	80.8	85.1	71.7	76.9	77.5	76.9
Q3	81.8	81.2	83.9	72.5	81.6	84.3	71.8	74.1	77.0	75.9
Q4	81.0	80.7	82.6	69.9	78.6	83.4	72.1	78.0	76.8	75.5
2020 Q1	80.8	79.7	82.9	70.7	78.4	82.6	72.3	75.5	76.5	74.7
Q2	68.3	72.8	71.4	63.3	77.2	62.4	67.3	56.7	–	69.1
Q3	72.1	73.4	74.4	66.0	76.0	72.8	70.3	69.6	64.5	70.8
Standardised unemployment rate [4]										
As a percentage of civilian labour force										
2017	9.0	7.1	3.8	5.8	8.6	9.1	21.5	6.8	11.3	8.7
2018	8.2	6.0	3.4	5.4	7.4	8.7	19.3	5.8	10.6	7.5
2019	7.5	5.4	3.2	4.5	6.7	8.2	17.3	5.0	10.0	6.3
2020 Mar.	7.2	5.1	e 3.7	4.8	7.0	7.5	14.3	5.0	8.5	7.2
Apr.	7.4	5.3	e 4.2	6.0	7.2	7.8	15.8	4.8	7.3	8.2
May	7.5	5.4	e 4.5	7.0	7.4	6.9	17.3	4.8	8.5	8.7
June	7.7	5.5	e 4.5	8.0	7.6	6.6	18.3	5.0	9.3	8.9
July	7.9	5.5	e 4.5	...	7.8	6.9	...	5.1	9.7	9.0
Aug.	...	...	...	...	...	...	...	5.2	...	...
Harmonised Index of Consumer Prices										
Annual percentage change										
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	1.2	1.2	1.4	2.3	1.1	1.3	0.5	0.9	0.6	2.7
2020 Mar.	0.7	0.4	1.3	1.0	0.9	0.8	0.2	0.5	0.1	1.4
Apr.	0.3	0.0	0.8	– 0.9	– 0.3	0.4	– 0.9	– 0.3	0.1	– 0.1
May	0.1	– 0.2	0.5	– 1.8	– 0.1	0.4	– 0.7	– 0.8	– 0.3	– 0.9
June	0.3	0.2	0.8	– 1.6	0.1	0.2	– 1.9	– 0.6	– 0.4	– 1.1
July	0.4	1.7	5 0.0	– 1.3	0.7	0.9	– 1.9	– 0.6	0.8	0.1
Aug.	– 0.2	– 0.9	5 – 0.1	– 1.3	0.3	0.2	– 2.3	– 1.1	– 0.5	– 0.5
General government financial balance [6]										
As a percentage of GDP										
2017	– 1.0	– 0.7	1.4	– 0.8	– 0.7	– 2.9	0.7	– 0.3	– 2.4	– 0.8
2018	– 0.5	– 0.8	1.8	– 0.6	– 0.9	– 2.3	1.0	0.1	– 2.2	– 0.8
2019	– 0.6	– 1.9	1.5	– 0.3	– 1.1	– 3.0	1.5	0.4	– 1.6	– 0.2
General government debt [6]										
As a percentage of GDP										
2017	87.8	101.7	65.0	9.3	61.3	98.3	176.2	67.7	134.1	39.3
2018	85.8	99.8	61.6	8.4	59.6	98.1	181.2	63.5	134.8	37.2
2019	84.1	98.6	59.5	8.4	59.4	98.1	176.6	58.8	134.8	36.9

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:

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										
4.2	1.8	8.0	2.9	2.5	3.5	3.0	4.8	3.0	4.4	2017
3.6	3.1	5.2	2.4	2.4	2.6	3.9	4.1	2.4	4.1	2018
3.9	2.3	4.9	1.7	1.6	2.2	2.4	2.4	2.0	3.2	2019
4.2	0.2	6.7	1.6	2.0	2.4	3.7	3.3	2.5	3.1	2019 Q1
3.8	3.1	4.6	1.7	1.9	1.9	2.4	2.5	1.8	3.0	Q2
3.8	3.1	3.6	1.8	1.7	2.1	1.5	2.4	1.9	3.4	Q3
3.8	2.8	5.0	1.6	0.8	2.3	2.1	1.7	1.7	3.4	Q4
2.4	– 0.2	– 1.4	– 0.2	– 2.8	– 2.3	– 3.7	– 2.6	– 3.7	0.9	2020 Q1
– 4.2	...	– 16.3	– 9.3	– 12.5	– 16.2	– 12.1	– 13.0	– 22.1	– 11.9	Q2
Industrial production [2] Annual percentage change										
6.8	3.7	8.8	1.3	5.8	3.5	3.3	8.1	3.3	8.1	2017
5.2	– 1.2	1.3	0.6	4.9	0.1	4.3	5.3	0.4	6.9	2018
3.5	– 3.3	1.1	– 0.9	0.2	– 2.2	0.5	2.8	0.5	4.1	2019
4.7	– 1.3	– 1.9	– 1.4	5.7	– 3.9	6.9	3.7	– 0.2	6.4	2019 Q1
5.5	– 1.0	0.5	– 1.4	0.0	– 1.7	3.0	3.3	1.4	2.5	Q2
4.1	– 2.0	3.8	0.1	– 0.3	– 3.5	– 2.8	2.5	0.7	4.4	Q3
– 0.1	– 8.8	2.0	– 0.9	– 4.2	0.5	– 4.7	1.7	0.3	3.3	Q4
– 2.2	– 10.4	10.8	– 1.2	– 6.0	– 1.3	– 7.4	– 2.7	– 6.6	– 1.5	2020 Q1
– 7.0	– 24.3	– 6.8	– 8.6	p – 17.3	– 23.9	– 28.1	– 17.3	– 24.6	p – 20.2	Q2
Capacity utilisation in industry [3] As a percentage of full capacity										
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
77.3	79.8	77.3	84.2	86.6	78.7	87.7	84.4	80.3	63.8	2019
76.9	79.7	78.2	84.3	87.2	79.4	89.1	84.8	80.4	66.0	2019 Q2
77.5	80.3	75.9	84.1	86.7	80.1	89.4	83.6	80.8	64.2	Q3
77.2	79.0	78.0	84.0	85.3	77.4	84.1	83.8	79.3	63.6	Q4
76.4	83.4	78.8	83.2	84.8	80.6	82.2	83.0	80.0	63.3	2020 Q1
70.0	53.8	61.1	75.2	73.9	71.7	77.1	71.9	70.9	47.4	Q2
71.9	76.3	68.0	76.3	77.2	71.9	78.3	76.1	71.5	49.2	Q3
Standardised unemployment rate [4] As a percentage of civilian labour force										
7.1	5.5	4.0	4.9	5.6	9.0	8.1	6.6	17.3	11.1	2017
6.2	5.6	3.7	3.9	4.9	7.1	6.6	5.1	15.3	8.4	2018
6.3	5.6	3.4	3.4	4.5	6.5	5.8	4.5	14.1	7.1	2019
6.6	6.5	3.9	2.9	4.6	6.2	5.8	4.3	14.5	6.4	2020 Mar.
7.8	7.5	4.4	3.4	4.7	6.3	6.4	4.7	15.3	7.7	Apr.
8.5	7.7	4.5	3.6	5.5	5.9	6.5	4.8	15.4	8.1	May
8.8	7.7	4.3	4.3	5.4	7.3	6.6	4.8	15.8	7.4	June
9.0	7.3	4.1	4.5	5.2	8.1	6.8	4.7	15.8	6.9	July
...	...	...	...	...	...	...	...	...	...	Aug.
Harmonised Index of Consumer Prices Annual percentage change										
3.7	2.1	1.3	1.3	2.2	1.6	1.4	1.6	2.0	0.7	2017
2.5	2.0	1.7	1.6	2.1	1.2	2.5	1.9	1.7	0.8	2018
2.2	1.6	1.5	2.7	1.5	0.3	2.8	1.7	0.8	0.5	2019
1.7	0.3	1.2	1.1	1.6	0.1	2.4	0.7	0.1	0.1	2020 Mar.
0.9	– 0.8	1.1	1.0	1.5	– 0.1	2.1	– 1.3	– 0.7	– 1.2	Apr.
0.2	– 1.6	0.9	1.1	0.6	– 0.6	2.1	– 1.4	– 0.9	– 1.4	May
0.9	– 0.4	1.0	1.7	1.1	0.2	1.8	– 0.8	– 0.3	– 2.2	June
0.9	0.1	0.7	1.6	1.8	– 0.1	1.8	– 0.3	– 0.7	– 2.0	July
1.2	– 0.2	0.7	0.3	1.4	– 0.2	1.4	– 0.7	– 0.6	– 2.9	Aug.
General government financial balance [6] As a percentage of GDP										
0.5	1.3	3.3	1.3	– 0.8	– 3.0	– 1.0	0.0	– 3.0	2.0	2017
0.6	3.1	1.9	1.4	0.2	– 0.4	– 1.0	0.7	– 2.5	– 3.7	2018
0.3	2.2	0.5	1.7	0.7	0.2	– 1.3	0.5	– 2.8	1.7	2019
General government debt [6] As a percentage of GDP										
39.1	22.3	50.3	56.9	78.3	126.1	51.3	74.1	98.6	93.9	2017
33.8	21.0	45.6	52.4	74.0	122.0	49.4	70.4	97.6	100.6	2018
36.3	22.1	43.1	48.6	70.4	117.7	48.0	66.1	95.5	95.5	2019

quarterly 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** Influenced by a temporary reduction of value added tax. **6** According to Maastricht Treaty definition.

II. Overall monetary survey in the euro area

1. The money stock and its counterparts *

a) Euro area [1]

€ billion

Period	I. Lending to non-banks (non-MFIs) in the euro area					II. Net claims on non-euro area residents			III. Monetary capital formation at monetary financial institutions (MFIs) in the euro area				
		Enterprises and households		General government									
	Total	Total	of which: Securities	Total	of which: Securities	Total	Claims on non-euro area residents	Liabilities to non-euro area residents	Total	Deposits with an agreed maturity of over 2 years	Deposits at agreed notice of over 3 months	Debt securities with maturities of over 2 years (net) [2]	Capital and reserves [3]
2018 Dec.	– 88.9	– 69.3	– 20.9	– 19.5	– 21.4	4.1	– 159.8	– 163.9	6.9	16.5	0.1	– 8.2	– 1.5
2019 Jan.	124.8	69.5	14.5	55.3	43.7	1.9	189.2	187.3	19.8	– 8.8	0.1	26.2	2.3
Feb.	53.9	42.8	17.6	11.2	24.8	27.4	– 26.0	– 53.4	20.4	0.3	– 0.1	25.8	– 5.5
Mar.	15.0	41.0	1.4	– 26.0	– 26.1	74.7	0.4	– 74.3	9.0	– 2.4	0.0	– 4.2	15.5
Apr.	69.1	90.1	27.1	– 21.0	– 20.5	– 15.6	107.8	123.5	– 16.1	– 5.0	0.2	– 10.2	– 1.2
May	39.0	36.7	12.7	2.4	3.2	63.5	69.9	6.3	11.0	– 2.9	0.6	7.6	5.7
June	– 0.4	23.0	– 13.5	– 23.4	– 22.6	78.1	– 15.3	– 93.5	41.8	19.9	1.1	6.2	14.7
July	49.7	61.3	– 1.4	– 11.6	– 14.3	35.0	165.1	130.1	0.7	– 21.9	0.4	5.0	17.2
Aug.	25.2	19.2	– 7.9	5.9	5.7	– 3.9	26.6	30.5	– 16.2	– 15.5	– 0.4	– 7.3	7.0
Sep.	6.6	26.5	25.9	– 19.9	– 13.7	41.8	– 45.7	– 87.5	36.1	25.1	– 1.1	– 1.4	13.5
Oct.	43.6	63.2	– 9.3	– 19.6	– 25.7	17.3	16.2	– 1.1	– 11.6	– 1.9	– 1.8	– 20.0	12.1
Nov.	54.5	55.0	31.0	– 0.5	3.3	10.4	– 21.5	– 31.9	19.1	0.8	– 0.8	4.8	14.3
Dec.	– 118.4	– 79.5	– 24.9	– 38.9	– 20.6	– 21.8	– 299.1	– 277.3	– 7.3	7.2	– 1.4	– 5.8	– 7.3
2020 Jan.	101.6	51.4	1.4	50.3	28.1	24.6	295.6	271.0	– 5.6	– 6.4	– 1.0	13.0	– 11.2
Feb.	60.7	50.1	20.1	10.7	22.1	41.5	92.7	51.2	– 2.8	– 3.0	– 0.7	– 3.3	4.2
Mar.	318.8	176.2	– 21.5	142.6	128.3	– 3.6	101.7	105.3	– 33.3	0.8	– 1.0	– 43.2	10.2
Apr.	292.9	101.7	54.9	191.2	180.2	– 100.8	14.4	115.3	– 33.2	– 8.9	– 1.1	– 3.6	– 19.7
May	291.4	119.4	30.1	172.1	176.8	8.6	– 42.6	– 51.2	19.4	3.9	– 0.8	– 1.1	17.4
June	136.0	– 16.2	16.1	152.2	160.4	69.4	– 145.8	– 215.2	– 0.9	– 7.1	– 1.1	– 7.9	15.2
July	156.6	79.5	31.2	77.2	76.5	– 45.2	75.6	120.8	– 2.5	2.2	– 0.1	– 12.4	7.7

b) German contribution

Period	I. Lending to non-banks (non-MFIs) in the euro area					II. Net claims on non-euro area residents			III. Monetary capital formation at monetary financial institutions (MFIs) in the euro area				
		Enterprises and households		General government									
	Total	Total	of which: Securities	Total	of which: Securities	Total	Claims on non-euro area residents	Liabilities to non-euro area residents	Total	Deposits with an agreed maturity of over 2 years	Deposits at agreed notice of over 3 months	Debt securities with maturities of over 2 years (net) [2]	Capital and reserves [3]
2018 Dec.	– 5.6	– 1.5	– 0.4	– 4.0	– 0.7	– 33.5	3.6	37.1	– 1.1	0.7	– 0.3	– 9.1	7.5
2019 Jan.	16.3	15.0	0.3	1.3	– 1.3	67.9	21.1	– 46.8	2.1	– 5.7	– 0.5	14.0	– 5.7
Feb.	12.5	16.4	– 0.3	– 3.9	– 1.4	24.3	– 15.4	– 39.6	6.6	– 0.8	0.1	12.6	– 5.2
Mar.	9.7	17.2	0.1	– 7.5	– 4.8	– 32.1	13.9	46.1	– 4.0	– 3.2	0.2	– 4.4	3.4
Apr.	7.6	12.7	– 0.5	– 5.1	– 6.1	19.2	14.8	– 4.5	– 6.6	– 2.7	0.2	– 4.0	0.0
May	19.3	19.8	0.5	– 0.5	1.4	11.8	2.4	– 9.3	9.1	– 1.7	0.6	7.5	2.6
June	25.7	26.4	4.3	– 0.7	1.2	– 8.0	10.3	18.3	11.5	1.5	0.6	2.4	7.1
July	9.5	7.8	0.0	1.6	– 0.8	42.6	6.3	– 36.4	0.8	– 2.2	– 0.3	– 1.1	4.4
Aug.	25.2	19.9	1.0	5.2	5.5	– 13.6	2.4	16.0	– 6.2	– 4.4	– 0.3	– 3.7	2.3
Sep.	5.7	11.8	– 0.8	– 6.1	– 1.3	– 2.8	– 24.3	– 21.5	4.3	– 0.7	– 0.6	0.0	5.6
Oct.	10.2	11.0	1.2	– 0.8	– 4.2	56.3	2.4	– 53.9	– 2.6	– 0.7	– 0.8	– 3.6	2.5
Nov.	25.3	20.4	5.2	4.9	3.9	– 23.5	– 17.6	5.9	3.0	– 1.9	– 0.9	1.6	4.2
Dec.	– 4.4	1.5	0.8	– 5.9	– 1.1	– 38.9	– 47.5	– 8.6	– 4.4	– 0.3	– 1.1	– 5.8	2.7
2020 Jan.	16.3	9.5	1.9	6.8	2.6	74.7	37.7	– 37.0	– 9.0	– 2.6	– 1.5	3.8	– 8.6
Feb.	24.5	25.4	4.3	– 0.9	1.2	– 4.3	14.1	18.4	– 4.6	– 1.2	– 0.6	4.8	– 7.6
Mar.	47.3	31.4	– 6.1	15.9	14.3	– 34.3	18.5	52.8	– 8.3	– 3.7	– 0.7	– 8.2	4.3
Apr.	33.0	16.0	1.3	16.9	14.8	– 28.8	8.9	37.6	– 23.8	– 5.1	– 0.8	– 2.1	– 15.8
May	58.3	27.1	10.0	31.2	32.7	11.7	– 22.1	– 33.8	2.3	– 1.5	– 0.4	– 1.2	5.4
June	26.4	2.6	3.5	23.7	25.9	– 45.6	– 20.9	24.7	– 7.9	– 7.1	– 1.0	– 7.9	8.1
July	25.9	12.9	– 0.5	13.0	11.1	9.4	– 9.6	– 19.0	– 2.8	– 6.9	– 0.6	1.3	3.4

***** The data in this table are based on the consolidated balance sheet of monetary financial institutions (MFIs) (Table II.2); statistical breaks have been eliminated from the flow figures (see also the "Notes on the figures" in the "Explanatory notes" of the Statistical Series Banking Statistics). **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. **8** Less German MFIs' holdings

II. Overall monetary survey in the euro area

a) Euro area [1]

IV. Deposits of central governments	V. Other factors		VI. Money stock M3 (balance I plus II less III less IV less V)										Period
	Total [4]	of which: Intra-Eurosystem liability/claim related to banknote issue	Total	Money stock M2						Money market fund shares (net) [2,7,8]	Debt securities with maturities of up to 2 years (incl. money market paper) (net) [2,7]		
				Total	Money stock M1			Deposits with an agreed maturity of up to 2 years [5]	Deposits at agreed notice of up to 3 months [5,6]	Repo transactions			
					Total	Currency in circulation	Overnight deposits [5]						
– 59.9	– 85.4	–	53.6	49.9	49.0	18.0	31.1	– 4.7	5.5	– 14.2	1.3	7.6	2018 Dec.
66.8	60.6	–	– 20.4	– 22.4	– 39.9	– 13.1	– 26.8	3.3	14.2	15.6	5.4	– 7.1	2019 Jan.
18.6	3.2	–	39.2	46.4	40.2	3.2	37.0	– 0.4	6.6	0.2	– 8.3	– 0.0	Feb.
– 21.7	– 20.4	–	122.7	139.8	133.5	6.2	127.3	– 6.5	12.8	– 7.3	0.7	– 19.0	Mar.
– 33.1	28.9	–	73.8	55.5	46.2	7.4	38.9	2.5	6.7	22.3	14.3	– 0.4	Apr.
17.8	– 7.4	–	81.0	88.6	87.6	5.1	82.5	– 12.4	13.4	– 7.7	– 9.7	5.8	May
33.6	– 71.2	–	73.5	87.3	98.4	7.5	90.8	– 14.5	3.4	– 20.7	– 11.9	– 2.0	June
– 13.0	47.0	–	50.0	31.1	25.7	9.0	16.7	1.4	4.0	17.9	21.1	– 5.2	July
6.3	– 81.9	–	113.1	110.1	86.1	1.3	84.7	19.1	4.9	4.7	18.0	– 13.5	Aug.
5.8	43.0	–	– 36.6	– 18.6	– 1.3	3.2	– 4.4	– 15.6	– 1.7	– 17.9	– 13.9	– 0.4	Sep.
– 37.7	51.6	–	58.5	45.7	60.3	3.0	57.3	– 10.1	– 4.5	42.1	1.4	6.5	Oct.
– 1.1	– 53.3	–	100.2	103.0	122.0	6.5	115.5	– 17.6	– 1.5	– 14.7	3.1	– 0.7	Nov.
– 66.5	– 26.6	–	– 39.7	1.9	7.5	16.7	– 9.2	– 9.3	3.6	– 33.6	– 22.5	– 18.3	Dec.
84.6	42.2	–	5.0	– 44.5	– 52.4	– 7.7	– 44.7	0.3	7.6	– 7.1	34.8	14.0	2020 Jan.
43.7	– 34.5	–	95.9	82.7	84.2	5.2	79.0	– 1.2	– 0.3	19.7	– 4.7	4.9	Feb.
4.7	– 6.8	–	350.5	320.8	300.1	23.8	276.3	16.2	4.5	30.0	– 19.4	24.9	Mar.
72.1	– 18.9	–	172.1	175.2	175.5	20.7	154.8	– 15.0	14.7	– 4.6	24.0	– 18.4	Apr.
100.9	– 38.3	–	218.0	226.3	189.5	20.1	169.5	16.8	19.9	9.6	0.1	– 9.0	May
123.4	– 0.4	–	83.4	78.7	88.3	13.1	75.2	– 20.6	11.0	– 42.7	14.5	– 5.2	June
– 4.1	– 74.1	–	192.2	148.2	122.6	14.3	108.3	20.0	5.6	18.1	36.7	– 9.3	July

b) German contribution

IV. Deposits of central governments	V. Other factors			VI. Money stock M3 (balance I plus II less III less IV less V) [10]								Period
	Total	of which: Intra-Eurosystem liability/claim related to banknote issue [9,11]	Currency in circulation	Total	Components of the money stock: 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]	maturities with maturities of up to 2 years (incl. money market paper)(net) [7]		
– 5.4	– 27.6	4.0	2.8	– 5.0	– 1.3	– 3.3	2.0	– 0.6	– 0.0	– 1.8		2018 Dec.
– 18.5	103.9	– 9.6	7.5	– 3.4	– 14.3	9.6	0.3	0.9	0.0	0.0		2019 Jan.
– 2.7	20.3	2.9	0.4	12.5	8.3	3.6	1.0	0.3	– 0.0	– 0.7		Feb.
17.7	– 58.0	2.5	1.2	21.8	20.9	– 1.5	2.2	0.0	– 0.2	0.3		Mar.
– 15.2	33.9	3.9	2.1	14.7	17.9	– 3.7	0.0	1.1	– 0.1	– 0.6		Apr.
19.0	– 20.1	4.0	0.8	23.0	23.8	0.4	– 0.3	– 1.3	0.1	0.4		May
3.7	– 7.7	3.0	2.1	10.3	10.3	– 1.4	– 0.4	1.7	– 0.0	0.2		June
– 27.1	74.0	3.6	3.2	4.4	7.2	– 3.3	– 0.6	1.0	0.1	0.1		July
10.7	– 26.8	5.8	– 0.7	33.9	26.1	5.7	– 1.2	3.1	0.0	0.3		Aug.
9.9	– 6.6	4.9	0.8	– 4.7	0.1	– 4.8	– 0.7	– 1.1	0.1	1.7		Sep.
– 19.8	74.2	4.3	0.2	14.7	18.7	– 0.4	– 1.0	– 0.3	– 0.1	– 2.3		Oct.
8.2	– 29.5	4.5	0.7	20.0	24.1	– 3.4	– 0.7	0.4	– 0.2	– 0.2		Nov.
– 2.0	– 32.4	4.9	3.4	– 4.5	– 0.4	– 6.6	0.6	1.8	– 0.1	0.0		Dec.
– 5.6	108.0	2.1	– 0.6	– 2.5	– 7.8	5.9	– 3.0	– 1.0	– 0.1	3.4		2020 Jan.
24.4	– 14.0	4.9	0.1	14.5	17.7	1.2	– 1.7	– 0.6	0.1	– 2.2		Feb.
7.5	– 71.9	12.2	0.9	85.7	93.3	– 0.4	– 3.4	– 0.3	0.4	– 3.8		Mar.
17.9	8.6	3.2	4.3	1.5	9.9	– 8.1	0.1	1.7	– 0.1	– 1.9		Apr.
28.6	– 9.3	0.3	5.3	48.4	43.4	6.2	0.3	– 1.0	– 0.1	– 0.4		May
57.8	– 69.3	– 0.4	4.7	0.1	9.9	– 7.7	– 0.1	– 1.6	– 0.2	– 0.3		June
14.2	– 11.2	2.4	3.9	35.1	27.4	8.6	– 1.1	1.3	– 0.2	– 0.9		July

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 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											
2018 June	26,765.0	18,099.1	13,482.4	11,193.8	1,501.5	787.1	4,616.7	1,016.8	3,599.9	5,448.6	3,217.3	
July	26,770.5	18,156.1	13,547.1	11,235.8	1,523.9	787.3	4,609.0	1,012.7	3,596.3	5,455.3	3,159.0	
Aug.	26,807.8	18,127.6	13,530.9	11,227.3	1,524.1	779.5	4,596.7	1,001.7	3,595.0	5,477.5	3,202.7	
Sep.	26,763.1	18,146.6	13,538.6	11,248.0	1,508.3	782.3	4,608.1	1,000.7	3,607.4	5,457.8	3,158.6	
Oct.	27,077.1	18,151.7	13,555.3	11,266.2	1,510.9	778.1	4,596.4	1,002.6	3,593.8	5,667.4	3,258.0	
Nov.	27,216.6	18,243.5	13,638.0	11,337.8	1,516.2	784.1	4,605.5	1,001.0	3,604.5	5,694.7	3,278.5	
Dec.	26,990.0	18,173.2	13,568.7	11,295.5	1,502.0	771.2	4,604.5	1,002.8	3,601.8	5,557.1	3,259.8	
2019 Jan.	27,392.5	18,309.1	13,637.4	11,345.0	1,517.2	775.3	4,671.7	1,015.9	3,655.8	5,770.3	3,313.0	
Feb.	27,436.5	18,354.8	13,683.9	11,368.3	1,528.3	787.3	4,670.9	1,001.2	3,669.7	5,763.8	3,317.9	
Mar.	27,733.7	18,397.2	13,735.5	11,413.7	1,526.2	795.7	4,661.7	1,001.4	3,660.3	5,841.6	3,494.9	
Apr.	27,886.9	18,468.4	13,828.8	11,472.8	1,529.8	826.1	4,639.6	1,001.1	3,638.6	5,942.4	3,476.2	
May	28,185.6	18,497.0	13,854.0	11,494.6	1,549.1	810.4	4,643.0	1,000.3	3,642.7	6,027.7	3,660.8	
June	28,305.8	18,522.1	13,874.9	11,521.2	1,552.5	801.2	4,647.1	1,000.0	3,647.1	5,991.6	3,792.1	
July	28,772.3	18,601.9	13,939.3	11,583.8	1,550.8	804.7	4,662.6	1,002.8	3,659.8	6,208.8	3,961.6	
Aug.	29,374.1	18,658.9	13,961.4	11,612.8	1,549.4	799.3	4,697.5	1,003.1	3,694.4	6,311.5	4,403.7	
Sep.	29,193.8	18,651.7	13,971.3	11,595.9	1,566.6	808.7	4,680.4	996.7	3,683.7	6,300.2	4,241.9	
Oct.	28,966.1	18,689.3	14,042.5	11,660.5	1,550.5	831.5	4,646.8	1,002.5	3,644.3	6,259.5	4,017.3	
Nov.	29,017.9	18,729.5	14,099.5	11,684.5	1,569.3	845.7	4,630.0	998.6	3,631.4	6,270.8	4,017.6	
Dec.	28,328.2	18,591.7	14,008.9	11,617.1	1,544.1	847.6	4,582.8	981.0	3,601.8	5,930.8	3,805.7	
2020 Jan.	29,020.9	18,722.4	14,062.6	11,668.9	1,542.7	851.0	4,659.8	1,003.4	3,656.4	6,302.3	3,996.2	
Feb.	29,486.4	18,767.4	14,101.9	11,697.5	1,563.0	841.4	4,665.5	992.2	3,673.3	6,414.4	4,304.6	
Mar.	30,021.6	19,013.9	14,239.2	11,884.9	1,557.1	797.2	4,774.7	1,006.7	3,768.0	6,486.5	4,521.3	
Apr.	30,447.3	19,307.8	14,348.6	11,933.2	1,613.0	802.4	4,959.2	1,018.0	3,941.3	6,584.9	4,554.5	
May	30,496.3	19,607.5	14,466.3	12,020.4	1,643.2	802.7	5,141.2	1,013.7	4,127.5	6,465.2	4,423.6	
June	30,402.0	19,757.6	14,447.9	11,980.8	1,651.0	816.0	5,309.7	1,005.3	4,304.4	6,298.1	4,346.3	
July	30,665.4	19,911.1	14,332.5	12,011.7	1,506.4	814.5	5,578.6	1,006.0	4,572.7	6,276.4	4,477.9	
	German contribution (€ billion)											
2018 June	6,120.9	4,264.2	3,297.3	2,838.8	187.5	271.0	966.9	304.3	662.7	1,201.8	654.9	
July	6,089.3	4,274.2	3,307.9	2,849.4	187.0	271.5	966.3	304.9	661.4	1,194.2	620.9	
Aug.	6,121.9	4,279.7	3,313.6	2,863.9	183.8	265.9	966.0	300.5	665.5	1,189.8	652.4	
Sep.	6,119.7	4,295.4	3,331.0	2,880.3	184.8	265.9	964.4	297.5	666.9	1,194.5	629.8	
Oct.	6,154.2	4,303.6	3,339.1	2,888.2	185.3	265.6	964.5	300.8	663.7	1,208.1	642.4	
Nov.	6,177.4	4,323.4	3,356.8	2,905.6	188.1	263.0	966.7	299.8	666.9	1,202.7	651.3	
Dec.	6,194.1	4,317.4	3,353.6	2,903.7	187.8	262.2	963.7	296.4	667.3	1,208.5	668.2	
2019 Jan.	6,252.9	4,333.5	3,366.6	2,917.4	188.8	260.4	966.9	299.2	667.7	1,232.6	686.9	
Feb.	6,243.9	4,343.3	3,382.0	2,932.6	189.2	260.2	961.3	296.6	664.7	1,221.0	679.6	
Mar.	6,392.0	4,373.9	3,414.7	2,963.7	189.7	261.3	959.2	293.9	665.3	1,265.4	752.8	
Apr.	6,408.7	4,379.3	3,427.3	2,976.4	189.1	261.9	951.9	294.8	657.1	1,278.2	751.2	
May	6,524.8	4,402.6	3,446.8	2,995.6	190.0	261.1	955.8	293.1	662.8	1,284.5	837.7	
June	6,619.8	4,431.8	3,473.1	3,017.0	194.4	261.7	958.6	291.2	667.5	1,294.2	893.7	
July	6,698.2	4,445.3	3,481.1	3,024.8	194.0	262.3	964.2	293.7	670.5	1,312.3	940.7	
Aug.	6,973.5	4,478.6	3,501.8	3,044.3	196.5	261.0	976.8	293.5	683.3	1,330.9	1,163.9	
Sep.	6,872.6	4,462.9	3,497.0	3,040.4	196.0	260.5	965.9	288.3	677.6	1,311.9	1,097.8	
Oct.	6,769.9	4,466.0	3,506.4	3,049.0	195.9	261.4	959.5	291.6	667.9	1,303.7	1,000.3	
Nov.	6,785.4	4,490.1	3,527.4	3,064.8	199.7	262.9	962.6	292.6	670.0	1,289.6	1,005.8	
Dec.	6,716.1	4,480.4	3,527.3	3,064.0	197.9	265.4	953.1	288.5	664.6	1,236.4	999.3	
2020 Jan.	6,847.7	4,503.3	3,537.5	3,071.5	198.2	267.8	965.8	292.8	673.0	1,290.1	1,054.4	
Feb.	7,028.5	4,531.0	3,562.2	3,092.6	203.2	266.4	968.8	290.8	678.0	1,306.1	1,191.4	
Mar.	7,148.1	4,567.1	3,589.0	3,128.9	202.1	258.0	978.1	292.4	685.7	1,321.3	1,259.6	
Apr.	7,258.0	4,605.2	3,606.5	3,143.8	206.5	256.1	998.7	294.8	703.9	1,346.6	1,306.2	
May	7,230.4	4,666.4	3,640.1	3,167.2	215.9	257.1	1,026.2	293.8	732.5	1,326.0	1,238.1	
June	7,225.3	4,692.6	3,641.6	3,164.7	220.4	256.6	1,051.0	291.5	759.6	1,304.2	1,228.5	
July	7,267.7	4,718.9	3,635.4	3,175.6	203.1	256.7	1,083.5	293.4	790.0	1,283.0	1,265.9	

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

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 month
										Euro area (€ billion) [1]
1,137.6	12,613.5	11,776.6	11,843.5	6,623.2	821.3	214.9	1,895.3	2,235.2	53.7	2018 June
1,145.3	12,605.9	11,760.3	11,825.5	6,603.4	817.0	212.1	1,900.1	2,239.8	53.1	July
1,148.3	12,595.3	11,752.9	11,802.7	6,593.5	812.0	208.9	1,890.6	2,245.0	52.7	Aug.
1,150.4	12,662.2	11,780.0	11,831.5	6,656.7	796.3	205.9	1,878.0	2,242.3	52.3	Sep.
1,152.2	12,639.5	11,788.3	11,848.3	6,668.8	812.8	203.6	1,872.0	2,239.0	52.1	Oct.
1,157.5	12,719.4	11,861.8	11,912.4	6,750.6	801.6	200.7	1,866.9	2,241.2	51.3	Nov.
1,175.4	12,713.3	11,926.3	11,989.2	6,799.1	800.5	200.7	1,888.7	2,248.7	51.5	Dec.
1,162.4	12,768.0	11,911.1	11,976.6	6,777.8	798.0	199.4	1,888.0	2,262.2	51.3	2019 Jan.
1,165.6	12,833.0	11,959.7	12,005.4	6,806.3	795.2	196.8	1,887.9	2,268.0	51.2	Feb.
1,171.7	12,947.7	12,078.5	12,135.0	6,931.6	785.8	199.5	1,886.3	2,280.5	51.3	Mar.
1,179.1	12,958.1	12,120.9	12,180.6	6,970.5	788.5	201.8	1,880.4	2,287.8	51.5	Apr.
1,184.2	13,059.3	12,198.6	12,257.0	7,049.7	775.7	201.4	1,876.7	2,301.5	52.1	May
1,191.7	13,181.7	12,288.1	12,335.7	7,122.9	762.3	198.3	1,894.2	2,304.7	53.2	June
1,200.7	13,178.8	12,300.1	12,350.5	7,148.0	767.4	198.9	1,873.6	2,309.0	53.7	July
1,202.0	13,283.3	12,388.8	12,438.5	7,227.7	782.1	201.0	1,860.5	2,313.8	53.4	Aug.
1,205.2	13,298.4	12,383.2	12,446.2	7,222.9	768.9	200.8	1,886.9	2,313.7	53.0	Sep.
1,208.2	13,292.6	12,422.6	12,487.1	7,284.6	758.4	201.3	1,883.1	2,310.5	49.4	Oct.
1,214.7	13,388.9	12,520.7	12,572.4	7,387.7	740.7	200.6	1,885.1	2,309.7	48.6	Nov.
1,231.5	13,311.3	12,508.3	12,583.4	7,391.8	738.6	200.2	1,892.5	2,314.2	46.2	Dec.
1,223.8	13,359.5	12,460.6	12,555.4	7,362.8	734.6	200.1	1,890.8	2,322.3	44.7	2020 Jan.
1,229.0	13,477.0	12,528.4	12,615.5	7,430.7	731.7	198.6	1,888.4	2,322.0	44.1	Feb.
1,252.7	13,774.3	12,781.8	12,902.7	7,697.8	759.6	192.1	1,882.6	2,327.5	43.1	Mar.
1,273.5	13,995.4	12,952.4	13,064.6	7,852.0	762.5	188.2	1,876.4	2,343.3	42.1	Apr.
1,293.5	14,300.6	13,161.8	13,262.7	8,009.3	779.9	188.4	1,880.1	2,363.6	41.4	May
1,306.6	14,475.0	13,205.8	13,307.5	8,065.8	763.6	186.8	1,875.1	2,375.6	40.6	June
1,320.9	14,590.9	13,272.7	13,361.5	8,090.4	783.0	186.1	1,880.5	2,381.0	40.4	July
										German contribution (€ billion)
252.7	3,716.5	3,574.0	3,423.0	2,039.4	165.5	32.6	607.2	538.5	39.8	2018 June
256.0	3,694.1	3,571.0	3,429.7	2,053.1	161.2	32.2	605.8	538.0	39.4	July
256.4	3,703.1	3,568.1	3,417.3	2,051.8	153.7	34.0	601.1	537.7	38.9	Aug.
256.1	3,737.2	3,588.3	3,437.1	2,076.9	153.2	33.2	597.4	537.8	38.6	Sep.
256.3	3,730.6	3,595.8	3,453.9	2,092.2	155.1	33.6	596.9	538.0	38.1	Oct.
257.2	3,774.2	3,632.0	3,482.3	2,127.4	149.8	33.2	595.9	538.5	37.4	Nov.
260.0	3,766.4	3,629.3	3,481.1	2,120.4	152.5	33.7	596.7	540.6	37.2	Dec.
267.6	3,737.2	3,622.2	3,471.2	2,113.7	154.3	33.5	592.1	540.9	36.7	2019 Jan.
268.0	3,747.2	3,634.2	3,474.2	2,117.5	153.9	33.2	591.0	541.8	36.7	Feb.
269.1	3,785.8	3,652.3	3,490.2	2,136.2	152.2	33.0	587.7	544.0	37.1	Mar.
271.3	3,782.3	3,667.4	3,506.4	2,156.4	151.2	32.8	584.8	544.1	37.2	Apr.
272.1	3,824.2	3,689.1	3,523.2	2,176.6	149.4	32.7	582.9	543.7	37.9	May
274.2	3,837.7	3,697.8	3,528.6	2,183.2	147.8	32.3	583.5	543.3	38.4	June
277.3	3,812.4	3,701.4	3,532.6	2,191.7	147.0	31.6	581.4	542.7	38.1	July
276.6	3,849.7	3,730.3	3,550.9	2,213.2	149.7	31.7	576.9	541.5	37.8	Aug.
277.4	3,853.5	3,722.1	3,546.0	2,213.9	146.4	31.5	576.1	540.8	37.2	Sep.
277.6	3,848.5	3,734.8	3,571.5	2,240.3	148.6	31.2	575.2	539.9	36.4	Oct.
278.4	3,874.7	3,753.7	3,580.0	2,257.7	143.0	30.8	573.7	539.2	35.6	Nov.
281.8	3,863.9	3,744.4	3,574.3	2,250.5	144.8	31.0	573.5	540.0	34.5	Dec.
281.2	3,850.4	3,733.8	3,572.3	2,255.2	145.3	31.0	570.6	537.2	33.0	2020 Jan.
281.3	3,890.4	3,750.4	3,576.3	2,265.3	142.0	31.3	569.8	535.4	32.5	Feb.
282.2	3,982.8	3,830.4	3,655.2	2,346.4	147.3	30.5	567.2	532.0	31.8	Mar.
286.5	3,997.3	3,828.9	3,665.7	2,359.6	149.2	30.0	563.6	532.2	31.1	Apr.
291.8	4,080.7	3,885.8	3,710.9	2,396.9	158.3	29.0	563.6	532.5	30.7	May
296.5	4,132.2	3,873.6	3,711.6	2,408.7	152.1	29.6	559.0	532.6	29.7	June
300.4	4,170.7	3,880.3	3,716.8	2,409.9	163.4	30.0	552.8	531.5	29.2	July

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 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												
		Other general government											
				With agreed maturities of			At agreed notice of 2						
	Central government	Total	Overnight	up to 1 year	over 1 year and up to 2 years	over 2 years	up to 3 months	over 3 months	Total	of which: Enterprises and households		Total	of which: Denominated in euro
	Euro area (€ billion) 1												
2018 June	366.7	403.3	199.6	91.7	29.9	51.9	25.7	4.7	247.4	246.8	498.4	2,095.8	1,438.6
July	374.6	405.8	203.3	88.4	30.9	52.8	25.7	4.7	254.0	253.5	509.0	2,077.8	1,432.3
Aug.	377.4	415.1	208.7	90.6	31.0	54.4	25.9	4.6	257.8	257.3	507.3	2,084.9	1,439.1
Sep.	414.4	416.3	211.2	87.8	32.4	54.8	25.5	4.6	247.2	246.7	486.2	2,109.6	1,457.3
Oct.	375.6	415.5	213.2	84.0	32.3	55.7	25.8	4.5	237.4	236.9	511.5	2,165.4	1,474.6
Nov.	383.1	423.9	218.9	85.1	33.6	56.3	25.7	4.3	268.8	268.4	511.8	2,162.9	1,469.0
Dec.	322.5	401.6	203.7	78.7	34.2	56.9	23.8	4.3	254.5	254.2	513.3	2,158.0	1,471.8
2019 Jan.	389.2	402.2	196.8	86.0	34.9	55.8	24.2	4.5	270.1	269.6	524.5	2,176.2	1,484.6
Feb.	407.9	419.6	207.3	92.2	34.2	56.3	25.1	4.5	270.5	269.7	516.3	2,205.0	1,506.2
Mar.	386.0	426.7	212.1	92.6	35.4	56.7	25.5	4.4	272.7	272.3	520.2	2,185.7	1,489.6
Apr.	352.9	424.6	212.2	91.4	34.5	56.9	25.3	4.4	295.0	294.6	532.3	2,174.9	1,488.0
May	370.7	431.6	216.9	94.9	33.4	57.0	25.1	4.3	287.4	287.0	522.6	2,191.0	1,497.2
June	404.2	441.8	224.4	94.6	35.1	58.1	25.2	4.4	266.0	265.7	510.6	2,182.2	1,493.8
July	391.2	437.1	221.5	93.8	34.1	58.2	25.2	4.4	284.1	283.8	533.0	2,189.1	1,492.7
Aug.	397.4	447.4	228.3	97.2	34.1	58.3	25.3	4.3	289.0	288.5	550.9	2,173.6	1,484.1
Sep.	402.9	449.3	231.4	98.0	31.7	58.9	25.0	4.2	257.0	256.5	537.1	2,181.1	1,484.7
Oct.	365.0	440.5	224.5	95.5	32.3	59.1	25.2	3.9	298.8	298.3	538.6	2,174.5	1,488.3
Nov.	363.9	452.6	235.7	95.5	33.8	59.1	24.8	3.8	284.3	283.7	541.6	2,187.8	1,493.0
Dec.	297.4	430.4	224.7	85.9	33.7	59.1	23.6	3.6	250.3	249.8	520.3	2,154.0	1,486.9
2020 Jan.	381.8	422.3	209.6	92.6	33.2	59.5	23.2	4.1	243.4	242.9	555.2	2,187.8	1,500.3
Feb.	425.5	436.0	219.8	96.8	32.8	59.2	23.3	4.0	263.2	262.7	550.5	2,191.5	1,497.9
Mar.	430.2	441.4	232.8	93.3	31.0	58.2	22.3	3.9	293.2	292.6	531.0	2,177.2	1,484.2
Apr.	502.3	428.6	233.8	84.0	29.4	56.4	21.1	3.8	289.0	288.6	554.9	2,160.0	1,472.9
May	603.1	434.7	245.8	81.7	28.4	54.7	20.3	3.8	297.8	297.5	555.0	2,134.7	1,470.7
June	726.5	441.1	259.4	82.4	24.6	51.8	19.4	3.4	254.8	254.6	569.5	2,107.4	1,454.8
July	788.0	441.3	264.1	80.1	23.2	51.0	19.4	3.5	271.8	271.6	606.2	2,058.8	1,437.1
	German contribution (€ billion)												
2018 June	69.1	224.5	70.7	79.2	25.6	45.3	3.1	0.6	1.3	1.3	2.0	531.3	274.8
July	48.1	216.4	63.4	76.6	26.5	46.2	3.1	0.6	1.8	1.8	1.9	526.6	277.0
Aug.	61.7	224.1	67.3	78.9	26.4	47.7	3.1	0.6	1.2	1.2	1.9	527.7	282.0
Sep.	73.9	226.2	69.6	76.9	27.8	48.3	3.1	0.6	1.3	1.3	1.9	536.3	287.6
Oct.	56.1	220.6	66.1	73.9	28.0	48.9	3.1	0.6	2.4	2.4	1.9	544.5	286.9
Nov.	65.7	226.3	69.4	74.8	28.7	49.7	3.1	0.7	1.3	1.3	2.2	544.9	290.3
Dec.	60.3	225.0	74.6	67.5	29.3	49.9	3.0	0.6	0.8	0.8	2.2	532.5	283.4
2019 Jan.	41.8	224.2	67.1	74.8	30.0	48.7	3.0	0.6	1.7	1.7	2.2	546.6	294.1
Feb.	38.8	234.3	71.8	80.3	29.3	49.1	3.1	0.6	2.0	2.0	2.2	560.4	302.9
Mar.	56.4	239.2	75.9	80.0	30.3	49.4	3.1	0.6	11.4	11.4	2.0	557.3	298.2
Apr.	41.2	234.7	73.6	78.4	29.4	49.6	3.1	0.6	12.5	12.5	1.9	552.8	293.5
May	60.3	240.7	77.4	81.7	28.3	49.6	3.2	0.5	11.2	11.2	2.0	560.1	300.1
June	64.0	245.1	80.4	81.5	29.0	50.6	3.1	0.5	12.9	12.9	2.0	558.0	301.8
July	36.9	242.9	79.6	80.7	28.2	50.8	3.1	0.5	13.9	13.9	2.0	559.4	296.9
Aug.	47.6	251.2	84.7	83.8	28.1	50.9	3.2	0.5	16.9	16.7	2.0	557.3	295.0
Sep.	57.3	250.3	84.6	85.0	25.8	51.1	3.1	0.5	1.5	1.3	2.2	563.5	297.7
Oct.	37.4	239.6	76.3	82.4	26.1	51.3	3.1	0.5	1.2	1.0	2.1	555.2	299.2
Nov.	45.4	249.3	83.4	83.9	27.4	51.1	3.1	0.5	1.7	1.5	1.9	560.4	302.2
Dec.	43.4	246.2	89.5	75.4	27.0	51.0	2.9	0.4	3.5	3.4	1.8	551.4	301.6
2020 Jan.	37.8	240.2	77.8	81.4	26.6	51.3	2.7	0.4	2.5	2.4	1.8	560.9	306.5
Feb.	62.2	251.9	85.5	86.0	26.3	50.9	2.8	0.4	2.0	1.8	1.8	563.9	310.3
Mar.	69.7	257.9	97.6	82.5	24.7	49.8	2.8	0.4	1.7	1.6	2.2	553.0	310.7
Apr.	87.5	244.0	94.7	74.4	23.7	48.3	2.7	0.4	3.4	3.3	2.1	550.6	306.2
May	116.2	253.6	108.0	72.9	22.9	46.7	2.8	0.3	2.4	2.3	1.9	543.1	305.4
June	174.0	246.5	106.1	74.1	19.5	44.0	2.5	0.3	0.9	0.7	1.8	532.8	297.2
July	208.5	245.3	109.6	71.4	18.3	43.2	2.5	0.3	2.1	2.0	1.6	523.3	293.4

* 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 euro banknotes

II. Overall monetary survey in the euro area

issued (net) [3]						Other liability items		Memo item: Monetary aggregates [7] (from 2002 German contribution excludes currency in circulation)					
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 month
Euro area (€ billion) [1]													
38.6	28.9	2,028.3	4,564.0	2,672.3	24.1	2,911.9	–	8,086.6	11,529.1	12,168.0	6,706.1	150.2	2018 June
37.8	24.1	2,015.9	4,612.7	2,667.5	7.1	2,891.1	–	8,080.6	11,518.5	12,159.0	6,693.9	152.4	July
39.8	24.1	2,020.9	4,649.3	2,663.2	17.7	2,884.1	–	8,082.1	11,519.2	12,166.7	6,686.5	155.5	Aug.
40.6	22.1	2,046.9	4,574.8	2,663.2	23.4	2,846.0	–	8,152.5	11,566.5	12,185.1	6,699.8	157.9	Sep.
39.6	23.7	2,102.1	4,704.7	2,709.2	– 14.4	2,971.7	–	8,160.1	11,581.4	12,226.4	6,795.6	149.7	Oct.
38.9	21.7	2,102.3	4,659.6	2,711.2	6.6	3,018.8	–	8,256.6	11,668.3	12,313.3	6,792.3	153.3	Nov.
47.5	20.7	2,089.8	4,503.3	2,727.3	8.7	2,936.1	–	8,302.9	11,714.7	12,363.6	6,818.5	149.8	Dec.
36.3	23.9	2,116.1	4,696.6	2,752.7	10.8	3,031.2	–	8,264.1	11,693.2	12,349.0	6,868.4	151.7	2019 Jan.
33.2	26.1	2,145.8	4,661.2	2,740.5	15.1	3,029.3	–	8,305.1	11,741.1	12,389.0	6,886.1	150.4	Feb.
16.0	22.5	2,147.2	4,647.4	2,766.8	23.2	3,198.4	–	8,442.9	11,886.7	12,519.2	6,912.7	151.9	Mar.
17.0	21.4	2,136.5	4,770.1	2,761.0	14.1	3,202.5	–	8,488.9	11,942.5	12,591.4	6,890.6	151.5	Apr.
23.4	22.1	2,145.4	4,776.2	2,774.6	26.3	3,364.1	–	8,576.2	12,032.4	12,675.1	6,910.2	149.7	May
20.0	21.6	2,140.6	4,640.6	2,830.3	33.7	3,469.1	–	8,670.3	12,114.6	12,741.2	6,980.8	155.2	June
16.1	21.3	2,151.6	4,796.8	2,878.9	25.8	3,685.2	–	8,699.0	12,150.2	12,798.2	7,020.3	151.7	July
2.7	20.7	2,150.1	4,854.7	2,940.4	– 2.9	4,083.0	–	8,787.9	12,264.2	12,915.0	7,067.0	152.7	Aug.
3.2	19.0	2,158.9	4,803.5	2,942.8	25.6	3,943.0	–	8,789.8	12,251.1	12,883.2	7,104.7	153.4	Sep.
7.5	19.9	2,147.1	4,768.1	2,935.0	34.3	3,716.0	–	8,847.2	12,293.4	12,936.7	7,077.5	152.9	Oct.
6.8	19.5	2,161.5	4,770.3	2,922.8	31.6	3,675.8	–	8,972.4	12,401.2	13,041.6	7,080.9	157.9	Nov.
– 11.3	19.2	2,146.1	4,452.2	2,913.8	25.2	3,469.5	–	8,975.4	12,396.0	12,995.6	7,061.3	152.0	Dec.
– 0.4	21.9	2,166.3	4,759.3	2,951.2	24.8	3,715.8	–	8,927.1	12,357.3	13,006.3	7,116.6	154.9	2020 Jan.
3.6	23.4	2,164.5	4,817.2	2,967.9	26.9	3,963.1	–	9,012.5	12,441.7	13,104.5	7,128.2	156.9	Feb.
32.0	21.6	2,123.6	4,906.1	2,930.7	13.0	4,143.3	–	9,311.8	12,761.4	13,455.7	7,042.2	152.5	Mar.
13.4	21.5	2,125.1	5,048.2	2,947.0	– 25.3	4,204.6	–	9,490.2	12,940.8	13,632.0	7,050.8	153.0	Apr.
4.4	22.3	2,108.0	4,946.1	2,952.8	– 33.2	4,049.0	–	9,681.5	13,165.8	13,848.8	7,040.7	154.7	May
0.7	21.1	2,085.6	4,710.5	2,977.9	– 3.7	4,004.1	–	9,768.2	13,242.2	13,929.9	7,034.5	158.0	June
– 10.0	20.3	2,048.4	4,727.2	3,019.7	– 50.8	4,120.9	–	9,811.0	13,305.5	14,034.0	7,043.6	157.2	July
German contribution (€ billion)													
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	–	2018 June
16.7	11.9	498.0	967.9	665.4	– 1,019.3	1,250.8	381.6	2,116.5	2,954.1	2,986.4	1,855.4	–	July
18.3	12.0	497.4	966.5	672.6	– 1,024.8	1,273.6	386.9	2,119.1	2,953.0	2,986.4	1,858.4	–	Aug.
17.8	11.0	507.4	979.8	670.9	– 1,059.4	1,251.7	390.8	2,146.5	2,978.4	3,010.4	1,863.3	–	Sep.
20.2	11.0	513.2	952.8	676.1	– 1,031.2	1,277.1	394.6	2,158.3	2,990.0	3,025.5	1,873.8	–	Oct.
19.4	10.3	515.2	932.7	675.8	– 1,041.8	1,288.0	397.1	2,196.8	3,024.9	3,058.2	1,874.7	–	Nov.
17.7	10.1	504.6	967.9	689.9	– 1,063.4	1,297.9	401.1	2,195.0	3,021.7	3,052.5	1,879.0	–	Dec.
18.2	9.6	518.7	920.7	690.0	– 971.6	1,326.1	391.5	2,180.7	3,017.3	3,049.1	1,886.9	–	2019 Jan.
19.1	8.2	533.2	882.8	684.4	– 966.0	1,330.9	394.4	2,189.4	3,030.9	3,062.3	1,895.1	–	Feb.
19.2	8.3	529.8	958.7	695.9	– 1,031.3	1,412.2	396.9	2,212.1	3,054.7	3,095.5	1,900.4	–	Mar.
18.6	8.2	525.9	953.9	692.7	– 985.8	1,398.5	400.8	2,230.0	3,069.0	3,110.2	1,890.7	–	Apr.
18.9	8.4	532.9	944.9	702.5	– 1,016.3	1,496.1	404.8	2,254.0	3,093.0	3,133.5	1,906.3	–	May
19.7	7.6	530.7	957.2	722.3	– 1,013.1	1,542.9	407.8	2,263.6	3,100.7	3,142.8	1,926.0	–	June
19.7	7.9	531.9	925.0	735.6	– 950.3	1,600.3	411.4	2,271.3	3,104.7	3,148.2	1,938.3	–	July
20.3	7.6	529.4	944.3	757.0	– 980.7	1,826.9	417.2	2,297.9	3,135.9	3,182.8	1,952.6	–	Aug.
22.3	7.4	533.8	927.2	755.6	– 992.1	1,761.2	422.1	2,298.5	3,131.2	3,164.7	1,954.3	–	Sep.
20.7	6.7	527.8	867.4	750.0	– 918.5	1,664.0	426.3	2,316.5	3,147.7	3,178.4	1,941.3	–	Oct.
21.4	5.8	533.1	877.7	749.1	– 951.9	1,671.9	430.8	2,341.2	3,168.5	3,199.3	1,943.1	–	Nov.
21.0	6.1	524.3	863.5	750.1	– 999.8	1,681.4	435.8	2,340.1	3,161.1	3,193.6	1,933.9	–	Dec.
23.9	6.7	530.2	831.0	757.2	– 900.5	1,744.6	437.9	2,333.0	3,157.1	3,192.1	1,942.8	–	2020 Jan.
21.7	6.8	535.4	850.2	764.8	– 912.0	1,867.4	442.7	2,350.9	3,174.6	3,207.0	1,953.8	–	Feb.
18.4	6.3	528.3	901.4	757.6	– 990.7	1,940.1	455.0	2,444.0	3,263.9	3,292.5	1,935.1	–	Mar.
15.9	6.9	527.8	942.0	759.1	– 1,003.6	2,007.1	458.2	2,454.3	3,266.4	3,294.7	1,930.3	–	Apr.
14.9	7.3	520.8	917.3	756.1	– 1,003.8	1,932.8	458.5	2,505.0	3,323.2	3,349.8	1,918.3	–	May
14.8	7.1	510.9	939.7	769.1	– 1,074.1	1,923.1	458.1	2,514.8	3,325.2	3,349.7	1,913.0	–	June
12.8	6.7	503.8	907.0	784.6	– 1,089.1	1,967.5	460.5	2,519.5	3,336.8	3,360.0	1,913.8	–	July

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												
2018 July	635.1	2.1	744.2	0.1	2,558.4	652.2	0.0	1,183.6	263.4	533.8	1,306.9	3,142.6
Aug.	.	.	.	.	.	.	.	.	.	.	.	.
Sep.	637.5	3.0	739.9	0.1	2,589.7	671.2	0.0	1,192.2	239.1	519.1	1,348.7	3,212.0
Oct.	625.2	6.9	727.8	0.1	2,622.8	631.8	0.0	1,194.3	283.1	504.4	1,369.0	3,195.1
Nov.	.	.	.	.	.	.	.	.	.	.	.	.
Dec.	625.1	6.8	726.4	0.1	2,642.3	635.9	0.0	1,202.4	240.2	542.9	1,379.4	3,217.7
2019 Jan.	655.8	7.9	723.8	0.1	2,652.8	640.0	0.0	1,218.8	231.3	618.2	1,332.1	3,190.9
Feb.	.	.	.	.	.	.	.	.	.	.	.	.
Mar.	665.5	6.0	723.1	0.1	2,645.8	637.6	0.0	1,209.2	257.3	571.4	1,364.8	3,211.7
Apr.	678.6	5.7	720.3	0.1	2,635.9	619.6	0.0	1,215.8	270.5	555.6	1,379.0	3,214.4
May	.	.	.	.	.	.	.	.	.	.	.	.
June	689.7	5.5	718.6	0.4	2,630.6	601.9	0.0	1,228.2	248.2	561.9	1,404.6	3,234.7
July	710.3	4.6	700.1	0.0	2,620.4	570.8	0.0	1,240.8	295.9	592.2	1,335.7	3,147.4
Aug.	.	.	.	.	.	.	.	.	.	.	.	.
Sep.	720.2	3.0	692.5	0.0	2,612.4	555.7	0.0	1,251.1	268.5	621.2	1,331.5	3,138.3
Oct.	758.5	2.0	668.5	0.0	2,608.7	456.6	0.0	1,252.7	298.6	641.3	1,388.5	3,097.8
Nov.	.	.	.	.	.	.	.	.	.	.	.	.
Dec.	773.3	1.8	663.7	0.0	2,618.8	257.9	0.0	1,262.9	226.6	648.1	1,662.1	3,182.9
2020 Jan.	768.6	2.9	616.1	0.0	2,639.1	254.6	0.0	1,282.2	211.8	654.3	1,623.7	3,160.6
Feb.	.	.	.	.	.	.	.	.	.	.	.	.
Mar.	767.1	1.4	615.9	0.0	2,666.7	244.6	0.0	1,277.1	268.6	618.4	1,642.3	3,164.1
Apr.	.	.	.	.	.	.	.	.	.	.	.	.
May	926.3	0.6	865.7	0.0	2,784.2	271.8	0.0	1,321.9	374.4	788.6	1,820.2	3,413.8
June	950.4	0.3	984.2	0.0	2,986.9	299.9	0.0	1,347.9	477.1	830.5	1,966.5	3,614.4
July	871.3	0.8	1,401.5	0.0	3,168.2	356.0	0.0	1,365.7	671.2	703.1	2,345.9	4,067.5
Aug.	.	.	.	.	.	.	.	.	.	.	.	.
Deutsche Bundesbank												
2018 July	151.9	0.4	91.8	0.0	547.6	196.8	0.0	280.0	69.4	– 194.1	439.6	916.4
Aug.	.	.	.	.	.	.	.	.	.	.	.	.
Sep.	152.1	0.4	91.5	0.0	556.2	192.9	0.0	282.0	65.2	– 178.9	439.0	913.9
Oct.	148.1	0.5	88.5	0.0	563.5	160.0	0.0	282.6	81.3	– 183.4	460.0	902.6
Nov.	.	.	.	.	.	.	.	.	.	.	.	.
Dec.	146.9	0.6	88.1	0.0	570.0	148.0	0.0	283.6	69.6	– 185.2	489.5	921.2
2019 Jan.	155.8	1.7	87.6	0.1	570.4	153.1	0.0	293.4	60.5	– 144.9	453.7	900.1
Feb.	.	.	.	.	.	.	.	.	.	.	.	.
Mar.	158.3	0.6	87.6	0.0	569.5	163.3	0.0	294.3	49.3	– 157.0	466.0	923.7
Apr.	160.8	0.6	86.7	0.0	563.7	172.5	0.0	296.1	61.2	– 199.4	481.6	950.1
May	.	.	.	.	.	.	.	.	.	.	.	.
June	163.6	0.6	86.1	0.0	565.2	166.3	0.0	299.6	58.0	– 213.6	505.3	971.1
July	169.4	0.7	85.3	0.0	563.1	150.1	0.0	303.0	65.7	– 175.0	474.5	927.7
Aug.	.	.	.	.	.	.	.	.	.	.	.	.
Sep.	172.5	0.5	84.9	0.0	562.7	150.1	0.0	305.6	57.6	– 157.6	464.9	920.6
Oct.	182.8	0.4	82.8	0.0	560.0	151.5	0.0	306.5	70.8	– 159.4	456.6	914.7
Nov.	.	.	.	.	.	.	.	.	.	.	.	.
Dec.	186.9	0.4	82.4	0.0	566.1	82.2	0.0	307.6	55.9	– 135.3	525.4	915.3
2020 Jan.	186.0	0.9	74.0	0.0	567.9	73.6	0.0	311.7	52.7	– 95.7	486.5	871.8
Feb.	.	.	.	.	.	.	.	.	.	.	.	.
Mar.	185.0	0.4	74.0	0.0	573.7	65.4	0.0	311.2	64.4	– 125.0	517.1	893.7
Apr.	.	.	.	.	.	.	.	.	.	.	.	.
May	238.0	0.2	106.8	0.0	585.3	76.3	0.0	324.1	102.0	– 174.5	602.8	1,003.2
June	248.7	0.1	122.5	0.0	623.1	85.0	0.0	326.4	137.6	– 172.6	618.1	1,029.5
July	222.1	0.5	235.2	0.0	655.9	108.2	0.0	331.5	205.0	– 238.1	707.1	1,146.8
Aug.	.	.	.	.	.	.	.	.	.	.	.	.

