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Deutsche Bundesbank
Wilhelm-Epstein-Strasse 14
60431 Frankfurt am Main
Germany

Postfach 10 06 02
60006 Frankfurt am Main
Germany

Tel.: +49 (0)69 9566 3512
Email: www.bundesbank.de/kontakt

Internet: www.bundesbank.de

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Abbreviations and symbols

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 Data unknown, not to be published or not meaningful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

Discrepancies in the totals are due to rounding.

Commentaries

Economic conditions

Underlying trends

German economic output likely to have risen sharply in third quarter

Economic output in Germany is likely to have risen sharply in the third quarter of 2020. As measured by quarterly gross domestic product (GDP), the German economy may already have recouped slightly more than half of the dramatic losses sustained in the first half of the year, but is still around 5% below its pre-crisis level of the fourth quarter of 2019.[1] The main reason for the strong rebound in the third quarter is that, after bottoming out in April, the economy had already recovered rapidly in many areas over the remainder of the second quarter. As a result, at the beginning of the third quarter, economic output already exceeded the average of the second quarter by a considerable degree. It has then likely moved towards a more subdued path of recovery in the third quarter.

Probably only a relatively small rise in economic output in the current quarter

The industrial sector may have recorded comparatively robust growth. It had fallen particularly sharply in the second quarter and then picked up vigorously up until July. The recovery in industrial output took a brief pause in August, although this was attributable to the decline in production in the automotive sector, which was mainly related to plant shutdowns. By contrast, industrial orders continued to increase and almost returned to pre-crisis levels. Moreover, according to the ifo Institute's September survey, industrial enterprises increasingly assessed their situation as less unfavourable. Their outlook for the next few months also improved further. By contrast, sentiment among service providers (excluding trade) deteriorated somewhat in September for the first time since the spring. The Purchasing Managers Index (PMI) for the services sector has now fallen in October for the third time in succession. The recent sharp rise in the number of infections and the resulting tightening of containment measures in some regions are likely to weigh predominantly on some services sectors such as hotels and restaurants. As things currently stand, the German economy is likely to continue its recovery in the current quarter, but at a considerably slower pace. The pre-crisis level is still likely to be significantly undershot at the end of the year.

Industry

Industrial output down slightly in August mainly due to automotive sector

The recovery in industrial activity took a brief pause in August 2020. Compared with the previous month, which had undergone a small upward revision, industrial output even declined somewhat (-¾%) in seasonally adjusted terms. Following the strong countermovement in May and June, the pace of recovery had already slowed in July. However, the slight decline in August is largely attributable to developments in the automotive sector, where output fell considerably (-12½%), in part owing to the timing of plant shutdowns. This implies that, excluding motor vehicles, output would have risen again slightly on the month (+1½%). According to the German Association of the Automotive Industry, the number of units produced was higher again in September, suggesting that the decline in August represents a temporary dip. Nevertheless, the number of units was still around one-eighth below the pre-crisis level of the fourth quarter of 2019. In addition to the automotive sector, the manufacture of pharmaceutical products was also down significantly in August (-10½%). However, on an average of July and August, industrial output increased sharply compared with the strongly depressed second quarter (+13½%). The pro-

1 GDP is calculated on a quarterly basis by the Federal Statistical Office. On a monthly basis, the economic low point in April is likely to have been significantly below the average of the second quarter of 2020 (and in September probably slightly above the average of the third quarter). From this perspective, the share of the downturn that has already been recuperated would therefore be higher still.

Economic conditions in Germany*

Seasonally adjusted

Period	Orders received (volume); 2015 = 100			
	Industry			Main construction
	Total	of which: Domestic	of which: Foreign	
2019 Q4	100.4	95.1	104.5	130.8
2020 Q1	98.0	92.9	101.7	125.5
Q2	75.8	80.0	72.6	117.4
June	91.7	100.1	85.3	124.4
July	94.7	90.0	98.3	117.0
Aug.	99.0	91.5	104.7	121.0

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
June	86.9	86.9	83.8	115.6
July	89.6	90.3	86.1	110.5
Aug.	89.0	93.3	83.0	110.2

Period	Foreign trade; € billion			Memo item: Current account balance in € billion
	Exports	Imports	Balance	
2019 Q4	334.63	276.90	57.73	64.35
2020 Q1	322.78	270.49	52.29	63.05
Q2	252.25	227.19	25.06	38.11
June	94.49	80.00	14.49	17.40
July	98.90	80.86	18.04	22.40
Aug.	101.32	86.50	14.82	20.11

Period	Labour market			
	Employment	Vacancies[1]	Unemployment	Unemployment rate %
	Number in thousands			
2020 Q1	45,317	705	2,267	5.0
Q2	44,706	593	2,816	6.2
Q3	…	564	2,915	6.4
July	44,667	561	2,923	6.4
Aug.	44,686	565	2,914	6.4
Sep.	…	568	2,907	6.3

Period	Prices; 2015 = 100			
	Import prices	Producer prices of industrial products	Construction prices[2]	Harmonised consumer prices
2020 Q1	99.3	104.8	117.8	106.3
Q2	95.5	103.0	118.3	106.2
Q3	…	103.3	115.7	105.5
July	96.6	103.1	.	105.5
Aug.	96.8	103.2	.	105.5
Sep.	…	103.6	.	105.4

* 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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duction of capital goods rose particularly sharply (+20¾%), but output of intermediate and consumer goods (+9% and +7% respectively) was also on a clear upward trajectory. Nevertheless, overall industrial output is still just over one-tenth below the pre-crisis level of the fourth quarter of 2019.

Orders increase across the board in August

In August 2020, German industrial orders continued to recover at the more moderate pace of the previous month. In seasonally adjusted terms, demand for German industrial products showed a rise of 4½% compared with the previous month, the figure for which has been revised upwards somewhat. Following the fourth consecutive increase, the level of the final quarter of 2019 was very nearly achieved towards the end of the period under review, off by just 1½%. On an average of July and August, there was a substantial increase (+27¾%) compared with the previous quarter, which had been marked by the downturn in April. The countermovements were particularly strong in those areas where the collapse had been very pronounced beforehand. From a sectoral perspective, significantly more new orders than in the second quarter were therefore recorded for intermediate goods and, in particular, capital goods, where volatile developments in the automotive sector had left their mark (+19¾% and +37¾% respectively). At the same time, demand for consumer goods was also higher (+3½%). In a regional breakdown, the increase in domestic demand was still significantly smaller than that of foreign demand, which had seen a particularly steep decline beforehand (+13½% compared with +39¾%). Large-scale domestic orders in June and the drop in domestic demand for motor vehicles in August were also a factor here. In fact, the latter decreased in Germany on a month-on-month basis, whereas euro area demand, in particular, saw a significant increase.

Nominal industrial sales remained unchanged in seasonally adjusted terms in August 2020. As in the case of production, there appears to have been a pause in activity here, too, follow-

Industrial sales stagnated, goods exports and imports continued to increase

ing the major steps towards recovery in the preceding months. However, on an average of July and August, turnover rose steeply compared with the second quarter, which had been marked by the downturn (+17½%). Capital goods saw a particularly sharp catch-up movement in the third quarter, as had been the case with production, above all in the automotive sector. In regional terms, export sales rose more strongly than sales at home (+22¼% and +13% respectively), although they had also experienced a significantly sharper downturn in the second quarter. 70% of the losses incurred since the final quarter of 2019 have now been recouped in both Germany and abroad. In August 2020, nominal exports of goods rose markedly on the month in seasonally adjusted terms (+2½%) and remained on the more moderate recovery path embarked upon in July. On an average of July and August, the increase in exports of goods was considerably more pronounced overall compared with the strongly depressed second quarter – in both real and nominal terms (+19% in each case). Given the fact that coronavirus impacted virtually all countries worldwide in the spring, this increase was broadly distributed in regional terms. There was particularly strong growth in exports to the United Kingdom, the central and eastern non-euro area EU countries, the United States and the euro area. By contrast, exports to Japan dropped markedly. After seasonal adjustment, nominal imports of goods rose very steeply in August 2020. In comparison with the previous month, the increase was even stronger than that seen for exports of goods (+7%). Taking the average of July and August, however, there was a shortfall compared with growth in exports, in both nominal and real terms (+10½% and +9% respectively).

Construction

Construction output remains comparatively stable despite renewed decline

The coronavirus crisis is still leaving only small traces in the German construction sector. Unlike most other industries, output in this sector was only marginally down in the second quarter, which is also why a subsequent recovery failed to materialise. Instead, construction output in August 2020 fell slightly on the month after seasonal adjustment (-¼%). On an average of July and August, it dropped somewhat more sharply compared with the average of the spring months (-3%). This decline was markedly more moderate in the main construction sector than in the finishing trades, where the data are prone to revision. New orders in the main construction sector posted a slight seasonally adjusted rise on an average of July and August compared with the previous quarter. Not least in view of the strong incoming orders in the final quarter of 2019 and the first quarter of 2020, the order situation in the construction sector can still be classified as very good. Moreover, according to the ifo Institute, the level of equipment utilisation in the main construction sector increased marginally in September and remains significantly above its long-term average. The business climate in this sector also continued to improve.

Labour market

Employment continued to rise marginally in August

The slight recovery in the labour market continued recently. Seasonally adjusted employment in August 2020 experienced the second month-on-month rise since the start of the pandemic, although there was only a slight increase of 19,000 in the number of persons in work in Germany. In July, low-paid employment, which had previously also recorded the strongest decline, grew in particular. The number of filled jobs subject to social security contributions was higher, especially in services such as health and social work services and the hotel and restaurant sector. By contrast, employment in the manufacturing sector continued to record a marked decline.

Short-time working still pronounced but in sharp decline

Although short-time working has declined sharply in the meantime, it is still being used on a considerable scale. According to an initial estimate by the Federal Employment Agency, following the peak of just under 6 million in April,

the number of short-time workers fell by almost three-tenths to 4.24 million up to July. This means that at that time around one in eight employees subject to social security contributions was still in short-time work. As there was also a 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 44% compared with the peak in April.

Unemployment broadly stable in the summer

The number of persons officially registered as unemployed remained broadly stable over the summer months. In September, the seasonally adjusted figure was 34,000 below the June peak. This small decrease is entirely attributable to a drop in the number of unemployed persons receiving the basic welfare allowance. One factor in this could have been the slow resumption of active labour market policy measures. These had been suspended at the start of the pandemic, contributing to the rise in unemployment at the time. There is not yet any evidence of a decline in the unemployment insurance system with its more cyclical character. Due to rounding, the unemployment rate fell by a moderate 0.1 percentage point to 6.3%. Leading labour market indicators have continued to improve and suggest that employment and unemployment will continue to recover.

Prices

No further recovery in crude oil prices recently

Depressed by concerns about future development of demand against a backdrop of resurgent infection rates, crude oil prices did not continue their recovery in September 2020. Another important factor in this context was uncertainty about the ongoing implementation of output cuts agreed by OPEC members. Prices were down by 7% compared with August and were as much as one-third below their previous year's level. Prices in October have been moving more or less sideways so far. As this report went to press, the price of a barrel of Brent crude oil stood at US$42. Crude oil futures were trading at a slight premium. The premium on crude oil futures was US$1½ for deliveries six months ahead and US$2½ for deliveries 12 months ahead.

Import and producer prices higher

In August, import prices again increased moderately overall, mainly due to energy. They were unchanged if energy is excluded, however. Domestic industrial sales prices, for which data are already available for September, went up slightly both overall and if energy is excluded. As in previous months, the previous year's level was significantly undershot at the end of the period under review, with import prices down by 4% and industrial producer prices 1% lower.

Consumer prices lower in September

Consumer prices (HICP) were slightly lower in September after seasonal adjustment. Energy prices dropped markedly as a result of the renewed fall in oil prices and food also cost slightly less. As prices for new clothing collections showed a weaker increase than in previous years, industrial goods excluding energy became less expensive overall. By contrast, prices for services remained largely unchanged. Annual headline HICP inflation was down by 0.4% on the year, compared with being 0.1% lower in August.[2] Excluding energy and food, the rate fell from +0.6% to +0.3%. If in addition the volatile clothing and travel components are factored out, inflation still stood at +¾%, however. In the remaining months of 2020, headline inflation is likely to fall somewhat more significantly below its previous year's level owing to the recent decline in crude oil prices and base effects. The rates should turn positive again when the temporary cut in VAT rates is rescinded in January 2021. Inflation rates of well above 2% are then likely as from the second half of 2021, owing to the fact that prices are currently being dampened by the VAT cut.

2 The national consumer price index (CPI) fell by 0.2% on the year, after standing at its previous year's level in August.

Public finances[3]

Local government finances

Significant deterioration in the budget in Q2: transfers dampened drop in tax revenue, …

Local government core budgets and off-budget entities achieved a balanced result in the second quarter of this year. In the previous year, they had posted a surplus of €4½ billion. Revenue was down by a total of 1½% (€1 billion). Tax revenue fell much more sharply, by 14½% (€4 billion). Revenue from local business tax, a major source of income, dropped by 39%. By contrast, income tax shares increased. As a rule, they are based on the previous quarter, and first-quarter tax revenue had barely been affected by the coronavirus crisis. Because a large number of institutions had to close due to the pandemic and fees were suspended, revenue from fees saw a sharp decline (of 16%, or €1½ billion). By contrast, transfers from state government rose steeply, by 19½% (€5 billion). Liquidity assistance provided by the federal states played a role in this. For example, North Rhine-Westphalia, in particular, appears to have brought forward general purpose grants (around €1½ billion) to stabilise local government budgets.

… and expenditure rose significantly overall

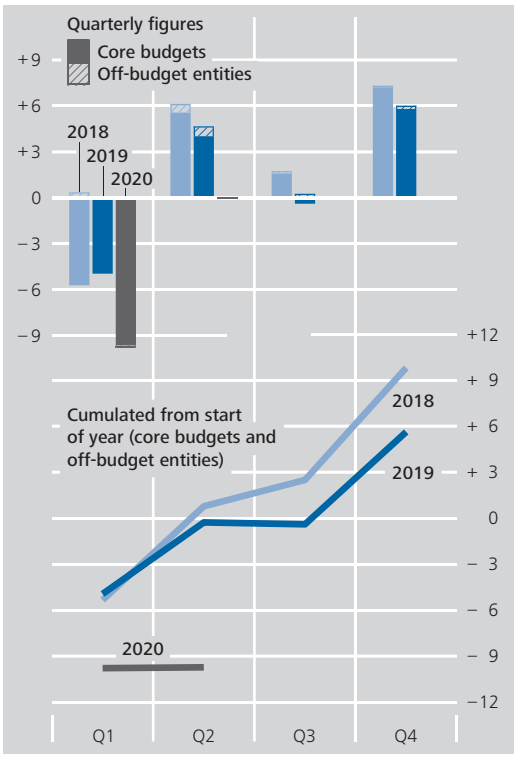
Expenditure rose strongly, by 5½% (€3½ billion). Staff costs, a major item, saw disproportionately low growth of 3%. Spending on social benefits increased only moderately, by 1½%, with accommodation costs for the long-term unemployed rising in particular. Other operating expenditure even stagnated, by and large. By contrast, grants to non-government entities rose very substantially (by 11%), as did fixed asset formation (by 14%, or €1 billion).

Balanced budget possible for full year, despite high deficit in first half of the year

Overall in the first half of the year, local government thus recorded a high deficit of a little over €9½ billion, compared with just a slight deficit in the first six months of the previous year. The coronavirus crisis had a considerable impact only in the second quarter, although significant declines in tax revenue were already recorded in the first quarter. However, the situation will probably ease as the year progresses. Central and state government will still compensate local governments for expected shortfalls in local business tax of €11 billion (the reference point being the tax estimate made in the autumn of last year). In addition, central government is promising €2½ billion in compensation to local public transport enterprises, which had lost large portions of their income in the spring. Central government is furthermore permanently increasing its share in the accommodation costs for recipients of unemployment benefit II by around €3½ billion annually. By contrast, general purpose grants that have already been brought forward are likely to dampen revenue somewhat in the second half of the year. Overall, local government budgets

Local government fiscal balance

€ billion



Source: Federal Statistical Office.
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3 In the short commentaries on public finances, the emphasis is on recent outturns. The quarterly editions of the Monthly Report (published in February, May, August and November), by contrast, contain 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.

could still be close to balance at the end of 2020 (2019: surplus of just over €5½ billion).

Further efforts to limit credit risk are advisable

Against the backdrop of the overall balanced result, local government debt remained virtually unchanged from the end of the previous quarter, amounting to €137½ billion (including liabilities to the public sector). Credit market debt rose slightly, to just under €97 billion. The volume of cash advances fell marginally, to €38 billion. Developments differed between the federal states. Local governments in Bavaria, for example, bridged a funding gap in the second quarter with additional cash advances on balance. By contrast, a surplus was still generated in North Rhine-Westphalia during this period, which was drawn upon to repay a small portion of the large volume of cash advances. The surpluses budgeted for in the second half of the year are likely to be used, at least in part, to pay back loans. While the current low interest rates make higher debt levels appear sustainable, the credit burdens still entail risks, especially at the level of individual local governments. Local governments and, within the framework of budgetary oversight, state governments, too, are called upon to effectively limit such risks. It is also the duty of state governments to ensure that all their local governments receive financing commensurate with the tasks of the latter through their local government financial equalisation schemes.

Additional burdens on local government budgets next year, not just stemming from the crisis

In the coming year, local government budgets will probably tip into a strong deficit, as revenue growth is likely to continue being dampened by the crisis and by certain measures. For example, the central government funds to compensate for crisis-related shortfalls in local business tax were limited to the current year. According to the latest tax estimate, however, tangible revenue shortfalls are also to be expected in subsequent years. This is partly due, not least, to the relaxed depreciation rules as part of the economic stimulus package. The second Family Relief Act *(Zweites Familienentlastungsgesetz)* will also lead to tax revenue losses. Based on the general rules in numerous federal states, transfers from state government under the tax revenue sharing scheme are set to be lower than previously expected, too. Local government receipts from fixed shares in state government tax revenue will therefore be much lower in the absence of smoothing adjustments.

Need for reform in local government financing

The crisis has brought to light, once again, the problems within the currently highly volatile system of local government financing. State governments are called upon to keep the crisis-related revenue shortfalls of their local governments at a sustainable level. It would thus seem appropriate to undertake a fundamental reform to stabilise local government revenue in times of crisis as well.[4] Simply loosening budgetary rules for local government would not provide a sustainable solution.

Securities markets

Bond market

Net issuance of debt securities still high in August

At €147.0 billion, gross issuance in the German bond market in August 2020 was down on July's figure (€172.2 billion). After deducting the significantly lower redemptions and taking account of changes in issuers' holdings of their own debt securities, net issuance of domestic debt securities came to €60.4 billion. The outstanding volume of foreign debt securities in Germany fell by €4.4 billion in the reporting month, which meant that the outstanding volume of debt instruments in the German market rose by €55.9 billion overall.

Sharp rise in public sector capital market debt

In the month under review, the public sector issued debt securities worth a net €49.9 billion (compared with €35.6 billion in July). Central government was the main issuer of new securities (€44.0 billion), chiefly in the form of Treasury discount paper (Bubills: €13.9 billion) and ten-year Federal bonds (Bunds: €9.1 billion). It also placed two-year Federal Treasury notes

4 See also Deutsche Bundesbank (2020).

(Schätze) on the market (€5.8 billion) and continued to service the other Bund maturity segments. State and local governments issued their own bonds worth €5.9 billion net. Central government is primarily tapping the capital market to finance additional credit needs arising from the impact of the COVID-19 pandemic.

Net issuance by enterprises

In August, domestic enterprises issued bonds with a net value of €8.7 billion, compared with €15.5 billion one month earlier. Other financial intermediaries were the chief issuers on balance.

Rise in credit institutions' capital market debt

Domestic credit institutions increased their capital market debt by €1.7 billion net in the reporting month, following net redemptions of €2.0 billion in July. On balance, it was only the outstanding volume of debt securities issued by specialised credit institutions (€4.4 billion) – which include, for example, public promotional banks – that saw an increase. By contrast, mortgage Pfandbriefe and other bank debt securities recorded net redemptions to the tune of €1.6 billion and €1.1 billion, respectively.

Purchases of debt securities

Foreign investors proved to be the main buyers in August (€56.3 billion). One reason for the strong demand from non-resident investors was the high volume of issuance by the public sector. The Bundesbank acquired debt securities totalling €18.0 billion net, predominantly under the Eurosystem's asset purchase programmes. By contrast, domestic non-banks and credit institutions disposed of debt securities amounting to €10.7 billion and €7.6 billion respectively, in net terms. While non-banks offloaded mainly domestic securities, credit institutions' sales focused on foreign securities.

Equity market

Net issuance in the German equity market

In the reporting month, domestic enterprises placed new shares worth €2.9 billion in the German equity market. The volume of foreign equities in the German market rose by €6.4 billion over the same period. On balance, domestic non-banks were by far the main purchasers of shares (€7.6 billion). Domestic credit institutions increased their holdings by €1.0 billion. Foreign investors stepped up their equity exposure in Germany by €0.7 billion on balance.

Sales and purchases of debt securities

€ billion

Item	2019 Aug.	2020 July	2020 Aug.
Sales			
Domestic debt securities[1]	27.2	49.1	60.4
of which:			
Bank debt securities	– 3.3	– 2.0	1.7
Public debt securities	24.1	35.6	49.9
Foreign debt securities[2]	1.0	– 0.5	– 4.4
Purchases			
Residents	21.4	18.6	– 0.3
Credit institutions[3]	6.2	– 15.5	– 7.6
Deutsche Bundesbank	1.4	25.7	18.0
Other sectors[4]	13.9	8.5	– 10.7
of which:			
Domestic debt securities	19.2	– 1.4	– 14.1
Non-residents[2]	6.8	30.0	56.3
Total sales/purchases	28.2	48.6	55.9

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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Mutual funds

German mutual funds record moderate inflows

German mutual funds recorded net inflows of €6.3 billion in August, compared with €7.4 billion in July. On balance, specialised funds reserved for institutional investors were the chief beneficiaries (€4.2 billion). Among the various asset classes, new shares were placed on the market primarily by mixed securities funds (€3.1 billion) and open-end real estate funds (€1.3 billion). The outstanding volume of foreign mutual fund shares distributed in Germany increased by €10.3 billion during the month under review. On balance, domestic non-banks

Major items of the balance of payments

€ billion

Item	2019r Aug.	2020 July	2020 Aug.p
I. Current account	+ 15.9	+ 21.0	+ 16.5
1. Goods	+ 16.9	+ 20.1	+ 14.4
Receipts	100.9	100.8	90.7
Expenditure	84.0	80.8	76.3
Memo item:			
Foreign trade[1]	+ 16.4	+ 19.2	+ 12.8
Exports	101.6	102.3	91.2
Imports	85.2	83.1	78.5
2. Services	– 5.5	– 2.6	– 2.9
Receipts	24.9	21.6	20.2
Expenditure	30.4	24.3	23.1
3. Primary income	+ 8.7	+ 7.2	+ 8.2
Receipts	18.3	16.3	16.1
Expenditure	9.5	9.1	7.9
4. Secondary income	– 4.2	– 3.6	– 3.2
II. Capital account	+ 0.8	– 0.9	+ 0.6
III. Financial account (increase: +)	+ 8.2	+ 10.4	+ 35.7
1. Direct investment	– 4.2	– 9.6	+ 3.7
Domestic investment abroad	– 1.7	+ 9.0	+ 13.6
Foreign investment in the reporting country	+ 2.5	+ 18.6	+ 9.9
2. Portfolio investment	– 0.7	– 12.1	– 46.3
Domestic investment in foreign securities	+ 4.6	+ 18.2	+ 10.6
Shares[2]	– 0.0	+ 7.9	+ 4.7
Investment fund shares[3]	+ 3.7	+ 10.8	+ 10.3
Short-term debt securities[4]	– 0.1	+ 1.3	– 2.0
Long-term debt securities[5]	+ 1.1	– 1.9	– 2.4
Foreign investment in domestic securities	+ 5.3	+ 30.3	+ 57.0
Shares[2]	– 1.3	– 0.5	+ 0.7
Investment fund shares	– 0.2	+ 0.9	+ 0.0
Short-term debt securities[4]	+ 5.9	+ 8.7	+ 19.2
Long-term debt securities[5]	+ 0.9	+ 21.3	+ 37.1
3. Financial derivatives[6]	+ 2.2	+ 11.6	+ 9.2
4. Other investment[7]	+ 10.1	+ 21.1	+ 69.7
Monetary financial institutions[8]	– 8.6	– 26.4	+ 6.5
of which: Short-term	– 7.9	– 23.7	+ 6.2
Enterprises and households[9]	+ 6.6	+ 4.7	+ 23.0
General government	+ 1.8	+ 2.2	+ 4.5
Bundesbank	+ 10.4	+ 40.7	+ 35.7
5. Reserve assets	+ 0.8	– 0.6	– 0.6
IV. Errors and omissions[10]	– 8.5	– 9.7	+ 18.6

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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were virtually the only purchasers of mutual fund shares in August (€15.8 billion), acquiring more foreign than domestic securities. Domestic credit institutions expanded their fund portfolios by €0.7 billion, while foreign investors were only marginally active in the German market on balance.

Balance of payments

Current account surplus down

Germany's current account recorded a surplus of €16.5 billion in August 2020, down €4.6 billion from the previous month's level. This was chiefly attributable to a smaller surplus in the goods account. By contrast, the surplus in invisible current transactions, which comprise services as well as primary and secondary income, posted an increase.

Considerable decline in the surplus for goods

In August, the surplus in the goods account decreased by €5.7 billion on the month to €14.4 billion, with exports of goods falling more sharply than imports.

Surplus on "invisible" current transactions up slightly, with little movement overall

The surplus on invisible current transactions rose by €1.1 billion in August to €2.1 billion, largely because net receipts in primary income expanded by €1.1 billion to €8.2 billion. A decline in dividend payments to non-residents on portfolio investment played a major role here. Moreover, the deficit in the secondary income account narrowed by €0.3 billion to €3.2 billion. Although receipts declined slightly, mainly off the back of lower government revenue from current taxes on income and wealth of non-residents, expenditure fell somewhat more sharply, partly owing to a decline in general government payments to the EU budget in connection with financing related to gross national income. Moreover, the deficit in the services account rose only slightly by €0.3 billion to €2.9 billion as expenditure fell somewhat less than revenue. This was partly because travel expenditure increased, as it usually does at this time of year, after the measures to contain the pandemic were eased in many countries starting from June.

Inflows in portfolio investment

In August 2020, shifting assessments of the dynamics of the COVID-19 pandemic continued to shape events in the international financial markets. This uncertainty was also reflected in Germany's cross-border portfolio investment, which recorded net capital inflows of €46.3 billion in August (after €12.1 billion in July). Foreign investors acquired German securities worth €57.0 billion net. One reason for this lively demand was the large issuance volume of Federal securities (Bunds), which are considered particularly secure. Foreign investors focused their demand almost exclusively on bonds (€37.1 billion) and money market paper (€19.2 billion), as well as a modest volume of shares (€0.7 billion). Purchases and sales of mutual fund shares offset each other during the period under review. Domestic investors purchased foreign securities totalling €10.6 billion net. On balance, they acquired foreign investment fund shares (€10.3 billion) and regular shares (€4.7 billion), but divested themselves of bonds issued by non-residents (€2.4 billion). German investors offloaded exclusively euro-denominated bonds on balance, while maintaining net demand for foreign currency bonds. They also sold off foreign money market paper (€2.0 billion).

Financial derivatives

Financial derivatives recorded net capital exports of €9.2 billion in August (July: €11.6 billion).

Direct investment sees net capital exports

Direct investment posted net capital exports of €3.7 billion in the reporting month (after inflows of €9.6 billion in July). Domestic enterprises increased their foreign direct investment by €13.6 billion, boosting the equity capital of foreign branches by €9.9 billion and granting additional loans of €3.7 billion to affiliated enterprises. Foreign firms stepped up their direct investment in Germany by €9.9 billion. On balance, they did so mainly through additional intra-group lending (€8.8 billion), with a focus on financial loans. Moreover, foreign enterprises stepped up their equity stakes in Germany by €1.1 billion.

Outflows in other investment

Other statistically recorded investment, which comprises loans and trade credits (where these do not constitute direct investment), bank deposits and other investment, saw net outflows of €69.7 billion in August (after €21.1 billion in July). Cross-border transactions settled via the Bundesbank's accounts, in particular, resulted in net capital exports of €35.7 billion, increasing TARGET2 claims by €37.0 billion. Outflows were also generated by enterprises and individuals (€23.0 billion), monetary financial institutions excluding the Bundesbank (€6.5 billion) and general government (€4.5 billion).

Reserve assets

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

List of references

Deutsche Bundesbank (2020), Reform of local government finances: making financing crisis-proof and stable, Monthly Report, July 2020, pp. 10-11.

Developments in the German banking system during the negative interest rate policy period

In June 2014, the ECB Governing Council decided to lower the interest rate on the deposit facility from 0% to -0.10%. This was the first time that a Eurosystem policy rate had been in negative territory. In the years that followed, the interest rate on the deposit facility was gradually lowered to -0.50%. Some market interest rates and yields also turned negative after June 2014: money market rates were the first to follow the interest rate on the deposit facility below the zero mark, while longer-term capital market yields only moved into negative territory with something of a time lag and with interruptions.

By contrast, German banks' deposit rates came to a halt at the zero mark for the most part, especially for household deposits. At the same time, lending rates continued to decline in line with general interest rate developments. This narrowed German banks' interest margins in lending and deposit business with the private non-financial sector.

Taken in isolation, shrinking interest margins could inhibit banks' willingness to lend, thereby impeding the intended effect of the accommodative monetary policy measures. However, the diminishing interest margins did not coincide with a deterioration in banks' profitability. This is because, up until the beginning of the coronavirus crisis, their adverse impact on earnings was offset by positive income effects originating from favourable economic developments and the low interest rate level. Low loan loss provisions and brisk credit demand are two major factors in this regard. That is also the reason why there has been no indication for Germany thus far that banks' willingness to provide credit might have declined. On the contrary, banks continued to expand their lending and deposit business, with the expansion of lending business driven not only by demand but also by supply.

The economic downturn caused by the coronavirus crisis is now likely to dampen the profitability of German banks. Results for German banks for the first and second quarters are already showing an increase in loan loss provisions, and the sharp economic downturn means that this development is likely to continue. As loan loss provisions rise, the pressure that narrowing interest margins exert on profitability becomes more difficult for banks to offset. This increases the likelihood that margin pressure will lead to a tightening of the supply of credit. At the same time, the monetary policy, supervisory and fiscal policy measures taken in response to the coronavirus crisis are counteracting such a risk.

Introduction

Onset of NIRP period in June 2014

Against the backdrop of a persistently weak inflation outlook in the euro area, the ECB Governing Council decided in June 2014 to lower the interest rate on the deposit facility from 0% to -0.10%. This was the first time that a Eurosystem policy rate had been in negative territory. The interest rate on the deposit facility was later gradually lowered further to -0.50% in September 2019. For the purposes of this article, the point in time when the interest rate on the deposit facility was lowered into negative territory for the first time is defined as the beginning of the negative interest rate policy (NIRP) period. Accordingly, in this article, the period from June 2014 to August 2020 stakes out the time frame for analysing developments in the German banking system.

Alongside negative interest rate on deposit facility, other monetary policy measures relevant to developments in banking system

In addition to the negative interest rate on the deposit facility, other monetary policy measures are crucial for understanding the developments observed in the German banking system. Most notably, these include the expanded asset purchase programme (APP) and the three series of targeted longer-term refinancing operations (TLTROs) (see the chart on p. 17). The excess liquidity[1] generated by these measures was a key driver behind money market rates following the interest rate on the deposit facility deep into negative territory.[2] Empirical evidence suggests, furthermore, that the APP contributed to the lowering of long-term capital market yields, thereby also flattening the yield curve.[3]

NIRP could result in lower credit supply; prerequisites are: …

In this setting of negative interest rates and further expansionary measures, it became increasingly important over time to keep an eye on the relationship between banks' profitability and their willingness to provide credit in order to assess monetary policy transmission. This is because, in a protracted period of low or negative interest rates, banks' profitability and thus their capital levels may come under pressure. In this vein, banks are reluctant to pass through negative interest rates to their depositors.[4] This seems to be particularly true of household deposits.[5] This reluctance to pass on negative market interest rates to depositors, combined with the continued pass-through of interest rate cuts to borrowers, leads to a decline in the spread between lending and deposit rates. This spread is the interest margin that banks generate. All other things being equal, the negative interest rate applied to excess liquidity impairs banks' profitability as well. In combination with the narrowing interest margin, the resulting pressure on profitability could, in principle, lead to capital constraints and a lower credit supply.[6]

… an adverse effect on banks' profitability and thus on their capital, …

This is how a situation can arise in which an accommodative monetary policy turns out to narrow the supply of credit over time. One prerequisite for this is an adverse effect of the NIRP on banks' profitability and thus on their capital levels. However, such a burden does not come about automatically, since the margin pressure caused by the negative interest rate can be offset by the positive effects, if any, that the accommodative monetary policy has on other profitability components. For example, the NIRP has a positive impact on economic developments, which, because credit default risk declines, means that banks set aside less in loan loss provisions. In addition, the NIRP helps stimulate credit demand.

… and a positive relationship between capital levels and credit supply

A further prerequisite for the negative interest rate to have a contractionary effect on banks' credit supply is a positive relationship between capital levels and the credit supply. As long as banks are well capitalised, that relationship is unlikely to materialise. However, an adverse effect on the credit supply cannot be ruled out if capital levels are only just above the regulatory minimum.[7]

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1 Excess liquidity is banks' predominantly short-term credit balances on their central bank accounts in excess of their required reserves.
2 For more information, see Deutsche Bundesbank (2019a).
3 For more information, see Deutsche Bundesbank (2019b).
4 See, inter alia, Heider et al. (2019) and Kerbl and Sigmund (2016).
5 See Eisenschmidt and Smets (2019) and Jobst and Lin (2016).
6 See Brunnermeier and Koby (2018).
7 See Brunnermeier and Koby (2018).

Tightening of credit supply would run counter to monetary policy's intended effect

If the NIRP in the euro area were to lead to a tightening of the supply of bank credit, this would run counter to the actual intended effect of monetary policy since, during the NIRP period, monetary policy in the euro area sought to ease any existing credit supply constraints in the banking sector. This is reflected, for instance, in the launch of the TLTROs.[8] These operations are currently offering banks the possibility of taking up longer-term funding at favourable rates compared with most of their other sources of funding. For banks that achieve their individual benchmark for loan growth, the interest rate on the TLTRO-III series is between -0.5% and -1% over a given period of time. When viewed in isolation, this supports banks' profitability owing to the lower interest expenditure. The Eurosystem furthermore adopted a two-tier system for remunerating excess liquidity at the end of 2019. This measure also improved banks' profitability because it means that banks' excess liquidity is remunerated at 0% up to a certain level (currently six times their minimum reserve), instead of at the negative interest rate on the deposit facility (currently -0.5%).

Article looks at developments in profitability and lending business

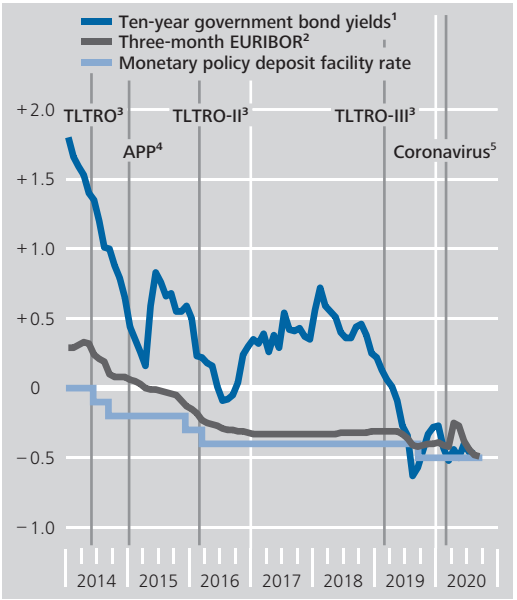
Against this background, this article first looks at how German banks' profitability has evolved during the NIRP period, focusing above all on how the negative interest rate on the deposit facility impacted on margins in lending and deposit business with the private non-financial sector. This is followed by an assessment of developments in German banks' lending business with this sector. The principal focus here is whether signs of supply-side constraints can be found and how developments in lending business in turn impact on profitability.

Coronavirus crisis has substantial impact on developments in German banking system

Since March 2020, the coronavirus crisis has been the key factor dictating developments in the German banking system. The spread of COVID-19 and the measures taken to contain it caused a historic decline in economic output in Germany. Monetary and fiscal policymakers and banking supervisors took various measures to cushion the considerably negative impact on the economy, thus also supporting the German banking system.

Selected interest rates, yields and events during the NIRP* period

%



***** NIRP stands for "negative interest rate policy". **1** According to the yield curve for listed Federal securities. **2** Monthly averages. **3** Announcement of targeted longer-term refinancing operations (TLTROs). **4** Announcement of the expanded asset purchase programme (APP). **5** Beginning of the coronavirus crisis and comprehensive monetary policy measures in response.

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Monetary policymakers responded with broad package of measures, …

The core function of the monetary policy measures was to ensure the broad supply of liquidity to the private non-financial sector. Given the risks to price stability, the monetary policy stance in the euro area was therefore made even more expansionary. Amongst other things, the ECB Governing Council initiated further non-standard measures with the launch of the pandemic emergency purchase programme (PEPP) as well as pandemic emergency longer-term refinancing operations (PELTROs). In addition, it made the conditions of the pre-existing TLTRO-III series even more attractive.

Supervisory relief granted in the wake of the coronavirus crisis eased banks' capital constraints so that banks do not excessively restrict

8 See, inter alia, Deutsche Bundesbank (2014), particularly p. 32.

… supervisors reduced capital requirements, and fiscal policymakers reduced credit risk

their lending.[9] Fiscal policymakers, too, initiated numerous support measures,[10] including extensive lending programmes by promotional banks with a full assumption of credit risk by government in some cases.[11]

Coronavirus crisis, together with NIRP, could trigger credit supply constraints

Despite these measures, increased loan loss provisions will probably be the main burden on banks' profitability in the wake of the coronavirus crisis. In addition, an increase in risk weights is expected to put a strain on banks' capital ratios.[12] How great the burden will be very much depends on how the pandemic evolves. Together with the declining interest margin, the strain on profitability could become so intense that there is a greater likelihood of banks cutting back on the supply of credit.

Banks' profitability in the NIRP period

Profitability stable overall so far in the NIRP period

The profitability of German banks has so far proved to be stable overall during the NIRP period. Compared with the period from 1999 to 2007,[13] the net interest margin has been lower in the NIRP period.[14] By contrast, the valuation result, the most important component of which is loan loss provisions, moved in banks' favour during the NIRP period (see the upper chart on p. 23).[15] A key factor behind this favourable development was the good state of the German economy up to the onset of the coronavirus crisis. This was also supported by expansionary monetary policy measures, including the negative interest rate on the deposit facility (see the box on pp. 19 ff.).

Reluctance to pass through negative rates to depositors weighs on interest margin

The reluctance to pass through negative interest rates to depositors played a key role in the declining net interest margin observed in the German banking system. This reluctance is particularly evident in deposit business with households.[16] In terms of volume, deposit business with households is more significant than deposit business with non-financial corporations (NFCs).[17] At the beginning of the NIRP period, the average interest rate on household deposits applied by the "median" bank – i.e. the median of the distribution of deposit rates at the individual bank level – was still well above the zero mark (see the lower chart on p. 23). Over the course of the NIRP period, the median then gradually approached the zero mark. In August 2020, it came to only around 0.01%. The 90th percentile of the distribution is also just slightly above this level. By contrast, the average interest rates on NFC deposits have been moving into negative territory since the end of 2016. At the same time, the share of banks that charge negative deposit rates on average has risen steadily since then. In business with NFCs, then, banks are able to charge negative deposit rates across the board. This is particularly true of sight deposits. In this category, around 63% of the reporting banks reported a negative volume-weighted average interest rate in August 2020. However, the growing introduction of negative deposit rates in business with NFCs did not lead to an abrupt drop in these rates deep into negative territory.

9 For details of the supervisory relief granted to significant institutions, see https://www.bankingsupervision.europa.eu/press/pr/date/2020/html/ssm.pr200320_FAQs~a4ac38e3ef.en.html
10 See Deutsche Bundesbank (2020a) for information on the fiscal measures taken in the course of the coronavirus crisis in Germany.
11 See, for example, https://www.kfw.de/inlandsfoerderung/Companies/KfW-Corona-Hilfe/
12 See Deutsche Bundesbank (2020b).
13 The reference period covers a window in which the binding effect of the zero mark as regards the interest rates applied to deposits is likely to have played only a minor role, or no role at all, for banks. The three-month EURIBOR's lowest level in the reference period was 2%. In addition, the reference period was characterised by periods of falling and rising policy rates. The beginning of the period was marked by the launch of the euro as book money and the transfer of monetary policy responsibility from the national central banks to the Eurosystem. The reference period ends before the peak of the global financial market crisis.
14 The net interest margin is defined as net interest income in relation to total assets. Net interest income is the difference between interest income and expenses.
15 In addition to loan loss provisions, the valuation result also includes write-downs and reversals of write-downs on securities held in the liquidity reserve.
16 For more information, see Deutsche Bundesbank (2019c). A reluctance to pass through negative interest rates on household deposits is evident in the other euro area countries, too.
17 According to monthly balance sheet statistics, the volume of household deposits is roughly four times higher than the volume of NFC deposits.

The effects of a negative interest rate policy on banks' profitability and macroeconomic developments in dynamic stochastic general equilibrium models

As outlined in the main article, a negative interest rate policy (NIRP) affects banks' profitability via various channels. These effects arise not just directly via the policy rate's impact on deposit and lending rates but also indirectly via other economic variables. This is the case, for example, when a negative policy rate stimulates macroeconomic activity, which then has an impact on banks' profitability. In turn, the way in which banks respond to a change in their profitability also affects other macroeconomic variables.

Indirect and feedback effects of this kind can be analysed using dynamic stochastic general equilibrium (DSGE) models. In these models, monetary policy affects bank-specific variables such as interest rates and credit dynamics and also influences the real economy via a range of complementary transmission channels. In this box, two different DSGE models (model A and model B) are used to investigate the effects of a NIRP on banks' profitability.[1]

In both models, the starting point is a stylised negative demand shock. The intensity of this shock is calibrated such that the central bank – in order to stabilise the economy – has to react so forcefully that the policy rate enters negative territory. Three scenarios are analysed, each differing in terms of how flexibly monetary policymakers can adjust the policy rate, and banks their deposit rates, to economic developments. By comparing the three scenarios, it is ultimately possible to determine how the NIRP affects both the economy as a whole and banks' profitability.

In the first scenario, it is assumed that there is no limit on the extent to which both the policy rate and commercial banks' deposit rates can be lowered into negative territory, with neither monetary policymakers nor commercial banks being subject to any constraints in this respect. In the second scenario, the former are unable to lower the policy rate, and the latter their deposit rates, to an unlimited extent. They are both constrained by an effective lower bound on interest rates, which, for the sake of simplicity, is set at zero. In the third scenario (analysed in model A only), it is assumed that the policy rate can be lowered into negative territory, but only as far as -0.5%. By contrast, commercial banks are unable to cut their deposit rates to below zero.[2]

Model A is based on Gerali et al. (2010).[3] This framework contains a financial sector with monopolistic competition among banks. The banks' interest margin is defined as the difference between the lending rate and the deposit rate. In the long-run equilibrium, the lending rate is higher than the policy rate, which, in turn, is above the deposit rate, resulting in a positive interest margin. It is assumed that banks cannot flexibly adjust their deposit or lending rates. Furthermore, banks have to maintain an

1 The two models are based on a New Keynesian framework along the lines of Christiano et al. (2005) or Smets and Wouters (2007).
2 This roughly corresponds to the current data. In Germany, the deposit rate aggregated across all categories of new business with the private non-financial sector as defined in the MFI interest rate statistics stood at around 0% in August 2020. The Eurosystem's deposit facility rate is currently -0.5%.
3 The model was estimated for the euro area and has already been used in previous Monthly Report analyses. See Deutsche Bundesbank (2015a).

(exogenously) imposed capital ratio and incur costs if they deviate from it. In order to obtain a loan, households and enterprises have to provide collateral (e.g. the value of their stock of housing or physical capital).

The chart on p. 21 shows the consequences of a demand shock in model A for the three outlined scenarios.[4] The same demand shock is assumed in all of the scenarios. It causes a decline in both real economic output and inflation.[5] Monetary policy responds by lowering the policy rate. Consequently, lending and deposit rates fall, as does the interest margin, because lending rates decline more sharply than deposit rates in all scenarios.[6]

Comparing scenarios 2 and 3 provides an insight into the isolated impact of lowering the policy rate into negative territory (down to -0.5%) relative to the effect of just bringing it down to zero. In both scenarios, it is assumed that negative interest rates cannot be applied to deposits at banks. The zero bound on deposit rates is thus binding for banks. Like the policy rate, the lending rates fall more sharply in scenario 3 than in scenario 2. The lower lending rates stabilise investment demand and thus drive up the demand for credit and the lending volume. This mitigates the economic downturn more effectively in scenario 3 than in scenario 2, leading to a smaller decline in inflation. As banks cannot reduce their deposit rate to below zero, the interest margin and bank profits initially decrease more sharply in scenario 3 than in scenario 2.[7] Thus, the stronger expansion of the lending volume in scenario 3 does not fully offset the smaller interest margin. However, the more stable economic developments in scenario 3 are accompanied by a faster recovery in banks' profits.

In scenario 1, both monetary policymakers and banks are unconstrained. Monetary policymakers cut the policy rate to levels far below zero. Consequently, lending rates also fall more steeply than in the second scenario, where the policy rate cannot fall below zero. Although the banks in this scenario lower their deposit rates into negative territory, this, taken in isolation, reduces the interest margin and thus their profits. Nonetheless, the lower lending rates increase the incentive to invest, which means that the economic downturn is less sharp than in the second scenario. Accordingly, the inflation rate falls less steeply. The upturn in scenario 2 comes later than in scenario 1, which is reflected in a delayed stabilisation of banks' profits.

A comparison of scenarios 1 and 2 illustrates that, when the policy rate is subject to a binding zero lower bound, monetary policymakers are less able to mitigate the economic downturn and falling inflation than without this constraint (the effect of non-standard monetary policy measures at the lower bound on interest rates is disregarded here).

Model B is based on Kühl (2018).[8] In this model, non-financial corporations (NFCs) fund their investments with bank loans and capital. Both NFCs and banks are subject to balance sheet constraints which require

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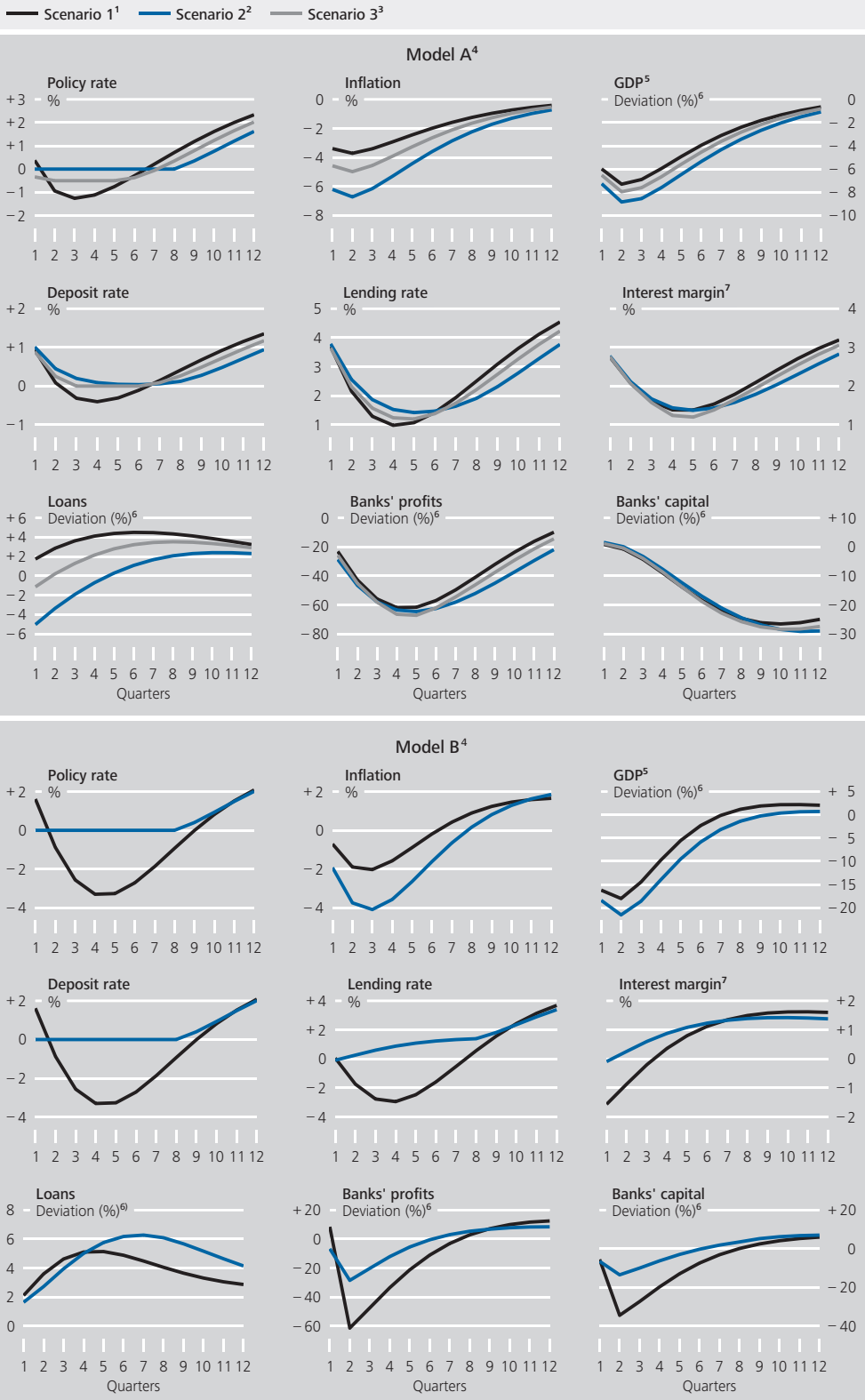
4 The simulations are based on Gerke et al. (2020).
5 An exogenous preference shock that increases consumers' discount rate is used. This reduces the preference for consumption in the present and thus also aggregate consumer demand. Conversely, aggregate saving increases.
6 This is due to the parameterisation in Gerali et al. (2010). In particular, the parameters for the adjustment costs for changing interest rates on loans and deposits imply a corresponding reaction in those variables.
7 Banks' profits are defined as the difference between interest income and interest expenditure.
8 The model was estimated for the euro area and has already been used in previous Monthly Report analyses. See Deutsche Bundesbank (2016).

Effects of a demand shock on macroeconomic variables and bank variables



1 Scenario 1: Neither policy rate nor deposit rate constrained. **2** Scenario 2: Policy rate and deposit rate constrained by zero lower bound. **3** Scenario 3: Policy rate constrained at –0.5%, deposit rate constrained by zero lower bound. **4** Model A is based on Gerali et al. (2010), model B on Kühl (2018). **5** Gross domestic product. **6** Deviation from the long-run equilibrium (steady state). **7** Lending rate minus deposit rate.

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them to hold capital. The level of lending rates is therefore determined by the leverage ratios of banks and NFCs. Unlike in model A, the policy rate and the deposit rate are, by definition, identical. As in model A, banks generate their profits from the interest margin, i.e. the difference between the lending rate and the deposit rate. As the policy rate and the bank deposit rate are identical, scenario 3 cannot be simulated in this model.

As a result of the negative demand shock, output and inflation also decline in scenarios 1 and 2 of model B (see the chart on p. 21). Here, too, the central bank responds by cutting the policy rate. As in model A, lending rates fall more sharply than deposit rates, leading to a smaller interest margin.[9]

In scenario 1, the effects of a demand shock on output and inflation are comparable to those in model A. The interest margin enters negative territory, i.e. losses are incurred. This reduces bank capital. The declining lending rates lead to fixed capital investment and a corresponding increase in borrowing. In scenario 2, there is an effective zero lower bound on both the policy rate and the deposit rate. As the policy rate cannot be lowered as far as in scenario 1, the demand shock leads to a sharper economic downturn in scenario 2. This is in line with model A. Compared with scenario 1, the leverage ratio in the non-financial sector increases. This is primarily due to the fact that capital in the non-financial sector decreases as a result of the sharper economic downturn. The higher leverage ratio in the non-financial sector is associated with greater expected losses for banks. Banks are compensated for their expected losses with higher lending rates. The resulting wider interest margin in comparison with scenario 1 ensures that banks' profits and capital fall less steeply in scenario 2.

A comparison of the two models points to qualitatively similar macroeconomic effects. However, the feedback effect of macroeconomic activity on banks' profitability varies. In model A, the NIRP stimulates credit demand, which leads to comparatively strong growth in the lending volume. Given a positive interest margin, this ultimately has a positive impact on commercial banks' profits. In model B, the NIRP reduces the leverage ratio in the non-financial sector. Lending rates thus fall more sharply, which has a negative impact on banks' profitability.

All in all, three conclusions can be drawn about the NIRP. First, it reduces banks' interest margin, especially when there is a zero lower bound on banks' deposit rates. Second, it stabilises macroeconomic activity by lowering the overall interest rate level. Third, it can stabilise or worsen banks' profitability, depending, above all, on developments in lending rates and the lending volume.

9 This is due to assumptions about the specifics of lending conditions. In the model, lending conditions are selected so as to maximise the benefit to borrowers. Following the demand shock, borrowers can thus negotiate a significantly lower lending rate.

High level of funding through household deposits increases likelihood of negative interest rates being applied to deposits

The box on pp. 24 ff. uses empirical methods to examine which types of banks charge negative interest rates in deposit business with NFCs. Its findings suggest that a larger share of household deposits in relation to total assets increases the likelihood of negative interest rates being applied to NFC deposits. The analysis presented in the box also indicates that banks adjusted their business strategy in deposit business with households during the NIRP period: banks generated higher net commission income on their outstanding deposit holdings than in the pre-NIRP period.[18] This could be because banks raised their fees in deposit business with households. It might also be because banks used their business relationships with households to cross-sell further banking services from which they generated commission profits.

Unclear why zero mark more binding on household deposits than on NFC deposits

The reasons why negative deposit rates are a more common occurrence in business with NFCs than they are in business with households are varied and ambiguous. Households are generally in a better position than NFCs to convert a larger proportion of their deposits into cash. Furthermore, the zero mark might represent more of a "psychological" barrier for households and prompt a stronger response if rates fall below that level.[19] It might also be the case that banks fear a loss of their reputation if they introduce negative deposit rates for households.

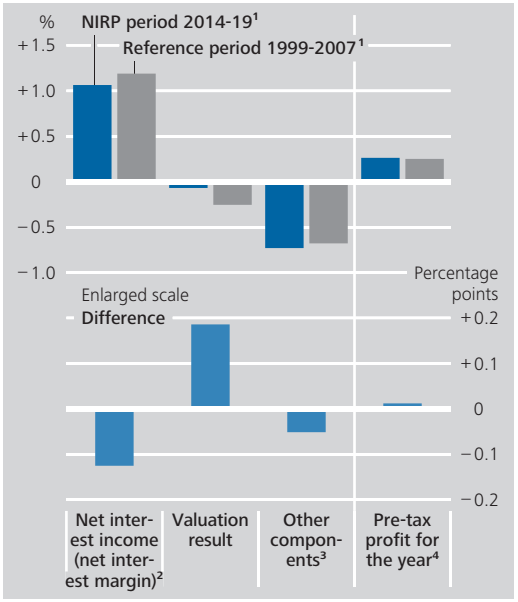
Relationship between lending and deposit rates changed in the NIRP period

Empirical evidence suggests that, in the pre-NIRP period, German banks sought to keep their interest margin in lending and deposit business as constant as possible.[20] To this end, they passed through changes in the interest rates applied to their outstanding loans to households via deposit rates.[21] A separate analysis models interest rates applied to households' sight deposits and savings deposits depending on the interest rates applied to out-

18 See Michaelis (2021).
19 See Eisenschmidt and Smets (2019).
20 See Sopp (2018).
21 See Deutsche Bundesbank (2019b).

Banks' profitability in the NIRP* period and the period from 1999 to 2007

In relation to total assets



* NIRP stands for "negative interest rate policy". **1** Averages over the respective years. **2** Net interest income as a percentage of total assets corresponds to the net interest margin. **3** Net commission income, result from the trading portfolio, other operating result, general administrative spending and extraordinary result. **4** Sum of net interest income, valuation result and other components.

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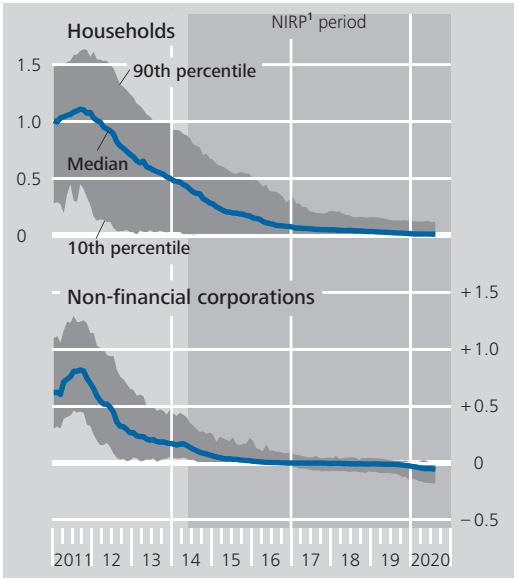
Distribution of deposit rates at the individual bank level*

%, monthly data



* Volume-weighted interest rate for new business across sight, savings and time deposits (according to MFI interest rate statistics), weighted with new business volumes. For non-financial corporations, only sight and time deposits are considered. For savings and sight deposits, new business volumes correspond to outstanding volumes. Distribution across banks in the MFI interest rate statistics sample. **1** NIRP stands for "negative interest rate policy".