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												
+ 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 July
.	.	.	.	.	.	.	.	.	.	.	.	Aug.
+ 2.4	+ 0.9	– 4.3	± 0.0	+ 31.3	+ 19.0	± 0.0	+ 8.6	– 24.3	– 14.7	+ 41.8	+ 69.4	Sep.
– 12.3	+ 3.9	– 12.1	± 0.0	+ 33.1	– 39.4	± 0.0	+ 2.1	+ 44.0	– 14.7	+ 20.3	– 16.9	Oct.
.	.	.	.	.	.	.	.	.	.	.	.	Nov.
– 0.1	– 0.1	– 1.4	± 0.0	+ 19.5	+ 4.1	± 0.0	+ 8.1	– 42.9	+ 38.5	+ 10.4	+ 22.6	Dec.
+ 30.7	+ 1.1	– 2.6	± 0.0	+ 10.5	+ 4.1	± 0.0	+ 16.4	– 8.9	+ 75.3	– 47.3	– 26.8	2019 Jan.
.	.	.	.	.	.	.	.	.	.	.	.	Feb.
+ 9.7	– 1.9	– 0.7	± 0.0	– 7.0	– 2.4	± 0.0	– 9.6	+ 26.0	– 46.8	+ 32.7	+ 20.8	Mar.
+ 13.1	– 0.3	– 2.8	± 0.0	– 9.9	– 18.0	± 0.0	+ 6.6	+ 13.2	– 15.8	+ 14.2	+ 2.7	Apr.
.	.	.	.	.	.	.	.	.	.	.	.	May
+ 11.1	– 0.2	– 1.7	+ 0.3	– 5.3	– 17.7	± 0.0	+ 12.4	– 22.3	+ 6.3	+ 25.6	+ 20.3	June
+ 20.6	– 0.9	– 18.5	– 0.4	– 10.2	– 31.1	± 0.0	+ 12.6	+ 47.7	+ 30.3	– 68.9	– 87.3	July
.	.	.	.	.	.	.	.	.	.	.	.	Aug.
+ 9.9	– 1.6	– 7.6	± 0.0	– 8.0	– 15.1	± 0.0	+ 10.3	– 27.4	+ 29.0	– 4.2	– 9.1	Sep.
+ 38.3	– 1.0	– 24.0	± 0.0	– 3.7	– 99.1	± 0.0	+ 1.6	+ 30.1	+ 20.1	+ 57.0	– 40.5	Oct.
.	.	.	.	.	.	.	.	.	.	.	.	Nov.
+ 14.8	– 0.2	– 4.8	± 0.0	+ 10.1	–198.7	± 0.0	+ 10.2	– 72.0	+ 6.8	+ 273.6	+ 85.1	Dec.
– 4.7	+ 1.1	– 47.6	± 0.0	+ 20.3	– 3.3	± 0.0	+ 19.3	– 14.8	+ 6.2	– 38.4	– 22.3	2020 Jan.
.	.	.	.	.	.	.	.	.	.	.	.	Feb.
– 1.5	– 1.5	– 0.2	± 0.0	+ 27.6	– 10.0	± 0.0	– 5.1	+ 56.8	– 35.9	+ 18.6	+ 3.5	Mar.
.	.	.	.	.	.	.	.	.	.	.	.	Apr.
+ 159.2	– 0.8	+ 249.8	± 0.0	+ 117.5	+ 27.2	± 0.0	+ 44.8	+ 105.8	+170.2	+ 177.9	+ 249.7	May
+ 24.1	– 0.3	+ 118.5	± 0.0	+ 202.7	+ 28.1	± 0.0	+ 26.0	+ 102.7	+ 41.9	+ 146.3	+ 200.6	June
– 79.1	+ 0.5	+ 417.3	± 0.0	+ 181.3	+ 56.1	± 0.0	+ 17.8	+ 194.1	–127.4	+ 379.4	+ 453.1	July
.	.	.	.	.	.	.	.	.	.	.	.	Aug.
Deutsche Bundesbank												
+ 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 July
.	.	.	.	.	.	.	.	.	.	.	.	Aug.
+ 0.2	+ 0.0	– 0.3	– 0.0	+ 8.6	– 3.9	± 0.0	+ 2.0	– 4.2	+ 15.2	– 0.6	– 2.5	Sep.
– 4.0	+ 0.0	– 3.0	+ 0.0	+ 7.3	– 32.9	± 0.0	+ 0.6	+ 16.1	– 4.5	+ 21.1	– 11.2	Oct.
.	.	.	.	.	.	.	.	.	.	.	.	Nov.
– 1.1	+ 0.1	– 0.5	+ 0.0	+ 6.6	– 12.0	± 0.0	+ 1.1	– 11.7	– 1.8	+ 29.5	+ 18.5	Dec.
+ 8.8	+ 1.2	– 0.4	+ 0.0	+ 0.4	+ 5.0	± 0.0	+ 9.7	– 9.2	+ 40.2	– 35.9	– 21.1	2019 Jan.
.	.	.	.	.	.	.	.	.	.	.	.	Feb.
+ 2.5	– 1.1	– 0.1	– 0.1	– 0.9	+ 10.3	± 0.0	+ 1.0	– 11.2	– 12.0	+ 12.3	+ 23.6	Mar.
+ 2.6	– 0.0	– 0.9	+ 0.0	– 5.8	+ 9.1	± 0.0	+ 1.8	+ 12.0	– 42.5	+ 15.6	+ 26.5	Apr.
.	.	.	.	.	.	.	.	.	.	.	.	May
+ 2.8	+ 0.0	– 0.6	– 0.0	+ 1.4	– 6.2	± 0.0	+ 3.5	– 3.2	– 14.2	+ 23.7	+ 21.0	June
+ 5.7	+ 0.0	– 0.9	+ 0.0	– 2.1	– 16.2	± 0.0	+ 3.5	+ 7.6	+ 38.6	– 30.7	– 43.5	July
.	.	.	.	.	.	.	.	.	.	.	.	Aug.
+ 3.2	– 0.2	– 0.4	– 0.0	– 0.4	+ 0.0	± 0.0	+ 2.5	– 8.1	+ 17.4	– 9.6	– 7.1	Sep.
+ 10.3	– 0.1	– 2.1	+ 0.0	– 2.7	+ 1.4	± 0.0	+ 1.0	+ 13.2	– 1.8	– 8.3	– 5.9	Oct.
.	.	.	.	.	.	.	.	.	.	.	.	Nov.
+ 4.1	+ 0.0	– 0.4	+ 0.0	+ 6.1	– 69.3	± 0.0	+ 1.1	– 14.9	+ 24.1	+ 68.8	+ 0.6	Dec.
– 0.9	+ 0.4	– 8.5	+ 0.0	+ 1.8	– 8.6	± 0.0	+ 4.1	– 3.2	+ 39.6	– 38.9	– 43.5	2020 Jan.
.	.	.	.	.	.	.	.	.	.	.	.	Feb.
– 1.0	– 0.5	+ 0.0	– 0.0	+ 5.8	– 8.2	± 0.0	– 0.5	+ 11.7	– 29.3	+ 30.7	+ 21.9	Mar.
.	.	.	.	.	.	.	.	.	.	.	.	Apr.
+ 53.0	– 0.2	+ 32.9	– 0.0	+ 11.6	+ 10.9	± 0.0	+ 12.9	+ 37.6	– 49.6	+ 85.6	+ 109.5	May
+ 10.7	– 0.1	+ 15.7	+ 0.0	+ 37.8	+ 8.7	± 0.0	+ 2.3	+ 35.6	+ 2.0	+ 15.3	+ 26.3	June
– 26.6	+ 0.4	+ 112.6	– 0.0	+ 32.8	+ 23.2	± 0.0	+ 5.1	+ 67.5	– 65.5	+ 89.0	+ 117.3	July
.	.	.	.	.	.	.	.	.	.	.	.	Aug.

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

III. Consolidated financial statement of the Eurosystem

1. Assets *

€ billion

As at reporting date	Total assets	Gold and gold receivables	Claims on non-euro area residents denominated in foreign currency			Claims on euro area residents denominated in foreign currency	Claims on non-euro area residents denominated in euro		
			Total	Receivables from the IMF	Balances with banks, security investments, external loans and other external assets		Total	Balances with banks, security investments and loans	Claims arising from the credit facility under ERM II
Eurosystem [1]									
2020 Feb. 14	4,679.7	470.7	344.6	80.5	264.1	22.3	14.5	14.5	–
21	4,688.3	470.7	345.7	80.5	265.2	23.0	14.5	14.5	–
28	4,691.9	470.7	345.8	80.0	265.8	23.9	14.8	14.8	–
Mar. 6	4,702.2	470.7	346.4	80.0	266.4	24.0	16.6	16.6	–
13	4,704.2	470.7	348.9	80.0	268.9	22.8	14.7	14.7	–
20	4,927.3	470.7	349.3	80.0	269.3	124.4	13.9	13.9	–
27	5,062.7	470.6	349.9	80.0	269.9	139.3	13.9	13.9	–
Apr. 3	5,199.8	509.9	357.2	80.9	276.3	148.3	13.2	13.2	–
10	5,257.5	509.9	358.3	82.4	275.9	148.8	13.0	13.0	–
17	5,282.9	509.8	358.2	83.0	275.2	148.6	12.5	12.5	–
24	5,347.0	509.8	360.4	83.6	276.7	150.1	13.7	13.7	–
May 1	5,395.2	509.8	359.7	83.6	276.1	151.6	12.9	12.9	–
8	5,451.0	509.8	359.0	83.6	275.4	153.8	13.8	13.8	–
15	5,505.5	509.8	360.3	84.5	275.8	153.1	12.7	12.7	–
22	5,555.3	509.8	361.3	84.5	276.8	152.7	13.3	13.3	–
29	5,596.1	509.8	362.0	84.6	277.4	153.2	13.4	13.4	–
June 5	5,655.4	509.8	362.5	84.6	277.9	153.3	14.6	14.6	–
12	5,630.3	509.8	362.2	85.0	277.1	86.1	13.1	13.1	–
19	5,636.4	509.8	361.3	85.1	276.2	63.8	12.6	12.6	–
26	6,236.1	509.8	361.0	85.1	276.0	50.7	13.3	13.3	–
July 3	6,289.0	548.8	358.0	84.3	273.7	37.5	13.3	13.3	–
10	6,309.2	548.8	356.9	84.3	272.6	35.7	13.6	13.6	–
17	6,322.6	548.8	356.3	84.3	272.0	35.4	13.3	13.3	–
24	6,351.4	548.7	357.1	84.3	272.8	32.9	12.9	12.9	–
31	6,360.8	548.7	357.0	85.9	271.1	32.4	13.6	13.6	–
Aug. 7	6,385.3	548.7	357.1	85.8	271.3	29.9	12.7	12.7	–
14	6,404.7	548.7	357.1	85.8	271.3	29.7	12.8	12.8	–
21	6,424.0	548.7	357.9	85.8	272.0	28.5	12.7	12.7	–
28	6,440.2	548.8	358.6	85.8	272.8	27.8	11.5	11.5	–
Sep. 4	6,458.9	548.8	359.5	85.8	273.7	27.5	13.8	13.8	–
Deutsche Bundesbank									
2020 Feb. 14	1,694.8	146.6	53.8	20.7	33.1	0.0	1.2	1.2	–
21	1,697.1	146.6	54.3	20.7	33.6	0.0	1.1	1.1	–
28	1,714.7	146.6	54.4	20.6	33.8	0.0	1.4	1.4	–
Mar. 6	1,735.7	146.6	53.5	20.6	32.9	0.0	3.1	3.1	–
13	1,785.7	146.6	53.3	20.6	32.7	0.0	1.3	1.3	–
20	1,843.9	146.6	52.7	20.6	32.1	39.0	1.0	1.0	–
27	1,864.1	146.5	52.9	20.6	32.3	37.5	1.5	1.5	–
Apr. 3	1,916.4	158.7	54.9	20.8	34.1	43.8	1.1	1.1	–
10	1,923.4	158.7	55.3	21.1	34.2	45.3	1.0	1.0	–
17	1,905.4	158.7	55.5	21.3	34.2	46.0	0.7	0.7	–
24	1,909.6	158.7	55.9	21.6	34.3	47.4	1.0	1.0	–
May 1	1,938.0	158.7	56.0	21.6	34.4	47.8	0.2	0.2	–
8	1,963.2	158.7	56.4	21.6	34.8	48.7	0.8	0.8	–
15	1,995.5	158.7	56.5	21.7	34.8	49.2	0.3	0.3	–
22	1,996.4	158.7	56.2	21.7	34.5	49.7	0.5	0.5	–
29	1,979.8	158.7	56.0	21.7	34.3	49.8	0.5	0.5	–
June 5	2,001.7	158.7	56.5	21.7	34.8	49.9	2.0	2.0	–
12	2,003.6	158.6	56.1	21.7	34.4	32.4	0.9	0.9	–
19	2,047.0	158.6	55.4	21.7	33.7	23.7	0.4	0.4	–
26	2,197.3	158.6	55.3	21.7	33.6	19.1	1.3	1.3	–
July 3	2,215.8	170.7	54.9	21.6	33.3	9.3	1.3	1.3	–
10	2,199.9	170.7	55.1	21.6	33.5	7.8	1.1	1.1	–
17	2,230.8	170.7	54.7	21.6	33.1	6.5	1.3	1.3	–
24	2,217.8	170.7	54.7	21.6	33.2	5.1	1.0	1.0	–
31	2,257.3	170.7	54.8	22.3	32.5	3.8	1.7	1.7	–
Aug. 7	2,271.2	170.7	54.7	22.3	32.4	1.6	1.0	1.0	–
14	2,277.4	170.7	54.3	22.3	32.1	1.2	1.2	1.2	–
21	2,274.8	170.7	54.7	22.3	32.4	1.1	1.3	1.3	–
28	2,293.3	170.7	54.5	22.3	32.3	1.0	0.4	0.4	–
Sep. 4	2,306.2	170.7	54.1	22.3	31.8	0.9	2.5	2.5	–

***** 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]													
617.2	0.9	616.1	–	–	0.2	–	34.1	2,865.5	2,663.1	202.5	23.3	287.4	2020 Feb. 14
617.2	1.0	616.1	–	–	0.1	–	39.3	2,870.9	2,669.5	201.4	23.3	283.6	21
617.2	1.7	615.5	–	–	–	–	36.5	2,873.3	2,671.9	201.3	23.3	286.4	28
616.9	1.4	615.5	–	–	0.0	–	49.1	2,874.5	2,674.7	199.8	23.3	280.7	Mar. 6
617.7	2.2	615.5	–	–	0.0	–	46.1	2,879.8	2,680.0	199.8	23.3	280.2	13
726.1	1.5	724.6	–	–	0.0	–	37.6	2,899.6	2,697.4	202.2	23.3	282.3	20
826.1	1.1	825.0	–	–	0.0	–	32.3	2,925.7	2,721.0	204.7	23.3	281.5	27
869.2	0.4	868.7	–	–	–	–	32.1	2,959.7	2,755.0	204.7	23.3	287.1	Apr. 3
888.6	0.3	888.2	–	–	0.0	–	35.4	2,997.4	2,791.8	205.6	23.3	282.9	10
893.1	0.2	892.9	–	–	–	–	39.7	3,017.2	2,812.3	204.9	23.3	280.5	17
911.9	0.2	911.8	–	–	0.0	–	40.1	3,052.4	2,846.8	205.6	23.3	285.3	24
948.9	0.3	948.6	–	–	–	–	34.4	3,067.9	2,865.9	202.0	23.3	286.7	May 1
963.2	0.3	962.8	–	–	–	–	31.0	3,113.4	2,910.8	202.7	23.3	283.6	8
969.9	0.3	969.7	–	–	–	–	37.3	3,156.5	2,954.1	202.4	23.3	282.7	15
979.4	0.2	979.2	–	–	0.0	–	35.7	3,197.9	2,995.5	202.4	23.3	281.8	22
998.0	0.5	997.5	–	–	0.1	–	34.4	3,222.6	3,019.9	202.7	23.3	279.2	29
1,012.4	0.4	1,012.0	–	–	0.0	–	36.1	3,262.1	3,058.8	203.3	23.3	281.3	June 5
1,026.2	0.4	1,025.8	–	–	0.0	–	30.7	3,297.9	3,094.9	203.0	23.3	280.9	12
1,026.3	0.5	1,025.8	–	–	0.0	–	34.9	3,325.9	3,123.2	202.7	23.3	278.6	19
1,590.1	0.7	1,589.4	–	–	0.0	–	39.3	3,365.1	3,162.5	202.7	23.3	283.4	26
1,590.8	1.4	1,589.4	–	–	–	–	37.3	3,391.9	3,188.4	203.5	22.8	288.7	July 3
1,590.5	1.1	1,589.4	–	–	–	–	33.3	3,416.2	3,213.5	202.8	22.8	291.3	10
1,590.5	1.0	1,589.4	–	–	0.0	–	33.1	3,435.2	3,232.5	202.7	22.8	287.3	17
1,590.6	1.1	1,589.4	–	–	0.0	–	37.7	3,462.8	3,259.7	203.2	22.8	285.9	24
1,590.0	1.1	1,588.9	–	–	–	–	34.0	3,477.5	3,274.7	202.8	22.8	284.7	31
1,595.5	1.0	1,594.6	–	–	–	–	34.9	3,499.3	3,296.2	203.2	22.8	284.3	Aug. 7
1,595.6	1.0	1,594.6	–	–	–	–	32.0	3,518.1	3,316.1	202.1	22.8	287.8	14
1,595.9	1.3	1,594.6	–	–	–	–	33.3	3,537.7	3,335.3	202.4	22.8	286.6	21
1,595.9	1.6	1,594.3	–	–	0.0	–	32.0	3,554.3	3,351.2	203.1	22.8	288.5	28
1,596.6	1.6	1,595.0	–	–	0.0	–	35.2	3,567.9	3,366.2	201.8	22.8	286.7	Sep. 4
Deutsche Bundesbank													
74.5	0.4	74.0	–	–	0.2	–	5.1	573.0	573.0	–	4.4	836.2	2020 Feb. 14
74.5	0.5	74.0	–	–	0.1	–	6.2	574.8	574.8	–	4.4	835.1	21
74.5	0.5	74.0	–	–	0.0	–	5.7	575.5	575.5	–	4.4	852.2	28
74.2	0.2	74.0	–	–	0.0	–	8.8	575.8	575.8	–	4.4	869.4	Mar. 6
74.5	0.5	74.0	–	–	0.0	–	7.5	573.2	573.2	–	4.4	925.0	13
86.7	0.5	86.3	–	–	0.0	–	8.4	574.8	574.8	–	4.4	930.2	20
100.7	0.7	100.0	–	–	0.0	–	7.2	577.3	577.3	–	4.4	936.1	27
108.4	0.2	108.2	–	–	0.0	–	9.3	582.7	582.7	–	4.4	953.1	Apr. 3
110.7	0.1	110.6	–	–	0.0	–	7.1	588.7	588.7	–	4.4	952.2	10
111.7	0.1	111.7	–	–	–	–	7.3	583.7	583.7	–	4.4	937.5	17
114.8	0.0	114.8	–	–	0.0	–	7.7	590.9	590.9	–	4.4	928.9	24
116.3	0.0	116.3	–	–	–	–	7.7	596.7	596.7	–	4.4	950.1	May 1
119.4	0.0	119.4	–	–	0.0	–	6.9	605.6	605.6	–	4.4	962.2	8
120.9	0.1	120.8	–	–	0.0	–	7.3	614.7	614.7	–	4.4	983.4	15
122.1	0.0	122.1	–	–	0.0	–	6.4	625.9	625.9	–	4.4	972.5	22
125.0	0.3	124.7	–	–	0.1	–	5.8	632.0	632.0	–	4.4	947.6	29
126.1	0.3	125.8	–	–	0.0	–	11.5	638.5	638.5	–	4.4	954.2	June 5
138.3	0.3	138.0	–	–	0.0	–	6.6	641.8	641.8	–	4.4	964.4	12
138.2	0.1	138.0	–	–	0.0	–	6.8	647.1	647.1	–	4.4	1,012.4	19
284.0	0.2	283.8	–	–	0.0	–	5.9	655.0	655.0	–	4.4	1,013.7	26
284.8	1.0	283.8	–	–	–	–	7.2	660.6	660.6	–	4.4	1,022.6	July 3
284.6	0.8	283.8	–	–	0.0	–	5.4	662.5	662.5	–	4.4	1,008.5	10
284.5	0.7	283.8	–	–	0.0	–	5.3	669.4	669.4	–	4.4	1,034.0	17
284.7	1.0	283.8	–	–	0.0	–	5.6	676.1	676.1	–	4.4	1,015.4	24
284.7	0.9	283.8	–	–	0.0	–	5.1	682.1	682.1	–	4.4	1,049.9	31
284.7	0.6	284.0	–	–	0.0	–	5.6	685.6	685.6	–	4.4	1,062.9	Aug. 7
284.7	0.6	284.0	–	–	0.0	–	5.7	690.3	690.3	–	4.4	1,064.9	14
284.9	0.8	284.0	–	–	0.0	–	5.2	694.8	694.8	–	4.4	1,057.7	21
285.0	0.9	284.1	–	–	0.0	–	5.2	699.5	699.5	–	4.4	1,072.3	28
285.1	0.8	284.3	–	–	0.0	–	8.1	701.8	701.8	–	4.4	1,078.6	Sep. 4

III. Consolidated financial statement of the Eurosystem

2. Liabilities *

€ billion

As at reporting date		Total liabilities	Banknotes in circulation [1]	Liabilities to euro area credit institutions related to monetary policy operations denominated in euro						Other liabilities to euro area credit institutions denominated in euro	Debt certificates issued	Liabilities to other euro area residents denominated in euro		
				Total	Current accounts (covering the minimum reserve system)	Deposit facility	Fixed-term deposits	Fine-tuning reverse operations	Deposits related to margin calls			Total	General government	Other liabilities
Eurosystem [3]														
2020 Feb.	14	4,679.7	1,274.8	1,881.7	1,658.5	223.2	–	–	–	7.1	–	397.0	268.0	129.0
	21	4,688.3	1,275.1	1,851.7	1,624.0	227.7	–	–	–	7.1	–	440.7	312.0	128.8
	28	4,691.9	1,278.7	1,866.2	1,609.6	256.6	–	–	–	6.9	–	420.2	296.9	123.2
Mar.	6	4,702.2	1,280.4	1,910.0	1,661.7	248.3	–	–	–	9.9	–	383.9	258.2	125.8
	13	4,704.2	1,286.0	1,883.7	1,599.5	284.1	–	–	–	8.1	–	397.5	271.4	126.1
	20	4,927.3	1,304.8	1,913.4	1,712.9	200.4	–	–	0.0	8.3	–	462.8	329.4	133.4
	27	5,062.7	1,313.1	2,021.5	1,809.0	212.5	–	–	–	8.0	–	480.8	349.5	131.3
Apr.	3	5,199.8	1,319.5	2,116.4	1,865.6	250.9	–	–	–	9.1	–	479.6	348.5	131.2
	10	5,257.5	1,327.1	2,129.5	1,867.2	262.4	–	–	–	8.2	–	505.4	377.3	128.1
	17	5,282.9	1,326.9	2,133.8	1,861.8	272.0	–	–	–	7.9	–	519.3	391.1	128.2
	24	5,347.0	1,329.7	2,133.2	1,801.5	331.6	–	–	0.0	9.4	–	563.9	435.3	128.6
May	1	5,395.2	1,334.1	2,188.7	1,826.9	361.8	–	–	0.0	9.3	–	534.9	403.8	131.0
	8	5,451.0	1,339.2	2,262.3	2,007.9	254.3	–	–	–	8.1	–	508.9	382.4	126.5
	15	5,505.5	1,344.0	2,237.4	1,968.4	269.0	–	–	–	8.4	–	576.0	455.0	121.0
	22	5,555.3	1,348.2	2,245.0	1,945.4	299.6	–	–	–	9.6	–	630.5	505.1	125.5
	29	5,596.1	1,353.3	2,274.3	1,952.0	322.4	–	–	–	8.2	–	646.2	518.4	127.8
June	5	5,655.4	1,356.8	2,323.2	1,961.2	362.0	–	–	0.0	12.5	–	653.0	524.3	128.7
	12	5,630.3	1,359.2	2,327.1	2,080.5	246.5	–	–	0.0	9.3	–	701.4	569.7	131.7
	19	5,636.4	1,360.7	2,253.3	1,985.7	267.6	–	–	–	7.2	–	799.2	668.9	130.4
	26	6,236.1	1,363.2	2,830.2	2,531.0	299.2	–	–	–	7.9	–	828.3	699.3	128.9
July	3	6,289.0	1,368.2	2,919.4	2,500.4	418.9	–	–	–	9.2	–	764.1	702.8	61.3
	10	6,309.2	1,372.0	2,957.8	2,498.1	459.7	–	–	–	8.2	–	741.9	674.8	67.1
	17	6,322.6	1,372.7	2,916.1	2,463.7	452.4	–	–	–	6.9	–	792.6	724.7	67.9
	24	6,351.4	1,374.6	2,928.6	2,638.8	289.8	–	–	0.0	6.8	–	816.0	750.9	65.1
	31	6,360.8	1,377.8	2,997.8	2,650.4	347.4	–	–	–	6.0	–	760.8	697.7	63.1
Aug.	7	6,385.3	1,381.6	3,051.0	2,674.8	376.2	–	–	–	6.3	–	728.0	665.3	62.7
	14	6,404.7	1,382.9	3,035.7	2,583.9	451.7	–	–	–	5.6	–	772.1	712.6	59.6
	21	6,424.0	1,382.3	3,045.9	2,600.4	445.4	–	–	–	5.9	–	781.9	725.0	57.0
	28	6,440.2	1,383.1	3,025.6	2,549.4	476.2	–	–	–	6.1	–	822.2	763.7	58.5
Sep.	4	6,458.9	1,384.5	3,115.1	2,621.9	493.2	–	–	–	9.6	–	737.8	679.2	58.5
Deutsche Bundesbank														
2020 Feb.	14	1,694.8	311.2	555.4	501.1	54.3	–	–	–	2.0	–	99.6	68.8	30.8
	21	1,697.1	313.0	564.0	506.7	57.3	–	–	–	0.8	–	98.5	69.3	29.2
	28	1,714.7	310.1	579.7	510.5	69.3	–	–	–	1.4	–	96.0	65.5	30.5
Mar.	6	1,735.7	311.5	603.4	533.1	70.4	–	–	–	2.6	–	101.3	71.4	29.9
	13	1,785.7	313.3	614.1	523.7	90.4	–	–	–	1.7	–	131.1	89.6	41.5
	20	1,843.9	323.9	635.0	570.0	65.0	–	–	0.0	1.6	–	149.5	104.3	45.2
	27	1,864.1	330.2	646.7	584.4	62.3	–	–	–	2.9	–	156.3	111.5	44.7
Apr.	3	1,916.4	321.2	708.0	645.3	62.7	–	–	–	4.9	–	137.2	95.5	41.6
	10	1,923.4	324.5	695.8	633.1	62.8	–	–	–	3.6	–	143.3	101.8	41.5
	17	1,905.4	323.7	696.3	625.3	71.0	–	–	–	3.4	–	119.6	92.4	27.1
	24	1,909.6	324.7	679.7	575.5	104.2	–	–	–	3.5	–	129.4	104.3	25.1
May	1	1,938.0	323.6	696.9	585.2	111.7	–	–	–	3.6	–	124.7	101.0	23.7
	8	1,963.2	324.5	712.6	650.0	62.6	–	–	–	3.1	–	128.2	105.2	23.0
	15	1,995.5	325.4	701.8	637.2	64.6	–	–	–	2.8	–	166.7	136.3	30.4
	22	1,996.4	326.3	695.4	595.7	99.8	–	–	–	3.7	–	185.7	154.6	31.2
	29	1,979.8	328.2	701.7	594.6	107.1	–	–	–	2.8	–	167.5	136.1	31.4
June	5	2,001.7	328.6	706.4	600.1	106.2	–	–	–	6.6	–	181.5	152.4	29.1
	12	2,003.6	329.4	708.6	647.6	61.0	–	–	–	3.7	–	190.2	165.0	25.3
	19	2,047.0	329.3	707.6	646.2	61.4	–	–	–	2.1	–	235.9	207.7	28.2
	26	2,197.3	330.2	836.6	761.1	75.5	–	–	–	3.1	–	264.0	236.0	27.9
July	3	2,215.8	332.5	874.1	733.5	140.7	–	–	–	4.2	–	228.7	221.2	7.5
	10	2,199.9	334.0	884.5	734.8	149.8	–	–	–	3.0	–	200.3	192.8	7.5
	17	2,230.8	334.4	879.8	718.7	161.1	–	–	–	2.2	–	231.0	223.5	7.4
	24	2,217.8	334.6	874.0	786.5	87.4	–	–	–	1.8	–	228.1	220.8	7.3
	31	2,257.3	334.2	908.2	812.3	95.9	–	–	–	1.4	–	233.6	226.6	7.0
Aug.	7	2,271.2	336.5	921.4	813.2	108.2	–	–	–	2.0	–	231.0	223.9	7.2
	14	2,277.4	337.3	904.2	749.3	155.0	–	–	–	1.8	–	259.0	252.0	7.1
	21	2,274.8	337.6	903.3	751.9	151.4	–	–	–	1.4	–	258.2	251.1	7.2
	28	2,293.3	339.0	904.0	748.2	155.9	–	–	–	2.3	–	276.9	269.3	7.6
Sep.	4	2,306.2	336.4	947.4	773.9	173.5	–	–	–	5.5	–	238.6	231.4	7.2

***** 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 quarrter. **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 monthy basis. The counterpart of this adjustment is disclosed as an "Intra-Eurosystem liability related to

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: Total	Deposits, balances and other liabilities	Liabilities arising from the credit facility under ERM II	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
										Eurosystem [3]
187.9	8.2	6.3	6.3	–	57.4	285.9	–	466.6	107.0	2020 Feb. 14
179.0	8.6	6.5	6.5	–	57.4	288.0	–	466.6	107.5	21
187.4	8.1	7.4	7.4	–	57.4	285.4	–	466.6	107.6	28
180.7	9.2	6.1	6.1	–	57.4	290.4	–	466.6	107.6	Mar. 6
195.5	7.9	5.8	5.8	–	57.4	288.3	–	466.6	107.6	13
308.8	7.2	6.0	6.0	–	57.4	284.2	–	466.6	107.9	20
316.1	7.2	5.8	5.8	–	57.4	277.4	–	466.6	108.8	27
321.0	7.3	6.0	6.0	–	57.9	267.1	–	507.1	108.9	Apr. 3
331.2	7.3	5.8	5.8	–	57.9	268.9	–	507.1	108.9	10
334.2	6.9	6.3	6.3	–	57.9	273.7	–	507.1	108.9	17
343.4	7.5	6.8	6.8	–	57.9	279.1	–	507.1	109.1	24
360.2	7.5	6.7	6.7	–	57.9	279.7	–	507.1	109.1	May 1
364.9	8.1	7.0	7.0	–	57.9	278.6	–	507.1	108.9	8
369.6	7.9	7.1	7.1	–	57.9	281.2	–	507.1	108.9	15
352.6	8.7	7.0	7.0	–	57.9	279.7	–	507.1	108.9	22
348.3	9.0	6.9	6.9	–	57.9	275.9	–	507.1	108.9	29
346.2	8.1	7.5	7.5	–	57.9	274.1	–	507.1	108.9	June 5
270.0	7.7	8.5	8.5	–	57.9	273.2	–	507.1	108.9	12
251.0	7.8	8.1	8.1	–	57.9	275.2	–	507.1	108.9	19
238.1	7.4	8.1	8.1	–	57.9	278.9	–	507.1	109.0	26
230.0	6.9	7.4	7.4	–	57.1	274.7	–	542.9	109.0	July 3
228.9	6.1	7.7	7.7	–	57.1	277.5	–	542.9	109.0	10
237.0	6.0	7.5	7.5	–	57.1	274.6	–	542.9	109.0	17
227.2	5.6	7.9	7.9	–	57.1	275.6	–	542.9	109.0	24
224.2	5.7	7.4	7.4	–	57.1	272.1	–	542.9	109.0	31
220.3	5.6	7.5	7.5	–	57.1	275.8	–	542.9	109.0	Aug. 7
210.6	5.9	7.5	7.5	–	57.1	275.3	–	542.9	109.0	14
209.6	5.6	7.7	7.7	–	57.1	276.1	–	542.9	109.0	21
204.2	5.4	7.4	7.4	–	57.1	277.2	–	542.9	109.0	28
209.9	5.7	7.2	7.2	–	57.1	280.2	–	542.9	108.9	Sep. 4
										Deutsche Bundesbank
88.3	0.0	0.5	0.5	–	14.9	34.8	438.1	144.2	5.7	2020 Feb. 14
81.8	0.0	0.9	0.9	–	14.9	35.1	438.1	144.2	5.7	21
89.3	0.0	1.1	1.1	–	14.9	29.5	442.7	144.2	5.7	28
79.7	0.0	0.2	0.2	–	14.9	29.4	442.7	144.2	5.7	Mar. 6
88.4	0.0	0.0	0.0	–	14.9	29.4	442.7	144.2	5.7	13
96.6	0.0	0.0	0.0	–	14.9	29.7	442.7	144.2	5.7	20
90.8	0.0	0.0	0.0	–	14.9	29.6	442.7	144.2	5.7	27
82.6	0.0	–	–	–	15.0	29.1	455.0	157.8	5.7	Apr. 3
93.6	–	–	–	–	15.0	29.1	455.0	157.8	5.7	10
99.7	0.0	–	–	–	15.0	29.3	455.0	157.8	5.7	17
109.2	0.0	0.2	0.2	–	15.0	29.5	455.0	157.8	5.7	24
122.9	–	0.2	0.2	–	15.0	29.5	458.2	157.8	5.7	May 1
127.8	0.0	0.6	0.6	–	15.0	29.7	458.2	157.8	5.7	8
131.6	0.0	0.7	0.7	–	15.0	29.8	458.2	157.8	5.7	15
118.2	0.0	0.4	0.4	–	15.0	29.9	458.2	157.8	5.7	22
112.2	0.0	0.3	0.3	–	15.0	30.1	458.5	157.8	5.7	29
110.8	0.0	0.8	0.8	–	15.0	30.1	458.5	157.8	5.7	June 5
103.2	0.0	0.9	0.9	–	15.0	30.4	458.5	157.8	5.7	12
104.2	0.0	0.7	0.7	–	15.0	30.3	458.5	157.8	5.7	19
96.1	0.0	0.7	0.7	–	15.0	29.7	458.5	157.8	5.7	26
99.1	0.0	0.4	0.4	–	14.8	29.3	458.1	168.8	5.7	July 3
99.7	0.0	0.7	0.7	–	14.8	30.2	458.1	168.8	5.7	10
105.3	0.0	0.4	0.4	–	14.8	30.4	458.1	168.8	5.7	17
100.7	0.0	0.6	0.6	–	14.8	30.6	458.1	168.8	5.7	24
99.3	0.0	0.2	0.2	–	14.8	30.6	460.5	168.8	5.7	31
99.6	0.0	0.2	0.2	–	14.8	30.6	460.5	168.8	5.7	Aug. 7
94.4	0.0	0.2	0.2	–	14.8	30.6	460.5	168.8	5.7	14
93.0	0.0	0.7	0.7	–	14.8	30.7	460.5	168.8	5.7	21
89.9	0.0	0.5	0.5	–	14.8	30.9	460.5	168.8	5.7	28
93.2	0.0	0.1	0.1	–	14.8	31.3	464.3	168.8	5.7	Sep. 4

euro banknote issue". The remaining 92% of the value of the euro banknotes in circulation is allocated, likewise on an 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 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 Deutsche 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			
			Total	to banks in the home country			to banks in other Member States			Total	to non-banks in the home country		
				Total	Loans	Securities issued by banks	Total	Loans	Securities issued by banks		Total	Enterprises and households	
												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
2019	8,311.0	43.4	2,230.1	1,759.8	1,493.5	266.3	470.4	327.6	142.8	4,020.1	3,584.9	3,168.7	2,864.9
2018 Oct.	7,845.2	36.9	2,286.9	1,855.6	1,588.6	267.0	431.4	298.1	133.2	3,858.3	3,447.8	3,009.7	2,711.9
Nov.	7,881.2	36.8	2,303.5	1,872.8	1,605.2	267.6	430.8	295.9	134.8	3,874.4	3,460.7	3,023.7	2,727.7
Dec.	7,776.0	40.6	2,188.0	1,768.3	1,500.7	267.5	419.7	284.8	134.9	3,864.0	3,458.2	3,024.3	2,727.0
2019 Jan.	7,902.3	36.7	2,267.3	1,827.4	1,559.5	267.8	439.9	304.8	135.1	3,878.8	3,468.7	3,032.2	2,737.6
Feb.	7,935.7	36.9	2,304.8	1,862.5	1,591.5	271.1	442.3	304.8	137.5	3,893.1	3,477.0	3,044.8	2,751.0
Mar.	8,121.3	37.0	2,343.5	1,885.9	1,614.7	271.2	457.6	319.3	138.4	3,921.0	3,488.4	3,059.8	2,765.7
Apr.	8,154.6	38.2	2,354.4	1,893.6	1,625.2	268.5	460.8	321.6	139.1	3,928.3	3,492.4	3,068.0	2,774.1
May	8,280.9	37.9	2,376.8	1,919.0	1,648.5	270.5	457.8	317.9	139.9	3,944.5	3,509.1	3,085.5	2,790.5
June	8,321.9	37.9	2,332.5	1,869.9	1,600.4	269.6	462.6	321.6	141.0	3,972.1	3,530.5	3,108.0	2,809.6
July	8,372.1	37.4	2,311.4	1,845.2	1,575.0	270.2	466.2	324.2	142.0	3,984.9	3,539.6	3,114.5	2,815.1
Aug.	8,645.5	38.3	2,327.7	1,857.2	1,589.6	267.6	470.5	327.6	142.9	4,009.7	3,554.6	3,127.0	2,827.3
Sep.	8,550.4	38.0	2,323.6	1,835.8	1,569.4	266.4	487.8	344.3	143.5	4,001.0	3,562.6	3,139.5	2,839.7
Oct.	8,445.6	39.3	2,312.0	1,810.4	1,543.9	266.5	501.6	358.5	143.1	4,008.1	3,569.7	3,149.2	2,847.6
Nov.	8,509.2	40.1	2,361.5	1,860.2	1,590.2	270.0	501.3	358.1	143.2	4,027.4	3,586.5	3,166.8	2,863.7
Dec.	8,311.0	43.4	2,230.1	1,759.8	1,493.5	266.3	470.4	327.6	142.8	4,020.1	3,584.9	3,168.7	2,864.9
2020 Jan.	8,482.2	39.4	2,293.1	1,800.7	1,531.5	269.2	492.4	348.1	144.3	4,033.9	3,591.5	3,173.1	2,867.5
Feb.	8,666.7	40.3	2,308.1	1,815.4	1,545.5	269.9	492.7	348.9	143.8	4,055.3	3,606.4	3,190.1	2,885.8
Mar.	8,912.6	48.1	2,421.0	1,920.7	1,651.9	268.8	500.4	357.5	142.8	4,096.9	3,641.9	3,215.5	2,915.9
Apr.	9,014.6	48.6	2,442.9	1,943.2	1,674.0	269.2	499.7	355.0	144.8	4,115.5	3,656.4	3,225.2	2,926.3
May	8,915.3	48.1	2,395.2	1,896.4	1,631.8	264.6	498.8	355.2	143.6	4,149.8	3,682.9	3,247.5	2,946.1
June	9,026.9	46.0	2,542.6	2,056.2	1,788.0	268.2	486.4	343.6	142.8	4,153.0	3,683.1	3,249.8	2,949.1
July	9,069.0	45.5	2,574.3	2,099.6	1,830.7	268.9	474.7	333.3	141.5	4,153.7	3,688.0	3,258.4	2,958.3
	Changes [3]												
2011	54.1	– 0.1	32.6	58.7	91.7	– 33.0	– 26.0	– 12.1	– 13.9	– 51.8	– 35.3	38.7	56.7
2012	– 129.2	2.9	– 81.9	– 28.4	3.0	– 31.4	– 53.5	– 39.7	– 13.8	27.5	27.7	17.0	28.8
2013	– 703.6	– 0.5	– 257.1	– 249.2	– 216.5	– 32.7	– 7.9	1.6	– 9.5	13.6	16.6	23.6	21.6
2014	206.8	0.4	– 126.2	– 128.6	– 95.3	– 33.4	2.4	7.2	– 4.8	55.1	40.0	52.3	36.8
2015	– 191.4	0.3	– 18.2	– 12.1	66.1	– 78.2	– 6.1	6.6	– 12.8	64.8	64.1	68.1	56.6
2016	184.3	6.5	120.3	178.4	195.3	– 16.8	– 58.1	– 49.2	– 8.8	57.5	53.4	88.8	81.0
2017	8.0	6.1	135.9	165.0	182.6	– 17.6	– 29.1	– 19.6	– 9.5	51.3	63.5	114.8	101.1
2018	101.8	8.5	– 29.2	– 49.7	– 53.4	3.7	20.6	13.0	7.6	78.7	71.9	118.1	127.8
2019	483.4	2.8	20.7	– 3.8	– 2.3	– 1.5	24.5	16.9	7.5	161.8	130.5	148.2	140.9
2018 Nov.	38.5	– 0.1	17.2	17.6	16.7	1.0	– 0.5	– 2.0	1.6	16.7	13.4	14.4	16.1
Dec.	– 100.0	3.8	– 114.6	– 104.0	– 104.3	0.2	– 10.6	– 10.9	0.3	– 8.8	– 1.5	1.6	– 0.1
2019 Jan.	128.9	– 3.9	79.5	59.2	58.8	0.5	20.3	20.0	0.3	17.0	12.6	10.0	11.4
Feb.	31.1	0.1	36.8	34.8	31.7	3.0	2.1	– 0.4	2.5	15.5	9.5	13.7	14.5
Mar.	124.6	0.2	32.4	25.5	26.3	– 0.8	6.9	6.5	0.4	12.4	10.7	14.4	14.6
Apr.	33.9	1.2	10.8	7.7	10.5	– 2.8	3.1	2.4	0.7	7.6	4.4	8.4	8.9
May	124.6	– 0.3	22.1	25.4	23.2	2.1	– 3.2	– 3.9	0.7	16.3	16.3	17.4	16.2
June	50.5	0.0	– 42.3	– 48.3	– 47.7	– 0.6	6.0	4.8	1.2	27.8	21.7	22.9	19.4
July	49.8	– 0.5	– 23.0	– 25.4	– 26.0	0.6	2.4	1.5	0.9	12.1	9.1	6.8	5.6
Aug.	265.9	0.8	14.8	11.4	14.2	– 2.8	3.4	2.7	0.7	23.9	14.6	12.3	11.9
Sep.	– 100.4	– 0.3	– 19.8	– 19.0	– 18.0	– 1.0	– 0.7	– 1.3	0.6	7.9	8.2	12.1	12.1
Oct.	– 93.5	1.2	– 9.8	– 24.8	– 25.0	0.2	15.0	15.3	– 0.3	8.8	8.1	10.5	8.8
Nov.	55.4	0.8	48.2	49.3	45.9	3.3	– 1.1	– 1.2	0.1	18.6	16.6	17.3	15.8
Dec.	– 187.4	3.3	– 129.3	– 99.6	– 96.3	– 3.3	– 29.7	– 29.4	– 0.3	– 6.1	– 1.2	2.2	1.6
2020 Jan.	162.1	– 4.0	61.4	40.5	37.7	2.8	21.0	19.6	1.4	13.0	6.8	4.7	3.1
Feb.	193.8	0.8	20.5	18.6	13.8	4.8	1.9	0.5	1.3	21.8	15.0	17.2	18.3
Mar.	251.0	7.9	113.4	105.3	106.1	– 0.9	8.2	8.8	– 0.6	44.3	36.8	26.5	31.0
Apr.	96.1	0.5	20.8	21.8	21.5	0.3	– 1.1	– 3.0	1.9	18.2	14.2	9.8	10.5
May	– 40.6	– 0.6	22.6	22.4	19.3	3.1	0.2	1.3	– 1.1	27.3	24.9	20.5	18.0
June	118.6	– 2.1	149.4	161.5	157.8	3.7	– 12.1	– 11.2	– 0.9	5.0	1.7	3.6	4.3
July	42.1	– 0.5	31.4	43.0	42.3	0.7	– 11.6	– 10.4	– 1.3	0.9	5.4	9.2	9.7

***** 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** Including debt securities arising from the exchange

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
303.8	416.2	254.7	161.6	435.2	312.6	199.0	122.6	29.4	93.2	1,035.8	777.5	981.5	2019
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	2018 Oct.
296.0	437.0	264.5	172.5	413.7	290.8	177.8	122.9	30.9	92.1	1,032.1	777.3	634.5	Nov.
297.2	433.9	263.4	170.5	405.8	286.7	176.5	119.2	28.6	90.6	1,033.2	778.5	650.2	Dec.
294.6	436.5	265.9	170.6	410.1	291.8	179.6	118.3	28.9	89.5	1,049.5	794.1	670.0	2019 Jan.
293.8	432.2	263.3	168.9	416.1	294.1	181.5	122.0	28.8	93.1	1,037.8	781.6	663.2	Feb.
294.1	428.5	260.6	168.0	432.6	311.4	197.8	121.2	28.9	92.4	1,084.1	826.7	735.7	Mar.
293.8	424.5	260.8	163.7	435.9	315.7	202.0	120.2	29.6	90.5	1,099.5	840.3	734.2	Apr.
295.0	423.6	259.2	164.4	435.5	317.7	205.0	117.8	29.4	88.4	1,101.0	839.1	820.6	May
298.5	422.5	257.7	164.7	441.6	320.9	207.2	120.7	29.0	91.7	1,103.8	841.8	875.6	June
299.4	425.0	260.2	164.8	445.3	322.2	209.5	123.1	29.0	94.1	1,114.6	851.7	923.8	July
299.7	427.6	260.2	167.4	455.1	330.1	216.8	125.0	28.9	96.1	1,122.3	857.7	1,147.5	Aug.
299.8	423.2	255.1	168.1	438.3	313.4	200.6	124.9	28.8	96.1	1,106.8	841.9	1,081.1	Sep.
301.6	420.5	257.1	163.4	438.4	313.1	201.3	125.3	30.1	95.2	1,102.8	842.5	983.5	Oct.
303.1	419.8	257.7	162.0	440.8	315.2	201.0	125.6	30.5	95.1	1,091.3	828.7	989.0	Nov.
303.8	416.2	254.7	161.6	435.2	312.6	199.0	122.6	29.4	93.2	1,035.8	777.5	981.5	Dec.
305.6	418.3	258.6	159.8	442.4	316.4	203.8	126.0	29.8	96.2	1,078.6	819.6	1,037.1	2020 Jan.
304.3	416.3	256.5	159.8	448.9	322.8	206.6	126.2	29.9	96.3	1,088.6	829.3	1,174.5	Feb.
299.6	426.4	258.5	167.9	455.0	325.2	212.8	129.8	29.5	100.3	1,104.4	838.8	1,242.1	Mar.
298.8	431.2	259.2	172.0	459.1	329.0	217.4	130.2	31.1	99.1	1,119.2	852.3	1,288.4	Apr.
301.4	435.4	258.3	177.1	466.9	334.5	220.6	132.3	31.0	101.3	1,102.1	840.8	1,220.2	May
300.7	433.3	257.8	175.5	469.9	331.1	215.4	138.8	29.2	109.6	1,075.8	816.4	1,209.5	June
300.1	429.6	259.1	170.5	465.7	313.6	217.1	152.1	29.9	122.1	1,047.4	792.5	1,248.1	July
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
7.3	– 17.7	– 8.6	– 9.1	31.3	29.5	26.9	1.7	0.0	1.7	– 32.1	– 33.3	330.3	2019
– 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	2018 Nov.
1.7	– 3.1	– 1.1	– 2.0	– 7.3	– 3.5	– 1.1	– 3.8	– 2.3	– 1.5	3.5	3.5	16.1	Dec.
– 1.4	2.6	2.4	0.2	4.4	5.1	3.2	– 0.8	0.3	– 1.0	16.5	15.8	19.8	2019 Jan.
– 0.8	– 4.2	– 2.6	– 1.7	6.0	2.4	2.2	3.7	– 0.0	3.7	– 14.5	– 15.1	– 6.9	Feb.
– 0.2	– 3.7	– 2.8	– 1.0	1.7	3.0	2.5	– 1.2	0.0	– 1.2	16.1	17.2	63.6	Mar.
– 0.4	– 4.0	0.2	– 4.2	3.1	4.2	4.3	– 1.1	0.7	– 1.8	15.8	14.1	– 1.5	Apr.
1.2	– 1.0	– 1.7	0.7	– 0.1	2.3	3.1	– 2.4	– 0.2	– 2.2	0.0	– 2.8	86.5	May
3.5	– 1.2	– 1.5	0.3	6.1	3.4	2.7	2.6	– 0.4	3.1	10.5	9.9	54.5	June
1.2	2.2	2.5	– 0.2	3.0	1.3	2.1	1.7	– 0.0	1.8	4.4	4.1	56.8	July
0.4	2.3	– 0.2	2.5	9.3	7.5	7.0	1.8	– 0.1	1.9	2.6	1.2	223.7	Aug.
0.0	– 4.0	– 4.7	0.8	– 0.3	– 0.1	0.5	– 0.1	– 0.1	– 0.0	– 21.9	– 21.7	– 66.4	Sep.
1.7	– 2.4	2.1	– 4.6	0.8	0.2	1.0	0.5	1.3	– 0.8	3.9	7.7	– 97.7	Oct.
1.5	– 0.8	0.6	– 1.4	2.1	1.7	– 0.7	0.4	0.4	0.0	– 17.6	– 19.3	5.3	Nov.
0.7	– 3.4	– 3.0	– 0.4	– 4.9	– 1.4	– 0.9	– 3.5	– 1.8	– 1.7	– 47.9	– 44.3	– 7.5	Dec.
1.6	2.1	3.9	– 1.8	6.2	3.2	4.5	3.0	0.4	2.6	36.0	35.9	55.6	2020 Jan.
– 1.1	– 2.2	– 2.1	– 0.1	6.8	6.7	2.8	0.1	0.1	– 0.0	13.5	12.5	137.3	Feb.
– 4.5	10.2	2.0	8.3	7.5	3.3	6.5	4.2	– 0.4	4.6	17.8	11.2	67.6	Mar.
– 0.7	4.5	0.6	3.9	4.0	3.7	4.3	0.3	1.6	– 1.3	10.4	9.3	46.3	Apr.
2.5	4.4	– 0.9	5.3	2.5	0.8	– 1.2	1.6	– 0.6	2.2	– 23.0	– 18.2	– 67.0	May
– 0.7	– 1.9	– 0.3	– 1.6	3.3	– 3.2	– 4.9	6.4	– 1.8	8.2	– 22.9	– 21.2	– 10.8	June
– 0.6	– 3.8	1.3	– 5.0	– 4.5	– 0.2	1.8	– 4.3	0.7	– 5.0	– 28.3	– 23.8	38.7	July

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 Deutsche 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
2019	8,311.0	1,242.8	1,010.4	232.4	3,778.1	3,649.8	2,230.9	843.7	261.7	575.1	540.5	116.3	54.6
2018 Oct.	7,845.2	1,227.0	1,034.3	192.7	3,614.3	3,494.1	2,039.3	877.8	273.4	577.0	538.6	108.8	47.3
Nov.	7,881.2	1,244.5	1,046.8	197.7	3,646.1	3,527.4	2,074.8	875.8	271.5	576.8	539.1	106.2	47.1
Dec.	7,776.0	1,213.8	1,021.8	192.0	3,642.8	3,527.0	2,075.5	872.9	267.2	578.6	541.1	104.5	45.0
2019 Jan.	7,902.3	1,238.4	1,040.5	197.9	3,646.4	3,530.1	2,074.3	877.3	277.3	578.4	541.4	104.9	45.9
Feb.	7,935.7	1,258.4	1,046.6	211.8	3,658.9	3,544.0	2,083.6	880.9	281.8	579.5	542.4	103.3	44.6
Mar.	8,121.3	1,281.9	1,050.1	231.8	3,676.8	3,554.7	2,095.7	877.1	280.6	582.0	544.7	109.9	51.7
Apr.	8,154.6	1,298.3	1,061.2	237.0	3,689.3	3,569.8	2,117.1	870.5	276.7	582.2	544.7	105.8	47.5
May	8,280.9	1,291.2	1,057.1	234.1	3,721.9	3,599.3	2,147.3	869.5	277.3	582.5	544.4	108.1	50.1
June	8,321.9	1,292.1	1,048.3	243.8	3,728.4	3,595.5	2,144.7	868.1	274.5	582.6	544.0	116.0	56.6
July	8,372.1	1,291.9	1,055.1	236.8	3,728.8	3,605.7	2,160.6	863.3	271.9	581.8	543.4	110.3	51.1
Aug.	8,645.5	1,306.3	1,062.2	244.1	3,754.1	3,626.8	2,182.9	863.7	276.0	580.2	542.2	114.6	54.3
Sep.	8,550.4	1,299.7	1,038.3	261.4	3,745.4	3,618.0	2,179.8	859.2	273.5	579.0	541.5	115.2	55.7
Oct.	8,445.6	1,313.5	1,050.3	263.2	3,761.4	3,633.5	2,201.7	854.6	270.4	577.2	540.6	114.1	51.4
Nov.	8,509.2	1,326.4	1,057.3	269.1	3,791.3	3,663.8	2,238.9	849.3	266.7	575.6	539.9	115.8	52.6
Dec.	8,311.0	1,242.8	1,010.4	232.4	3,778.1	3,649.8	2,230.9	843.7	261.7	575.1	540.5	116.3	54.6
2020 Jan.	8,482.2	1,293.2	1,033.0	260.2	3,775.6	3,647.0	2,229.5	846.8	267.2	570.7	537.5	116.3	54.3
Feb.	8,666.7	1,313.5	1,047.8	265.7	3,794.5	3,664.6	2,249.1	847.1	270.3	568.4	535.8	117.0	55.2
Mar.	8,912.6	1,418.4	1,135.8	282.6	3,853.2	3,705.0	2,299.1	841.5	268.6	564.4	532.5	135.5	72.3
Apr.	9,014.6	1,426.3	1,156.6	269.6	3,872.7	3,729.4	2,339.0	826.7	259.6	563.8	532.6	130.3	65.2
May	8,915.3	1,386.1	1,112.0	274.0	3,913.5	3,764.4	2,370.9	829.9	266.6	563.6	532.9	136.6	70.6
June	9,026.9	1,503.5	1,230.4	273.1	3,906.1	3,754.5	2,379.1	812.8	256.1	562.5	532.8	139.2	71.1
July	9,069.0	1,488.7	1,209.5	279.2	3,937.1	3,783.3	2,408.1	814.3	263.0	560.9	531.7	132.9	65.5
	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
2019	483.4	12.6	– 10.0	22.6	132.1	120.0	154.1	– 30.6	– 6.6	– 3.4	– 0.6	10.6	8.7
2018 Nov.	38.5	17.7	12.6	5.1	32.1	33.5	35.5	– 1.9	– 1.9	– 0.1	0.5	– 2.5	– 0.2
Dec.	– 100.0	– 30.3	– 24.8	– 5.5	– 2.9	– 0.1	1.3	– 3.1	– 4.2	1.7	2.0	– 1.7	– 2.1
2019 Jan.	128.9	24.8	18.9	6.0	3.6	3.0	– 1.2	4.4	10.1	– 0.2	0.3	0.4	1.0
Feb.	31.1	19.6	5.6	13.9	12.0	13.3	9.0	3.2	4.1	1.1	1.0	– 1.7	– 1.4
Mar.	124.6	19.3	2.7	16.6	15.7	9.5	11.1	– 4.1	– 1.4	2.5	2.2	5.7	6.3
Apr.	33.9	16.4	11.2	5.2	12.6	15.1	21.4	– 6.6	– 3.9	0.2	0.1	– 4.1	– 4.3
May	124.6	– 7.3	– 4.2	– 3.1	32.4	29.5	30.1	– 0.9	0.6	0.3	– 0.3	2.3	2.7
June	50.5	2.1	– 8.2	10.3	7.3	– 3.2	– 2.0	– 1.3	– 2.8	0.2	– 0.4	7.9	6.6
July	49.8	– 1.3	6.3	– 7.6	– 0.7	9.3	15.4	– 5.2	– 2.8	– 0.9	– 0.6	– 5.8	– 5.6
Aug.	265.9	13.7	6.8	6.9	24.7	20.5	21.9	0.2	4.0	– 1.5	– 1.2	4.2	3.1
Sep.	– 100.4	– 19.2	– 21.7	2.5	– 9.5	– 9.5	– 3.5	– 4.7	– 2.7	– 1.2	– 0.7	0.5	1.3
Oct.	– 93.5	15.0	12.5	2.5	17.1	16.2	22.5	– 4.5	– 3.1	– 1.8	– 1.0	– 0.9	– 4.2
Nov.	55.4	11.9	6.6	5.3	29.1	29.5	36.7	– 5.7	– 3.8	– 1.6	– 0.7	1.5	1.1
Dec.	– 187.4	– 82.4	– 46.4	– 36.0	– 12.2	– 13.2	– 7.3	– 5.4	– 4.9	– 0.5	0.6	0.7	2.2
2020 Jan.	162.1	49.3	22.2	27.2	– 3.4	– 3.5	– 2.0	2.9	5.3	– 4.5	– 3.0	– 0.1	– 0.4
Feb.	193.8	20.0	14.6	5.4	18.5	17.3	19.4	0.2	3.0	– 2.2	– 1.7	0.6	0.9
Mar.	251.0	104.6	87.7	16.9	58.9	40.4	50.1	– 5.6	– 1.7	– 4.0	– 3.4	18.5	17.1
Apr.	96.1	7.0	20.3	– 13.3	18.8	24.0	39.6	– 15.0	– 9.2	– 0.7	0.1	– 5.3	– 7.1
May	– 40.6	22.0	16.8	5.2	34.0	33.3	29.9	3.6	7.3	– 0.2	0.3	1.2	0.1
June	118.6	118.2	118.9	– 0.7	– 7.0	– 9.6	8.3	– 16.8	– 10.5	– 1.1	– 0.1	2.6	0.6
July	42.1	– 14.8	– 20.9	6.1	30.9	28.8	29.0	1.5	6.9	– 1.6	– 1.1	– 6.2	– 5.6

***** 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 governments.

IV. Banks

in other Member States [2]				Deposits of central governments		Liabilities arising from repos with non-banks in the euro area	Money market fund shares issued [3]	Debt securities issued [3]		Liabilities to non-euro area residents	Capital and reserves	Other Liabilities [1]	Period
With agreed maturities		At agreed notice											
Total	of which: up to 2 years	Total	of which: up to 3 months	Total	of which: domestic central governments			Total	of which: with maturities of up to 2 years [3]				
End of year or month													
46.4	16.1	2.8	2.2	39.8	38.7	86.7	9.8	1,407.8	82.3	636.0	452.6	1,290.2	2010
49.6	18.4	3.3	2.5	39.5	37.9	97.1	6.2	1,345.7	75.7	561.5	468.1	1,436.6	2011
42.3	14.7	3.8	2.8	28.9	25.9	80.4	7.3	1,233.1	56.9	611.4	487.3	1,344.7	2012
44.0	16.9	3.5	2.7	17.6	16.0	6.7	4.1	1,115.2	39.0	479.5	503.0	944.5	2013
42.0	15.9	3.3	2.7	10.6	10.5	3.4	3.5	1,077.6	39.6	535.3	535.4	1,125.6	2014
42.2	16.0	3.3	2.8	11.3	9.6	2.5	3.5	1,017.7	48.3	526.2	569.3	971.1	2015
43.9	15.8	3.1	2.6	8.6	7.9	2.2	2.4	1,030.3	47.2	643.4	591.5	906.3	2016
63.2	19.7	2.9	2.6	9.4	8.7	3.3	2.1	994.5	37.8	603.4	686.0	658.8	2017
56.7	15.8	2.8	2.5	11.3	10.5	0.8	2.4	1,034.0	31.9	575.9	695.6	610.7	2018
59.0	16.5	2.7	2.4	12.0	11.2	1.5	1.9	1,063.2	32.3	559.4	728.6	935.6	2019
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	2018 Oct.
56.3	15.0	2.8	2.5	12.5	10.0	1.3	2.4	1,048.3	34.6	643.3	688.1	607.3	Nov.
56.7	15.8	2.8	2.5	11.3	10.5	0.8	2.4	1,034.0	31.9	575.9	695.6	610.7	Dec.
56.2	15.3	2.8	2.5	11.5	10.1	1.7	2.4	1,048.1	32.1	636.9	688.3	640.1	2019 Jan.
55.9	14.9	2.8	2.5	11.7	10.0	2.0	2.3	1,067.9	32.2	621.9	684.9	639.5	Feb.
55.4	14.9	2.8	2.5	12.1	10.5	11.4	2.1	1,065.3	32.7	666.8	699.3	717.8	Mar.
55.5	15.0	2.8	2.5	13.7	11.2	12.5	2.0	1,060.0	32.1	698.4	696.3	697.8	Apr.
55.2	14.8	2.8	2.5	14.4	12.0	11.2	2.0	1,071.8	32.4	688.6	703.5	790.6	May
56.6	16.1	2.8	2.5	17.0	14.0	12.9	2.0	1,071.1	33.1	676.3	706.6	832.5	June
56.4	15.6	2.8	2.5	12.8	11.2	13.9	2.1	1,075.3	33.4	667.9	709.9	882.4	July
57.5	17.4	2.8	2.5	12.8	11.2	16.9	2.2	1,072.7	33.9	676.2	713.0	1,103.9	Aug.
56.8	15.2	2.7	2.4	12.2	10.9	1.5	2.3	1,077.8	35.7	671.4	719.2	1,033.2	Sep.
60.1	17.8	2.7	2.4	13.8	10.6	1.2	2.2	1,067.5	33.4	657.4	711.0	931.3	Oct.
60.6	18.3	2.7	2.4	11.7	10.6	1.7	2.0	1,076.7	33.7	653.6	723.6	933.9	Nov.
59.0	16.5	2.7	2.4	12.0	11.2	1.5	1.9	1,063.2	32.3	559.4	728.6	935.6	Dec.
59.4	17.1	2.7	2.4	12.3	10.8	2.5	1.8	1,078.0	36.0	622.5	712.5	996.0	2020 Jan.
59.2	15.3	2.6	2.4	12.9	11.2	2.0	1.9	1,087.4	34.6	638.8	714.0	1,114.6	Feb.
60.6	16.5	2.6	2.4	12.8	11.2	1.7	2.5	1,074.1	30.8	674.1	713.4	1,175.2	Mar.
62.4	17.6	2.6	2.4	13.0	11.1	3.4	2.4	1,078.1	29.6	704.0	693.5	1,234.2	Apr.
63.4	16.4	2.6	2.4	12.5	10.8	2.2	2.2	1,076.9	28.8	693.7	686.4	1,154.4	May
65.4	19.2	2.6	2.4	12.5	11.8	0.9	2.1	1,074.0	28.6	696.8	702.1	1,141.4	June
64.8	20.2	2.6	2.3	20.8	20.1	2.1	1.9	1,067.3	25.8	698.3	694.8	1,178.9	July
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
2.0	0.6	– 0.1	– 0.1	1.4	1.4	5.6	– 0.5	22.3	0.1	– 47.9	30.0	329.1	2019
– 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	2018 Nov.
0.5	0.9	– 0.0	– 0.0	– 1.2	0.5	– 0.6	0.0	– 12.7	– 2.6	– 66.2	8.0	4.7	Dec.
– 0.6	– 0.5	– 0.0	– 0.0	0.2	– 0.4	0.9	0.0	13.9	0.2	61.2	– 7.3	31.7	2019 Jan.
– 0.3	– 0.4	– 0.0	– 0.0	0.5	0.2	0.3	– 0.1	17.8	– 0.0	– 16.4	– 4.0	1.9	Feb.
– 0.5	– 0.1	– 0.0	– 0.0	0.5	0.6	0.0	– 0.3	– 6.0	0.4	15.8	11.6	68.4	Mar.
0.1	0.1	0.0	– 0.0	1.7	0.8	1.1	– 0.0	– 5.3	– 0.5	31.6	– 3.0	– 19.4	Apr.
– 0.4	– 0.2	– 0.0	– 0.0	0.6	0.6	– 1.3	0.0	11.8	0.2	– 10.4	7.2	92.3	May
1.4	1.3	– 0.0	– 0.0	2.5	2.0	1.7	0.0	3.4	0.9	– 8.2	4.8	39.5	June
– 0.3	– 0.5	– 0.0	0.0	– 4.2	– 2.8	1.0	0.1	1.0	0.2	– 11.7	2.2	59.2	July
1.1	1.7	– 0.0	– 0.0	– 0.0	– 0.0	3.1	0.1	– 5.4	0.4	5.8	2.3	221.7	Aug.
– 0.8	– 2.2	– 0.0	– 0.0	– 0.5	– 0.2	– 1.1	0.1	1.3	1.7	– 8.3	5.3	– 69.0	Sep.
3.4	2.7	– 0.0	– 0.0	1.8	– 0.1	– 0.3	– 0.1	– 6.5	– 2.1	– 9.7	– 6.9	– 102.1	Oct.
0.4	0.4	– 0.0	– 0.0	– 2.0	0.2	0.4	– 0.2	5.6	0.2	– 7.2	11.5	4.2	Nov.
– 1.5	– 1.7	– 0.0	– 0.0	0.3	0.6	– 0.2	– 0.1	– 9.2	– 1.3	– 90.5	6.4	0.7	Dec.
0.3	0.5	– 0.0	– 0.0	0.3	– 0.5	1.1	– 0.1	11.0	3.5	59.9	– 17.2	61.4	2020 Jan.
– 0.3	– 1.8	– 0.0	– 0.0	0.6	0.4	– 0.6	0.1	8.6	– 1.4	15.5	1.3	130.4	Feb.
1.4	1.2	– 0.0	– 0.0	– 0.0	– 0.0	– 0.3	0.6	– 11.9	– 3.8	36.2	– 0.3	63.2	Mar.
1.8	1.1	– 0.0	– 0.0	0.1	– 0.1	1.7	– 0.1	1.6	– 1.3	27.6	– 20.7	60.3	Apr.
1.1	– 1.1	– 0.0	– 0.0	– 0.5	– 0.3	– 1.2	– 0.1	5.1	– 0.6	– 21.9	3.5	– 82.0	May
2.0	2.8	– 0.0	0.0	0.0	1.0	– 1.3	– 0.2	– 1.3	– 0.1	4.6	16.4	– 10.8	June
– 0.6	1.0	– 0.0	– 0.0	8.3	8.3	1.3	– 0.2	– 10.1	– 5.0	1.4	– 4.1	37.7	July

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)						
				Total	of which:		Total	of which:				Participating interests	Other assets 1
					Balances and loans	Securities issued by banks		Loans		Bills	Securities issued by non-banks		
								for up to and including 1 year	for more than 1 year				
All categories of banks													
2020 Feb.	1,533	8,714.7	555.1	2,399.0	1,901.1	494.0	4,377.0	396.5	3,289.0	0.5	677.7	105.3	1,278.3
Mar.	1,533	8,963.4	675.5	2,418.4	1,919.2	495.1	4,414.1	418.6	3,298.5	0.4	679.8	105.5	1,349.9
Apr.	1,531	9,064.2	635.2	2,490.7	1,990.1	496.6	4,437.5	420.0	3,317.7	0.3	680.8	105.7	1,395.1
May	1,530	8,968.3	638.6	2,431.2	1,929.3	497.4	4,470.6	427.6	3,335.7	0.3	684.9	98.0	1,329.9
June	1,530	9,082.2	819.6	2,384.2	1,880.4	498.9	4,459.5	405.3	3,339.4	0.3	690.7	98.1	1,320.8
July	1,527	9,126.2	859.0	2,353.6	1,853.2	495.7	4,454.8	405.3	3,348.1	0.3	678.1	98.5	1,360.4
Commercial banks 6													
2020 June	259	3,864.9	429.6	966.0	880.3	84.9	1,409.3	250.0	935.3	0.2	209.9	36.4	1,023.6
July	258	3,907.5	459.4	954.7	871.0	83.0	1,401.9	247.5	934.6	0.2	205.0	36.8	1,054.7
Big banks 7													
2020 June	3	2,309.5	141.4	525.0	489.9	35.1	659.8	125.6	417.3	0.1	107.3	30.7	952.6
July	3	2,351.5	159.9	523.7	489.8	33.9	659.5	126.6	417.9	0.1	104.3	30.7	977.7
Regional banks and other commercial banks													
2020 June	146	1,115.1	167.5	255.2	206.6	48.3	623.5	80.6	442.9	0.1	96.2	5.0	64.0
July	146	1,116.7	177.1	245.3	197.5	47.5	618.6	79.4	441.6	0.1	94.2	5.4	70.3
Branches of foreign banks													
2020 June	110	440.4	120.7	185.9	183.8	1.5	126.0	43.8	75.1	0.1	6.5	0.7	7.0
July	109	439.3	122.4	185.7	183.7	1.5	123.7	41.5	75.1	0.0	6.5	0.7	6.7
Landesbanken													
2020 June	6	879.3	72.1	260.9	197.7	62.6	414.0	47.2	315.5	0.0	46.5	8.7	123.5
July	6	879.6	89.7	244.7	183.5	60.6	409.6	47.9	314.1	0.0	43.2	8.7	126.9
Savings banks													
2020 June	378	1,402.5	108.3	177.1	58.3	118.6	1,081.5	48.8	860.2	0.0	171.7	14.8	20.8
July	377	1,416.1	117.4	176.8	58.2	118.4	1,085.5	48.1	865.5	0.0	171.0	14.8	21.6
Credit cooperatives													
2020 June	841	1,029.2	45.4	183.8	70.8	112.8	759.6	33.8	607.8	0.0	117.9	17.8	22.6
July	840	1,037.3	45.4	187.6	73.6	113.7	763.6	34.6	611.2	0.0	117.7	17.8	22.9
Mortgage banks													
2020 June	10	242.1	8.4	26.7	17.1	9.3	198.5	3.1	175.7	–	19.7	0.2	8.4
July	10	238.9	8.1	23.2	13.5	9.5	198.9	3.4	176.1	–	19.5	0.2	8.6
Building and loan associations													
2020 June	18	240.7	1.5	47.1	30.8	16.3	187.6	1.0	160.8	.	25.9	0.3	4.1
July	18	241.1	1.4	46.8	30.5	16.3	188.5	1.0	161.7	.	25.8	0.3	4.0
Banks with special, development and other central support tasks													
2020 June	18	1,423.5	154.3	722.5	625.3	94.4	408.9	21.4	284.1	0.0	99.2	20.0	117.8
July	18	1,405.7	137.6	719.8	622.7	94.3	406.7	22.7	284.9	0.0	95.9	19.9	121.7
Memo item: Foreign banks 8													
2020 June	144	1,358.9	226.9	405.6	365.8	39.1	572.8	114.4	360.3	0.2	93.3	3.2	150.3
July	143	1,372.1	241.1	407.4	368.4	38.3	566.1	110.1	359.1	0.1	92.4	3.7	153.8
of which: Banks majority-owned by foreign banks 9													
2020 June	34	918.5	106.2	219.8	181.9	37.6	446.7	70.6	285.2	0.1	86.8	2.5	143.3
July	34	932.8	118.7	221.7	184.7	36.8	442.4	68.6	284.0	0.1	86.0	3.0	147.1

* 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														
1,817.4	567.0	1,250.3	3,931.2	2,383.5	272.9	665.0	40.3	575.0	541.7	34.9	1,193.1	552.4	1,220.6	2020 Feb.
1,961.6	610.8	1,350.8	3,985.6	2,451.1	269.7	659.5	32.3	570.9	538.3	34.4	1,177.3	556.2	1,282.7	Mar.
1,990.2	579.8	1,410.3	4,015.9	2,488.4	270.1	653.6	41.2	570.2	538.4	33.7	1,177.6	539.2	1,341.3	Apr.
1,939.0	590.8	1,348.1	4,056.2	2,527.2	276.2	650.2	40.0	570.0	538.7	32.6	1,172.9	533.3	1,266.9	May
2,065.1	603.9	1,461.1	4,042.0	2,530.5	270.4	640.1	36.8	569.0	538.6	32.1	1,179.5	539.1	1,256.6	June
2,051.8	614.3	1,437.5	4,074.1	2,553.4	282.3	639.4	41.9	567.3	537.5	31.8	1,162.0	540.2	1,298.1	July
Commercial banks [6]														
1,008.8	429.3	579.5	1,602.9	1,078.5	166.9	246.6	34.7	98.1	93.0	12.8	169.9	176.2	907.1	2020 June
1,016.1	446.9	569.1	1,611.3	1,087.7	173.1	239.9	39.6	97.9	93.0	12.7	167.0	176.4	936.6	July
Big banks [7]														
478.2	178.4	299.8	777.8	501.6	98.2	93.9	34.6	82.6	78.4	1.5	126.2	82.9	844.4	2020 June
491.8	198.0	293.8	783.5	506.8	100.6	91.9	39.5	82.6	78.5	1.5	124.1	82.7	869.5	July
Regional banks and other commercial banks														
273.5	106.5	166.9	661.5	461.7	42.6	130.9	0.2	15.1	14.3	11.2	43.2	83.5	53.4	2020 June
272.3	106.2	166.1	660.4	463.7	44.1	126.4	0.1	15.0	14.1	11.1	42.6	83.9	57.6	July
Branches of foreign banks														
257.1	144.3	112.8	163.6	115.3	26.1	21.8	–	0.3	0.3	0.1	0.5	9.8	9.3	2020 June
252.0	142.7	109.2	167.5	117.2	28.4	21.6	–	0.3	0.3	0.1	0.4	9.8	9.6	July
Landesbanken														
265.0	57.1	208.0	262.3	133.2	44.4	78.4	2.0	6.2	6.2	0.2	186.0	42.9	123.1	2020 June
266.1	57.6	208.5	263.6	131.6	47.8	77.8	2.2	6.2	6.1	0.2	182.8	42.9	124.2	July
Savings banks														
161.0	7.0	154.0	1,051.9	730.6	13.6	14.4	–	279.9	260.8	13.4	18.0	126.9	44.6	2020 June
161.0	6.9	154.1	1,064.1	743.9	14.0	14.2	–	278.8	259.9	13.2	18.0	127.7	45.2	July
Credit cooperatives														
142.3	2.7	139.6	756.9	526.3	29.3	12.8	–	184.3	178.2	4.1	10.6	87.8	31.7	2020 June
142.8	2.3	140.6	763.9	533.8	29.2	12.8	–	184.0	178.0	4.1	10.6	88.1	32.0	July
Mortgage banks														
62.9	3.1	59.9	65.5	2.2	3.3	60.1	–	–	–	.	96.6	10.7	6.3	2020 June
60.6	3.2	57.4	65.1	2.0	3.5	59.6	–	–	–	.	96.1	10.7	6.5	July
Building and loan associations														
27.2	4.5	22.7	188.3	3.3	1.2	183.3	–	0.4	0.4	0.1	1.7	12.2	11.3	2020 June
27.9	2.7	25.3	188.0	3.4	1.2	182.9	–	0.4	0.4	0.1	1.7	12.3	11.2	July
Banks with special, development and other central support tasks														
397.8	100.4	297.5	114.2	56.4	11.7	44.6	0.1	–	–	.	696.8	82.3	132.4	2020 June
377.3	94.6	282.7	118.0	50.9	13.6	52.0	0.1	–	–	.	685.8	82.1	142.4	July
***Memo item:* Foreign banks [8]**														
524.1	257.0	267.1	592.7	441.1	52.8	75.4	1.9	19.2	18.8	4.3	35.8	64.2	142.0	2020 June
525.5	264.4	261.0	602.8	447.4	58.6	73.5	3.7	19.1	18.7	4.2	35.5	64.5	143.9	July
***of which:* Banks majority-owned by foreign banks [9]**														
267.0	112.7	154.3	429.1	325.8	26.7	53.6	1.9	18.8	18.5	4.2	35.3	54.4	132.7	2020 June
273.5	121.7	151.8	435.2	330.3	30.2	51.9	3.7	18.7	18.4	4.1	35.1	54.7	134.3	July

loan associations: Including deposits under savings and loan contracts (see Table IV.12). **3** Included in time deposits. **4** Excluding deposits under savings and loan contracts (see also footnote 2). **5** Including subordinated negotiable bearer debt securities; excluding non-negotiable bearer debt securities. **6** Commercial banks comprise the sub-groups "Big banks", "Regional banks and other commercial banks" and "Branches of foreign banks". **7** Deutsche Bank AG, Dresdner Bank AG (up to Nov. 2009), Commerzbank AG, UniCredit Bank AG (formerly Bayerische Hypo- und Vereinsbank AG), Deutsche Postbank AG (from December 2004 up to April 2018) and DB Privat- und Firmenkundenbank AG (from May 2018) (see the explanatory notes in the Statistical Supplement to the Monthly Report 1, Banking statistics, Table I.3, banking group "Big banks"). **8** Sum of the banks majority-owned by foreign banks and included in other categories of banks and the category "Branches (with dependent legal status) of foreign banks". **9** Separate presentation of the banks majority-owned by foreign banks included in other banking categories.

IV. Banks

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

€ billion

Period	Cash in hand (euro area banknotes and coins)	Credit balances with the Bundesbank	Lending to domestic banks (MFIs)						Lending to domestic non-banks (non-MFIs)				
			Total	Credit balances and loans	Bills	Negotiable money market paper issued by banks	Securities issued by banks	Memo item: Fiduciary loans	Total	Loans	Bills	Treasury bills and negotiable money market paper issued by non-banks	Securities issued by non-banks [1]
													End of year or month *
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
2019	43.2	476.6	1,254.7	1,016.2	0.0	0.7	237.9	4.5	3,521.5	3,119.2	0.3	3.3	398.7
2019 Feb.	36.6	471.9	1,361.8	1,118.8	0.0	0.8	242.1	6.1	3,413.6	3,014.0	0.2	0.3	399.0
Mar.	36.8	476.4	1,380.3	1,137.3	0.0	1.0	242.0	6.0	3,425.0	3,026.0	0.3	1.0	397.7
Apr.	38.0	501.2	1,363.8	1,123.2	0.0	0.8	239.8	6.0	3,428.9	3,034.7	0.2	1.1	393.0
May	37.7	517.6	1,371.8	1,129.7	0.0	0.8	241.3	5.5	3,445.6	3,049.5	0.2	1.5	394.4
June	37.7	477.9	1,362.5	1,121.2	0.0	1.0	240.3	5.2	3,467.1	3,067.0	0.2	1.3	398.5
July	37.2	460.1	1,355.5	1,113.6	0.0	0.9	241.0	5.1	3,476.1	3,075.1	0.2	2.3	398.6
Aug.	38.0	462.1	1,365.8	1,126.4	0.0	0.9	238.4	4.8	3,491.7	3,087.2	0.2	2.9	401.4
Sep.	37.8	452.7	1,354.1	1,115.7	0.0	0.8	237.6	4.7	3,499.8	3,094.5	0.2	3.8	401.3
Oct.	39.0	529.1	1,252.1	1,013.6	0.0	0.9	237.6	4.6	3,506.7	3,104.5	0.2	3.4	398.6
Nov.	39.9	529.6	1,301.7	1,059.6	0.0	1.1	241.0	4.6	3,523.5	3,121.1	0.2	3.3	398.9
Dec.	43.2	476.6	1,254.7	1,016.2	0.0	0.7	237.9	4.5	3,521.5	3,119.2	0.3	3.3	398.7
2020 Jan.	39.2	515.2	1,256.9	1,015.4	0.0	0.8	240.7	4.6	3,528.4	3,125.8	0.3	3.3	399.1
Feb.	40.0	509.4	1,280.0	1,035.2	0.0	0.9	243.8	5.0	3,544.7	3,141.9	0.3	4.6	397.8
Mar.	47.9	621.7	1,273.0	1,029.4	0.0	1.0	242.6	5.1	3,580.0	3,174.1	0.2	5.1	400.6
Apr.	48.4	582.3	1,334.6	1,090.6	0.0	1.2	242.8	5.0	3,594.3	3,185.3	0.2	7.2	401.6
May	47.8	586.2	1,291.8	1,044.7	0.0	1.1	246.0	6.0	3,620.9	3,204.2	0.1	10.1	406.4
June	45.7	767.6	1,270.4	1,019.6	0.0	1.1	249.6	6.9	3,621.1	3,206.6	0.2	8.0	406.2
July	45.2	810.5	1,270.5	1,019.2	0.0	1.2	250.0	7.5	3,625.7	3,217.2	0.2	8.0	400.3
													Changes *
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
2019	+ 2.8	+ 59.7	– 63.0	– 61.1	– 0.0	– 0.2	– 1.6	– 1.4	+ 126.7	+ 129.1	+ 0.1	+ 3.1	– 5.5
2019 Feb.	+ 0.1	+ 20.1	+ 15.3	+ 12.1	+ 0.0	+ 0.0	+ 3.2	+ 0.0	+ 8.3	+ 10.7	+ 0.0	– 0.7	– 1.7
Mar.	+ 0.2	+ 3.8	+ 22.0	+ 22.7	–	+ 0.1	– 0.8	– 0.0	+ 10.9	+ 12.0	+ 0.1	+ 0.7	– 1.8
Apr.	+ 1.2	+ 24.8	– 16.6	– 14.1	+ 0.0	– 0.2	– 2.2	+ 0.0	+ 3.8	+ 8.5	– 0.0	+ 0.1	– 4.7
May	– 0.3	+ 16.4	+ 8.0	+ 6.5	–	– 0.0	+ 1.5	– 0.5	+ 16.7	+ 14.8	– 0.0	+ 0.4	+ 1.5
June	– 0.0	– 39.7	– 9.2	– 8.4	–	+ 0.2	– 0.9	– 0.3	+ 21.5	+ 17.5	+ 0.1	– 0.1	+ 4.1
July	– 0.5	– 17.7	– 7.2	– 7.8	+ 0.0	– 0.1	+ 0.7	– 0.1	+ 9.2	+ 8.3	– 0.1	+ 0.9	+ 0.0
Aug.	+ 0.8	+ 1.9	+ 10.3	+ 12.9	+ 0.0	+ 0.0	– 2.6	– 0.2	+ 15.6	+ 12.1	+ 0.0	+ 0.6	+ 2.8
Sep.	– 0.2	– 9.4	– 9.2	– 8.2	– 0.0	– 0.1	– 0.8	– 0.1	+ 8.1	+ 7.3	– 0.1	+ 0.9	– 0.1
Oct.	+ 1.2	+ 76.4	– 102.1	– 102.2	–	+ 0.1	– 0.0	– 0.1	+ 6.9	+ 10.0	– 0.0	– 0.3	– 2.8
Nov.	+ 0.9	+ 0.4	+ 49.6	+ 46.0	– 0.0	+ 0.1	+ 3.4	+ 0.0	+ 16.8	+ 16.6	+ 0.0	– 0.2	+ 0.3
Dec.	+ 3.3	– 53.0	– 46.9	– 43.5	– 0.0	– 0.4	– 3.1	– 0.1	– 1.9	– 1.9	+ 0.1	+ 0.0	– 0.1
2020 Jan.	– 4.0	+ 38.6	+ 2.3	– 0.7	– 0.0	+ 0.1	+ 2.9	+ 0.1	+ 6.8	+ 6.5	– 0.1	– 0.0	+ 0.4
Feb.	+ 0.8	– 5.9	+ 23.1	+ 19.8	– 0.0	+ 0.1	+ 3.1	+ 0.4	+ 16.3	+ 16.2	+ 0.1	+ 1.4	– 1.3
Mar.	+ 7.8	+112.4	– 7.0	– 5.9	–	+ 0.1	– 1.3	+ 0.0	+ 35.3	+ 32.1	– 0.1	+ 0.4	+ 2.8
Apr.	+ 0.5	– 39.4	+ 61.6	+ 61.2	+ 0.0	+ 0.2	+ 0.2	– 0.0	+ 14.4	+ 11.2	– 0.1	+ 2.2	+ 1.0
May	– 0.6	+ 3.9	+ 16.9	+ 13.7	–	– 0.1	+ 3.2	+ 0.9	+ 24.1	+ 16.4	– 0.0	+ 2.9	+ 4.8
June	– 2.1	+181.4	– 21.4	– 25.0	–	– 0.0	+ 3.6	+ 0.9	+ 0.2	+ 2.4	+ 0.0	– 2.1	– 0.2
July	– 0.5	+ 42.9	+ 0.1	– 0.4	–	+ 0.1	+ 0.4	+ 0.6	+ 4.6	+ 10.5	– 0.0	+ 0.0	– 5.9

***** 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;

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 *														
–	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
–	17.3	90.4	1,010.2	107.2	902.9	0.0	4.4	3,661.0	2,236.3	816.2	575.2	33.2	32.5	2019
–	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	2019 Feb.
–	17.6	90.9	1,049.4	122.3	927.1	0.0	4.7	3,565.3	2,101.1	846.4	582.0	35.8	33.9	Mar.
–	17.5	90.7	1,060.8	131.5	929.3	0.0	4.6	3,582.0	2,122.7	841.6	582.3	35.4	33.9	Apr.
–	17.5	91.2	1,056.4	121.5	934.9	0.0	4.6	3,611.4	2,152.7	841.0	582.5	35.2	33.7	May
–	17.5	90.9	1,047.1	122.5	924.6	0.0	4.6	3,609.5	2,150.7	841.2	582.7	34.9	33.4	June
–	17.1	91.0	1,053.9	123.2	930.6	0.0	4.5	3,616.9	2,166.5	833.9	581.8	34.8	32.9	July
–	17.1	90.3	1,061.4	127.7	933.7	0.0	4.5	3,638.4	2,189.1	834.4	580.3	34.7	32.7	Aug.
–	17.0	90.0	1,037.5	121.4	916.1	0.0	4.5	3,629.1	2,185.4	830.3	579.0	34.4	32.6	Sep.
–	17.1	90.1	1,049.3	129.3	920.0	0.0	4.5	3,644.4	2,207.1	826.0	577.2	34.1	32.5	Oct.
–	17.1	90.2	1,055.9	126.6	929.4	0.0	4.5	3,674.8	2,244.5	820.9	575.7	33.8	32.5	Nov.
–	17.3	90.4	1,010.2	107.2	902.9	0.0	4.4	3,661.0	2,236.3	816.2	575.2	33.2	32.5	Dec.
–	16.9	90.0	1,031.4	125.4	906.0	0.0	4.4	3,658.2	2,235.1	819.7	570.7	32.6	32.3	2020 Jan.
–	16.9	86.1	1,046.8	133.2	913.6	0.0	4.4	3,675.9	2,254.4	820.8	568.5	32.2	32.8	Feb.
–	16.9	86.3	1,134.7	147.5	987.2	0.0	4.3	3,716.6	2,304.9	815.5	564.5	31.8	32.5	Mar.
–	17.1	86.4	1,154.9	141.2	1,013.6	0.0	4.3	3,741.9	2,345.4	801.6	563.8	31.1	32.8	Apr.
–	19.4	78.8	1,110.9	131.6	979.3	0.0	7.1	3,775.3	2,376.3	804.7	563.6	30.7	33.3	May
–	20.8	78.8	1,229.5	131.4	1,098.1	0.0	9.4	3,766.3	2,385.3	788.2	562.6	30.3	33.4	June
–	22.2	79.3	1,207.9	125.0	1,082.8	0.0	11.1	3,803.4	2,414.0	798.6	560.9	29.9	33.8	July
Changes *														
– – 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
– – 0.7		+ 0.1	– 8.6	+ 1.6	– 10.2	+ 0.0	– 0.3	+ 122.5	+ 155.8	– 25.7	– 3.5	– 4.1	– 1.4	2019
– –		– 0.0	+ 5.9	+ 3.3	+ 2.6	+ 0.0	+ 0.0	+ 13.6	+ 9.3	+ 3.9	+ 1.1	– 0.6	+ 0.1	2019 Feb.
– – 0.2		+ 0.1	+ 3.5	+ 3.8	– 0.3	– 0.0	– 0.1	+ 10.4	+ 12.0	– 3.8	+ 2.5	– 0.3	– 0.0	Mar.
– – 0.1		– 0.2	+ 11.3	+ 9.2	+ 2.2	+ 0.0	– 0.0	+ 16.7	+ 21.6	– 4.7	+ 0.2	– 0.3	+ 0.0	Apr.
– + 0.0		+ 0.5	– 4.3	– 10.0	+ 5.7	–	+ 0.0	+ 29.4	+ 30.0	– 0.6	+ 0.3	– 0.3	– 0.2	May
– – 0.1		– 0.1	– 9.2	+ 1.2	– 10.4	– 0.0	– 0.1	– 2.0	– 1.9	+ 0.1	+ 0.2	– 0.3	– 0.3	June
– – 0.4		+ 0.0	+ 6.8	+ 0.7	+ 6.0	+ 0.0	– 0.0	+ 7.2	+ 15.7	– 7.6	– 0.9	– 0.1	– 0.5	July
– + 0.0		– 0.6	+ 7.6	+ 4.5	+ 3.1	+ 0.0	–	+ 21.4	+ 22.6	+ 0.5	– 1.5	– 0.1	– 0.2	Aug.
– – 0.1		+ 0.1	– 21.4	– 6.3	– 15.2	– 0.0	– 0.0	– 9.3	– 3.7	– 4.1	– 1.3	– 0.3	– 0.2	Sep.
– + 0.1		+ 0.2	+ 11.8	+ 7.8	+ 3.9	+ 0.0	– 0.0	+ 15.3	+ 21.7	– 4.3	– 1.8	– 0.3	– 0.0	Oct.
– – 0.0		+ 0.1	+ 6.7	– 2.7	+ 9.4	–	+ 0.0	+ 30.4	+ 37.4	– 5.1	– 1.6	– 0.3	– 0.0	Nov.
– + 0.1		+ 0.2	– 45.8	– 19.3	– 26.4	+ 0.0	– 0.1	– 13.8	– 8.2	– 4.6	– 0.5	– 0.5	– 0.0	Dec.
– – 0.3		– 0.4	+ 21.2	+ 18.2	+ 3.1	– 0.0	– 0.0	– 2.8	– 1.3	+ 3.5	– 4.5	– 0.6	– 0.1	2020 Jan.
– – 0.0		– 3.9	+ 15.4	+ 7.8	+ 7.6	– 0.0	+ 0.0	+ 17.7	+ 19.3	+ 1.1	– 2.2	– 0.4	+ 0.4	Feb.
– – 0.1		+ 0.2	+ 87.9	+ 14.3	+ 73.7	+ 0.0	– 0.0	+ 40.7	+ 50.5	– 5.3	– 4.0	– 0.4	– 0.2	Mar.
– + 0.3		+ 0.1	+ 20.2	– 6.2	+ 26.4	+ 0.0	+ 0.0	+ 25.3	+ 40.7	– 14.0	– 0.7	– 0.7	+ 0.2	Apr.
– + 2.2		– 0.2	+ 15.6	– 4.6	+ 20.3	– 0.0	+ 2.7	+ 30.5	+ 27.9	+ 3.2	– 0.2	– 0.4	+ 0.6	May
– + 1.5		+ 0.0	+ 118.6	– 0.2	+ 118.8	– 0.0	+ 2.3	– 9.0	+ 8.8	– 16.4	– 1.1	– 0.4	+ 0.1	June
– + 0.9		+ 0.5	– 21.7	– 6.4	– 15.2	– 0.0	+ 1.2	+ 37.1	+ 28.7	+ 10.5	– 1.6	– 0.4	+ 0.4	July

including subordinated liabilities. **4** Including liabilities arising from monetary policy 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 *													
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
2019	0.2	1,064.2	814.0	532.7	281.3	1.8	248.5	3.7	795.3	513.1	111.0	402.1	7.7	274.5
2019 Feb.	0.2	1,031.8	785.3	511.5	273.7	1.7	244.8	3.2	782.0	504.5	110.6	393.9	5.9	271.5
Mar.	0.2	1,092.9	845.1	565.9	279.2	2.0	245.8	3.2	799.2	519.8	122.8	397.0	7.8	271.6
Apr.	0.2	1,106.2	858.3	579.0	279.3	2.8	245.2	3.3	807.9	529.0	130.3	398.7	6.6	272.2
May	0.2	1,090.6	840.9	564.1	276.8	2.8	246.8	3.6	820.1	542.9	140.2	402.7	6.4	270.8
June	0.2	1,109.3	857.3	578.3	279.0	3.1	248.9	3.8	816.2	535.9	135.8	400.1	6.6	273.6
July	0.2	1,099.0	844.6	563.6	281.0	3.3	251.1	3.8	829.3	548.2	143.9	404.3	8.6	272.5
Aug.	0.2	1,099.5	844.9	562.8	282.1	3.4	251.1	3.9	850.7	564.8	158.0	406.8	9.4	276.4
Sep.	0.2	1,120.8	867.0	583.4	283.5	3.9	249.9	3.9	826.7	539.6	131.1	408.5	8.6	278.5
Oct.	0.2	1,132.8	880.2	590.3	289.9	3.8	248.8	3.9	826.5	544.3	140.7	403.7	9.2	273.0
Nov.	0.2	1,122.8	870.5	585.6	284.9	3.4	248.9	3.8	828.1	541.1	136.8	404.3	9.9	277.1
Dec.	0.2	1,064.2	814.0	532.7	281.3	1.8	248.5	3.7	795.3	513.1	111.0	402.1	7.7	274.5
2020 Jan.	0.2	1,111.1	859.7	578.2	281.5	2.7	248.7	3.8	821.5	536.9	133.0	403.8	7.7	277.0
Feb.	0.2	1,119.0	865.9	590.7	275.2	2.9	250.2	3.8	832.3	543.7	136.8	406.9	8.6	279.9
Mar.	0.3	1,145.4	889.8	615.5	274.4	3.0	252.5	3.5	834.1	543.2	135.7	407.5	11.7	279.2
Apr.	0.3	1,156.2	899.6	626.2	273.4	2.8	253.8	3.5	843.1	552.5	142.6	410.0	11.4	279.2
May	0.3	1,139.4	884.7	613.2	271.5	3.3	251.4	3.7	849.7	559.2	152.6	406.5	12.1	278.4
June	0.3	1,113.8	860.8	592.4	268.5	3.7	249.3	3.8	838.4	538.2	134.7	403.5	15.8	284.5
July	0.3	1,083.1	834.0	574.4	259.6	3.4	245.7	3.9	829.1	536.3	138.8	397.5	15.0	277.8
	Changes *													
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
2019	– 0.0	– 4.1	– 11.3	– 21.9	+ 10.7	+ 0.8	+ 6.3	+ 0.7	+ 26.8	+ 19.9	+ 12.7	+ 7.3	+ 3.0	+ 3.8
2019 Feb.	+ 0.0	– 1.8	– 4.4	– 7.7	+ 3.3	+ 0.4	+ 2.2	+ 0.1	– 4.3	– 8.3	– 9.2	+ 0.9	– 0.1	+ 4.2
Mar.	+ 0.0	+ 28.2	+ 27.8	+ 24.7	+ 3.1	+ 0.3	+ 0.2	+ 0.0	– 3.0	– 2.5	– 3.4	+ 0.8	+ 1.5	– 2.0
Apr.	+ 0.0	+ 13.7	+ 13.5	+ 13.5	– 0.0	+ 0.8	– 0.5	+ 0.1	+ 9.1	+ 9.6	+ 7.7	+ 1.9	– 1.1	+ 0.7
May	– 0.0	– 17.6	– 19.4	– 16.4	– 3.0	+ 0.0	+ 1.7	+ 0.3	+ 12.1	+ 13.9	+ 10.0	+ 3.9	– 0.2	– 1.6
June	+ 0.0	+ 23.8	+ 21.3	+ 15.8	+ 5.5	+ 0.3	+ 2.2	+ 0.2	– 0.1	– 3.7	– 3.2	– 0.5	+ 0.2	+ 3.4
July	– 0.0	– 15.1	– 17.4	– 17.3	– 0.1	+ 0.2	+ 2.1	+ 0.0	+ 10.2	+ 9.9	+ 7.7	+ 2.2	+ 2.0	– 1.6
Aug.	+ 0.0	– 3.6	– 3.5	– 3.1	– 0.3	+ 0.1	– 0.2	+ 0.0	+ 19.0	+ 14.5	+ 13.9	+ 0.6	+ 0.8	+ 3.7
Sep.	– 0.0	– 0.2	+ 0.7	+ 1.2	– 0.5	+ 0.4	– 1.4	+ 0.0	– 10.5	– 11.3	– 10.7	– 0.5	– 0.9	+ 1.6
Oct.	+ 0.0	+ 18.1	+ 18.9	+ 9.8	+ 9.1	– 0.1	– 0.8	– 0.1	+ 2.9	+ 7.5	+ 10.1	– 2.6	+ 0.7	– 5.2
Nov.	– 0.0	– 14.2	– 13.8	– 6.7	– 7.1	– 0.4	– 0.0	– 0.1	– 1.7	– 6.1	– 4.7	– 1.4	+ 0.7	+ 3.7
Dec.	+ 0.0	– 53.1	– 51.2	– 50.3	– 0.9	– 1.5	– 0.4	– 0.1	– 29.1	– 24.9	– 24.9	– 0.0	– 2.3	– 1.9
2020 Jan.	– 0.0	+ 42.2	+ 41.2	+ 43.2	– 1.9	+ 0.9	+ 0.1	+ 0.1	+ 23.1	+ 21.1	+ 21.4	– 0.3	+ 0.0	+ 1.9
Feb.	+ 0.0	+ 6.5	+ 4.7	+ 11.5	– 6.8	+ 0.3	+ 1.5	– 0.0	+ 10.1	+ 6.4	+ 3.7	+ 2.7	+ 0.9	+ 2.8
Mar.	+ 0.0	+ 27.5	+ 24.9	+ 25.3	– 0.4	+ 0.1	+ 2.5	– 0.3	+ 3.6	+ 1.1	– 0.7	+ 1.7	+ 3.1	– 0.6
Apr.	+ 0.0	+ 7.4	+ 6.5	+ 5.5	+ 1.0	– 0.2	+ 1.1	– 0.0	+ 6.5	+ 7.2	+ 6.3	+ 0.9	– 0.3	– 0.4
May	– 0.0	– 22.7	– 21.4	– 22.6	+ 1.2	+ 0.5	– 1.8	+ 0.2	+ 3.2	+ 2.4	+ 2.5	– 0.1	+ 0.7	+ 0.1
June	+ 0.0	– 23.5	– 21.8	– 19.6	– 2.2	+ 0.3	– 2.0	+ 0.1	– 9.8	– 19.7	– 17.5	– 2.2	+ 3.7	+ 6.2
July	– 0.0	– 17.9	– 14.4	– 11.2	– 3.2	– 0.2	– 3.3	+ 0.1	– 0.8	+ 5.3	+ 5.9	– 0.6	– 0.7	– 5.4

* 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 *														
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
11.5	21.3	680.6	339.3	341.2	243.2	98.0	–	229.8	112.3	117.4	60.5	57.0	0.1	2019
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	2019 Feb.
13.0	21.5	762.8	464.1	298.7	209.1	89.6	1.3	259.1	113.8	145.3	87.7	57.6	0.1	Mar.
13.0	22.3	787.1	441.7	345.4	255.0	90.4	1.3	268.4	124.2	144.2	86.9	57.3	0.1	Apr.
13.0	22.3	783.6	482.4	301.2	210.0	91.2	1.3	261.3	120.7	140.6	83.6	57.0	0.1	May
12.8	22.3	787.2	471.3	315.9	225.1	90.7	1.3	265.6	126.9	138.8	81.8	56.9	0.1	June
12.8	22.0	768.5	460.7	307.8	214.3	93.5	1.3	262.9	126.2	136.7	79.5	57.2	0.1	July
12.8	22.0	779.4	436.0	343.4	247.8	95.6	1.3	274.2	127.1	147.1	90.2	56.9	0.1	Aug.
12.8	22.2	806.6	440.4	366.2	269.8	96.4	1.3	244.6	123.1	121.5	63.1	58.4	0.1	Sep.
12.6	21.8	787.8	430.9	356.9	259.3	97.6	1.1	251.8	119.9	131.9	73.3	58.6	0.1	Oct.
12.6	21.6	790.4	452.4	338.0	239.5	98.5	1.1	251.6	120.5	131.1	72.4	58.7	0.1	Nov.
11.5	21.3	680.6	339.3	341.2	243.2	98.0	–	229.8	112.3	117.4	60.5	57.0	0.1	Dec.
11.4	21.4	756.2	433.4	322.8	223.1	99.8	–	247.8	121.8	126.0	68.1	57.8	0.1	2020 Jan.
11.4	19.0	770.5	433.8	336.7	230.1	106.6	–	255.3	129.1	126.2	66.5	59.6	0.1	Feb.
11.4	19.0	826.9	463.3	363.6	250.9	112.6	–	269.0	146.3	122.7	62.8	60.0	0.1	Mar.
11.4	19.0	835.3	438.6	396.7	288.0	108.7	–	274.1	143.0	131.1	69.9	61.2	0.1	Apr.
11.4	19.0	828.1	459.2	368.9	260.8	108.0	–	280.8	150.9	129.9	67.9	62.0	0.1	May
11.3	19.1	835.5	472.5	363.0	247.2	115.9	–	275.7	145.2	130.5	69.5	61.1	0.1	June
11.2	19.0	843.9	489.3	354.7	238.9	115.7	–	270.6	139.4	131.3	72.5	58.8	0.1	July
Changes *														
– 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	– 0.9	– 9.5	– 49.4	+ 39.8	+ 28.0	+ 11.8	– 0.0	– 0.8	+ 2.1	– 2.9	– 1.8	– 1.1	– 0.0	2019
+ 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	2019 Feb.
+ 1.3	– 0.2	+ 32.9	+ 22.7	+ 10.2	+ 9.0	+ 1.3	+ 1.3	+ 5.1	+ 1.6	+ 3.5	+ 4.0	– 0.5	– 0.0	Mar.
– 0.0	+ 0.8	+ 24.4	– 22.2	+ 46.6	+ 45.9	+ 0.7	– 0.0	+ 9.3	+ 10.4	– 1.1	– 0.8	– 0.3	–	Apr.
– 0.0	– 0.0	– 4.2	+ 40.4	– 44.6	– 45.3	+ 0.8	+ 0.0	– 7.2	– 7.9	+ 0.6	+ 1.0	– 0.3	+ 0.0	May
– 0.2	+ 0.0	+ 7.2	– 9.6	+ 16.8	+ 14.6	+ 2.2	–	+ 5.4	+ 6.6	– 1.2	– 1.2	– 0.0	– 0.0	June
– 0.0	– 0.4	– 22.0	– 12.0	– 10.0	– 12.4	+ 2.4	+ 0.0	– 3.6	– 1.2	– 2.4	– 2.5	+ 0.1	+ 0.0	July
+ 0.0	+ 0.0	+ 8.4	– 25.9	+ 34.3	+ 32.8	+ 1.5	+ 0.0	+ 10.5	+ 0.6	+ 10.0	+ 10.3	– 0.4	–	Aug.
– 0.0	+ 0.1	+ 9.8	– 3.1	+ 12.9	+ 12.5	+ 0.4	+ 0.0	– 16.3	+ 2.3	– 18.6	– 20.0	+ 1.4	+ 0.0	Sep.
– 0.2	– 0.3	– 14.6	– 8.1	– 6.5	– 8.2	+ 1.7	– 0.2	+ 8.3	– 2.7	+ 10.9	+ 10.6	+ 0.3	– 0.0	Oct.
+ 0.0	– 0.3	– 0.6	+ 20.3	– 20.9	– 21.4	+ 0.5	+ 0.0	– 1.2	+ 0.2	– 1.4	– 1.4	– 0.0	+ 0.0	Nov.
– 1.1	– 0.2	– 106.0	–111.5	+ 5.5	+ 5.5	+ 0.1	– 1.1	– 20.7	– 7.7	– 12.9	– 11.4	– 1.6	– 0.0	Dec.
– 0.1	+ 0.0	+ 73.0	+ 92.9	– 19.8	– 21.6	+ 1.7	–	+ 16.7	+ 9.2	+ 7.6	+ 7.4	+ 0.2	+ 0.0	2020 Jan.
– 0.0	– 2.4	+ 13.3	+ 5.0	+ 8.4	+ 5.9	+ 2.5	–	+ 7.3	+ 7.2	+ 0.1	– 1.7	+ 1.8	– 0.0	Feb.
+ 0.0	– 0.0	+ 57.2	+ 29.9	+ 27.3	+ 21.1	+ 6.2	–	+ 14.2	+ 17.4	– 3.2	– 3.5	+ 0.4	+ 0.0	Mar.
– 0.0	+ 0.0	+ 6.0	– 25.9	+ 31.9	+ 33.0	– 1.1	–	+ 4.4	– 3.7	+ 8.1	+ 6.9	+ 1.2	– 0.0	Apr.
– 0.0	+ 0.0	– 15.3	+ 9.3	– 24.6	– 24.6	+ 0.0	–	– 1.0	– 0.7	– 0.3	– 1.3	+ 1.0	+ 0.0	May
– 0.2	+ 0.1	+ 8.8	+ 13.9	– 5.1	– 13.1	+ 8.0	–	– 4.7	– 5.6	+ 0.9	+ 1.8	– 0.9	– 0.0	June
– 0.1	+ 0.0	+ 17.6	+ 20.7	– 3.1	– 4.0	+ 0.9	–	– 2.7	– 4.7	+ 2.0	+ 4.0	– 2.0	+ 0.0	July

IV. Banks

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

€ billion

Period	Lending to domestic non-banks, total		Short-term lending							Medium and long-term	
				to enterprises and households			to general government				to enterprises and households
	including negotiable money market paper, securities, equalisation claims	excluding negotiable money market paper, securities, equalisation claims	Total	Total	Loans and bills	Negotiable money market paper	Total	Loans	Treasury bills	Total	Total
	End of year or month *										
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
2019	3,521.5	3,119.5	260.4	238.8	238.4	0.4	21.6	18.7	2.9	3,261.1	2,866.9
2019 Feb.	3,413.6	3,014.2	257.6	235.4	234.9	0.5	22.2	22.4	– 0.2	3,156.0	2,746.4
Mar.	3,425.0	3,026.3	261.6	241.0	240.4	0.6	20.6	20.2	0.4	3,163.4	2,755.8
Apr.	3,428.9	3,034.9	256.3	235.0	234.3	0.7	21.4	21.0	0.4	3,172.6	2,769.9
May	3,445.6	3,049.7	257.3	236.6	235.7	0.9	20.7	20.1	0.6	3,188.3	2,785.8
June	3,467.1	3,067.2	271.3	249.8	249.2	0.6	21.5	20.8	0.7	3,195.8	2,795.2
July	3,476.1	3,075.3	270.3	243.8	243.2	0.6	26.5	24.9	1.6	3,205.9	2,807.7
Aug.	3,491.7	3,087.4	266.2	238.8	238.3	0.5	27.4	25.0	2.4	3,225.5	2,825.7
Sep.	3,499.8	3,094.7	269.2	246.1	245.6	0.6	23.1	19.9	3.2	3,230.6	2,831.0
Oct.	3,506.7	3,104.7	261.6	237.1	236.5	0.6	24.5	21.6	2.8	3,245.1	2,849.5
Nov.	3,523.5	3,121.3	262.6	239.8	239.2	0.6	22.8	20.1	2.7	3,260.9	2,864.3
Dec.	3,521.5	3,119.5	260.4	238.8	238.4	0.4	21.6	18.7	2.9	3,261.1	2,866.9
2020 Jan.	3,528.4	3,126.0	261.5	236.3	235.7	0.6	25.2	22.6	2.6	3,266.9	2,874.2
Feb.	3,544.7	3,142.3	264.8	240.0	239.3	0.7	24.8	20.8	4.0	3,279.9	2,888.9
Mar.	3,580.0	3,174.3	288.4	261.9	261.1	0.8	26.4	22.2	4.2	3,291.6	2,892.2
Apr.	3,594.3	3,185.5	285.0	255.6	254.9	0.7	29.4	22.9	6.5	3,309.3	2,908.0
May	3,620.9	3,204.4	285.3	254.3	253.2	1.1	31.1	22.0	9.1	3,335.6	2,931.7
June	3,621.1	3,206.8	278.9	248.5	247.6	0.8	30.4	23.3	7.2	3,342.2	2,939.8
July	3,625.7	3,217.4	274.8	243.4	242.6	0.8	31.5	24.2	7.3	3,350.9	2,953.2
	Changes *										
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
2019	+ 126.7	+ 129.1	+ 11.7	+ 11.6	+ 11.6	+ 0.0	+ 0.1	– 3.0	+ 3.1	+ 115.0	+ 132.8
2019 Feb.	+ 8.3	+ 10.7	+ 1.8	+ 4.6	+ 4.5	+ 0.0	– 2.8	– 2.1	– 0.7	+ 6.5	+ 8.0
Mar.	+ 10.9	+ 12.0	+ 4.1	+ 5.7	+ 5.7	+ 0.1	– 1.7	– 2.3	+ 0.6	+ 6.9	+ 8.8
Apr.	+ 3.8	+ 8.5	– 4.7	– 5.5	– 5.6	+ 0.1	+ 0.8	+ 0.8	+ 0.0	+ 8.6	+ 13.4
May	+ 16.7	+ 14.8	+ 1.0	+ 1.6	+ 1.4	+ 0.2	– 0.7	– 0.9	+ 0.2	+ 15.7	+ 16.0
June	+ 21.5	+ 17.6	+ 14.0	+ 13.2	+ 13.5	– 0.3	+ 0.8	+ 0.7	+ 0.1	+ 7.5	+ 9.4
July	+ 9.2	+ 8.2	– 1.0	– 6.1	– 6.0	– 0.0	+ 5.0	+ 4.1	+ 0.9	+ 10.2	+ 12.9
Aug.	+ 15.6	+ 12.1	– 4.2	– 5.1	– 5.0	– 0.1	+ 0.9	+ 0.1	+ 0.8	+ 19.8	+ 18.2
Sep.	+ 8.1	+ 7.3	+ 3.1	+ 7.4	+ 7.3	+ 0.1	– 4.3	– 5.1	+ 0.8	+ 5.1	+ 4.8
Oct.	+ 6.9	+ 10.0	– 7.4	– 8.8	– 8.8	+ 0.0	+ 1.4	+ 1.7	– 0.4	+ 14.4	+ 18.4
Nov.	+ 16.8	+ 16.7	+ 0.9	+ 2.6	+ 2.6	– 0.0	– 1.7	– 1.5	– 0.2	+ 15.9	+ 14.9
Dec.	– 1.9	– 1.8	– 2.0	– 0.8	– 0.7	– 0.2	– 1.2	– 1.4	+ 0.2	+ 0.1	+ 2.5
2020 Jan.	+ 6.8	+ 6.5	+ 1.1	– 2.5	– 2.7	+ 0.2	+ 3.6	+ 3.8	– 0.2	+ 5.7	+ 7.2
Feb.	+ 16.3	+ 16.2	+ 3.3	+ 3.7	+ 3.6	+ 0.1	– 0.4	– 1.7	+ 1.3	+ 13.0	+ 14.7
Mar.	+ 35.3	+ 32.1	+ 23.6	+ 21.9	+ 21.8	+ 0.2	+ 1.7	+ 1.4	+ 0.3	+ 11.7	+ 3.3
Apr.	+ 14.4	+ 11.2	– 3.3	– 6.3	– 6.2	– 0.1	+ 3.0	+ 0.7	+ 2.3	+ 17.7	+ 15.9
May	+ 24.1	+ 16.4	– 2.2	– 3.9	– 4.2	+ 0.4	+ 1.7	– 0.9	+ 2.5	+ 26.3	+ 23.7
June	+ 0.2	+ 2.5	– 6.4	– 5.8	– 5.6	– 0.2	– 0.6	+ 1.3	– 1.9	+ 6.6	+ 7.9
July	+ 4.6	+ 10.5	– 5.9	– 6.9	– 6.8	– 0.1	+ 1.0	+ 0.9	+ 0.1	+ 10.5	+ 15.2

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

IV. Banks

lending												
prises and households					to general government							
Loans						Loans						
Total	Medium-term	Long-term	Securities	Memo item: Fiduciary loans	Total	Total	Medium-term	Long-term	Securities [1]	Equalisation claims [2]	Memo item: Fiduciary loans	Period
End of year or month *												
2,070.0	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
2,626.4	301.3	2,325.1	240.5	15.7	394.2	235.9	17.2	218.8	158.2	–	1.5	2019
2,516.1	284.2	2,231.9	230.3	16.5	409.6	240.8	18.9	221.9	168.7	–	1.3	2019 Feb.
2,525.3	286.6	2,238.7	230.5	16.3	407.6	240.4	18.7	221.7	167.2	–	1.3	Mar.
2,539.8	291.3	2,248.5	230.0	16.2	402.7	239.8	18.4	221.4	162.9	–	1.3	Apr.
2,554.8	293.7	2,261.1	231.0	16.3	402.5	239.1	18.2	220.9	163.4	–	1.3	May
2,560.3	294.3	2,266.1	234.9	16.2	400.6	237.0	17.9	219.0	163.7	–	1.3	June
2,571.9	295.2	2,276.8	235.8	15.8	398.2	235.4	17.4	218.0	162.8	–	1.2	July
2,588.9	298.3	2,290.5	236.8	15.9	399.7	235.2	17.4	217.8	164.5	–	1.2	Aug.
2,594.1	297.2	2,296.8	236.9	15.8	399.6	235.2	17.0	218.2	164.4	–	1.2	Sep.
2,611.0	299.7	2,311.3	238.5	15.9	395.6	235.5	16.9	218.6	160.1	–	1.2	Oct.
2,624.4	301.6	2,322.8	240.0	15.9	396.5	237.6	17.6	220.0	158.9	–	1.2	Nov.
2,626.4	301.3	2,325.1	240.5	15.7	394.2	235.9	17.2	218.8	158.2	–	1.5	Dec.
2,631.8	300.0	2,331.8	242.4	15.7	392.7	236.0	17.0	219.0	156.7	–	1.2	2020 Jan.
2,646.4	302.5	2,344.0	242.5	15.7	391.0	235.7	17.2	218.5	155.3	–	1.2	Feb.
2,654.8	304.5	2,350.2	237.5	15.6	399.4	236.3	17.2	219.1	163.1	–	1.2	Mar.
2,671.3	307.2	2,364.1	236.7	15.9	401.3	236.4	17.3	219.1	164.9	–	1.3	Apr.
2,692.9	310.7	2,382.2	238.9	18.1	403.9	236.3	17.4	218.9	167.6	–	1.3	May
2,701.4	310.8	2,390.6	238.4	19.6	402.4	234.5	17.1	217.4	167.9	–	1.2	June
2,715.7	312.5	2,403.3	237.5	21.0	397.7	234.9	16.7	218.1	162.8	–	1.2	July
Changes *												
+ 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
+ 126.0	+ 18.9	+ 107.2	+ 6.8	– 0.8	– 17.8	– 5.5	– 2.6	– 2.9	– 12.3	–	+ 0.1	2019
+ 8.7	+ 1.1	+ 7.6	– 0.7	–	– 1.5	– 0.5	– 0.4	– 0.1	– 1.0	–	–	2019 Feb.
+ 9.1	+ 2.1	+ 6.9	– 0.3	– 0.2	– 1.9	– 0.4	– 0.3	– 0.2	– 1.5	–	+ 0.0	Mar.
+ 13.9	+ 4.5	+ 9.4	– 0.5	– 0.1	– 4.8	– 0.6	– 0.2	– 0.3	– 4.3	–	– 0.0	Apr.
+ 15.0	+ 2.4	+ 12.7	+ 0.9	+ 0.0	– 0.3	– 0.8	– 0.2	– 0.6	+ 0.5	–	– 0.0	May
+ 5.6	+ 0.6	+ 5.0	+ 3.9	– 0.0	– 1.9	– 2.2	– 0.3	– 1.9	+ 0.2	–	– 0.0	June
+ 11.7	+ 1.0	+ 10.7	+ 1.2	– 0.4	– 2.7	– 1.6	– 0.5	– 1.0	– 1.1	–	– 0.0	July
+ 17.1	+ 3.3	+ 13.8	+ 1.1	+ 0.0	+ 1.6	– 0.2	– 0.0	– 0.2	+ 1.8	–	+ 0.0	Aug.
+ 4.7	– 0.7	+ 5.5	+ 0.1	– 0.1	+ 0.3	+ 0.4	– 0.4	+ 0.7	– 0.1	–	– 0.0	Sep.
+ 16.8	+ 2.4	+ 14.4	+ 1.6	+ 0.1	– 4.0	+ 0.3	– 0.1	+ 0.4	– 4.3	–	– 0.0	Oct.
+ 13.4	+ 1.9	+ 11.6	+ 1.5	+ 0.0	+ 0.9	+ 2.1	+ 0.7	+ 1.4	– 1.2	–	– 0.0	Nov.
+ 1.9	– 0.2	+ 2.1	+ 0.5	– 0.2	– 2.4	– 1.7	– 0.5	– 1.2	– 0.7	–	+ 0.3	Dec.
+ 5.3	– 1.4	+ 6.7	+ 1.9	– 0.0	– 1.5	+ 0.1	– 0.1	+ 0.2	– 1.6	–	– 0.3	2020 Jan.
+ 14.6	+ 2.4	+ 12.2	+ 0.0	– 0.0	– 1.7	– 0.3	+ 0.1	– 0.5	– 1.3	–	+ 0.0	Feb.
+ 8.3	+ 2.1	+ 6.3	– 5.0	– 0.1	+ 8.4	+ 0.6	+ 0.0	+ 0.6	+ 7.8	–	– 0.0	Mar.
+ 16.7	+ 2.7	+ 14.0	– 0.8	+ 0.2	+ 1.8	– 0.0	+ 0.1	– 0.1	+ 1.8	–	+ 0.0	Apr.
+ 21.5	+ 3.5	+ 18.0	+ 2.2	+ 2.2	+ 2.6	– 0.0	+ 0.2	– 0.2	+ 2.7	–	+ 0.0	May
+ 8.4	+ 0.0	+ 8.4	– 0.5	+ 1.5	– 1.3	– 1.6	– 0.3	– 1.3	+ 0.3	–	– 0.1	June
+ 16.1	+ 1.6	+ 14.5	– 0.8	+ 0.9	– 4.7	+ 0.3	– 0.4	+ 0.7	– 5.1	–	+ 0.0	July

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 ***
2018	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 June	2,809.5	1,469.6	1,427.8	1,182.8	244.9	1,539.7	405.2	150.3	120.5	76.2	140.5	54.4	50.5	161.5	
Sep.	2,839.6	1,487.2	1,450.4	1,197.0	253.4	1,551.7	411.6	150.1	118.6	77.4	139.9	54.8	50.1	166.2	
Dec.	2,864.8	1,512.1	1,470.4	1,213.0	257.4	1,560.5	416.1	146.6	119.0	77.1	141.6	54.2	50.3	168.2	
2020 Mar.	2,915.9	1,533.2	1,488.6	1,225.8	262.8	1,598.9	421.9	155.8	120.1	79.4	143.5	54.5	52.5	176.4	
June	2,949.0	1,558.5	1,510.6	1,246.6	263.9	1,613.5	423.2	164.5	120.6	80.8	138.1	55.4	56.6	175.2	
Short-term lending															
2018	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 June	249.2	–	8.0	–	8.0	217.3	4.6	42.9	7.2	16.5	48.6	4.7	5.2	29.3	
Sep.	245.6	–	8.4	–	8.4	213.6	5.0	41.1	5.3	16.7	48.0	4.4	4.5	30.1	
Dec.	238.4	–	8.1	–	8.1	206.2	4.7	35.9	5.6	15.7	48.6	3.8	4.6	27.0	
2020 Mar.	261.1	–	8.3	–	8.3	230.3	4.9	43.4	6.7	17.1	49.5	4.1	6.1	34.6	
June	247.6	–	8.2	–	8.2	217.9	4.7	44.5	6.1	16.9	41.8	4.2	5.4	33.4	
Medium-term lending															
2018	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 June	294.3	–	36.0	–	36.0	212.6	16.1	26.1	5.2	13.5	19.5	4.5	10.4	49.0	
Sep.	297.1	–	36.4	–	36.4	215.4	16.5	27.3	4.9	13.7	19.6	4.7	10.0	50.1	
Dec.	301.3	–	36.6	–	36.6	219.5	16.6	28.5	4.9	13.9	19.7	4.6	10.2	52.0	
2020 Mar.	304.5	–	36.9	–	36.9	222.8	17.0	29.7	5.1	13.9	20.4	4.5	10.4	51.3	
June	310.8	–	37.7	–	37.7	229.8	17.6	33.6	5.2	14.2	19.6	4.5	13.4	50.2	
Long-term lending															
2018	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 June	2,266.1	1,469.6	1,383.8	1,182.8	200.9	1,109.8	384.5	81.3	108.1	46.2	72.4	45.3	34.9	83.2	
Sep.	2,296.8	1,487.2	1,405.6	1,197.0	208.6	1,122.7	390.2	81.8	108.5	46.9	72.3	45.7	35.6	85.9	
Dec.	2,325.1	1,512.1	1,425.7	1,213.0	212.7	1,134.9	394.8	82.2	108.6	47.6	73.3	45.8	35.5	89.2	
2020 Mar.	2,350.2	1,533.2	1,443.4	1,225.8	217.6	1,145.7	400.0	82.7	108.4	48.4	73.6	45.9	36.0	90.6	
June	2,390.6	1,558.5	1,464.7	1,246.6	218.1	1,165.8	400.8	86.4	109.3	49.7	76.7	46.6	37.8	91.6	
Lending, total															**Change during quarter ***
2019 Q2	+ 43.8	+ 16.3	+ 20.1	+ 13.5	+ 6.7	+ 26.8	+ 6.9	+ 5.8	+ 1.7	+ 2.2	– 0.7	+ 0.9	+ 0.4	+ 1.0	
Q3	+ 29.8	+ 18.0	+ 22.4	+ 15.4	+ 7.0	+ 12.0	+ 6.1	– 0.2	– 2.2	+ 1.3	– 0.6	+ 0.3	– 0.4	+ 4.8	
Q4	+ 25.3	+ 20.1	+ 20.0	+ 13.9	+ 6.1	+ 9.2	+ 4.6	– 3.5	+ 0.5	– 0.3	+ 1.7	– 0.6	+ 0.2	+ 2.0	
2020 Q1	+ 51.0	+ 15.6	+ 17.8	+ 12.4	+ 5.4	+ 38.2	+ 5.4	+ 9.2	+ 1.1	+ 2.3	+ 1.9	+ 0.3	+ 2.2	+ 8.2	
Q2	+ 30.6	+ 17.8	+ 21.0	+ 13.7	+ 7.3	+ 17.1	+ 5.2	+ 8.8	+ 0.3	+ 1.4	– 4.4	+ 0.9	+ 4.1	– 4.0	
Short-term lending															
2019 Q2	+ 9.3	–	+ 0.3	–	+ 0.3	+ 7.7	+ 0.2	+ 3.3	+ 1.0	+ 0.8	– 1.2	+ 0.6	+ 0.1	– 0.4	
Q3	– 3.6	–	+ 0.3	–	+ 0.3	– 3.8	+ 0.3	– 1.8	– 2.0	+ 0.2	– 0.8	– 0.2	– 0.6	+ 0.8	
Q4	– 7.0	–	– 0.3	–	– 0.3	– 7.5	– 0.2	– 5.2	+ 0.3	– 1.0	+ 0.6	– 0.6	+ 0.1	– 3.2	
2020 Q1	+ 22.7	–	+ 0.3	–	+ 0.3	+ 24.2	+ 0.2	+ 7.5	+ 1.1	+ 1.4	+ 0.9	+ 0.3	+ 1.4	+ 7.6	
Q2	– 16.0	–	– 0.2	–	– 0.2	– 14.9	– 0.1	+ 1.2	– 0.7	– 0.1	– 7.1	+ 0.1	– 0.7	– 4.2	
Medium-term lending															
2019 Q2	+ 7.4	–	+ 0.9	–	+ 0.9	+ 6.4	+ 0.6	+ 0.8	+ 0.7	+ 0.5	+ 0.2	+ 0.0	– 0.0	– 0.0	
Q3	+ 3.5	–	+ 0.8	–	+ 0.8	+ 3.1	+ 0.5	+ 1.1	– 0.4	+ 0.3	+ 0.1	+ 0.2	– 0.4	+ 1.3	
Q4	+ 4.2	–	+ 0.2	–	+ 0.2	+ 4.1	+ 0.2	+ 1.3	+ 0.0	+ 0.1	+ 0.2	– 0.1	+ 0.2	+ 1.9	
2020 Q1	+ 3.1	–	+ 0.2	–	+ 0.2	+ 3.3	+ 0.4	+ 1.2	+ 0.2	+ 0.0	+ 0.7	– 0.1	+ 0.3	– 0.7	
Q2	+ 6.2	–	+ 0.7	–	+ 0.7	+ 7.4	+ 0.7	+ 3.9	+ 0.2	+ 0.3	– 0.8	+ 0.0	+ 2.9	– 1.0	
Long-term lending															
2019 Q2	+ 27.0	+ 16.3	+ 18.9	+ 13.5	+ 5.5	+ 12.7	+ 6.1	+ 1.8	– 0.0	+ 0.9	+ 0.4	+ 0.2	+ 0.4	+ 1.5	
Q3	+ 30.0	+ 18.0	+ 21.3	+ 15.4	+ 5.9	+ 12.7	+ 5.3	+ 0.5	+ 0.1	+ 0.7	+ 0.0	+ 0.4	+ 0.6	+ 2.7	
Q4	+ 28.1	+ 20.1	+ 20.1	+ 13.9	+ 6.2	+ 12.6	+ 4.6	+ 0.4	+ 0.2	+ 0.6	+ 1.0	+ 0.1	– 0.1	+ 3.3	
2020 Q1	+ 25.1	+ 15.6	+ 17.3	+ 12.4	+ 4.9	+ 10.7	+ 4.9	+ 0.5	– 0.2	+ 0.9	+ 0.3	+ 0.1	+ 0.5	+ 1.4	
Q2	+ 40.4	+ 17.8	+ 20.4	+ 13.7	+ 6.8	+ 24.6	+ 4.6	+ 3.7	+ 0.8	+ 1.3	+ 3.5	+ 0.7	+ 1.8	+ 1.2	