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Negative interest rates on corporate deposits and higher fees – what role do retail deposits play?

The negative interest rate policy (NIRP) introduced by the Eurosystem in mid-2014 sent commercial banks' interest margins into decline. There are different ways in which banks can respond to the pressure this places on their profitability. One is to apply negative interest rates to retail deposits; another is to attempt to generate more income from fees and commissions. This box explores these two avenues independently of each other from an empirical angle with a view to finding out what characterises a bank that opts for one of these two paths.

Which types of banks charge enterprises negative deposit rates?

The first step is to empirically identify the bank characteristics which influence the probability of a bank in Germany, on average, charging non-financial corporations (NFCs) a negative rate of interest on their overnight (sight) deposits. This is achieved by estimating a linear probability model with bank microdata combined with bank and time fixed effects.[1] The estimation covers the period from September 2014 (since when the three-month OIS rate has been below zero) to September 2019.[2]

Linear probability models only allow the dependent variable to have a value of zero or one. In the calculations presented here, this variable is one in month t if a bank's volume-weighted interest rate on NFC sight deposits is negative[3] and zero otherwise. The benchmark model contains three explanatory bank-specific variables which are the main point of interest in this analysis: a bank's NFC deposit base, household deposit base, and excess liquidity.[4] The three variables are each shown as a percentage of the respective bank's total assets. In addition, the benchmark model contains two bank-specific control variables: liquid assets[5] as a percentage of total assets, and the bank's size (measured by the logarithm of total assets).

According to the empirical literature, the share of deposit-based funding in relation to a bank's total assets explains a major part of the supply of credit in the NIRP period.[6] Conceivably, then, the share of deposit-based funding will be a factor in the negative interest rates applied to NFC deposits as well. Since banks are significantly more reluctant to apply negative interest rates to household deposits than to NFC deposits,[7] the present analysis adds the deposit shares of NFCs and households to

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1 Probit or logit models would be alternative estimation models for binary data. However, it is very difficult to incorporate bank and time fixed effects, and robust standard errors into these model classes, which is why a linear regression model is used in this case (see Altavilla et al. (2019)).
2 Unlike in the main article, a short-term market interest rate, rather than the deposit facility interest rate, is used here to distinguish the period of negative interest rates. Short-term market rates such as the three-month overnight index swap (OIS) rate generally reflect banks' funding costs best of all, which is why they are commonly used for empirical analyses of interest rate pass-through.
3 Data source: MFI interest rate statistics.
4 The term "deposit base" refers to sight and time deposits. "Excess liquidity" denotes banks' predominantly short-term credit balances on their central bank accounts in excess of their required reserves. Excess liquidity is a subset of banks' total claims on the Eurosystem. Unlike excess liquidity, the latter also include longer-term claims. Data source: monthly balance sheet statistics.
5 Liquid assets are calculated as currency in circulation plus foreign and domestic debt securities plus bank claims on the Eurosystem, less required reserves. Excess liquidity has been deducted from claims on the Eurosystem because it is already included in the estimates as a standalone variable. Data source: monthly balance sheet statistics.
6 See Heider, Saidi and Schepens (2019) and Demiralp et al. (2019).
7 See Jobst and Lin (2016) and Eisenschmidt and Smets (2019).

the estimates as separate items. One possibility is that banks with a high share of NFC deposits are more reluctant to apply negative interest rates to this type of deposit because they are uncertain how their customers would react. It is also conceivable that these banks are more inclined to apply negative interest rates to NFC deposits as a way of alleviating the pressure on their shrinking interest margins. This pressure on profitability is likely to be more noticeable still at banks where the share of household deposits is high. Following this line of reasoning, these banks would likewise be more inclined to apply negative interest rates to NFC deposits.

A higher level of excess liquidity will reduce banks' net interest income, all other things being equal, because it is subject to a negative interest rate.[8] For this reason, higher excess liquidity could increase the probability of a bank charging negative interest rates on NFC deposits.

To investigate whether the influence of the main variables of interest has changed over the course of the NIRP period, we divide this period into two roughly equal sub-periods,[9] the first running from September 2014 to December 2016, the second from January 2017 to September 2019. The influence of the main variables of interest in this analysis is estimated for each of these two sub-periods. This is achieved by interacting them with suitable time dummies.[10] The share of the extrapolated NFC sight deposit base of banks applying a negative average interest rate in relation to total NFC sight deposits rises across both sub-periods, climbing from 10% on average during the first NIRP sub-period to just over 60% in the second.

In the robustness check, the benchmark model is extended to include the following bank-specific variables: the interest rate on household deposits, the interest rate on loans to the private non-financial sector, a measure of profitability, and the capital ratio.[11] As in the benchmark model, these variables are interacted with time dummies.

The table on p. 26 presents the results of the empirical analysis. The two main findings are as follows:

– During the first NIRP sub-period, a higher share of NFC deposits in relation to total assets is associated, to a statistically significant degree, with a lower probability of a bank charging negative interest rates on NFC deposits. A statistically significant correlation no longer exists in the second sub-period.

– By contrast, a higher share of household deposits in relation to total assets is associated, to a statistically significant degree, with a higher probability of a bank charging negative interest rates on NFC deposits.[12]

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8 In the euro area, this is due to the deposit facility rate, which has been negative since June 2014.
9 The split was timed to coincide with the turn of a year and to create two periods of a similar length.
10 For the first period (from September 2014 to December 2016) the dummy is one and zero otherwise. The second dummy is one from January 2017 and zero otherwise.
11 Data source for deposit and lending rates: MFI interest rate statistics. Profitability is measured as operating profit or loss in relation to total assets. Operating profit or loss is the total of net interest income, net commission income, net trading income and net other operating income. Data source: quarterly data provided under the Financial and Internal Capital Adequacy Information Regulation (*Verordnung zur Einreichung von Finanz- und Risikotragfähigkeitsinformationen* – FinaRisikoV). They are interpolated linearly to obtain monthly data. The capital ratio is calculated as tier 1 capital as a percentage of risk-weighted assets. Data source: prudential quarterly data, which are interpolated linearly to obtain monthly data.
12 The second, "extended" model specification suggests that the influence was weaker here; the coefficient is no longer significant during the first NIRP sub-period.

Linear probability model on the average negative interest rates applied to NFC deposits°

Variable	Benchmark model	Extended model
NFC deposit share I	– 2.876***	– 2.162*
NFC deposit share II	– 0.248	– 0.970
Household deposit share I	1.324**	0.915
Household deposit share II	1.598**	0.997*
Excess liquidity share I	0.931	1.148
Excess liquidity share II	0.397	– 0.291
Share of liquid assets	1.112	0.818
Size	0.095	– 0.034
Household deposit rate I	–	0.232***
Household deposit rate II	–	– 0.057
Lending rate I	–	– 0.089
Lending rate II	–	– 0.161
Profitability I	–	– 5.003**
Profitability II	–	8.520***
Capital ratio I	–	– 0.605
Capital ratio II	–	– 0.59
Constant	– 1.868	0.918
Observations	9,420	9,200
Number of banks	185	181

° "I" and "II" indicate the first and second negative interest rate policy (NIRP) sub-periods. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$ denote the respective significance levels. Model includes bank and time fixed effects. Standard errors double-clustered (bank level and time level). All variables lagged by three months.

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The estimation results show that banks for which NFC deposits were a relatively important source of funding were less inclined to apply negative interest rates to these deposits at the beginning of the NIRP period than other banks. One explanation for this could be that, at the beginning of the NIRP period, the banks in question were still uncertain how their customers would respond to negative interest rates. However, the more banks and customers became accustomed to negative interest rates on deposits, the less inhibited the individual bank probably was to risk this step and apply a negative interest rate to NFC deposits. The insignificant coefficient in the second NIRP sub-period might be a reflection of this. These results might suggest, furthermore, that the pressure to respond to shrinking interest margins was not yet as intense in the first sub-period as it would become in the second. The estimation results also seem to indicate, above all in the second sub-period, that banks for which household deposits were a relatively important source of funding were more inclined to apply negative interest rates to NFC deposits. Given banks' reluctance to apply negative interest rates to household deposits, those which make greater use of those deposits as a source of funding are likely to experience more pressure on their interest margins, all other things being equal. Negative NFC deposit rates are one way in which they could attempt to mitigate this pressure on interest margins.

The results suggest, furthermore, that a higher share of excess liquidity in relation to total assets does not influence, to a statistically significant degree, the probability of negative interest rates being applied to NFC deposits. This is consistent with the finding, made in the main article, that the cost of holding excess liquidity is low relative to the burden of shrinking interest margins (see p. 29).

In addition, the robustness check suggests that, in the first NIRP sub-period, a lower interest rate on household deposits reduces the probability of negative interest rates being applied to NFC deposits.[13] It would appear that there was no need to apply negative interest rates to NFC deposits during this first sub-period because the interest rate on household deposits at that time was still far enough away from zero. This changed in the second NIRP sub-period, when interest rates on household deposits reached the zero mark at many banks and remained there (see p. 23). The influence of the coefficient turns statistically insignificant on account of the lack of variability.

13 The coefficients can be interpreted symmetrically in both directions. The case of a "lower" interest rate, rather than a "higher" one, is considered because banks lowered their deposit rates for the most part during the NIRP period, rather than raising them.

The coefficient of the profitability measure changes its sign as it moves from the first sub-period to the second. Its influence is not economically relevant, though, as a change in this variable hardly affects the probability of negative interest rates being applied to NFC deposits.[14] This does not indicate that mounting pressure on profitability would have led to negative interest rates increasingly being applied to deposits.

Which types of banks increased their commission margin?

Besides applying negative interest rates to deposits, there are other instruments, such as higher fees and commissions, which banks can use to alleviate the pressure that a declining interest margin exerts on their profitability. The following section examines the extent to which the influence of different bank characteristics on the commission margin has changed over time. The commission margin is computed as net commission income[15] over total assets. The estimation period runs from January 2012 until September 2019, so it includes both the NIRP period and the immediately preceding (pre-NIRP) period, when the short-term market interest rate was only just above zero. This wider observation period allows us to investigate whether the influence of the variables under consideration in the NIRP period was statistically different from that observed in the pre-NIRP period.

A panel model with bank and time fixed effects is used in the estimation,[16] while the independent variables are the same as the ones used in the benchmark model above. As in the benchmark model, this analysis separately estimates the influence of the main variables of interest for the respective periods.

Commission margin panel model°

Variable	Panel model
Commission margin	0.2294***
NFC deposit share (pre-NIRP)	– 0.0014
NFC deposit share I	0.0025
NFC deposit share II	0.0014
Household deposit share (pre-NIRP)	0.0038***
Household deposit share I	0.0044***
Household deposit share II	0.0049***
Excess liquidity share (pre-NIRP)	0.0037
Excess liquidity share I	0.0030
Excess liquidity share II	0.0022
Share of liquid assets	0.0039***
Size	– 0.0010***
Constant	0.0162***
Observations	13,946
Number of banks	191

° NIRP stands for negative interest rate policy; "I" and "II" indicate the first and second NIRP sub-periods. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$ denote the respective significance levels. Model includes bank and time fixed effects. Standard errors double-clustered (bank level and time level). All variables lagged by three months.

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The results presented in the above table do not show an empirical correlation between the share of NFC deposits in relation to total assets and a bank's commission margin. By contrast, a larger share of household deposits was already associated with a higher commission margin in the pre-NIRP period. This influence increased significantly in the NIRP period compared with the

14 The standard deviation of the measure of profitability is very small, at 6.5 basis points. In other words, an increase of one standard deviation in the measure of profitability reduces the probability in the first sub-period by 0.32 percentage point. The influence of the measure of profitability is therefore economically insignificant.

15 Net commission income is calculated as commission income net of commission expenses. It notably includes fees from giro transactions, payments, and securities and safe custody business. The net commission income figures for 2012 and 2013 are based on annual data from the profit and loss statistics. From 2014, quarterly data are available under the Financial and Internal Capital Adequacy Information Regulation. These figures are interpolated linearly to obtain monthly data.

16 Standard errors are double-clustered at the bank and time levels.

2012-13 window.[17] While a 1-percentage-point increase in the share of household deposits in the pre-NIRP period was associated with a rise of 0.38 basis point in the commission margin, its effect was stronger during the NIRP period, at between 0.44 and 0.49 basis point.[18] Compared with the pre-NIRP period, in the NIRP period banks were able to increase their net commission income per euro of household deposits by between 0.06 and 0.11 cent.[19]

The influence of excess liquidity is unlikely to be positively significant because the cost of holding excess liquidity is low relative to the burden of banks' shrinking interest margin. The result confirms this theory: in none of the periods under observation does the level of excess liquidity influence the level of the commission margin to a statistically significant degree.

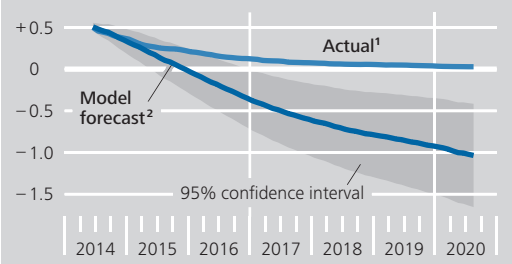
In summary, it can be concluded from the two analyses that banks are generally reluctant to apply negative interest rates to household deposits. The findings suggest that banks for which these deposits are a relatively important source of funding mainly followed two paths: they applied negative interest rates to NFC deposits, and they increased their commission margin.

17 A hypothesis test based on one-tailed and two-tailed tests (see Michaelis (2021)) also confirms the difference in influence. It shows that the coefficients in both NIRP sub-periods are significantly higher than before.
18 An increase of one standard deviation in household deposits widens the commission margin by 0.14 basis point in the first sub-period and by 0.13 basis point in the second.
19 This result can be computed from the difference between the respective coefficients, i.e. 0.44-0.38 = 0.06 and 0.49-0.38 = 0.11. Both the deposit share and the commission margin are calculated as a share of total assets, which is why the figures can be interpreted "per euro of household deposits".

standing loans.[22] Owing to their high volume, these deposit categories are of particular relevance for the interest margin. They can furthermore be repriced by banks on an ongoing basis. The relationship between interest rates applied to outstanding loans and those applied to household deposits was estimated using data from the pre-NIRP period (January 2003 to May 2014). Subsequently, the relationship estimated by the model was used to forecast deposit rates conditional on the actual development of lending rates from June 2014 onwards. If bank behaviour had remained unchanged during the NIRP period, the aggregated deposit rate for households would have been expected to fall well below zero by mid-2020 (see the adjacent chart). According to the model forecast, banks would have applied an average interest rate of around -1% per year in mid-2020 on deposits. As it turns out, though, the deposit rate was hovering just above the zero mark (see the adjacent chart). This caused German banks' interest margin in lending and deposit business with the private non-financial sector to narrow during the NIRP period (see the chart on p. 29).

Aggregated interest rate on households' sight and savings deposits

%, monthly data



1 According to MFI interest rate statistics. Volume-weighted interest rate across sight and savings deposits, weighted with outstanding volumes. **2** Model with a volume-weighted interest rate across sight and savings deposits depending on the lending rate in outstanding business with the private non-financial sector (volume-weighted across sectors and across maturities). Estimation in first differences with up to four lags of the dependent and explanatory variables.

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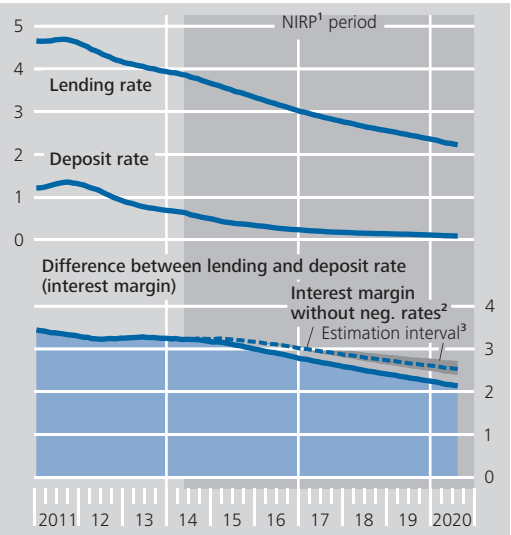
22 The analysis follows the approach outlined in Sopp (2018).

Decline in interest margin since June 2014 reinforced by negative interest rate on deposit facility

However, the decline in the interest margin was due to more than just the negative interest rate on the deposit facility. The effects which the negative interest rate on the deposit facility had on the interest margin are isolated in a further analysis,[23] which takes into account the impact of a lower level of short-term money market rates and of a change in the slope of the yield curve.[24] This approach makes it possible to estimate how the interest margin would have developed if the interest rate on the deposit facility had remained at 0%. The interest margin declines in this hypothetical scenario, too, but less steeply than actually observed (see the adjacent chart). This is because even if the interest rate on the deposit facility had not been negative, older, higher-interest loans would have gradually expired over the course of a low interest rate period and been replaced by new, lower-interest loans. The declining capital market rates, which were also influenced by the monetary policy asset purchase programmes, would have resulted in falling lending rates in the hypothetical scenario as well, as longer-term capital market rates are an important benchmark for pricing longer-term loans.[25]

Interest margin in lending and deposit business*

%



***** Outstanding volumes, according to MFI interest rate statistics and monthly balance sheet statistics. Business with households and non-financial corporations. Volume-weighted interest rates across sectors and across maturities. **1** NIRP stands for "negative interest rate policy". **2** Difference between the lending and deposit rate if the Eurosystem's deposit facility rate had remained at zero over the whole period. Calculations based on Klein (2020). Average across different model specifications. **3** Upper and lower bounds produced by the model specifications.

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Effect of negative deposit facility rate on interest margins increases over time

Over time, a gap emerged between the interest margin that would have been produced without a negative interest rate on the deposit facility (as outlined in the above analysis) and the actual interest margin (see the adjacent chart). The empirically estimated impact that the negative interest rate on the deposit facility had on the interest margin thus increased over time. Two factors were behind this. First, the interest rate on the deposit facility was lowered deeper into negative territory in several steps. Second, the gradual expiry of older, higher-interest loans has an impact here, too, because it means that the effect of the negative interest rate on the deposit facility will only fully materialise with a time lag. This suggests that the effect will have continued to increase during the period in which the interest rate on the deposit facility remained at its current level of -0.5%. If the findings of the analysis are extrapolated, assuming that the current negative interest rate on the deposit facility remains constant, its effect is expected to rise further by around one-third over the next five years.

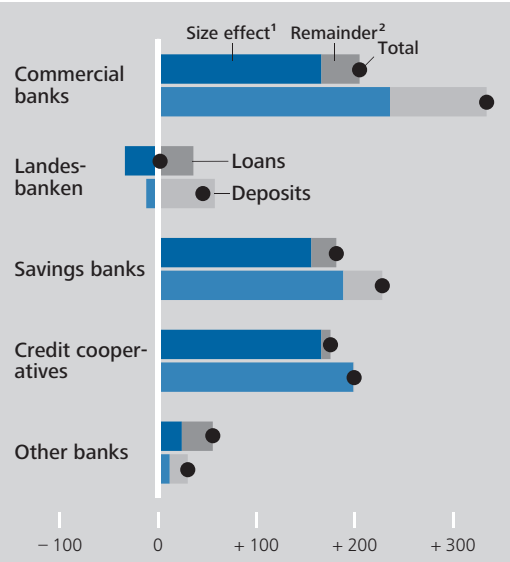
Cost of holding excess liquidity rather low compared with margin effect

The negative interest rate on the deposit facility implies, furthermore, that banks face costs for holding excess liquidity which increase with the amount of excess liquidity held. These costs were reduced by the introduction of the tiering system at the end of 2019. However, the costs of holding excess liquidity up until the introduction of the tiering system are likely to be rather low compared with the burden of a shrinking interest margin in lending and deposit business. The above analysis on the effect of the negative deposit facility rate on interest mar-

23 The analysis using German data follows the approach of Klein (2020).
24 The requisite estimation of the effect of the negative deposit facility rate on longer-term interest rates is based on Geiger and Schupp (2018).
25 See Deutsche Bundesbank (2019b).

Changes in volumes in business with the euro area private non-financial sector since June 2014

€ billion, cumulated and adjusted for statistical breaks, as at August 2020



1 Hypothetical change assuming that loans or deposits grew "passively" in line with total assets or liabilities. Calculated as cumulated adjusted changes in the total assets or liabilities (net of other asset or liability items) since June 2014, multiplied by the share of loans or deposits in total assets or liabilities in May 2014. **2** Difference between total change and size effect.

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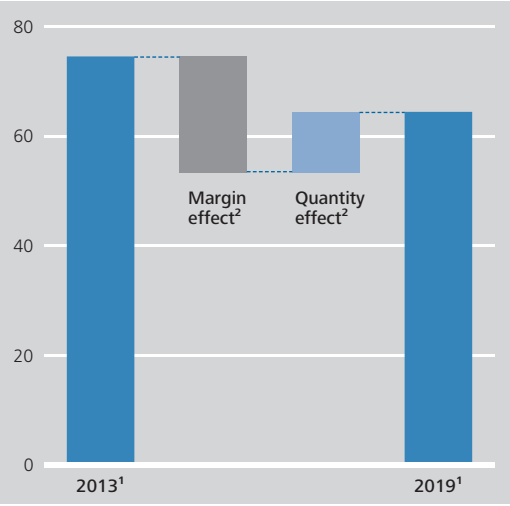
Net interest income of German banks in lending and deposit business 2013 and 2019*

€ billion



* Bundesbank calculations for lending and deposit business with the euro area private non-financial sector on the basis of MFI interest rate statistics and monthly balance sheet statistics. **1** Product of aggregated lending rate and outstanding loans, less product of aggregated deposit rate and outstanding deposits. Difference between outstanding loans and outstanding deposits assumed to be remunerated at the yield on German bank debt securities. **2** Effect of the change between 2013 and 2019 in lending and deposit rates and in outstanding loan and deposit volumes, respectively.

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gins can be used to roughly estimate the ratio of both variables in absolute figures. This approach finds that, from the beginning of the NIRP period up to end-2019, the burdens that banks in Germany faced from the declining interest margin were around four times higher than the costs of holding excess liquidity.

Decline in interest margin in NIRP period not accompanied by a deterioration in profitability

Overall, then, there is strong evidence for the German banking system that the negative interest rate on the deposit facility, combined with the binding effect of the zero mark as regards the interest rate applied to deposits, weighed on banks' interest margins. What is also evident, though, is that a combination of circumstances of this kind does not automatically have to lead to a deterioration in profitability. Indeed, the declining interest margin had been offset by low loan loss provisions prior to the onset of the coronavirus crisis, which was probably due in part to the expansionary monetary policy stance.

Developments in German banks' lending

Expansion of lending and deposit business

Accelerated growth in lending business in absolute terms

An examination of balance sheet aggregates does not provide any evidence to suggest that banks were restricting their supply of credit in response to mounting margin pressure during the NIRP period. On the contrary, the volume of loans granted to the private non-financial sector increased in absolute terms during this period (see the adjacent upper chart).[26] The increase was stronger in all categories of banks than would have been the case if business with NFCs and households had grown in proportion

26 The private non-financial sector essentially comprises households and NFCs. The aggregate used here also includes non-profit institutions. These will no longer be named separately in the following. The balance sheet data used relate to banks in Germany. The analysis considers loans to borrowers resident in Germany and other euro area countries. For the relevant definition, see the banking statistics presented in the Bundesbank's Statistical Series.

to total assets. In the NIRP period, banks that had previously attached relatively little importance to lending business also stepped up their operations in this area. At the same time, there was also an increase in the use of private non-financial sector deposits as a source of funding (see the upper chart on p. 30). As a result, lending and deposit business gained in importance for German banks during the NIRP period, both in absolute terms and in relation to total assets. In the case of lending business, the increase in absolute terms was significantly stronger at this time than in the period from the financial crisis to the start of the NIRP period. By contrast, the relative gain in significance of lending business had already been observed in the pre-NIRP period.

Increased lending volume bolsters net interest income

Banks' interest income, expressed in absolute terms, is positively related to volumes. Banks were thus able to stabilise their net interest income above all by increasing the volume of lending business. However, this stabilising effect was not sufficient to fully offset the decline in margins (see the lower chart on p. 30).

No sign of supply-side constraints

Expansion of lending business driven by both demand-side …

The expansion of lending to NFCs and households during the NIRP period is likely to be attributable to both demand-side and supply-side factors. Data from the Bank Lending Survey (BLS), conducted among 34 German banks, indicate that loan demand made a significant contribution here. The surveyed institutions reported strong increases in demand, in part, both in business with NFCs and with households, citing the low interest rate level as the main driver of this development.[27]

… and supply-side factors

The BLS also indicates that banks increased the supply of credit.[28] In the survey rounds during the NIRP period, the credit institutions reported that there had been a narrowing of the spread between their lending rates and a suitable reference interest rate in each case (typically a market interest rate).[29] This applied to both business with NFCs and business with households. The institutions taking part in the BLS identified competition with other banks as the main driver behind the tightening of margins. Such competition-driven pressure on margins, coupled with a simultaneous increase in loan demand, clearly indicate an expansion in the supply of credit. Banks appeared to be using lower lending rates to compete for the rising demand. The expansion of the credit supply has thus tended to increase margin pressure.

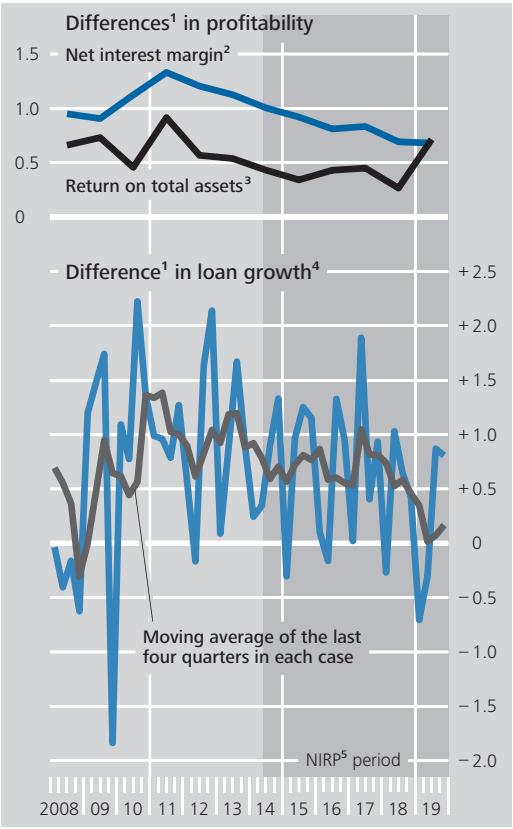
Compared with other institutions, banks heavily reliant on deposit funding see sharper decline in net interest margins, …

If a relationship exists between margin pressure and lending, then it ought to show up in a comparison of lending by banks that are exposed to different degrees of margin pressure. Banks that are heavily reliant on household deposits as a source of funding are more exposed to margin pressure than other banks. This is because these banks' net interest margin fell more sharply than that of the other banks during the NIRP period (see the chart on p. 32). However, this relative decline was already underway beforehand, which probably has something to do with the fact that some banks' interest rates on deposits had already reached zero in the pre-NIRP period (see the lower chart on p. 23). By contrast, the difference in how the return on assets has evolved at banks that are more and less reliant on deposit funding is smaller than it is in the case of the net interest margin. Credit cooperatives and savings banks make up a disproportionately large share of the banks that are heavily reliant on deposit funding. These two categories of banks have the highest return on assets in the German banking system.[30]

27 See also Deutsche Bundesbank (2020c) specifically for loans to NFCs.
28 See also Deutsche Bundesbank (2020c) specifically for loans to NFCs.
29 A distinction should be made between the term "loan margin", as used in the BLS, and the definition of the interest margin as the spread between the lending and deposit rate, as used in this article.
30 See Deutsche Bundesbank (2020d).

Differences between banks more and less reliant on deposit funding*

Percentage points



***** A bank is assigned to the group of banks that are more reliant on deposit funding if its share of household deposits in total liabilities, net of other liabilities, was above the median before the NIRP period (May 2014). **1** The difference is calculated as the value of the relevant indicator for banks that are more reliant on deposit funding, less the corresponding value for banks that are less reliant on deposit funding. **2** Net interest income divided by total assets. **3** Pre-tax profit for the year divided by total assets. **4** Loans to households and non-financial corporations in the euro area, quarterly growth rates. **5** NIRP stands for "negative interest rate policy".

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… and consistently strong loan growth, …

Compared with the other banks, banks that are more reliant on deposit funding saw stronger growth in lending business with the private non-financial sector throughout almost the entire NIRP period. However, this merely represented a continuation of previously observed developments. Overall, the difference between the rates of loan growth at banks that are more dependent on deposit funding and those that are less reliant on deposit funding did not change noticeably during the NIRP period. A straightforward comparison of the two types of banks, then, provides no indication that the margin pressure induced by the binding effect of the zero mark as regards the interest rates applied to deposits affected the volume of lending.

… but also a stronger appetite for risk

Margin pressure does, however, appear to have had an effect on the relative riskiness of the loans granted. An analysis based on data from the German credit register indicates that banks with a heavy reliance on deposit funding expanded their credit supply to riskier enterprises to a greater extent than the other banks after the interest rate on the deposit facility had been lowered to negative levels.[31]

Expansion of maturity transformation in lending and deposit business

Greater maturity transformation …

Increasing the volume of lending business is not the only way to stabilise profitability. Maturities and interest rate fixation periods in lending business are also parameters which banks can potentially use to respond to margin pressure. While long-term loans as a share of all outstanding loans remained relatively constant during the NIRP period, sight deposits as a share of all deposits increased. This marks a continuation of a trend that has been ongoing for some time now (see the chart on p. 33).[32] On balance, maturities of loans increased relative to maturities of deposits. Taken in isolation, the resulting greater maturity transformation stabilised interest margins, as investments with longer maturities usually have a higher rate of interest. However, the APP and PEPP monetary policy asset purchase programmes reduced long-term government bond yields, amongst other things, which in turn are included, as the basic rate, in the calculation of interest rates on long-term loans. These monetary policy meas-

31 For more information, see Bittner et al. (2020). With regard to larger banks from the euro area as a whole, there are indications, furthermore, that banks with a heavy reliance on deposit funding geared their securities portfolios more towards riskier securities after the interest rate on the deposit facility had been lowered to negative levels. See also Bubeck et al. (2020).

32 For more information, see Deutsche Bundesbank (2015b).

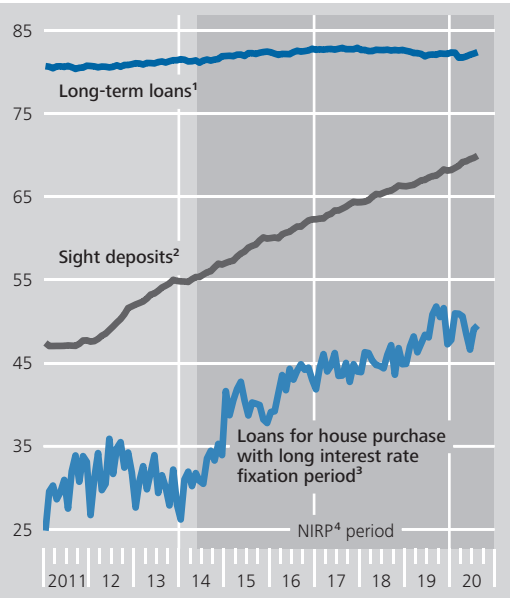
ures are therefore likely to have played a part in reducing marginal earnings from maturity transformation.

… and increase in interest rate risk

Increased maturity transformation was accompanied by a rise in interest rate risk, even after taking hedging transactions into account.[33] It is the interest rate fixation periods of loans and deposits, rather than their maturities, that have a bearing on how interest rate risk develops in lending and deposit business. So while German banks' lending business did not see a notable increase in maturities, there was evidence of longer interest rate fixation periods, however. Since the onset of the NIRP period, the length of these periods has increased, particularly for loans for house purchase (see the adjacent chart).[34]

Indicators of maturity transformation and interest rate risk at German banks*

%



***** In business with households and non-financial corporations in the euro area. **1** Share of loans with an original maturity of more than five years in all outstanding loans. **2** Share of sight deposits in all outstanding deposits. **3** Share of loans for house purchase with an initial interest rate fixation period of over ten years in all new loans for house purchase. **4** NIRP stands for "negative interest rate policy".

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Expansion of maturity transformation and increased interest rate risk probably driven by demand-side factors, too

The extent to which the increased use of short-term deposits as a source of funding and the longer interest rate fixation periods of loans for house purchase are more a reflection of banks' business policy decisions or of changes in their customers' demand remains an open question. The increase in short-term deposits is presumably partly due to households' strong preference for liquidity and risk aversion. Their demand for highly liquid sight deposits also came about because alternative forms of investment offered little in the way of superior returns.[35] Customer preferences also play an important role in determining the interest rate fixation periods of loans for house purchase.[36]

Increased cross-border lending

Stabilising income by expanding foreign business?

Expanding foreign business is one way, above all for larger banks, to evade strong competition and margin pressure in domestic lending and deposit business.[37] Foreign business, however, is not more profitable per se. The cost of running foreign branches and subsidiaries, amongst other things, needs to be charged against earnings. In addition, exposures outside the euro area are subject to currency risk, which, if hedged, also reduces income.

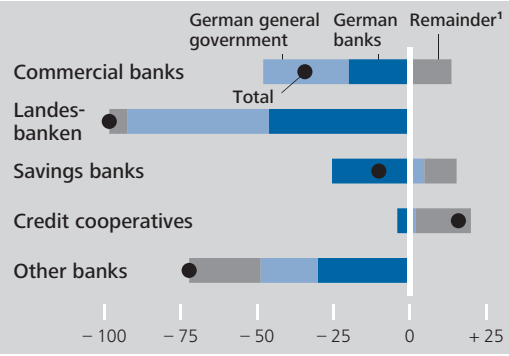
Significant increase in lending to enterprises in other euro area countries

During the NIRP period, German banking groups substantially expanded their lending to enterprises and households in other euro area countries, above all.[38] This had still been declining in the pre-NIRP period. By contrast, lending business with NFCs, in particular, has expanded significantly since mid-2018. Compared with the previous year, credit growth accelerated from just under 2.0% in the second quarter of 2018 to a little under 17% in the fourth quarter of 2019 before slowing down again markedly amid the decline in global economic activity. In

33 See Deutsche Bundesbank (2019d), p. 64.
34 For more information, see Deutsche Bundesbank (2019d).
35 See Deutsche Bundesbank (2020e).
36 See Memmel (2019).
37 One part of the foreign business of banks in Germany, namely loans to and deposits from counterparties in other euro area countries, is already included in the aggregates considered so far in this article. However, as explained above, the aggregates considered so far relate only to the domestic part of banks in Germany.
38 German banking groups increased their exposures above all in Italy and the Netherlands. See German contribution to the BIS consolidated banking statistics.

Changes in the volumes of debt securities holdings since June 2014, by issuer

€ billion, cumulated and adjusted for statistical breaks, as at August 2020



1 Including foreign issuers.
Deutsche Bundesbank

August 2020, the annual growth rate in this credit segment stood at 5.0%.[39] This is how the rise in lending abroad, taken in isolation, supported the net interest income of banks in Germany.

Exposures in other euro area countries highly significant for banks in Germany

The significance of foreign business as a whole for banks in Germany, taking into account their foreign branches and subsidiaries, remained broadly unchanged following the slump during the financial and sovereign debt crisis and has since fluctuated around the 25% mark in terms of total assets. Lending to enterprises and households in other euro area countries is of particular relevance for the German banking system. Its significance has increased, especially since mid-2017, and it accounted for around half of total foreign business on average in 2020.[40]

Reducing holdings of debt securities supports lending

Reduction of debt securities holdings in NIRP period

One alternative to lending is for banks to use their resources to purchase debt securities. Apart from offering a way of generating income, they also play an important role in banks' liquidity management. German banks offloaded debt securities on their books during the NIRP period (see the above chart), the bulk of which were German general government bonds and German bank debt securities. The reduction in holdings of German bank debt securities marked the continuation of a trend that has been observed since 2008. By contrast, the scaling-back of German general government bond holdings represents a new development. In net terms, German banks had still been increasing these holdings in the period from the financial market crisis to the beginning of the NIRP period.

APP likely to have been one factor driving reduction of general government bonds in German banking system

One reason for the offloading of German general government bonds from German banks' balance sheets is likely to have been the decline in public debt up until the coronavirus crisis. However, the APP probably played an important role as well. The Eurosystem's purchases of these assets caused prices to increase and yields to decrease.[41] This incentivised banks to sell these bonds in order to take advantage of price gains and step up lending to the private non-financial sector. Portfolio rebalancing of this kind is discussed in the literature as an important transmission channel for monetary policy asset purchase programmes.[42] Empirical studies find evidence for Germany of portfolio rebalancing due to the APP: banks that saw a sharper decline in yields in their bond portfolios as a result of the APP increased their lending by more than other banks.[43] Moreover, since the APP was launched, there has been an increasingly positive relationship between the volume of maturing bonds in a bank's portfolio and its lending.[44] Overall, however, portfolio rebalancing is likely to have played a rather minor role in the expansion of credit volumes. In most categories of banks, changes in debt securities holdings were small compared with lending growth (see also the upper chart on p. 30).

39 See monthly balance sheet statistics. These include domestic banks, i.e. also foreign banks whose branches or subsidiaries are located in Germany.
40 See monthly external position report of banks in Germany.
41 For corresponding empirical evidence on the APP, see, for example, Altavilla et al. (2015).
42 See Albertazzi et al. (2018).
43 See Paludkiewicz (2020).
44 See Tischer (2018).

Bank debt securities as a source of funding

Decrease in yields on bank debt securities more pronounced than decrease in deposit rates

Besides deposits, banks can also use debt securities as a source of funding. It is precisely during the NIRP period that the issuance of debt securities might have become more attractive from the banks' perspective. After all, as with other marketable debt instruments, the zero mark has no binding effect here, or at least a weaker one than in deposit business for banks in Germany. Greater use of negative-interest-bearing liabilities as a source of funding would counteract the pressure on margins in lending and deposit business by reducing interest expenditure. Indeed, yields on bank debt securities tended to decline more sharply during the NIRP period than interest rates on deposits. That said, in terms of their level, yields on bank debt securities were not below deposit rates across the board. Yields on other bank debt securities[45] were consistently higher. Broadly speaking, yields were only below deposit rates and below zero in Germany for Pfandbriefe.

Bank debt securities' loss of importance did not continue during NIRP period

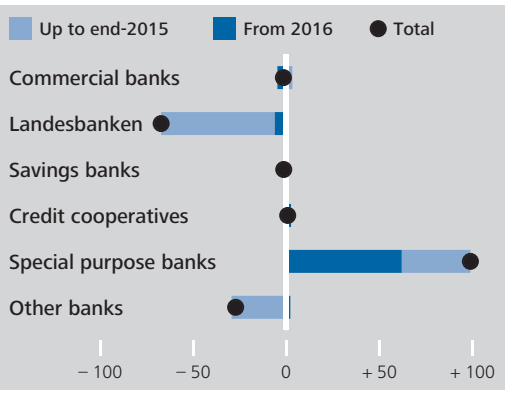
Due in part to banks wanting to retain the option of raising the share of negative-interest-bearing liabilities in their funding mix as needed, bank debt securities might have stopped diminishing in importance as a component in that mix since the onset of the NIRP period. This loss of importance had begun during the financial crisis and was a broad trend observed across various categories of banks.[46] During the NIRP period, by contrast, new issuance of debt securities was roughly in line with redemptions for most categories of banks, meaning that they experienced no major changes in volumes of outstanding debt securities (see the adjacent chart). The marked reduction at Landesbanken was confined to the start of the NIRP period.

Substitutions of deposits with debt securities not widespread

Nevertheless, substitutions of deposits with debt securities were not a widespread phenomenon. This is unsurprising insofar as, for most banks, bank debt securities are unlikely to be a much cheaper source of funding than deposits. Over half of banks in Germany did not use debt securities at all for funding purposes during the NIRP period. Small banks, in particular, often do not use debt securities as a source of funding.

Changes in the volumes of bank debt securities* since June 2014

€ billion, cumulated and adjusted for statistical breaks, as at August 2020



* Outstanding bearer debt securities issued by German banks.
Deutsche Bundesbank

Assessment from a monetary policy perspective

Developments in German banking system in line with monetary policy's intended effect

Lending and deposit business in the German banking system has grown in importance since the financial crisis, with lending business as a percentage of the total volume of business being steadily expanded during this spell. In the NIRP period, this relative growth went hand in hand with strong rates of expansion in absolute terms, too. By contrast, expansion in absolute terms had been subdued between the financial crisis and the onset of the NIRP period. The developments in the German banking system during the NIRP period detailed here are thus largely in line with the intended effect of monetary policy. The expansion of lending is likely to have been driven by demand for credit, but also by banks' willingness to lend. The call

45 These are bank debt securities that are not issued by special purpose credit institutions and are not Pfandbriefe.
46 See Deutsche Bundesbank (2015b).

for loans and banks' willingness to lend, in turn, were bolstered by accommodative monetary policy. Monetary policy measures of the kind that pushed down yields on alternative forms of investment are also likely to have played a role in banks' willingness to lend. The APP and, in response to the coronavirus crisis, the PEPP are two major examples of these policies. The monetary policy measures and banks' increasing willingness to supply credit had the knock-on effect of driving down lending rates,[47] but the flatter decline in deposit rates meant that interest margins in lending and deposit business narrowed.

Margin pressure no impediment to lending so far

However, this pressure on margins does not appear to have been much of an impediment to German banks' lending so far. Despite experiencing margin pressure, banks managed to stabilise and even improve their capital levels up to the onset of the coronavirus crisis,[48] with low credit default rates and the resulting reduced need for loan loss provisions being major factors at play. This positive development in borrower default risk can be put down in part to the favourable economic situation, which in turn was being bolstered by accommodative monetary policy. Thus, while monetary policy led to a narrowing of margins, it also had a positive impact on banks' profitability through other channels.[49]

Viewed on its own, coronavirus crisis increases risk of negative interest rates having adverse impact on lending, …

The economy is now experiencing a downturn as a result of the coronavirus crisis. If, in the wake of the COVID-19 pandemic, many borrowers run into payment difficulties and there is an uptick in defaults on loans, it can be assumed that this downturn will start to weigh more heavily on banks' profitability. In addition, banks' capital ratios could come under pressure if risk weights rise.[50] The comprehensive package of fiscal support measures, the temporary suspension of the obligation to file for insolvency, and supervisory rules have prevented a steep increase in credit defaults for now. However, the negative repercussions are more likely to surface once the assistance programmes come to an end. In this setting, banks will also find it harder to offset margin pressure in lending and deposit business. If the economic downturn puts pressure on banks' capital levels, a link between capital levels and lending could materialise or grow stronger. This increases the likelihood that the negative interest rate on the deposit facility will inhibit lending if its overall effect on profitability and capital levels is negative.

… while monetary policy, …

Conversely, measures that stabilise a bank's profitability and ease capital constraints reduce the likelihood of the negative deposit facility rate having an adverse impact on the credit supply. By introducing the tiering system, the Eurosystem had already adopted a measure at the end of last year, i.e. even before the outbreak of the coronavirus, that contributed to an improvement in banks' profitability. In response to the COVID-19 pandemic, the ECB Governing Council decided on further measures,[51] one of which was to make the conditions for the TLTROs significantly more attractive in order to create additional incentives for lending. The extremely favourable interest rate is likely to have been the main driver behind the brisk demand amongst euro area banks for these operations recently.[52] Even if these measures are not aimed primarily at banks' profitability, they nevertheless probably helped stabilise it by lowering banks' funding costs. The extent of this depends on take-up of the instruments by banks and the costs of alternative funding instruments.

… supervisory and fiscal policy measures lower this probability

Supervisory relief measures granted in response to the coronavirus crisis are easing banks' capital constraints. These primarily comprise the release of the Pillar 2 Guidance buffer and the

47 For more information for the euro area, see also Deutsche Bundesbank (2019b).
48 See Deutsche Bundesbank (2019d), particularly pp. 64 f.
49 See Deutsche Bundesbank (2018) for an overview of the channels through which the interest rate level affects banks' profitability.
50 See Deutsche Bundesbank (2020b).
51 For more information, see also Deutsche Bundesbank (2020f).
52 See Deutsche Bundesbank (2020g).

easing of Pillar 2 Requirements.[53] In addition, the countercyclical capital buffer in Germany was lowered from 0.25% to 0%. The fiscal policy measures adopted in Germany in response to the coronavirus crisis in Germany are also indirectly supporting banks' profitability.[54] This is because the numerous support measures for enterprises and also for households are counteracting a sharp rise in borrower default risk.

In summary, it can be concluded that the Eurosystem's monetary policy measures – including lowering the deposit facility rate into negative territory – had their intended effect in the German banking system up until the coronavirus crisis. However, the economic downturn resulting from the coronavirus pandemic is increasing the likelihood that the negative deposit facility rate will have an adverse impact on German banks' lending. The measures taken by monetary and fiscal policymakers and banking supervisors during the coronavirus pandemic are reducing this likelihood.

53 For significant institutions, see https://www.bankingsupervision.europa.eu/press/pr/date/2020/html/ssm.pr200320_FAQs~a4ac38e3ef.en.html
54 See Deutsche Bundesbank (2020a) for information on the fiscal policy measures taken in response to the coronavirus crisis in Germany.

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Patterns of international business cycles

Early in 2020, a long upswing in the global economy came to an abrupt end. The novel coronavirus spreading around the world and the measures taken to contain it were accompanied by a dramatic slump in activity and culminated in a crisis of historic proportions. The root causes of earlier economic downturns were often less obvious. Analysing suitable indicators in order to identify signs of a cyclical downturn at an early stage is, however, a key task for a forward-looking monetary policy. Recessions are, for example, often preceded by signs of overheating that are likely to be associated with a heightened vulnerability to crises. Relevant warning signals can provide valuable insights for predicting cyclical turning points.

Indeed, empirical studies suggest that cyclical turning points – at least when seen with the benefit of hindsight – often announced themselves in advance. For example, the longer an upswing lasted, the greater was the probability that it would soon end. In most cases, a period of higher-than-average aggregate rates of expansion was followed by a soft patch in which GDP growth fell below its trend, and only rarely by a severe recession. Recessions in advanced economies were often indicated by a flattening of the yield curve, or followed sharply accelerating oil prices. The inclusion of such variables improves the accuracy of models for recession forecasting. Even so, the models would not have identified some crises in advance and have forecast recessions that failed to materialise.

Quantitative models can therefore send important warning signals before cyclical turning points. Economic observers will still be taken by surprise by downturns in the future, however. But this should not be viewed as a failure of empirical business cycle research. Even economies that previously appeared to be fairly resilient can be plunged into recession by shocks of sufficient magnitude. This year's global economic crisis is one example of this.

Introduction

Pandemic brings an end to multi-year global upswing

At the beginning of 2020, the coronavirus pandemic brought an extended upswing in the global economy to a sudden end. The spread of the virus and the measures taken to contain the number of infections led within a matter of weeks to a dramatic slump in activity, finally culminating in an economic crisis of historic proportions. Although the easing of the restrictions saw activity picking up rapidly, the recovery has remained incomplete so far given the ongoing risks of infection and constraints that remain in place.

Recessions call for swift monetary policy intervention

Even in the past, growth paths did not run along straight lines. Rather, they were repeatedly interrupted by soft patches – in other words, minor setbacks or periods of below average rates of expansion. Dramatic declines in macroeconomic activity – recessions – are also on record for almost every economy. Periods of high macroeconomic underutilisation are typically accompanied by deflationary pressure on consumer prices. This may call for timely monetary policy intervention, especially given its time-lagged effects. Against this backdrop, the analysis and forecasting of macroeconomic fluctuations – also known as the business cycle – have always been a key focus of applied macroeconomics.

Shocks the cause of cyclical fluctuations

For economic forecasting and the formulation of recommendations for monetary policy, an understanding of macroeconomic processes and their key drivers is essential. Modern business cycle models represent recessions mainly as the outcome of unexpected events known as shocks.[1] These include, say, unanticipated policy measures, technological advances, natural disasters, changes in preferences as well as modified expectations and risk assessments. Other possible triggers include unexpected international developments that can be transmitted through various channels, such as international trade and cross-border financial relationships. This means that cyclical swings are very difficult to predict. Price rigidities, financial market imperfections and other frictions can delay the effects of shocks, prolong them and also amplify them. It is, above all, the delays that give economic observers the opportunity to identify nascent downturns at an early stage.

Significance of fragilities

Moreover, during a period of expansion there is often an increase in vulnerabilities owing, for example, to exaggerations in the financial system. This means that, in mature upswings, comparatively small shocks could trigger major turmoil.[2] Timely identification of vulnerabilities would then make it possible to predict cyclical turning points or, at least, estimate their probability.

Identification of cyclical turning points

Recessions often defined by way of declining economic activity

Quantitative analysis of macroeconomic downturns and estimating the probability of their occurrence require not only an understanding of macroeconomic processes but also an empirical definition. In the traditional classification of business cycle phases, a recession describes a period of declining economic activity. This definition is used as the basis for business cycle dating, for example, by the National Bureau of Economic Research (NBER) for the United States and the Centre for Economic Policy Research (CEPR) for the euro area, both of which are widely recognised as official. A recession follows a peak in aggregate output and, after a trough, moves into an expansion. In order to be classified as a recession, the contraction also has to last at least a few months, be broad-based and must not be confined to a small

1 Slutzky (1937) and Frisch (1933) laid the groundwork for the interpretation of economic processes as a sequence of shocks, which was then incorporated into modern economic models by Brock and Mirman (1972), Lucas (1972), as well as Kydland and Prescott (1982). The Bundesbank's Dynamic Stochastic General Equilibrium (DSGE) model is one instance of a more comprehensive model of this class. For a more detailed description, see Hoffmann et al. (2020).

2 For recent approaches that capture this in macroeconomic models, see Gorton and Ordoñez (2014), Boissay et al. (2016) as well as Paul (2020).

Measuring classical business cycles

Classical business cycles are characterised by alternating periods of increasing and declining economic activity. To date these cycles, the literature often applies a rule-based procedure developed by Bry and Boschan (1971) to an indicator of macroeconomic activity.[1] Expert-based methods are an alternative approach in which special committees identify the phases of the business cycle on the basis of several statistical procedures and a subjective assessment of a number of macroeconomic indicators. In the United States, for example, the Business Cycle Dating Committee at the National Bureau of Economic Research (NBER), founded in 1978, employs a generally accepted classification of economic activity into expansionary and recessionary phases.[2] The Business Cycle Dating Committee at the Centre for Economic Policy Research (CEPR) has been determining economic peaks and troughs for the euro area since 2003.[3] A comparable classification of business cycle phases in Germany was presented by the German Council of Economic Experts (SVR) in 2017.[4]

Given the conceptual disparities, the question arises as to how the dates determined using mechanical methods differ from expert assessments. In order to make a comparison possible, the cyclical turning points for the economic areas mentioned above are calculated using the Bry-Boschan algorithm. The respective seasonally adjusted quarterly values of real gross domestic product (GDP) for the period from the first quarter of 1970 to the second quarter of 2020 are used as an indicator of economic activity.[5]

On balance, the dating of the cycles according to the Bry-Boschan algorithm is broadly in line with the experts' assessment.[6] This is particularly true of the United States and the euro area. Differences exist only in the identification of individual turning points and the classification of phases with low and, in some cases, negative GDP growth rates. For example, the recession in the United States identified by NBER experts in 2001 is not recognised. Furthermore, the algorithm shows a brief downturn for the euro area in the early 1980s, while the CEPR Committee registers a prolonged contraction.[7] A similar picture emerges for Germany in the first half of the 1980s, although the Bry-Boschan algorithm identifies two short periods of contraction during the longer-lasting recession identified by the SVR. There are further deviations for Germany in the first half of the 2000s and around the end of 2012 and the beginning of 2013.

The Bry-Boschan algorithm, in line with the NBER experts' assessment, dates the start of the economic downturn in the United

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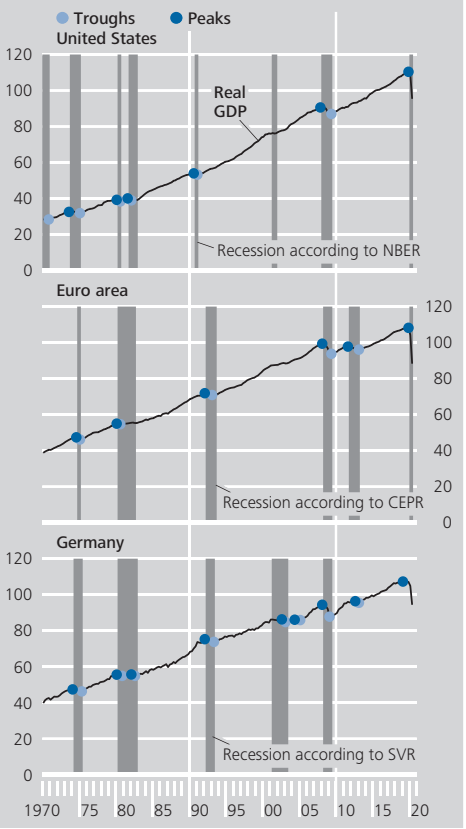
1 The procedure recognises peaks and troughs in a time series if their level was lower or higher in the period before and after. Further conditions ensure a minimum cycle length and guarantee that each peak is preceded by a trough.
2 See National Bureau of Economic Research (2020b).
3 See Centre for Economic Policy Research (2020).
4 See German Council of Economic Experts (2017).
5 The data on macroeconomic activity for the euro area aggregate for the period prior to the establishment of the monetary union are taken from the Euro Area Business Cycle Network's Area Wide Model (AWM) database. GDP data for Germany are data for West Germany up to and including the year 1991.
6 The version of the Bry-Boschan algorithm adapted by Harding and Pagan (2002) for use in quarterly time series is used to date the turning points. It is customarily assumed that a business cycle comprises at least five quarters and that a cyclical expansion or recession each last at least two quarters.
7 Developments in investment and employment, which, in contrast to real GDP, recorded a significant and steady decline in the period in question, were a key factor in the CEPR experts' decision; see Centre for Economic Policy Research (2003).

A comparison of cyclical turning points for the United States, the euro area and Germany*

2015 = 100, quarterly data, seasonally adjusted



Sources: Bureau of Economic Analysis, Area Wide Model database of the Euro Area Business Cycle Network, Eurostat, German Federal Statistical Office, NBER, CEPR and SVR recession chronologies, Haver Analytics and Bundesbank calculations. * Cyclical turning points are identified using the Bry-Boschan algorithm.

Deutsche Bundesbank

States as a result of the coronavirus pandemic to the first quarter of 2020. The algorithm also shows a cyclical peak for the euro area in the final quarter of 2019 in line with the decision of the CEPR Committee. Interestingly, according to the mechanical method, the German economy has been in a contractionary phase since the second quarter of 2019. In actual fact, the slight decline in economic output was not followed by a recovery, meaning that the first quarter of 2019 marks the most recent peak in economic output.

Overall, this comparison shows that although the Bry-Boschan algorithm does not fully replicate the expert-based dating of cyclical phases, it does come quite close. One advantage of the Bry-Boschan procedure over expert dating is that it is easy to use. Also, experts classify cyclical phases only after a certain time lag.[8] However, when turning points at the current end are calculated in an "automated" manner, it should be borne in mind that the results may also change again as GDP data are revised.

8 For instance, a clear time lag between the onset of a recession and the official reporting by the NBER or CEPR is standard. For the last two past recessions, the time lag for NBER was between three and four quarters, and for CEPR between four and five quarters.

number of sectors or regions of the economy.[3] As a preferred measure for aggregate economic activity, both the NBER and the CEPR therefore use gross domestic product (GDP) adjusted for seasonal effects and price movements. However, other quarterly time series are additionally taken into consideration – such as gross national income in the United States or the production and expenditure-side GDP components as well as employment in the euro area. As the NBER aims at a monthly chronology of the business cycles, selected higher-frequency indicators are also analysed.[4] On both sides of the Atlantic, this is the basis on which a committee of experts defines cyclical peaks and troughs – otherwise known as cyclical turning points.[5]

Both expert judgements and quantitative dating methods common

In cyclical analysis as well as academic research, expert-based dating as well as heuristic techniques and quantitative methods are used for defining turning points. The latter have the advantage that they can be applied in accordance with uniform criteria to a large group of countries. In some cases, cyclical movements can be classified more rapidly on this basis. This is especially true when it comes to the widespread concept of a "technical" recession, which is defined as two or more consecutive quarters of negative (seasonally adjusted) GDP growth.[6] Often, the Bry-Boschan algorithm is applied as an alternative.[7] This approach identifies peaks in a time series if the level was previously and subsequently lower. When analysing quarterly GDP time series, the two preceding and subsequent quarters are typically taken into consideration. Furthermore, the specification of the algorithm ensures a minimum cycle length and the sequence of peaks and troughs.[8] Even though the procedure is quite simple, the recession dates obtained in this way for major economies largely correspond to the judgement of experts (see the box on pp. 43 f.).