* 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**	
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	2018
785.8	247.4	51.6	199.3	441.1	48.6	1,254.6	1,018.8	235.9	175.6	8.0	15.2	3.8	2019 June
794.7	252.9	50.9	200.6	444.7	48.3	1,272.5	1,035.0	237.5	176.4	8.5	15.4	3.8	Sep.
803.6	264.5	51.1	193.9	447.5	47.6	1,288.4	1,050.4	238.0	176.5	7.9	15.9	3.9	Dec.
816.6	273.2	54.2	196.6	450.6	48.0	1,301.0	1,062.8	238.2	178.0	7.9	16.0	3.9	2020 Mar.
822.2	277.8	55.9	198.5	447.1	48.1	1,319.4	1,083.5	235.9	176.9	7.3	16.2	3.9	June
												Short-term lending	
55.9	12.0	8.1	10.4	24.0	5.2	31.2	3.1	28.2	1.5	8.3	0.5	–	2018
63.0	12.5	10.2	10.6	24.6	5.6	31.3	3.4	28.0	1.9	8.0	0.5	0.0	2019 June
63.5	13.5	9.5	10.7	24.3	5.4	31.5	3.4	28.1	1.6	8.5	0.5	0.0	Sep.
65.0	14.4	9.7	10.2	23.9	4.9	31.6	3.3	28.2	1.3	7.9	0.7	0.0	Dec.
69.0	14.8	12.2	11.1	23.8	5.2	30.0	3.4	26.6	1.4	7.9	0.7	0.0	2020 Mar.
65.5	14.8	11.9	11.4	21.8	4.7	29.0	3.4	25.6	1.4	7.3	0.7	0.0	June
												Medium-term lending	
77.5	14.8	9.9	21.3	31.5	3.5	79.6	19.9	59.7	56.4	–	0.5	0.1	2018
84.4	16.6	11.0	22.4	32.2	3.6	81.2	19.9	61.4	58.0	–	0.5	0.0	2019 June
85.1	17.5	11.2	22.6	32.0	3.7	81.3	19.9	61.4	58.0	–	0.5	0.0	Sep.
85.7	18.1	11.0	22.9	31.9	3.5	81.4	19.9	61.4	58.0	–	0.5	0.0	Dec.
87.4	19.1	11.6	23.3	31.9	3.6	81.2	19.8	61.4	58.0	–	0.5	0.0	2020 Mar.
89.0	19.7	12.6	23.5	31.6	3.5	80.4	20.0	60.4	56.9	–	0.6	0.0	June
												Long-term lending	
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	2018
638.5	218.3	30.3	166.3	384.3	39.4	1,142.0	995.5	146.5	115.8	–	14.2	3.8	2019 June
646.1	222.0	30.3	167.3	388.4	39.2	1,159.7	1,011.7	147.9	116.7	–	14.4	3.7	Sep.
652.9	232.0	30.4	160.9	391.7	39.1	1,175.5	1,027.1	148.3	117.1	–	14.7	3.8	Dec.
660.2	239.3	30.5	162.3	394.9	39.3	1,189.8	1,039.5	150.2	118.6	–	14.8	3.8	2020 Mar.
667.7	243.3	31.4	163.6	393.7	39.9	1,210.0	1,060.1	149.9	118.5	–	14.9	3.8	June
Change during quarter *													**Lending, total**	
+ 15.5	+ 4.5	+ 2.8	+ 1.7	+ 4.3	– 0.1	+ 16.9	+ 13.2	+ 3.7	+ 2.9	– 0.0	+ 0.1	+ 0.0	2019 Q2
+ 9.0	+ 5.6	– 0.7	+ 1.2	+ 3.6	– 0.3	+ 17.9	+ 16.3	+ 1.6	+ 1.2	+ 0.5	– 0.1	– 0.0	Q3
+ 9.1	+ 4.2	+ 0.2	+ 0.8	+ 2.8	– 0.6	+ 15.9	+ 15.5	+ 0.4	+ 0.1	– 0.6	+ 0.3	– 0.0	Q4
+ 13.0	+ 4.9	+ 3.1	+ 1.9	+ 3.0	+ 0.5	+ 12.6	+ 12.3	+ 0.2	+ 1.8	+ 0.0	+ 0.2	+ 0.0	2020 Q1
+ 10.0	+ 4.6	+ 1.7	+ 2.1	+ 3.5	+ 0.1	+ 13.4	+ 15.8	– 2.4	– 1.0	– 0.6	+ 0.1	+ 0.0	Q2
												Short-term lending	
+ 3.5	+ 0.5	+ 0.9	+ 0.3	+ 0.2	– 0.2	+ 1.6	+ 0.2	+ 1.4	+ 0.4	– 0.0	+ 0.0	+ 0.0	2019 Q2
+ 0.5	+ 1.0	– 0.8	+ 0.1	– 0.2	– 0.1	+ 0.1	– 0.0	+ 0.2	– 0.2	+ 0.5	+ 0.0	– 0.0	Q3
+ 1.7	+ 0.8	+ 0.3	– 0.3	– 0.5	– 0.5	+ 0.3	– 0.0	+ 0.4	– 0.2	– 0.6	+ 0.1	+ 0.0	Q4
+ 4.0	+ 0.3	+ 2.5	+ 0.9	– 0.1	+ 0.2	– 1.6	+ 0.1	– 1.7	+ 0.1	+ 0.0	+ 0.1	– 0.0	2020 Q1
– 3.5	– 0.1	– 0.3	+ 0.3	– 2.0	– 0.5	– 1.0	– 0.0	– 1.0	+ 0.1	– 0.6	+ 0.0	–	Q2
												Medium-term lending	
+ 4.3	+ 1.2	+ 1.4	+ 0.6	+ 0.4	+ 0.1	+ 1.1	+ 0.3	+ 0.8	+ 0.8	–	– 0.0	– 0.0	2019 Q2
+ 0.9	+ 0.9	+ 0.1	+ 0.2	– 0.1	+ 0.0	+ 0.4	+ 0.3	+ 0.1	+ 0.0	–	– 0.0	– 0.0	Q3
+ 0.5	+ 0.6	– 0.2	+ 0.3	– 0.1	– 0.1	+ 0.1	+ 0.1	+ 0.0	+ 0.0	–	+ 0.0	+ 0.0	Q4
+ 1.8	+ 0.8	+ 0.6	+ 0.3	– 0.1	+ 0.0	– 0.2	– 0.1	– 0.0	– 0.1	–	+ 0.0	– 0.0	2020 Q1
+ 1.8	+ 0.6	+ 1.0	+ 0.3	– 0.1	– 0.0	– 1.3	+ 0.0	– 1.3	– 1.3	–	+ 0.0	– 0.0	Q2
												Long-term lending	
+ 7.7	+ 2.9	+ 0.5	+ 0.8	+ 3.7	+ 0.0	+ 14.2	+ 12.8	+ 1.5	+ 1.7	–	+ 0.1	+ 0.0	2019 Q2
+ 7.6	+ 3.7	– 0.0	+ 0.9	+ 3.9	– 0.2	+ 17.4	+ 16.0	+ 1.4	+ 1.5	–	– 0.1	– 0.0	Q3
+ 7.0	+ 2.7	+ 0.1	+ 0.9	+ 3.4	– 0.0	+ 15.5	+ 15.4	+ 0.0	+ 0.2	–	+ 0.1	– 0.0	Q4
+ 7.3	+ 3.8	+ 0.1	+ 0.7	+ 3.2	+ 0.2	+ 14.3	+ 12.4	+ 1.9	+ 1.8	–	+ 0.1	+ 0.0	2020 Q1
+ 11.6	+ 4.1	+ 0.9	+ 1.5	+ 5.7	+ 0.6	+ 15.7	+ 15.8	– 0.2	+ 0.2	–	+ 0.1	+ 0.0	Q2

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

IV. Banks

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

€ billion

Period	Deposits, total	Sight deposits	Time deposits 1,2					Savings deposits 3	Bank savings bonds 4	Memo item:		
			Total	for up to and including 1 year	for more than 1 year 2					Fiduciary loans	Subordinated liabilities (excluding negotiable debt securities)	Liabilities arising from repos
					Total	for up to and including 2 years	for more than 2 years					
	Domestic non-banks, total											**End of year or month***
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
2019	3,661.0	2,236.3	816.2	202.7	613.5	52.7	560.8	575.2	33.2	32.5	14.7	0.2
2019 Aug.	3,638.4	2,189.1	834.4	214.7	619.7	54.1	565.5	580.3	34.7	32.7	14.9	0.6
Sep.	3,629.1	2,185.4	830.3	214.8	615.5	51.8	563.7	579.0	34.4	32.6	15.2	0.3
Oct.	3,644.4	2,207.1	826.0	211.7	614.3	51.8	562.6	577.2	34.1	32.5	15.1	0.5
Nov.	3,674.8	2,244.5	820.9	207.5	613.4	52.4	561.0	575.7	33.8	32.5	14.9	0.5
Dec.	3,661.0	2,236.3	816.2	202.7	613.5	52.7	560.8	575.2	33.2	32.5	14.7	0.2
2020 Jan.	3,658.2	2,235.1	819.7	208.4	611.3	52.4	558.9	570.7	32.6	32.3	14.8	0.5
Feb.	3,675.9	2,254.4	820.8	212.2	608.6	52.2	556.4	568.5	32.2	32.8	14.6	0.3
Mar.	3,716.6	2,304.9	815.5	212.7	602.8	50.1	552.7	564.5	31.8	32.5	14.6	0.6
Apr.	3,741.9	2,345.4	801.6	206.0	595.6	48.5	547.1	563.8	31.1	32.8	14.4	1.5
May	3,775.3	2,376.3	804.7	214.1	590.6	47.1	543.5	563.6	30.7	33.3	14.4	0.3
June	3,766.3	2,385.3	788.2	206.7	581.5	44.3	537.2	562.6	30.3	33.4	14.3	0.2
July	3,803.4	2,414.0	798.6	215.6	583.1	46.6	536.5	560.9	29.9	33.8	14.3	0.2
												Changes*
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
2019	+ 122.5	+ 155.8	– 25.7	– 0.8	– 24.9	– 4.1	– 20.7	– 3.5	– 4.1	– 1.4	+ 0.9	– 0.3
2019 Aug.	+ 21.4	+ 22.6	+ 0.5	+ 4.0	– 3.6	+ 0.1	– 3.7	– 1.5	– 0.1	– 0.2	– 0.0	+ 0.5
Sep.	– 9.3	– 3.7	– 4.1	+ 0.0	– 4.2	– 2.4	– 1.8	– 1.3	– 0.3	– 0.2	+ 0.2	– 0.3
Oct.	+ 15.3	+ 21.7	– 4.3	– 3.1	– 1.2	+ 0.0	– 1.2	– 1.8	– 0.3	– 0.0	– 0.0	+ 0.2
Nov.	+ 30.4	+ 37.4	– 5.1	– 4.2	– 1.0	+ 0.6	– 1.5	– 1.6	– 0.3	– 0.0	– 0.2	+ 0.0
Dec.	– 13.8	– 8.2	– 4.6	– 4.8	+ 0.2	+ 0.3	– 0.2	– 0.5	– 0.5	– 0.0	– 0.2	– 0.4
2020 Jan.	– 2.8	– 1.3	+ 3.5	+ 5.7	– 2.2	– 0.3	– 1.9	– 4.5	– 0.6	– 0.1	+ 0.0	+ 0.4
Feb.	+ 17.7	+ 19.3	+ 1.1	+ 3.8	– 2.7	– 0.2	– 2.5	– 2.2	– 0.4	+ 0.4	– 0.2	– 0.2
Mar.	+ 40.7	+ 50.5	– 5.3	+ 0.5	– 5.9	– 2.1	– 3.7	– 4.0	– 0.4	– 0.2	– 0.0	+ 0.3
Apr.	+ 25.3	+ 40.7	– 14.0	– 6.8	– 7.2	– 1.6	– 5.6	– 0.7	– 0.7	+ 0.2	– 0.2	+ 0.9
May	+ 30.5	+ 27.9	+ 3.2	+ 8.1	– 4.9	– 1.3	– 3.6	– 0.2	– 0.4	+ 0.6	+ 0.0	– 1.2
June	– 9.0	+ 8.8	– 16.4	– 7.4	– 9.0	– 2.8	– 6.1	– 1.1	– 0.4	+ 0.1	– 0.1	– 0.1
July	+ 37.1	+ 28.7	+ 10.5	+ 8.9	+ 1.6	+ 2.3	– 0.7	– 1.6	– 0.4	+ 0.4	– 0.0	– 0.0
	Domestic government											**End of year or month***
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	–
2019	237.1	74.7	154.9	76.0	78.9	26.1	52.8	3.4	4.1	24.7	2.2	0.2
2019 Aug.	245.2	73.5	163.7	83.7	80.0	27.3	52.7	3.7	4.2	24.7	2.3	0.2
Sep.	242.8	72.0	162.9	85.1	77.9	25.0	52.9	3.7	4.2	24.7	2.2	0.2
Oct.	234.5	66.0	160.7	82.5	78.2	25.2	53.0	3.6	4.2	24.7	2.3	0.2
Nov.	245.6	74.7	163.2	83.9	79.3	26.4	52.8	3.6	4.2	24.7	2.2	0.2
Dec.	237.1	74.7	154.9	76.0	78.9	26.1	52.8	3.4	4.1	24.7	2.2	0.2
2020 Jan.	236.9	69.1	160.5	81.6	78.9	25.7	53.2	3.2	4.1	24.4	2.2	0.2
Feb.	247.0	74.8	164.8	86.7	78.1	25.4	52.7	3.3	4.1	25.0	2.2	0.2
Mar.	238.6	72.7	158.6	83.1	75.5	23.8	51.7	3.2	4.1	25.0	2.1	0.2
Apr.	228.7	73.9	147.8	75.1	72.7	22.8	50.0	3.1	4.0	25.3	2.1	0.2
May	232.1	81.1	143.9	73.5	70.4	22.0	48.4	3.1	4.0	26.0	2.1	0.2
June	221.4	75.4	139.1	75.0	64.1	18.5	45.5	2.9	3.9	25.8	2.1	0.2
July	226.5	76.7	143.0	73.4	69.6	20.3	49.3	2.8	3.9	25.9	2.1	0.2
												Changes*
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
2019	+ 17.1	+ 11.8	+ 5.8	+ 7.8	– 2.0	– 2.6	+ 0.6	– 0.4	– 0.1	– 0.6	– 0.0	+ 0.2
2019 Aug.	+ 10.5	+ 7.3	+ 3.2	+ 3.0	+ 0.1	+ 0.1	+ 0.1	+ 0.0	+ 0.0	+ 0.0	+ 0.0	+ 0.2
Sep.	– 2.8	– 1.5	– 1.3	+ 1.1	– 2.3	– 2.4	+ 0.0	– 0.0	– 0.0	– 0.0	– 0.0	–
Oct.	– 8.3	– 6.0	– 2.3	– 2.6	+ 0.3	+ 0.2	+ 0.1	– 0.1	– 0.0	– 0.0	+ 0.0	+ 0.0
Nov.	+ 11.1	+ 8.7	+ 2.5	+ 1.5	+ 1.1	+ 1.2	– 0.2	– 0.1	– 0.0	+ 0.0	– 0.1	– 0.0
Dec.	– 8.5	+ 0.0	– 8.3	– 7.9	– 0.4	– 0.3	– 0.0	– 0.2	– 0.0	– 0.0	– 0.0	–
2020 Jan.	– 0.2	– 5.6	+ 5.6	+ 5.6	+ 0.0	– 0.3	+ 0.4	– 0.2	– 0.0	– 0.3	+ 0.0	–
Feb.	+ 10.1	+ 5.7	+ 4.3	+ 5.1	– 0.8	– 0.3	– 0.5	+ 0.1	– 0.0	+ 0.6	–	–
Mar.	– 8.4	– 2.1	– 6.3	– 3.6	– 2.7	– 1.6	– 1.1	– 0.0	+ 0.0	– 0.0	– 0.0	–
Apr.	– 9.9	+ 1.2	– 10.8	– 8.0	– 2.8	– 1.1	– 1.7	– 0.1	– 0.2	+ 0.3	– 0.0	–
May	+ 3.3	+ 7.2	– 3.9	– 1.6	– 2.4	– 0.8	– 1.6	+ 0.0	+ 0.0	+ 0.6	+ 0.0	–
June	– 10.7	– 5.7	– 4.8	+ 1.5	– 6.3	– 3.4	– 2.9	– 0.2	– 0.0	– 0.1	– 0.0	–
July	+ 5.1	+ 1.3	+ 3.9	– 1.6	+ 5.5	+ 1.8	+ 3.7	– 0.1	– 0.0	+ 0.1	+ 0.0	–

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

IV. Banks

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

€ billion

Period	Deposits, total	Sight deposits	Time deposits [1,2]					Savings deposits [3]	Bank savings bonds [4]	Memo item:		
			Total	for up to and including 1 year	for more than 1 year [2]					Fiduciary loans	Subordinated liabilities (excluding negotiable debt securities)	Liabilities arising from repos
					Total	for up to and including 2 years	for more than 2 years					
	Domestic enterprises and households											**End of year or month***
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
2019	3,423.9	2,161.6	661.4	126.7	534.7	26.6	508.0	571.8	29.1	7.8	12.6	0.0
2019 Aug.	3,393.3	2,115.6	670.6	131.0	539.7	26.8	512.8	576.5	30.5	8.0	12.7	0.4
Sep.	3,386.3	2,113.4	667.3	129.7	537.6	26.8	510.9	575.3	30.2	7.9	12.9	0.2
Oct.	3,409.9	2,141.1	665.4	129.2	536.1	26.6	509.5	573.6	29.9	7.9	12.9	0.3
Nov.	3,429.2	2,169.8	657.7	123.6	534.1	25.9	508.2	572.1	29.6	7.8	12.8	0.4
Dec.	3,423.9	2,161.6	661.4	126.7	534.7	26.6	508.0	571.8	29.1	7.8	12.6	0.0
2020 Jan.	3,421.2	2,166.0	659.2	126.8	532.4	26.7	505.7	567.5	28.5	7.9	12.6	0.4
Feb.	3,428.9	2,179.6	656.0	125.5	530.5	26.8	503.7	565.2	28.1	7.7	12.4	0.2
Mar.	3,477.9	2,232.2	656.9	129.6	527.3	26.2	501.0	561.2	27.6	7.5	12.4	0.5
Apr.	3,513.1	2,271.6	653.8	130.9	522.8	25.7	497.1	560.7	27.1	7.4	12.3	1.4
May	3,543.3	2,295.2	660.9	140.6	520.2	25.2	495.1	560.5	26.7	7.4	12.3	0.2
June	3,545.0	2,309.9	649.1	131.7	517.4	25.8	491.6	559.7	26.3	7.5	12.3	0.1
July	3,577.0	2,337.3	655.6	142.1	513.5	26.3	487.2	558.1	26.0	7.9	12.2	0.1
												Changes*
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
2019	+ 105.4	+ 144.0	– 31.5	– 8.6	– 22.9	– 1.5	– 21.4	– 3.1	– 4.0	– 0.8	+ 1.0	– 0.4
2019 Aug.	+ 10.9	+ 15.3	– 2.7	+ 1.0	– 3.7	+ 0.1	– 3.8	– 1.6	– 0.1	– 0.2	– 0.0	+ 0.3
Sep.	– 6.5	– 2.2	– 2.8	– 1.0	– 1.8	– 0.0	– 1.8	– 1.2	– 0.3	– 0.1	+ 0.2	– 0.3
Oct.	+ 23.7	+ 27.7	– 2.0	– 0.5	– 1.5	– 0.2	– 1.3	– 1.7	– 0.3	– 0.0	– 0.0	+ 0.2
Nov.	+ 19.3	+ 28.7	– 7.7	– 5.7	– 2.0	– 0.7	– 1.4	– 1.5	– 0.3	– 0.1	– 0.1	+ 0.1
Dec.	– 5.3	– 8.2	+ 3.7	+ 3.1	+ 0.6	+ 0.7	– 0.1	– 0.3	– 0.5	– 0.0	– 0.2	– 0.4
2020 Jan.	– 2.7	+ 4.3	– 2.2	+ 0.1	– 2.3	+ 0.0	– 2.3	– 4.3	– 0.6	+ 0.1	+ 0.0	+ 0.4
Feb.	+ 7.7	+ 13.6	– 3.2	– 1.3	– 1.9	+ 0.1	– 2.0	– 2.3	– 0.4	– 0.2	– 0.2	– 0.2
Mar.	+ 49.0	+ 52.6	+ 0.9	+ 4.1	– 3.2	– 0.6	– 2.6	– 4.0	– 0.5	– 0.2	– 0.0	+ 0.3
Apr.	+ 35.2	+ 39.5	– 3.2	+ 1.2	– 4.4	– 0.5	– 3.9	– 0.5	– 0.5	– 0.1	– 0.1	+ 0.9
May	+ 27.1	+ 20.6	+ 7.1	+ 9.7	– 2.6	– 0.5	– 2.0	– 0.2	– 0.4	– 0.1	+ 0.0	– 1.2
June	+ 1.7	+ 14.5	– 11.6	– 8.9	– 2.6	+ 0.6	– 3.3	– 0.9	– 0.4	+ 0.2	– 0.1	– 0.1
July	+ 32.0	+ 27.4	+ 6.5	+ 10.4	– 3.9	+ 0.5	– 4.4	– 1.6	– 0.4	+ 0.3	– 0.0	– 0.0
	of which: Domestic enterprises											**End of year or month***
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
2019	1,031.5	614.4	399.7	81.1	318.6	15.5	303.1	6.7	10.7	2.4	10.1	0.0
2019 Aug.	1,036.6	608.6	409.7	83.1	326.7	15.8	310.8	7.1	11.2	2.2	10.2	0.4
Sep.	1,033.6	608.9	406.4	82.3	324.1	15.8	308.3	7.2	11.1	2.2	10.4	0.2
Oct.	1,045.5	622.3	405.2	82.8	322.4	15.5	306.9	7.0	11.0	2.4	10.4	0.3
Nov.	1,036.2	620.2	398.2	77.9	320.3	14.9	305.4	6.9	10.9	2.4	10.3	0.4
Dec.	1,031.5	614.4	399.7	81.1	318.6	15.5	303.1	6.7	10.7	2.4	10.1	0.0
2020 Jan.	1,030.8	616.3	397.5	81.7	315.8	15.4	300.3	6.6	10.5	2.4	10.2	0.4
Feb.	1,020.4	608.8	394.7	81.2	313.5	15.6	297.9	6.5	10.4	2.4	10.0	0.2
Mar.	1,080.3	665.3	398.2	87.3	310.9	15.4	295.5	6.5	10.3	2.3	10.0	0.5
Apr.	1,087.9	674.4	397.0	89.9	307.2	15.1	292.0	6.2	10.2	2.3	9.8	1.4
May	1,095.7	676.0	403.5	99.2	304.2	14.5	289.7	6.2	10.1	2.4	9.9	0.2
June	1,090.9	683.7	391.2	90.0	301.2	14.5	286.6	6.2	9.9	2.4	9.8	0.1
July	1,108.0	694.4	397.6	100.6	297.0	14.5	282.6	6.1	9.8	2.4	9.8	0.1
												Changes*
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
2019	– 3.4	+ 30.4	– 32.8	– 4.8	– 28.0	– 1.6	– 26.4	– 0.3	– 0.7	– 0.4	+ 0.9	– 0.4
2019 Aug.	+ 1.4	+ 4.2	– 2.8	+ 1.4	– 4.2	– 0.1	– 4.1	+ 0.1	– 0.0	– 0.0	– 0.1	+ 0.3
Sep.	– 2.5	+ 0.4	– 2.9	– 0.5	– 2.4	– 0.0	– 2.3	+ 0.1	– 0.1	+ 0.0	+ 0.3	– 0.3
Oct.	+ 12.1	+ 13.5	– 1.2	+ 0.6	– 1.7	– 0.3	– 1.5	– 0.1	– 0.1	+ 0.1	– 0.0	+ 0.2
Nov.	– 9.4	– 2.2	– 7.0	– 4.9	– 2.1	– 0.6	– 1.5	– 0.1	– 0.1	+ 0.0	– 0.1	+ 0.1
Dec.	– 4.7	– 5.8	+ 1.5	+ 3.2	– 1.7	+ 0.6	– 2.3	– 0.2	– 0.2	– 0.0	– 0.2	– 0.4
2020 Jan.	– 0.7	+ 1.9	– 2.2	+ 0.6	– 2.8	– 0.0	– 2.8	– 0.1	– 0.2	+ 0.0	+ 0.0	+ 0.4
Feb.	– 10.5	– 7.6	– 2.8	– 0.5	– 2.3	+ 0.2	– 2.5	– 0.0	– 0.1	– 0.0	– 0.2	– 0.2
Mar.	+ 60.0	+ 56.6	+ 3.5	+ 6.1	– 2.5	– 0.2	– 2.4	– 0.1	– 0.0	– 0.0	– 0.0	+ 0.3
Apr.	+ 7.6	+ 9.2	– 1.2	+ 2.5	– 3.7	– 0.3	– 3.4	– 0.2	– 0.1	– 0.0	– 0.1	+ 0.9
May	+ 4.8	– 1.4	+ 6.4	+ 9.4	– 2.9	– 0.6	– 2.3	– 0.0	– 0.2	+ 0.0	+ 0.0	– 1.2
June	– 4.8	+ 7.5	– 12.1	– 9.2	– 2.9	– 0.0	– 2.9	– 0.0	– 0.2	+ 0.0	– 0.1	– 0.1
July	+ 17.0	+ 10.7	+ 6.4	+ 10.5	– 4.1	– 0.1	– 4.1	– 0.0	– 0.1	– 0.0	– 0.1	– 0.0

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

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

€ billion

Period	Deposits of domestic households and non-profit institutions, total	Sight deposits						Time deposits [1,2]					
		Total	by creditor group					Total	by creditor group				
			Domestic households				Domestic non-profit institutions		Domestic households				
			Total	Self-employed persons	Employees	Other individuals			Total	Self-employed persons	Employees	Other individuals	
	End of year or month*												
2017	2,179.7	1,323.1	1,286.6	223.4	907.6	155.7	36.5	257.5	243.5	23.4	182.9	37.1	
2018	2,283.4	1,433.5	1,396.1	248.4	991.3	156.4	37.4	260.4	246.7	21.3	188.6	36.7	
2019	2,392.4	1,547.2	1,507.9	266.3	1,081.6	160.1	39.3	261.7	248.3	20.8	190.2	37.3	
2020 Feb.	2,408.6	1,570.8	1,531.6	272.1	1,098.2	161.3	39.2	261.3	247.9	20.4	191.1	36.3	
Mar.	2,397.6	1,566.8	1,526.8	266.9	1,098.7	161.2	40.0	258.7	245.5	19.8	189.8	35.9	
Apr.	2,425.3	1,597.1	1,556.7	275.9	1,117.7	163.0	40.5	256.7	243.9	19.2	188.9	35.8	
May	2,447.6	1,619.2	1,578.5	279.0	1,134.8	164.6	40.7	257.4	244.2	19.4	189.0	35.8	
June	2,454.0	1,626.2	1,585.3	275.2	1,143.8	166.3	40.9	257.9	244.6	19.9	189.2	35.5	
July	2,469.0	1,642.9	1,602.0	282.4	1,154.4	165.2	40.9	258.0	244.5	19.9	189.3	35.4	
	Changes*												
2018	+ 104.0	+ 110.5	+ 109.7	+ 20.3	+ 83.1	+ 6.2	+ 0.9	+ 3.0	+ 3.2	– 2.3	+ 5.8	– 0.3	
2019	+ 108.8	+ 113.6	+ 111.8	+ 18.5	+ 88.7	+ 4.6	+ 1.8	+ 1.2	+ 1.7	– 0.6	+ 1.6	+ 0.7	
2020 Feb.	+ 18.2	+ 21.1	+ 20.0	+ 2.5	+ 16.4	+ 1.1	+ 1.1	– 0.4	– 0.4	– 0.2	– 0.1	– 0.1	
Mar.	– 10.9	– 4.0	– 4.8	– 5.2	+ 0.5	– 0.1	+ 0.8	– 2.6	– 2.4	– 0.7	– 1.3	– 0.4	
Apr.	+ 27.6	+ 30.3	+ 29.9	+ 9.0	+ 19.0	+ 1.9	+ 0.4	– 2.0	– 1.6	– 0.6	– 0.9	– 0.1	
May	+ 22.3	+ 22.0	+ 21.8	+ 3.1	+ 17.1	+ 1.6	+ 0.3	+ 0.7	+ 0.3	+ 0.2	+ 0.2	– 0.0	
June	+ 6.5	+ 7.0	+ 6.9	– 1.4	+ 7.6	+ 0.7	+ 0.2	+ 0.5	+ 0.4	+ 0.6	+ 0.2	– 0.3	
July	+ 15.0	+ 16.7	+ 16.7	+ 7.2	+ 9.4	+ 0.1	+ 0.0	+ 0.1	– 0.1	– 0.0	+ 0.1	– 0.1	

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

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

€ billion

Period	Deposits												
	Domestic government, total	Federal Government and its special funds [1]						State governments					
		Total	Sight deposits	Time deposits		Savings deposits and bank savings bonds [2]	Memo item: Fiduciary loans	Total	Sight deposits	Time deposits		Savings deposits and bank savings bonds [2]	Memo item: Fiduciary loans
				for up to and including 1 year	for more than 1 year					for up to and including 1 year	for more than 1 year		
	End of year or month*												
2017	201.7	8.7	4.3	1.5	2.8	0.1	12.9	37.5	11.9	9.9	14.5	1.3	12.7
2018	218.9	10.5	4.7	1.7	4.1	0.1	12.2	39.0	13.4	11.5	13.0	1.2	13.0
2019	237.1	11.2	5.4	1.5	4.2	0.1	11.6	53.8	21.1	17.1	14.5	1.0	13.1
2020 Feb.	247.0	11.2	5.3	1.5	4.3	0.1	11.6	63.2	19.9	27.4	15.0	0.9	13.4
Mar.	238.6	11.2	5.4	1.4	4.3	0.1	11.6	67.1	23.0	28.2	15.0	0.9	13.4
Apr.	228.7	11.1	5.5	1.4	4.2	0.1	11.6	68.4	26.1	26.4	15.1	0.9	13.7
May	232.1	10.8	5.4	1.3	4.1	0.1	11.6	68.7	26.8	26.0	15.0	0.9	14.4
June	221.4	11.8	6.2	1.5	4.1	0.1	11.4	63.8	23.1	25.2	14.7	0.9	14.4
July	226.5	20.1	5.9	2.5	11.6	0.1	11.3	60.7	23.8	21.6	14.5	0.8	14.6
	Changes*												
2018	+ 16.9	+ 2.1	+ 0.4	+ 0.2	+ 1.4	– 0.0	– 0.7	+ 1.3	+ 1.3	+ 1.5	– 1.3	– 0.1	+ 0.5
2019	+ 17.1	+ 1.4	+ 0.7	+ 0.2	+ 0.4	+ 0.0	– 0.6	+ 13.8	+ 7.7	+ 5.2	+ 1.1	– 0.2	+ 0.0
2020 Feb.	+ 10.1	+ 0.4	– 0.0	+ 0.4	+ 0.0	–	+ 0.0	+ 3.7	– 1.0	+ 4.7	– 0.0	– 0.0	+ 0.6
Mar.	– 8.4	– 0.0	+ 0.1	– 0.1	– 0.0	– 0.0	– 0.0	+ 3.9	+ 3.0	+ 0.8	+ 0.1	– 0.0	+ 0.0
Apr.	– 9.9	– 0.1	+ 0.1	– 0.0	– 0.1	– 0.0	– 0.0	+ 1.3	+ 3.1	– 1.8	+ 0.0	– 0.0	+ 0.3
May	+ 3.3	– 0.3	– 0.1	– 0.1	– 0.0	–	– 0.0	+ 0.3	+ 0.8	– 0.4	– 0.1	+ 0.0	+ 0.7
June	– 10.7	+ 1.0	+ 0.8	+ 0.2	– 0.1	– 0.0	– 0.2	– 4.9	– 3.8	– 0.8	– 0.3	– 0.0	+ 0.1
July	+ 5.1	+ 8.3	– 0.3	+ 1.1	+ 7.5	–	– 0.0	– 3.1	+ 0.8	– 3.6	– 0.2	– 0.0	+ 0.1

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

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Domestic non-profit institutions	by maturity				Savings deposits [3]			Bank savings bonds [4]	Memo item:			Period
	up to and including 1 year	more than 1 year [2]	of which:		Total	Domestic households	Domestic non-profit institutions		Fiduciary loans	Subordinated liabilities (excluding negotiable debt securities) [5]	Liabilities arising from repos	
		Total	up to and including 2 years	more than 2 years								
End of year or month*												
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
13.3	45.6	216.1	11.2	204.9	565.1	558.1	7.0	18.4	5.4	2.4	–	2019
13.5	44.3	217.0	11.2	205.8	558.7	551.8	6.9	17.7	5.4	2.4	–	2020 Feb.
13.3	42.3	216.4	10.8	205.6	554.8	547.9	6.9	17.3	5.2	2.5	–	Mar.
12.8	41.1	215.7	10.6	205.1	554.5	547.7	6.8	16.9	5.1	2.4	–	Apr.
13.2	41.4	216.0	10.6	205.4	554.3	547.6	6.7	16.6	5.0	2.4	–	May
13.3	41.6	216.3	11.2	205.0	553.5	546.8	6.7	16.4	5.1	2.4	–	June
13.5	41.6	216.4	11.8	204.7	552.0	545.4	6.6	16.1	5.5	2.5	–	July
Changes*												
– 0.2	+ 0.4	+ 2.6	– 1.6	+ 4.2	– 4.5	– 3.9	– 0.6	– 5.0	+ 4.0	+ 0.0	–	2018
– 0.4	– 3.8	+ 5.1	+ 0.1	+ 5.0	– 2.8	– 2.5	– 0.3	– 3.3	– 0.4	+ 0.0	–	2019
+ 0.0	– 0.7	+ 0.4	– 0.1	+ 0.4	– 2.3	– 2.2	– 0.1	– 0.3	– 0.1	–	–	2020 Feb.
– 0.2	– 2.0	– 0.6	– 0.4	– 0.2	– 3.9	– 3.9	– 0.0	– 0.4	– 0.2	+ 0.0	–	Mar.
– 0.4	– 1.3	– 0.7	– 0.2	– 0.5	– 0.3	– 0.2	– 0.1	– 0.4	– 0.1	– 0.0	–	Apr.
+ 0.4	+ 0.3	+ 0.4	+ 0.0	+ 0.3	– 0.2	– 0.1	– 0.0	– 0.3	– 0.1	– 0.0	–	May
+ 0.1	+ 0.3	+ 0.2	+ 0.6	– 0.4	– 0.8	– 0.8	– 0.1	– 0.2	+ 0.2	+ 0.0	–	June
+ 0.2	– 0.1	+ 0.2	+ 0.6	– 0.4	– 1.5	– 1.4	– 0.1	– 0.3	+ 0.3	+ 0.0	–	July

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						Period
Total	Sight deposits	Time deposits [3]		Savings deposits and bank savings bonds [2,4]	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*												
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
65.3	37.4	8.6	14.0	5.4	0.0	106.8	10.8	48.8	46.2	1.1	–	2019
61.0	33.0	8.7	14.0	5.3	0.0	111.6	16.6	49.1	44.8	1.1	–	2020 Feb.
58.5	30.6	8.7	13.8	5.3	0.0	101.9	13.7	44.8	42.3	1.1	–	Mar.
57.5	30.3	8.3	13.6	5.3	0.0	91.7	12.0	39.0	39.8	0.8	–	Apr.
62.3	34.8	8.8	13.4	5.2	0.0	90.2	14.1	37.4	37.9	0.9	–	May
58.8	31.8	8.6	13.3	5.1	0.0	87.0	14.4	39.7	32.1	0.8	–	June
59.4	32.8	8.4	13.1	5.1	0.0	86.2	14.1	40.8	30.5	0.8	–	July
Changes*												
+ 3.6	+ 1.9	+ 1.0	+ 0.6	+ 0.1	+ 0.0	+ 9.9	– 0.0	– 0.8	+10.8	– 0.1	–	2018
– 0.8	+ 2.1	– 1.4	– 1.2	– 0.3	+ 0.0	+ 2.8	+ 1.3	+ 3.7	– 2.2	+ 0.1	–	2019
+ 3.3	+ 3.1	+ 0.2	– 0.0	– 0.0	–	+ 2.7	+ 3.6	– 0.3	– 0.8	+ 0.1	–	2020 Feb.
– 2.6	– 2.4	– 0.1	– 0.2	+ 0.0	– 0.0	– 9.6	– 2.9	– 4.2	– 2.5	– 0.0	–	Mar.
– 0.9	– 0.3	– 0.3	– 0.2	– 0.1	–	– 10.2	– 1.7	– 5.8	– 2.5	– 0.2	–	Apr.
+ 4.7	+ 4.6	+ 0.5	– 0.2	– 0.0	–	– 1.5	+ 2.0	– 1.6	– 2.0	+ 0.1	–	May
– 3.5	– 3.0	– 0.2	– 0.2	– 0.1	–	– 3.2	+ 0.3	+ 2.3	– 5.8	– 0.1	–	June
+ 0.6	+ 1.0	– 0.2	– 0.2	– 0.0	–	– 0.7	– 0.2	+ 1.1	– 1.6	– 0.0	–	July

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*												
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	581.8	575.2	540.5	313.2	34.7	24.7	6.6	5.9	2.0	35.9	33.2	25.1	2.6
2020 Mar.	570.9	564.5	532.5	299.6	32.0	22.4	6.4	5.8	0.1	34.4	31.8	24.1	2.6
Apr.	570.2	563.8	532.6	298.9	31.2	21.8	6.4	5.8	0.1	33.7	31.1	23.8	2.6
May	570.0	563.6	532.9	296.2	30.8	21.3	6.4	5.8	0.1	32.6	30.7	23.6	1.9
June	569.0	562.6	532.8	295.4	29.8	20.3	6.4	5.8	0.1	32.1	30.3	23.3	1.9
July	567.3	560.9	531.7	293.4	29.2	19.8	6.4	5.8	0.1	31.8	29.9	23.1	1.9
	Changes*												
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	– 3.9	– 3.5	– 0.6	– 21.3	– 2.8	– 2.5	– 0.4	– 0.3	.	– 5.3	– 4.1	– 2.8	– 1.2
2020 Mar.	– 4.1	– 4.0	– 3.4	– 5.6	– 0.7	– 0.6	– 0.0	– 0.0	.	– 0.5	– 0.4	– 0.3	– 0.0
Apr.	– 0.7	– 0.7	+ 0.1	– 0.3	– 0.8	– 0.6	– 0.0	– 0.0	.	– 0.7	– 0.7	– 0.3	–
May	– 0.2	– 0.2	+ 0.3	– 2.8	– 0.4	– 0.5	– 0.0	– 0.0	.	– 1.1	– 0.4	– 0.2	– 0.7
June	– 1.1	– 1.1	– 0.1	– 0.8	– 1.0	– 1.0	– 0.0	+ 0.0	.	– 0.4	– 0.4	– 0.3	– 0.0
July	– 1.7	– 1.6	– 1.1	– 2.0	– 0.6	– 0.5	– 0.0	– 0.0	.	– 0.4	– 0.4	– 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*													
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	1,140.7	123.5	28.6	367.7	96.7	117.7	2.6	23.6	4.2	999.4	0.9	0.7	31.5	0.4
2020 Mar.	1,146.9	122.2	26.8	350.9	91.6	110.4	1.9	23.5	3.8	1,013.0	0.7	0.6	30.3	0.4
Apr.	1,146.0	119.7	25.4	348.4	84.4	101.7	1.7	27.3	3.5	1,017.0	0.7	0.7	31.6	0.4
May	1,141.5	121.0	24.9	337.5	80.7	97.4	1.8	27.4	3.6	1,016.7	0.8	0.7	31.4	0.4
June	1,148.1	126.1	27.7	344.5	86.5	107.0	1.7	27.1	3.4	1,014.0	0.8	0.7	31.4	0.4
July	1,128.7	120.2	25.2	327.9	77.2	94.8	1.8	25.7	3.4	1,008.2	0.9	0.7	33.3	0.4
	Changes*													
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	+ 40.6	– 15.9	+ 1.1	+ 11.8	+ 8.4	+ 11.5	– 0.5	+ 1.6	– 1.9	+ 27.4	+ 0.3	+ 0.6	+ 0.8	– 0.3
2020 Mar.	– 13.5	– 0.7	– 1.7	– 12.0	– 3.2	– 5.6	– 0.7	– 0.8	– 0.7	– 7.0	– 0.0	– 0.0	– 2.4	–
Apr.	– 0.9	– 2.5	– 1.5	– 2.5	– 7.2	– 8.7	– 0.2	+ 3.8	– 0.3	+ 4.0	+ 0.1	+ 0.0	+ 1.2	– 0.0
May	– 4.5	+ 1.3	– 0.4	– 10.9	– 3.7	– 4.3	+ 0.1	+ 0.1	+ 0.0	– 0.2	+ 0.0	+ 0.0	– 0.2	– 0.0
June	+ 6.6	+ 5.1	+ 2.7	+ 6.9	+ 5.8	+ 9.6	– 0.1	– 0.3	– 0.2	– 2.7	+ 0.0	+ 0.0	+ 0.0	– 0.0
July	– 18.2	– 4.6	– 2.5	– 16.6	– 9.3	– 10.9	+ 0.1	– 1.4	+ 0.0	– 5.8	+ 0.1	+ 0.0	+ 0.6	–

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

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

€ billion

End of year/month	Number of associations	Balance sheet total 13	Lending to banks (MFIs)			Lending to non-banks (non-MFIs)				Deposits of banks (MFIs) 5		Deposits of non-banks (non-MFIs)		Bearer debt securities outstanding	Capital (including published reserves) 7	Memo item: New contracts entered into in year or month 8
			Credit balances and loans (excluding building loans) 1	Building loans 2	Bank debt securities 3	Building loans			Securities (including Treasury bills and Treasury discount paper) 4	Deposits under savings and loan contracts	Sight and time deposits	Deposits under savings and loan contracts	Sight and time deposits 6			
						Loans under savings and loan contracts	Interim and bridging loans	Other building loans								
All building and loan associations																
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	19	237.9	34.0	0.0	16.2	11.4	117.6	28.0	25.9	2.9	21.0	179.7	9.8	1.8	12.0	88.7
2020 May	19	240.5	33.1	0.0	16.3	11.2	120.2	29.5	25.9	2.9	22.6	180.3	9.8	1.7	12.3	6.6
June	18	240.7	32.3	0.0	16.3	11.1	121.0	29.7	25.9	2.9	24.2	179.8	8.4	1.7	12.2	6.3
July	18	241.1	32.0	0.0	16.3	11.1	121.6	30.1	25.8	2.9	25.0	179.5	8.5	1.7	12.3	6.4
Private building and loan associations																
2020 May	11	166.1	17.3	–	6.9	8.3	93.6	25.2	11.5	1.8	20.1	116.7	9.5	1.7	8.5	4.2
June	10	166.3	16.6	–	6.9	8.2	94.3	25.4	11.5	1.8	21.5	116.6	8.1	1.7	8.4	4.0
July	10	166.8	16.5	–	6.9	8.2	94.7	25.7	11.4	1.7	22.3	116.4	8.1	1.7	8.4	4.1
Public building and loan associations																
2020 May	8	74.4	15.8	0.0	9.4	2.8	26.6	4.4	14.4	1.2	2.5	63.6	0.3	–	3.8	2.5
June	8	74.4	15.7	0.0	9.4	2.8	26.7	4.3	14.4	1.2	2.7	63.3	0.3	–	3.8	2.3
July	8	74.3	15.5	0.0	9.4	2.8	26.9	4.4	14.3	1.2	2.7	63.1	0.4	–	3.8	2.3

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		Newly granted interim and bridging loans and other building loans					
	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		Total	of which: Under allocated contracts	Total	of which: Repayments during quarter	Memo item: Housing bonuses received 12
All building and loan associations																
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	27.3	2.1	7.5	49.2	25.8	42.9	16.4	4.2	4.6	3.6	21.9	18.1	6.5	7.2	5.4	0.2
2020 May	2.5	0.0	0.7	4.5	2.5	3.9	1.6	0.3	0.4	0.3	1.9	18.2	6.6	0.5		0.0
June	2.1	0.0	0.9	4.5	2.5	4.2	1.7	0.3	0.4	0.3	2.1	18.7	6.6	0.6	1.3	0.0
July	2.1	0.0	0.9	4.7	2.4	4.3	1.6	0.4	0.4	0.3	2.3	18.6	6.4	0.6		0.0
Private building and loan associations																
2020 May	1.6	0.0	0.3	3.2	1.6	2.9	1.1	0.3	0.3	0.2	1.6	13.3	3.5	0.4		0.0
June	1.4	0.0	0.3	3.5	1.8	3.2	1.3	0.3	0.2	0.2	1.7	14.0	3.6	0.4	1.0	0.0
July	1.4	0.0	0.4	3.5	1.7	3.3	1.2	0.3	0.3	0.2	1.9	14.0	3.5	0.4		0.0
Public building and loan associations																
2020 May	0.9	0.0	0.4	1.3	0.9	0.9	0.5	0.1	0.1	0.1	0.4	4.9	3.1	0.1		0.0
June	0.8	0.0	0.6	1.1	0.7	1.0	0.5	0.1	0.1	0.1	0.4	4.7	3.0	0.1	0.4	0.0
July	0.8	0.0	0.5	1.2	0.7	1.0	0.4	0.1	0.1	0.1	0.5	4.7	2.9	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.

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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 ***
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
2019	52	198	1,453.0	407.3	389.2	216.0	173.2	18.1	534.3	436.1	19.7	416.4	98.2	511.5	361.7
2019 Sep.	53	199	1,672.7	457.5	440.2	243.6	196.6	17.3	581.9	482.9	19.9	463.1	98.9	633.3	465.9
Oct.	53	200	1,634.9	451.2	433.5	230.9	202.6	17.7	573.8	471.4	19.7	451.7	102.4	609.9	432.4
Nov.	52	199	1,582.4	418.6	403.2	219.9	183.2	15.5	581.6	481.8	20.0	461.8	99.8	582.2	417.1
Dec.	52	198	1,453.0	407.3	389.2	216.0	173.2	18.1	534.3	436.1	19.7	416.4	98.2	511.5	361.7
2020 Jan.	52	198	1,597.9	431.9	413.6	224.2	189.4	18.3	566.2	470.8	19.9	450.8	95.4	599.8	433.8
Feb.	52	199	1,725.2	445.3	427.1	240.5	186.6	18.2	583.5	493.8	19.5	474.3	89.7	696.4	534.6
Mar.	52	199	1,888.5	483.7	465.3	248.9	216.4	18.4	590.4	495.8	20.5	475.3	94.6	814.4	650.7
Apr.	52	199	1,875.4	473.2	455.1	261.5	193.7	18.0	584.5	492.6	20.5	472.1	91.9	817.8	646.0
May	52	198	1,823.5	442.7	425.6	248.0	177.6	17.2	571.6	475.7	19.6	456.1	95.9	809.2	632.1
June	52	198	1,780.3	440.7	426.2	250.4	175.8	14.5	559.5	463.9	19.6	444.3	95.6	780.1	608.1
															Changes *
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
2019	+ 3	+15	+ 51.5	− 4.7	− 7.7	+23.9	− 31.6	+ 2.9	+12.6	+ 0.9	− 0.3	+ 1.2	+11.7	+ 30.6	+ 49.6
2019 Oct.	−	+ 1	− 36.2	− 4.0	− 4.5	−12.7	+ 8.2	+ 0.5	− 2.1	− 6.3	− 0.1	− 6.2	+ 4.2	− 21.9	− 30.4
Nov.	− 1	− 1	− 53.6	− 34.4	− 32.1	−10.9	− 21.2	− 2.3	+ 3.0	+ 6.4	+ 0.3	+ 6.0	− 3.3	− 28.8	− 17.6
Dec.	−	− 1	−127.9	− 9.2	− 11.9	− 3.9	− 8.0	+ 2.7	−41.5	− 40.8	− 0.3	− 40.4	− 0.7	− 69.2	− 52.7
2020 Jan.	−	−	+144.8	+ 24.6	+ 24.4	+ 8.1	+ 16.3	+ 0.2	+31.9	+ 34.7	+ 0.3	+ 34.4	− 2.8	+ 88.3	+ 72.0
Feb.	−	+ 1	+126.9	+ 12.9	+ 13.0	+16.4	− 3.4	− 0.1	+16.2	+ 22.0	− 0.5	+ 22.5	− 5.9	+ 96.2	+ 100.2
Mar.	−	−	+163.4	+ 38.8	+ 38.6	+ 8.4	+ 30.2	+ 0.2	+ 8.6	+ 3.5	+ 1.0	+ 2.5	+ 5.1	+ 118.1	+ 116.4
Apr.	−	−	− 13.6	− 12.1	− 11.7	+12.6	− 24.2	− 0.5	− 9.6	− 6.3	+ 0.1	− 6.4	− 3.2	+ 2.8	− 6.4
May	−	− 1	− 50.5	− 27.0	− 26.4	−13.5	− 12.9	− 0.6	− 4.4	− 9.4	− 1.0	− 8.4	+ 5.0	− 7.1	− 9.0
June	−	−	− 42.8	− 1.2	+ 1.4	+ 2.4	− 1.0	− 2.7	− 9.8	− 9.9	+ 0.0	− 9.9	+ 0.1	− 28.7	− 22.8
Foreign subsidiaries															**End of year or month ***
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	−
2019	15	41	235.2	52.5	46.7	18.3	28.4	5.7	139.0	116.1	14.4	101.7	22.9	43.7	−
2019 Sep.	16	42	250.4	57.3	51.6	19.7	32.0	5.7	142.0	117.7	14.2	103.5	24.3	51.0	−
Oct.	15	41	238.9	53.9	48.4	18.0	30.4	5.5	138.5	114.7	14.3	100.4	23.8	46.5	−
Nov.	15	41	237.2	54.2	48.3	18.6	29.6	5.9	136.2	113.1	14.1	99.1	23.1	46.8	−
Dec.	15	41	235.2	52.5	46.7	18.3	28.4	5.7	139.0	116.1	14.4	101.7	22.9	43.7	−
2020 Jan.	15	40	240.2	52.4	47.0	20.1	26.9	5.5	141.0	117.5	14.0	103.4	23.6	46.8	−
Feb.	15	40	247.0	57.7	52.0	20.3	31.7	5.7	141.4	117.6	14.0	103.5	23.9	47.8	−
Mar.	15	40	246.2	55.7	49.3	19.5	29.9	6.4	143.9	121.7	15.1	106.7	22.1	46.7	−
Apr.	14	39	244.4	50.8	44.2	19.7	24.5	6.6	143.9	120.6	15.4	105.3	23.3	49.6	−
May	14	39	245.7	52.1	45.9	19.4	26.5	6.2	142.9	119.2	15.6	103.6	23.7	50.8	−
June	13	38	247.4	53.5	47.2	20.9	26.3	6.4	143.1	118.3	15.1	103.2	24.8	50.7	−
															Changes *
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	−
2019	− 2	− 2	− 7.2	+ 0.4	+ 0.5	− 1.8	+ 2.3	− 0.2	+ 1.6	+ 3.5	+ 0.5	+ 3.0	− 1.9	− 9.1	−
2019 Oct.	− 1	− 1	− 10.2	− 2.7	− 2.6	− 1.7	− 1.0	− 0.1	− 3.0	− 2.4	+ 0.1	− 2.6	− 0.5	− 4.5	−
Nov.	−	−	− 2.6	− 0.1	− 0.5	+ 0.6	− 1.1	+ 0.3	− 2.7	− 2.0	− 0.3	− 1.7	− 0.7	+ 0.2	−
Dec.	−	−	− 1.0	− 1.2	− 1.2	− 0.3	− 0.9	− 0.0	+ 3.2	+ 3.4	+ 0.3	+ 3.1	− 0.2	− 3.0	−
2020 Jan.	−	− 1	+ 4.0	− 0.6	− 0.2	+ 1.7	− 2.0	− 0.4	+ 1.5	+ 0.8	− 0.3	+ 1.2	+ 0.7	+ 3.0	−
Feb.	−	−	+ 6.4	+ 5.1	+ 4.9	+ 0.3	+ 4.6	+ 0.2	+ 0.3	− 0.1	− 0.0	− 0.0	+ 0.3	+ 1.0	−
Mar.	−	−	− 0.6	− 2.1	− 2.7	− 0.9	− 1.8	+ 0.7	+ 2.6	+ 4.3	+ 1.1	+ 3.2	− 1.7	− 1.1	−
Apr.	− 1	− 1	− 2.5	− 5.2	− 5.3	+ 0.2	− 5.5	+ 0.2	− 0.3	− 1.4	+ 0.3	− 1.7	+ 1.1	+ 3.0	−
May	−	−	+ 3.0	+ 2.0	+ 2.3	− 0.3	+ 2.5	− 0.3	− 0.2	− 0.6	+ 0.2	− 0.8	+ 0.4	+ 1.1	−
June	− 1	− 1	+ 2.0	+ 1.6	+ 1.4	+ 1.5	− 0.1	+ 0.2	+ 0.4	− 0.7	− 0.5	− 0.2	+ 1.2	− 0.1	−

***** In this table "foreign" also includes the country of domicile of the foreign branches and foreign subsidiaries. Statistical breaks 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 country of

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Deposits									Money market paper and debt securities outstanding [5]	Working capital and own funds	Other liabilities [6,7]		
	of banks (MFIs)			of non-banks (non-MFIs)									
					German non-banks [4]								
Total	Total	German banks	Foreign banks	Total	Total	Shortterm	Medium and longterm	Foreign non-banks			Total	of which: Derivative financial instruments in the trading portfolio	Period
End of year or month *												**Foreign branches**	
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
894.1	613.6	453.2	160.4	280.5	12.7	10.1	2.7	267.8	94.6	53.4	410.9	361.1	2019
971.2	657.5	459.5	198.0	313.7	15.8	13.0	2.7	297.9	108.1	53.7	539.7	468.3	2019 Sep.
979.2	676.7	475.9	200.8	302.5	13.7	11.0	2.7	288.8	106.8	53.4	495.5	434.0	Oct.
945.8	644.9	465.2	179.7	300.9	14.9	12.2	2.7	286.0	107.3	53.6	475.8	416.2	Nov.
894.1	613.6	453.2	160.4	280.5	12.7	10.1	2.7	267.8	94.6	53.4	410.9	361.1	Dec.
955.1	659.0	468.1	190.9	296.1	13.6	10.8	2.7	282.5	106.3	54.1	482.4	432.8	2020 Jan.
975.4	660.5	471.1	189.4	314.9	13.7	10.7	3.0	301.2	110.1	54.2	585.5	533.6	Feb.
1,030.8	718.6	458.6	260.0	312.3	15.1	12.0	3.1	297.2	97.2	54.7	705.7	650.4	Mar.
1,028.3	725.0	474.8	250.2	303.4	14.6	11.9	2.7	288.7	92.2	55.0	699.9	644.4	Apr.
994.0	695.4	484.1	211.3	298.7	15.3	13.1	2.2	283.3	93.5	54.7	681.2	630.2	May
979.1	680.0	484.2	195.8	299.1	14.5	12.6	1.9	284.6	85.7	54.3	661.3	607.6	June
Changes *													
− 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
− 7.2	+ 2.4	+ 24.4	− 22.0	− 9.6	+ 1.3	+ 0.4	+ 0.9	− 10.9	+ 3.0	− 0.6	+ 52.0	+ 58.5	2019
+ 10.4	+ 21.5	+ 16.4	+ 5.0	− 11.0	− 2.1	− 2.0	− 0.0	− 9.0	+ 0.3	− 0.3	− 44.2	− 34.3	2019 Oct.
− 35.3	− 33.5	− 10.7	− 22.8	− 1.7	+ 1.2	+ 1.2	+ 0.1	− 2.9	− 0.6	+ 0.2	− 19.7	− 17.8	Nov.
− 49.6	− 29.3	− 12.0	− 17.2	− 20.3	− 2.2	− 2.1	− 0.1	− 18.1	− 11.2	− 0.2	− 64.8	− 55.1	Dec.
+ 61.0	+ 45.4	+ 14.9	+ 30.5	+ 15.6	+ 0.8	+ 0.8	+ 0.1	+ 14.8	+ 11.6	+ 0.8	+ 71.5	+ 71.7	2020 Jan.
+ 19.7	+ 0.9	+ 3.0	− 2.1	+ 18.7	+ 0.1	− 0.1	+ 0.2	+ 18.6	+ 3.4	+ 0.1	+ 103.1	+ 100.8	Feb.
+ 56.0	+ 58.5	− 12.5	+ 71.0	− 2.5	+ 1.4	+ 1.5	− 0.1	− 3.9	− 12.8	+ 0.5	+ 120.2	+ 116.8	Mar.
− 4.6	+ 4.5	+ 16.3	− 11.8	− 9.0	− 0.4	− 0.1	− 0.4	− 8.6	− 5.6	+ 0.3	− 5.8	− 6.1	Apr.
− 29.9	− 25.4	+ 9.3	− 34.7	− 4.5	+ 0.7	+ 1.2	− 0.4	− 5.2	+ 2.8	− 0.3	− 18.6	− 14.2	May
− 14.0	− 14.5	+ 0.1	− 14.6	+ 0.5	− 0.9	− 0.5	− 0.4	+ 1.4	− 7.4	− 0.5	− 20.0	− 22.6	June
End of year or month *												**Foreign subsidiaries**	
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
165.7	68.7	36.6	32.1	97.0	6.6	3.9	2.7	90.4	16.0	22.1	31.4	–	2019
178.0	76.0	39.0	37.1	101.9	7.0	4.3	2.8	94.9	16.5	22.4	33.5	–	2019 Sep.
168.3	70.9	36.7	34.2	97.4	7.0	4.3	2.8	90.4	16.3	22.1	32.2	–	Oct.
167.3	70.7	36.7	34.0	96.6	6.9	4.2	2.7	89.7	16.1	22.1	31.6	–	Nov.
165.7	68.7	36.6	32.1	97.0	6.6	3.9	2.7	90.4	16.0	22.1	31.4	–	Dec.
170.1	70.5	37.3	33.2	99.6	6.4	3.6	2.7	93.2	16.5	21.7	32.0	–	2020 Jan.
176.3	73.5	38.6	35.0	102.7	6.8	4.1	2.7	95.9	16.4	21.7	32.7	–	Feb.
176.1	75.1	39.8	35.3	101.0	6.7	4.1	2.6	94.3	15.6	21.3	33.3	–	Mar.
175.3	76.8	43.3	33.6	98.5	6.9	4.4	2.5	91.6	15.8	20.8	32.4	–	Apr.
177.7	76.5	42.2	34.3	101.2	7.1	4.5	2.5	94.2	15.5	20.8	31.7	–	May
178.8	74.8	41.0	33.7	104.1	6.8	4.3	2.5	97.3	16.4	20.8	31.4	–	June
Changes *													
− 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
− 6.7	− 3.2	+ 0.5	− 3.8	− 3.5	− 2.5	− 2.5	+ 0.0	− 1.0	+ 1.7	− 0.4	− 1.8	–	2019
− 8.7	− 4.6	− 2.3	− 2.3	− 4.2	− 0.0	+ 0.0	− 0.0	− 4.1	− 0.2	− 0.3	− 0.8	–	2019 Oct.
− 1.6	− 0.6	+ 0.0	− 0.6	− 1.0	− 0.1	− 0.1	− 0.0	− 0.9	− 0.2	+ 0.0	− 0.8	–	Nov.
− 0.8	− 1.5	− 0.1	− 1.4	+ 0.8	− 0.3	− 0.2	− 0.0	+ 1.0	− 0.1	− 0.0	− 0.1	–	Dec.
+ 3.7	+ 1.4	+ 0.7	+ 0.8	+ 2.2	− 0.3	− 0.3	+ 0.0	+ 2.5	+ 0.5	− 0.4	+ 0.2	–	2020 Jan.
+ 6.0	+ 2.9	+ 1.3	+ 1.6	+ 3.0	+ 0.4	+ 0.5	− 0.1	+ 2.6	− 0.1	− 0.0	+ 0.5	–	Feb.
− 0.1	+ 1.6	+ 1.2	+ 0.4	− 1.7	− 0.1	− 0.0	− 0.1	− 1.6	− 0.8	− 0.4	+ 0.7	–	Mar.
− 1.1	+ 1.5	+ 3.5	− 2.0	− 2.7	+ 0.2	+ 0.3	− 0.1	− 2.9	+ 0.2	− 0.5	− 1.0	–	Apr.
+ 3.4	+ 0.2	− 1.1	+ 1.3	+ 3.2	+ 0.2	+ 0.2	− 0.0	+ 3.0	− 0.3	− 0.0	− 0.2	–	May
+ 1.4	− 1.6	− 1.1	− 0.5	+ 3.0	− 0.2	− 0.2	− 0.0	+ 3.2	+ 0.9	− 0.0	− 0.2	–	June

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]
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	13,485.4	134.9	134.5	1,623.7	1,489.3	0.0
2020 July p	14,276.1	142.8	142.4	...	...	...
Aug.	.	.	.	.	.	.
Sep. p	...	...	...	...	...	...

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]
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	3,728,027	27.6	37,280	37,131	486,477	449,346	0
2020 July p	3,932,404	27.5	39,324	39,176	...	...	...
Aug.	.	.	.	.	.	.	.
Sep. p	3,967,784	...	39,678	39,530	...	...	...