Alternative dating method also identifies milder downturns …

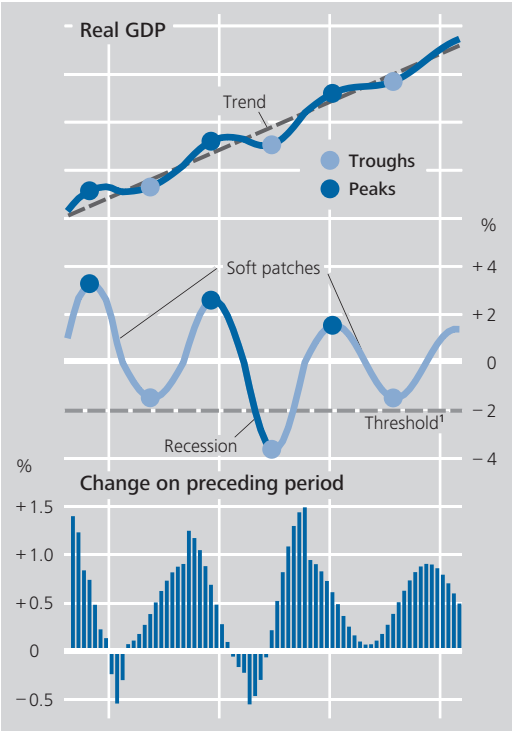
Even when there is no major crisis, the macroeconomic growth process seldom takes a steady course. Instead, there are typically alternating periods of rapid and slow growth. If phases of slow economic expansion – known as soft patches – persist for an extended period, the associated welfare losses can in fact be greater than those experienced in brief recessions. With this in mind, greater attention has been paid over the past few years to analysing cyclical patterns of trend-adjusted time series, especially of real GDP.[9] As defined in this way, a downturn would set in as soon as economic output – following a period of high growth rates – begins to move back to its trend level, then finally falling below it.[10] This process, which ends when the cyclical trough is reached, is not necessarily associated with a decline in economic output but perhaps merely with below average rates of expansion.

… but requires trend adjustment

Identifying such cycles necessitates a trend adjustment of the time series under consideration. There are various statistical procedures available for this, although these occasionally

3 This definition has already been applied in the United States for almost 75 years; see Burns and Mitchell (1946). In its modern interpretation, the three cited criteria are regarded as somewhat interchangeable. Hence, the decline in GDP in March and April of the current year – which was arguably only brief, albeit severe and broadly based – was also classified as a recession; see National Bureau of Economic Research (2020a).
4 These include, in particular, real disposable income adjusted for transfer payments as well as employment. Other indicators, such as private consumption, retail and wholesale turnover, industrial output as well as initial claims for unemployment benefits play a somewhat less important role.
5 For a description of the dating methods, see Centre for Economic Policy Research (2012) and National Bureau of Economic Research (2020a).
6 In its definition, the CEPR likewise points to the fact that recessions are generally characterised by two consecutive quarters of declining GDP growth. See Centre for Economic Policy Research (2012).
7 See Bry and Boschan (1971).
8 For a description of the methodology and its application to quarterly GDP time series, see Harding and Pagan (2002).
9 A discussion of the advantages and drawbacks of this practice may be found inter alia in Canova (1998) as well as Burnside (1998).
10 In this instance, a downturn is characterised by growth rates that lie below the longer-term trend, whereas an upturn is associated with above average rates of expansion. That is the reason why such upward and downward movements are also called growth cycles. See Zarnowitz and Ozyildirim (2006).

Stylised business cycles



1 Threshold value of -2%. A deviation from trend real GDP below this threshold is defined as a recession.

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produce differing cyclical patterns.[11] A further problem is the unreliability of the trend estimations at the start and end of the sample. This means that additional data points can have a major impact on the estimation of the trend.[12] This can also affect the dating of turning points. The frequently used Hodrick-Prescott (HP) filter seems to display quite favourable properties in this respect. This is especially the case if the data series are extrapolated by suitable forecasting methods.[13]

Dating turning points for industrial countries …

Below, the HP filter is used to identify and analyse business cycles for a total of eight industrial countries[14] as well as for the euro area and the OECD group as a whole. Local peaks and troughs in trend-adjusted GDP mark the transition between upturns and downturns. To mitigate the problems of trend estimation for the most recent quarters, the time series were extrapolated using OECD growth forecasts.[15] The Bry-Boschan algorithm was used for dating the cyclical turning points.[16] In a small number of cases, the resulting cyclical chronology – often dating back to the 1960s – was also adjusted slightly.[17]

… permits distinction between soft patches and recessions

Looking at cycles of trend-adjusted GDP time series leads to a significantly higher number of turning points being identified than when using the traditional definition of business cycle phases. This is also true of the United States and the euro area. As is to be expected, virtually all the recessions identified by the NBER and the CEPR were associated with a sharp downturn in the cyclical component of real GDP.[18] Before taking a turn for the better, economic output in these periods was in fact often more than 2% below its trend. With this in mind, this mark is set as a threshold here for the definition of recessions in the context of trend-based cycles.[19] In addition, however, nu-

11 Added to this is the risk that the smoothing of volatile series will create misleading correlation patterns that mask the true characteristics of the cycles. For a discussion of the relative merits of various filtering methods giving due regard to these aspects, see Hamilton (2018) and Hodrick (2020).
12 See Orphanides and Van Norden (2002).
13 For a comparison of alternative trend adjustment methods with regard to the timely and robust identification of cyclical turning points, see Nilsson and Gyomai (2011). For a presentation of the HP filter, see Hodrick and Prescott (1997).
14 These are the United States, the United Kingdom, Japan, Sweden, Norway, Switzerland, Canada and Australia.
15 To do this, data from the June Economic Outlook were used; see OECD (2020). For the euro area, additional data from the Area Wide Model database of the Euro Area Business Cycle Network (EABCN) were also used. This makes it possible to extend the GDP time series going back only as far as early 1991 by a further 21 years into the past. For a description of the dataset and the model, see Fagan et al. (2005).
16 For one complete cycle, a minimum length of 12 quarters was specified, with each of its upturns and downturns having to have a minimum length of two quarters.
17 The cyclical component having to display a positive (negative) sign at the upper (lower) turning point was thus introduced as an additional condition. Moreover, four datings in total were shifted, as there was a significantly deeper lower or higher upper turning point in the immediate vicinity which was not selected by the dating procedure solely on account of the specified cycle length.
18 Only one of these "official" recessions is not identified as a separate downturn using the method applied here. The NBER dating for the United States for the early 1980s shows two recessions in quick succession. As defined here, this double-dip recession is identified as a single longer-lasting downturn.
19 For an alternative approach to the empirical classification of economic activity into traditional phases and more short-lived cycles, see European Central Bank (2019).

merous soft patches are also identified, in which economic output fell only slightly below its trend. For the United States, for example, the onset of such a soft patch is found most recently for the beginning of 2012.[20] The period of slow aggregate economic growth thus coincided with the euro area recession following the sovereign debt crisis. For the most recent period, recessions are diagnosed for both the United States and the euro area in the wake of the coronavirus pandemic. Overall, quite a high degree of cyclical co-movement can be identified for other periods and countries, too (see the box on p. 48 ff.).

Cyclical fluctuations show repeating patterns …

A look at the statistical features of the identified cycles underlines the fact that economic developments in advanced economies generally run along similar lines. In almost all the industrial countries analysed, nine or ten complete economic cycles since the 1960s were counted. Just about half of them ended in a recession. In the other cases, economic output was no more than slightly down on its trend. Economic downturns were mostly significantly shorter than upward movements. Between these cyclical turning points, which separated the phases of the business cycle from each other, real GDP generally moved within a range of just over 2% above and below its trend.

… but also exceptional movements

Even so, these common features should not make us lose sight of the fact that individual cycles do indeed deviate very significantly from the typical pattern. There are, for example, instances of short upturns and longer-lasting downturns. In particular, however, there are variations in how deep the slumps are. In this regard, the economic slump of the first half of 2020 is likely to turn out to be the severest in recent history everywhere.[21]

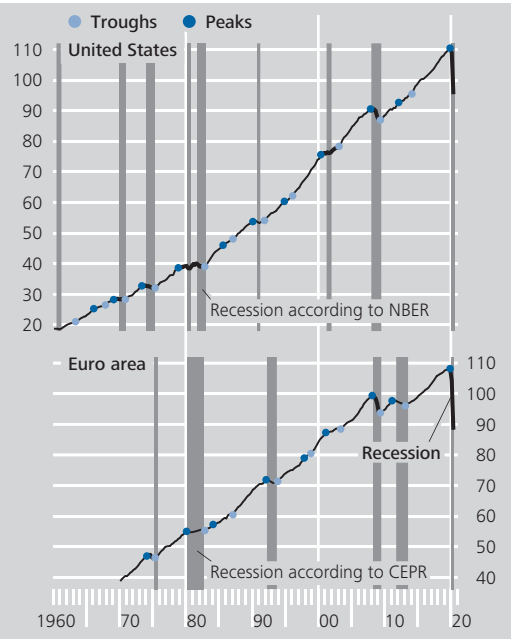
Do upswings die of old age?

In many places, the most recent crisis was preceded by an extended macroeconomic upswing. Against this background, concerns that the next recession had to be imminent have been expressed repeatedly over the past few years. However, amongst economists, the hypothesis that an upswing might end simply as a result of its long lifespan is highly controversial. Empirical studies have come to fairly different conclusions. Diebold and Rudebusch (1990) and Rudebusch (2016), for example, show that the recession probabilities in the United States are not dependent on the duration of the preceding upswing. Using a comparable approach, however, the cross-country study in Castro (2010) finds that the probability of a turnaround does in fact rise the longer a given cyclical phase continues. This means that upswings would indeed "die of old age".

The impact of the duration of an upswing on the probabilities of cyclical downturns …

Real GDP and cyclical turning points for the United States and the euro area*

2015 = 100, quarterly data, seasonally adjusted



Sources: OECD Economic Outlook (2020), Euro Area Business Cycle Network Area Wide Model database, NBER and CEPR recession chronologies, Haver Analytics and Bundesbank calculations. * Cyclical turning points in trend-adjusted GDP are identified using the Bry-Boschan algorithm.

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20 The years 2018 and 2019, which were characterised by merely subdued upward momentum in the global economy, are not interpreted as soft patches when this approach is applied.

21 As only business cycle phases that are definitively concluded are under consideration, the recovery from the global economic crisis triggered by the pandemic does not form part of this analysis.

International business cycles

In the wake of the COVID-19 pandemic, economic output collapsed in almost all economies within a few weeks. Likewise, the global financial and economic crisis of 2008-09 hit most industrial countries almost simultaneously. The same was true for the two oil price crises in 1973 and 1979-80. This high degree of international co-movement is not typical of all crisis periods, however. One counterexample is the bursting of the dotcom bubble in 2000, which triggered a recession only in some countries. Similarly, the European sovereign debt and banking crisis between 2010 and 2012 saw economic output collapse in some euro area Member States, whilst other countries merely experienced soft patches. Against this backdrop, the question arises as to how strong the cyclical co-movement between the industrial countries actually is.

A variety of descriptive statistics point to a fairly close international cyclical relationship.[1] For example, according to an indicator that shows the share of periods in which business cycle phases are aligned,[2] the United States and Germany are highly synchronised. The business cycle phases of these two global economic heavyweights show strong overlap with those of other advanced economies, too. Correlation coefficients tend to confirm this finding.[3] In a direct comparison with the United States and Germany, a positive relationship between business cycle phases can be observed for almost all countries included in the analysis. In many cases, the point esti-

1 Cyclical turning points, which separate recessions from expansions, were dated in the following by applying the Bry-Boschan algorithm to trend-adjusted GDP time series. In this context, only those troughs that entailed high levels of aggregate underutilisation are considered recessions. For a similar study based on a classical dating of cyclical turning points, see Grigoraş and Stanciu (2016).

2 The "concordance index" draws on the binary classification of the economic situation into expansions ($S=0$) and recessions ($S=1$). The index value for two countries x and y over T time periods is then calculated as

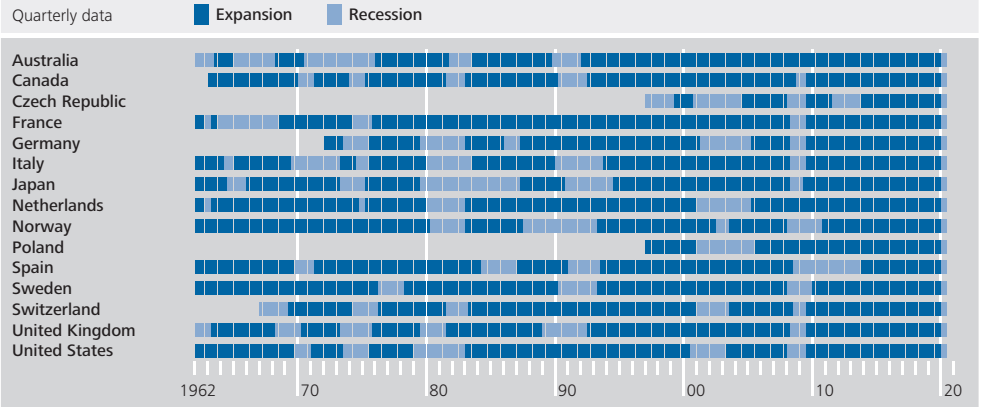
$$Ixy = \frac{1}{T}\left(\sum_{t=1}^{T} S_{x,t}S_{y,t} + \sum_{t=1}^{T}(1-S_{x,t})(1-S_{y,t})\right).$$

Pairs of countries with perfectly synchronised business cycle phases thus show an index value of 1. If there is no synchronisation at all, the value is 0.

3 The estimation was calculated using the generalised method of moments (GMM), taking into account heteroscedasticity and autocorrelation-consistent standard errors.

Business cycle phases* in selected countries

Quarterly data



Sources: OECD Economic Outlook (2020), Haver Analytics and Bundesbank calculations. * Cyclical turning points were dated by applying the Bry-Boschan algorithm to trend-adjusted GDP series. Only downturns that fall short of the trend by at least 2% are dated as recessions.

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mators are also statistically significantly different from zero. Only Sweden and Spain, as well as the commodity-producing economies of Australia and Norway, appear to largely follow distinct business cycles.

There are indications of particularly strong cyclical synchronisation within Europe. For Germany's immediate neighbours France, the Netherlands, Poland and Switzerland, the respective correlation with the German cycle is more pronounced than the co-movement with the United States. Geographical proximity, closer trade relations and interlinked production chains are likely to be key factors in this regard. However, the negative, albeit insignificant, correlation between the Spanish and German business cycles is probably influenced by the fact that Spain, like other European periphery countries, experienced a convergence boom with high growth rates in the 1990s and 2000s and, unlike Germany, avoided a recession at the beginning of the millennium when the dotcom bubble burst. By contrast, Germany recovered fairly quickly after the global financial and economic crisis, while the southern European euro area countries were drawn into the maelstrom of the sovereign debt crisis.[4]

That said, a comparison that is limited to contemporaneous correlations may overlook international cyclical relationships. This is particularly true when economic downturns do not have a common, direct cause, but originate from a specific country and then spread after a certain delay. In this case, business cycle phases would be more likely to be aligned with a lead or lag in time. Indeed, for a number of industrial countries, the correlation with the US cycle is estimated to be somewhat stronger if the comparison of developments accounts for a time shift. These countries, including Canada, appear to lag behind the US business cycle, usually by one to two quarters, while Germany's business cycle is synchronous with that of the United States. Within Europe, most countries have business cycles that are in step with or lag only slightly behind the German cycle.

The conclusion that, on the whole, international business cycles correlate fairly closely is confirmed by further robustness studies.[5] This is also consistent with the academic literature. Global and common regional factors therefore probably account for a considerable portion of national cyclical fluctuations.[6] However, their impact does not appear to have been constant

Measures of business cycle synchronisation

	Concordance index[1]		Correlation	
Country	Germany	United States	Germany	United States
Australia	0.72	0.68	0.16	0.08
Canada	0.78	0.82	0.31*	0.40**
Czech Republic	0.74	0.74	0.48**	0.50**
France	0.80	0.74	0.38*	0.10
Germany	1.00	0.90	1.00***	0.73***
Italy	0.74	0.78	0.30	0.38**
Japan	0.76	0.73	0.41**	0.28
Netherlands	0.90	0.85	0.73***	0.49**
Norway	0.70	0.75	0.21	0.26
Poland	0.92	0.82	0.78**	0.40
Spain	0.61	0.66	– 0.07	– 0.02
Sweden	0.66	0.72	– 0.07	0.01
Switzerland	0.85	0.82	0.56***	0.45***
United Kingdom	0.78	0.79	0.36*	0.38**
United States	0.90	1.00	0.73***	1.00***

Sources: OECD Economic Outlook (2020), Haver Analytics and Bundesbank calculations. Significance of the correlation: *<0.01; **<0.05; ***<0.1. **1** The concordance index measures the share of periods with synchronised business cycle phases.

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4 For more information, see Grigoraş and Stanciu (2016), and Deutsche Bundesbank (2014).
5 For example, looking at alternative classifications of international business cycles and comparing cyclical GDP components produces similar results.
6 See Kose et al. (2003).

over time. For example, they did not play a significant role in the period of the "Great Moderation" prior to the financial and economic crisis of 2008-09. In any case, the impact of severe international shocks on national economic developments seems to have increased over time,[7] probably due in large part to the deepening of trade relations as a result of globalisation.[8] Given the current shift towards greater protectionism, it thus remains to be seen whether cyclical fluctuations will display a stronger national influence in the future.

7 For more information, see Kose et al. (2008). In line with this finding, counterfactual VAR simulations show that the synchronicity of international business cycles would have increased from the mid-1980s to shortly after the turn of the millennium if global shocks of a similar magnitude to those in previous decades had occurred; see Stock and Watson (2005). Recently, however, country-specific shocks in particular appear to spill over to other economies to a greater extent than previously; see Carare and Mody (2012).
8 This is supported by the fact that the influence of international trade links on the synchronisation of business cycles is confirmed in a variety of different regression specifications; see Baxter and Kouparitsas (2005). Cross-border value chains appear to be the main reason for this finding; see Ng (2010).

… can be investigated using a survival model

Based on these studies, this article applies a simple parametric survival model to the group of advanced economies.[22] This approach estimates the impact of the duration of an upswing on the probability that the upswing will soon come to an end.[23] In this context, upswings dated using the Bry-Boschan algorithm, which can also be ended by soft patches, are taken into consideration. In addition, upswings that occur between recessions are investigated separately. Other explanatory variables are initially excluded from the analysis.[24]

Probability of a cyclical turnaround rises with the duration of the upswing

Overall, the results suggest that the probability of an upswing coming to an end increases the longer the upswing continues. This holds especially true if upswings ended by soft patches are also taken into consideration. While there is a negligible risk of a young macroeconomic upswing leading to a cyclical downturn in the following quarter, the probability of a downturn rises sharply as the duration of the upswing increases.[25] On this basis, around one in every three upswings lasting more than ten years would end in the following quarter. Similar results to those in the overall sample can also be observed for most countries, although the relationship between the duration of an upswing and the probability of a downturn seems to be

22 The countries and economic areas featured in this analysis are the euro area, the United States, the United Kingdom, Japan, Sweden, Norway, Switzerland, Canada and Australia.
23 This kind of methodology is appropriate if mortality is a factor (i.e. observation units are successively eliminated). In medical research, for example, comparable models are used to estimate the efficacy of clinical treatments. The event being observed does not necessarily need to be death, but can be selected at will; other typical examples include recovery or the onset of complications.
24 With regard to the number of quarters in which an economy has been in an upswing at any given point in time, it is assumed that this variable follows a Weibull distribution. This distribution is consistent with very different hazard functions that could, in principle, generate probabilities of failure that rise or fall with the duration of the upswing. For an overview and other applications, see Cleves et al. (2008), pp. 248 ff. and Lancaster (1992), pp. 269 ff.
25 Specifically, this refers to the conditional probability that an upswing that has lasted until the time of observation will end in the following quarter.

Descriptive statistics on the business cycles of major advanced economies*

Observation period: Q1 1960 to Q2 2020

	Number		Average duration in quarters[1]			Average amplitude in percentage points[1,2]		
Economy	Cycles	Recessions[3]	Upturns	Downturns	Recessions[3]	Upturns	Downturns	Recessions[3]
Australia	9	5	11.2 (7.9)	12.7 (4.6)	12.8 (6.7)	4.0 (2.0)	– 3.8 (2.4)	– 6.1 (1.5)
Canada	10	5	14.6 (7.1)	6.4 (2.6)	5.6 (2.2)	4.3 (1.8)	– 4.1 (1.9)	– 5.5 (1.8)
Euro area	8	2	15.3 (7.6)	7.6 (2.9)	5.0 (0.0)	3.5 (1.5)	– 3.3 (1.7)	– 5.5 (0.8)
Japan	9	5	14.1 (6.6)	9.4 (8.9)	12.8 (11.0)	5.0 (1.5)	– 5.1 (2.1)	– 6.3 (1.7)
Norway	9	4	11.8 (5.2)	11.8 (5.6)	12.3 (7.9)	4.2 (2.0)	– 4.1 (2.3)	– 6.0 (2.2)
Sweden	10	3	10.9 (5.0)	8.8 (3.7)	9.3 (2.3)	4.2 (1.4)	– 4.0 (2.2)	– 6.6 (2.0)
Switzerland	9	5	13.8 (5.6)	7.2 (2.5)	7.3 (2.5)	4.5 (2.9)	– 4.1 (3.1)	– 6.4 (3.2)
United Kingdom	9	6	14.2 (10.4)	9.4 (4.8)	9.0 (3.3)	5.0 (2.5)	– 4.7 (2.8)	– 6.5 (2.3)
United States	10	5	13.2 (4.9)	8.1 (3.2)	9.6 (4.0)	4.2 (2.0)	– 4.1 (2.5)	– 6.1 (1.8)
Memo item: OECD	10	3	13.1 (5.8)	8.3 (3.7)	9.3 (4.2)	3.0 (1.2)	– 2.9 (1.8)	– 5.2 (0.7)

Sources: OECD Economic Outlook (2020), Euro Area Business Cycle Network Area Wide Model database, Haver Analytics and Bundesbank calculations. * Identified by applying the Bry-Boschan algorithm to trend-adjusted real GDP time series. **1** Standard deviations are shown in parentheses. **2** Change in cyclical components between two turning points. **3** Downturns with a negative deviation from the trend of at least 2%.

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especially pronounced in the United States.[26] However, a considerably different picture is obtained if soft patches are disregarded when defining cyclical phases.[27] If only recessions are taken into consideration, the probability of crisis rises only slightly over time.[28] The answer to the question of whether an upswing's duration has an impact on its probability of soon coming to an end is highly dependent on how cyclical phases are defined.

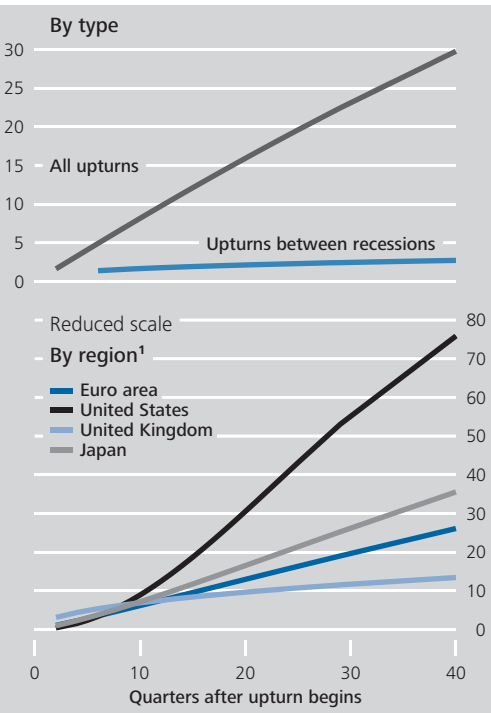
Model-based forecasts of cyclical downturns

Analyses of additional determinants

Alongside just the duration of an upswing, the academic literature and business cycle research also discuss additional indicators that can be relevant to forecasting cyclical turning points. In this context, new perspectives could be offered by focusing on variables that have anticipated macroeconomic cyclical patterns in the past. Within the group of advanced economies, such variables appear to include house prices, sentiment indicators and financial market variables, for example. Furthermore, dedicated indicators developed specifically for this purpose, such as the Bundesbank's leading indicator or the OECD composite leading indicator, provide timely information on cyclical developments at the international level.[29] Finally, the literature also makes use of more complex statistical methods for forecasting cyclical turn-

26 In robustness studies, the model was also estimated using dummy variables for the various countries following Castro (2010). However, the associated coefficients were only significant in a small number of cases.
27 In this specification, a country-specific analysis is not possible due to the even smaller number of observations.
28 In this case, the results are consistent with those produced by Diebold and Rudebusch. Unlike in these studies, however, the hypothesis that the probability of a recession does not depend on the duration of the upswing can be rejected on a statistical basis. See Diebold and Rudebusch (1990) and Rudebusch (2016).
29 See Deutsche Bundesbank (2010). The Bundesbank leading indicator's time series is available at: https://www.bundesbank.de/dynamic/action/en/statistics/time-series-databases/time-series-databases/759784/759784?listId=www_s3wa_inet_bbli

Probability that an upturn will end*



Sources: OECD Economic Outlook (2020), Haver Analytics and Bundesbank calculations. * Probability that an upturn will end in the following quarter given its duration. **1** All upturns.
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ing points. In country-specific analyses, time series models, such as regime-switching models or smooth transition autoregressive models, are typically used for this purpose.[30] The Bundesbank also utilises these approaches to assess the state of the German economy (see the box on pp. 54 f.).

Focus on cross-country logit estimates

In the following section, panel regression models are estimated; this approach allows the wealth of information contained in an international dataset to be utilised.[31] As the dependent variables in question can only take one of two values – zero when an economy is in an upturn, or one when a cyclical expansion reaches its peak – binary regression models are appropriate here.[32] One advantage of the logit models used here is that they have comparatively simple structures, even when additional explanatory variables are incorporated.[33] Furthermore, they enable historical probabilities of cyclical peaks to be calculated.

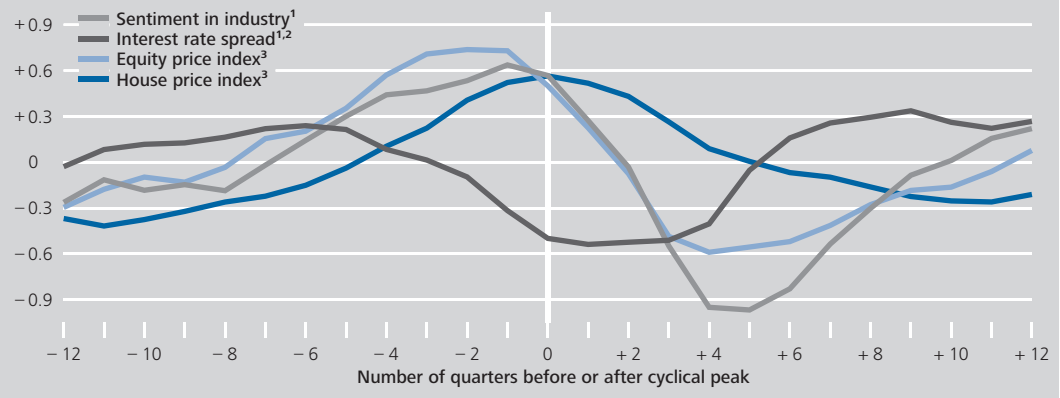
Variable selection guided by cyclical patterns, literature and quantitative selection criteria

In order to take transmission channels and causes of upturns into account as comprehensively as possible, the first step is to preselect variables by analysing the explanatory power of a number of variables, alongside the duration of the upturn thus far, using a bivariate version of the logit model. This factors in indicators that other studies have found to signal the run-up to a cyclical peak; these include, for example, interest rate spreads between assets with different maturities, equity and house prices, oil prices, and sentiment indicators.[34] Fiscal policy and monetary policy variables are additionally taken into account as, in the past, fiscal consolidation or restrictive monetary policy stances have been considered to have triggered macroeconomic downturns.[35] Labour market variables and industrial capacity utilisation, which could be indicative of "overheating" in the economy, were also assessed with regard to their suitability for predicting cyclical peaks. The final selection of variables aims to achieve the highest possible goodness of fit for

30 See, for example, Tian and Shen (2019), Carstensen et al. (2020), Eraslan and Nöller (2020) as well as Fornari and Lemke (2010) for forecasting turning points using binary vector autoregressions.
31 This approach is also used by Estrella and Mishkin (1997) and Borio et al. (2019).
32 Observations corresponding to downturns are removed from the sample.
33 As discrete dependent variables are problematic in traditional regression analyses, these are replaced by continuous variables in logit models – the logarithm of the odds ratio for the occurrence of a cyclical peak.
34 For example, Rudebusch and Williams (2009) highlight the ability of interest rate spreads to predict imminent recessions. In the case of the United States in particular, extreme scenarios with negative interest rate spreads are typically seen as signs of a looming recession (see Bauer and Mertens (2018)). House prices and credit data are factored into the turning point forecast in Borio et al. (2019) by way of an aggregate indicator. The role of equity prices as a predictor of recessions and cyclical movements is also discussed in the literature (see, inter alia, Mills (1988), Estrella and Mishkin (1998) and Andersson and D'Agostini (2008)). For more information on the properties of oil prices as a leading indicator, see Kilian and Vigfusson (2017).
35 For example, the tightening of monetary policy in the United States in the early 1980s is considered to be one of the causes of the 1981-82 recession (see, inter alia, Goodfriend and King (2005)). Heimberger (2017), however, attributes the double-dip recession in many euro area countries from 2011 to 2013 to the strong fiscal consolidation in these countries.

Development of selected indicators in the periods before and after cyclical peaks

Standardised and averaged across all business cycles in the sample



Sources: OECD Economic Outlook (2020) and Bundesbank calculations. **1** The underlying series for the sentiment indicator and interest rate spread are measured in index points and percentage points, respectively. **2** The interest rate spread measures the difference between ten-year government bond yields and the three-month interbank rate. **3** Trend-adjusted.

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the regression models.[36] The resulting models therefore also include explanatory variables with coefficients that are not statistically different from zero, but which slightly improve the coefficient of determination.[37]

Determinants of cyclical peaks

Different variables relevant for forecasting all downturns …

If, initially, cyclical phases are again defined in such a way that even mild downward movements are considered downturns, the results of the survival analysis are confirmed. Regardless of the forecast horizon under analysis,[38] the duration of an upswing so far has a statistically significant positive impact on the probability of a cyclical peak.[39] A narrower interest rate spread, i.e. a flatter yield curve, is also linked to an increased probability of an upswing soon coming to an end. This applies similarly to above average levels of debt in the private non-financial sector, dampened house prices, and particularly exuberant sentiment in industry. Factoring in equity prices, consumer sentiment and the domestic inflation rate measured by the GDP deflator also improves the model's ability to predict cyclical peaks.[40]

… and for forecasting recessions

However, the interrelationships appear somewhat different if the focus is placed on upswings that occur between recessions. In this case, a rise in oil prices is an important indicator of an imminent turning point into a downturn. The duration of the respective upswing and the interest rate spread also prove to be robust indicators of approaching recessions in

36 In total, more than 20 variables are counted among the group of indicators considered to have potential for identifying cyclical peaks. Depending on the characteristics of their time series, the variables are factored into the regression models in levels, as changes on the preceding quarter or preceding year, or as deviations from the trend. The majority of the indicators were obtained from the June 2020 edition of the OECD Economic Outlook and the OECD Main Economic Indicators. The data on outstanding loans originate from the BIS. National sources were used to obtain fiscal variables.

37 The measure of quality used is McFadden's adjusted R^2, which penalises the incorporation of additional explanatory variables in order to prevent the model from becoming overfitted to the data. Other common information criteria produce similar results. Optimising the coefficient of determination in the strict sense is made more difficult by the fact that selecting regressors also often changes the composition of the sample. Nevertheless, this has no bearing on this analysis' statements regarding the predictive power of the models used.

38 Forecast horizons of between one and four quarters were analysed. The probability of an upswing ending within the following four quarters was also estimated.

39 The statistical significance of the regression coefficients is discussed below. These describe the effects of marginal changes in each of the explanatory variables on the logarithm of the odds ratio for the occurrence of a cyclical peak.

40 Nevertheless, the occurrence of cyclical peaks is not correlated with equity prices or the GDP deflator to a statistically significant degree.

A model for the timely identification of turning points in the business cycle and recession probabilities for Germany

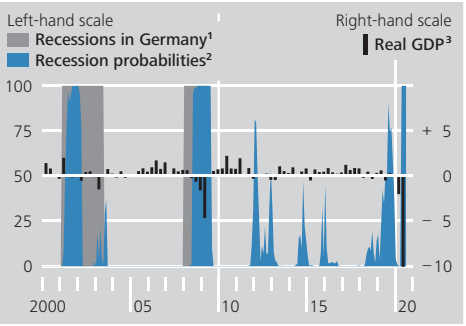
Models used to identify probabilities of recession and associated turning points in the business cycle are often based on only a single highly aggregated indicator.[1] As an alternative, it is possible to look at a large variety of indicators, each of which captures different aspects of economic activity.[2] A new kind of modelling framework is presented below. This is based on cross-sectional information from a large dataset comprising numerous macroeconomic and financial indicators,[3] in order to estimate probabilities of recession and thus predict turning points in the business cycle.[4] The procedure, a smooth transition autoregressive model,[5] is based on the idea of a classic two-phase business cycle and allows a gradual transition between the two regimes. Expansions and recessions are distinguished from one another by turning points in the business cycle. In a first step, indicator-specific probabilities of assignment to a recession phase are estimated for a large number of macroeconomic and financial variables. These are then condensed into an aggregate probability of recession. The median of the indicator-specific probabilities is used as a measure of this.

To assess the suitability of this model, a simulation study was performed with a pseudo real-time dataset[6] for Germany. The original estimation period runs from January 1993 to December 1999. The evaluation period runs from January 2000 to August 2020. The model not only determines the probability of recession at the respective point in time, but also predicts the probabilities of recession for the coming months. The ex post recession dating by the German Council of Economic Experts serves as a reference for determining the forecast accuracy.[7]

The model is fairly reliable in identifying the last two recessions in Germany as dated by the German Council of Economic Experts. Nevertheless, the start of the recession which was triggered by the bursting of the dotcom bubble and which, according to the Council, lasted from February 2001 through June 2003, as well as the onset of the Great Recession, which the Council now dates to between January 2008 and April 2009, are both identified by the model only with a lag of several months.[8] In the

Recession probabilities for Germany

%



Sources: German Council of Economic Experts, Federal Statistical Office and Bundesbank calculations. **1** Dating by German Council of Economic Experts. **2** Bundesbank calculations based on Eraslan and Nöller (2020). **3** Quarter-on-quarter change.

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1 See Hamilton (2011).
2 See Stock and Watson (2010, 2014).
3 The dataset consists of approximately 100 indicators. Alongside real economic indicators such as industrial output and new orders, the analysis also considers financial market variables such as stock price indices and interest rate variables as well as indicators of sentiment.
4 See Eraslan and Nöller (2020).
5 The modelling approach is based on smooth transition autoregressive (STAR) models, which were introduced and refined by Teräsvirta and Anderson (1992) and Teräsvirta (1994). The momentum threshold autoregressive (MTAR) threshold adjustment type was proposed by Enders and Granger (1998). See Eraslan and Nöller (2020) for the model variant applied here (ST/MTAR).
6 Data as at 8 August 2020. The respective data vintage and the delay in publication for the individual indicators were replicated in the recursive estimates. However, the estimates are based on data that contained possible revisions since the initial release.
7 See German Council of Economic Experts (2017).
8 Another factor is that many economic indicators are published with a certain time lag.

first case, the model pinpoints the start of the recession four months later, as May 2001 (and the end as early as March 2002). In the second case, the median nowcast indicates a recessionary phase from July 2008 to July 2009, i.e. with a time lag of six months (start of recession) and three months (end of recession). In this comparison, however, it should be noted that these recessionary phases were not dated until a much later point in time. At the time of the recessions, the assessment was nowhere near as clear. This was particularly true of the Great Recession of 2008-09, the start of which often went undetected until later. By comparison, the model would have delivered an early warning. Furthermore, for the downturn from 2001 to 2003 the model pointed to a dramatically rising risk of recession as early as March 2001, with a nowcast of 10% as well as forecasts of almost 50% for April and nearly 80% for May.

The model gave warning signals more recently, too. In the second half of 2019, it indicated elevated recessionary risks, which then declined sharply at the beginning of 2020, however, owing to positive macroeconomic data for January and February. At the current end, the estimated probability of recession did not increase until early May, but then did so abruptly, surging to 100%. However, the sweeping measures taken to contain the coronavirus pandemic were already being introduced in March. It was immediately clear that this would inevitably result in a slump in economic activity. In this case, the delay in signalling a recession was due to the fact that the model – unlike business cycle analysts – was unable to take into account the economic impact of the measures until early May, when the macroeconomic indicators for March were released. This illustrates once again the special nature of the current crisis.

these cases.[41] An above average rate of inflation is also associated with a heightened probability of a cyclical peak in the following quarter. The sign of the effect of house and equity prices as well as outstanding loans – each measured as deviations from their growth trends – is highly dependent on their lag. In addition, lagged values for the selected variables significantly improve the informative value of the model, even if they have no statistically significant impact on the probability that a cyclical peak will occur when viewed in isolation.

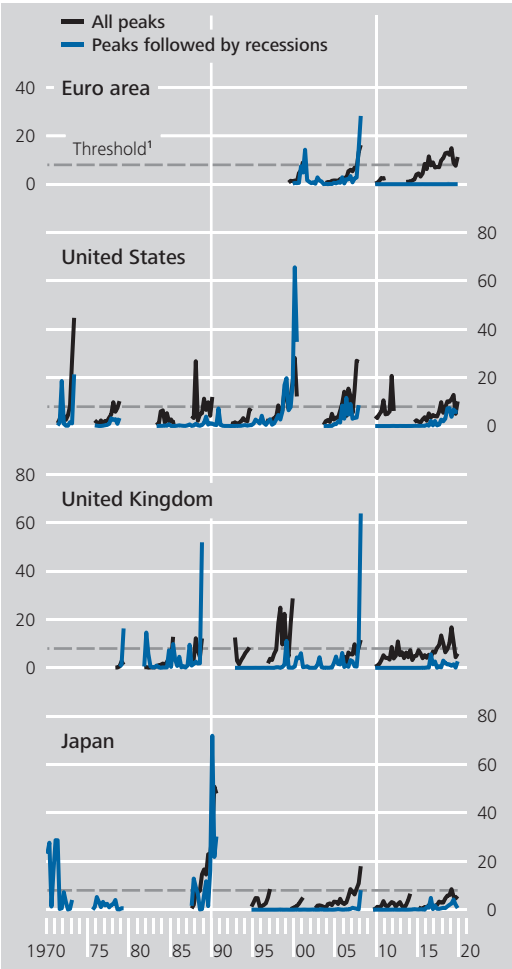
Results should be interpreted with caution

In some cases, the regression coefficients vary greatly depending on the way in which cyclical peaks are identified, the selection of explanatory variables, the underlying group of countries, and the forecast horizon. One reason for this may be that many indicators contain similar information on imminent cyclical turning points. Country-specific regressions largely confirm the impression that the duration of the upswing and the interest rate spread are good predictors of imminent cyclical peaks. For peaks that are followed by recessions, this holds true for the interest rate spread. In this context, it should also be noted that the coefficients only reflect historical correlation patterns. These are likely to contain indications of the driving forces behind cyclical turnarounds. For example, the 1973 oil crisis can also be interpreted as a cause of the subsequent downturn. By contrast, financial market variables as well as survey-based indicators probably only react in the run-up to cyclical slumps because market participants and respondents anticipate a downturn in many cases. Furthermore, the possibility that uncaptured factors are significant for the occurrence of cyclical peaks cannot be ruled out. For these reasons, the statistical impact of indi-

41 In the case of upswings that end in recessions, the relationship between the duration of the upswing and the probability that a cyclical peak will occur is weaker than for upswings that transition into soft patches. This is consistent with the results of the survival analysis.

Historical probabilities of cyclical peaks in selected regions*

%, quarterly data



* Each estimation period begins with the first recorded probability. **1** Threshold value of 8%. Projected probabilities above this threshold are interpreted as signalling a cyclical peak in the respective quarter.

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vidual variables must be interpreted with caution.

Forecasting economic downturns

Models indicate that upswings are usually increasingly fragile prior to crises

A key factor in predicting economic downturns is the model's forecast of the probability of an upturn coming to an end. This probability tends to rise sharply before soft patches, but especially before recessions. For example, models indicated that the upswing prior to the global financial and economic crisis was increasingly fragile for almost all major advanced economies. Flat yield curves, high levels of private debt and falling equity prices, but also the above average duration of the upswing so far, indicated a turning point ahead. Even clearer fluctuations were seen in the probabilities of recession for the United States at the turn of the millennium (i.e. before the economic slump triggered by the bursting of the dotcom bubble) and in Japan in the run-up to the severe economic crisis in the early 1990s.

More accurate model evaluation hinges on establishing signals for recession

The binary regressions therefore appear to provide valuable information about approaching peaks and impending downturns. To assess the quality of a forecast model more accurately, its predictions are usually compared with events that have actually occurred. This involves deriving warning signals from the forecast model probabilities and comparing them with the actual cyclical turning points. To this end, a threshold is sought which, when exceeded, means that the forecast probability sends the most reliable signal possible for a forthcoming downturn. If it is set too high, potential signals for downturns are missed. If it is set too low, a high proportion of false signals is to be expected. For peaks that mark the beginning of soft patches as well as those that are followed by deep recessions, threshold optimisation techniques suggest setting the threshold for sending a signal at 8%.[42]

Although early warning signals are often also incorrect, …

Beginning with the broad definition of a turning point, for this threshold, the model correctly classifies just over three-quarters of all observations into those with and without peaks. The error rate is only slightly higher when looking exclusively at the peaks themselves. Only one-third failed to be identified. However, in many cases, the model raises an alarm where there was no turnaround in economic activity. Nonetheless, it can be noted

42 The information content of signals is established here by determining a ratio between the probability of a signal being triggered at a peak and the probability of a signal being a false alarm. To identify warning signals, it is more important to avoid type I errors (missed peaks). As a result, fairly low thresholds are therefore selected. See also Bussière and Fratzscher (2006).

Accuracy of signals and associated probabilities of a cyclical peak

Threshold for sending a signal: 8%

	All peaks			Peaks followed by recessions		
Status	No signal	Signal	Total	No signal	Signal	Total
No peak	535	152	687	1,112	54	1,166
Peak	17	32	49	5	21	26
Total	552	184	736	1,117	75	1,192
Proportion of correctly identified observations			77.0%			95.1%
Proportion of correctly identified peaks			65.3%			80.8%
Proportion of false signals			82.6%			72.0%
Unconditional probability of a peak			6.7%			2.2%
Probability of a peak if signal sent			17.4%			28.0%
Probability of a peak if no signal sent			3.1%			0.4%

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that the probability of a peak is significantly higher if the model sends a signal than if it does not. Compared with a naive forecast, which sets the unconditional probability of a peak for each quarter, the model-based forecast represents a clear improvement.

… recessions, in particular, are frequently recognised in advance

The binary regression model is even more informative if the forecast is limited to recessions. Here, almost all observations are identified correctly. The share of correctly identified peaks is also significantly higher than in the previous case. At the same time, however, the clear majority of the signals remain false. Nevertheless, the model is considerably more informative than naive forecasts. Although not every announcement was actually followed by a recession, the start of a recession was often clearly signalled.[43]

Pandemic-related economic crisis unforecastable

The global economic slump in the first quarter of 2020 can be used as a counter-example. Although there were increasing signs of an imminent soft patch in many countries last year, the risk of a recession in the near future was considered to be low. Only in the United States did the probability of recession rise slightly, owing to a negative interest rate spread. The COVID-19 pandemic itself and its consequences, however, could only be diagnosed, but not forecast with a greater lead.

Summary

Not all recessions can be predicted

In summary, quantitative business cycle analysis can be used to identify fragile macroeconomic upturns and also to predict downturns. Recessions, in particular, often appear to be signalled in advance – at least when looked at with hindsight. All the same, it must be acknowledged that the models presented here failed to recognise a few (sometimes severe) downturns. Turning points could even be missed more frequently in day-to-day business cycle analysis, not least because the characteristics of downturns often differ in their details from the patterns observed in previous cycles. However, it is precisely the particularities of the situation prevailing at a given time that are not yet reflected in the estimated forecast equations.

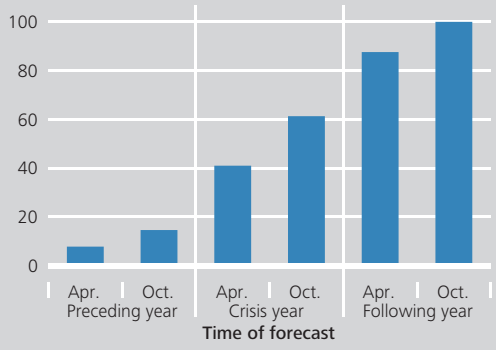
Even professional business cycle analysts are often surprised by crises

A look at the accuracy of judgements made by experts confirms how challenging it can be to predict economic downturns. In June 2008, for example, the Bundesbank was still anticipating fairly brisk growth in its forecasts for 2008 and 2009.[44] Six months later, the outlook was for

43 In almost half of all cases, an increase in the probability of a turning point interpreted as a false signal was indeed followed by a recession after a few quarters. The forecast models would therefore have indicated that the upturn was highly fragile in these situations, too.
44 See Deutsche Bundesbank (2008a).

Accuracy of IMF recession forecasts*

Percentage of correctly forecast GDP declines



Sources: IMF and Bundesbank calculations. * All forecasts for all countries and groups of countries from the April and October editions of the World Economic Outlook since 1991 have been taken into consideration. The October edition for the following year is used to determine GDP outcomes.

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little growth in GDP over the course of 2009.[45] However, the current data show that, in the wake of the global financial and economic crisis, German GDP fell markedly from as early as the second quarter of 2008, decreasing by 3.3% over the course of 2009. Similarly, the International Monetary Fund has seldom forecast a decline in GDP in its published projections over the past 30 years. Even during crisis periods, its assessments for the current year were still too optimistic in around half of all cases. Other national and international organisations and private sector analysts have performed similarly poorly in the past.[46]

Explanatory approaches

Various explanatory approaches are put forward for this patchy overall performance. Some suggest that people generally tend to stick to an assessment once it has been made and do not initially assign enough importance to new information that challenges it.[47] It may also be the case that a recession – especially one that is less severe – is initially difficult to identify from the preliminary data delivered by the economic indicators. Macroeconomic forecasts would therefore be adjusted too slowly, despite signs of a deterioration in the situation. Other explanations are based on the incentives for business cycle forecasters. For instance, they might be reluctant to predict a recession if misjudgements could potentially result in major costs such as reputational damage.[48] In addition, the projections of international organisations might be influenced by political motives or concerns that a pessimistic forecast could become "self-fulfilling".[49] Finally, however, it is also possible that the picture may be clouded by the fact that, in some cases, impending downturns are detected early on and prevented by means of forward-looking economic policy measures. Recessions avoided in this way would not be included in the statistics.

Forecast models an important tool for identifying vulnerabilities

Although these factors certainly play something of a role, there is still much to suggest that, in the end, some downturns simply cannot be predicted. Even economies that previously appeared to be fairly resilient can be plunged into recession by shocks of sufficient magnitude. The latest global economic crisis resulting from the coronavirus pandemic underlines this once again. The fact that no warnings of an imminent economic turnaround are issued in situations like this should not therefore be considered a failure on the part of the experts. Business cycle research can, however, identify undesirable developments or potential excesses and thus an increased risk of recession. Quantitative methods are an important tool in this regard.

45 See Deutsche Bundesbank (2008b).
46 For more information, see Loungani (2001) and An et al. (2018).
47 This argument was first put forward by Nordhaus (1987).
48 See Zellner (1986).
49 For instance, an independent review of IMF forecasts published in the context of large support programmes found that assessments of the economic outlook were systemically overoptimistic. See Independent Evaluation Office of the International Monetary Fund (2014).

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The tables accompanying this article are printed on pp. 64 f.

Regression table for forecasting cyclical peaks over various time horizons (all peaks)°

Item	(1) Peak in $t+1$	(2) Peak in $t+2$[5]	(3) Peak in $t+3$[5]	(4) Peak in $t+4$[5]	(5) Peak in $t+1$ to $t+4$
Duration	0.094**	0.100**	0.095**	0.093**	0.096**
	(0.046)	(0.042)	(0.038)	(0.041)	(0.047)
Interest rate spread$_t$[1]	– 0.405***	– 0.213*	– 0.127	– 0.135	– 0.269*
	(0.113)	(0.128)	(0.165)	(0.165)	(0.143)
Equity price index$_t$[2]	– 0.044	– 0.014	0.013	0.013	– 0.009
	(0.032)	(0.023)	(0.028)	(0.035)	(0.012)
Industry sentiment$_t$	0.069***	0.032	0.002	0.024	0.036**
	(0.018)	(0.034)	(0.032)	(0.033)	(0.014)
Industry sentiment$_{t-1}$	– 0.031**	– 0.003	0.021	– 0.001	– 0.006
	(0.015)	(0.036)	(0.033)	(0.030)	(0.014)
Consumer sentiment$_t$	– 0.082*	– 0.058	– 0.030	0.084**	– 0.013
	(0.045)	(0.047)	(0.026)	(0.042)	(0.036)
Consumer sentiment$_{t-1}$	0.083**	0.086***	0.079***	– 0.036	0.044*
	(0.038)	(0.031)	(0.026)	(0.036)	(0.025)
GDP deflator$_t$[2]	– 0.183	– 0.231	– 0.282	0.136	– 0.107
	(0.175)	(0.329)	(0.236)	(0.361)	(0.256)
GDP deflator$_{t-1}$[2]	– 0.275	– 0.155	0.205	0.132	0.043
	(0.323)	(0.222)	(0.327)	(0.162)	(0.211)
Credit-to-GDP$_t$[3]	0.045***	0.052***	0.054***	0.052***	0.063***
	(0.014)	(0.010)	(0.009)	(0.010)	(0.012)
House price index$_t$[4]	– 0.021***	– 0.022***	– 0.021***	– 0.022***	– 0.027***
	(0.005)	(0.005)	(0.005)	(0.006)	(0.006)
Constant	– 3.320***	– 3.443***	– 3.438***	– 3.577***	– 1.741**
	(0.900)	(0.875)	(0.809)	(0.840)	(0.848)
Countries	9	9	9	9	9
Country dummies	Yes	Yes	Yes	Yes	Yes
Observations	736	734	732	729	736
McFadden's adjusted R^2	0.042	0.011	0.009	0.009	0.099

° Robust and clustered standard errors shown in parentheses: *** p < 0.01, ** p < 0.05, * p < 0.1. **1** Difference between long-term and short-term interest rates. **2** Rate of change over preceding quarter. **3** Deviation from linear trend. **4** Deviation from log-linear trend. **5** Assuming that an upturn continues until that point in time.

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Regression table for forecasting cyclical peaks over various time horizons (only peaks followed by recessions)°

Item	(1) Peak in $t+1$	(2) Peak in $t+2$[5]	(3) Peak in $t+3$[5]	(4) Peak in $t+4$[5]	(5) Peak in $t+1$ to $t+4$
Duration	0.042**	0.036**	0.020	0.024	0.029*
	(0.017)	(0.017)	(0.016)	(0.016)	(0.015)
Interest rate spread$_t$[1]	− 1.614***	− 1.438***	0.054	− 0.427	− 0.767***
	(0.450)	(0.349)	(0.346)	(0.371)	(0.104)
Interest rate spread$_{t-1}$[1]	0.521***	1.199***	− 0.668	− 0.274	0.124
	(0.198)	(0.363)	(0.579)	(0.873)	(0.183)
Interest rate spread$_{t-2}$[1]	0.339	− 0.296	0.332	0.374	0.134
	(0.415)	(0.453)	(0.308)	(0.755)	(0.279)
GDP deflator$_t$[2]	0.673*	1.166**	0.432	0.244	0.564**
	(0.353)	(0.500)	(0.360)	(0.223)	(0.276)
GDP deflator$_{t-1}$[2]	0.856*	0.198	0.385**	0.061	0.331
	(0.497)	(0.431)	(0.176)	(0.362)	(0.232)
GDP deflator$_{t-2}$[2]	0.207	0.114	− 0.032	0.579***	0.350
	(0.290)	(0.187)	(0.286)	(0.154)	(0.216)
House price index$_t$[3]	− 0.070	0.179	− 0.025	0.198***	0.050
	(0.072)	(0.138)	(0.113)	(0.073)	(0.050)
House price index$_{t-1}$[3]	0.222*	− 0.254	0.212	− 0.206	0.026
	(0.119)	(0.247)	(0.199)	(0.133)	(0.051)
House price index$_{t-2}$[3]	− 0.112	0.110	− 0.160*	0.034	− 0.047
	(0.104)	(0.130)	(0.091)	(0.070)	(0.034)
Credit-to-GDP$_t$[4]	0.031	0.498***	0.083	0.016	0.169**
	(0.138)	(0.124)	(0.076)	(0.095)	(0.082)
Credit-to-GDP$_{t-1}$[4]	0.561***	− 0.584**	0.031	0.119	0.005
	(0.162)	(0.232)	(0.084)	(0.151)	(0.063)
Credit-to-GDP$_{t-2}$[4]	− 0.688***	0.007	− 0.183*	− 0.200***	− 0.242***
	(0.241)	(0.177)	(0.101)	(0.073)	(0.069)
Equity price index$_t$[3]	− 5.505	− 5.040*	2.849	2.221	− 0.357
	(4.591)	(2.728)	(3.228)	(4.995)	(1.727)
Equity price index$_{t-1}$[3]	2.039	5.930	− 1.492	0.803	0.807
	(8.054)	(4.794)	(5.548)	(7.835)	(1.250)
Equity price index$_{t-2}$[3]	6.084	1.870	1.346	− 0.153	2.311
	(4.068)	(4.054)	(4.543)	(3.208)	(1.505)
Oil price$_t$[3]	0.038***	0.012	0.001	0.006	0.012***
	(0.009)	(0.016)	(0.010)	(0.019)	(0.004)
Oil price$_{t-1}$[3]	− 0.014	0.000	0.006	− 0.006	− 0.005
	(0.018)	(0.013)	(0.018)	(0.015)	(0.006)
Oil price$_{t-2}$[3]	0.029**	0.001	− 0.016	0.014	0.002
	(0.014)	(0.024)	(0.020)	(0.012)	(0.010)
Constant	− 11.329***	− 9.899***	− 7.382***	− 8.016***	− 7.232***
	(2.973)	(2.539)	(2.062)	(2.036)	(2.013)
Countries	9	9	9	9	9
Country dummies	Yes	Yes	Yes	Yes	Yes
Observations	1,192	1,187	1,182	1,147	1,192
McFadden's adjusted R^2	0.195	0.101	− 0.044	− 0.029	0.227

° Robust and clustered standard errors shown in parentheses: *** p < 0.01, ** p < 0.05, * p < 0.1. **1** Difference between long-term and short-term interest rates. **2** Rate of change over preceding quarter. **3** Deviation from log-linear trend. **4** Deviation from linear trend. **5** Assuming that an upturn continues until that point in time.

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The protracted rise in residential property prices in Germany from a macroeconomic perspective: transmission channels and fundamental determinants

The German economic upswing from 2010 until the slump caused by the coronavirus pandemic was accompanied by a continuous rise in residential property prices. Given the remarkable price levels reached in many regions, the economic slowdown last year already led to questions about the spillover effects on the residential property market. The historic slump in economic output this year caused by the pandemic has made these questions even more relevant. Going forward, developments in the residential property market in the short and longer term are currently subject to heightened uncertainty. This article uses econometric models of the residential property market to analyse the economic interrelationships between residential property price developments in Germany and macroeconomic developments. This also enables an assessment of the potential for a correction of residential property prices stemming from the previous price boom.

From a macroeconomic perspective, rising prices in the residential property market over the past few years have reflected developments in housing supply and demand. The price effects of the sharp surge in demand have stimulated additional residential construction, which has also driven the price of construction work up sharply. Land prices, whose contribution to residential property price inflation has risen significantly in recent years, have appreciated even more sharply. As land prices, in particular, tend to reflect a property's asset value, the risk of residential property price exaggerations has also increased. Overvaluations have emerged, especially in urban areas, and valuation measures have recently indicated some upward price deviations at the macroeconomic level as well. However, these results depend on the calculation method and are also very heavily influenced by the underlying assumptions regarding the natural level of lending rates. Further analyses provide scant evidence in support of the hypothesis that destabilising speculative demand motives are the main driver of these overvaluations.

Overall, the price structure in the German residential property market last year can therefore be regarded as robust to pronounced changes in the macroeconomic environment. This finding is supported by the fact that the pandemic has so far left little mark on the residential property market. However, the macroeconomic environment is now much more fragile than before. That said, there are no signs of an abrupt correction in residential property prices, provided that there is no serious disruption to the ongoing macroeconomic recovery.

Upward pressure on residential property prices broadly based across regions

Protracted economic upswing with strong impact on prices in residential property market

The protracted German economic upswing, which began in 2010 and came to an abrupt end with the outbreak of the coronavirus pandemic, also affected the residential property market. However, this occurred gradually and with regional differences. In the first half of this upswing, the sharp rise in residential property prices was largely concentrated in urban areas, with prices initially barely rising at all in rural areas. The boom in real estate prices only took off gradually in non-urban regions. As of roughly 2015, steep upward pressure on residential property prices became broadly based across regions. According to Bundesbank calculations based on data from bulwiengesa AG, residential property prices in Germany as a whole have since risen by an average of 7¾% per year, whereas they rose by just 4¼% per year in the first half of the boom period. In 2019, there were hardly any remaining differences in the price dynamics between urban and rural areas (see the box on pp. 69 ff.).[1] In the rental segment, too, there were hardly any regional deviations in inflation last year. However, house price inflation significantly outpaced inflation in terms of new rental contracts.