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
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	7,684	5,494	2,765	12,273	7,028	109	1,778
2020 July	7,904	6,091	2,959	12,756	7,323	112	2,030
Aug.	.	.	.	.	.	.	.
Sep.	8,125	6,138	3,051	12,822	7,404	103	1,885

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
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	2,627,478	1,272	410,338	577,760	111,183
2020 July	2,822,031	1,792	438,067	564,545	105,970
Aug.	.	.	.	.	.
Sep.	2,851,123	1,763	450,584	561,901	102,410

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

ECB interest rates										Base rates			
		Main refinancing operations					Main refinancing operations						
Applicable from	Deposit facility	Fixed rate	Minimum bid rate	Marginal lending facility	Applicable from	Deposit facility	Fixed rate	Minimum bid rate	Marginal lending facility	Applicable from	Base rate as per Civil Code [1]	Applicable from	Base rate as per Civil Code [1]
2005 Dec. 6	1.25	–	2.25	3.25	2011 Apr. 13	0.50	1.25	–	2.00	2002 Jan. 1	2.57	2009 Jan. 1	1.62
					July 13	0.75	1.50	–	2.25	July 1	2.47	July 1	0.12
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	2003 Jan. 1	1.97	2011 July 1	0.37
Aug. 9	2.00	–	3.00	4.00						July 1	1.22		
Oct. 11	2.25	–	3.25	4.25	2012 July 11	0.00	0.75	–	1.50			2012 Jan. 1	0.12
Dec. 13	2.50	–	3.50	4.50						2004 Jan. 1	1.14		
					2013 May 8	0.00	0.50	–	1.00	July 1	1.13	2013 Jan. 1	– 0.13
2007 Mar. 14	2.75	–	3.75	4.75	Nov. 13	0.00	0.25	–	0.75			July 1	– 0.38
June 13	3.00	–	4.00	5.00						2005 Jan. 1	1.21		
					2014 June 11	-0.10	0.15	–	0.40	July 1	1.17	2014 Jan. 1	– 0.63
2008 July 9	3.25	–	4.25	5.25	Sep. 10	-0.20	0.05	–	0.30			July 1	– 0.73
Oct. 8	2.75	–	3.75	4.75						2006 Jan. 1	1.37		
Oct. 9	3.25	3.75	–	4.25	2015 Dec. 9	-0.30	0.05	–	0.30	July 1	1.95	2015 Jan. 1	– 0.83
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	2007 Jan. 1	2.70	2016 July 1	– 0.88
										July 1	3.19		
2009 Jan. 21	1.00	2.00	–	3.00	2019 Sep. 18	-0.50	0.00	–	0.25				
Mar. 11	0.50	1.50	–	2.50						2008 Jan. 1	3.32		
Apr. 8	0.25	1.25	–	2.25						July 1	3.19		
May 13	0.25	1.00	–	1.75									

1 Pursuant to Section 247 of the Civil Code.

2. Eurosystem monetary policy operations allotted through tenders *

Date of Settlement	Bid amount	Allotment amount	Fixed rate tenders	Variable rate tenders			Running for … days
			Fixed rate	Minimum bid rate	Marginal rate [1]	Weighted average rate	
	€ million		% per annum				
Main refinancing operations							
2020 Aug. 19	1,331	1,331	0.00	-	-	-	7
Aug. 26	1,633	1,633	0.00	-	-	-	7
Sep. 2	1,568	1,568	0.00	-	-	-	7
Sep. 9	1,666	1,666	0.00	-	-	-	7
Sep. 16	1,679	1,679	0.00	-	-	-	7
Long-term refinancing operations							
2020 June 25	1,290	1,290	[2] …	-	-	-	98
July 30	148	148	[2] …	-	-	-	91
Aug. 6	5,684	5,684	[2] …	-	-	-	420
Aug. 27	243	243	[2] …	-	-	-	91
Sep. 3	794	794	[2] …	-	-	-	357

***** 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: a) the average minimum bid rate of the main refinancing operations over the life of this operation including a spread or b) the average deposit facility rate over the life of this operation.

3. Money market rates, by month *

% per annum

Monthly average	€STR [1]	EONIA [1]	EURIBOR [2]				
			One-week funds	One-month funds	Three-month funds	Six-month funds	Twelve-month funds
2020 Feb.	– 0.54	– 0.45	– 0.51	– 0.47	– 0.41	– 0.36	– 0.29
Mar.	– 0.53	– 0.45	– 0.51	– 0.48	– 0.42	– 0.37	– 0.27
Apr.	– 0.54	– 0.45	– 0.51	– 0.43	– 0.25	– 0.19	– 0.11
May	– 0.54	– 0.46	– 0.51	– 0.46	– 0.27	– 0.14	– 0.08
June	– 0.55	– 0.46	– 0.52	– 0.49	– 0.38	– 0.22	– 0.15
July	– 0.55	– 0.46	– 0.53	– 0.51	– 0.44	– 0.35	– 0.28
Aug.	– 0.55	– 0.47	– 0.53	– 0.52	– 0.48	– 0.43	– 0.36

***** 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 from January 4th 1999 until September 30th 2019 based on real turnover according to the act/360 method. Since October 1st 2019 calculated as Euro Short-Term Rate (€STR) + 8.5 basis points spread. **2** Euro interbank offered rate: unweighted average rate calculated by Reuters since 30 December 1998 according to the act/360 method.

VI. Interest rates

4. 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
2019 July	0.22	60,326	1.16	217,260	0.03	63,826	0.85	27,984
Aug.	0.22	60,071	1.15	217,527	0.02	66,066	0.84	27,809
Sep.	0.21	59,625	1.15	217,918	0.01	65,179	0.85	27,581
Oct.	0.21	58,785	1.14	217,872	– 0.01	64,731	0.85	27,684
Nov.	0.22	57,815	1.12	217,794	– 0.02	63,482	0.85	27,757
Dec.	0.23	57,910	1.12	219,819	– 0.05	66,312	0.84	27,528
2020 Jan.	0.23	57,198	1.11	220,060	– 0.05	65,777	0.83	27,355
Feb.	0.23	56,142	1.10	220,286	– 0.05	65,820	0.84	26,651
Mar.	0.24	54,034	1.10	219,797	– 0.07	68,925	0.82	26,158
Apr.	0.24	52,567	1.09	219,117	– 0.07	71,964	0.82	25,694
May	0.24	53,093	1.08	219,267	– 0.08	80,523	0.83	24,937
June	0.25	53,752	1.07	218,668	– 0.05	77,282	0.85	24,172
July	0.26	53,963	1.06	218,177	– 0.08	86,685	0.90	22,652

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
2019 July	2.22	4,643	1.77	26,544	2.31	1,236,461	7.06	50,115	3.48	86,724	3.74	315,493
Aug.	2.16	4,658	1.76	26,765	2.29	1,243,945	7.08	49,280	3.46	87,412	3.74	316,798
Sep.	2.16	4,636	1.75	26,538	2.27	1,250,520	7.23	51,134	3.46	87,317	3.71	315,907
Oct.	2.11	4,749	1.73	26,605	2.24	1,257,680	7.16	49,728	3.45	87,489	3.69	317,081
Nov.	2.07	4,787	1.71	26,726	2.22	1,265,217	7.13	48,412	3.44	87,638	3.67	318,019
Dec.	2.07	4,610	1.71	26,616	2.20	1,268,612	7.12	50,916	3.44	87,320	3.65	316,610
2020 Jan.	2.05	4,755	1.69	26,351	2.18	1,271,558	7.18	49,713	3.43	87,413	3.63	317,814
Feb.	2.01	4,813	1.69	26,388	2.16	1,278,149	7.18	49,016	3.43	87,594	3.62	318,931
Mar.	2.04	4,755	1.68	26,516	2.14	1,284,212	7.33	49,209	3.42	87,284	3.61	318,802
Apr.	1.99	4,673	1.66	26,483	2.12	1,291,221	7.17	45,827	3.41	86,755	3.59	319,658
May	1.97	4,752	1.66	26,603	2.10	1,299,073	7.03	44,605	3.41	86,303	3.57	320,868
June	1.98	4,628	1.65	26,702	2.09	1,303,405	7.05	46,438	3.41	86,046	3.57	319,461
July	1.99	4,720	1.65	26,707	2.06	1,312,369	7.02	45,559	3.41	86,187	3.55	321,141

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
2019 July	2.13	163,263	1.64	165,839	1.96	724,902
Aug.	2.14	163,138	1.64	167,486	1.95	729,505
Sep.	2.18	164,445	1.64	167,202	1.92	730,591
Oct.	2.19	160,244	1.63	169,633	1.91	735,730
Nov.	2.21	163,260	1.63	171,713	1.90	739,461
Dec.	2.24	162,074	1.64	171,388	1.88	737,455
2020 Jan.	2.20	161,563	1.64	169,238	1.86	741,004
Feb.	2.21	163,078	1.62	171,571	1.86	745,054
Mar.	2.05	182,434	1.62	174,636	1.84	746,742
Apr.	1.98	185,780	1.63	177,975	1.83	752,025
May	1.95	181,594	1.62	182,819	1.82	761,686
June	2.02	172,708	1.66	184,793	1.81	766,896
July	1.96	169,958	1.66	186,334	1.80	769,953

***** 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

4. 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
2019 July	0.01	1,496,476	0.12	3,834	0.49	378	0.79	965	0.13	542,420	0.27	38,137
Aug.	0.01	1,507,758	0.15	3,511	0.39	522	0.73	907	0.12	541,175	0.26	37,798
Sep.	0.01	1,504,996	0.14	3,322	0.50	342	0.63	820	0.12	540,525	0.25	37,218
Oct.	0.01	1,519,599	0.17	2,945	0.44	404	0.99	956	0.12	539,574	0.23	36,402
Nov.	0.01	1,550,441	0.18	2,617	0.66	674	0.58	999	0.12	538,889	0.23	35,551
Dec.	0.01	1,548,036	0.08	3,590	0.49	729	0.60	818	0.12	539,678	0.21	34,476
2020 Jan.	0.01	1,550,487	0.14	4,181	0.44	640	0.63	939	0.11	536,842	0.19	32,999
Feb.	0.00	1,571,470	0.15	3,157	0.39	388	0.58	826	0.11	535,065	0.19	32,449
Mar.	0.00	1,567,320	0.12	2,538	0.40	286	0.60	658	0.11	531,723	0.18	31,794
Apr.	0.00	1,597,323	0.14	3,086	0.49	308	0.69	601	0.11	531,921	0.18	31,083
May	0.00	1,619,447	0.19	3,300	0.59	1,117	0.60	629	0.11	532,140	0.17	30,662
June	0.00	1,626,420	0.17	3,283	0.78	1,455	0.69	854	0.11	532,292	0.18	29,671
July	0.00	1,643,393	0.15	3,296	0.60	1,161	0.74	750	0.10	531,191	0.18	29,168

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
2019 July	– 0.03	460,551	– 0.08	11,503	0.00	86	0.66	442
Aug.	– 0.03	465,696	– 0.17	11,745	– 0.06	135	0.45	212
Sep.	– 0.04	468,092	– 0.22	11,961	– 0.33	1,000	x .	x .
Oct.	– 0.04	477,961	– 0.20	10,900	– 0.06	155	x .	x .
Nov.	– 0.04	476,945	– 0.21	11,165	– 0.03	389	0.32	654
Dec.	– 0.05	476,493	– 0.22	17,148	0.04	554	0.28	911
2020 Jan.	– 0.06	468,336	– 0.11	18,221	0.12	278	0.34	158
Feb.	– 0.06	462,673	– 0.25	12,289	– 0.04	158	x .	x .
Mar.	– 0.07	482,538	– 0.27	20,845	0.04	235	x .	x .
Apr.	– 0.08	495,710	– 0.17	33,483	0.48	288	0.18	78
May	– 0.08	501,848	– 0.24	37,552	0.55	707	0.30	259
June	– 0.08	508,658	– 0.33	31,980	0.37	633	0.38	313
July	– 0.08	520,954	– 0.33	40,301	0.36	618	0.26	208

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
2019 July	6.17	6.11	10,570	7.13	2,173	9.19	493	4.63	3,859	6.79	6,219
Aug.	6.06	6.00	9,351	6.98	1,957	9.68	420	4.51	3,376	6.63	5,555
Sep.	5.92	5.87	8,928	6.72	1,837	9.41	461	4.44	3,178	6.42	5,289
Oct.	5.91	5.85	9,336	6.70	1,894	9.23	528	4.39	3,350	6.42	5,459
Nov.	5.75	5.73	8,369	6.60	1,654	8.54	493	4.36	3,056	6.32	4,821
Dec.	5.74	5.75	7,033	6.47	1,288	8.59	590	4.38	2,640	6.26	3,804
2020 Jan.	6.07	6.03	10,080	6.85	2,379	8.94	626	4.45	3,307	6.58	6,148
Feb.	5.81	5.81	9,284	6.65	1,995	8.58	538	4.41	3,155	6.34	5,591
Mar.	5.84	5.81	9,742	6.35	1,982	8.46	483	4.57	3,209	6.26	6,050
Apr.	6.31	6.21	7,843	6.08	1,482	8.11	361	5.06	2,291	6.59	5,190
May	5.93	5.80	7,945	6.23	1,620	7.79	494	4.49	2,843	6.39	4,608
June	5.87	5.72	8,758	6.41	1,841	8.62	401	4.39	3,258	6.34	5,099
July	5.74	5.63	9,990	6.52	2,114	8.71	442	4.26	3,744	6.29	5,804

For footnotes * and 1 to 6, see p. 44•. For footnote x see p. 47•. **+** 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

4. 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										
2019 July	1.84	5,915	1.78	1,869	1.80	2,429	2.43	876	1.69	2,610
Aug.	1.79	4,740	1.71	1,047	1.76	1,855	2.53	657	1.60	2,228
Sep.	1.78	4,757	1.73	1,279	1.82	2,154	2.34	630	1.55	1,973
Oct.	1.83	4,987	1.68	1,481	1.96	2,229	2.40	635	1.52	2,123
Nov.	1.63	5,178	1.58	1,046	1.61	2,022	2.28	722	1.45	2,434
Dec.	1.63	6,393	1.74	1,399	1.66	2,662	2.07	1,016	1.44	2,715
2020 Jan.	1.67	5,644	1.62	1,608	1.63	2,341	2.32	782	1.50	2,521
Feb.	1.77	4,739	1.57	1,108	1.79	1,860	2.52	666	1.53	2,213
Mar.	1.73	5,746	1.76	1,425	1.70	2,347	2.44	821	1.53	2,578
Apr.	1.71	6,505	1.95	2,109	1.73	2,042	2.04	944	1.60	3,519
May	1.80	6,580	1.96	2,043	1.98	2,118	2.07	833	1.63	3,629
June	1.83	6,513	1.95	2,438	1.82	2,252	2.43	1,070	1.63	3,191
July	1.78	5,296	1.62	1,539	1.84	2,241	2.32	774	1.53	2,281
of which: Loans to sole proprietors										
2019 July	1.92	4,264	.	.	1.99	1,719	2.43	676	1.68	1,869
Aug.	1.91	3,192	.	.	1.97	1,203	2.64	483	1.63	1,506
Sep.	1.79	3,219	.	.	1.80	1,458	2.42	449	1.57	1,312
Oct.	1.78	3,572	.	.	1.82	1,568	2.46	476	1.52	1,528
Nov.	1.74	3,478	.	.	1.80	1,297	2.40	532	1.48	1,649
Dec.	1.79	4,258	.	.	1.93	1,691	2.40	637	1.47	1,930
2020 Jan.	1.83	3,752	.	.	1.98	1,420	2.47	559	1.51	1,773
Feb.	1.80	3,430	.	.	1.82	1,301	2.57	518	1.53	1,611
Mar.	1.83	3,818	.	.	1.89	1,544	2.48	636	1.52	1,638
Apr.	1.75	4,582	.	.	1.88	1,402	2.02	752	1.60	2,428
May	1.81	5,056	.	.	2.03	1,460	2.14	633	1.64	2,963
June	1.86	4,702	.	.	1.83	1,501	2.46	806	1.68	2,395
July	1.82	3,473	.	.	1.87	1,355	2.30	600	1.58	1,518

Erhebungszeitraum	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 year 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													
2019 July	1.54	1.49	25,672	1.64	4,571	1.98	2,743	1.43	2,107	1.34	8,473	1.49	12,348
Aug.	1.43	1.38	22,520	1.53	3,272	1.86	2,529	1.38	1,684	1.23	6,856	1.36	11,450
Sep.	1.34	1.28	21,803	1.45	3,348	1.88	2,182	1.38	1,613	1.14	6,714	1.24	11,294
Oct.	1.31	1.27	23,169	1.44	3,714	1.91	2,452	1.31	1,738	1.12	7,268	1.22	11,711
Nov.	1.31	1.26	22,234	1.41	3,066	1.84	2,206	1.30	1,663	1.09	6,889	1.25	11,475
Dec.	1.34	1.29	20,048	1.48	2,938	1.81	2,396	1.37	1,553	1.14	6,622	1.27	9,477
2020 Jan.	1.39	1.34	21,927	1.47	3,871	1.83	2,545	1.32	1,797	1.16	7,106	1.35	10,479
Feb.	1.33	1.28	20,546	1.36	2,902	1.82	2,019	1.33	1,499	1.13	6,555	1.26	10,474
Mar.	1.27	1.22	25,314	1.38	3,761	1.83	2,503	1.32	1,872	1.07	8,045	1.18	12,894
Apr.	1.29	1.25	24,541	1.51	5,102	1.78	2,525	1.32	1,822	1.11	7,769	1.22	12,425
May	1.37	1.33	22,361	1.65	5,153	1.93	3,000	1.47	1,643	1.12	6,872	1.27	10,845
June	1.38	1.34	22,793	1.63	5,171	1.94	2,235	1.59	1,947	1.17	7,983	1.28	10,628
July	1.32	1.27	24,346	1.44	4,233	1.80	2,514	1.39	1,847	1.12	8,036	1.24	11,949
of which: Collateralised loans [11]													
2019 July	.	1.44	10,426	.	.	1.96	944	1.24	935	1.30	3,493	1.48	5,054
Aug.	.	1.32	9,008	.	.	1.90	732	1.19	762	1.17	2,860	1.35	4,654
Sep.	.	1.22	8,966	.	.	1.89	689	1.19	689	1.08	2,919	1.21	4,669
Oct.	.	1.20	9,660	.	.	1.82	818	1.09	799	1.06	3,118	1.20	4,925
Nov.	.	1.19	9,173	.	.	1.75	738	1.09	787	1.03	2,848	1.22	4,800
Dec.	.	1.20	8,740	.	.	1.79	758	1.15	719	1.07	2,898	1.19	4,365
2020 Jan.	.	1.26	9,963	.	.	1.77	891	1.14	888	1.07	3,130	1.30	5,054
Feb.	.	1.18	8,867	.	.	1.73	641	1.14	702	1.04	2,785	1.19	4,739
Mar.	.	1.13	11,461	.	.	1.76	828	1.15	925	0.98	3,673	1.13	6,035
Apr.	.	1.16	11,495	.	.	1.70	951	1.21	939	1.03	3,594	1.14	6,011
May	.	1.24	10,084	.	.	1.86	1,046	1.31	835	1.05	3,065	1.22	5,138
June	.	1.26	10,090	.	.	1.84	803	1.41	935	1.10	3,656	1.25	4,696
July	.	1.22	10,687	.	.	1.76	951	1.23	876	1.05	3,621	1.23	5,239

For footnotes * and 1 to 6, see p. 44•. For footnotes + and 7 to 10, see p. 45•; footnote 11, see p. 47•.

VI. Interest rates

4. 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]		of which: Extended credit card debt		Revolving loans [12] and overdrafts [13] Credit card debt [14]		of which: 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
2019 July	7.72	40,774	7.81	32,054	14.77	4,372	2.92	80,865	2.94	80,466
Aug.	7.79	40,128	7.84	31,484	14.78	4,450	2.91	81,292	2.92	80,923
Sep.	7.91	41,961	7.91	33,243	15.08	4,561	2.97	82,771	2.99	82,352
Oct.	7.81	40,630	7.80	32,063	15.05	4,479	2.96	79,242	2.98	78,810
Nov.	7.72	39,142	7.62	30,666	15.11	4,517	2.95	81,340	2.97	80,912
Dec.	7.62	41,902	7.69	32,556	15.11	4,576	3.05	79,862	3.07	79,476
2020 Jan.	7.72	40,805	7.65	32,270	15.13	4,497	2.99	80,217	3.00	79,819
Feb.	7.72	40,187	7.63	31,840	15.14	4,456	2.94	82,171	2.95	81,754
Mar.	7.89	40,211	7.64	32,857	15.19	4,364	2.77	88,805	2.78	88,517
Apr.	7.73	36,930	7.35	30,063	15.19	4,262	2.71	85,888	2.72	85,702
May	7.60	35,719	7.23	28,731	15.24	4,194	2.66	83,133	2.67	82,928
June	7.63	37,486	7.39	30,074	15.22	4,183	2.86	81,829	2.87	81,584
July	7.54	36,402	7.35	28,738	15.19	4,170	2.84	77,749	2.84	77,478

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																
2019 July	1.19	85,200	1.32	22,605	2.08	10,553	2.52	1,630	1.59	2,743	0.91	56,383	1.69	4,920	1.24	10,074
Aug.	1.13	70,037	1.32	19,327	2.02	8,816	2.54	1,375	1.55	2,529	0.88	47,954	1.71	3,280	1.17	7,364
Sep.	1.18	81,376	1.27	23,112	1.98	10,331	2.46	1,320	1.42	2,182	1.00	55,486	1.53	2,877	1.03	10,138
Oct.	1.22	80,549	1.31	23,322	1.93	10,875	2.41	1,503	1.43	2,452	1.06	55,298	1.32	3,647	1.08	7,913
Nov.	1.27	72,910	1.33	19,516	2.04	10,266	2.48	1,416	1.42	2,206	1.10	48,917	1.43	3,070	1.09	7,990
Dec.	1.29	102,587	1.40	27,151	2.10	10,584	2.40	1,608	1.45	2,396	1.15	73,303	1.36	4,483	1.18	11,129
2020 Jan.	1.24	73,322	1.34	22,883	1.98	10,775	2.45	1,509	1.53	2,545	1.03	51,717	1.39	2,121	1.26	5,911
Feb.	1.19	65,885	1.36	17,452	1.95	9,727	2.45	1,329	1.47	2,019	0.98	43,225	1.30	3,425	1.07	7,058
Mar.	1.20	96,389	1.44	24,539	1.88	10,920	2.34	1,666	1.47	2,503	1.06	69,385	1.31	3,884	1.14	9,067
Apr.	1.35	80,293	1.53	22,726	1.90	8,269	2.05	1,460	1.76	2,525	1.25	53,150	1.27	3,999	1.15	9,620
May	1.38	70,416	1.50	19,086	1.83	8,544	2.23	1,466	2.03	3,000	1.20	41,644	1.27	3,723	1.25	9,345
June	1.36	86,295	1.45	30,002	1.93	10,537	2.35	1,714	1.81	2,235	1.18	53,115	1.69	4,895	1.26	12,072
July	1.43	72,406	1.41	23,413	1.94	10,302	2.35	1,420	1.66	2,514	1.29	44,158	1.55	4,770	1.25	9,140
of which: Collateralised loans [11]																
2019 July	1.34	11,662	.	.	1.80	595	2.81	152	1.46	466	1.22	6,100	1.63	1,548	1.26	2,801
Aug.	1.49	8,835	.	.	1.96	474	2.53	152	1.28	357	1.45	4,757	2.16	957	1.15	2,138
Sep.	1.30	12,814	.	.	1.86	487	2.80	113	1.26	378	1.27	7,572	1.95	1,094	1.03	3,170
Oct.	1.28	10,710	.	.	1.64	630	2.52	140	1.24	362	1.24	6,623	1.72	588	1.11	2,367
Nov.	1.35	9,204	.	.	1.87	465	2.47	129	1.19	329	1.47	4,566	1.66	800	0.95	2,915
Dec.	1.38	17,816	.	.	1.71	553	2.43	174	1.28	402	1.41	11,704	1.46	1,422	1.17	3,561
2020 Jan.	1.23	9,108	.	.	1.71	661	2.47	147	1.43	395	1.15	6,021	1.46	316	1.14	1,568
Feb.	1.48	8,690	.	.	1.66	448	2.23	96	1.25	346	1.63	5,276	1.42	822	0.98	1,702
Mar.	x .	x .	.	.	1.74	548	x .	x .	1.20	411	1.29	7,469	1.88	522	1.02	2,620
Apr.	1.34	9,734	.	.	1.72	492	1.56	243	1.22	556	1.39	5,375	1.44	513	1.15	2,555
May	1.48	7,873	.	.	2.02	471	1.73	171	1.90	865	1.43	4,286	1.72	336	1.16	1,744
June	1.39	13,750	.	.	1.81	558	2.05	224	1.71	776	1.31	8,391	1.64	1,048	1.28	2,753
July	1.37	10,022	.	.	1.80	504	1.96	133	1.31	478	1.42	5,086	1.59	1,108	1.10	2,713

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 due to 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										
2017 Q3	2,188.1	331.3	386.1	371.1	305.5	650.5	3.1	49.5	32.7	58.4
Q4	2,212.7	321.1	387.0	354.3	336.1	671.3	2.9	48.3	34.3	57.3
2018 Q1	2,218.0	344.1	394.6	326.9	342.8	664.0	2.3	50.7	33.9	58.6
Q2	2,226.3	346.8	400.1	319.6	346.3	669.9	2.2	53.6	34.1	53.6
Q3	2,224.8	326.3	401.1	327.9	349.4	677.8	2.0	52.9	35.7	51.6
Q4	2,213.5	318.3	400.5	330.4	349.7	665.8	2.0	55.4	36.8	54.6
2019 Q1	2,344.4	332.3	432.0	330.0	380.9	708.8	2.6	59.3	37.1	61.4
Q2	2,407.9	336.8	449.5	339.3	387.8	735.7	3.6	57.9	37.1	60.3
Q3	2,493.0	333.0	469.2	357.2	398.1	768.2	4.6	58.7	38.0	66.0
Q4	2,474.4	317.1	449.3	355.8	407.1	778.2	3.6	64.9	39.8	58.7
2020 Q1	2,431.1	316.8	453.1	365.9	384.8	739.3	4.5	68.3	39.0	59.5
Life insurance										
2017 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	212.5	198.8	206.7	43.1	481.8	1.2	8.5	19.4	15.5
Q2	1,195.2	215.3	201.6	200.5	46.3	487.9	1.1	8.8	19.5	14.2
Q3	1,194.1	199.7	201.6	209.0	47.3	493.9	1.0	8.8	19.3	13.4
Q4	1,185.3	194.5	200.1	208.4	50.4	484.7	1.0	11.6	20.3	14.3
2019 Q1	1,239.7	202.9	213.7	206.1	52.8	517.7	1.6	10.4	20.3	14.1
Q2	1,291.9	205.8	227.6	214.1	55.4	538.9	2.4	10.0	20.3	17.4
Q3	1,350.0	205.3	242.5	225.2	57.9	563.6	3.1	10.4	20.9	21.0
Q4	1,325.0	194.5	227.6	217.8	61.0	570.4	2.4	13.7	21.1	16.5
2020 Q1	1,296.5	190.6	230.6	221.4	62.0	538.8	2.2	13.7	20.7	16.4
Non-life insurance										
2017 Q3	603.1	111.9	106.2	93.0	58.6	162.9	0.4	32.5	9.2	28.4
Q4	606.9	111.6	108.1	82.3	70.8	165.9	0.4	31.5	9.7	26.6
2018 Q1	623.2	120.2	112.7	75.1	72.1	167.0	0.3	34.6	9.8	31.5
Q2	621.6	120.1	115.7	72.9	72.9	167.4	0.3	35.6	9.8	27.0
Q3	617.9	116.3	116.1	72.8	73.7	168.9	0.2	34.9	9.8	25.1
Q4	616.2	113.8	117.4	73.7	73.8	167.4	0.2	33.5	10.8	25.6
2019 Q1	655.3	119.1	127.7	74.4	76.1	177.1	0.3	38.1	11.0	31.4
Q2	665.9	119.8	131.6	76.1	78.1	182.4	0.4	37.6	11.0	29.0
Q3	683.1	116.9	136.0	79.9	80.6	189.3	0.4	38.8	11.3	30.0
Q4	674.2	111.1	131.4	79.7	83.5	193.2	0.4	36.1	12.2	26.6
2020 Q1	673.1	110.6	132.8	80.9	81.8	187.1	0.3	38.6	11.9	29.1
Reinsurance 3										
2017 Q3	407.5	11.8	86.3	57.5	208.5	15.1	0.9	9.2	4.4	13.9
Q4	412.6	10.3	86.5	45.9	224.0	17.6	0.7	8.3	4.7	14.7
2018 Q1	407.2	11.4	83.1	45.1	227.6	15.3	0.8	7.6	4.8	11.6
Q2	409.5	11.5	82.9	46.1	227.1	14.6	0.8	9.1	4.8	12.4
Q3	412.7	10.2	83.4	46.0	228.4	15.0	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	449.4	10.2	90.6	49.5	252.0	14.0	0.7	10.8	5.8	15.9
Q2	450.1	11.1	90.4	49.0	254.3	14.4	0.8	10.2	5.8	13.9
Q3	459.9	10.8	90.7	52.1	259.6	15.3	1.0	9.6	5.9	15.0
Q4	475.2	11.5	90.2	58.4	262.6	14.5	0.8	15.1	6.6	15.6
2020 Q1	461.5	15.7	89.7	63.6	241.1	13.3	1.9	15.9	6.3	14.1
Pension funds 4										
2017 Q3	636.5	101.1	62.9	29.7	23.7	351.7	–	7.0	39.2	21.2
Q4	646.8	96.7	65.1	29.7	25.0	360.4	–	7.1	41.2	21.5
2018 Q1	650.6	94.6	64.8	30.1	25.5	365.2	–	7.4	41.7	21.4
Q2	657.5	95.0	64.6	30.7	26.6	369.4	–	7.6	42.2	21.5
Q3	663.5	92.3	64.5	30.8	27.1	376.6	–	7.9	42.9	21.5
Q4	669.4	91.7	65.2	31.2	27.3	380.1	–	8.1	43.9	21.8
2019 Q1	687.2	89.7	69.4	31.3	28.0	393.4	–	8.2	44.9	22.3
Q2	699.6	87.7	72.8	31.9	28.5	402.2	–	8.3	45.2	23.2
Q3	714.8	85.6	76.1	32.1	29.3	414.4	–	8.3	45.4	23.6
Q4	726.6	85.2	75.0	32.6	29.8	423.0	–	8.5	47.6	24.9
2020 Q1	708.8	81.4	72.4	32.4	29.6	410.8	–	8.6	48.3	25.3

Sources: The calculations for the insurance sectors are based on supervisory data according to Solvency I and II. Pension funds data are compiled using Solvency I supervisory data, supplemented by voluntary reports and own calculations. * Valuation of listed securities at the corresponding consistent price from the ESCB's securities database. 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										
2017 Q3	2,188.1	28.5	58.4	455.6	1,513.1	1,317.2	195.9	2.3	130.2	–
Q4	2,212.7	28.3	62.6	466.0	1,523.0	1,335.0	187.9	2.2	130.6	–
2018 Q1	2,218.0	28.0	61.9	460.2	1,539.4	1,333.8	205.6	1.5	127.0	–
Q2	2,226.3	27.7	64.0	456.8	1,553.7	1,348.0	205.7	1.9	122.2	–
Q3	2,224.8	27.5	65.1	462.3	1,545.4	1,344.1	201.4	2.0	122.4	–
Q4	2,213.5	29.3	64.6	463.1	1,530.3	1,332.4	197.9	1.6	124.6	–
2019 Q1	2,344.4	31.6	68.3	488.3	1,625.8	1,403.7	222.0	1.5	128.9	–
Q2	2,407.9	31.9	69.4	489.6	1,687.3	1,465.9	221.4	1.8	128.0	–
Q3	2,493.0	31.7	69.3	488.4	1,769.2	1,542.9	226.3	2.2	132.2	–
Q4	2,474.4	31.7	75.8	515.2	1,714.7	1,499.5	215.2	1.9	135.2	–
2020 Q1	2,431.1	31.8	82.4	466.7	1,721.4	1,482.7	238.7	2.4	126.4	–
Life insurance										
2017 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	121.9	1,007.5	1,007.5	–	1.1	45.8	–
2018 Q1	1,187.6	4.0	13.3	119.5	1,007.4	1,007.4	–	0.7	42.6	–
Q2	1,195.2	4.1	13.0	119.3	1,017.4	1,017.4	–	0.8	40.6	–
Q3	1,194.1	4.1	12.6	121.0	1,013.7	1,013.7	–	0.9	41.9	–
Q4	1,185.3	4.1	15.2	122.7	1,000.7	1,000.7	–	0.5	42.2	–
2019 Q1	1,239.7	4.1	14.4	120.9	1,058.9	1,058.9	–	0.4	41.1	–
Q2	1,291.9	4.1	14.5	121.8	1,108.6	1,108.6	–	0.4	42.4	–
Q3	1,350.0	3.7	15.6	116.0	1,171.8	1,171.8	–	0.6	42.4	–
Q4	1,325.0	3.6	19.1	127.6	1,129.6	1,129.6	–	0.5	44.6	–
2020 Q1	1,296.5	3.6	19.3	114.4	1,117.6	1,117.6	–	0.6	41.0	–
Non-life insurance										
2017 Q3	603.1	1.1	6.9	137.5	406.8	305.8	101.1	0.1	50.7	–
Q4	606.9	1.1	6.7	141.3	405.9	309.8	96.1	0.1	51.8	–
2018 Q1	623.2	1.1	7.7	141.4	423.0	311.1	111.9	0.0	50.0	–
Q2	621.6	1.1	8.1	140.6	424.5	314.3	110.2	0.1	47.2	–
Q3	617.9	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	101.1	0.0	50.0	–
2019 Q1	655.3	1.1	9.3	144.1	448.4	328.9	119.6	0.0	52.4	–
Q2	665.9	1.1	8.8	146.9	459.3	341.5	117.8	0.1	49.7	–
Q3	683.1	1.2	9.1	149.5	471.8	354.8	117.0	0.1	51.4	–
Q4	674.2	1.2	9.3	153.5	457.1	349.4	107.7	0.1	53.0	–
2020 Q1	673.1	1.3	9.8	144.5	468.6	344.4	124.2	0.1	48.9	–
Reinsurance [3]										
2017 Q3	407.5	23.3	39.3	196.6	112.3	17.5	94.9	1.1	35.0	–
Q4	412.6	23.1	43.1	202.8	109.6	17.7	91.9	1.0	33.1	–
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	449.4	26.5	44.6	223.4	118.4	15.9	102.5	1.1	35.5	–
Q2	450.1	26.6	46.1	220.8	119.4	15.8	103.6	1.3	35.9	–
Q3	459.9	26.8	44.7	222.8	125.6	16.3	109.3	1.5	38.5	–
Q4	475.2	26.9	47.4	234.0	128.0	20.6	107.5	1.3	37.7	–
2020 Q1	461.5	26.9	53.3	207.8	135.3	20.8	114.5	1.7	36.5	–
Pension funds [4]										
2017 Q3	636.5	–	6.9	7.3	564.5	564.5	–	–	2.5	55.3
Q4	646.8	–	7.1	7.6	574.3	574.3	–	–	2.7	55.2
2018 Q1	650.6	–	7.3	7.7	580.2	580.2	–	–	2.7	52.7
Q2	657.5	–	7.5	7.8	587.4	587.4	–	–	2.8	52.0
Q3	663.5	–	7.7	7.8	593.4	593.4	–	–	2.9	51.6
Q4	669.4	–	7.9	7.8	602.8	602.8	–	–	3.2	47.6
2019 Q1	687.2	–	8.1	8.0	613.1	613.1	–	–	3.3	54.8
Q2	699.6	–	8.1	8.0	618.2	618.2	–	–	3.3	62.1
Q3	714.8	–	8.2	8.1	625.8	625.8	–	–	3.3	69.4
Q4	726.6	–	8.4	8.2	639.7	639.7	–	–	3.4	66.8
2020 Q1	708.8	–	8.6	8.3	639.7	639.7	–	–	3.4	48.7

Sources: The calculations for the insurance sectors are based on supervisory data according to Solvency I and II. Pension funds data are compiled using Solvency I supervisory data, supplemented by voluntary reports and own calculations. **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]
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	– 15,971	– 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	74,483	14,366
2015	33,024	– 36,010	– 65,778	26,762	3,006	69,034	116,493	– 66,330	121,164	61,659	– 83,471
2016	71,380	27,429	19,177	18,265	– 10,012	43,951	164,148	– 58,012	187,500	34,660	– 92,768
2017	53,796	11,563	1,096	7,112	3,356	42,233	140,417	– 71,454	161,012	50,859	– 86,621
2018	61,984	16,630	33,251	12,433	– 29,055	45,354	99,011	– 24,417	67,328	56,100	– 37,028
2019	125,037	68,536	29,254	32,505	6,778	56,501	85,203	8,059	2,408	74,736	39,834
2019 Sep.	3,145	– 1,029	– 722	170	– 477	4,174	6,521	– 35	– 1,888	8,444	– 3,375
Oct.	– 37,327	– 38,176	– 17,186	3,290	– 24,280	849	– 11,175	– 8,976	505	– 2,704	– 26,152
Nov.	45,338	38,355	13,461	6,468	18,426	6,983	28,913	5,649	7,457	15,807	16,425
Dec.	– 29,741	– 24,349	– 4,293	– 3,847	– 16,209	– 5,392	– 2,131	– 12,043	2,062	7,850	– 27,610
2020 Jan.	40,861	29,951	4,293	10,672	14,987	10,910	7,512	3,447	2,985	1,080	33,349
Feb.	41,836	33,199	14,383	1,337	17,479	8,637	32,132	9,014	4,202	18,916	9,705
Mar.	2,160	3,798	– 4,596	– 5,516	13,910	– 1,638	– 10,935	17,837	4,747	– 33,519	13,095
Apr.	37,012	31,119	2,401	15,964	12,755	5,893	40,472	5,669	17,982	16,821	– 3,460
May	81,153	79,902	– 1,777	16,851	64,828	1,251	40,102	9,749	35,151	– 4,798	41,050
June	65,725	47,036	6,695	5,329	35,013	18,689	37,147	9,099	25,469	2,579	28,578
July	50,156	49,501	– 2,044	15,910	35,635	655	28,768	– 15,534	25,721	18,581	21,388

€ 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]
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	30,896	4,409	26,487	31,037	– 5,143	36,180	– 141
2017	53,024	15,570	37,454	51,372	7,031	44,341	1,652
2018	58,446	16,188	42,258	84,528	– 11,184	95,712	– 26,082
2019	45,092	9,076	36,015	29,463	– 1,119	30,582	15,629
2019 Sep.	5,330	124	5,206	4,469	– 1,145	5,614	861
Oct.	10,663	385	10,278	10,682	– 172	10,854	– 19
Nov.	4,230	236	3,994	4,445	1,801	2,644	– 215
Dec.	5,878	4,669	1,209	– 11,994	1,453	– 13,447	17,872
2020 Jan.	6,836	795	6,041	6,946	– 286	7,232	– 110
Feb.	2,975	416	2,559	1,000	– 947	1,947	1,975
Mar.	– 2,200	566	– 2,766	5,605	– 7,442	13,047	– 7,805
Apr.	4,869	235	4,634	10,760	– 1,266	12,026	– 5,891
May	7,487	1,370	6,117	9,396	371	9,025	– 1,909
June	5,064	685	4,379	6,320	2,509	3,811	– 1,256
July	8,929	2,144	6,785	24,899	676	24,223	– 15,970

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							
2008	1,337,337	961,271	51,259	70,520	382,814	456,676	95,093	280,974
2009	1,533,616	1,058,815	40,421	37,615	331,566	649,215	76,379	398,421
2010	1,375,138	757,754	36,226	33,539	363,828	324,160	53,653	563,730
2011	1,337,772	658,781	31,431	24,295	376,876	226,180	86,614	592,375
2012	1,340,568	702,781	36,593	11,413	446,153	208,623	63,258	574,530
2013	1,433,628	908,107	25,775	12,963	692,611	176,758	66,630	458,892
2014	1,362,056	829,864	24,202	13,016	620,409	172,236	79,873	452,321
2015	1,359,422	852,045	35,840	13,376	581,410	221,417	106,675	400,701
2016 3	1,206,483	717,002	29,059	7,621	511,222	169,103	73,371	416,108
2017 3	1,047,822	619,199	30,339	8,933	438,463	141,466	66,290	362,332
2018	1,148,091	703,416	38,658	5,673	534,552	124,530	91,179	353,496
2019	1,285,541	783,977	38,984	9,587	607,900	127,504	94,367	407,197
2019 Nov.	111,203	65,111	4,053	1,080	48,790	11,188	11,524	34,568
Dec.	61,994	39,959	570	10	33,766	5,613	4,268	17,767
2020 Jan. 6	151,486	82,405	7,081	1,350	64,648	9,326	19,477	49,604
Feb.	124,109	69,386	3,219	200	56,112	9,855	10,143	44,580
Mar.	115,696	55,561	7,719	4,505	39,367	3,970	10,452	49,684
Apr.	175,116	69,399	4,405	4,750	51,309	8,936	23,003	82,713
May	170,970	56,055	9	125	48,088	7,833	28,199	86,715
June	166,901	71,340	6,736	1,750	53,696	9,158	18,489	77,072
July	169,954	61,676	1,366	20	55,807	4,483	21,023	87,255
	of which: Debt securities with maturities of more than four years 4							
2008	387,516	190,698	13,186	31,393	54,834	91,289	84,410	112,407
2009	361,999	185,575	20,235	20,490	59,809	85,043	55,240	121,185
2010	381,687	169,174	15,469	15,139	72,796	65,769	34,649	177,863
2011	368,039	153,309	13,142	8,500	72,985	58,684	41,299	173,431
2012	421,018	177,086	23,374	6,482	74,386	72,845	44,042	199,888
2013	372,805	151,797	16,482	10,007	60,662	64,646	45,244	175,765
2014	420,006	157,720	17,678	8,904	61,674	69,462	56,249	206,037
2015	414,593	179,150	25,337	9,199	62,237	82,379	68,704	166,742
2016 3	375,859	173,900	24,741	5,841	78,859	64,460	47,818	154,144
2017 3	357,506	170,357	22,395	6,447	94,852	46,663	44,891	142,257
2018	375,906	173,995	30,934	4,460	100,539	38,061	69,150	132,760
2019	396,617	174,390	26,832	6,541	96,673	44,346	69,682	152,544
2019 Nov.	40,373	16,756	2,896	1,030	6,675	6,155	9,535	14,082
Dec.	16,946	9,899	540	10	6,824	2,525	2,729	4,317
2020 Jan. 6	50,576	27,474	7,032	1,250	13,813	5,379	8,300	14,802
Feb.	31,590	16,290	2,899	50	9,994	3,348	1,619	13,681
Mar.	30,174	13,703	3,859	1,905	5,833	2,106	865	15,607
Apr.	41,373	10,274	2,165	1,300	5,943	866	8,561	22,538
May	65,814	12,372	9	125	8,134	4,104	12,419	41,024
June	60,991	17,946	5,561	1,500	5,198	5,686	9,125	33,920
July	60,076	14,071	1,366	20	11,329	1,356	13,236	32,769
	Net sales 5							
2008	119,472	8,517	15,052	– 65,773	25,165	– 34,074	82,653	28,302
2009	76,441	– 75,554	858	– 80,646	25,579	– 21,345	48,508	103,482
2010	21,566	– 87,646	– 3,754	– 63,368	28,296	– 48,822	23,748	85,464
2011	22,518	– 54,582	1,657	– 44,290	32,904	– 44,852	– 3,189	80,289
2012	– 85,298	– 100,198	– 4,177	– 41,660	– 3,259	– 51,099	– 6,401	21,298
2013	– 140,017	– 125,932	– 17,364	– 37,778	– 4,027	– 66,760	1,394	– 15,479
2014	– 34,020	– 56,899	– 6,313	– 23,856	– 862	– 25,869	10,497	12,383
2015	– 65,147	– 77,273	9,271	– 9,754	– 2,758	– 74,028	25,300	– 13,174
2016 3	21,951	10,792	2,176	– 12,979	16,266	5,327	18,177	– 7,020
2017 3	2,669	5,954	6,389	– 4,697	18,788	– 14,525	6,828	– 10,114
2018	2,758	26,648	19,814	– 6,564	18,850	– 5,453	9,738	– 33,630
2019	59,719	28,750	13,098	– 3,728	26,263	– 6,885	30,449	519
2019 Nov.	42,328	15,455	3,670	118	10,420	1,247	6,544	20,329
Dec.	– 30,172	– 9,922	– 1,605	– 816	– 4,406	– 3,096	– 2,804	– 17,445
2020 Jan. 6	19,138	3,753	3,260	135	– 4,112	4,470	10,748	4,638
Feb.	27,420	10,817	2,633	– 679	9,318	– 455	436	16,168
Mar.	10,873	2,608	5,741	3,137	– 134	– 6,136	– 4,187	12,452
Apr.	34,368	3,134	1,210	4,324	– 1,083	– 1,317	11,594	19,640
May	82,872	1,010	– 1,593	– 604	4,536	– 1,330	14,387	67,476
June	47,941	10,175	3,362	1,664	5,404	– 255	2,856	34,910
July	37,508	– 4,681	– 1,443	– 714	237	– 2,762	12,135	30,054

***** For definitions, see the explanatory notes in Statistical Series - Securities Issues Statistics on pages 43 f. **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. **6** Methodological changes since January 2020. — The figures for the most recent date are provisional. Revisions are not specially marked.

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		
2008	3,250,195	1,876,583	150,302	377,091	490,641	858,550	178,515	1,195,097
2009	3,326,635	1,801,029	151,160	296,445	516,221	837,203	227,024	1,298,581
2010	3,348,201	1 1,570,490	147,529	232,954	544,517	1 645,491	250,774	1 1,526,937
2011	3,370,721	1,515,911	149,185	188,663	577,423	600,640	247,585	1,607,226
2012	3,285,422	1 1,414,349	145,007	147,070	574,163	1 548,109	1 220,456	1 1,650,617
2013	3,145,329	1,288,340	127,641	109,290	570,136	481,273	221,851	1,635,138
2014	3,111,308	1,231,445	121,328	85,434	569,409	455,274	232,342	1,647,520
2015	3,046,162	1,154,173	130,598	75,679	566,811	381,085	257,612	1,634,377
2016 1	3,068,111	1,164,965	132,775	62,701	633,578	335,910	275,789	1,627,358
2017 1	3,090,708	1,170,920	141,273	58,004	651,211	320,432	2 302,543	1,617,244
2018	3,091,303	1,194,160	161,088	51,439	670,062	1 311,572	1 2 313,527	1,583,616
2019	2 3,149,373	1,222,911	174,188	47,712	696,325	304,686	2 342,325	1,584,136
2019 Nov.	3,179,544	1,232,833	175,793	48,528	700,730	307,782	345,130	1,601,582
Dec.	3,149,373	1,222,911	174,188	47,712	696,325	304,686	342,325	1,584,136
2020 Jan. 4	3,132,103	1,182,330	179,415	47,491	686,211	269,213	348,115	1,601,658
Feb.	3,160,234	1,193,470	182,045	46,835	695,862	268,727	348,656	1,618,108
Mar.	2 3,161,739	1,191,655	187,630	49,962	692,049	262,015	2 339,172	1,630,911
Apr.	3,204,248	1,200,654	188,949	54,307	696,203	261,194	351,258	1,652,335
May	3,282,783	1,199,035	189,074	57,391	693,994	258,576	365,185	1,718,563
June	2 3,328,134	2 1,205,292	192,323	59,050	697,628	2 256,290	368,001	1,754,841
July	3,343,846	1,186,874	190,611	58,228	685,891	252,144	379,565	1,777,408
Breakdown by remaining period to maturity 3								**Position at end-July 2020**
bis unter 2	1 099 427	429 939	50 785	16 064	282 062	81 028	71 589	597 899
2 bis unter 4	663 595	284 410	51 706	15 494	164 125	53 086	64 870	314 315
4 bis unter 6	478 485	195 705	35 518	11 665	103 449	45 073	56 576	226 204
6 bis unter 8	360 594	133 481	29 110	7 423	63 939	33 009	42 713	184 400
8 bis unter 10	239 310	67 192	14 627	4 417	34 591	13 557	23 826	148 292
10 bis unter 15	153 399	34 385	6 112	2 189	14 354	11 730	34 631	84 382
15 bis unter 20	107 968	21 397	1 757	854	16 670	2 116	9 088	77 483
20 und darüber	241 069	20 364	996	123	6 700	12 545	76 272	144 433

***** Including debt securities temporarily held in the issuers' portfolios. **1** Sectoral reclassification of debt securities. **2** Increase due to the change in the country of residence of the issuers or debt securities. **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** Methodological changes since January 2020. — The figures for the most recent date are provisional. Revisions are not specially marked.

4. Shares in circulation issued by residents *

€ million, nominal value

Period	Share capital = circulation at end of period under review	Net increase or net decrease (-) during period under review	Change in domestic public limited companies' capital due to						Memo item: Share circulation at market values (market capitalisation) level at end of period under review 2
			cash payments and exchange of convertible bonds 1	issue of bonus shares	contribution of claims and other real assets	merger and transfer of assets	change of legal form	reduction of capital and liquidation	
2008	168,701	4,142	5,006	1,319	152	– 428	– 608	– 1,306	830,622
2009	175,691	6,989	12,476	398	97	– 3,741	– 1,269	– 974	927,256
2010	174,596	– 1,096	3,265	497	178	– 486	– 993	– 3,569	1,091,220
2011	177,167	2,570	6,390	552	462	– 552	– 762	– 3,532	924,214
2012	178,617	1,449	3,046	129	570	– 478	594	– 2,411	1,150,188
2013	171,741	– 6,879	2,971	718	476	– 1,432	– 619	– 8,992	1,432,658
2014	177,097	5,356	5,332	1,265	1,714	– 465	– 1,044	– 1,446	1,478,063
2015	177,416	319	4,634	397	599	– 1,394	– 1,385	– 2,535	1,614,442
2016	176,355	– 1,062	3,272	319	337	– 953	– 2,165	– 1,865	1,676,397
2017	178,828	2,471	3,894	776	533	– 457	– 661	– 1,615	1,933,733
2018	180,187	1,357	3,670	716	82	– 1,055	– 1,111	– 946	1,634,155
2019 3 4	183,461	1,700	2,411	2,419	542	– 858	– 65	– 2,747	1,950,224
2019 Nov.	183,514	– 265	41	–	–	– 156	– 10	– 141	1,927,816
Dec. 4	183,461	– 83	284	1	20	– 11	– 8	– 368	1,950,224
2020 Jan.	183,341	– 120	27	–	–	–	– 29	– 118	1,928,328
Feb. 4	183,247	33	67	5	–	– 1	– 1	– 37	1,746,035
Mar.	181,792	– 1,455	78	40	–	–	12	– 1,584	1,475,909
Apr.	181,785	– 4	77	–	–	– 22	– 1	– 58	1,657,055
May	181,471	– 314	163	87	26	– 576	– 1	– 12	1,741,382
June r	180,042	– 1,430	83	4	1	– 1,112	– 350	– 56	1,784,980
July	180,473	431	470	19	–	– 3	– 6	– 48	1,799,062

***** 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-Mit teilungen and Deutsche Börse AG. **3** Methodological changes since October 2019. **4** Changes due to statistical adjustments.

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
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	2.9	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	– 0.1	– 0.2	– 0.3	– 0.3	0.1	0.3	2.5	143.72	111.32	575.80	13,249.01
2020 Mar.	– 0.2	– 0.4	– 0.6	– 0.5	0.1	0.3	3.5	145.13	113.12	429.84	9,935.84
Apr.	– 0.1	– 0.3	– 0.4	– 0.5	0.3	0.4	3.7	144.99	114.35	471.38	10,861.64
May	– 0.1	– 0.4	– 0.5	– 0.5	0.1	0.2	2.0	144.54	112.80	502.26	11,586.85
June	– 0.1	– 0.3	– 0.4	– 0.4	0.0	0.1	1.6	145.24	113.18	525.07	12,310.93
July	– 0.2	– 0.4	– 0.5	– 0.5	– 0.1	0.0	1.3	145.85	113.27	522.53	12,313.36
Aug.	– 0.2	– 0.4	– 0.5	– 0.5	– 0.1	– 0.0	1.2	145.81	111.72	549.79	12,945.38

1 Bearer debt securities with maximum maturities according to the terms of issue of over 4 years. Structured debt securities, 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. Adjustment of the scope of securities included on 1 May 2020. **2** End of year or month. **3** Source: Deutsche Börse AG. **4** Only debt securities eligible as underlying instruments for futures contracts; calculated as unweighted averages.

6. Sales and purchases of mutual fund shares in Germany

€ million

Period	Sales								Purchases					
		Open-end domestic mutual funds [1] (sales receipts)							Residents					
			Mutual funds open to the general public							Credit institutions including building and loan associations [2]		Other sectors [3]		
				of which:										
	Sales = total purchases	Total	Total	Money market funds	Securities-based funds	Real estate funds	Specialised funds	Foreign funds [4]	Total	Total	of which: Foreign mutual fund shares	Total	of which: Foreign mutual fund shares	Non-residents [5]
2008	2,598	– 7,911	– 14,409	– 12,171	– 11,149	799	6,498	10,509	11,315	– 16,625	– 9,252	27,940	19,761	– 8,717
2009	49,929	43,747	10,966	– 5,047	11,749	2,686	32,780	6,182	38,132	– 14,995	– 8,178	53,127	14,361	11,796
2010	106,190	84,906	13,381	– 148	8,683	1,897	71,345	21,284	102,591	3,873	6,290	98,718	14,994	3,598
2011	46,512	45,221	– 1,340	– 379	– 2,037	1,562	46,561	1,290	39,474	– 7,576	– 694	47,050	1,984	7,035
2012	111,236	89,942	2,084	– 1,036	97	3,450	87,859	21,293	114,676	– 3,062	– 1,562	117,738	22,855	– 3,437
2013	123,736	91,337	9,184	– 574	5,596	3,376	82,153	32,400	117,028	771	100	116,257	32,300	6,710
2014	140,233	97,711	3,998	– 473	862	1,000	93,713	42,521	144,075	819	– 1,745	143,256	44,266	– 3,840
2015	181,889	146,136	30,420	318	22,345	3,636	115,716	35,753	174,018	7,362	494	166,656	35,259	7,871
2016	156,985	119,369	21,301	– 342	11,131	7,384	98,068	37,615	163,934	2,877	– 3,172	161,057	40,787	– 6,947
2017	153,484	94,921	29,560	– 235	21,970	4,406	65,361	58,562	156,002	4,938	1,048	151,064	57,514	– 2,520
2018	131,958	103,694	15,279	377	4,166	6,168	88,415	28,263	138,254	2,979	– 2,306	135,275	30,569	– 6,298
2019	175,476	122,546	17,032	– 447	5,097	10,580	105,514	52,930	180,439	2,719	– 812	177,720	53,742	– 4,961
2020 Jan.	23,827	14,294	2,855	– 54	1,019	1,965	11,439	9,533	24,366	2,972	633	21,394	8,900	– 539
Feb.	16,612	13,164	1,205	83	271	1,303	11,959	3,449	16,643	773	276	15,870	3,173	– 31
Mar.	– 22,365	4,783	– 5,255	699	– 5,862	673	10,038	– 27,148	– 22,138	– 3,270	– 2,578	– 18,868	– 24,570	– 228
Apr.	3,766	– 1,760	2,799	– 166	2,318	294	– 4,558	5,526	3,539	– 656	– 387	4,195	5,913	227
May	9,255	3,378	2,921	– 156	2,471	380	457	5,877	9,666	143	– 164	9,523	6,041	– 411
June	10,087	7,065	1,789	– 181	1,634	471	5,276	3,022	9,668	– 2,048	15	11,716	3,007	419
July	18,380	7,417	1,671	– 195	1,460	400	5,746	10,963	17,514	– 105	– 89	17,619	11,052	866

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	2017	2018	2019	2018 Q4	2019 Q1	2019 Q2	2019 Q3	2019 Q4	2020 Q1
Acquisition of financial assets									
Currency and deposits	46.39	21.80	25.89	29.59	– 18.76	– 9.14	37.45	16.34	0.21
Debt securities	– 7.53	5.24	– 2.18	2.49	0.60	– 1.26	– 0.59	– 0.94	– 0.17
Short-term debt securities	– 2.97	1.42	– 1.31	0.87	– 0.08	– 1.26	0.33	– 0.31	– 0.22
Long-term debt securities	– 4.55	3.82	– 0.87	1.61	0.68	– 0.00	– 0.92	– 0.63	0.05
Memo item:									
Debt securities of domestic sectors	– 3.64	0.65	– 0.47	0.47	0.54	– 0.24	– 0.46	– 0.31	0.02
Non-financial corporations	– 0.61	0.59	0.51	0.39	0.70	– 0.25	0.31	– 0.25	– 0.04
Financial corporations	– 0.52	1.40	– 0.56	0.70	– 0.11	0.08	– 0.71	0.18	– 0.08
General government	– 2.50	– 1.34	– 0.41	– 0.62	– 0.05	– 0.07	– 0.05	– 0.24	0.15
Debt securities of the rest of the world	– 3.88	4.60	– 1.71	2.02	0.06	– 1.02	– 0.13	– 0.63	– 0.19
Loans	56.22	– 25.67	2.23	– 13.00	12.13	– 6.79	– 7.51	4.40	– 1.00
Short-term loans	27.83	– 0.14	7.85	1.55	14.89	– 7.92	– 5.41	6.29	– 1.34
Long-term loans	28.39	– 25.53	– 5.63	– 14.55	– 2.76	1.13	– 2.11	– 1.89	0.34
Memo item:									
Loans to domestic sectors	24.05	– 10.63	– 8.98	– 5.45	0.87	– 5.70	– 7.01	2.86	– 1.17
Non-financial corporations	15.23	– 10.03	– 8.19	– 5.60	0.94	– 6.71	– 8.09	5.67	– 1.29
Financial corporations	8.42	– 0.97	– 1.03	0.05	– 0.13	0.96	1.01	– 2.87	0.11
General government	0.40	0.36	0.24	0.09	0.06	0.06	0.06	0.06	0.00
Loans to the rest of the world	32.17	– 15.03	11.21	– 7.55	11.26	– 1.09	– 0.50	1.54	0.17
Equity and investment fund shares	72.73	125.23	57.62	10.37	14.47	10.71	33.85	– 1.41	50.64
Equity	64.64	123.22	48.61	13.25	11.90	9.02	30.64	– 2.96	49.77
Listed shares of domestic sectors	– 3.82	18.82	6.18	1.12	1.82	– 3.35	15.19	– 7.49	– 1.51
Non-financial corporations	– 3.76	18.27	4.62	0.91	1.84	– 3.32	15.24	– 9.14	– 1.32
Financial corporations	– 0.06	0.55	1.55	0.21	– 0.02	– 0.03	– 0.05	1.65	– 0.19
Listed shares of the rest of the world	7.62	0.68	4.94	0.00	0.34	1.17	2.68	0.75	0.99
Other equity [1]	60.84	103.72	37.49	12.12	9.74	11.20	12.77	3.79	50.28
Investment fund shares	8.09	2.01	9.01	– 2.88	2.57	1.69	3.21	1.55	0.87
Money market fund shares	– 0.85	– 0.53	1.82	0.27	– 0.03	0.23	– 0.03	1.66	– 1.80
Non-MMF investment fund shares	8.94	2.54	7.19	– 3.15	2.60	1.46	3.24	– 0.11	2.67
Insurance technical reserves	1.56	0.38	1.65	– 0.51	0.49	0.44	0.38	0.33	0.32
Financial derivatives	– 11.32	2.15	0.79	7.33	1.08	– 7.31	– 3.68	10.70	– 1.16
Other accounts receivable	163.48	9.31	– 51.99	– 33.75	26.60	– 37.74	– 3.36	– 37.49	– 5.20
Total	321.54	138.44	34.00	2.50	36.62	– 51.09	56.55	– 8.07	43.64
External financing									
Debt securities	8.56	7.08	19.19	1.03	5.77	5.87	5.00	2.55	5.78
Short-term securities	0.60	4.08	2.74	– 0.32	1.23	1.75	0.46	– 0.70	1.60
Long-term securities	7.95	3.00	16.45	1.35	4.54	4.12	4.54	3.25	4.18
Memo item:									
Debt securities of domestic sectors	7.09	3.87	7.01	0.67	4.04	0.17	2.66	0.14	1.38
Non-financial corporations	– 0.61	0.59	0.51	0.39	0.70	– 0.25	0.31	– 0.25	– 0.04
Financial corporations	9.16	3.28	5.69	0.24	2.45	0.91	2.37	– 0.02	1.89
General government	0.01	0.01	0.47	0.00	0.69	– 0.61	– 0.04	0.42	– 0.10
Households	– 1.47	– 0.01	0.34	0.04	0.20	0.12	0.03	– 0.01	– 0.37
Debt securities of the rest of the world	1.46	3.21	12.18	0.36	1.73	5.70	2.34	2.41	4.40
Loans	100.21	127.59	76.59	9.38	23.71	38.00	11.27	3.61	24.38
Short-term loans	23.28	60.32	19.58	– 4.00	17.08	17.25	– 7.11	– 7.65	4.63
Long-term loans	76.93	67.28	57.01	13.38	6.63	20.75	18.38	11.26	19.75
Memo item:									
Loans from domestic sectors	52.30	72.34	49.81	– 0.71	20.69	17.35	– 6.08	17.85	7.57
Non-financial corporations	15.23	– 10.03	– 8.19	– 5.60	0.94	– 6.71	– 8.09	5.67	– 1.29
Financial corporations	37.80	81.04	55.62	5.43	23.29	23.22	2.09	7.03	13.37
General government	– 0.73	1.33	2.38	– 0.54	– 3.54	0.85	– 0.08	5.15	– 4.51
Loans from the rest of the world	47.91	55.25	26.78	10.09	3.02	20.64	17.35	– 14.24	16.81
Equity	33.18	20.63	17.97	3.83	5.12	4.19	3.82	4.83	6.51
Listed shares of domestic sectors	8.46	73.23	– 24.47	43.51	4.47	– 34.72	15.17	– 9.39	7.22
Non-financial corporations	– 3.76	18.27	4.62	0.91	1.84	– 3.32	15.24	– 9.14	– 1.32
Financial corporations	11.11	46.75	– 33.11	43.18	– 0.26	– 32.78	– 0.68	0.60	1.64
General government	0.51	0.53	– 0.01	0.13	– 0.04	0.04	0.04	– 0.05	0.20
Households	0.60	7.67	4.03	– 0.71	2.93	1.33	0.57	– 0.80	6.69
Listed shares of the rest of the world	– 4.12	– 31.96	– 1.61	– 42.01	– 4.23	2.75	– 14.41	14.28	– 5.97
Other equity [1]	28.84	– 20.65	44.05	2.33	4.88	36.17	3.06	– 0.06	5.26
Insurance technical reserves	6.89	6.04	6.04	1.51	1.51	1.51	1.51	1.51	1.51
Financial derivatives and employee stock options	1.35	– 0.49	– 1.38	– 0.36	1.19	– 2.06	2.69	– 3.21	1.94
Other accounts payable	60.05	22.64	8.44	– 16.56	12.84	– 17.91	16.45	– 2.93	– 9.71
Total	210.23	183.48	126.85	– 1.17	50.15	29.59	40.74	6.36	30.41

1 Including unlisted shares.

IX. Financial accounts

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

End of year/quarter; € billion

Item	2017	2018	2019	2018 Q4	2019 Q1	2019 Q2	2019 Q3	2019 Q4	2020 Q1
Financial assets									
Currency and deposits	550.8	560.2	556.8	560.2	528.2	508.7	558.4	556.8	577.2
Debt securities	47.0	50.8	49.6	50.8	52.2	51.3	51.1	49.6	47.9
Short-term debt securities	3.5	4.9	3.7	4.9	4.8	3.6	3.9	3.7	3.4
Long-term debt securities	43.5	45.9	45.9	45.9	47.3	47.7	47.1	45.9	44.4
Memo item:									
Debt securities of domestic sectors	21.1	21.3	21.1	21.3	22.2	22.1	21.7	21.1	20.4
Non-financial corporations	4.0	4.5	5.0	4.5	5.2	5.0	5.3	5.0	4.6
Financial corporations	12.7	13.8	13.6	13.8	14.0	14.2	13.6	13.6	13.0
General government	4.4	3.0	2.6	3.0	3.0	2.9	2.9	2.6	2.7
Debt securities of the rest of the world	25.8	29.5	28.4	29.5	30.0	29.2	29.3	28.4	27.5
Loans	620.9	591.4	595.3	591.4	605.1	597.4	591.8	595.3	593.9
Short-term loans	495.1	491.1	499.9	491.1	506.7	498.4	494.1	499.9	498.2
Long-term loans	125.8	100.3	95.4	100.3	98.3	99.0	97.8	95.4	95.7
Memo item:									
Loans to domestic sectors	402.1	391.5	382.5	391.5	392.4	386.7	379.7	382.5	381.4
Non-financial corporations	297.8	287.8	279.6	287.8	288.7	282.0	273.9	279.6	278.3
Financial corporations	97.6	96.7	95.6	96.7	96.5	97.5	98.5	95.6	95.8
General government	6.7	7.1	7.3	7.1	7.1	7.2	7.3	7.3	7.3
Loans to the rest of the world	218.8	199.9	212.8	199.9	212.7	210.7	212.2	212.8	212.6
Equity and investment fund shares	2,140.3	2,090.9	2,317.8	2,090.9	2,189.6	2,198.3	2,232.1	2,317.8	2,103.3
Equity	1,968.7	1,924.5	2,127.8	1,924.5	2,013.4	2,017.8	2,045.5	2,127.8	1,927.2
Listed shares of domestic sectors	332.2	302.6	342.0	302.6	318.3	319.7	328.8	342.0	288.4
Non-financial corporations	325.3	296.0	332.9	296.0	311.3	312.1	321.4	332.9	281.4
Financial corporations	6.8	6.6	9.0	6.6	7.0	7.7	7.3	9.0	7.0
Listed shares of the rest of the world	49.0	45.3	55.3	45.3	49.0	50.3	52.1	55.3	50.1
Other equity [1]	1,587.5	1,576.6	1,730.6	1,576.6	1,646.1	1,647.8	1,664.6	1,730.6	1,588.7
Investment fund shares	171.7	166.4	190.0	166.4	176.3	180.6	186.6	190.0	176.1
Money market fund shares	1.6	1.0	3.2	1.0	1.0	1.2	1.2	3.2	1.4
Non-MMF investment fund shares	170.1	165.4	186.8	165.4	175.3	179.3	185.4	186.8	174.7
Insurance technical reserves	54.2	56.3	59.2	56.3	57.0	57.7	58.4	59.2	59.9
Financial derivatives	34.1	33.4	31.5	33.4	31.4	32.6	32.1	31.5	44.9
Other accounts receivable	1,122.5	1,153.2	1,229.4	1,153.2	1,198.6	1,178.9	1,203.4	1,229.4	1,178.9
Total	4,570.0	4,536.2	4,839.6	4,536.2	4,662.0	4,624.9	4,727.3	4,839.6	4,606.0
Liabilities									
Debt securities	210.6	187.8	214.0	187.8	196.4	205.6	217.0	214.0	229.3
Short-term securities	3.4	6.1	8.8	6.1	7.4	9.1	9.5	8.8	14.0
Long-term securities	207.2	181.6	205.2	181.6	189.1	196.5	207.4	205.2	215.2
Memo item:									
Debt securities of domestic sectors	83.1	79.3	88.2	79.3	85.6	86.1	88.8	88.2	84.7
Non-financial corporations	4.0	4.5	5.0	4.5	5.2	5.0	5.3	5.0	4.6
Financial corporations	64.4	60.7	68.3	60.7	65.2	66.4	68.9	68.3	66.8
General government	0.1	0.1	0.6	0.1	0.8	0.2	0.2	0.6	0.5
Households	14.5	14.0	14.4	14.0	14.4	14.5	14.5	14.4	12.8
Debt securities of the rest of the world	127.4	108.5	125.8	108.5	110.8	119.5	128.1	125.8	144.6
Loans	1,638.9	1,759.0	1,838.0	1,759.0	1,786.0	1,821.3	1,836.1	1,838.0	1,862.7
Short-term loans	654.6	714.2	736.8	714.2	734.0	750.1	744.9	736.8	741.4
Long-term loans	984.3	1,044.8	1,101.2	1,044.8	1,052.0	1,071.2	1,091.2	1,101.2	1,121.3
Memo item:									
Loans from domestic sectors	1,233.0	1,290.5	1,339.4	1,290.5	1,311.8	1,328.1	1,322.5	1,339.4	1,347.1
Non-financial corporations	297.8	287.8	279.6	287.8	288.7	282.0	273.9	279.6	278.3
Financial corporations	876.9	944.2	998.7	944.2	967.9	990.0	992.5	998.7	1,011.6
General government	58.3	58.6	61.1	58.6	55.2	56.1	56.1	61.1	57.2
Loans from the rest of the world	405.8	468.4	498.6	468.4	474.1	493.2	513.6	498.6	515.6
Equity	3,078.3	2,707.0	3,108.1	2,707.0	2,806.1	2,894.0	2,900.3	3,108.1	2,579.1
Listed shares of domestic sectors	721.3	659.3	733.3	659.3	704.8	682.4	692.4	733.3	595.2
Non-financial corporations	325.3	296.0	332.9	296.0	311.3	312.1	321.4	332.9	281.4
Financial corporations	149.6	161.9	157.4	161.9	173.7	145.9	145.7	157.4	126.2
General government	46.0	41.6	51.8	41.6	44.3	45.0	47.9	51.8	41.8
Households	200.4	159.8	191.1	159.8	175.5	179.5	177.4	191.1	145.7
Listed shares of the rest of the world	960.5	764.8	959.3	764.8	788.8	859.9	857.6	959.3	689.2
Other equity [1]	1,396.5	1,282.9	1,415.5	1,282.9	1,312.5	1,351.6	1,350.2	1,415.5	1,294.7
Insurance technical reserves	263.7	269.7	275.8	269.7	271.2	272.7	274.2	275.8	277.3
Financial derivatives and employee stock options	63.1	65.3	77.1	65.3	69.6	83.9	92.6	77.1	97.6
Other accounts payable	1,114.5	1,162.2	1,286.1	1,162.2	1,186.7	1,182.3	1,238.7	1,286.1	1,240.0
Total	6,369.0	6,151.0	6,799.1	6,151.0	6,315.9	6,459.8	6,558.9	6,799.1	6,285.9

1 Including unlisted shares.

IX. Financial accounts

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

€ billion

Item	2017	2018	2019	2018 Q4	2019 Q1	2019 Q2	2019 Q3	2019 Q4	2020 Q1
Acquisition of financial assets									
Currency and deposits	107.93	138.02	140.17	54.42	24.80	42.34	23.63	49.41	24.14
Currency	21.42	29.98	33.17	10.05	3.80	8.50	10.34	10.52	19.55
Deposits	86.51	108.04	107.01	44.37	21.00	33.83	13.29	38.89	4.59
Transferable deposits	99.78	109.88	111.01	42.22	17.18	34.39	17.27	42.16	18.74
Time deposits	– 4.03	6.79	1.47	2.23	1.86	– 0.79	– 0.30	0.70	– 3.11
Savings deposits (including savings certificates)	– 9.24	– 8.63	– 5.47	– 0.08	1.95	0.23	– 3.68	– 3.97	– 11.04
Debt securities	– 8.39	1.62	– 1.85	0.55	0.51	0.60	– 1.35	– 1.62	– 1.36
Short-term debt securities	– 0.20	– 0.13	– 0.53	0.26	– 0.23	– 0.13	– 0.19	0.02	– 0.03
Long-term debt securities	– 8.19	1.74	– 1.33	0.29	0.73	0.73	– 1.16	– 1.63	– 1.33
Memo item:									
Debt securities of domestic sectors	– 5.11	2.24	– 2.93	0.96	0.69	0.28	– 1.52	– 2.38	– 0.15
Non-financial corporations	– 1.45	– 0.10	0.21	0.19	0.21	0.08	– 0.04	– 0.04	– 0.31
Financial corporations	– 2.68	2.81	– 2.22	0.80	0.57	0.27	– 1.31	– 1.75	– 0.37
General government	– 0.99	– 0.46	– 0.92	– 0.02	– 0.09	– 0.07	– 0.18	– 0.58	0.53
Debt securities of the rest of the world	– 3.27	– 0.62	1.07	– 0.41	– 0.18	0.32	0.18	0.76	– 1.21
Equity and investment fund shares	55.17	38.44	49.91	1.15	10.72	10.90	11.96	16.33	20.87
Equity	14.88	18.84	18.94	1.62	6.83	4.29	4.40	3.43	13.77
Listed shares of domestic sectors	0.85	9.44	6.61	– 0.06	4.31	1.43	1.11	– 0.24	8.11
Non-financial corporations	0.49	6.28	3.52	– 0.77	2.52	1.31	0.88	– 1.19	6.50
Financial corporations	0.36	3.16	3.09	0.71	1.79	0.12	0.23	0.95	1.62
Listed shares of the rest of the world	9.87	4.37	7.46	0.91	0.97	1.72	2.19	2.58	3.10
Other equity [1]	4.16	5.03	4.86	0.77	1.55	1.13	1.10	1.08	2.55
Investment fund shares	40.29	19.60	30.97	– 0.47	3.89	6.61	7.57	12.91	7.10
Money market fund shares	– 0.30	– 0.22	– 0.25	0.17	– 0.12	– 0.01	0.18	– 0.30	0.30
Non-MMF investment fund shares	40.59	19.82	31.23	– 0.65	4.01	6.62	7.39	13.20	6.80
Non-life insurance technical reserves and provision for calls under standardised guarantees	20.23	15.80	13.55	6.25	3.36	3.41	3.41	3.37	3.04
Life insurance and annuity entitlements	37.42	28.18	24.91	6.99	8.71	7.04	5.18	3.98	8.38
Pension entitlement, claims of pension funds on pension managers, entitlements to non-pension benefits	35.52	29.79	29.80	4.52	6.81	5.79	6.75	10.45	11.57
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]	– 25.91	– 2.90	11.50	– 15.54	28.64	– 4.79	9.93	– 22.28	23.44
Total	221.96	248.95	267.98	58.35	83.55	65.29	59.51	59.64	90.08
External financing									
Loans	55.38	68.30	80.92	15.07	15.83	23.78	24.79	16.51	12.77
Short-term loans	– 2.19	2.44	0.92	0.53	0.47	0.87	– 0.62	0.20	– 1.58
Long-term loans	57.57	65.86	79.99	14.54	15.36	22.91	25.41	16.31	14.35
Memo item:									
Mortgage loans	47.24	57.31	66.93	13.12	9.03	16.57	21.61	19.72	15.34
Consumer loans	11.25	11.14	14.42	2.67	6.15	6.56	3.67	– 1.96	– 2.67
Entrepreneurial loans	– 3.11	– 0.14	– 0.43	– 0.73	0.65	0.66	– 0.49	– 1.25	0.10
Memo item:									
Loans from monetary financial institutions	49.99	61.72	73.41	13.67	12.51	21.22	21.09	18.60	15.52
Loans from other financial institutions	5.40	6.58	7.50	1.40	3.32	2.56	3.71	– 2.09	– 2.75
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	0.66	– 0.18	0.69	– 0.35	0.51	0.10	0.20	– 0.11	– 0.13
Total	56.04	68.13	81.61	14.71	16.34	23.88	24.99	16.40	12.65

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	2017	2018	2019	2018 Q4	2019 Q1	2019 Q2	2019 Q3	2019 Q4	2020 Q1
Financial assets									
Currency and deposits	2,317.5	2,457.2	2,597.4	2,457.2	2,482.0	2,524.3	2,548.0	2,597.4	2,621.5
Currency	197.1	227.1	260.2	227.1	230.9	239.4	249.7	260.2	279.8
Deposits	2,120.3	2,230.1	2,337.1	2,230.1	2,251.1	2,285.0	2,298.3	2,337.1	2,341.7
Transferable deposits	1,288.4	1,398.0	1,509.1	1,398.0	1,415.2	1,449.6	1,466.9	1,509.1	1,527.8
Time deposits	245.4	252.4	253.9	252.4	254.3	253.5	253.2	253.9	250.8
Savings deposits (including savings certificates)	586.5	579.7	574.2	579.7	581.6	581.9	578.2	574.2	563.2
Debt securities	122.5	117.6	121.4	117.6	121.2	123.1	122.5	121.4	109.0
Short-term debt securities	2.5	2.1	1.6	2.1	2.0	1.8	1.6	1.6	1.5
Long-term debt securities	120.0	115.4	119.7	115.4	119.3	121.3	120.9	119.7	107.5
Memo item:									
Debt securities of domestic sectors	82.9	80.2	81.4	80.2	83.3	84.5	83.4	81.4	72.3
Non-financial corporations	12.6	12.1	12.4	12.1	12.5	12.6	12.5	12.4	11.0
Financial corporations	66.4	64.6	66.5	64.6	67.4	68.6	67.7	66.5	58.2
General government	3.9	3.4	2.5	3.4	3.4	3.3	3.2	2.5	3.1
Debt securities of the rest of the world	39.6	37.4	39.9	37.4	37.9	38.6	39.2	39.9	36.8
Equity and investment fund shares	1,241.5	1,162.6	1,383.2	1,162.6	1,255.4	1,292.4	1,322.0	1,383.2	1,220.3
Equity	645.5	589.2	703.2	589.2	640.7	661.1	672.1	703.2	616.3
Listed shares of domestic sectors	227.9	184.1	223.7	184.1	203.7	210.1	209.3	223.7	171.7
Non-financial corporations	191.5	151.9	182.1	151.9	166.9	171.0	169.3	182.1	138.7
Financial corporations	36.4	32.2	41.6	32.2	36.8	39.1	40.0	41.6	33.0
Listed shares of the rest of the world	103.1	100.1	135.8	100.1	116.4	120.0	126.1	135.8	117.0
Other equity [1]	314.5	305.0	343.7	305.0	320.6	331.0	336.7	343.7	327.6
Investment fund shares	595.9	573.4	680.0	573.4	614.7	631.2	650.0	680.0	604.0
Money market fund shares	2.7	2.4	2.2	2.4	2.2	2.3	2.5	2.2	2.5
Non-MMF investment fund shares	593.2	571.1	677.8	571.1	612.5	628.9	647.5	677.8	601.5
Non-life insurance technical reserves and provision for calls under standardised guarantees	360.1	375.9	389.4	375.9	379.3	382.7	386.1	389.4	392.5
Life insurance and annuity entitlements	991.4	1,011.1	1,036.8	1,011.1	1,020.0	1,027.2	1,032.6	1,036.8	1,045.6
Pension entitlement, claims of pension funds on pension managers, entitlements to non-pension benefits	846.5	875.4	905.2	875.4	882.2	888.0	894.8	905.2	916.8
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]	31.1	29.6	32.0	29.6	30.6	31.5	32.3	32.0	31.4
Total	5,910.5	6,029.4	6,465.4	6,029.4	6,170.8	6,269.2	6,338.3	6,465.4	6,337.2
Liabilities									
Loans	1,711.8	1,775.5	1,857.4	1,775.5	1,791.2	1,816.1	1,840.9	1,857.4	1,870.3
Short-term loans	54.4	58.1	58.8	58.1	58.5	59.4	58.8	58.8	57.2
Long-term loans	1,657.3	1,717.4	1,798.7	1,717.4	1,732.7	1,756.7	1,782.1	1,798.7	1,813.1
Memo item:									
Mortgage loans	1,247.3	1,307.8	1,378.3	1,307.8	1,316.7	1,337.2	1,358.8	1,378.3	1,393.7
Consumer loans	211.8	218.1	231.4	218.1	224.1	229.7	233.3	231.4	228.8
Entrepreneurial loans	252.7	249.7	247.7	249.7	250.4	249.2	248.8	247.7	247.8
Memo item:									
Loans from monetary financial institutions	1,610.0	1,667.2	1,741.6	1,667.2	1,679.6	1,701.8	1,722.9	1,741.6	1,757.2
Loans from other financial institutions	101.8	108.4	115.9	108.4	111.7	114.2	117.9	115.9	113.1
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	17.2	17.2	18.2	17.2	19.0	19.1	19.5	18.2	19.5
Total	1,728.9	1,792.7	1,875.7	1,792.7	1,810.3	1,835.2	1,860.3	1,875.7	1,889.8

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]									
2014	+ 17.0	+ 15.5	+ 2.0	– 3.9	+ 3.4	+ 0.6	+ 0.5	+ 0.1	– 0.1	+ 0.1
2015	+ 29.1	+ 17.6	+ 4.6	+ 3.7	+ 3.2	+ 1.0	+ 0.6	+ 0.2	+ 0.1	+ 0.1
2016	+ 36.4	+ 13.7	+ 7.7	+ 6.3	+ 8.7	+ 1.2	+ 0.4	+ 0.2	+ 0.2	+ 0.3
2017 p	+ 44.4	+ 7.8	+ 13.9	+ 11.4	+ 11.2	+ 1.4	+ 0.2	+ 0.4	+ 0.4	+ 0.3
2018 p	+ 61.6	+ 20.8	+ 12.1	+ 12.8	+ 16.0	+ 1.8	+ 0.6	+ 0.4	+ 0.4	+ 0.5
2019 p	+ 52.5	+ 22.7	+ 16.0	+ 5.1	+ 8.7	+ 1.5	+ 0.7	+ 0.5	+ 0.1	+ 0.3
2018 H1 p	+ 51.3	+ 18.9	+ 15.5	+ 7.7	+ 9.3	+ 3.1	+ 1.1	+ 0.9	+ 0.5	+ 0.6
H2 p	+ 10.3	+ 1.9	– 3.4	+ 5.1	+ 6.7	+ 0.6	+ 0.1	– 0.2	+ 0.3	+ 0.4
2019 H1 p	+ 46.5	+ 19.0	+ 13.0	+ 6.4	+ 8.1	+ 2.7	+ 1.1	+ 0.8	+ 0.4	+ 0.5
H2 p	+ 6.0	+ 3.7	+ 3.0	– 1.3	+ 0.6	+ 0.3	+ 0.2	+ 0.2	– 0.1	+ 0.0
2020 H1 pe	– 51.6	– 27.1	– 10.2	– 6.4	– 7.8	– 3.2	– 1.7	– 0.6	– 0.4	– 0.5
	Debt level[2]									End of year or quarter
2014	2,215.2	1,396.1	657.8	177.8	1.4	75.7	47.7	22.5	6.1	0.0
2015	2,185.1	1,372.2	654.7	177.7	1.4	72.2	45.3	21.6	5.9	0.0
2016	2,169.0	1,366.4	637.7	179.2	1.1	69.2	43.6	20.3	5.7	0.0
2017 p	2,118.7	1,350.9	610.2	175.9	0.8	65.0	41.4	18.7	5.4	0.0
2018 p	2,068.6	1,323.5	595.7	167.6	0.7	61.6	39.4	17.7	5.0	0.0
2019 p	2,053.0	1,299.9	606.7	165.2	0.7	59.5	37.7	17.6	4.8	0.0
2018 Q1 p	2,095.5	1,338.3	599.5	174.7	1.0	63.8	40.8	18.3	5.3	0.0
Q2 p	2,080.9	1,330.0	595.9	173.2	0.9	62.8	40.1	18.0	5.2	0.0
Q3 p	2,081.0	1,336.2	594.9	167.9	0.8	62.4	40.1	17.8	5.0	0.0
Q4 p	2,068.6	1,323.5	595.7	167.6	0.7	61.6	39.4	17.7	5.0	0.0
2019 Q1 p	2,078.0	1,325.0	606.1	166.5	0.7	61.5	39.2	17.9	4.9	0.0
Q2 p	2,069.1	1,321.0	604.7	165.3	0.7	60.9	38.9	17.8	4.9	0.0
Q3 p	2,086.6	1,328.5	615.3	164.9	0.6	60.9	38.8	18.0	4.8	0.0
Q4 p	2,053.0	1,299.9	606.7	165.2	0.7	59.5	37.7	17.6	4.8	0.0
2020 Q1 p	2,107.4	1,327.8	629.0	166.6	0.8	61.0	38.4	18.2	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]
	Total	of which: Taxes	Social contributions	Other	Total	of which: Social benefits	Compensation of employees	Intermediate consumption	Gross capital formation	Interest	Other		
	€ billion												
2014	1,313.9	673.0	482.3	158.5	1,296.9	691.3	227.5	147.1	60.5	47.1	123.4	+ 17.0	1,160.0
2015	1,364.9	705.1	501.2	158.6	1,335.8	721.9	233.0	153.0	64.5	42.2	121.2	+ 29.1	1,213.3
2016	1,426.7	739.2	524.3	163.3	1,390.4	754.5	240.7	162.5	68.1	37.3	127.2	+ 36.4	1,270.4
2017 p	1,485.2	773.1	549.5	162.5	1,440.8	783.9	250.1	168.4	71.6	33.7	133.0	+ 44.4	1,329.4
2018 p	1,553.8	808.0	572.6	173.2	1,492.2	806.0	259.6	173.4	78.7	31.1	143.5	+ 61.6	1,387.6
2019 p	1,610.6	834.1	597.5	179.0	1,558.1	845.9	271.5	181.9	86.2	27.5	145.1	+ 52.5	1,438.7
	As a percentage of GDP												
2014	44.9	23.0	16.5	5.4	44.3	23.6	7.8	5.0	2.1	1.6	4.2	+ 0.6	39.6
2015	45.1	23.3	16.6	5.2	44.1	23.9	7.7	5.1	2.1	1.4	4.0	+ 1.0	40.1
2016	45.5	23.6	16.7	5.2	44.4	24.1	7.7	5.2	2.2	1.2	4.1	+ 1.2	40.5
2017 p	45.6	23.7	16.9	5.0	44.2	24.0	7.7	5.2	2.2	1.0	4.1	+ 1.4	40.8
2018 p	46.3	24.1	17.1	5.2	44.5	24.0	7.7	5.2	2.3	0.9	4.3	+ 1.8	41.3
2019 p	46.7	24.2	17.3	5.2	45.2	24.5	7.9	5.3	2.5	0.8	4.2	+ 1.5	41.7
	Percentage growth rates												
2014	+ 3.9	+ 3.4	+ 3.6	+ 6.9	+ 2.6	+ 3.7	+ 3.2	+ 3.7	– 0.8	– 8.4	+ 1.0	.	+ 3.5
2015	+ 3.9	+ 4.8	+ 3.9	+ 0.0	+ 3.0	+ 4.4	+ 2.4	+ 4.0	+ 6.6	– 10.5	– 1.8	.	+ 4.6
2016	+ 4.5	+ 4.8	+ 4.6	+ 2.9	+ 4.1	+ 4.5	+ 3.3	+ 6.2	+ 5.6	– 11.7	+ 4.9	.	+ 4.7
2017 p	+ 4.1	+ 4.6	+ 4.8	– 0.4	+ 3.6	+ 3.9	+ 3.9	+ 3.6	+ 5.1	– 9.5	+ 4.6	.	+ 4.6
2018 p	+ 4.6	+ 4.5	+ 4.2	+ 6.6	+ 3.6	+ 2.8	+ 3.8	+ 3.0	+ 9.8	– 7.8	+ 7.8	.	+ 4.4
2019 p	+ 3.6	+ 3.2	+ 4.4	+ 3.3	+ 4.4	+ 4.9	+ 4.6	+ 4.9	+ 9.6	– 11.6	+ 1.1	.	+ 3.7

Source: Federal Statistical Office. * Figures in accordance with ESA 2010. **1** Taxes and social contributions plus customs duties and bank levies to the Single Resolution Fund.

X. Public finances in Germany

3. General government: budgetary development (as per the government finance statistics)

€ billion

Period	Central, state and local government [1]									Social security funds [2]			General government, total		
	Revenue			Expenditure											
		of which:			of which: [3]										
	Total [4]	Taxes	Financial transactions [5]	Total [4]	Personnel expenditure	Current grants	Interest	Fixed asset formation	Financial transactions [5]	Deficit/surplus	Revenue [6]	Expenditure	Deficit/surplus	Revenue	Expenditure	Deficit/surplus
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	951.8	776.3	6.2	905.6	272.5	338.0	39.2	55.8	16.1	+ 46.2	656.2	642.5	+ 13.6	1,490.7	1,430.9	+ 59.8
2019 p	1,010.4	799.4	11.2	975.3	285.9	349.7	33.6	62.9	16.8	+ 35.0	684.7	676.0	+ 8.6	1,573.8	1,530.1	+ 43.7
2017 Q1 p	216.0	180.4	0.9	199.6	62.9	80.3	13.8	10.2	1.9	+ 16.4	150.3	155.1	– 4.8	338.0	326.4	+ 11.6
Q2 p	217.9	177.3	1.2	206.6	63.9	83.6	6.6	8.8	3.6	+ 11.3	156.4	154.3	+ 2.1	346.1	332.7	+ 13.4
Q3 p	219.6	180.4	3.5	215.9	64.4	78.6	14.5	13.4	4.2	+ 3.8	154.8	155.7	– 0.9	346.1	343.2	+ 2.8
Q4 p	243.8	196.3	2.1	244.4	69.8	84.7	6.9	19.2	4.1	– 0.6	168.2	158.0	+ 10.2	383.4	373.8	+ 9.6
2018 Q1 p	225.7	189.1	1.1	210.0	66.0	81.7	14.6	9.1	2.5	+ 15.7	156.1	160.8	– 4.7	352.7	341.7	+ 11.0
Q2 p	239.9	194.7	1.0	206.2	65.9	80.9	5.8	11.4	2.1	+ 33.7	162.4	160.1	+ 2.3	373.3	337.3	+ 36.1
Q3 p	228.8	189.0	1.8	223.6	67.0	84.6	13.4	14.4	1.9	+ 5.2	161.8	161.1	+ 0.7	361.3	355.5	+ 5.9
Q4 p	255.2	203.9	2.2	262.1	73.1	89.7	6.2	20.3	9.6	– 6.9	174.6	163.4	+ 11.2	400.7	396.4	+ 4.3
2019 Q1 p	240.9	192.7	2.5	230.4	71.0	88.5	11.5	10.2	3.3	+ 10.5	163.3	166.4	– 3.1	374.3	366.8	+ 7.5
Q2 p	256.3	201.7	2.0	233.4	67.5	87.0	12.2	13.0	2.6	+ 22.8	169.9	168.4	+ 1.5	396.1	371.9	+ 24.3
Q3 p	245.3	194.7	3.4	236.7	70.9	86.2	4.5	16.4	3.1	+ 8.6	168.8	170.3	– 1.5	384.0	376.9	+ 7.1
Q4 p	269.3	210.6	3.2	272.1	76.1	87.5	5.1	22.5	7.7	– 2.8	181.9	172.6	+ 9.3	420.9	414.4	+ 6.5
2020 Q1 p	244.8	197.4	2.5	239.1	75.6	90.5	11.9	12.0	2.6	+ 5.7	168.3	175.7	– 7.4	380.0	381.7	– 1.7

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

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

€ billion

Period	Central government			State government [2,3]			Local government [3]		
	Revenue [1]	Expenditure	Deficit/surplus	Revenue	Expenditure	Deficit/surplus	Revenue	Expenditure	Deficit/surplus
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	420.5	400.1	+ 20.4	271.8	261.5	+ 10.2
2019 p	382.5	369.2	+ 13.3	437.3	419.5	+ 17.9	284.2	278.1	+ 6.1
2017 Q1 p	88.2	82.9	+ 5.3	95.6	90.0	+ 5.6	52.7	57.7	– 4.9
Q2 p	81.5	80.0	+ 1.4	96.3	93.6	+ 2.7	65.0	59.5	+ 5.5
Q3 p	88.6	93.6	– 5.0	98.9	91.4	+ 7.5	63.4	61.5	+ 1.9
Q4 p	99.5	96.2	+ 3.3	104.7	109.2	– 4.5	77.2	69.1	+ 8.2
2018 Q1 p	87.9	83.9	+ 4.0	100.0	92.7	+ 7.3	54.9	60.3	– 5.3
Q2 p	94.5	79.8	+ 14.6	104.3	91.8	+ 12.5	68.5	62.4	+ 6.1
Q3 p	91.7	95.9	– 4.2	100.7	95.4	+ 5.3	66.0	64.3	+ 1.7
Q4 p	100.4	103.9	– 3.5	113.4	118.5	– 5.1	80.4	73.1	+ 7.3
2019 Q1 p	84.7	86.1	– 1.4	105.7	99.4	+ 6.2	58.2	63.2	– 4.9
Q2 p	97.7	90.3	+ 7.4	106.0	97.5	+ 8.5	70.6	65.9	+ 4.7
Q3 p	93.2	91.3	+ 1.9	107.9	102.6	+ 5.2	69.1	69.2	– 0.1
Q4 p	106.9	101.5	+ 5.4	115.6	118.2	– 2.6	84.5	78.4	+ 6.0
2020 Q1 p	92.3	90.4	+ 1.9	105.6	102.4	+ 3.2	57.9	67.7	– 9.8

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			
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
2019	799,416	684,491	355,050	298,519	30,921	114,902	+ 23	25,998
2018 Q1	189,457	159,974	83,370	69,413	7,191	19,173	+ 10,310	6,398
Q2	194,715	166,191	88,450	71,995	5,745	29,064	– 540	6,592
Q3	189,015	161,683	84,952	69,414	7,317	27,579	– 248	7,579
Q4	203,128	177,157	92,363	76,459	8,335	35,492	– 9,521	6,206
2019 Q1	193,054	162,696	79,669	71,578	11,450	19,816	+ 10,541	6,270
Q2	202,383	172,563	90,883	75,455	6,224	29,784	+ 37	6,179
Q3	193,918	166,676	86,117	72,677	7,882	27,569	– 327	7,402
Q4	210,062	182,556	98,381	78,809	5,365	37,733	– 10,227	6,146
2020 Q1	198,351	168,099	83,086	75,420	9,593	18,875	+ 11,377	6,855
Q2	...	135,185	68,653	59,557	6,974	...	...	6,922
2019 July	.	50,036	25,537	21,917	2,582	.	.	3,001
2020 July	.	49,759	24,835	23,238	1,686	.	.	2,861

Sources: Federal Ministry of Finance, Federal Statistical Office and Bundesbank calculations. **1** Before deducting or adding supplementary central government transfers, 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					
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
2019	735,869	344,016	219,660	63,711	32,013	28,632	243,256	183,113	60,143	8,114	109,548	25,850	5,085	51,379
2018 Q1	172,111	81,713	48,059	17,640	9,418	6,595	59,248	45,272	13,977	291	23,752	5,836	1,271	12,136
Q2	178,102	86,322	51,395	14,889	9,302	10,736	55,801	41,220	14,581	2,215	26,474	6,170	1,119	11,912
Q3	173,202	78,105	50,368	12,683	7,192	7,862	59,169	43,951	15,218	2,315	26,424	5,797	1,391	11,519
Q4	190,161	86,001	58,409	15,204	7,513	4,876	60,581	44,994	15,587	4,257	31,936	6,109	1,276	13,004
2019 Q1	175,216	82,996	50,923	17,453	9,194	5,426	60,402	46,018	14,384	121	23,968	6,531	1,197	12,519
Q2	185,333	90,134	54,437	16,069	8,085	11,543	59,101	43,943	15,158	2,113	26,625	6,087	1,273	12,770
Q3	179,020	81,267	53,668	13,614	7,607	6,379	61,057	45,976	15,081	2,221	26,654	6,485	1,336	12,344
Q4	196,300	89,619	60,632	16,575	7,128	5,284	62,696	47,175	15,520	3,660	32,301	6,746	1,279	13,745
2020 Q1	181,350	88,009	53,389	18,711	8,495	7,415	60,060	46,038	14,022	244	24,517	7,406	1,114	13,251
Q2	146,360	69,928	50,760	10,633	2,348	6,187	44,262	31,625	12,638	1,170	23,525	6,326	1,149	11,175
2019 July	53,498	21,403	19,068	– 642	– 39	3,016	19,016	14,422	4,594	1,928	8,672	2,079	400	3,462
2020 July	53,344	21,772	18,011	– 244	– 262	4,268	19,945	15,847	4,097	651	8,378	2,269	330	3,585

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 2019: 48.9:47.7:3.4. The EU share is deducted from central government's share. **6** Respective percentage share of central and state government for 2019: 24.0:76.0. **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
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
2019	40,683	19,646	14,257	14,136	9,372	6,689	2,118	2,648	15,789	6,987	1,975	1,099	71,661	55,527	14,439
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	17,959	14,139	3,350
Q2	9,937	5,257	3,588	2,543	2,491	1,659	485	665	3,667	1,660	513	247	19,163	14,869	3,881
Q3	10,519	4,624	3,667	2,770	2,251	1,639	515	668	3,923	1,824	474	264	17,118	12,659	4,019
Q4	15,379	5,086	4,507	2,281	2,035	1,745	538	730	4,223	1,798	488	237	17,422	13,861	3,190
2020 Q1	4,966	4,930	2,413	6,766	2,634	1,708	562	537	4,525	1,981	542	358	17,245	13,391	3,403
Q2	8,117	4,235	3,772	2,606	2,426	1,585	455	328	3,566	2,154	425	181	...	...	...
2019 July	3,523	1,235	1,450	718	810	543	181	212	1,276	555	163	85	.	.	.
2020 July	3,141	1,200	1,681	747	849	484	154	122	1,274	734	182	79	.	.	.

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	
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
2019	327,298	232,014	94,467	325,436	277,282	20,960	+ 1,861	42,963	40,531	2,074	303	56	3,974
2017 Q1	71,301	49,388	21,715	73,731	63,263	4,460	– 2,430	31,660	29,133	2,270	205	52	4,140
Q2	74,581	52,739	21,632	73,785	63,016	4,440	+ 796	32,535	30,372	1,901	210	52	4,136
Q3	73,295	51,374	21,738	75,569	64,628	4,560	– 2,274	30,801	28,831	1,701	214	54	4,115
Q4	79,956	57,910	21,790	75,842	64,694	4,562	+ 4,114	35,362	33,750	1,335	224	53	4,045
2018 Q1	74,368	51,726	22,489	75,482	64,885	4,569	– 1,114	34,219	32,775	1,146	240	58	4,029
Q2	77,824	55,186	22,451	75,747	64,742	4,557	+ 2,077	36,244	34,963	983	241	57	4,033
Q3	76,831	54,085	22,575	78,284	67,017	4,727	– 1,453	35,344	34,104	936	248	57	4,019
Q4	82,953	60,561	22,185	78,432	67,042	4,729	+ 4,521	40,353	38,332	1,713	252	56	4,018
2019 Q1	77,984	54,393	23,426	78,630	67,328	5,087	– 646	39,432	37,637	1,474	263	57	4,001
Q2	81,410	57,837	23,408	80,804	69,011	5,205	+ 605	40,232	38,639	1,272	264	57	3,996
Q3	80,305	56,637	23,481	82,716	70,633	5,330	– 2,411	38,386	36,876	1,183	271	56	3,995
Q4	86,756	63,133	23,413	82,849	70,674	5,333	+ 3,907	42,945	40,539	2,074	276	56	3,987
2020 Q1	80,578	55,999	24,436	82,622	70,829	5,346	– 2,045	40,840	38,636	1,848	300	56	3,966
Q2	82,098	57,515	24,413	82,875	70,889	5,346	– 777	39,779	37,975	1,446	304	55	3,949

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
		of which:				of which:							
	Total 1	Contributions	Insolvency compensation levy	Central government subscriptions	Total	Unemployment benefit 2	Short-time working benefits 3	Job promotion 4	Reintegration payment 5	Insolvency benefit payment	Administrative expenditure 6		
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	–
2019	35,285	29,851	638	–	33,154	15,009	772	7,302	.	842	6,252	+ 2,131	–
2017 Q1	8,859	7,564	204	–	8,834	3,973	478	1,772	.	146	1,749	+ 26	–
Q2	9,355	8,112	227	–	7,964	3,529	173	1,802	.	155	1,577	+ 1,391	–
Q3	9,159	7,897	210	–	7,281	3,360	63	1,646	.	171	1,402	+ 1,878	–
Q4	10,446	8,929	241	–	7,789	3,193	55	1,823	.	215	1,717	+ 2,657	–
2018 Q1	9,167	7,926	151	–	9,546	3,826	415	1,742	.	174	2,625	– 379	–
Q2	9,713	8,523	152	–	8,471	3,431	245	1,752	.	161	2,209	+ 1,243	–
Q3	9,515	8,355	152	–	7,288	3,296	50	1,623	.	114	1,514	+ 2,227	–
Q4	10,940	9,367	167	–	7,802	3,204	51	1,834	.	139	1,781	+ 3,138	–
2019 Q1	8,369	7,027	148	–	8,597	3,969	403	1,818	.	179	1,450	– 228	–
Q2	8,685	7,440	156	–	8,136	3,673	204	1,832	.	243	1,475	+ 549	–
Q3	8,650	7,263	162	–	7,829	3,682	68	1,711	.	190	1,510	+ 821	–
Q4	9,581	8,121	172	–	8,592	3,685	98	1,941	.	230	1,816	+ 989	–
2020 Q1	8,123	6,851	153	–	9,301	4,469	392	1,934	.	235	1,470	– 1,179	–
Q2	7,906	6,691	151	–	17,005	4,869	7,977	1,793	.	254	1,407	– 9,099	–

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
		of which:			of which:							
	Total	Contributions 2	Central government funds 3	Total	Hospital treatment	Pharmaceuticals	Medical treatment	Dental treatment 4	Remedies and therapeutic appliances	Sickness benefits	Administrative expenditure 5	
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
2019	251,295	233,125	14,500	252,440	77,551	40,635	41,541	15,010	17,656	14,402	11,136	– 1,145
2017 Q1	55,809	51,632	3,625	57,716	18,632	9,215	9,807	3,559	3,516	3,173	2,514	– 1,907
Q2	57,801	53,621	3,625	57,502	17,973	9,239	9,822	3,614	3,748	3,043	2,589	+ 298
Q3	57,617	53,442	3,625	57,202	17,802	9,330	9,629	3,374	3,679	2,980	2,731	+ 415
Q4	62,391	57,526	3,625	58,527	17,878	9,627	9,712	3,566	3,792	3,080	3,095	+ 3,865
2018 Q1	57,788	53,670	3,625	59,854	19,028	9,569	10,045	3,656	3,763	3,370	2,614	– 2,067
Q2	59,796	55,571	3,625	60,060	18,677	9,591	10,049	3,639	3,904	3,294	2,821	– 264
Q3	60,138	55,778	3,625	59,204	18,302	9,600	9,862	3,481	4,070	3,155	2,810	+ 934
Q4	64,645	59,893	3,625	60,689	18,537	9,806	10,067	3,677	4,157	3,272	3,236	+ 3,956
2019 Q1	59,809	55,622	3,625	62,485	19,586	9,947	10,386	3,738	4,106	3,649	2,707	– 2,676
Q2	62,121	57,858	3,625	62,858	19,210	10,127	10,421	3,821	4,289	3,535	2,774	– 736
Q3	62,143	57,763	3,625	62,716	19,109	10,229	10,278	3,630	4,467	3,558	2,804	– 573
Q4	67,094	61,884	3,625	64,075	19,497	10,353	10,455	3,821	4,713	3,659	2,975	+ 3,019
2020 Q1	61,949	57,419	3,625	66,438	20,049	11,086	10,806	3,804	4,470	4,061	2,816	– 4,489
Q2	68,108	58,096	9,359	69,487	17,674	10,492	10,908	3,389	3,986	4,143	2,980	– 1,378

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.

X. Public finances in Germany

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		
2013	24,972	24,891	24,405	3,389	10,058	5,674	896	1,155	+	567
2014	25,974	25,893	25,457	3,570	10,263	5,893	946	1,216	+	517
2015	30,825	30,751	29,101	3,717	10,745	6,410	960	1,273	+	1,723
2016	32,171	32,100	30,936	3,846	10,918	6,673	983	1,422	+	1,235
2017	36,305	36,248	38,862	4,609	13,014	10,010	1,611	1,606	–	2,557
2018	37,949	37,886	41,265	4,778	12,957	10,809	2,093	1,586	–	3,315
2019	47,228	46,508	44,008	4,990	13,043	11,689	2,392	1,781	+	3,220
2017 Q1	8,558	8,538	9,092	1,046	3,194	2,261	289	405	–	534
Q2	8,978	8,962	9,379	1,080	3,230	2,440	347	397	–	400
Q3	8,945	8,932	9,944	1,210	3,289	2,562	422	411	–	999
Q4	9,620	9,610	10,110	1,158	3,285	2,731	470	387	–	490
2018 Q1	8,961	8,948	10,146	1,192	3,233	2,603	496	424	–	1,185
Q2	9,338	9,322	10,118	1,160	3,217	2,658	509	389	–	780
Q3	9,349	9,334	10,428	1,202	3,251	2,781	515	397	–	1,079
Q4	10,071	10,050	10,581	1,229	3,251	2,835	561	384	–	510
2019 Q1	11,123	10,938	10,728	1,198	3,232	2,833	547	437	+	396
Q2	11,795	11,620	10,812	1,205	3,237	2,868	588	449	+	983
Q3	11,734	11,557	11,159	1,288	3,277	2,972	598	450	+	576
Q4	12,592	12,413	11,252	1,288	3,296	3,064	626	433	+	1,339
2020 Q1	11,693	11,473	11,444	1,288	3,280	3,067	633	489	+	249
Q2	11,921	11,732	11,816	1,266	3,281	3,173	664	468	+	105

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	Change in money market deposits 3
	Gross 2	Net		
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
2019	+ 185,070	+ 63	– 8,044	– 914
2017 Q1	+ 47,749	– 5,700	+ 6,178	– 2,428
Q2	+ 42,941	+ 5,281	+ 318	+ 4,289
Q3	+ 44,338	+ 3,495	+ 587	+ 941
Q4	+ 36,878	+ 1,455	+ 4,741	+ 95
2018 Q1	+ 42,934	– 4,946	– 5,138	+ 3,569
Q2	+ 43,602	– 5,954	– 166	– 6,139
Q3	+ 46,500	+ 4,856	+ 1,688	+ 1,871
Q4	+ 34,195	– 10,205	+ 3,525	– 971
2019 Q1	+ 56,654	+ 3,281	– 2,172	– 1,199
Q2	+ 48,545	+ 5,491	– 279	+ 7,227
Q3	+ 48,053	+ 4,030	+ 176	– 5,093
Q4	+ 31,817	– 12,738	– 5,768	– 1,849
2020 Q1	+ 65,656	+ 31,296	+ 9,236	+ 1,698

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	
2013	2,213,009	12,438	662,788	190,555	43,616	1,303,612
2014	2,215,168	12,774	634,589	190,130	44,576	1,333,098
2015	2,185,113	85,952	621,988	186,661	44,630	1,245,882
2016	2,168,989	205,391	599,089	179,755	41,318	1,143,436
2017	2,118,669	319,159	552,728	175,617	38,208	1,032,958
2018 p	2,068,562	364,731	508,799	181,077	37,030	976,925
2019 p	2,053,033	366,562	478,608	177,601	43,593	986,670
2017 Q1	2,144,575	239,495	586,013	178,219	40,475	1,100,372
Q2	2,139,642	265,130	572,364	176,810	41,255	1,084,084
Q3	2,134,509	290,214	560,322	176,646	42,855	1,064,472
Q4	2,118,669	319,159	552,728	175,617	38,208	1,032,958
2018 Q1 p	2,095,460	329,387	530,067	176,495	37,156	1,022,355
Q2 p	2,080,867	344,279	514,551	179,856	36,686	1,005,495
Q3 p	2,081,032	356,899	502,876	180,464	37,134	1,003,658
Q4 p	2,068,562	364,731	508,799	181,077	37,030	976,925
2019 Q1 p	2,078,029	359,884	499,280	179,512	35,669	1,003,684
Q2 p	2,069,111	361,032	492,958	179,168	35,491	1,000,462
Q3 p	2,086,604	358,813	490,759	179,228	42,007	1,015,797
Q4 p	2,053,033	366,562	478,608	177,601	43,593	986,670
2020 Q1 p	2,107,432	368,446	497,859	180,477	52,215	1,008,435

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								
2013	2,213,009	10,592	85,836	1,470,698	100,535	545,347	.	.
2014	2,215,168	12,150	72,618	1,501,494	95,833	533,074	.	.
2015	2,185,113	14,303	65,676	1,499,098	85,121	520,914	.	.
2016	2,168,989	15,845	69,715	1,484,378	91,300	507,752	.	.
2017 Q1	2,144,575	12,891	60,798	1,479,171	89,093	502,622	.	.
Q2	2,139,642	15,196	54,362	1,486,822	83,528	499,734	.	.
Q3	2,134,509	16,161	48,197	1,489,440	82,720	497,992	.	.
Q4	2,118,669	14,651	48,789	1,484,573	82,662	487,994	.	.
2018 Q1 p	2,095,460	12,472	48,431	1,479,589	70,141	484,828	.	.
Q2 p	2,080,867	12,636	54,932	1,465,767	67,050	480,482	.	.
Q3 p	2,081,032	15,607	59,989	1,465,858	64,601	474,977	.	.
Q4 p	2,068,562	14,833	52,572	1,456,512	72,044	472,601	.	.
2019 Q1 p	2,078,029	15,663	64,225	1,460,757	66,480	470,904	.	.
Q2 p	2,069,111	12,868	56,259	1,462,920	70,203	466,861	.	.
Q3 p	2,086,604	17,586	62,620	1,465,799	75,035	465,565	.	.
Q4 p	2,053,033	14,595	49,219	1,458,483	64,565	466,171	.	.
2020 Q1 p	2,107,432	11,564	70,949	1,473,057	87,627	464,235	.	.
Central government								
2013	1,390,061	10,592	78,996	1,113,029	64,970	122,474	2,696	10,303
2014	1,396,124	12,150	64,230	1,141,973	54,388	123,383	1,202	12,833
2015	1,372,206	14,303	49,512	1,139,039	45,256	124,095	2,932	13,577
2016	1,366,416	15,845	55,208	1,124,445	50,004	120,914	2,238	8,478
2017 Q1	1,350,579	12,891	45,510	1,124,430	48,082	119,666	2,465	7,469
Q2	1,353,204	15,196	40,225	1,132,686	44,682	120,415	2,547	8,136
Q3	1,352,593	16,161	34,216	1,136,873	45,235	120,108	2,674	10,160
Q4	1,350,925	14,651	36,297	1,132,542	47,761	119,673	2,935	10,603
2018 Q1 p	1,338,267	12,472	35,923	1,133,372	37,211	119,290	2,867	9,887
Q2 p	1,330,010	12,636	42,888	1,120,497	35,048	118,941	2,835	10,693
Q3 p	1,336,199	15,607	46,614	1,119,053	36,633	118,293	2,614	10,260
Q4 p	1,323,503	14,833	42,246	1,107,702	42,057	116,666	2,540	9,959
2019 Q1 p	1,324,990	15,663	50,032	1,103,095	39,126	117,073	2,437	11,528
Q2 p	1,320,965	12,868	42,752	1,109,478	38,833	117,034	2,464	13,768
Q3 p	1,328,487	17,586	48,934	1,105,789	38,766	117,412	2,347	13,717
Q4 p	1,299,893	14,595	38,480	1,102,144	28,222	116,452	2,097	10,166
2020 Q1 p	1,327,816	11,564	56,680	1,104,214	38,473	116,884	1,987	8,074
State government								
2013	663,615	–	6,847	360,706	11,862	284,200	12,141	2,655
2014	657,819	–	8,391	361,916	19,182	268,330	14,825	2,297
2015	654,712	–	16,169	362,376	18,707	257,460	15,867	4,218
2016	637,673	–	14,515	361,996	16,116	245,046	11,408	3,376
2017 Q1	629,540	–	15,308	356,769	15,938	241,526	10,407	3,446
Q2	623,182	–	14,167	356,521	14,792	237,702	11,180	3,417
Q3	622,430	–	14,021	355,153	16,358	236,899	13,313	3,338
Q4	610,241	–	12,543	354,688	15,112	227,898	14,326	3,539
2018 Q1 p	599,541	–	12,548	349,682	13,137	224,174	13,301	3,409
Q2 p	595,880	–	12,073	348,833	13,485	221,488	14,271	3,579
Q3 p	594,947	–	13,392	350,399	10,953	220,204	14,008	3,531
Q4 p	595,702	–	10,332	352,376	14,307	218,687	14,385	3,331
2019 Q1 p	606,078	–	14,198	361,513	13,688	216,679	15,530	3,458
Q2 p	604,749	–	13,512	357,673	19,670	213,893	17,948	3,353
Q3 p	615,272	–	13,691	364,250	24,776	212,555	18,011	3,416
Q4 p	606,711	–	10,745	360,988	23,053	211,924	15,349	3,010
2020 Q1 p	628,987	–	14,273	373,155	31,725	209,834	12,628	3,091
Local government								
2013	175,405	–	–	646	25,325	149,435	2,523	530
2014	177,782	–	–	1,297	26,009	150,476	1,959	734
2015	177,727	–	–	2,047	26,887	148,793	2,143	463
2016	179,222	–	–	2,404	26,414	150,403	1,819	566
2017 Q1	178,144	–	–	2,645	25,452	150,047	1,966	697
Q2	178,051	–	–	2,672	25,263	150,116	1,963	819
Q3	176,593	–	–	2,687	24,477	149,429	1,871	927
Q4	175,852	–	–	3,082	23,952	148,818	1,881	1,064
2018 Q1 p	174,654	–	–	2,427	22,778	149,450	1,811	1,072
Q2 p	173,177	–	–	2,561	22,443	148,172	1,977	1,090
Q3 p	167,850	–	–	2,703	20,503	144,644	2,132	1,123
Q4 p	167,626	–	1	3,046	19,730	144,849	2,019	1,147
2019 Q1 p	166,506	–	1	2,960	19,092	144,453	2,285	1,153
Q2 p	165,257	–	1	2,960	18,993	143,302	2,173	1,175
Q3 p	164,858	–	1	3,015	19,025	142,818	2,233	1,211
Q4 p	165,224	–	1	2,965	17,570	144,687	2,004	1,271
2020 Q1 p	166,557	–	1	3,127	19,355	144,074	2,073	1,199

For footnotes see end of table.

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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								
2013	1,287	–	–	–	360	927	–	3,872
2014	1,430	–	–	–	387	1,043	–	2,122
2015	1,411	–	–	–	446	965	–	2,685
2016	1,143	–	–	–	473	670	–	3,044
2017 Q1	1,150	–	–	–	504	646	–	3,226
Q2	895	–	–	–	290	605	–	3,318
Q3	750	–	–	–	184	566	–	3,433
Q4	792	–	–	–	247	545	–	3,934
2018 Q1 **p**	975	–	–	–	424	551	–	3,610
Q2 **p**	883	–	–	–	383	500	–	3,721
Q3 **p**	790	–	–	–	400	390	–	3,841
Q4 **p**	674	–	–	–	372	302	–	4,506
2019 Q1 **p**	707	–	–	–	437	270	–	4,114
Q2 **p**	726	–	–	–	541	185	–	4,289
Q3 **p**	578	–	–	–	375	203	–	4,247
Q4 **p**	655	–	–	–	319	336	–	5,002
2020 Q1 **p**	759	–	–	–	271	488	–	4,324

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	983,807	6,675	.	917,584	564,137	173,949	10,019	3,444	506	102,083	37,385	10,287	59,548
2008	1,015,846	12,466	3,174	928,754	571,913	164,514	12,017	7,522	1,336	105,684	40,795	9,649	74,626
2009	1,082,101	9,981	2,495	1,013,072	577,798	166,471	16,982	7,748	1,369	113,637	104,409	9,471	59,048
2010	1,333,467	10,890	1,975	1,084,019	602,624	185,586	25,958	9,948	2,396	126,220	85,867	8,704	238,558
2011	1,343,515	10,429	2,154	1,121,331	615,200	199,284	29,313	14,927	3,961	130,648	58,297	8,208	211,756
2012	1,387,361	9,742	1,725	1,177,168	631,425	217,586	35,350	16,769	5,374	117,719	56,222	6,818	200,451
2013	1,390,061	10,592	1,397	1,192,025	643,200	234,759	41,105	10,613	4,730	110,029	50,004	4,488	187,444
2014	1,396,124	12,150	1,187	1,206,203	653,823	244,633	48,692	14,553	5,368	103,445	27,951	2,375	177,771
2015	1,372,206	14,303	1,070	1,188,551	663,296	232,387	59,942	14,553	5,607	96,389	18,536	1,305	169,351
2016	1,366,416	15,845	1,010	1,179,653	670,245	221,551	51,879	14,585	3,602	95,727	23,609	737	170,919
2017	1,350,925	14,651	966	1,168,840	693,687	203,899	58,365	14,490	4,720	91,013	10,037	289	167,435
2018 **p**	1,323,503	14,833	921	1,149,948	710,513	182,847	64,647	–	5,139	86,009	12,949	48	158,723
2019 **p**	1,299,893	14,595	–	1,140,623	719,747	174,719	69,805	–	6,021	89,230	13,487	.	144,674
2017 Q1	1,350,579	12,891	995	1,169,939	674,049	213,371	53,838	14,535	3,362	95,148	14,910	619	167,748
Q2	1,353,204	15,196	986	1,172,911	687,278	205,203	55,842	14,465	4,507	93,795	14,431	487	165,097
Q3	1,352,593	16,161	977	1,171,089	684,134	215,029	56,905	14,490	4,092	91,893	11,851	398	165,344
Q4	1,350,925	14,651	966	1,168,840	693,687	203,899	58,365	14,490	4,720	91,013	10,037	289	167,435
2018 Q1 **p**	1,338,267	12,472	951	1,169,295	699,638	193,811	60,778	14,455	4,421	94,282	9,031	219	156,501
Q2 **p**	1,330,010	12,636	941	1,163,385	710,784	185,042	62,863	–	4,276	92,639	15,049	141	153,989
Q3 **p**	1,336,199	15,607	932	1,165,667	703,682	194,356	64,304	–	4,548	90,575	17,340	75	154,925
Q4 **p**	1,323,503	14,833	921	1,149,948	710,513	182,847	64,647	–	5,139	86,009	12,949	48	158,723
2019 Q1 **p**	1,324,990	15,663	902	1,153,128	709,008	178,900	66,531	–	4,191	89,782	18,288	31	156,199
Q2 **p**	1,320,965	12,868	852	1,152,230	720,904	173,313	68,110	–	5,691	91,024	15,042	19	155,867
Q3 **p**	1,328,487	17,586	822	1,154,723	711,482	183,268	69,088	–	5,639	90,416	18,100	–	156,178
Q4 **p**	1,299,893	14,595	–	1,140,623	719,747	174,719	69,805	–	6,021	89,230	13,487	.	144,674
2020 Q1 **p**	1,327,816	11,564	.	1,160,895	721,343	182,095	71,028	–	5,310	91,084	23,572	.	155,358

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	2017	2018	2019	2017	2018	2019	2018 Q4	2019 Q1	2019 Q2	2019 Q3	2019 Q4	2020 Q1	2020 Q2
	Index 2015 = 100			Annual percentage change									
At constant prices, chained													
I. Origin of domestic product													
Production sector (excluding construction)	108.6	109.3	105.4	3.9	0.7	– 3.6	– 1.6	– 1.9	– 5.1	– 2.9	– 4.3	– 6.2	– 19.4
Construction	102.0	103.7	107.3	0.1	1.7	3.5	3.0	6.3	2.3	4.7	1.4	6.7	1.6
Wholesale/retail trade, transport and storage, hotel and restaurant services	105.0	107.5	109.7	2.7	2.3	2.1	1.7	2.2	1.1	3.4	1.7	– 0.4	– 12.9
Information and communication	108.2	115.8	120.2	5.0	7.0	3.8	7.5	4.4	3.7	4.2	2.8	0.3	– 3.1
Financial and insurance activities	100.8	97.1	99.1	4.2	– 3.6	2.0	– 2.6	0.3	2.4	3.6	1.9	1.0	– 0.2
Real estate activities	100.4	100.8	101.8	– 0.1	0.3	1.0	– 0.2	0.7	0.7	1.2	1.5	0.5	– 0.6
Business services [1]	107.2	109.8	110.8	4.8	2.4	0.9	0.9	1.6	0.3	1.0	0.7	– 2.0	– 16.0
Public services, education and health	104.2	105.7	107.4	1.7	1.4	1.6	1.2	1.8	1.3	1.9	1.5	– 0.3	– 9.1
Other services	99.4	101.0	102.1	1.2	1.6	1.1	1.9	1.1	1.0	1.6	0.7	– 2.4	– 19.9
Gross value added	105.0	106.4	106.9	2.7	1.3	0.4	0.5	1.0	– 0.3	1.1	0.0	– 1.6	– 11.3
Gross domestic product [2]	104.9	106.2	106.8	2.6	1.3	0.6	0.5	1.0	– 0.3	1.2	0.2	– 1.8	– 11.3
II. Use of domestic product													
Private consumption [3]	104.0	105.6	107.2	1.5	1.5	1.6	1.5	1.3	1.7	2.2	1.0	– 1.6	– 13.0
Government consumption	105.8	107.0	109.9	1.6	1.2	2.7	0.5	2.3	1.7	3.6	3.2	2.7	3.8
Machinery and equipment	107.4	112.1	112.7	4.2	4.4	0.5	3.6	2.8	1.1	1.7	– 2.7	– 9.5	– 27.9
Premises	104.7	107.4	111.5	0.8	2.6	3.8	4.1	6.8	2.5	4.1	2.2	6.2	1.4
Other investment [4]	109.3	114.2	117.3	3.9	4.5	2.7	4.5	2.9	2.5	2.9	2.6	– 1.1	– 1.4
Changes in inventories [5,6]	.	.	.	0.8	– 0.1	– 0.7	0.1	0.1	– 0.2	– 1.7	– 1.1	– 0.6	0.0
Domestic demand	105.8	107.7	109.0	2.7	1.8	1.2	1.9	2.3	1.6	0.9	0.2	– 1.0	– 8.4
Net exports [6]	.	.	.	0.1	– 0.4	– 0.6	– 1.3	– 1.1	– 1.7	0.4	0.0	– 0.9	– 3.4
Exports	107.3	109.8	110.8	4.7	2.3	1.0	0.1	1.7	– 1.3	2.7	0.8	– 3.2	– 22.2
Imports	110.0	114.1	117.0	5.3	3.6	2.6	3.3	4.7	2.7	2.0	0.9	– 1.6	– 17.3
Gross domestic product [2]	104.9	106.2	106.8	2.6	1.3	0.6	0.5	1.0	– 0.3	1.2	0.2	– 1.8	– 11.3
At current prices (€ billion)													
III. Use of domestic product													
Private consumption [3]	1,704.1	1,755.4	1,806.9	3.0	3.0	2.9	3.3	2.4	3.3	3.6	2.3	0.0	– 11.7
Government consumption	648.2	670.3	704.5	3.9	3.4	5.1	2.8	4.8	4.2	6.0	5.4	5.5	7.2
Machinery and equipment	224.5	235.6	240.1	4.8	5.0	1.9	4.4	3.8	2.4	3.3	– 1.2	– 8.1	– 26.9
Premises	321.0	344.9	373.7	4.3	7.4	8.4	9.4	12.3	7.4	8.3	6.0	9.7	4.3
Other investment [4]	120.5	128.8	134.2	5.4	6.9	4.2	6.9	4.4	3.9	4.3	4.1	0.2	0.1
Changes in inventories [5]	13.6	15.0	– 10.3	.	.	.	.	.	.	.	.	.	.
Domestic use	3,031.8	3,150.0	3,249.1	4.4	3.9	3.1	4.5	4.2	3.8	2.7	2.0	0.9	– 7.5
Net exports	228.1	206.4	199.9	.	.	.	.	.	.	.	.	.	.
Exports	1,538.8	1,590.0	1,617.4	6.5	3.3	1.7	1.9	3.1	– 0.4	3.0	1.2	– 2.9	– 22.5
Imports	1,310.7	1,383.6	1,417.4	8.1	5.6	2.4	6.1	5.9	3.4	1.0	– 0.2	– 2.6	– 21.1
Gross domestic product [2]	3,259.9	3,356.4	3,449.1	4.0	3.0	2.8	2.7	3.0	1.9	3.6	2.5	0.6	– 8.9
IV. Prices (2015 = 100)													
Private consumption	102.2	103.7	105.1	1.5	1.5	1.3	1.7	1.1	1.6	1.4	1.3	1.7	1.4
Gross domestic product	102.7	104.4	106.7	1.4	1.7	2.2	2.1	1.9	2.2	2.4	2.3	2.4	2.7
Terms of trade	100.9	100.1	100.9	– 0.9	– 0.8	0.9	– 0.9	0.3	0.2	1.4	1.5	1.4	4.4
V. Distribution of national income													
Compensation of employees	1,694.7	1,771.8	1,845.9	4.3	4.5	4.2	4.3	4.5	4.4	4.5	3.5	2.9	– 3.6
Entrepreneurial and property income	741.8	738.3	718.2	3.0	– 0.5	– 2.7	– 1.9	– 1.9	– 6.1	0.1	– 3.4	– 4.6	– 17.6
National income	2,436.5	2,510.1	2,564.1	3.9	3.0	2.2	2.6	2.4	1.4	3.1	1.7	0.6	– 7.3
Memo item: Gross national income	3,337.2	3,447.4	3,542.8	3.9	3.3	2.8	2.9	3.1	2.2	3.5	2.3	0.7	– 8.3

Source: Federal Statistical Office; figures computed in August 2020. **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**