Expansion in construction activity

After years of consolidation in the construction sector, new construction activity picked up again in line with the positive price impulses of the most recent economic upswing. While there was a time lag before construction activity gained momentum, in 2019 the number of completed projects exceeded those in 2010 by just over 80%. The additional housing supply increased at an above-average rate in the seven largest cities. But in rural areas, too, the expansion of supply did not fall behind the average development. Only in smaller and medium-sized towns and cities was growth in the number of new dwellings comparatively low. As from around 2017, construction activity in most regions stabilised at its elevated level, while residential investment, which includes modernisation, conversion and expansion measures in existing residential buildings, continued to see strong growth.

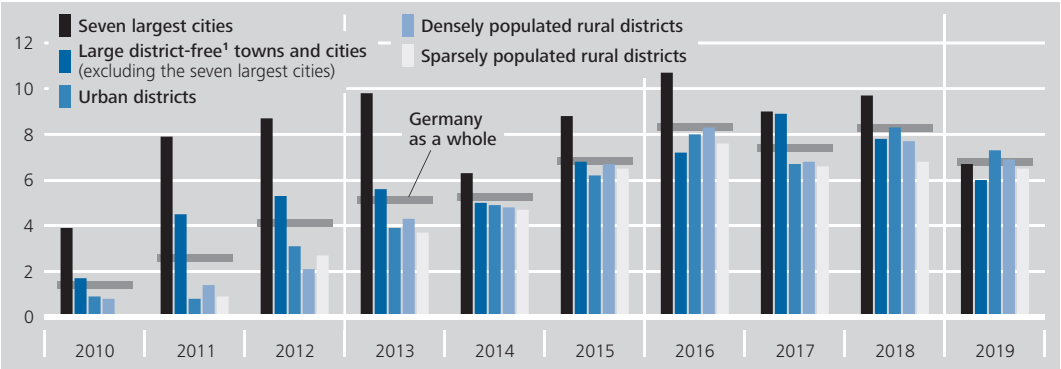
Model analyses for assessing the structural condition of the residential property market

Already last year, in view of the remarkable level of residential property prices in many regions, the question also arose as to what impact the visible slowdown in the economy would have on the real estate market. This year's pandemic and the associated historic

1 The convergence of price dynamics took place both in densely populated and sparsely populated rural districts, thus spreading beyond areas close to towns and cities.

Residential property prices by district type, as classified according to their settlement structure*

Year-on-year percentage change



* Transaction-weighted. Bundesbank calculations based on price data provided by bulwiengesa AG. Spatial segmentation based on the Federal Institute for Research on Building, Urban Affairs and Spatial Development's classification of district types according to their settlement structure. 1 I.e. not forming part of a larger administrative district.

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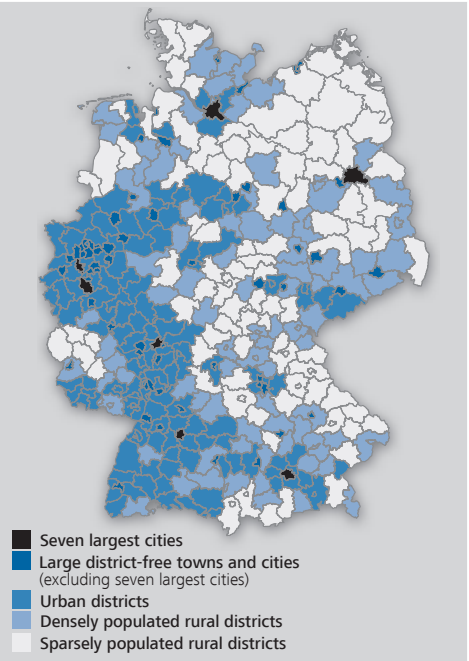
Regional house price indices – what data the official statistics provide

Residential property markets are characterised by a high degree of regional heterogeneity. Appropriate data sources are required to investigate regional trends. For instance, while very granular regional data on the housing stock and construction activity have been published in the official statistics for many years, corresponding price indices have only been provided since mid-2019 and in a comparatively rough geographical breakdown. In addition to the house price index for Germany as a whole, the Federal Statistical Office reports on price developments of apartments and houses, starting from the fourth quarter of 2015, for five types of area based on the Federal Institute for Research on Building, Urban Affairs and Spatial Development's (BBSR) classification of district types by settlement structure.[1]

According to this classification, districts and independently administered cities, which are referred to as district-free towns and cities, are broken down into four groups using criteria such as population density and share of the population living in towns and cities: large district-free towns and cities, urban districts, densely populated rural districts and sparsely populated rural districts.[2] Among the big cities, the seven largest cities in Germany[3] are grouped separately. This takes account, amongst other things, of the fact that this city aggregate plays a particularly important role in the analysis of the real estate market. The Bundesbank and vdpResearch GmbH have also been publishing price indices for the group of the seven largest cities for some time now.

bulwiengesa AG has been providing the Bundesbank with district-level price data for many years.[4] These data enable fairly flexible regional aggregates to be formed for analytical purposes. For instance, it is also possible to calculate regional price indicators on the basis of the classification of district types by settlement structure. These data start in 2004 and thus capture a considerably longer period than the regionalised house price index compiled by the Federal Statistical Office, even though this means that they mainly cover the period of the recent upswing only. Furthermore, the data on houses and apartments can be condensed to form an overall aggregate,

District types by settlement structure*



* Based on the Federal Institute for Research on Building, Urban Affairs and Spatial Development's classification, as of 2016.

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1 https://www.bbsr.bund.de/BBSR/DE/forschung/raumbeobachtung/Raumabgrenzungen/deutschland/kreise/siedlungsstrukturelle-kreistypen/kreistypen.html?nn=2544954

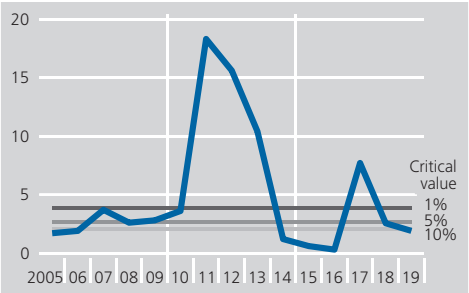
2 The predominantly demographic criteria underlying the definition of district types by settlement structure allow a stable categorisation, at least in the short to medium term. This is likely to be largely independent of events in the real estate markets and, in particular, to avoid interaction between price developments in a district and the category to which it is assigned.

3 Berlin, Cologne, Düsseldorf, Frankfurt am Main, Hamburg, Munich and Stuttgart.

4 See Deutsche Bundesbank (2020).

Test for equality of the mean annual price change between the district types by settlement structure

ANOVA F-statistic[1]



1 Test of the null hypothesis that the mean annual price changes do not differ between the district types by settlement structure. Results of the test statistic above the critical values indicate rejection of the null hypothesis.

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which is currently not done in the official data. However, the Bundesbank's regional indices based on price data from bulwiengesa AG are published only once a year, whereas the regionalised house price index appears quarterly. The nature of the underlying data also differs between providers. The Federal Statistical Office uses transaction data from committees of surveyors for property values. bulwiengesa AG's price data are primarily based on well-founded expert assessments.

Transaction data are the preferred data source for calculating real estate price indices. However, they involve substantial requirements with regard to statistical treatment. For example, a quality adjustment based on hedonic methods usually only produces satisfactory results if a large number of observations is available in the case of pronounced heterogeneity. Limiting the geographical breakdown to merely five subgroups is likely to reflect the attempt to produce results for the data currently available that are analytically meaningful and of sufficiently good statistical quality.

House prices in the district types by settlement structure can show different tendencies. Drawing on the price series based on data from bulwiengesa AG that has been available since 2004, statistical tests can be used to demonstrate that the annual rates of change between the five categories have differed systematically over much of the period under review. The gap between urban and rural areas was particularly pronounced in the early phase of the upswing in Germany's real estate markets in the first half of the last decade, for example.

The fact that raw data for the official house price index are currently provided in an incomplete form and with a time delay in some cases appears to make calculating robust results for rural areas in particular more difficult. This is indicated by the high susceptibility to revision of the data for this district type.[5] By contrast, the corrections to the official results for the other district types are not conspicuous.

The house price index is published approximately 85 days after the end of a reporting quarter. This publication date is largely dependent on the provision of data by the committees of surveyors. They provide information on notarised purchase agreements to the official statistical offices no later than 60 days after the end of the reporting quarter.[6] The revisions illustrate that information is lagged on a relevant scale.[7] However, the usefulness of many data for house price statistics are currently limited, not only by when they are available but also by what data are provided. According to the Federal Statistical Office, 45% of the datasets provided cannot be used for index calculation as central price-determining attributes required for quality adjustment are not available.[8] One key factor here is that the committees of surveyors often only ob-

5 The revision practice for the house price index stipulates that the results for the previous quarter be revised with the publication of the result for the current quarter. Furthermore, the previous year's result is revised with the publication of the first quarter of a year. See Federal Statistical Office (2018) p. 8. The revisions to the regionalised index are discussed, amongst other things, in Federal Statistical Office (2020a).
6 See Federal Statistical Office (2018), p. 3.
7 See Schöneich and Teske (2020), p. 41.
8 See Schöneich and Teske (2020), p. 38.

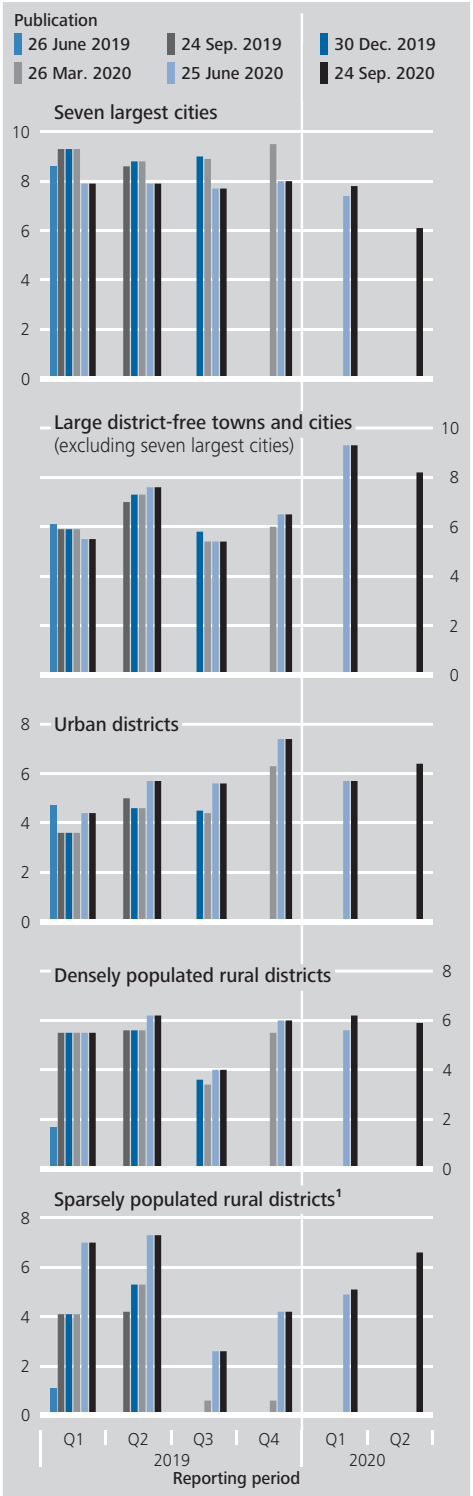
tain important information on real estate transactions through downstream postal buyer surveys.

Potential ways of improving the official real estate price statistics mainly involve creating the conditions for data on price-determining attributes to be transmitted in a timely and complete manner, starting with the data source.[9] This objective could be considered as part of the implementation of the "eNoVA" *(Elektronischer Notariat-Verwaltungs-Austausch)* project – an electronic exchange between notary's offices and the administrative bodies involved.[10] The concept of this project is for the administrative procedures for conducting real estate transactions to be digitalised by establishing an IT portal. This would also improve the statistical usefulness of the information from real estate purchase contracts if a corresponding regulatory framework were established in this context that ensured that statistically relevant features were recorded and made available nationwide.

The regionalisation of the official house price index has extended the range of data available for monitoring developments in the residential property markets. However, the fact that data are, in some cases considerably, susceptible to revision has so far reduced the usefulness of the indices for analysis purposes. Considering the available price indicators from different sources and with different data coverage together still remains the best way to arrive at reliable empirical findings. Increased statistical uncertainty in this area means that general caution must be applied when interpreting the results.

Regionalised house price index according to publication date*

Year-on-year percentage change



Source: Federal Statistical Office. * Apartments. Regional breakdown based on the Federal Institute for Research on Building, Urban Affairs and Spatial Development's classification of district types by settlement structure. 1 Publication on 30 December 2019 did not contain any data for the third quarter of 2019.

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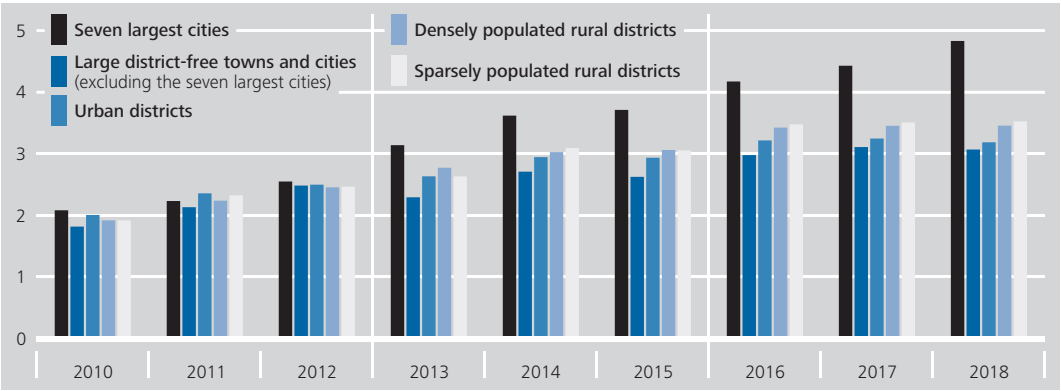
9 Furthermore, data could in principle also be obtained for commercial real estate – for which there are currently no official price indices – and the creation of a price index could be promoted. Recommendations from the European Systemic Risk Board (2016) and the G20 Data Gaps Initiative also suggest that metrics for the commercial real estate market are needed.

10 See Federal Statistical Office (2019a).

Building completions per district type, as classified according to their settlement structure*

Dwellings per thousand inhabitants



* Bundesbank calculations based on data from the Federal Statistical Office. Spatial segmentation based on the Federal Institute for Research on Building, Urban Affairs and Spatial Development's classification of district types according to their settlement structure.

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slump in economic output in the first half of the year have made this issue even more pressing. There is no doubt that uncertainty about further developments in the residential property market in the short and longer term has increased this year. Assessments of the structural condition of the residential property market have therefore gained greatly in importance. On the one hand, this is about the factors that link the residential property market to macroeconomic developments. These provide information on the extent to which residential property price developments are consistent with economic interrelationships. On the other hand, this is also about assessing the size of the potential for correction stemming from the previous residential property price boom. From an analytical perspective, econometric models are available for both of these aspects (see the box on pp. 73 f.).

Factors influencing residential property price inflation from the perspective of a macroeconomic model approach

The combination of marked price increases and the housing supply expansion suggests that residential property price developments were chiefly a reflection of the sharp rise in housing demand during the exceptionally long economic upturn. The situation of a demand-driven rise in residential property prices can be modelled in a class of models in which residential property prices are determined by the stock-flow equilibrium of supply and demand. A core component of the error correction approach is a long-run relationship between residential property prices, current and expected household income, and interest rate developments for mortgage loans. By also taking into account short-term influences on price dynamics, the model can be used to identify the way in which residential property prices and residential investment – the latter of which increases the housing supply in this model framework by expanding the housing stock – typically respond to changes in the macroeconomic environment.

Econometric model of residential property price developments

Data on the macroeconomic variables included in the model specification for Germany are available for the period from 1991 onwards. The residential property price index in Germany covering the longest available period of time is based on the price index for owner-occupied residential property of the Association of German Pfandbrief Banks (*Verband deutscher Pfandbriefbanken*, vdp); however, it does not

Dataset reaching as far back as possible

Two models for estimating residential property prices in Germany

Error correction models consisting of a specification of the long-run price trend and one or several equations describing the short-term price dynamics form part of the toolkit for analysing the residential property market.[1] One of the elements that theoretically underpin this approach is the model of stock-flow equilibrium in the residential property market.[2] The main conceptual relationships can be illustrated in a simplified error correction model.

The long-run equilibrium relationship links residential property prices (p_t) with households' disposable income (y_t) and interest rate developments for mortgage loans (r_t) as well as other demand-side factors such as longer-run GDP growth expectations (g_t^{exp}).[3] To these are added supply-side factors such as productivity in the construction sector (y_t^{constr}). The error term (ε_t) captures temporary price deviations from the long-run relationship.

$$p_t = \beta_0 + \beta_1 y_t + \beta_2 r_t + \beta_3 g_t^{exp} + \beta_4 y_t^{constr} + \varepsilon_t$$

The housing stock is derived from the cumulative changes in supply resulting from residential construction activity and the number of housing units that are no longer available on the market.[4] In the first short-run equation, it is assumed that price increases (Δp_t) tend to be followed by higher residential investment (i_t), enlarging the housing supply.[5]

$$i_t = \beta_5 \Delta p_{t-1} + \beta_6 \Delta cc_{t-1} + \zeta_t$$

For instance, higher demand thanks to income growth would cause prices to go up, which would stimulate residential investment and increase the stock of dwellings until housing demand and supply balance each other out. Higher costs for construction services (Δcc_t), meanwhile, would ceteris paribus curb construction activity and produce additional price pressure; moreover, random disturbances (ζ_t) can occur. According to the theoretical approach, increased residential investment – triggered by productivity growth or deregulation – will ceteris paribus dampen price dynamics, though disturbances (η_t) can

Estimation results of the error correction model°

Determinants of the long-run relationship[1]	(Semi-)elasticities
Households' disposable income	0.6 (0.2)
Expected GDP growth[2]	5.2 (1.0)
Mortgage lending rate	– 0.8 (0.4)
Adjustment coefficient of the error correction term	– 0.2* (0.1)

° Long-run estimation equation includes year dummies for the years from 2015 onwards. Estimation period: Q4 1993 to Q4 2019. * Significant at the 5% level. 1 In logarithms, except GDP growth expectations and mortgage lending rates (both in %). Standard errors are shown in parentheses. 2 Annual average real GDP growth over the next ten calendar years.

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1 See Kajuth (2020), Leung (2014), Malpezzi (1999) and Steiner (2010). For an application for extrapolating residential property prices, see Deutsche Bundesbank (2017).
2 See DiPasquale and Wheaton (1994) and McCarthy and Peach (2004).
3 Variables in levels are transformed into logarithms in the specification. Residential property prices and the measure of income were adjusted for the general price level as measured by the deflator of private consumption. The productivity measure refers to real hourly productivity in the construction sector. Interest rates on housing loans were adjusted for longer-term inflation expectations using Consensus Economics survey-based data. The survey-based data on longer-run real GDP growth are obtained from Consensus Economics. Moreover, in the calculations volumes were placed in relation to the number of households.
4 Vacancies are not taken into account in the model framework.
5 Real residential investment is placed in relation to the real value of the housing stock; the ratio is entered into the estimation in logarithms. Moreover, the full specifications of the short-run equations in the estimation of the error correction model contain rates of change of the determinants in the long-run relationship, lagged values of the dependent and the explanatory variables and, in some cases, constants or dummy variables.

Estimation results of the panel model°

Explanatory variables[1]	(Semi-)elasticities
Dwellings per inhabitant	– 0.9** (0.1)
Per capita disposable income	1.0** (0.1)
Population density	2.1** (0.1)
Mortgage lending rate	– 3.5** (0.2)
Expected GDP growth[2]	17.1** (1.1)

° Estimation period: 2004 to 2019. ** Significant at the 1% level. **1** In logarithms, except GDP growth expectations and mortgage lending rates (both in %). Standard errors are shown in parentheses. **2** Annual average real GDP growth over the next ten calendar years.

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occur here, too. This is represented by the second short-run equation.

$$\Delta p_t = \beta_7 \widehat{\varepsilon}_{t-1} + \beta_8 i_{t-1} + \eta_t$$

The error correction mechanism is reflected in the short-run price adjustment that is triggered by previous deviations of residential property prices from their long-run trend ($\widehat{\varepsilon}_{t-1}$). The coefficients of these specifications, in which the explanatory variables affect the dependent variables with a time lag, can be estimated by means of a conventional OLS estimation.

While the analysis of actual price dynamics is all about explaining changes in prices as well as possible with given determinants, questions relating to overvaluations centre on the extent to which prices deviate from a level justified by the fundamentals. This can be measured using the long-run relationship of the error correction model without the short-run relationships. In this case, the assessment of price developments is based on its deviation from a trend path determined by the sustainable values of macroeconomic variables.[6] Another approach to estimating the fundamental price also looks at the relationship between residential property prices and their determinants in a cross-section of Germany's 401 administrative districts. In an econometric panel model, the price of residential property in administrative district i is explained by district-specific variables, namely the per capita housing stock at the beginning of the year (s_{it}), per capita disposable income (y_{it}) and population density (d_{it}).[7] The model also incorporates macroeconomic data on mortgage lending rates (r_t) and survey-based longer-run GDP growth expectations (g_t^{exp}).[8]

$$p_{it} = \alpha_0 + \alpha_1 s_{it} + \alpha_2 y_{it} + \alpha_3 d_{it} + \alpha_4 r_t + \alpha_5 g_t^{exp} + c_i + \tau_{it}$$

Furthermore, c_i denotes an unobserved district-specific time-invariant fixed effect, and τ_{it} represents an error term. The coefficients of variables that could be correlated with the unobserved effect are estimated in a panel model with random effects using the instrumental variables estimator.[9] On the basis of this econometric approach, residential property prices can be compared with the estimated district-specific fundamental equilibrium levels. The measure of overvaluation is based on the district-specific estimation residuals, which are condensed using population shares to create different regional subaggregates and a figure for the economy as a whole.

6 The price deviation is not necessarily identical with the error correction term because, amongst other things, the determinants can persistently deviate from the level justified by the fundamentals.
7 See Kajuth et al. (2016).
8 In this case, nominal variables were adjusted for the general price level using the regional consumer price index; interest rates on housing loans were adjusted using survey-based data on longer-run inflation expectations obtained from Consensus Economics. The survey-based data on longer-run real GDP growth obtained from Consensus Economics were converted into per capita values using data on population trends based on the Federal Statistical Office's 14th coordinated population projection. Additional district-specific determinants were not found to have an impact.
9 This was done using the deviations of the district-specific determinants from the administrative district-specific mean. See Hausman and Taylor (1981). The usual length of the publication process means that data on some explanatory variables are currently only available up until 2018 or 2017. Where these district-specific variables were not yet available, they were extrapolated using the previous year's percentage change in their share in the aggregate figure.

start until 2003. The quality of the estimation of long-run relationships depends, amongst other things, on the data coverage of cyclical phases being as balanced as possible. Therefore, in order to achieve a sample that reaches as far back as possible, the vdp price index was back-calculated to 1993 by way of approximation using a newly constructed indicator for residential property prices in Germany based on official statistics (see the box on pp. 77 f.).

Empirically plausible long-run relationship between residential property prices and macroeconomic variables

According to the estimation results, residential property prices are fairly closely linked to longer-term income developments and interest rates on mortgage loans. Added to this is the impact of expected future GDP growth, which is seen as an indicator of expected increases in household income. Taken together, these variables affect the affordability of owner-occupied dwellings, which can be measured, for example, by the interest burden on disposable income in the case of credit-financed residential property purchases. It improved very strongly between 2010 and 2016 and was also significantly more favourable in 2019 than at the start of the upturn in the real estate market.[2] In this context, according to the results of the analysis, mortgage lending rates, which – mirroring the general interest rate environment in the euro area – fell exceptionally sharply in particular between 2010 and 2016, had a somewhat greater impact than current income growth on property price increases.[3] On the supply side, however, the results show that productivity gains in the construction sector had no substantial impact on residential property price trends. Furthermore, there are no indications that looser bank lending standards for mortgage loans played a role in the rising residential property prices.[4]

Investment incentives based on price impulses intact

Higher housing demand, for example stemming from growth in household income, can result in rising prices and, indirectly, in increased construction activity. The estimation approach makes it possible to trace changes in prices and residential investment triggered by isolated changes in macroeconomic variables. The analyses show, for one thing, that stimulative price signals had a significant impact on residential investment.[5] According to OECD data, Germany is nevertheless one of the countries where the housing supply tends to be inelastic.[6] Factors that could hinder a greater expansion of supply include a lack of availability of suitable residential building land and the tightness of rent regulation.[7] The more pronounced these are, the more difficult or less attractive investment in new dwellings is in the event of significant price increases.

Residential property investment has scarcely any price-dampening effect in the short run

On the other hand, the assessment of the transmission channel in the opposite direction, i.e. after expansions in supply, shows that additional residential investment scarcely dampened residential property price inflation in the short run, provided it was not itself attributable to price impulses. Viewed in isolation, stock-increasing residential investment actually led to price increases to a certain extent, contrary to the expected effect. The gradually increasing capacity utilisation in the construction sector reached an extremely high level last year, causing price pressure on the cost side. Moreover, the availability of building land, especially in the attractive urban regions, became scarce quite quickly, which meant that additional dwellings were increasingly built without an expansion in the underlying residential building land.[8]

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2 See also the Bundesbank's system of indicators for the German residential property market at https://www.bundesbank.de/en/statistics/sets-of-indicators/system-of-indicators-for-the-german-residential-property-market. Repayments of principal are not taken into account in this calculation.

3 Income variables also reflect the demand effect of the high level of labour market-oriented immigration between 2011 and 2019.

4 See Geiger et al. (2016). Furthermore, owing to the lack of statistical data, it is not possible to determine the extent to which red tape, entrenched land use plans or resistance by interest groups prevented the expansion of residential building land.

5 This can be seen in the impulse responses of residential investment to exogenous increases in residential property prices.

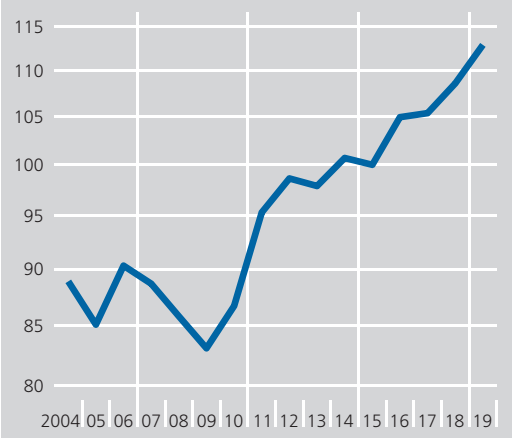
6 See Cavalleri et al. (2019).

7 The necessary societal debate about the purpose of land use can also play a role here. In the case of rent regulation, across-the-board rent controls, in particular, risk reducing investment incentives.

8 This was achieved, for example, by increasing building density or adding storeys to existing buildings.

Real housing investment

2015 = 100, log scale



Source: Federal Statistical Office.
Deutsche Bundesbank

Price dynamics decomposed into the contributions of construction prices and land prices

Real estate prices comprise the cost of construction work and the cost of land. It is therefore interesting to see which of these factors can explain most of the increase in residential property prices in recent years. To this end, based on the value of the housing stock, price dynamics can be decomposed into the contributions of movements in the prices of construction work and building land. The results suggest that the main driver of the sharp rise in real estate prices over the past decade has been the increased growth in the prices of building land, which outpaced construction prices, particularly in the second half of the period.

Transmission channels via construction prices and land prices

The previous analysis of the macroeconomic determinants of residential property prices overall can also be carried out separately for each of the two price components – construction costs and land prices. In order to assign the effects of the price-determining variables to the two components, the estimations that were applied to residential property prices can be repeated for both construction prices and land prices. The separate analysis shows that the impact of both income and interest rate developments was chiefly transmitted through the land component. As the contribution of the land component has grown in the recent past, the impact of income growth and declining interest rates has tended to increase. This disaggregated estimate also sheds light on the finding that higher residential investment did not have a dampening effect on residential property prices. This is attributable to the price pressure on construction work caused by the increase in construction activity. Increased residential investment has thus pushed up the price of construction work, thereby contributing to the price dynamics of residential real estate. This is plausible, given that capacity utilisation in the construction sector has been extremely high for some time now. According to the model results, price-dampening effects are more likely to be achieved through the designation of additional building land. Additional residential building land would thus counteract the price pressure attributable to growing construction activity.