Period	Production sector, total	of which: Construction	of which: Energy	of which: Industry	of which: by main industrial grouping				of which: by economic sector			
					Intermediate goods	Capital goods	Durable goods	Non-durable goods	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
2016	101.5	105.3	98.6	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	104.8	104.9	105.0	106.9	103.0	106.2	107.0	104.1	105.3
2018 **2**	105.8 **2**	108.9	97.4	105.9	105.5	106.0	106.1	106.9	107.3	109.0	106.5	103.5
2019	102.5	112.7	90.4	101.7	101.8	101.4	106.2	101.0	102.8	106.5	103.5	92.0
2019 Q2	102.7	113.8	83.6	102.3	103.4	102.2	103.1	99.6	104.9	104.9	102.7	95.5
Q3	102.3	119.1	81.1	101.1	102.0	100.1	104.2	101.1	102.7	107.5	102.0	89.1
Q4	103.4	124.2	94.3	100.5	97.2	102.0	109.2	102.7	97.2	106.0	108.6	84.9
2020 Q1	96.4	100.2	94.0	95.9	101.1	90.5	101.5	99.0	98.0	103.5	91.3	79.1
Q2 **x**	83.7	114.8	73.1	79.1	85.4	70.5	85.4	89.8	77.5	89.6	81.2	43.9
2019 July **3**	103.5	122.0	81.4	102.0	103.7	101.0	99.6	101.6	104.4	105.5	102.9	91.1
Aug. **3**	96.7	113.8	80.3	95.0	98.4	91.2	95.8	98.6	97.2	103.1	94.0	76.8
Sep.	106.8	121.4	81.7	106.2	103.9	108.2	117.3	103.0	106.5	113.9	109.1	99.5
Oct.	105.0	121.8	91.8	103.0	104.9	99.6	114.0	107.2	104.5	108.6	100.5	89.9
Nov.	108.7	126.4	95.2	106.7	103.3	108.6	116.3	107.4	105.0	111.1	108.7	97.9
Dec.	96.6	124.4	95.9	91.8	83.3	97.7	97.2	93.6	82.2	98.2	116.6	66.8
2020 Jan.	92.2	86.0	99.3	92.7	98.6	86.1	98.7	97.6	95.0	99.8	83.3	79.6
Feb.	97.0	97.3	92.0	97.4	100.8	94.3	103.2	97.4	98.4	102.8	91.1	90.3
Mar.	99.9	117.3	90.6	97.6	103.9	91.0	102.7	102.1	100.5	107.9	99.5	67.4
Apr. **x**	76.5	111.9	73.2	70.5	83.9	54.6	72.8	87.6	72.9	86.6	70.7	14.6
May **x**	81.9	112.6	71.9	77.3	83.2	69.2	85.7	87.3	76.0	86.4	77.2	45.3
June **x**	92.8	119.9	74.1	89.5	89.1	87.8	97.6	94.4	83.7	95.7	95.6	71.7
July **x,p**	93.1	119.7	76.4	89.8	92.8	85.0	92.6	97.6	86.0	95.7	86.1	74.4
	Annual percentage change											
2016	+ 1.8	+ 5.7	– 1.4	+ 1.4	+ 1.1	+ 1.6	+ 3.0	+ 1.2	+ 1.8	+ 1.3	– 0.1	+ 2.5
2017	+ 3.3	+ 3.2	+ 0.3	+ 3.7	+ 4.0	+ 3.7	+ 4.2	+ 2.0	+ 4.5	+ 5.9	+ 4.5	+ 3.1
2018 **2**	+ 0.9 **2**	+ 0.2	– 1.5	+ 1.0	+ 0.6	+ 1.0	– 0.7	+ 3.8	+ 1.0	+ 1.9	+ 2.3	– 1.7
2019	– 3.1	+ 3.5	– 7.2	– 4.0	– 3.5	– 4.3	+ 0.1	– 5.5	– 4.2	– 2.3	– 2.8	– 11.1
2019 Q2	– 3.7	+ 3.2	– 8.1	– 4.7	– 4.0	– 4.9	– 2.2	– 6.7	– 4.3	– 2.1	– 2.0	– 13.6
Q3	– 3.7	+ 2.6	– 13.0	– 4.3	– 4.4	– 2.9	+ 0.1	– 9.2	– 4.9	– 2.5	– 3.0	– 7.6
Q4	– 4.0	+ 1.8	– 5.6	– 5.0	– 4.6	– 6.7	+ 2.7	– 2.2	– 7.3	– 4.0	– 6.2	– 13.0
2020 Q1	– 5.0	+ 6.8	– 8.2	– 6.7	– 3.5	– 10.8	– 6.2	– 1.4	– 7.9	– 3.7	– 9.2	– 19.5
Q2 **x**	– 18.5	+ 0.9	– 12.6	– 22.7	– 17.4	– 31.0	– 17.2	– 9.9	– 26.1	– 14.6	– 21.0	– 54.1
2019 July **3**	– 3.5	+ 3.0	– 12.9	– 4.1	– 4.4	– 3.1	+ 1.2	– 7.6	– 4.5	– 3.1	– 1.7	– 9.4
Aug. **3**	– 3.7	+ 2.7	– 15.2	– 4.0	– 4.3	– 1.9	+ 0.8	– 10.3	– 5.5	– 2.3	– 4.2	– 4.6
Sep.	– 4.0	+ 2.1	– 10.9	– 4.7	– 4.5	– 3.5	– 1.3	– 9.9	– 4.7	– 2.2	– 3.1	– 8.2
Oct.	– 4.5	+ 1.2	– 5.8	– 5.7	– 3.9	– 8.2	+ 1.6	– 3.3	– 6.9	– 3.4	– 7.5	– 13.8
Nov.	– 2.3	+ 3.6	– 3.8	– 3.4	– 3.6	– 4.3	+ 3.8	– 0.9	– 6.3	– 3.1	– 4.1	– 9.2
Dec.	– 5.2	+ 0.5	– 7.0	– 6.2	– 6.4	– 7.7	+ 2.6	– 2.2	– 9.1	– 5.5	– 6.8	– 17.1
2020 Jan.	– 1.3	+ 14.1	– 9.1	– 2.7	– 2.3	– 3.6	– 2.0	– 1.6	– 6.0	– 0.8	– 5.1	– 7.2
Feb.	– 1.6	+ 4.4	– 5.0	– 2.3	– 0.1	– 5.6	– 1.9	+ 2.9	– 4.3	+ 0.5	– 6.6	– 9.2
Mar.	– 11.1	+ 4.0	– 10.4	– 13.8	– 7.6	– 20.9	– 13.6	– 5.0	– 12.8	– 9.8	– 14.4	– 38.5
Apr. **x**	– 24.9	– 0.7	– 16.9	– 30.1	– 19.1	– 44.8	– 27.8	– 12.1	– 30.6	– 15.7	– 28.8	– 84.3
May **x**	– 19.5	+ 1.2	– 14.7	– 23.8	– 19.3	– 31.1	– 15.6	– 12.6	– 26.7	– 16.6	– 22.3	– 53.1
June **x**	– 11.4	+ 2.2	– 5.5	– 14.4	– 13.9	– 17.9	– 8.5	– 4.9	– 21.1	– 11.6	– 12.6	– 26.3
July **x,p**	– 10.0	– 1.9	– 6.1	– 12.0	– 10.5	– 15.8	– 7.0	– 3.9	– 17.6	– 9.3	– 16.3	– 18.3

Source of the unadjusted figures: Federal Statistical Office. * For explanatory notes, see Statistical Series – Seasonally adjusted business statistics, Tables III.1.a to III.1.c. **o** Using JDemetra+ 2.2.2 (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												
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	99.0	– 0.8
2017	108.6	+ 7.8	109.4	+ 10.6	108.5	+ 6.5	105.8	+ 5.2	116.5	+ 10.6	102.2	+ 3.2
2018	110.5	+ 1.7	111.5	+ 1.9	109.9	+ 1.3	110.0	+ 4.0	118.9	+ 2.1	107.1	+ 4.8
2019	104.9	– 5.1	103.5	– 7.2	105.4	– 4.1	107.0	– 2.7	123.3	+ 3.7	101.6	– 5.1
2019 July	103.5	– 4.1	102.8	– 9.5	102.9	+ 0.2	110.6	– 8.4	121.8	+ 1.6	107.0	– 11.5
Aug.	93.1	– 5.9	96.0	– 7.1	89.9	– 5.2	103.7	– 5.6	121.1	+ 3.7	98.1	– 8.8
Sep.	105.4	– 3.9	100.1	– 8.3	108.4	– 1.1	108.4	– 4.2	139.8	+ 11.5	98.0	– 10.3
Oct.	106.2	– 4.8	104.0	– 8.7	106.8	– 3.4	111.6	+ 2.5	128.1	+ 0.5	106.1	+ 3.2
Nov.	106.2	– 5.6	103.2	– 7.3	107.3	– 5.9	111.6	+ 5.6	138.1	+ 13.5	102.8	+ 2.4
Dec.	102.1	– 8.5	92.6	– 4.3	109.2	– 11.1	93.6	– 2.4	120.5	+ 10.0	84.8	– 7.1
2020 Jan.	107.4	– 0.6	110.1	– 1.2	105.4	– 0.5	110.5	+ 2.4	131.9	+ 11.3	103.5	– 0.9
Feb.	104.9	+ 2.2	105.6	+ 0.9	103.1	+ 2.2	114.9	+ 7.6	125.5	+ 9.6	111.4	+ 6.8
Mar.	98.7	– 15.6	108.6	– 4.8	90.5	– 23.8	114.3	– 0.8	125.5	– 2.3	110.7	– 0.1
Apr.	65.7	– 37.0	77.6	– 26.2	54.8	– 47.1	93.0	– 11.9	92.7	– 19.4	93.1	– 9.2
May	71.4	– 29.7	77.0	– 25.1	64.8	– 35.4	96.3	– 7.2	115.2	+ 1.9	90.1	– 10.6
June	96.8	– 10.7	87.0	– 17.4	102.4	– 7.6	100.5	– 4.6	120.1	– 0.7	94.1	– 6.0
July p	95.5	– 7.7	94.3	– 8.3	95.1	– 7.6	105.4	– 4.7	125.3	+ 2.9	98.9	– 7.6
From the domestic market												
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	101.8	+ 2.1	98.0	– 1.8	103.1	+ 3.4	96.3	– 3.5
2017	107.0	+ 7.2	107.1	+ 9.7	107.8	+ 5.9	101.6	+ 3.7	108.7	+ 5.4	99.3	+ 3.1
2018	107.2	+ 0.2	108.6	+ 1.4	106.6	– 1.1	102.9	+ 1.3	114.7	+ 5.5	98.9	– 0.4
2019	101.2	– 5.6	99.1	– 8.7	102.9	– 3.5	101.2	– 1.7	116.2	+ 1.3	96.2	– 2.7
2019 July	102.4	– 6.6	100.7	– 10.8	103.6	– 3.4	103.8	– 2.4	114.6	+ 5.2	100.2	– 4.9
Aug.	91.0	– 6.8	91.1	– 10.2	89.9	– 3.9	97.6	– 5.3	108.1	– 5.8	94.1	– 5.1
Sep.	100.3	– 7.0	95.2	– 11.4	104.2	– 4.6	103.6	+ 2.8	131.5	+ 10.2	94.1	– 0.4
Oct.	99.1	– 7.2	98.5	– 10.8	98.5	– 5.0	107.0	– 0.4	131.9	+ 9.5	98.6	– 4.2
Nov.	102.8	– 8.4	100.7	– 9.3	103.5	– 9.1	109.6	+ 1.3	135.7	+ 11.9	100.8	– 2.9
Dec.	93.6	– 7.7	84.2	– 8.1	102.3	– 8.2	89.2	– 1.9	107.4	+ 8.4	83.1	– 5.7
2020 Jan.	100.6	– 6.6	104.1	– 3.4	97.4	– 10.4	102.2	+ 2.0	111.0	+ 3.3	99.2	+ 1.5
Feb.	101.9	– 2.8	99.9	– 2.7	103.0	– 3.1	105.9	– 1.0	110.5	+ 0.2	104.4	– 1.4
Mar.	96.8	– 13.8	102.8	– 5.9	89.7	– 22.3	110.2	+ 2.2	107.9	– 15.3	111.0	+ 9.7
Apr.	67.7	– 32.4	74.6	– 25.4	59.5	– 40.9	83.4	– 13.3	74.0	– 31.9	86.6	– 5.9
May	74.9	– 24.6	75.1	– 24.7	72.3	– 27.3	91.6	– 4.9	109.8	+ 3.7	85.5	– 8.2
June	104.9	+ 4.2	82.0	– 17.3	126.0	+ 22.8	94.8	– 1.5	110.9	+ 4.9	89.4	– 3.9
July p	94.6	– 7.6	93.5	– 7.1	94.7	– 8.6	100.2	– 3.5	115.2	+ 0.5	95.1	– 5.1
From abroad												
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	100.3	+ 0.5	101.9	+ 2.1	102.6	+ 2.8	107.1	+ 7.3	101.1	+ 1.3
2017	109.8	+ 8.2	111.9	+ 11.6	108.9	+ 6.9	108.9	+ 6.1	122.8	+ 14.7	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	113.4	+ 8.6
2019	107.6	– 4.8	108.3	– 5.5	106.9	– 4.5	111.5	– 3.5	129.1	+ 5.6	105.9	– 6.6
2019 July	104.3	– 2.2	105.1	– 8.0	102.5	+ 2.5	115.9	– 12.1	127.6	– 0.9	112.2	– 15.5
Aug.	94.7	– 5.2	101.3	– 3.7	89.9	– 6.0	108.5	– 5.8	131.6	+ 11.1	101.1	– 11.4
Sep.	109.3	– 1.6	105.3	– 5.1	110.9	+ 0.9	112.1	– 8.7	146.4	+ 12.4	101.0	– 16.1
Oct.	111.5	– 3.3	110.0	– 6.5	111.8	– 2.6	115.1	+ 4.5	125.1	– 6.0	111.8	+ 8.9
Nov.	108.8	– 3.5	105.9	– 5.2	109.6	– 4.0	113.1	+ 9.0	140.1	+ 14.8	104.4	+ 6.7
Dec.	108.6	– 9.0	101.7	– 0.8	113.3	– 12.6	97.0	– 2.7	131.1	+ 11.2	86.1	– 8.2
2020 Jan.	112.6	+ 4.0	116.6	+ 1.1	110.3	+ 5.9	117.0	+ 2.8	148.8	+ 16.9	106.8	– 2.5
Feb.	107.1	+ 6.0	111.8	+ 4.7	103.1	+ 5.6	121.8	+ 14.3	137.6	+ 16.8	116.7	+ 13.3
Mar.	100.1	– 16.8	114.9	– 3.6	91.0	– 24.7	117.5	– 2.8	139.6	+ 8.0	110.4	– 6.6
Apr.	64.1	– 40.4	80.8	– 27.0	51.9	– 50.7	100.4	– 11.1	107.7	– 10.3	98.0	– 11.4
May	68.8	– 33.3	79.0	– 25.6	60.3	– 40.2	100.0	– 8.8	119.6	+ 0.6	93.7	– 12.2
June	90.6	– 20.7	92.4	– 17.4	88.1	– 23.9	104.9	– 6.7	127.5	– 4.4	97.7	– 7.5
July p	96.2	– 7.8	95.2	– 9.4	95.3	– 7.0	109.5	– 5.5	133.4	+ 4.5	101.8	– 9.3

Source of the unadjusted figures: Federal Statistical Office. * At current prices; for explanatory notes, see Statistical Series – Seasonally adjusted business statistics, Tables III.2.a to III.2.c. o Using JDemetra+ 2.2.2 (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**			
			Structural engineering								Civil engineering		Industrial clients		Public sector **2**	
			Total		Residential 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
2016	114.4	+ 14.5	115.0	+ 15.1	116.9	+ 17.0	114.9	+ 15.0	108.9	+ 9.1	113.7	+ 13.8	111.7	+ 11.8	116.0	+ 16.1
2017	122.4	+ 7.0	123.1	+ 7.0	123.1	+ 5.3	123.4	+ 7.4	121.8	+ 11.8	121.6	+ 6.9	119.8	+ 7.3	125.0	+ 7.8
2018	134.7	+ 10.0	131.2	+ 6.6	136.6	+ 11.0	127.9	+ 3.6	125.2	+ 2.8	138.8	+ 14.1	135.6	+ 13.2	132.4	+ 5.9
2019	146.0	+ 8.4	145.0	+ 10.5	150.2	+ 10.0	142.2	+ 11.2	138.9	+ 10.9	147.1	+ 6.0	147.9	+ 9.1	141.3	+ 6.7
2019 June	162.0	+ 10.1	161.4	+ 13.9	158.5	+ 11.3	163.4	+ 20.0	163.7	+ 2.4	162.7	+ 6.1	165.5	+ 20.9	160.2	– 0.9
July	153.9	+ 8.2	148.0	+ 4.2	154.6	+ 8.6	142.1	– 1.2	148.0	+ 9.7	160.8	+ 12.9	152.5	+ 5.6	155.1	+ 11.0
Aug.	134.6	+ 4.6	135.5	+ 13.1	139.3	+ 10.8	131.2	+ 12.4	139.2	+ 24.0	133.6	– 3.9	137.2	+ 7.5	129.0	– 2.2
Sep.	147.9	+ 5.9	146.6	+ 2.2	157.0	+ 0.6	130.4	+ 0.2	173.0	+ 13.8	149.4	+ 10.4	143.4	+ 6.6	147.6	+ 8.8
Oct.	136.9	+ 3.6	137.5	+ 6.8	154.8	+ 9.6	124.3	+ 1.6	129.6	+ 17.0	136.2	+ 0.1	135.2	+ 0.5	127.9	+ 3.4
Nov.	145.4	+ 13.1	154.7	+ 23.1	149.7	+ 7.3	166.6	+ 42.0	127.1	+ 13.6	134.5	+ 1.9	167.8	+ 22.6	117.1	+ 4.1
Dec.	148.2	– 1.3	148.9	+ 2.2	178.2	+ 7.0	131.1	– 3.0	119.1	+ 2.4	147.3	– 5.2	154.3	– 5.7	122.9	– 1.3
2020 Jan.	129.3	+ 10.1	134.0	+ 10.8	137.4	+ 11.0	134.1	+ 8.2	122.8	+ 23.0	123.9	+ 9.3	140.9	+ 11.2	111.3	+ 8.3
Feb.	134.5	+ 1.2	143.0	+ 10.5	148.3	+ 24.6	140.9	+ 4.8	133.1	– 8.3	124.6	– 9.1	139.3	+ 5.2	120.5	– 15.1
Mar.	158.8	– 7.5	154.0	– 5.9	169.6	– 0.5	141.1	– 10.8	150.6	– 7.6	164.4	– 9.1	155.2	– 6.6	156.4	– 12.5
Apr.	149.6	– 2.3	134.1	– 10.0	131.6	– 12.1	137.3	– 9.4	130.1	– 5.0	167.6	+ 6.1	140.4	– 3.5	171.1	+ 4.4
May	138.9	– 6.1	124.1	– 14.3	146.7	– 0.1	103.1	– 30.9	127.9	+ 5.0	156.2	+ 3.2	121.5	– 18.1	154.2	+ 4.3
June	168.4	+ 4.0	153.2	– 5.1	165.1	+ 4.2	139.5	– 14.6	165.0	+ 0.8	186.0	+ 14.3	144.4	– 12.7	197.9	+ 23.5

Source of the unadjusted figures: Federal Statistical Office. * At current prices; excluding value added tax; for explanatory notes, see Statistical Series – Seasonally adjusted business statistics, Table III.2.f. **o** Using JDemetra+ 2.2.2 (X13). **1** Excluding residential construction. **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, footwear 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
2016	102.5	+ 2.4	102.2	+ 2.1	101.6	+ 1.5	100.9	+ 0.7	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	+ 4.2	108.1	+ 7.1	106.2	+ 6.3	103.0	+ 1.5	107.7	+ 3.7	120.4	+ 9.7
2018	110.7	+ 2.9	107.5	+ 1.6	109.6	+ 3.5	105.6	– 2.3	107.1	+ 0.8	103.1	+ 0.1	112.5	+ 4.5	127.6	+ 6.0
2019 **3**	114.8	+ 3.7	110.8	+ 3.1	112.1	+ 2.3	106.4	+ 0.8	108.7	+ 1.5	107.1	+ 3.9	118.4	+ 5.2	137.7	+ 7.9
2019 June	114.9	+ 4.5	110.8	+ 3.8	115.5	+ 3.2	114.5	+ 7.1	98.1	– 1.7	106.5	+ 4.7	115.0	+ 4.8	131.1	+ 13.3
July	115.3	+ 4.1	111.6	+ 3.0	113.9	+ 2.8	103.8	– 1.8	94.7	– 1.6	108.4	+ 5.6	120.3	+ 3.8	136.3	+ 9.9
Aug.	111.0	+ 4.1	107.5	+ 3.5	110.9	+ 3.4	98.5	+ 0.1	102.1	+ 5.0	101.1	+ 4.9	114.6	+ 4.2	124.3	+ 6.7
Sep.	112.0	+ 4.0	107.8	+ 3.9	106.5	+ 0.9	110.0	+ 1.2	110.6	+ 2.1	103.6	+ 4.9	117.7	+ 6.4	138.5	+ 10.5
Oct.	117.0	+ 2.4	112.4	+ 2.2	112.7	+ 1.7	116.4	+ 0.1	110.2	+ 2.1	111.1	+ 2.6	121.7	+ 5.5	140.5	+ 2.6
Nov.	123.4	+ 3.8	118.6	+ 3.4	114.8	+ 4.9	115.6	+ 3.0	133.0	+ 0.9	115.9	+ 3.4	123.9	+ 4.9	163.7	+ 0.7
Dec.	133.1	+ 3.3	128.2	+ 2.3	127.9	+ 1.1	118.7	– 3.0	159.0	+ 1.0	113.3	+ 3.3	133.0	+ 6.7	171.7	+ 11.6
2020 Jan.	107.9	+ 3.6	104.1	+ 2.4	104.0	+ 1.7	87.8	– 2.8	113.1	+ 1.7	96.5	+ 4.9	120.0	+ 5.7	138.3	+ 5.4
Feb.	106.0	+ 4.0	101.6	+ 2.6	108.8	+ 7.3	80.5	– 6.6	96.5	+ 2.4	97.2	+ 3.4	114.5	+ 3.4	131.5	+ 9.3
Mar.	117.9	+ 1.8	112.6	+ 0.4	130.9	+ 15.0	49.2	– 53.9	83.1	– 21.9	106.9	– 6.8	135.3	+ 14.8	153.7	+ 15.1
Apr.	110.5	– 4.2	105.0	– 5.5	125.3	+ 10.6	28.8	– 74.8	54.9	– 40.6	100.3	– 12.9	112.9	– 3.2	172.7	+ 28.2
May	122.9	+ 8.6	117.1	+ 7.7	127.8	+ 14.3	78.4	– 23.4	93.7	+ 0.9	126.8	+ 15.5	111.5	– 3.7	168.6	+ 32.9
June	120.6	+ 5.0	115.3	+ 4.1	119.6	+ 3.5	96.0	– 16.2	100.7	+ 2.7	121.5	+ 14.1	117.3	+ 2.0	161.4	+ 23.1
July	121.8	+ 5.6	116.4	+ 4.3	119.4	+ 4.8	97.7	– 5.9	108.3	+ 14.4	124.0	+ 14.4	118.6	– 1.4	154.5	+ 13.4

Source of the unadjusted figures: Federal Statistical Office. * Excluding value added tax; for explanatory notes, see Statistical Series – Seasonally adjusted business statistics, Table III.4.c. **o** Using JDemetra+ 2.2.2 (X13). **1** Including stalls and markets. **2** Not in stores, stalls or markets. **3** As of January 2019 figures are provisional, partially 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									
2015	43,122	+ 0.9	30,823	+ 2.1	8,938	20,840	806	4,856	130	44	2,795	859	6.4	569
2016	43,661	+ 1.2	31,508	+ 2.2	9,028	21,407	834	4,804	128	42	2,691	822	6.1	655
2017	44,262	+ 1.4	32,234	+ 2.3	9,146	21,980	868	4,742	114	24	2,533	7 855	5.7	731
2018	44,868	+ 1.4	32,964	+ 2.3	9,349	22,532	840	4,671	118	25	2,340	802	5.2	796
2019	45,268	+ 0.9	33,518	+ 1.7	9,479	23,043	751	4,579	145	60	8 2,267	827	8 5.0	774
2017 Q2	44,166	+ 1.4	32,064	+ 2.3	9,110	21,857	852	4,762	36	25	2,513	822	5.6	717
Q3	44,450	+ 1.4	32,324	+ 2.3	9,172	22,011	892	4,766	28	16	2,504	833	5.6	763
Q4	44,699	+ 1.4	32,759	+ 2.3	9,263	22,354	900	4,711	82	15	2,381	780	5.3	771
2018 Q1	44,398	+ 1.5	32,563	+ 2.4	9,214	22,279	843	4,664	325	24	2,525	909	5.7	760
Q2	44,790	+ 1.4	32,802	+ 2.3	9,296	22,414	843	4,701	23	14	2,325	760	5.1	794
Q3	45,028	+ 1.3	33,040	+ 2.2	9,387	22,546	855	4,694	35	27	2,311	784	5.1	828
Q4	45,257	+ 1.2	33,452	+ 2.1	9,498	22,890	819	4,627	88	35	2,200	755	4.9	804
2019 Q1	44,920	+ 1.2	33,214	+ 2.0	9,419	22,803	761	4,581	303	34	2,360	892	5.2	780
Q2	45,240	+ 1.0	33,388	+ 1.8	9,455	22,932	750	4,615	51	43	8 2,227	778	8 4.9	795
Q3	45,376	+ 0.8	33,548	+ 1.5	9,491	23,049	753	4,598	66	58	2,276	827	5.0	794
Q4	45,538	+ 0.6	33,924	+ 1.4	9,551	23,388	738	4,522	161	105	2,204	811	4.8	729
2020 Q1	45,063	+ 0.3	9 33,640	9 + 1.3	9 9,438	9 23,283	9 686	9 4,459	...	9 956	2,385	960	5.2	683
Q2	10 44,666	10 – 1.3	9 33,422	9 + 0.1	9 9,388	9 23,143	9 640	9 4,262	...	9 5,718	2,770	1,154	11 6.0	593
2017 Apr.	44,012	+ 1.4	32,013	+ 2.2	9,101	21,831	838	4,748	39	27	2,569	861	5.8	706
May	44,182	+ 1.3	32,131	+ 2.3	9,124	21,900	859	4,775	36	25	2,498	810	5.6	714
June	44,305	+ 1.4	32,165	+ 2.3	9,135	21,902	878	4,802	33	22	2,473	796	5.5	731
July	44,344	+ 1.5	32,128	+ 2.4	9,123	21,869	890	4,803	30	18	2,518	842	5.6	750
Aug.	44,385	+ 1.4	32,396	+ 2.3	9,189	22,060	896	4,739	28	15	2,545	855	5.7	765
Sep.	44,621	+ 1.3	32,732	+ 2.3	9,272	22,304	901	4,711	28	16	2,449	800	5.5	773
Oct.	44,693	+ 1.3	32,778	+ 2.3	9,274	22,355	901	4,696	27	16	2,389	772	5.4	780
Nov.	44,763	+ 1.4	32,830	+ 2.4	9,278	22,395	916	4,720	26	16	2,368	772	5.3	772
Dec.	44,640	+ 1.4	32,609	+ 2.4	9,202	22,319	867	4,722	194	12	2,385	796	5.3	761
2018 Jan.	44,345	+ 1.6	32,504	+ 2.5	9,191	22,249	841	4,660	287	23	2,570	941	5.8	736
Feb.	44,376	+ 1.5	32,551	+ 2.4	9,223	22,262	838	4,642	359	23	2,546	927	5.7	764
Mar.	44,472	+ 1.4	32,660	+ 2.3	9,253	22,334	837	4,656	327	27	2,458	859	5.5	778
Apr.	44,646	+ 1.4	32,782	+ 2.4	9,291	22,404	840	4,686	23	13	2,384	796	5.3	784
May	44,826	+ 1.5	32,857	+ 2.3	9,310	22,450	845	4,718	21	12	2,315	751	5.1	793
June	44,898	+ 1.3	32,870	+ 2.2	9,325	22,439	853	4,742	25	16	2,276	735	5.0	805
July	44,930	+ 1.3	32,844	+ 2.2	9,339	22,396	860	4,736	22	14	2,325	788	5.1	823
Aug.	44,981	+ 1.3	33,131	+ 2.3	9,412	22,609	856	4,664	41	33	2,351	804	5.2	828
Sep.	45,173	+ 1.2	33,422	+ 2.1	9,496	22,827	842	4,619	42	34	2,256	759	5.0	834
Oct.	45,262	+ 1.3	33,488	+ 2.2	9,515	22,895	827	4,616	46	37	2,204	742	4.9	824
Nov.	45,325	+ 1.3	33,513	+ 2.1	9,513	22,934	822	4,638	51	43	2,186	745	4.8	807
Dec.	45,184	+ 1.2	33,286	+ 2.1	9,434	22,854	773	4,637	166	26	2,210	777	4.9	781
2019 Jan.	44,866	+ 1.2	33,156	+ 2.0	9,405	22,762	763	4,574	354	42	2,406	919	5.3	758
Feb.	44,908	+ 1.2	33,199	+ 2.0	9,416	22,794	758	4,564	310	29	2,373	908	5.3	784
Mar.	44,985	+ 1.2	33,286	+ 1.9	9,442	22,855	749	4,574	246	32	2,301	850	5.1	797
Apr.	45,146	+ 1.1	33,383	+ 1.8	9,457	22,925	753	4,607	49	40	2,229	795	4.9	796
May	45,269	+ 1.0	33,433	+ 1.8	9,462	22,968	749	4,627	53	45	8 2,236	772	8 4.9	792
June	45,304	+ 0.9	33,407	+ 1.6	9,455	22,948	750	4,646	51	43	2,216	766	4.9	798
July	45,315	+ 0.9	33,360	+ 1.6	9,450	22,901	757	4,644	55	47	2,275	825	5.0	799
Aug.	45,305	+ 0.7	33,610	+ 1.4	9,505	23,101	750	4,568	60	51	2,319	848	5.1	795
Sep.	45,509	+ 0.7	33,938	+ 1.5	9,583	23,341	754	4,517	84	75	2,234	808	4.9	787
Oct.	45,578	+ 0.7	33,966	+ 1.4	9,567	23,398	748	4,510	111	102	2,204	795	4.8	764
Nov.	45,601	+ 0.6	33,968	+ 1.4	9,559	23,423	742	4,532	124	115	2,180	800	4.8	736
Dec.	45,434	+ 0.6	33,740	+ 1.4	9,474	23,344	694	4,531	247	97	2,227	838	4.9	687
2020 Jan.	45,098	+ 0.5	33,608	+ 1.4	9,432	23,255	689	4,471	382	133	2,426	985	5.3	668
Feb.	45,093	+ 0.4	33,624	+ 1.3	9,427	23,278	683	4,461	439	134	2,396	971	5.3	690
Mar.	44,997	± 0.0	9 33,638	9 + 1.1	9 9,437	9 23,284	9 675	9 4,357	...	9 2,600	2,335	925	5.1	691
Apr.	44,734	– 0.9	9 33,426	9 + 0.1	9 9,394	9 23,139	9 643	9 4,214	...	9 5,979	2,644	1,093	5.8	626
May	44,642	– 1.4	9 33,350	9 – 0.2	9 9,372	9 23,098	9 626	9 4,243	...	9 5,818	2,813	1,172	11 6.1	584
June	10 44,623	10 – 1.5	9 33,344	9 – 0.2	9 9,360	9 23,099	9 631	9 4,300	...	9 5,356	2,853	1,197	6.2	570
July	10 44,694	10 – 1.4	...	...	...	...	...	...	...	...	2,910	1,258	6.3	573
Aug.	...	...	...	...	...	...	...	...	...	...	2,955	1,302	6.4	584

Sources: Federal Statistical Office; Federal Employment Agency. * Annual and quarterly figures: averages; calculated by the Bundesbank; deviations from the official figures are due to rounding. 1 Workplace concept; averages. 2 Monthly figures: end of month. 3 Number within a given month. 4 Mid-month level. 5 Relative to the total civilian labour force. 6 Excluding government-assisted forms of employment and seasonal jobs, including jobs located abroad. 7 From January 2017 persons receiving additional income assistance (unemployment benefit and unemployment benefit II at the same time) shall be assigned to the legal category of the Third Book of the Social Security Code (SGB III) 8 Statistical break due to late recording of unemployed persons in the legal category of the Second Book of the Social Security Code (SGB II). 9 Unadjusted figures estimated by the Federal Employment Agency. In 2018 and 2019, the estimated values for Germany deviated from the final data by a maximum of 0.1% for employees subject to social contributions, by a maximum of 0.7% for persons solely in jobs exempt from social contributions, and by a maximum of 55.3% for cyclically induced short-time work. 10 Initial preliminary estimate by the Federal Statistical Office. 11 From May 2020, calculated on the basis of new labour force figures.

XI. Economic conditions in Germany

7. Prices

Period	Harmonised Index of Consumer Prices: Total [2]	of which [1]: Food [3]	Non-energy industrial goods [4]	Energy [4, 5]	Services [2, 4]	of which: Actual rents for housing	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: Exports	Imports	HWWI Index of World Market Prices of Raw Materials [7]: Energy [8]	Other raw materials [9]
	2015 = 100													
Index level														
2016	100.4	101.3	101.0	94.6	101.1	101.2	100.5	101.9	98.4	98.7	99.0	96.7	83.2	98.4
2017	102.1	104.0	102.2	97.5	102.5	102.9	102.0	105.3	101.1	108.6	100.7	100.1	99.6	107.1
2018	104.0	106.7	103.0	102.3	104.2	104.6	103.8	110.2	103.7	109.0	101.9	102.7	124.6	106.2
2019	105.5	108.4	104.2	103.7	105.7	106.1	105.3	115.3	104.8	[10] 111.6	102.4	101.7	110.0	108.1
2018 Oct.	105.4	107.1	104.1	106.1	105.5	105.0	104.9		105.0	111.4	102.6	104.7	144.7	105.5
Nov.	104.2	107.0	104.1	108.0	102.4	105.1	104.2	112.0	105.1	111.7	102.5	103.7	123.7	105.2
Dec.	104.4	107.0	103.8	103.5	104.0	105.2	104.2		104.7	111.6	102.1	102.4	111.4	103.2
2019 Jan.	103.4	107.4	102.9	101.5	102.9	105.4	103.4		105.1	111.5	102.2	102.2	112.3	104.4
Feb.	103.9	107.9	103.4	101.7	103.6	105.6	103.8	114.0	105.0	112.1	102.3	102.5	114.3	109.4
Mar.	104.4	107.7	103.9	102.4	104.1	105.7	104.2		104.9	113.0	102.4	102.5	115.2	108.3
Apr.	105.4	107.9	104.6	104.4	105.3	105.8	105.2		105.4	115.5	102.6	102.8	119.2	108.8
May	105.7	108.3	104.6	106.1	105.3	105.9	105.4	115.0	105.3	115.7	102.5	102.7	116.6	106.6
June	106.0	108.4	104.1	104.9	106.6	106.1	105.7		104.9	115.1	102.3	101.3	102.8	108.6
July	106.4	108.7	103.3	104.7	107.9	106.2	106.2		105.0	114.3	102.4	101.1	105.7	113.0
Aug.	106.3	108.8	103.4	103.8	107.8	106.3	106.0	115.8	104.5	112.5	102.3	100.5	100.2	106.0
Sep.	106.2	108.8	104.7	103.8	106.9	106.4	106.0		104.6	[10] 110.0	102.4	101.1	105.9	107.5
Oct.	106.3	108.6	105.0	103.8	106.9	106.6	106.1		104.4	110.4	102.4	101.0	105.7	107.1
Nov.	105.4	109.0	105.2	103.7	104.9	106.7	105.3	116.4	104.4	112.2	102.4	101.5	110.5	106.9
Dec.	106.0	109.2	105.1	103.6	106.1	106.8	105.8		104.5	114.5	102.5	101.7	112.5	110.4
2020 Jan.	105.1	110.1	104.0	104.9	104.3	107.0	105.2		105.3	113.3	102.7	101.3	107.4	112.2
Feb.	105.7	111.2	104.3	103.9	105.2	107.1	105.6	117.8	104.9	114.3	102.6	100.4	94.3	108.7
Mar.	105.8	111.0	105.2	101.6	105.5	107.3	105.7		104.1	113.9	101.9	96.9	61.3	104.9
Apr.	106.2	112.2	105.4	98.6	106.7	107.4	106.1		103.4	112.6	101.5	95.2	49.7	101.0
May	106.2	112.5	105.4	97.4	106.7	107.5	106.0	118.3	103.0	109.3	101.3	95.5	55.5	102.1
June	106.9	112.7	104.8	98.7	108.1	107.6	106.6		103.0	110.0	101.3	96.1	65.2	105.1
July	[11] 106.4	[11] 110.2	[11] 102.5	[11] 98.0	[11] 109.4	[11] 107.7	[11] 106.1		103.2	107.4	101.3	96.4	68.3	107.5
Aug.	[11] 106.2	[11] 110.1	[11] 102.6	[11] 97.6	[11] 109.0	[11] 107.8	[11] 106.0	...	...	...	...	...	71.2	111.7
Annual percentage change														
2016	+ 0.4	+ 1.3	+ 1.0	– 5.4	+ 1.1	+ 1.2	+ 0.5	+ 1.9	– 1.6	– 1.3	– 1.0	– 3.3	– 16.8	– 1.6
2017	+ 1.7	+ 2.7	+ 1.2	+ 3.1	+ 1.4	+ 1.7	+ 1.5	+ 3.3	+ 2.7	+ 10.0	+ 1.7	+ 3.5	+ 19.7	+ 8.8
2018	+ 1.9	+ 2.6	+ 0.8	+ 4.9	+ 1.6	+ 1.6	+ 1.8	+ 4.7	+ 2.6	+ 0.4	+ 1.2	+ 2.6	+ 25.1	– 0.8
2019	+ 1.4	+ 1.6	+ 1.1	+ 1.4	+ 1.5	+ 1.5	+ 1.4	+ 4.6	+ 1.1	[10] + 2.4	+ 0.5	– 1.0	– 11.7	+ 1.8
2018 Oct.	+ 2.6	+ 2.2	+ 1.0	+ 8.9	+ 2.3	+ 1.6	+ 2.3		+ 3.3	+ 1.6	+ 2.0	+ 4.8	+ 42.4	+ 2.7
Nov.	+ 2.2	+ 2.1	+ 1.0	+ 9.4	+ 1.1	+ 1.5	+ 2.1	+ 5.2	+ 3.3	+ 2.1	+ 1.7	+ 3.1	+ 12.1	+ 1.3
Dec.	+ 1.7	+ 1.4	+ 1.1	+ 5.1	+ 1.2	+ 1.5	+ 1.6		+ 2.7	+ 2.5	+ 1.3	+ 1.6	– 2.0	– 0.4
2019 Jan.	+ 1.7	+ 1.1	+ 1.2	+ 2.6	+ 2.1	+ 1.4	+ 1.4		+ 2.6	+ 6.0	+ 1.1	+ 0.8	– 3.1	– 0.9
Feb.	+ 1.7	+ 1.6	+ 1.3	+ 3.2	+ 1.7	+ 1.5	+ 1.5	+ 5.3	+ 2.6	+ 7.0	+ 1.3	+ 1.6	+ 5.2	+ 3.2
Mar.	+ 1.4	+ 1.2	+ 0.8	+ 4.6	+ 1.2	+ 1.5	+ 1.3		+ 2.4	+ 6.8	+ 1.3	+ 1.7	+ 5.2	+ 3.2
Apr.	+ 2.1	+ 1.0	+ 1.3	+ 4.9	+ 2.4	+ 1.4	+ 2.0		+ 2.5	+ 9.4	+ 1.3	+ 1.4	+ 2.1	+ 2.5
May	+ 1.3	+ 1.3	+ 1.4	+ 4.1	+ 0.7	+ 1.4	+ 1.4	+ 5.1	+ 1.9	+ 10.8	+ 0.7	– 0.2	– 10.2	– 5.2
June	+ 1.5	+ 1.4	+ 1.3	+ 2.4	+ 1.6	+ 1.5	+ 1.6		+ 1.2	+ 10.0	+ 0.2	– 2.0	– 21.2	– 2.4
July	+ 1.1	+ 2.0	+ 1.6	+ 2.3	+ 0.5	+ 1.4	+ 1.7		+ 1.1	+ 6.7	+ 0.2	– 2.1	– 18.6	+ 6.8
Aug.	+ 1.0	+ 2.3	+ 1.1	+ 0.7	+ 0.7	+ 1.4	+ 1.4	+ 4.3	+ 0.3	+ 1.8	– 0.1	– 2.7	– 23.2	+ 0.3
Sep.	+ 0.9	+ 1.6	+ 0.9	– 1.2	+ 1.2	+ 1.4	+ 1.2		– 0.1	[10] – 1.4	± 0.0	– 2.5	– 24.8	+ 4.7
Oct.	+ 0.9	+ 1.4	+ 0.9	– 2.2	+ 1.3	+ 1.5	+ 1.1		– 0.6	– 0.9	– 0.2	– 3.5	– 27.0	+ 1.5
Nov.	+ 1.2	+ 1.9	+ 1.1	– 4.0	+ 2.4	+ 1.5	+ 1.1	+ 3.9	– 0.7	+ 0.4	– 0.1	– 2.1	– 10.7	+ 1.6
Dec.	+ 1.5	+ 2.1	+ 1.3	+ 0.1	+ 2.0	+ 1.5	+ 1.5		– 0.2	+ 2.6	+ 0.4	– 0.7	+ 1.0	+ 7.0
2020 Jan.	+ 1.6	+ 2.5	+ 1.1	+ 3.3	+ 1.4	+ 1.5	+ 1.7		+ 0.2	+ 1.6	+ 0.5	– 0.9	– 4.4	+ 7.5
Feb.	+ 1.7	+ 3.1	+ 0.9	+ 2.2	+ 1.5	+ 1.4	+ 1.7	+ 3.3	– 0.1	+ 2.0	+ 0.3	– 2.0	– 17.5	– 0.6
Mar.	+ 1.3	+ 3.1	+ 1.3	– 0.8	+ 1.3	+ 1.5	+ 1.4		– 0.8	+ 0.8	– 0.5	– 5.5	– 46.8	– 3.1
Apr.	+ 0.8	+ 4.0	+ 0.8	– 5.6	+ 1.3	+ 1.5	+ 0.9		– 1.9	– 2.5	– 1.1	– 7.4	– 58.3	– 7.2
May	+ 0.5	+ 3.9	+ 0.8	– 8.2	+ 1.3	+ 1.5	+ 0.6	+ 2.9	– 2.2	– 5.5	– 1.2	– 7.0	– 52.4	– 4.2
June	+ 0.8	+ 4.0	+ 0.7	– 5.9	+ 1.4	+ 1.4	+ 0.9		– 1.8	– 4.4	– 1.0	– 5.1	– 36.6	– 3.2
July	[11] ± 0.0	[11] + 1.4	[11] – 0.8	[11] – 6.4	[11] + 1.4	[11] + 1.4	[11] – 0.1		– 1.7	– 6.0	– 1.1	– 4.6	– 35.4	– 4.9
Aug.	[11] – 0.1	[11] + 1.2	[11] – 0.8	[11] – 6.0	[11] + 1.1	[11] + 1.4	[11] ± 0.0	...	...	...	...	...	– 28.9	+ 5.4

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 2019 onwards provisional figures. **11** Influenced by a temporary reduction of value added tax.

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
2012	1,150.0	4.2	776.1	4.0	376.8	1.5	1,152.9	3.2	1,668.4	2.5	161.0	– 1.3	9.7
2013	1,186.3	3.2	799.4	3.0	383.9	1.9	1,183.2	2.6	1,690.8	1.3	157.1	– 2.5	9.3
2014	1,234.2	4.0	830.5	3.9	394.0	2.6	1,224.5	3.5	1,734.5	2.6	170.6	8.6	9.8
2015	1,285.5	4.2	863.3	4.0	410.5	4.2	1,273.8	4.0	1,782.3	2.8	179.4	5.1	10.1
2016	1,337.4	4.0	896.3	3.8	426.2	3.8	1,322.5	3.8	1,841.5	3.3	187.8	4.7	10.2
2017	1,394.1	4.2	931.6	3.9	440.9	3.4	1,372.5	3.8	1,905.9	3.5	201.9	7.5	10.6
2018	1,461.3	4.8	975.2	4.7	452.8	2.7	1,428.0	4.0	1,970.8	3.4	215.4	6.7	10.9
2019	1,521.6	4.1	1,020.3	4.6	470.8	4.0	1,491.1	4.4	2,027.1	2.9	220.3	2.2	10.9
2019 Q1	355.3	4.4	239.0	5.0	117.8	3.1	356.8	4.4	508.3	2.5	73.0	2.7	14.4
Q2	371.6	4.4	243.7	4.9	116.4	4.1	360.2	4.7	500.3	3.1	51.0	1.3	10.2
Q3	378.1	4.5	259.1	5.1	118.9	4.4	378.0	4.9	506.1	3.5	46.6	2.1	9.2
Q4	416.6	3.3	278.4	3.6	117.8	4.3	396.2	3.8	512.5	2.4	49.7	2.6	9.7
2020 Q1	365.6	2.9	246.3	3.1	123.2	4.6	369.5	3.6	521.2	2.6	85.9	17.7	16.5
Q2	353.7	– 4.8	233.3	– 4.3	126.5	8.7	359.8	– 0.1	496.3	– 0.8	99.8	95.6	20.1

Source: Federal Statistical Office; figures computed in August 2020. * Households including non-profit institutions serving households. **1** Residence concept. **2** After deducting the wage tax payable on gross wages and salaries and employees' contributions to the social security funds. **3** Social security benefits in cash from the social security funds, central, state and local government and foreign countries, pension payments (net), private funded social benefits, less social contributions on social benefits, consumption-related taxes and public charges. **4** Net wages and salaries plus monetary social benefits received. **5** Mass income plus operating surplus, mixed income, property income (net), other current transfers received, income of non-profit institutions serving households, less taxes (excluding wage tax and consumption-related taxes) and other current transfers paid. Including the increase in claims on company pension funds. **6** Including the increase in claims on company pension funds. **7** Saving as a percentage of disposable income.

9. Negotiated pay rates (overall economy)

Period	Index of negotiated wages [1]								Memo item: Wages and salaries per employee [3]	
	On an hourly basis		On a monthly basis							
			Total		Total excluding one-off payments		Basic pay rates [2]			
	2015=100	Annual percentage change	2015=100	Annual percentage change	2015=100	Annual percentage change	2015=100	Annual percentage change	2015=100	Annual percentage change
2012	92.5	2.6	92.7	2.5	92.7	2.8	92.7	2.8	92.4	2.9
2013	94.8	2.5	95.0	2.5	95.0	2.5	95.0	2.5	94.4	2.2
2014	97.7	3.1	97.8	2.9	97.7	2.8	97.7	2.8	97.2	2.9
2015	100.0	2.3	100.0	2.3	100.0	2.3	100.0	2.4	100.0	2.9
2016	102.1	2.1	102.1	2.1	102.1	2.1	102.2	2.2	102.5	2.5
2017	104.2	2.1	104.2	2.0	104.3	2.1	104.5	2.3	105.1	2.5
2018	107.1	2.8	107.1	2.8	107.0	2.7	107.3	2.7	108.4	3.2
2019	110.3	3.0	110.2	2.9	109.8	2.6	110.0	2.5	111.6	2.9
2019 Q1	101.8	2.9	101.8	2.9	101.8	3.0	109.0	3.0	105.1	3.0
Q2	103.0	2.1	103.0	2.1	102.9	2.2	109.8	2.2	109.2	3.1
Q3	114.2	4.3	114.1	4.3	112.5	2.6	110.5	2.4	110.9	3.4
Q4	122.1	2.5	122.0	2.5	122.0	2.5	110.7	2.3	121.3	2.4
2020 Q1	104.2	2.4	104.2	2.3	104.2	2.4	111.6	2.4	107.5	2.3
Q2	105.0	1.9	104.9	1.9	105.0	2.1	112.1	2.1	104.9	– 3.9
2020 Jan.	104.2	2.5	104.1	2.4	104.1	2.3	111.5	2.3	.	.
Feb.	104.2	2.2	104.2	2.1	104.2	2.4	111.6	2.4	.	.
Mar.	104.3	2.5	104.2	2.4	104.4	2.4	111.8	2.4	.	.
Apr.	105.0	2.1	104.9	2.0	105.1	2.0	111.9	2.0	.	.
May	105.2	2.2	105.2	2.2	105.3	2.2	112.1	2.2	.	.
June	104.7	1.5	104.7	1.4	104.8	2.1	112.2	2.1	.	.
July	138.7	1.9	138.6	1.9	133.4	1.9	112.4	1.8	.	.

1 Current data are normally revised on account of additional reports. **2** Excluding one-off payments and covenants (capital formation benefits, special payments, such as annual bonuses, holiday pay, Christmas bonuses (13th monthly salary payment) and retirement provisions). **3** Source: Federal Statistical Office; figures computed in August 2020.

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)															
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 3	2,595.4	1,539.0	542.2	611.2	288.5	1,056.4	249.5	235.8	175.4	792.2	1,803.2	927.4	560.1	875.9	257.6	205.2
2019 p	2,808.8	1,772.1	588.0	737.7	333.5	1,036.7	257.7	239.0	172.6	824.3	1,984.5	1,093.3	678.1	891.2	289.9	207.8
2018 H1 3	2,551.8	1,533.0	541.7	602.5	288.3	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	2,595.4	1,539.0	542.2	611.2	288.5	1,056.4	249.5	235.8	175.4	792.2	1,803.2	927.4	560.1	875.9	257.6	205.2
2019 H1	2,709.3	1,659.8	551.1	683.0	314.5	1,049.4	269.3	241.7	144.1	779.7	1,929.6	1,026.1	615.5	903.5	301.9	210.9
H2 p	2,808.8	1,772.1	588.0	737.7	333.5	1,036.7	257.7	239.0	172.6	824.3	1,984.5	1,093.3	678.1	891.2	289.9	207.8
	As a percentage of total assets															
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 3	100.0	59.3	20.9	23.6	11.1	40.7	9.6	9.1	6.8	30.5	69.5	35.7	21.6	33.8	9.9	7.9
2019 p	100.0	63.1	20.9	26.3	11.9	36.9	9.2	8.5	6.2	29.4	70.7	38.9	24.1	31.7	10.3	7.4
2018 H1 3	100.0	60.1	21.2	23.6	11.3	39.9	9.8	9.3	5.6	30.4	69.6	35.6	21.2	34.0	10.0	8.2
H2	100.0	59.3	20.9	23.6	11.1	40.7	9.6	9.1	6.8	30.5	69.5	35.7	21.6	33.8	9.9	7.9
2019 H1	100.0	61.3	20.3	25.2	11.6	38.7	9.9	8.9	5.3	28.8	71.2	37.9	22.7	33.4	11.1	7.8
H2 p	100.0	63.1	20.9	26.3	11.9	36.9	9.2	8.5	6.2	29.4	70.7	38.9	24.1	31.7	10.3	7.4
	Groups with a focus on the production sector (€ billion) 2															
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 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	150.8
2019 p	2,236.8	1,345.1	388.2	548.5	319.7	891.7	240.3	181.6	135.2	636.4	1,600.4	861.0	502.1	739.4	252.0	156.3
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	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	150.8
2019 H1	2,164.7	1,247.6	358.0	501.5	302.7	917.2	252.0	187.0	114.4	604.2	1,560.5	805.6	452.6	754.9	260.2	162.6
H2 p	2,236.8	1,345.1	388.2	548.5	319.7	891.7	240.3	181.6	135.2	636.4	1,600.4	861.0	502.1	739.4	252.0	156.3
	As a percentage of total assets															
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 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
2019 p	100.0	60.1	17.4	24.5	14.3	39.9	10.7	8.1	6.1	28.5	71.6	38.5	22.5	33.1	11.3	7.0
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	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
2019 H1	100.0	57.6	16.5	23.2	14.0	42.4	11.6	8.6	5.3	27.9	72.1	37.2	20.9	34.9	12.0	7.5
H2 p	100.0	60.1	17.4	24.5	14.3	39.9	10.7	8.1	6.1	28.5	71.6	38.5	22.5	33.1	11.3	7.0
	Groups with a focus on the services sector (€ billion)															
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 3	502.2	365.2	182.9	148.3	11.0	137.1	18.2	53.6	38.9	180.0	322.2	185.5	131.7	136.7	26.4	54.4
2019 p	572.0	427.0	199.8	189.2	13.7	145.0	17.4	57.5	37.4	187.9	384.1	232.3	176.1	151.8	37.9	51.5
2018 H1 3	479.8	356.0	181.4	142.1	10.8	123.8	17.4	50.5	28.1	170.7	309.2	181.6	129.8	127.6	25.2	42.7
H2	502.2	365.2	182.9	148.3	11.0	137.1	18.2	53.6	38.9	180.0	322.2	185.5	131.7	136.7	26.4	54.4
2019 H1	544.6	412.3	193.2	181.6	11.9	132.3	17.3	54.7	29.7	175.4	369.1	220.5	162.9	148.6	41.7	48.3
H2 p	572.0	427.0	199.8	189.2	13.7	145.0	17.4	57.5	37.4	187.9	384.1	232.3	176.1	151.8	37.9	51.5
	As a percentage of total assets															
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 3	100.0	72.7	36.4	29.5	2.2	27.3	3.6	10.7	7.8	35.8	64.2	36.9	26.2	27.2	5.3	10.8
2019 p	100.0	74.7	34.9	33.1	2.4	25.3	3.0	10.1	6.5	32.9	67.2	40.6	30.8	26.6	6.6	9.0
2018 H1 3	100.0	74.2	37.8	29.6	2.3	25.8	3.6	10.5	5.9	35.6	64.4	37.8	27.1	26.6	5.2	8.9
H2	100.0	72.7	36.4	29.5	2.2	27.3	3.6	10.7	7.8	35.8	64.2	36.9	26.2	27.2	5.3	10.8
2019 H1	100.0	75.7	35.5	33.3	2.2	24.3	3.2	10.1	5.5	32.2	67.8	40.5	29.9	27.3	7.7	8.9
H2 p	100.0	74.7	34.9	33.1	2.4	25.3	3.0	10.1	6.5	32.9	67.2	40.6	30.8	26.6	6.6	9.0

***** 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** 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																
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	142.4	33.2	8.3	1.7	2.5	6.9	12.2
2018 6	1,709.6	0.7	233.4	– 0.8	13.7	– 0.2	6.1	10.6	17.8	129.7	– 6.2	7.6	– 0.6	2.1	6.5	11.9
2019 p	1,768.2	2.6	234.5	0.5	13.3	– 0.3	6.9	12.3	19.2	106.3	– 17.5	6.0	– 1.5	1.5	5.9	11.8
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	29.4	9.3	1.6	1.8	5.8	11.7
H2	879.8	3.5	117.7	14.6	13.4	1.3	6.9	12.0	19.4	63.2	38.2	7.2	1.8	3.0	7.5	12.4
2018 H1 6	849.5	– 0.0	120.7	– 2.4	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	870.9	1.4	115.2	0.9	13.2	– 0.1	6.3	11.2	18.0	58.3	– 7.5	6.7	– 0.6	2.1	6.7	12.5
2019 H1	862.9	2.7	112.7	– 3.6	13.1	– 0.9	6.5	11.7	18.6	53.7	– 23.1	6.2	– 2.1	1.5	5.7	11.7
H2 p	905.7	2.5	121.8	4.6	13.5	0.3	6.8	11.9	20.0	52.6	– 10.9	5.8	– 0.9	0.9	6.1	12.6
Groups with a focus on the production sector 5																
2012	1,173.8	7.8	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	– 2.5	11.8	– 0.2	5.1	10.3	15.7	74.5	– 5.7	6.3	– 0.3	1.6	5.8	10.5
2014	1,197.4	1.0	148.1	5.9	12.4	0.6	5.6	10.0	15.5	82.0	9.7	6.9	0.6	1.5	5.9	10.3
2015	1,282.5	7.0	144.0	– 2.6	11.2	– 1.1	6.3	10.5	16.0	65.2	– 19.8	5.1	– 1.8	2.1	6.5	10.3
2016	1,267.1	– 1.1	156.5	6.1	12.4	0.8	6.5	10.6	16.0	80.6	3.9	6.4	0.3	2.8	6.3	10.5
2017	1,362.9	5.6	181.6	16.8	13.3	1.3	6.8	10.9	15.6	108.0	40.8	7.9	2.0	3.2	6.7	10.4
2018 6	1,334.9	1.0	169.1	– 1.6	12.7	– 0.3	6.8	10.6	15.6	95.5	– 7.1	7.2	– 0.6	2.7	6.8	10.9
2019 p	1,376.3	2.1	161.2	– 3.9	11.7	– 0.7	6.6	11.3	16.6	71.8	– 23.1	5.2	– 1.8	1.2	5.7	10.0
2015 H1	636.4	8.8	80.1	7.9	12.6	– 0.1	5.4	10.2	15.5	48.8	5.6	7.7	– 0.2	2.1	6.1	10.0
H2	646.7	5.3	63.9	– 13.2	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	– 2.5	84.0	1.4	13.7	0.5	6.7	10.6	15.8	50.7	– 7.0	8.3	– 0.4	2.9	6.4	10.0
H2	655.9	0.4	72.6	12.0	11.1	1.2	6.2	11.3	16.4	29.9	34.5	4.6	0.9	2.4	6.3	10.6
2017 H1	678.7	7.3	98.5	18.8	14.5	1.4	6.0	10.1	16.1	64.0	37.6	9.4	2.1	2.3	5.8	10.8
H2	684.9	3.9	83.1	14.5	12.1	1.2	6.9	11.7	16.5	44.0	45.8	6.4	1.9	3.4	7.2	10.8
2018 H1 6	665.8	– 0.1	90.9	– 3.9	13.7	– 0.5	6.5	10.8	16.7	57.1	– 6.0	8.6	– 0.6	2.9	6.6	11.5
H2	678.8	2.1	80.6	1.2	11.9	– 0.1	6.2	11.1	15.9	39.8	– 8.6	5.9	– 0.7	1.9	6.4	10.9
2019 H1	673.0	2.5	80.0	– 7.8	11.9	– 1.3	7.1	10.6	16.0	39.7	– 26.2	5.9	– 2.4	1.7	5.8	9.4
H2 p	703.4	1.7	81.2	0.3	11.6	– 0.2	5.9	10.8	16.5	32.2	– 19.0	4.6	– 1.2	0.6	5.2	11.1
Groups with a focus on the services sector																
2012	359.1	2.8	48.0	– 3.2	13.4	– 0.8	5.1	10.1	23.0	14.0	– 46.6	3.9	– 3.0	2.1	5.7	14.2
2013	362.0	– 0.1	48.4	– 3.5	13.4	– 0.5	5.2	10.5	21.6	25.0	82.0	6.9	2.9	2.4	5.9	12.5
2014	368.3	0.9	50.8	1.9	13.8	0.1	6.2	12.7	22.6	27.3	4.3	7.4	0.2	2.9	6.5	13.7
2015	352.9	6.2	52.2	4.4	14.8	– 0.3	6.1	11.4	22.1	26.4	– 3.1	7.5	– 0.7	1.4	6.7	14.1
2016	358.9	2.6	58.4	14.0	16.3	1.6	6.9	13.5	25.8	31.6	26.5	8.8	1.6	2.5	8.3	15.5
2017	358.7	3.2	62.3	7.6	17.4	0.7	7.3	11.6	23.0	34.3	10.2	9.6	0.6	2.4	7.5	15.1
2018 6	374.7	– 0.6	64.4	1.7	17.2	0.4	5.7	10.5	24.7	34.2	– 2.9	9.1	– 0.2	1.6	5.9	16.6
2019 p	391.8	4.8	73.3	14.1	18.7	1.5	6.9	14.3	24.5	34.5	2.1	8.8	– 0.2	3.0	7.6	16.2
2015 H1	178.9	8.2	22.8	– 2.5	12.7	– 1.4	4.4	10.9	21.5	10.3	– 19.7	5.8	– 1.8	– 0.5	4.5	14.2
H2	184.7	4.5	29.7	10.3	16.1	0.8	7.0	12.1	23.5	16.3	9.7	8.8	0.4	2.5	7.7	15.0
2016 H1	171.5	1.0	27.8	26.8	16.2	3.3	5.1	10.3	23.8	15.0	68.2	8.7	3.4	1.0	6.4	14.9
H2	187.4	4.1	30.6	4.2	16.3	0.0	7.4	13.7	24.4	16.6	2.8	8.8	– 0.1	4.0	9.0	17.2
2017 H1	166.3	4.4	27.4	– 0.4	16.5	– 0.8	5.3	10.5	21.2	14.6	– 1.0	8.8	– 0.5	1.3	5.8	14.6
H2	195.0	2.0	34.7	14.9	17.8	2.1	6.9	12.5	24.6	19.2	20.8	9.9	1.5	3.0	8.2	17.9
2018 H1 6	183.7	0.5	29.8	3.4	16.2	0.5	4.0	9.7	22.9	15.8	– 1.0	8.6	– 0.1	– 0.9	5.1	15.5
H2	192.1	– 1.6	34.6	0.3	18.0	0.3	6.8	12.1	25.6	18.4	– 4.3	9.6	– 0.3	2.7	7.2	17.8
2019 H1	189.9	3.8	32.7	11.5	17.2	1.2	5.8	12.7	24.8	14.1	– 9.1	7.4	– 1.0	0.3	5.4	15.2
H2 p	202.3	5.7	40.6	16.3	20.1	1.8	7.5	15.1	24.4	20.4	11.0	10.1	0.5	3.2	8.3	16.3

* 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 Series 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	2017	2018	2019	2019 Q4	2020 Q1	2020 Q2 p	2020 Apr.	2020 May	2020 June p
A. Current account	+ 348,321	+ 354,366	+ 316,912	+ 104,726	+ 38,632	+ 19,373	+ 9,531	– 7,426	+ 17,268
1. Goods									
Exports	2,262,690	2,343,289	2,404,758	620,397	577,862	470,288	143,995	150,153	176,140
Imports	1,918,283	2,047,583	2,080,959	523,732	501,461	409,535	130,730	131,305	147,500
Balance	+ 344,409	+ 295,704	+ 323,797	+ 96,664	+ 76,400	+ 60,754	+ 13,265	+ 18,848	+ 28,641
2. Services									
Receipts	884,226	927,290	993,024	260,784	221,218	193,701	60,290	62,745	70,666
Expenditure	810,589	811,849	924,001	264,231	235,115	187,202	58,826	60,222	68,154
Balance	+ 73,639	+ 115,445	+ 69,022	– 3,448	– 13,898	+ 6,498	+ 1,464	+ 2,522	+ 2,512
3. Primary income									
Receipts	717,874	777,687	800,158	210,011	180,966	173,243	58,879	56,183	58,181
Expenditure	651,415	684,707	725,236	167,431	158,674	189,075	53,448	72,372	63,255
Balance	+ 66,459	+ 92,980	+ 74,922	+ 42,581	+ 22,292	– 15,833	+ 5,431	– 16,189	– 5,075
4. Secondary income									
Receipts	108,413	110,473	112,995	30,002	27,354	29,774	9,029	10,228	10,517
Expenditure	244,597	260,233	263,824	61,074	73,518	61,821	19,658	22,836	19,327
Balance	– 136,185	– 149,760	– 150,831	– 31,073	– 46,164	– 32,047	– 10,629	– 12,608	– 8,810
B. Capital account	– 20,358	– 34,985	– 19,829	– 2,214	– 24	+ 1,953	+ 425	+ 1,092	+ 436
C. Financial account (increase: +)	+ 347,430	+ 380,916	+ 276,310	+ 80,007	+ 24,139	+ 49,836	– 6,495	+ 8,101	+ 48,230
1. Direct investment	– 40,567	+ 126,099	+ 15,215	– 33,000	+ 20,610	– 43,028	– 12,667	– 19,622	– 10,739
By resident units abroad	+ 249,168	– 202,733	+ 128,078	– 82,360	– 41,698	+ 115,485	– 6,056	+ 131,802	– 10,261
By non-resident units in the euro area	+ 289,738	– 328,832	+ 112,865	– 49,361	– 62,309	+ 158,513	+ 6,610	+ 151,424	+ 479
2. Portfolio investment	+ 373,606	+ 224,007	– 59,846	+ 144,091	– 195,471	+ 168,713	+ 151,232	+ 28,291	– 10,810
By resident units abroad	+ 659,671	+ 209,484	+ 408,301	+ 144,970	– 144,880	+ 364,573	+ 161,402	+ 99,051	+ 104,120
Equity and investment fund shares	+ 206,186	+ 51,904	+ 65,614	+ 78,126	– 52,085	+ 94,529	+ 34,448	+ 27,284	+ 32,797
Long-term debt securities	+ 377,230	+ 191,370	+ 351,923	+ 92,564	– 40,836	+ 106,885	+ 33,748	+ 54,410	+ 18,727
Short-term debt securities	+ 76,255	– 33,790	– 9,238	– 25,721	– 51,960	+ 163,159	+ 93,207	+ 17,357	+ 52,595
By non-resident units in the euro area	+ 286,061	– 14,524	+ 468,149	+ 879	+ 50,592	+ 195,861	+ 10,171	+ 70,760	+ 114,930
Equity and investment fund shares	+ 409,596	+ 140,335	+ 288,948	+ 73,747	– 58,094	+ 190,788	+ 70,362	+ 54,950	+ 65,476
Long-term debt securities	– 133,963	– 72,730	+ 191,612	– 26,537	+ 37,364	– 59,048	– 51,595	– 22,611	+ 15,158
Short-term debt securities	+ 10,429	– 82,127	– 12,411	– 46,332	+ 71,323	+ 64,121	– 8,596	+ 38,421	+ 34,296
3. Financial derivatives and employee stock options	+ 25,380	+ 92,450	+ 36,814	– 5,532	+ 42,250	+ 28,916	+ 3,950	+ 3,462	+ 21,504
4. Other investment	– 9,712	– 86,665	+ 280,898	– 23,033	+ 153,325	– 108,053	– 150,694	– 5,687	+ 48,328
Eurosystem	– 179,132	– 133,561	+ 141,369	– 37,497	– 58,129	+ 45,809	– 36,325	+ 13,078	+ 69,056
General government	+ 25,542	– 6,644	+ 97	+ 11,188	+ 3,961	– 6,044	+ 1,713	– 4,399	– 3,358
MFIs (excluding the Eurosystem)	+ 153,019	+ 97,910	+ 185,951	+ 12,116	+ 112,036	– 137,027	– 115,370	– 8,414	– 13,243
Enterprises and households	– 9,146	– 44,368	– 46,525	– 8,842	+ 95,456	– 10,789	– 712	– 5,952	– 4,125
5. Reserve assets	– 1,279	+ 25,021	+ 3,231	– 2,518	+ 3,427	+ 3,287	+ 1,684	+ 1,656	– 53
D. Net errors and omissions	+ 19,464	+ 61,533	– 20,774	– 22,506	– 14,469	+ 28,507	– 16,452	+ 14,434	+ 30,525

* 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	
2005	+ 106,942	+ 156,563	– 6,515	– 37,580	+ 19,300	– 31,341	– 2,334	+ 96,436	– 2,182	– 8,172
2006	+ 137,674	+ 160,965	– 4,687	– 31,777	+ 40,499	– 32,014	– 1,328	+ 157,142	– 2,934	+ 20,796
2007	+ 171,493	+ 201,728	– 1,183	– 32,465	+ 35,620	– 33,390	– 1,597	+ 183,169	+ 953	+ 13,273
2008	+ 144,954	+ 184,160	– 3,947	– 29,122	+ 24,063	– 34,147	– 893	+ 121,336	+ 2,008	– 22,725
2009	+ 142,744	+ 140,626	– 6,605	– 17,642	+ 54,524	– 34,764	– 1,858	+ 129,693	+ 8,648	– 11,194
2010	+ 147,298	+ 160,829	– 6,209	– 25,255	+ 51,306	– 39,582	+ 1,219	+ 92,757	+ 1,613	– 55,760
2011	+ 167,340	+ 162,970	– 9,357	– 29,930	+ 69,087	– 34,787	+ 419	+ 120,857	+ 2,836	– 46,902
2012	+ 195,712	+ 199,531	– 11,388	– 30,774	+ 65,658	– 38,703	– 413	+ 151,417	+ 1,297	– 43,882
2013	+ 184,352	+ 203,802	– 12,523	– 39,321	+ 63,284	– 43,413	– 563	+ 226,014	+ 838	+ 42,224
2014	+ 210,906	+ 219,629	– 14,296	– 25,303	+ 57,752	– 41,172	+ 2,936	+ 240,258	– 2,564	+ 26,416
2015	+ 260,286	+ 248,394	– 15,405	– 18,516	+ 69,262	– 38,854	– 48	+ 234,392	– 2,213	– 25,845
2016	+ 266,689	+ 252,409	– 19,921	– 20,987	+ 76,199	– 40,931	+ 2,142	+ 261,123	+ 1,686	– 7,708
2017	+ 253,883	+ 252,831	– 15,448	– 24,372	+ 75,419	– 49,995	– 2,999	+ 283,208	– 1,269	+ 32,323
2018	+ 247,471	+ 226,275	– 20,613	– 19,686	+ 89,453	– 48,571	+ 436	+ 236,936	+ 392	– 10,971
2019	+ 243,991	+ 220,993	– 28,012	– 21,703	+ 92,312	– 47,612	– 323	+ 205,543	– 544	– 38,125
2017 Q3	+ 62,309	+ 65,287	– 3,393	– 12,553	+ 20,478	– 10,904	+ 414	+ 60,600	+ 152	– 2,123
Q4	+ 72,464	+ 59,651	– 6,472	– 2,974	+ 28,816	– 13,029	– 3,322	+ 80,237	– 1,446	+ 11,094
2018 Q1	+ 72,518	+ 64,662	– 1,877	– 2,379	+ 24,754	– 14,520	+ 3,656	+ 75,991	+ 699	– 183
Q2	+ 65,001	+ 65,174	– 3,051	– 2,912	+ 8,042	– 5,302	– 508	+ 61,968	– 374	– 2,526
Q3	+ 51,101	+ 51,183	– 4,170	– 12,695	+ 24,845	– 12,232	– 1,642	+ 40,976	– 493	– 8,482
Q4	+ 58,852	+ 45,257	– 11,515	– 1,700	+ 31,812	– 16,517	– 1,069	+ 58,001	+ 560	+ 219
2019 Q1	+ 64,255	+ 56,751	– 4,195	– 1,755	+ 25,936	– 16,677	+ 844	+ 40,491	– 63	– 24,607
Q2	+ 53,438	+ 52,954	– 7,003	– 3,998	+ 10,714	– 6,232	– 406	+ 42,597	+ 444	– 10,435
Q3	+ 58,809	+ 59,614	– 6,859	– 13,011	+ 24,513	– 12,308	+ 197	+ 29,606	– 349	– 29,400
Q4	+ 67,489	+ 51,675	– 9,954	– 2,939	+ 31,148	– 12,395	– 958	+ 92,848	– 576	+ 26,317
2020 Q1 r	+ 65,441	+ 53,574	– 2,210	– 1,125	+ 27,016	– 14,024	– 541	+ 42,281	+ 133	– 22,618
Q2 r	+ 36,303	+ 28,612	– 1,594	+ 3,482	+ 13,319	– 9,111	+ 459	+ 45,358	+ 243	+ 8,596
2018 Feb.	+ 20,755	+ 19,988	– 498	– 131	+ 6,259	– 5,360	+ 227	+ 13,199	+ 583	– 7,784
Mar.	+ 31,010	+ 26,391	– 76	– 1,133	+ 9,780	– 4,028	– 230	+ 28,747	+ 236	– 2,033
Apr.	+ 23,518	+ 21,136	– 1,475	+ 49	+ 4,866	– 2,533	+ 119	+ 31,696	– 670	+ 8,059
May	+ 14,544	+ 21,195	– 189	– 1,448	– 5,308	+ 105	– 143	+ 8,832	+ 83	– 5,569
June	+ 26,939	+ 22,843	– 1,388	– 1,513	+ 8,483	– 2,874	– 485	+ 21,439	+ 213	– 5,016
July	+ 14,275	+ 16,174	– 764	– 4,944	+ 7,857	– 4,812	– 368	+ 6,223	+ 266	– 7,684
Aug.	+ 16,805	+ 17,232	– 1,536	– 5,192	+ 8,462	– 3,697	– 41	+ 23,333	– 640	+ 6,569
Sep.	+ 20,020	+ 17,777	– 1,870	– 2,560	+ 8,526	– 3,723	– 1,234	+ 11,420	– 119	– 7,366
Oct.	+ 18,495	+ 18,411	– 1,812	– 4,210	+ 8,651	– 4,357	– 945	+ 3,533	+ 700	– 14,017
Nov.	+ 20,435	+ 16,693	– 4,707	+ 510	+ 8,799	– 5,566	– 586	+ 25,067	– 124	+ 5,218
Dec.	+ 19,921	+ 10,153	– 4,995	+ 2,000	+ 14,362	– 6,595	+ 462	+ 29,401	– 17	+ 9,018
2019 Jan.	+ 17,593	+ 14,289	– 2,284	– 983	+ 9,324	– 5,037	+ 2,163	+ 16,856	+ 158	– 2,900
Feb.	+ 15,816	+ 17,760	– 1,453	– 405	+ 6,479	– 8,018	+ 143	+ 15,799	+ 112	– 160
Mar.	+ 30,845	+ 24,702	– 459	– 368	+ 10,133	– 3,622	– 1,463	+ 7,836	– 333	– 21,547
Apr.	+ 20,631	+ 17,561	– 2,277	– 715	+ 7,453	– 3,668	– 73	+ 20,138	+ 547	– 420
May	+ 13,305	+ 19,161	– 2,905	– 258	– 6,395	+ 797	– 37	+ 5,567	+ 182	– 7,701
June	+ 19,502	+ 16,232	– 1,821	– 3,025	+ 9,656	– 3,361	– 296	+ 16,892	– 285	– 2,314
July	+ 19,395	+ 21,451	– 2,739	– 4,723	+ 7,265	– 4,599	+ 201	+ 8,459	+ 348	– 11,137
Aug.	+ 15,937	+ 16,912	– 1,358	– 5,514	+ 8,747	– 4,208	+ 773	+ 8,178	+ 755	– 8,533
Sep.	+ 23,477	+ 21,251	– 2,762	– 2,774	+ 8,501	– 3,501	– 777	+ 12,970	– 1,452	– 9,730
Oct.	+ 18,923	+ 21,250	– 2,866	– 6,137	+ 8,431	– 4,621	– 893	+ 32,238	– 107	+ 14,208
Nov.	+ 23,282	+ 17,643	– 2,549	+ 480	+ 8,727	– 3,568	– 498	+ 34,837	– 356	+ 12,053
Dec.	+ 25,284	+ 12,782	– 4,539	+ 2,718	+ 13,990	– 4,206	+ 433	+ 25,773	– 113	+ 55
2020 Jan. r	+ 16,607	+ 14,306	– 744	– 740	+ 10,194	– 7,153	+ 301	+ 3,033	+ 898	– 13,875
Feb. r	+ 23,347	+ 20,495	– 1,664	– 243	+ 7,275	– 4,181	+ 65	+ 20,957	+ 750	– 2,454
Mar. r	+ 25,487	+ 18,773	+ 199	– 142	+ 9,547	– 2,690	– 907	+ 18,292	– 1,514	– 6,289
Apr. r	+ 8,896	+ 3,958	– 536	+ 791	+ 8,471	– 4,324	+ 132	+ 14,114	+ 950	+ 5,086
May r	+ 6,986	+ 9,365	+ 870	+ 1,142	– 88	– 3,432	+ 65	+ 2,712	+ 33	– 4,340
June r	+ 20,420	+ 15,289	– 1,928	+ 1,550	+ 4,936	– 1,354	+ 262	+ 28,532	– 740	+ 7,850
July p	+ 19,963	+ 18,804	– 1,745	– 2,375	+ 7,111	– 3,577	– 886	+ 21,503	– 611	+ 2,426

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		2017	2018	2019	2020 Jan./July p	Mar.	Apr.	May	June	July p
All countries 1	Exports	1,278,958	1,317,440	1,327,772	679,041	108,931	75,729	80,204	96,092	102,291
	Imports	1,031,013	1,088,720	1,104,568	582,658	91,708	72,281	73,217	80,550	83,103
	Balance	+ 247,946	+ 228,720	+ 223,204	+ 96,383	+ 17,224	+ 3,448	+ 6,987	+ 15,542	+ 19,188
I. European countries	Exports	872,427	900,141	902,684	463,068	74,110	50,258	54,239	66,504	68,298
	Imports	699,677	744,575	747,919	386,782	61,709	45,177	47,452	54,607	54,959
	Balance	+ 172,749	+ 155,566	+ 154,765	+ 76,287	+ 12,400	+ 5,081	+ 6,787	+ 11,897	+ 13,339
1. EU Member States (27)	Exports	664,410	696,480	698,384	356,261	55,670	38,241	42,330	51,137	52,374
	Imports	549,250	586,433	593,407	308,283	48,768	35,122	38,429	44,876	44,373
	Balance	+ 115,160	+ 110,047	+ 104,976	+ 47,977	+ 6,902	+ 3,119	+ 3,902	+ 6,261	+ 8,001
Euro area (19) countries	Exports	471,213	492,469	492,200	249,047	38,350	26,447	29,872	36,046	36,775
	Imports	378,700	405,810	409,440	212,701	33,972	24,715	26,686	30,992	30,069
	Balance	+ 92,513	+ 86,659	+ 82,760	+ 36,346	+ 4,377	+ 1,732	+ 3,187	+ 5,054	+ 6,706
of which:										
Austria	Exports	62,656	65,027	66,096	33,888	5,231	3,901	4,276	4,787	4,953
	Imports	40,686	42,994	44,112	22,992	3,564	2,794	2,769	3,242	3,620
	Balance	+ 21,970	+ 22,033	+ 21,984	+ 10,896	+ 1,667	+ 1,106	+ 1,507	+ 1,545	+ 1,333
Belgium and Luxembourg	Exports	50,071	50,389	51,901	27,207	4,220	3,101	3,139	4,107	3,912
	Imports	43,689	49,315	46,425	23,137	3,687	2,934	2,891	3,139	3,095
	Balance	+ 6,381	+ 1,074	+ 5,476	+ 4,070	+ 533	+ 168	+ 249	+ 968	+ 817
France	Exports	105,687	105,359	106,679	51,910	7,819	4,803	6,129	7,747	7,683
	Imports	64,329	65,024	66,018	32,339	5,368	3,433	3,968	4,440	4,373
	Balance	+ 41,359	+ 40,335	+ 40,661	+ 19,571	+ 2,450	+ 1,370	+ 2,161	+ 3,307	+ 3,310
Italy	Exports	65,422	69,813	68,073	34,311	5,040	3,337	4,375	4,892	5,279
	Imports	55,342	60,223	57,261	30,082	4,708	3,214	3,883	4,328	4,585
	Balance	+ 10,080	+ 9,591	+ 10,812	+ 4,229	+ 332	+ 123	+ 492	+ 564	+ 694
Netherlands	Exports	84,661	91,061	91,606	47,834	7,523	5,958	5,902	6,832	6,826
	Imports	90,597	97,709	98,570	51,529	8,433	6,543	6,676	6,850	7,019
	Balance	– 5,935	– 6,649	– 6,964	– 3,695	– 910	– 585	– 774	– 18	– 193
Spain	Exports	43,067	44,184	44,308	21,285	3,376	1,938	2,357	3,105	3,259
	Imports	31,396	32,399	33,201	18,048	2,640	1,785	2,227	3,058	2,691
	Balance	+ 11,671	+ 11,785	+ 11,107	+ 3,237	+ 736	+ 152	+ 130	+ 47	+ 568
Other EU Member States	Exports	193,198	204,011	206,184	107,214	17,321	11,793	12,458	15,091	15,599
	Imports	170,551	180,623	183,967	95,582	14,796	10,407	11,743	13,884	14,304
	Balance	+ 22,647	+ 23,388	+ 22,217	+ 11,632	+ 2,525	+ 1,386	+ 715	+ 1,207	+ 1,295
2. Other European countries	Exports	208,016	203,661	204,300	106,808	18,439	12,017	11,909	15,367	15,924
	Imports	150,427	158,142	154,512	78,499	12,941	10,055	9,023	9,731	10,586
	Balance	+ 57,589	+ 45,519	+ 49,788	+ 28,309	+ 5,498	+ 1,962	+ 2,886	+ 5,636	+ 5,338
of which:										
Switzerland	Exports	53,913	54,021	56,367	33,228	5,008	4,378	4,384	4,877	4,752
	Imports	45,689	45,913	46,276	26,846	4,658	3,498	3,609	3,475	3,794
	Balance	+ 8,224	+ 8,108	+ 10,091	+ 6,382	+ 351	+ 880	+ 775	+ 1,402	+ 958
United Kingdom	Exports	85,440	82,164	78,870	36,905	7,449	3,272	3,436	5,029	5,492
	Imports	36,820	37,025	38,012	20,266	3,100	3,081	2,169	2,438	2,424
	Balance	+ 48,620	+ 45,139	+ 40,858	+ 16,639	+ 4,349	+ 190	+ 1,267	+ 2,591	+ 3,068
II. Non-European countries	Exports	403,490	413,483	421,496	215,045	34,654	25,449	25,906	29,512	33,884
	Imports	328,606	342,980	355,423	194,857	29,886	26,884	25,630	25,789	27,988
	Balance	+ 74,884	+ 70,503	+ 66,073	+ 20,188	+ 4,768	– 1,435	+ 276	+ 3,723	+ 5,896
1. Africa	Exports	25,431	22,524	23,734	11,603	1,988	1,425	1,187	1,606	1,577
	Imports	20,428	22,542	24,442	10,397	1,811	1,133	899	1,216	1,472
	Balance	+ 5,003	– 18	– 709	+ 1,206	+ 177	+ 292	+ 288	+ 390	+ 106
2. America	Exports	154,644	158,952	165,358	79,879	14,024	8,657	8,659	9,982	12,738
	Imports	89,927	92,444	99,893	53,202	9,033	7,885	6,323	6,278	7,132
	Balance	+ 64,717	+ 66,508	+ 65,465	+ 26,677	+ 4,990	+ 772	+ 2,337	+ 3,704	+ 5,606
of which:										
United States	Exports	111,805	113,341	118,659	58,185	10,215	6,277	6,473	7,325	9,338
	Imports	61,902	64,493	71,366	38,673	6,555	6,008	4,409	4,480	5,192
	Balance	+ 49,903	+ 48,847	+ 47,294	+ 19,512	+ 3,660	+ 269	+ 2,064	+ 2,845	+ 4,146
3. Asia	Exports	212,070	219,716	221,185	117,323	17,805	14,774	14,797	17,097	18,544
	Imports	214,393	224,355	227,218	128,841	18,601	17,569	18,022	17,988	19,040
	Balance	– 2,323	– 4,639	– 6,033	– 11,518	– 796	– 2,795	– 3,225	– 891	– 496
of which:										
Middle East	Exports	33,104	29,144	28,636	14,046	2,377	1,684	1,686	1,824	2,133
	Imports	6,963	8,156	7,431	3,373	508	430	373	572	457
	Balance	+ 26,141	+ 20,989	+ 21,205	+ 10,672	+ 1,868	+ 1,254	+ 1,313	+ 1,252	+ 1,675
Japan	Exports	19,546	20,436	20,663	10,169	1,601	1,131	1,424	1,283	1,448
	Imports	22,955	23,710	23,998	12,452	2,109	1,630	1,378	1,670	1,705
	Balance	– 3,410	– 3,275	– 3,335	– 2,283	– 508	– 499	+ 46	– 387	– 257
People's Republic of China 2	Exports	86,141	93,004	95,973	52,939	7,472	7,240	7,158	8,304	8,720
	Imports	101,837	106,065	109,999	65,926	7,942	9,409	10,709	9,692	10,334
	Balance	– 15,695	– 13,061	– 14,026	– 12,987	– 470	– 2,170	– 3,551	– 1,387	– 1,614
New industrial countries and emerging markets of Asia 3	Exports	53,425	54,995	54,144	30,137	4,686	3,763	3,486	4,167	4,595
	Imports	50,873	52,945	51,907	28,556	4,810	3,812	3,685	3,815	3,813
	Balance	+ 2,552	+ 2,050	+ 2,237	+ 1,581	– 123	– 48	– 199	+ 352	+ 782
4. Oceania and polar regions	Exports	11,344	12,291	11,219	6,240	837	594	1,263	827	1,024
	Imports	3,857	3,639	3,869	2,418	441	297	387	306	344
	Balance	+ 7,487	+ 8,652	+ 7,350	+ 3,823	+ 396	+ 297	+ 876	+ 521	+ 680

* 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. EU excluding UK. **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]
2015	– 18,516	– 5,203	– 36,595	+ 8,621	+12,602	– 3,920	– 1,216	+ 3,161	+ 1,114	+ 68,506	– 358
2016	– 20,987	– 5,950	– 38,247	+ 8,612	+15,790	– 7,156	– 1,520	+ 3,092	+ 474	+ 76,800	– 1,076
2017	– 24,372	– 3,723	– 43,558	+ 9,663	+14,759	– 8,181	– 690	+ 2,177	– 521	+ 77,314	– 1,374
2018	– 19,686	– 1,808	– 44,543	+ 9,610	+17,240	– 7,477	– 358	+ 3,324	– 1,065	+ 91,442	– 924
2019	– 21,703	+ 536	– 46,098	+ 10,302	+17,889	– 9,330	– 2,798	+ 3,568	– 1,347	+ 94,453	– 793
2018 Q4	– 1,700	– 598	– 10,194	+ 3,398	+ 5,743	– 1,905	– 246	+ 675	– 93	+ 28,708	+ 3,198
2019 Q1	– 1,755	– 438	– 6,692	+ 2,057	+ 4,481	– 2,559	– 573	+ 921	+ 361	+ 26,360	– 785
Q2	– 3,998	+ 422	– 10,382	+ 2,592	+ 4,366	– 1,921	– 1,204	+ 934	– 537	+ 13,434	– 2,183
Q3	– 13,011	+ 344	– 18,603	+ 2,811	+ 3,263	– 2,267	– 386	+ 936	– 1,078	+ 26,837	– 1,245
Q4	– 2,939	+ 208	– 10,422	+ 2,841	+ 5,778	– 2,584	– 635	+ 777	– 93	+ 27,821	+ 3,420
2020 Q1	– 1,125	– 452	– 5,386	+ 1,857	+ 4,387	– 2,259	– 926	+ 785	+ 407	+ 27,603	– 994
Q2	+ 3,482	– 1,288	– 1,490	+ 2,433	+ 4,946	– 1,491	– 1,431	+ 786	– 51	+ 15,753	– 2,384
2019 Sep.	– 2,774	+ 248	– 5,813	+ 753	+ 1,189	– 424	+ 529	+ 389	– 321	+ 9,239	– 417
Oct.	– 6,137	+ 46	– 7,324	+ 947	+ 1,427	– 1,635	– 146	+ 282	– 65	+ 8,946	– 451
Nov.	+ 480	+ 261	– 1,821	+ 737	+ 1,254	– 439	– 152	+ 257	– 32	+ 9,147	– 387
Dec.	+ 2,718	– 99	– 1,277	+ 1,157	+ 3,097	– 510	– 336	+ 238	+ 3	+ 9,729	+ 4,258
2020 Jan.	– 740	+ 43	– 1,694	+ 893	+ 1,144	– 810	– 804	+ 290	+ 112	+ 10,433	– 351
Feb.	– 243	+ 51	– 1,967	+ 545	+ 1,425	– 641	– 46	+ 241	+ 136	+ 7,381	– 242
Mar.	– 142	– 546	– 1,725	+ 419	+ 1,818	– 808	– 77	+ 254	+ 159	+ 9,789	– 401
Apr.	+ 791	– 348	– 194	+ 907	+ 1,659	– 880	– 963	+ 267	+ 12	+ 8,982	– 523
May	+ 1,142	– 555	– 117	+ 747	+ 1,456	– 632	– 434	+ 242	+ 27	+ 1,339	– 1,454
June	+ 1,550	– 385	– 1,179	+ 779	+ 1,832	+ 21	– 33	+ 277	– 90	+ 5,432	– 406
July p	– 2,375	– 458	– 2,320	+ 1,165	+ 770	– 877	– 877	+ 271	– 370	+ 7,934	– 453

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

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

€ million

Period	General government				All sectors excluding general government [2]		
			of which:			of which:	
	Total	Total	Current international cooperation [1]	Current taxes on income, wealth, etc.	Total	Personal transfers between resident and non-resident households [3]	of which: Workers' remittances
2015	– 38,854	– 24,087	– 6,805	+ 10,455	– 14,766	– 3,540	– 3,523
2016	– 40,931	– 25,417	– 11,516	+ 10,739	– 15,514	– 4,214	– 4,196
2017	– 49,995	– 22,488	– 9,852	+ 10,372	– 27,506	– 4,632	– 4,613
2018	– 48,571	– 28,524	– 10,098	+ 10,275	– 20,047	– 5,152	– 5,142
2019	– 47,612	– 28,599	– 10,428	+ 11,758	– 19,013	– 5,445	– 5,431
2018 Q4	– 16,517	– 11,184	– 4,557	+ 1,159	– 5,333	– 1,287	– 1,286
2019 Q1	– 16,677	– 12,363	– 2,794	+ 2,093	– 4,314	– 1,360	– 1,358
Q2	– 6,232	– 591	– 1,354	+ 6,701	– 5,641	– 1,361	– 1,358
Q3	– 12,308	– 7,712	– 1,890	+ 1,616	– 4,595	– 1,363	– 1,358
Q4	– 12,395	– 7,933	– 4,389	+ 1,348	– 4,462	– 1,363	– 1,358
2020 Q1	– 14,024	– 9,690	– 2,318	+ 2,477	– 4,334	– 1,482	– 1,477
Q2	– 9,111	– 5,165	– 2,262	+ 4,183	– 3,946	– 1,480	– 1,477
2019 Sep.	– 3,501	– 2,119	– 461	+ 836	– 1,382	– 454	– 453
Oct.	– 4,621	– 3,216	– 970	+ 230	– 1,405	– 454	– 453
Nov.	– 3,568	– 2,125	– 1,296	+ 220	– 1,443	– 453	– 453
Dec.	– 4,206	– 2,591	– 2,123	+ 899	– 1,615	– 455	– 453
2020 Jan.	– 7,153	– 5,705	– 1,060	+ 331	– 1,448	– 494	– 492
Feb.	– 4,181	– 2,689	– 645	+ 1,049	– 1,492	– 494	– 492
Mar.	– 2,690	– 1,296	– 614	+ 1,097	– 1,394	– 494	– 492
Apr.	– 4,324	– 2,961	– 483	+ 243	– 1,363	– 494	– 492
May	– 3,432	– 2,212	– 688	+ 2,307	– 1,221	– 493	– 492
June	– 1,354	+ 8	– 1,091	+ 1,632	– 1,362	– 494	– 492
July p	– 3,577	– 2,171	– 1,083	+ 584	– 1,406	– 493	– 492

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
2015	– 48	+ 1,787	– 1,835
2016	+ 2,142	+ 3,219	– 1,077
2017	– 2,999	+ 922	– 3,921
2018	+ 436	+ 3,453	– 3,017
2019	– 323	+ 2,795	– 3,118
2018 Q4	– 1,069	+ 843	– 1,912
2019 Q1	+ 844	+ 652	+ 192
Q2	– 406	+ 20	– 426
Q3	+ 197	+ 1,271	– 1,073
Q4	– 958	+ 853	– 1,811
2020 Q1	– 541	– 741	+ 200
Q2	+ 459	+ 665	– 206
2019 Sep.	– 777	– 358	– 419
Oct.	– 893	– 425	– 468
Nov.	– 498	– 32	– 467
Dec.	+ 433	+ 1,309	– 876
2020 Jan.	+ 301	+ 32	+ 269
Feb.	+ 65	– 267	+ 331
Mar.	– 907	– 507	– 400
Apr.	+ 132	+ 192	– 60
May	+ 65	– 36	+ 101
June	+ 262	+ 508	– 247
July p	– 886	– 454	– 432

XII. External sector

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

€ million

Item	2017	2018	2019	2019 Q4	2020 Q1	2020 Q2	2020 May	2020 June	2020 July p
I. Net domestic investment abroad (increase: +)	+ 406,588	+ 390,059	+ 213,212	– 49,356	+ 277,296	+ 134,310	+ 17,148	+ 87,249	+ 40,706
1. Direct investment	+ 143,931	+ 148,042	+ 119,972	+ 23,475	+ 51,695	+ 5,278	+ 8,891	+ 10,030	+ 6,854
Equity	+ 92,843	+ 147,471	+ 105,956	+ 29,921	+ 41,164	+ 22,728	+ 7,058	+ 5,270	+ 4,057
of which: Reinvestment of earnings [1]	+ 32,233	+ 34,769	+ 40,983	+ 1,117	+ 16,572	+ 4,033	– 593	+ 576	+ 4,246
Debt instruments	+ 51,088	+ 571	+ 14,016	– 6,446	+ 10,531	– 17,451	+ 1,834	+ 4,761	+ 2,797
2. Portfolio investment	+ 115,466	+ 83,229	+ 123,681	+ 32,768	+ 8,730	+ 59,227	+ 13,112	+ 28,986	+ 19,394
Shares [2]	+ 14,673	+ 9,613	+ 14,248	+ 9,407	+ 4,988	+ 18,970	+ 5,984	+ 7,275	+ 7,776
Investment fund shares [3]	+ 58,562	+ 28,263	+ 52,930	+ 20,920	– 14,167	+ 14,425	+ 5,877	+ 3,022	+ 10,963
Long-term debt securities [4]	+ 42,724	+ 41,577	+ 54,493	+ 4,408	+ 15,801	+ 23,042	+ 4,553	+ 13,574	– 1,201
Short-term debt securities [5]	– 492	+ 3,776	+ 2,009	– 1,968	+ 2,107	+ 2,790	– 3,303	+ 5,115	+ 1,856
3. Financial derivatives and employee stock options [6]	+ 10,974	+ 23,126	+ 22,383	+ 1,772	+ 32,058	+ 31,257	+ 5,421	+ 12,086	+ 11,632
4. Other investment [7]	+ 137,485	+ 135,271	– 52,280	– 106,796	+ 184,680	+ 38,306	– 10,310	+ 36,887	+ 3,438
Monetary financial institutions [8]	– 20,985	+ 49,862	+ 9,292	– 72,576	+ 104,408	– 47,120	– 18,914	– 39,324	– 11,754
Long-term	+ 19,642	+ 4,462	+ 18,194	– 3,247	– 4,261	– 1,101	+ 1,097	– 4,091	– 3,660
Short-term	– 40,627	+ 45,400	– 8,901	– 69,329	+ 108,669	– 46,019	– 20,011	– 35,234	– 8,094
Enterprises and households [9]	+ 5,827	+ 37,324	+ 13,584	– 964	+ 32,751	+ 24,211	+ 10,547	– 3,999	– 7,458
Long-term	– 2,291	+ 17,182	+ 10,566	+ 5,775	+ 9,160	+ 5,849	+ 1,594	+ 456	– 1,754
Short-term	+ 8,118	+ 20,143	+ 3,018	– 6,739	+ 23,591	+ 18,362	+ 8,953	– 4,455	– 5,704
General government	– 3,993	– 8,710	– 4,242	– 12,009	+ 4,385	+ 1,014	+ 870	– 1,251	+ 1,350
Long-term	– 4,408	– 999	– 3,103	– 981	– 289	– 154	+ 117	– 342	– 1,027
Short-term	+ 415	– 7,711	– 1,139	– 11,028	+ 4,674	+ 1,168	+ 753	– 909	+ 2,377
Bundesbank	+ 156,637	+ 56,795	– 70,915	– 21,247	+ 43,136	+ 60,201	– 2,812	+ 81,461	+ 21,300
5. Reserve assets	– 1,269	+ 392	– 544	– 576	+ 133	+ 243	+ 33	– 740	– 611
II. Net foreign investment in the reporting country (increase: +)	+ 123,380	+ 153,123	+ 7,670	– 142,203	+ 235,015	+ 88,952	+ 14,437	+ 58,717	+ 19,203
1. Direct investment	+ 105,218	+ 143,602	+ 64,284	– 1,710	+ 30,053	+ 1,499	+ 9,716	+ 3,538	+ 14,414
Equity	+ 40,568	+ 60,751	+ 40,113	+ 22,614	+ 10,536	+ 4,806	+ 4,159	– 463	– 10,088
of which: Reinvestment of earnings [1]	+ 17,094	+ 15,743	+ 17,310	+ 2,189	+ 6,006	+ 1,110	+ 858	– 759	+ 777
Debt instruments	+ 64,650	+ 82,851	+ 24,172	– 24,324	+ 19,517	– 3,307	+ 5,558	+ 4,001	+ 24,502
2. Portfolio investment	– 89,846	– 73,978	+ 28,479	– 38,738	+ 49,231	+ 57,347	+ 38,727	+ 27,740	+ 21,824
Shares [2]	– 705	– 30,651	– 6,392	– 2,801	– 6,120	– 9,056	– 1,912	– 1,256	– 430
Investment fund shares [3]	– 2,519	– 6,298	– 4,963	+ 1,400	– 797	+ 235	– 411	+ 419	+ 866
Long-term debt securities [4]	– 72,291	– 41,376	+ 32,911	– 20,338	+ 29,298	+ 34,249	+ 29,574	+ 13,350	+ 12,229
Short-term debt securities [5]	– 14,330	+ 4,348	+ 6,923	– 16,999	+ 26,850	+ 31,919	+ 11,477	+ 15,228	+ 9,159
3. Other investment [7]	+ 108,008	+ 83,499	– 85,093	– 101,755	+ 155,731	+ 30,106	– 34,006	+ 27,438	– 17,035
Monetary financial institutions [8]	+ 17,508	– 35,902	– 10,010	– 134,499	+ 181,993	– 1,879	– 15,852	+ 4,467	+ 14,686
Long-term	+ 7,574	– 8,433	+ 10,968	+ 979	+ 12,909	+ 8,172	+ 973	+ 7,124	– 1,018
Short-term	+ 9,935	– 27,469	– 20,978	– 135,479	+ 169,084	– 10,051	– 16,825	– 2,657	+ 15,704
Enterprises and households [9]	+ 22,063	+ 14,829	+ 21,959	– 2,994	+ 26,093	+ 29,490	– 17,287	+ 16,805	– 11,968
Long-term	+ 6,881	+ 7,805	+ 12,412	+ 1,609	+ 5,945	– 108	+ 2,231	– 2,690	+ 2,719
Short-term	+ 15,182	+ 7,024	+ 9,547	– 4,603	+ 20,149	+ 29,598	– 19,518	+ 19,495	– 14,686
General government	– 8,719	+ 2,926	+ 257	– 11,968	+ 3,478	+ 1,364	+ 2,730	– 285	– 371
Long-term	– 3,724	+ 697	+ 133	– 449	+ 565	– 104	– 15	– 66	+ 134
Short-term	– 4,996	+ 2,230	+ 124	– 11,519	+ 2,914	+ 1,468	+ 2,745	– 218	– 506
Bundesbank	+ 77,156	+ 101,646	– 97,299	+ 47,706	– 55,834	+ 1,131	– 3,597	+ 6,452	– 19,382
III. Net financial account (net lending: +/net borrowing: -)	+ 283,208	+ 236,936	+ 205,543	+ 92,848	+ 42,281	+ 45,358	+ 2,712	+ 28,532	+ 21,503

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

XII. External sector

8. External position of the Bundesbank °

€ million

End of reporting period	External assets									External liabilities 3,4	Net external position (col. 1 minus col. 10)
	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	668,673	474,172
2018	1,209,982	173,138	121,445	14,378	5,518	31,796	980,560	966,190	56,284	770,688	439,293
2019	1,160,971	199,295	146,562	14,642	6,051	32,039	909,645	895,219	52,031	673,626	487,345
2017 Dec.	1,142,845	166,842	117,347	13,987	4,294	31,215	923,765	906,941	52,238	668,673	474,172
2018 Jan.	1,114,774	164,944	117,008	13,776	4,166	29,994	896,665	882,043	53,165	617,080	497,694
Feb.	1,147,979	166,370	117,138	13,949	4,138	31,146	928,275	913,989	53,333	636,808	511,171
Mar.	1,158,983	165,830	116,630	13,906	4,114	31,181	939,229	923,466	53,924	678,955	480,029
Apr.	1,139,056	166,970	117,867	14,043	4,150	30,910	917,971	902,364	54,115	633,741	505,314
May	1,198,995	171,469	120,871	14,287	4,172	32,139	973,323	956,150	54,203	656,505	542,490
June	1,213,511	167,078	116,291	14,245	4,983	31,559	991,577	976,266	54,857	701,011	512,500
July	1,147,878	163,308	112,693	14,131	4,881	31,603	930,107	913,270	54,463	666,323	481,554
Aug.	1,145,283	162,346	111,986	14,208	4,879	31,273	929,073	912,448	53,864	644,636	500,647
Sep.	1,189,175	161,078	110,755	14,236	4,889	31,199	973,380	956,487	54,717	686,368	502,807
Oct.	1,167,004	168,272	116,314	14,440	5,259	32,258	943,644	927,555	55,089	664,608	502,396
Nov.	1,184,703	168,198	116,409	14,405	5,244	32,140	960,478	941,130	56,026	674,449	510,254
Dec.	1,209,982	173,138	121,445	14,378	5,518	31,796	980,560	966,190	56,284	770,688	439,293
2019 Jan.	1,123,169	176,720	124,811	14,424	5,486	31,999	890,410	868,142	56,039	648,602	474,568
Feb.	1,127,455	178,016	125,793	14,496	5,510	32,217	894,226	872,698	55,214	634,080	493,375
Mar.	1,190,416	178,088	125,302	14,629	5,561	32,596	958,243	941,310	54,086	655,655	534,761
Apr.	1,167,188	177,378	124,046	14,622	6,228	32,482	935,563	919,696	54,247	627,265	539,923
May	1,186,394	180,073	126,092	14,637	6,150	33,193	952,038	934,640	54,283	618,780	567,614
June	1,201,041	187,401	134,470	14,473	6,081	32,377	960,158	942,319	53,482	649,898	551,143
July	1,134,349	193,244	139,163	14,613	6,391	33,077	888,584	870,903	52,521	622,006	512,343
Aug.	1,173,640	205,331	149,696	14,703	6,379	34,553	915,546	897,901	52,763	638,696	534,944
Sep.	1,185,142	202,285	147,611	14,831	6,396	33,447	930,892	915,342	51,965	626,128	559,014
Oct.	1,103,094	199,858	146,284	14,663	6,287	32,624	852,754	837,377	50,482	597,432	505,662
Nov.	1,134,129	197,047	143,253	14,799	6,116	32,879	885,524	870,520	51,558	591,913	542,217
Dec.	1,160,971	199,295	146,562	14,642	6,051	32,039	909,645	895,219	52,031	673,626	487,345
2020 Jan.	1,090,725	209,432	154,867	14,785	6,110	33,671	828,120	811,435	53,173	582,526	508,198
Feb.	1,106,033	215,748	159,889	14,857	5,989	35,014	836,782	821,562	53,503	577,841	528,192
Mar.	1,218,815	213,722	158,677	14,812	5,965	34,268	952,781	935,126	52,312	617,919	600,896
Apr.	1,214,851	226,903	170,359	14,935	6,857	34,753	934,333	918,814	53,615	616,319	598,532
May	1,209,328	223,125	167,780	14,650	6,787	33,908	931,521	916,145	54,682	612,403	596,925
June	1,294,167	226,135	170,728	14,603	6,955	33,849	1,012,982	995,083	55,050	618,825	675,342
July	1,323,691	233,547	180,400	14,179	7,465	31,503	1,034,282	1,019,214	55,862	599,189	724,503
Aug.	1,358,137	230,309	177,973	14,129	7,423	30,784	1,071,521	1,056,231	56,307	600,390	757,747

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. External positions of enterprises *

€ million

End of reporting period	Claims on non-residents							Liabilities to non-residents						
			Claims on foreign non-banks							Liabilities to 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
Rest of the world														
2016	877,815	246,093	631,722	421,163	210,558	196,385	14,173	1,055,685	132,817	922,868	725,655	197,213	124,628	72,585
2017	897,685	218,669	679,016	453,895	225,121	211,461	13,660	1,107,500	142,473	965,027	764,104	200,923	130,887	70,036
2018	929,542	234,581	694,961	463,631	231,330	217,163	14,167	1,210,748	143,373	1,067,374	860,496	206,878	135,879	70,999
2019	947,344	225,353	721,991	489,939	232,052	216,675	15,377	1,257,797	162,100	1,095,697	888,066	207,630	134,394	73,236
2020 Feb.	981,097	244,455	736,641	506,315	230,326	214,260	16,066	1,289,263	171,618	1,117,645	914,309	203,335	126,607	76,729
Mar.	968,276	231,201	737,075	505,995	231,080	215,112	15,968	1,307,465	173,067	1,134,398	931,021	203,377	127,123	76,255
Apr.	962,991	253,658	709,333	499,540	209,793	193,762	16,031	1,328,673	206,582	1,122,091	934,526	187,566	110,041	77,525
May	969,823	263,459	706,364	506,239	200,125	184,090	16,036	1,314,249	191,307	1,122,942	938,814	184,128	105,846	78,282
June	975,229	254,117	721,112	510,166	210,947	195,052	15,895	1,330,129	203,271	1,126,858	934,616	192,242	115,882	76,361
July	974,274	253,816	720,458	507,128	213,329	197,294	16,035	1,340,053	196,675	1,143,378	949,080	194,297	116,966	77,331
EU Member States (27 excl. GB)														
2016	520,274	188,982	331,292	248,172	83,121	74,410	8,711	672,896	89,243	583,653	509,751	73,902	52,626	21,275
2017	519,346	167,197	352,148	260,241	91,907	83,432	8,475	715,975	92,715	623,260	540,950	82,310	62,079	20,231
2018	542,346	176,454	365,892	273,495	92,397	84,139	8,258	787,342	86,085	701,257	618,154	83,103	62,625	20,477
2019	560,077	175,004	385,073	294,466	90,607	82,278	8,330	804,572	88,201	716,371	631,133	85,238	63,845	21,392
2020 Feb.	572,842	185,723	387,120	293,608	93,512	84,998	8,515	833,323	95,419	737,903	652,996	84,908	62,657	22,251
Mar.	561,263	175,511	385,752	293,111	92,641	84,286	8,355	843,226	100,926	742,300	659,109	83,191	60,804	22,386
Apr.	570,622	191,945	378,677	296,090	82,587	73,793	8,794	859,840	125,575	734,265	661,442	72,823	50,025	22,798
May	579,264	198,931	380,333	300,396	79,937	71,247	8,690	853,710	117,706	736,004	662,877	73,127	50,046	23,081
June	585,834	195,133	390,701	304,935	85,766	77,265	8,501	859,671	118,270	741,401	662,197	79,204	56,279	22,926
July	582,619	190,930	391,689	306,980	84,709	75,977	8,732	874,139	110,183	763,957	684,202	79,755	56,685	23,070
Extra-EU Member States (27 incl. GB)														
2016	357,541	57,112	300,429	172,992	127,438	121,976	5,462	382,789	43,574	339,215	215,904	123,311	72,002	51,310
2017	378,339	51,472	326,867	193,654	133,214	128,029	5,185	391,525	49,758	341,767	223,154	118,613	68,809	49,804
2018	387,196	58,127	329,068	190,135	138,933	133,024	5,909	423,406	57,288	366,117	242,342	123,776	73,254	50,522
2019	387,267	50,349	336,918	195,473	141,444	134,397	7,047	453,224	73,899	379,326	256,933	122,392	70,549	51,843
2020 Feb.	408,254	58,733	349,522	212,708	136,814	129,262	7,552	455,940	76,199	379,741	261,313	118,428	63,950	54,478
Mar.	407,013	55,690	351,323	212,884	138,439	130,826	7,613	464,239	72,140	392,098	271,912	120,187	66,318	53,868
Apr.	392,369	61,713	330,656	203,450	127,206	119,969	7,237	468,833	81,007	387,827	273,084	114,743	60,016	54,726
May	390,559	64,528	326,031	205,843	120,189	112,843	7,346	460,539	73,601	386,938	275,937	111,001	55,800	55,201
June	389,395	58,984	330,411	205,230	125,181	117,787	7,393	470,458	85,001	385,457	272,419	113,038	59,603	53,435
July	391,655	62,886	328,769	200,149	128,620	121,317	7,303	465,913	86,492	379,421	264,878	114,543	60,281	54,261
Euro area (19)														
2016	450,914	171,302	279,612	214,911	64,701	57,972	6,729	613,595	70,202	543,393	487,188	56,204	41,334	14,870
2017	451,219	150,346	300,873	228,761	72,112	64,643	7,469	650,641	75,398	575,243	509,470	65,773	50,395	15,378
2018	466,584	156,425	310,159	238,570	71,588	64,391	7,197	723,072	68,499	654,573	588,121	66,452	50,655	15,797
2019	484,879	156,743	328,135	257,791	70,344	62,945	7,399	733,299	68,393	664,906	597,241	67,664	50,955	16,710
2020 Feb.	498,675	169,015	329,660	257,493	72,167	64,657	7,510	756,646	73,044	683,602	617,594	66,008	48,784	17,224
Mar.	488,875	160,641	328,234	257,236	70,998	63,654	7,344	768,986	80,996	687,990	623,047	64,942	47,657	17,285
Apr.	496,760	172,558	324,202	259,552	64,650	56,870	7,780	788,300	103,454	684,846	626,882	57,964	40,488	17,476
May	501,356	176,735	324,622	262,842	61,780	54,146	7,633	777,957	92,207	685,750	628,154	57,596	39,916	17,679
June	504,206	172,924	331,282	264,849	66,433	58,989	7,443	785,117	96,167	688,950	626,885	62,065	44,310	17,755
July	503,097	170,562	332,535	267,200	65,335	57,708	7,628	798,639	88,693	709,946	648,088	61,858	44,037	17,821
Extra-Euro area (19)														
2016	426,901	74,791	352,110	206,252	145,857	138,413	7,444	442,090	62,615	379,475	238,467	141,009	83,294	57,715
2017	446,465	68,323	378,142	225,134	153,008	146,818	6,191	456,859	67,076	389,784	254,634	135,149	80,492	54,658
2018	462,958	78,156	384,802	225,060	159,742	152,772	6,970	487,676	74,875	412,801	272,375	140,426	85,224	55,202
2019	462,465	68,610	393,855	232,148	161,708	153,730	7,978	524,498	93,707	430,791	290,825	139,966	83,440	56,526
2020 Feb.	482,422	75,440	406,982	248,823	158,159	149,603	8,556	532,617	98,574	434,043	296,715	137,328	77,823	59,505
Mar.	479,401	70,560	408,841	248,759	160,082	151,458	8,624	538,479	92,071	446,409	307,974	138,435	79,465	58,970
Apr.	466,231	81,100	385,131	239,988	145,143	136,892	8,251	540,373	103,128	437,245	307,643	129,602	69,553	60,049
May	468,466	86,724	381,742	243,397	138,346	129,943	8,402	536,292	99,100	437,192	310,660	126,532	65,929	60,603
June	471,023	81,193	389,830	245,316	144,514	136,062	8,451	545,011	107,104	437,907	307,730	130,177	71,572	58,605
July	471,177	83,255	387,923	239,929	147,994	139,586	8,408	541,414	107,982	433,432	300,993	132,439	72,929	59,510

* 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 XII.7.

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
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
2019	1.6109	1.4855	7.7355	7.4661	122.01	9.8511	10.5891	1.1124	0.87777	1.1195
2019 Apr.	1.5802	1.5035	7.5489	7.4650	125.44	9.6233	10.4819	1.1319	0.86179	1.1238
May	1.6116	1.5058	7.6736	7.4675	122.95	9.7794	10.7372	1.1304	0.87176	1.1185
June	1.6264	1.5011	7.7937	7.4669	122.08	9.7465	10.6263	1.1167	0.89107	1.1293
July	1.6061	1.4693	7.7151	7.4656	121.41	9.6587	10.5604	1.1076	0.89942	1.1218
Aug.	1.6431	1.4768	7.8581	7.4602	118.18	9.9742	10.7356	1.0892	0.91554	1.1126
Sep.	1.6162	1.4578	7.8323	7.4634	118.24	9.9203	10.6968	1.0903	0.89092	1.1004
Oct.	1.6271	1.4581	7.8447	7.4693	119.51	10.1165	10.8023	1.0981	0.87539	1.1053
Nov.	1.6181	1.4630	7.7571	7.4720	120.34	10.1087	10.6497	1.0978	0.85761	1.1051
Dec.	1.6154	1.4640	7.7974	7.4720	121.24	10.0429	10.4827	1.0925	0.84731	1.1113
2020 Jan.	1.6189	1.4523	7.6832	7.4729	121.36	9.9384	10.5544	1.0765	0.84927	1.1100
Feb.	1.6356	1.4485	7.6302	7.4713	120.03	10.1327	10.5679	1.0648	0.84095	1.0905
Mar.	1.7788	1.5417	7.7675	7.4703	118.90	11.2943	10.8751	1.0591	0.89460	1.1063
Apr.	1.7271	1.5287	7.6858	7.4617	116.97	11.3365	10.8845	1.0545	0.87547	1.0862
May	1.6724	1.5219	7.7482	7.4577	116.87	10.9862	10.5970	1.0574	0.88685	1.0902
June	1.6322	1.5254	7.9734	7.4548	121.12	10.7298	10.4869	1.0712	0.89878	1.1255
July	1.6304	1.5481	8.0352	7.4467	122.38	10.6544	10.3538	1.0711	0.90467	1.1463
Aug.	1.6433	1.5654	8.1954	7.4460	125.40	10.5797	10.3087	1.0767	0.90081	1.1828

* 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 Series Exchange rate statistics.

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

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

XII. External sector

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

Q1 1999 = 100

Period	Effective exchange rate of the euro vis-à-vis the currencies of the group						Indicators of the German economy's price competitiveness						
	EER-19 1				EER-42 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	60 countries 6
1999	96.3	96.1	96.0	96.1	96.5	95.9	97.9	99.5	95.9	97.7	98.2	98.1	97.8
2000	87.2	86.8	86.1	85.8	88.1	86.1	91.9	97.4	85.5	91.1	93.0	92.2	91.2
2001	87.6	87.1	86.8	86.8	90.2	86.9	91.7	96.5	86.1	90.5	92.9	91.6	91.0
2002	89.9	90.2	89.9	90.4	94.5	90.5	92.3	95.6	88.6	91.0	93.4	92.1	91.9
2003	100.5	101.3	101.1	101.8	106.4	101.5	95.9	94.7	97.8	95.3	97.0	96.6	96.8
2004	104.3	105.2	104.0	105.2	110.8	105.3	96.2	93.4	100.2	95.6	98.4	98.1	98.5
2005	102.9	103.9	102.1	103.5	109.0	102.9	94.8	91.9	99.1	93.3	98.4	97.1	96.8
2006	102.9	103.9	101.6	102.4	109.1	102.3	93.6	90.3	98.5	91.6	98.5	96.7	96.0
2007	106.4	106.9	103.8	104.8	112.7	104.5	94.6	89.5	102.3	92.0	100.9	98.2	97.4
2008	110.2	109.8	106.0	109.0	117.4	106.9	94.9	88.2	105.4	91.3	102.3	98.4	97.6
2009	111.7	110.6	107.1	114.7	120.5	108.0	95.2	89.0	104.9	92.0	101.9	98.5	98.0
2010	104.5	102.9	99.0	106.7	111.9	99.0	92.6	88.6	98.4	88.2	98.8	94.2	92.5
2011	104.3	102.0	97.0	105.1	112.7	98.6	92.2	88.4	97.8	87.4	98.2	93.4	92.0
2012	98.6	96.8	91.5	99.0	107.5	93.8	90.1	88.3	92.7	84.7	95.9	90.5	89.0
2013	102.2	99.9	94.4	102.0	112.2	96.8	92.4	88.7	97.7	86.7	98.2	92.3	90.9
2014	102.4	99.3	94.3	102.6	114.6	97.2	92.9	89.5	97.8	87.4	98.2	92.5	91.5
2015	92.6	89.6	85.8	92.3	106.1	88.7	89.8	90.2	89.0	83.6	94.4	87.8	87.0
2016	95.3	91.6	88.0	p 93.4	110.1	90.7	90.6	90.6	90.5	84.9	95.1	88.8	88.2
2017	97.5	93.5	89.0	p 94.2	112.4	91.9	91.8	90.7	93.4	85.6	96.4	89.9	89.0
2018	100.0	95.7	90.4	p 95.5	117.3	95.1	92.9	90.6	96.2	86.4	97.7	91.2	90.9
2019	98.2	93.3	88.6	p 92.9	115.5	92.4	92.0	90.9	93.4	85.6	96.4	89.9	89.5
2018 Mar.	101.0	96.7			117.5	95.5					98.4	91.6	91.1
Apr.	100.8	96.4			117.6	95.4					98.4	91.4	91.1
May	99.4	95.2	90.2	p 95.4	116.2	94.4	93.0	90.6	96.4	86.2	97.8	90.8	90.5
June	99.1	94.9			116.1	94.3					97.5	90.7	90.4
July	100.2	95.9			117.4	95.2					97.5	91.1	90.9
Aug.	99.9	95.5	90.3	p 95.8	117.8	95.4	92.7	90.6	95.8	86.4	97.3	91.0	91.0
Sep.	100.4	96.0			119.1	96.3					97.7	91.5	91.8
Oct.	99.7	95.5			117.8	95.3					97.3	91.1	91.1
Nov.	99.2	95.0	89.7	p 94.8	116.8	94.5	92.6	90.9	95.0	86.3	97.3	91.0	90.8
Dec.	99.3	94.8			117.0	94.3					97.2	90.8	90.6
2019 Jan.	98.8	94.3			116.3	93.7					96.8	90.4	90.0
Feb.	98.4	93.8	88.8	p 93.2	115.6	93.0	92.0	90.6	94.1	85.6	96.7	90.1	89.6
Mar.	97.9	93.2			115.2	92.5					96.4	89.7	89.4
Apr.	97.7	93.0			115.0	92.4					96.5	89.8	89.4
May	98.2	93.4	88.6	p 93.0	115.7	92.8	92.1	90.9	93.8	85.6	96.6	90.1	89.7
June	98.8	93.9			116.2	93.2					96.8	90.3	89.9
July	98.4	93.4			115.4	92.3					96.7	90.1	89.5
Aug.	98.9	93.9	88.8	p 93.2	116.2	93.0	92.0	91.1	93.3	85.8	96.6	90.3	89.8
Sep.	98.2	93.1			115.3	92.1					96.2	89.9	89.3
Oct.	98.1	92.9			115.3	91.9					96.2	89.7	89.2
Nov.	97.5	92.2	88.2	p 92.0	114.6	91.3	91.8	91.1	92.6	85.6	96.0	89.4	88.8
Dec.	97.4	92.1			114.7	91.1					95.9	89.4	88.8
2020 Jan.	97.0	91.4			114.2	90.5					95.9	89.0	88.4
Feb.	96.3	90.7	88.0	p 92.9	113.5	89.8	91.6	91.2	92.0	85.4	95.6	88.8	88.2
Mar.	99.0	93.1			117.8	p 93.1					96.6	90.2	p 90.2
Apr.	98.2	92.7			117.5	p 93.1					96.3	90.1	p 90.4
May	98.4	92.8	...	...	117.6	p 93.0	p 91.7	p 91.4	91.9	p 86.0	96.2	90.1	p 90.2
June	99.8	94.0			119.1	p 94.1					97.0	90.7	p 90.8
July	100.5	p 94.6			120.3	p 94.9					p 96.0	p 90.0	p 90.3
Aug.	101.6	p 95.0	...	...	122.4	p 96.0	...	...	...	...	p 96.8	p 90.6	p 91.3

***** 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. A decline in the figures implies an increase in competitiveness. The weights are based on trade in manufactured goods and, as from the publication of 1 July 2020, additionally on trade in services. For more detailed information on methodology, see the website of the Deutsche Bundesbank (https://www.bundesbank.de/content/796162). **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 and additionally Algeria, Argentina, Brazil, Chile, Colombia, Iceland, India, Indonesia, Israel, Malaysia, Mexico, Morocco, New Zealand, Peru, Philippines, the Russian Federation, Saudi Arabia, South Africa, Taiwan, Thailand, Turkey, Ukraine and the United Arab Emirates. **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-42.

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 printed publications are available free of charge to interested parties and may be obtained through the Bundesbank's order portal. Up-to-date figures for selected statistical datasets are available on the Bundesbank's website. In addition, the new Statistical Series provide a new basic structure and advanced options for using data and are also available on the Bundesbank's website.

Annual Report

Financial Stability Review

Monthly Report

For information on the articles published between 2010 and 2019, see the index attached to the January 2020 Monthly Report.

Monthly Report articles

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

November 2019
- The current economic situation in Germany

December 2019
- Outlook for the German economy – macroeconomic projections for 2020 and 2021 and an outlook for 2022
- German enterprises' profitability and financing in 2018
- The relevance of surveys of expectations for the Deutsche Bundesbank
- The mixing of euro coins in Germany

January 2020
- The upswing in loans to enterprises in Germany between 2014 and 2019
- Consequences of increasing protectionism

February 2020
- The current economic situation in Germany

March 2020
- German balance of payments in 2019
- Households' digital purchases in the balance of payments
- New benchmark rates, new challenges: introducing the €STR in the euro area

April 2020
- Sectoral portfolio adjustments in the euro area during the low interest rate period

– The EU budget and its financing: looking back and ahead

May 2020
– The current economic situation in Germany

June 2020
– Outlook for the German economy for 2020 to 2022
– Cash withdrawals and payments in urban and rural areas

July 2020
– The German current account surplus through the lens of macroeconomic models
– Cash hoarding by German households – how much cash do they store and why?

August 2020
– The current economic situation in Germany

September 2020
– The impact of monetary policy on the euro's exchange rate
– Global financial interconnectedness and spillovers between the G20 countries
– The performance of German credit institutions in 2019

Statistical Series*

Banks
– Banking statistics, monthly
– Statistics on payments and securities trading, September

Corporate financial statements
– Consolidated financial statement statistics, June/December
– Financial statement statistics (extrapolated results), December
– Financial statement statistics (ratios), May
– Financial statement statistics (ratios – provisional data), May

Economic activity and prices
– Seasonally adjusted business statistics, monthly

Exchange rates
– Exchange rate statistics, monthly

External sector
– Balance of payments statistics, monthly
– Direct investment statistics, April
– International investment position and external debt, monthly

Macroeconomic accounting systems
– Financial accounts, June

Money and capital markets
– Capital market indicators, monthly
– Investment funds statistics, monthly
– Securities issues statistics, monthly

Special Statistical Publications

1 Banking statistics guidelines, January 2020[2]

2 Banking statistics, customer classification, January 2020[2]

For footnotes, see p. 88•.

3 Aufbau der bankstatistischen Tabellen, July 2013[1,2]

7 Notes on the coding list for the balance of payments statistics, September 2013

Special Publications

Makro-ökonometrisches Mehr-Länder-Modell, November 1996[1]

Europäische Organisationen und Gremien im Bereich von Währung und Wirtschaft, May 1997[1]

Die Zahlungsbilanz der ehemaligen DDR 1975 bis 1989, August 1999[1]

The market for German Federal securities, May 2000

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

Bundesbank Act, September 2002

Die Europäische Union: Grundlagen und Politikbereiche außerhalb der Wirtschafts- und Währungsunion, April 2005[1]

Die Deutsche Bundesbank – Aufgabenfelder, rechtlicher Rahmen, Geschichte, April 2006[1]

European economic and monetary union, April 2008

Weltweite Organisationen und Gremien im Bereich von Währung und Wirtschaft, March 2013[1]

Discussion Papers°

34/2020
Robust inference in time-varying structural VAR models: The DC-Cholesky multivariate stochastic volatility model

35/2020
Fiscal sustainability during the COVID-19 pandemic

36/2020
Central bank funding and credit risk-taking

37/2020
Negative monetary policy rates and systemic banks' risk-taking: Evidence from the euro area securities register

38/2020
Procyclical asset management and bond risk premia

39/2020
Financial shocks and the relative dynamics of tangible and intangible investment: Evidence from the euro area

40/2020
Does greater transparency discipline the loan loss provisioning of privately held banks?

41/2020
Household savings, capital investments and public policies: What drives the German current account?

42/2020
Estimation of heterogeneous agent models: A likelihood approach

43/2020
Interactions between bank levies and corporate taxes: How is bank leverage affected?

44/2020
Predicting monetary policy using artificial neural networks

45/2020
Backtesting macroprudential stress tests

For footnotes, see p. 88•.

46/2020
Beta dispersion and market timing

47/2020
Capital controls checkup: Cases, customs, consequences

48/2020
Connected funds

49/2020
Coin migration between Germany and other euro area countries

50/2020
Interest rate pegs and the reversal puzzle: On the role of anticipation

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 Gesetz über das Kreditwesen, January 2008[1]

2a Solvency Regulation and Liquidity Regulation, February 2008[2]

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* The Statistical Series replace the Statistical Supplements and, in part, the Special Statistical Publications; they will be provided exclusively on the Bundesbank's website under Publications/Statistics.
o Discussion papers published from 2000 are available online.
1 Publication available in German only.
2 Available only as a download.