Transmission mechanisms plausible on the whole

Taken together, the findings show that price movements in recent years have, from a macroeconomic perspective, largely been an expression of economically plausible transmission mechanisms. Owing to the growing scarcity of residential building land, the rise in the demand for housing had a fairly strong price impact. In addition, the increases in construction prices triggered by higher construction activity counteracted the price-dampening effect of additional building land. Nevertheless, prices in the period under review diverged, in some cases markedly, from the dynamics suggested by the macroeconomic variables. This can be partly explained – from a statistical perspective – by a lack of data availability, for example for the costs of designating building land; moreover, the prices could also reflect temporary price exaggerations.

Approaches to a macroeconomic assessment of residential property price developments

Price developments in residential property are usually assessed by comparing the actual price

An indicator for residential property prices in Germany as of 1993

Indicators that model developments in aggregate residential property prices in Germany and which demonstrate sufficient data quality are available from 2003 onwards.[1] The data therefore cover mainly the period of the protracted economic upswing. In order to look even further back at property price trends in Germany, an additional price indicator for residential property prices can be obtained using a procedure that has previously been applied to the United States.[2] This price indicator goes back to 1993, thus covering a considerably longer period than the one for which aggregate property price data for Germany are currently available.

The starting point for calculating this indicator is the definition of housing wealth ($p_t^h h_t$), defined as the capital stock of residential buildings (h_t) valued at current prices (p_t^h). Its time path reflects the combinations of pure changes in the price of the housing stock and the value of stock changes.

$$p_{t+1}^h h_{t+1} = \frac{p_{t+1}^h}{p_t^h} p_t^h h_t + p_{t+1}^h \Delta h_{t+1}$$

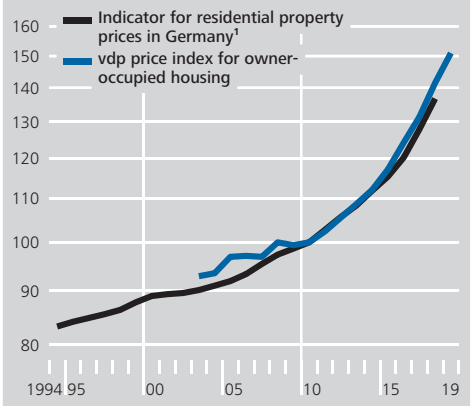
In order to separate the price changes, the contribution made by the value of stock changes has to be deducted from the changes in housing wealth. Housing wealth here is defined as the sum of the building value ($p_t^s s_t$) and the land value component ($p_t^l l_t$).

$$p_t^h h_t = p_t^s s_t + p_t^l l_t$$

Data for these components are available in the sectoral and national wealth accounts.[3] The value of the change in the housing stock is accordingly composed of net investment in dwellings and the value of growth in residential building land.[4] This can be measured using district-specific data on changes in the area of residential build-

Residential property prices in Germany

2010 = 100, log scale

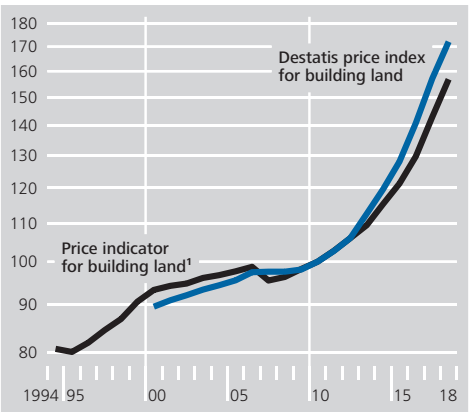


1 Bundesbank calculations.
Deutsche Bundesbank

1 The quality-adjusted, transaction-based price index for owner-occupied housing of the Association of German Pfandbrief Banks (vdp) starts in 2003. The Bundesbank indicator for residential property prices in Germany based on bulwiengesa AG data goes back to 2004. Data on the Federal Statistical Office's house price index that lend themselves to time comparisons are available as of the year 2014. See Federal Statistical Office (2018).
2 See Davis and Heathcote (2007) as well as Kajuth (2020).
3 See Federal Statistical Office (2012, 2019b). With the exception of the data on the value of growth in building land, the calculations are based on the total economy excluding general government. The data on the value of residential building area was derived from the ratio of the area of land used for residential purposes to the area used for residential, commercial or industrial purposes.
4 In order to calculate the share of depreciation on residential buildings accounted for by the private sector, it was assumed that it matches that of private sector housing investment. Ancillary construction costs have to be deducted from net housing investment, which also comprises non-deductible turnover tax. These costs include charges, commissions, fees, real estate acquisition tax and the value of utility and service connections and external facilities.

Building land prices

2010 = 100, log scale



1 Bundesbank calculations.

Deutsche Bundesbank

ing land combined with average prices of developed building land per square metre.[5]

Statistical data for nearly all of the necessary variables are available for the period from 1991 onwards. However, the district-specific data on the area of residential building land go back only as far as 1996. In the previous period, aggregate data for Germany are available only for 1992. The data for the years 1993 to 1995 have therefore been linearly interpolated. Looking at the growth in residential building land, 1993 is therefore taken as the starting point for the price indicator for residential property in Germany.

A caveat, however, is that the price indicator is neither based on transaction data nor quality-adjusted. Up-to-date results can only be calculated with a time lag. Moreover, only annual data are available – which, for the 1990s, are partly interpolated. This impairs the informative value of the indicator, especially for the 1990s. Nevertheless, according to the indicator, the residential property price trend is broadly consistent with that of the transaction-based, quality-adjusted vdp price index for owner-occupied housing over the overlapping period. The indicator shows that residential property prices in Germany trended moderately upwards in the second half of the 1990s, whereas they more or less stagnated in some years during the first half of the 2000s. Only as from 2010 did they gain considerable momentum.

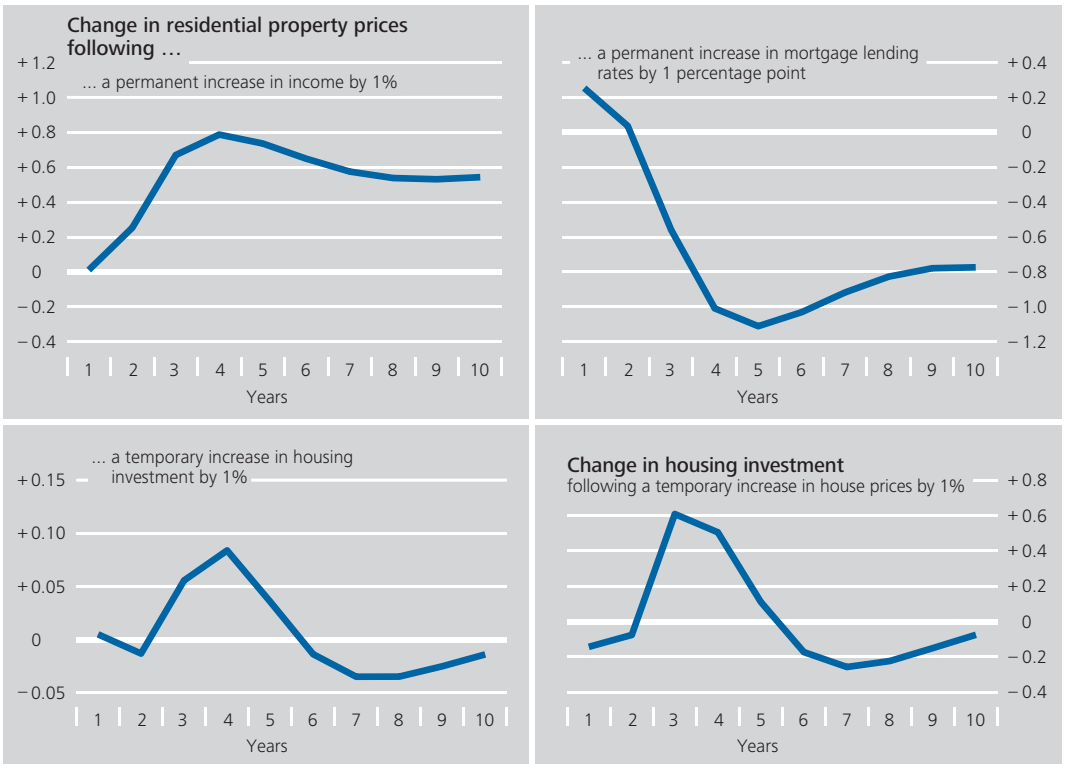
From this point of view, residential property price growth can be approximated as a weighted average of price increases for residential buildings and residential building land, with the weights referring to the value shares of the respective component in total housing wealth.[6] This also enables a price indicator for residential building land going back to 1993 to be derived. According to this sub-indicator, building land prices rose moderately in the second half of the 1990s, whereas they barely rose at all in the subsequent period up until around 2010. Over the past decade, they have picked up sharply. The indicator for building land prices has a profile similar to that of the transaction-based, quality-adjusted building land price index of the Federal Statistical Office, which is available for the period from 2000 onwards. This lends plausibility to the new price indicator for residential property in Germany.

5 The advantage of performing the calculation using district-level data over aggregated data is that it minimises the impact on the total price of residential building land caused by time fluctuations in the regional shares of land transactions. Regional data on average purchase prices for residential building land missing for some years were added or statistically extrapolated using data provided by bulwiengesa AG or the state building and loan associations on purchase prices for residential building plots. This is also the case for the missing data on the residential building land area from the 1997 to 1999 and 2001 to 2003 periods, which have been linearly interpolated.

6 The approximation holds for sufficiently small changes in the housing stock and in the area of residential building land.

Estimated mechanisms in the residential property market

Deviation from the baseline (%)



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Valuation requires reference value

level with a benchmark that reflects the sustainable price path. Since this reference value is an unobserved variable and calculating it involves considerable uncertainty, it is preferable to use various approaches to assess developments in residential property prices.

Standard indicators suggest heightened valuation level

Standard indicators for assessing residential property include the price-to-rent and price-to-income ratios, where the reference value is the indicator's long-run mean. This measure assumes that, in the long run, there is a fixed relationship between house price developments and the trend in rents and incomes. While this measure is easy to construct and interpret, one drawback is that the reference value is time-invariant and that there is no scope to add factors. Moreover, the informative value of these indicators depends heavily on the period for which the mean is calculated. According to this approach, house price valuations in German towns and cities were exceedingly high last year. The price-to-rent ratio for apartments there deviated by between 20% and 25% from the respective long-run average since 1990, while it deviated by around 30% in the seven big cities.[9] Looking at Germany as a whole, apartment prices were around 20% above the reference value as measured by developments in rents for new lettings last year. Looking at residential properties as a whole, too, income-based indicators show aggregate house price deviations to be close to the 20% mark in 2019.

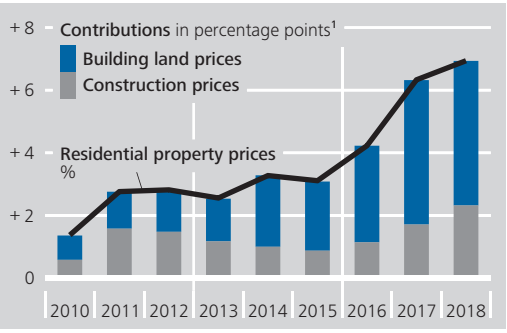
Time-varying reference value

A time-varying reference value can be calculated, for example, from the long-run relationship of the error correction model. From an economic perspective, the specification of the long-run relationship can be interpreted as an equilibrium price-income ratio that is corrected for the interest rate effect. This approach is based on the notion that the sustainable financing of residential property purchases should

9 The seven big cities are Berlin, Cologne, Düsseldorf, Frankfurt am Main, Hamburg, Munich and Stuttgart.

Components of residential property price dynamics

Year-on-year percentage change



Source: Bundesbank calculations based on data from the Federal Statistical Office. **1** Rates of change for prices of construction work and residential building land, weighted by the value shares of residential buildings and residential building land in total housing wealth.

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be consistent with income developments in the long run.

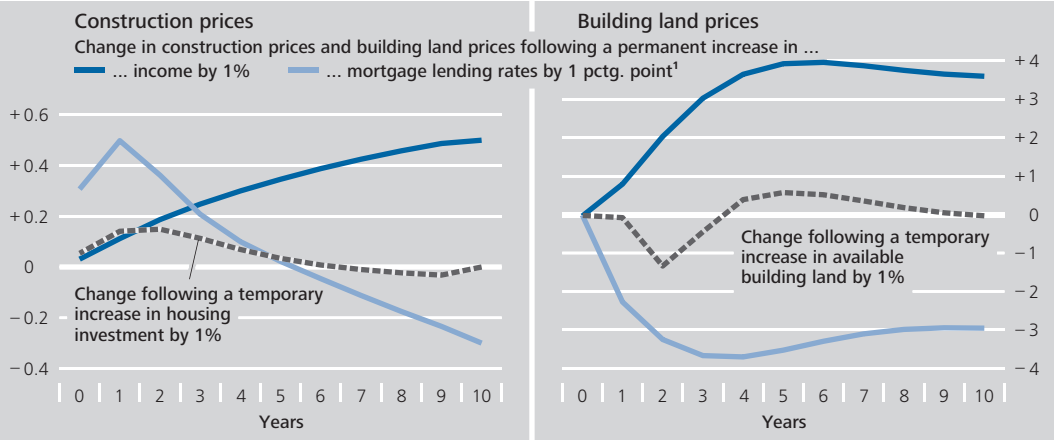
Scenario calculations to determine the sustainable level of mortgage lending rates

Particularly looking at mortgage lending rates for residential property, which have been extremely low for some time now, this approach raises the question of the extent to which they reflect a decline in their sustainable component and how much of the decline in interest rates is the result of cyclical factors. Given that estimating the long-run equilibrium interest rate in Germany involves considerable uncertainty, a range is defined with the aid of two hypothetical assumptions. First, it is assumed that the natural real interest rate for housing loans is the level it stood at in 2009 – i.e. before interest rates embarked on their multi-year decline. Under this assumption, the marked decline in the real lending rate since then is a temporary phenomenon. While there is indeed some evidence to suggest that the natural interest rate in advanced economies has come down over time, there are also signs that the return on fixed capital did not decline as much as the risk-free interest rate.[10] Moreover, the actual real interest rate in Germany is estimated to have been only slightly below the natural real interest rate in 2009.[11] From around this point onwards, the decline in interest rates on loans for house purchase in Germany was largely related to crisis management policies in the euro area. From this perspective, the interest rate level of 2009 represents an approximation of the sustainable mortgage lending rate in Germany. Second, it is hypothetically assumed that the natural interest rate has equalled the actual interest rate since 2009. That would lead to the assumption that the current level of mortgage lending rates is purely structural in nature. The two assumptions are extreme cases and form the edges of a range that encompasses possible trajectories

10 For example, the risk premium may have trended upwards. See Brand et al. (2018).
11 See Arena et al. (2020).

Estimated mechanisms of housing construction prices

Deviation from the baseline (%)



1 Response of construction prices not significant at the 10% level.

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for the sustainable mortgage lending rate – and thus also, all other things being equal, for fundamental residential property prices.

According to the long-run equilibrium relationship, macroeconomic overvaluations are low

If the actual, low interest rate level is used to determine the fundamental price, there were no substantial overvaluations in 2019. Assuming the higher figure – measured in 2009 – for the fundamental component of the mortgage lending rate, macroeconomic prices deviated by less than 10% from their fundamentally justified level. They are thus clearly below the value according to the simple statistical indicators.

A regional panel model suggests overvaluations, especially in towns and cities

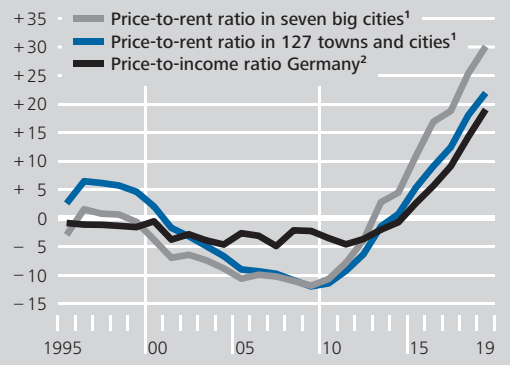
A third approach additionally considers that specific regional trends in the fundamental determinants may also play a role. A panel model is used to calculate a fundamental property price at the level of German administrative districts. In this case, too, scenario calculations are used to narrow down the contribution of mortgage lending rates to the fundamental price of real estate by establishing a range. Assuming that the sustainable component of the interest rate is at the comparatively high level it reached in 2009, the calculations show residential property prices in Germany as a whole to be just over 20% above the level that appears justified by longer-term economic and demographic factors. If the current, low level of interest rates is used as a basis, the price level in Germany in 2019 was, on the whole, just over 10% above its fundamentally justified level. Assuming a higher fundamental interest rate, residential property in the seven big cities was overvalued by around 30% in 2019; assuming a lower fundamental interest rate, it was almost 20% overvalued. According to this approach, housing in urban areas overall was overvalued by between 15% and 30%, depending on the underlying fundamental interest rate level. The results thus largely confirm the findings of the simple statistical indicators; they are, however, higher than the results based on the estimated aggregate long-run equation.

Valuation level high overall

Looking at the big picture in terms of the indicator results and taking into account the considerable uncertainty that the valuation approaches are subject to, residential property was overvalued by up to 20% on a nationwide average in 2019. In urban regions, overvaluation was greater. However, these results depend on the calculation method and are also strongly influenced by the underlying assumptions regarding the natural level of lending rates. If the decline in interest rates in the period since 2010 is interpreted as a largely persistent phenomenon – i.e. the prevailing interest rate level is seen as being close to the equilibrium interest rate – price deviations would be smaller in the aggregate.

Standard indicators for assessing house prices in Germany

Deviation from mean in %



1 Bundesbank calculations based on data provided by bulwiengesa AG. **2** Bundesbank calculations. Income and number of households: Federal Statistical Office.

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Survey-based assessment of price expectations in the housing market

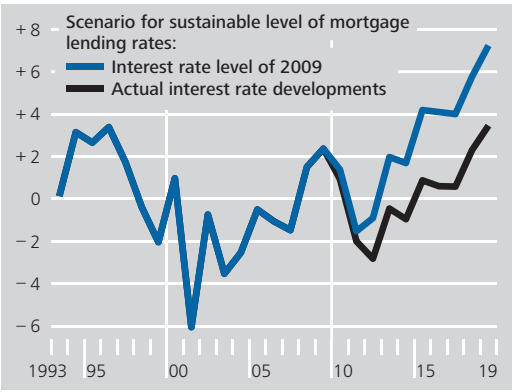
Analysis of household expectations to assess speculative elements

The deviations in the prices of residential property from their fundamentally justified level as calculated above inherently also reflect contributions from factors that are not included in the estimation equation. From a stability perspective, speculative motives for buying property are of particular importance.[12] They can

12 Other, less problematic contributions could stem, for example, from specific regional growth prospects or anticipated constraints in terms of available building land. See Nathanson and Zwick (2018).

Price deviation from the estimated long-run relationship with income and mortgage lending rates

%



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have a destabilising effect if they lead to price movements that are based solely on expectations of further price increases – without reference to fundamentals. Data from the Bundesbank Online Pilot Survey on Consumer Expectations conducted in 2019 can be used to gauge the extent to which there are indications of destabilising speculative motives.[13] By definition, this might be suspected if overvaluations are expected to increase in a region where prices already exceed their fundamentally justified levels.[14] Households' expectations regarding the future valuation of residential property can be captured on the basis of the information that they provide on the expected price-to-rent ratio of residential property in their vicinity.[15] These data can be combined with the results for regional overvaluations.

No evidence of widespread speculative elements

According to the results of descriptive evaluations, the surveyed households expected a trend decline in price-to-rent ratios in areas with overvaluations, as well as in regions without overvaluations. In other words, they expected overvaluations to decline. This applies both to Germany as a whole and to the towns and cities category. Using the microdata in the survey information on expected developments in the price-to-rent ratio in additional regression analyses, it is possible to quantify the probability of excessively strong price developments in the event that house prices have already exceeded their benchmark.[16] The results can be interpreted as the probability of destabilising price trends. According to the analysis, the estimated probabilities of price developments that are based purely on expectations are low on the whole and change only slightly as overvaluations increase. Overall, the analyses do not provide any evidence of destabilising price trends for residential property either for Germany as a whole or for the aggregate of towns and cities. The probability that price-to-rent ratios will continue to rise in the future as overvaluations grow approaches the 50% mark only in individual areas where valuations have so far been exceedingly high. If at all, the calculations show only for individual major cities a certain risk that speculative price components were a factor in the past year.

Marks left by the COVID-19 crisis on the housing market

House price developments have been robust in the year to date

House price developments have been robust so far during the coronavirus crisis. In particular, there have been no signs of a slowdown as yet. According to data provided by vdp, house prices rose by 6.8% on the year in the second quarter of 2020, no less than in the previous

13 Information on the Bundesbank's Online Pilot Survey on Consumer Expectations in Germany is available at www.bundesbank.de/en/bundesbank/research/pilot-survey-on-consumer-expectations

14 In the other case – the normal case without self-reinforcing price deviations – survey-based expectations would show the high valuation level coming down.

15 Further evaluations of the survey data show that respondents' valuation data are positively and statistically significantly correlated with expert estimates of the price-to-rent ratio in their region as well as with the regional price deviations as per the panel model.

16 The logit estimates are based on the regression of the survey-based data on the expected increase in the price-to-rent ratio over the next 12 months on the regional overvaluations estimated under the panel regression model. The dependent variable assumes the value of 0 (no increase in the price-to-rent ratio expected) or 1 (increase in the price-to-rent ratio expected). Furthermore, the influence of the explanatory variables is transformed by means of a logistic function, which means that the estimated values of the binary dependent variable lie in the range from 0 to 1. In addition, the influence of control variables is taken into account.

year in which, as expected, price dynamics in the housing market had eased somewhat. In the seven big cities, the rate of price increase rose somewhat in the second quarter, at 4.6% on the year, according to vdp data, but was – like the annual average for 2019 – already much lower than in the preceding years. According to the house price index compiled by the Federal Statistical Office, the rise in house prices in the second quarter, at 6.6%, was somewhat greater than in the previous year.

No disruption to expansion of supply so far

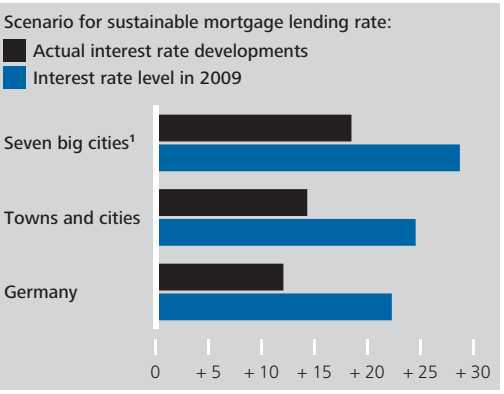
There have so far been no major supply-side disruptions. Although the number of building permits was more or less stagnant at the beginning of the pandemic in Germany, there was already a marked increase again in May, and in the period from March to the end of August the number of building permits was higher than in the same period of the previous year.[17] In the period under review, new orders in housing construction returned to close to their pre-crisis levels following a slump in March and April caused by the pandemic.

Signs of weaker demand for residential property

Although financing conditions remain exceedingly favourable, the affordability of credit-financed purchases of residential property is likely to have deteriorated on average given the ongoing upward pressure on prices. Households' disposable income stagnated in the second quarter, and the general uncertainty is high. Demand for housing could consequently ease off – at least temporarily.[18] However, if prospective buyers believe that their income prospects are only temporarily lower, demand for housing will probably be dampened only marginally. Moreover, residential real estate is likely to remain an attractive investment option in the low interest rate environment.

Residential property price deviations in 2019 according to regional panel model

Deviation from estimated fundamental price in %



1 Berlin, Cologne, Düsseldorf, Frankfurt am Main, Hamburg, Munich and Stuttgart.

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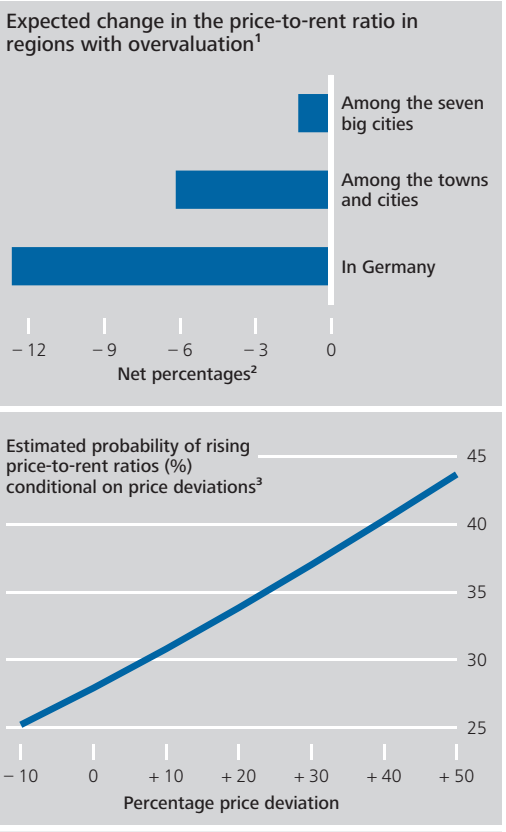
Valuation tendencies for residential property in Germany*

%



* Bundesbank calculations based on survey-based data provided as part of the Bundesbank Online Pilot Survey on Consumer Expectations in 2019. Overvaluations and/or price deviations according to the panel model. **1** Expected development in the next 12 months. Residential property in a region was defined as being overvalued if its price was more than 10% above the estimated fundamental price in 2019. **2** Difference between the number of respondents expecting the price-to-rent ratio to rise and those anticipating a drop in the price-to-rent ratio, as a percentage of all answers. **3** Estimated using a logit model.

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17 The restrictions introduced to combat the pandemic probably also caused disruptions to approval processes, with backlogs being cleared after restrictions were eased. See Federal Statistical Office (2020b).

18 The fact that price developments were robust, by comparison, in the second quarter might also be related to the fact that they are derived from actual transactions, which could currently include more purchases by households that have seen virtually no pandemic-induced income losses.

Conclusion

Rising prices in Germany attributable to developments in supply and demand

Looking at the economy as a whole, rising prices in the residential property market over the past few years have probably largely reflected developments in housing supply and demand. Additional housing construction did little to dampen the demand-driven pressure on prices, partly because it caused a sharp rise in the price of construction work. Land prices, whose contribution to house price inflation has risen significantly in recent years, appreciated even more sharply. As this, in particular, tends to reflect a property's asset value, the risk of price exaggerations in residential property also increased. Considerable overvaluations emerged, especially in urban areas, while some price deviations to the upside were also observed at the aggregate level. However, further calculations provide little indication that house price developments – both in the aggregate and in town and cities – were based to a significant extent on destabilising, purely speculative motives.

So far, the pandemic is having no impact on house prices

Overall, the price structure in the German housing market in 2019 can therefore be regarded as robust to pronounced changes in the macroeconomic environment. This is consistent with the fact that the pandemic has so far left little mark on the housing market. However, the macroeconomic environment is now much more fragile than before. In particular, the combination of an as yet unabated expansion of housing supply and weaker demand mean that price dynamics could, in the event of additional turbulence, moderate more rapidly, and to a greater extent, than previously suggested. That said, there are no signs of an abrupt correction in house prices, provided that there is no serious disruption to the ongoing macroeconomic recovery.

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State government budgets: results for 2019

The coronavirus crisis is weighing heavily on government budgets this year. The same applies to the governments of Germany's federal states. Following in the steps of central government, the states have likewise activated the escape clause in their debt brakes, rendering them exempt from consolidation for the time being. This enables the states to contribute to macroeconomic stabilisation. At present, it is not yet possible to make a reliable assessment of what fiscal policy action will be needed when the crisis subsides.

Every autumn, the Bundesbank publishes a detailed report on the results of state government finances from the previous year. To ensure that the picture is even more comprehensive, the analysis also includes local governments and off-budget entities. The data are specifically prepared to aid interpretation and comparability between the states as far as possible. This analysis covers the pre-crisis year 2019.

Looking back, the financial situation has been very favourable overall and thus constituted a good starting point from which to tackle the crisis. The states recorded a total surplus of €10 billion in their core budgets. Including off-budget entities and local governments, the structural surplus (adjusted for cyclical effects, amongst other things) amounted to €17 billion.

Every federal state recorded a structural surplus. That said, there was still considerable heterogeneity, although the range had narrowed somewhat compared with the previous year. Interest expenditure was one of the causes of this development. A further fall in average rates of interest moderated the impact of the large differences in debt levels.

The states also used their surpluses to top up reserves. These special funds – some of which are well stocked – are earmarked to finance future investment, amongst other things. Once the escape clauses are no longer active and the debt brakes require the reduction of remaining fiscal gaps, greater use will be able to be made of these reserves. This can allow more time before actual consolidation is required. The fact that the federal states have, in some cases, designed their debt brakes very differently can also have a bearing on future consolidation requirements – for example, if this largely or even completely precludes cyclically-induced new borrowing.

Analyses and comparisons of state government finances based on financial statistics data alone are still meaningful to just a limited extent. Overviews of each state's debt brake requirements are also lacking. This impairs transparency and makes it more difficult to monitor national budgets, which, in Germany, is the responsibility of the Stability Council. The Stability Council continues to be tasked with working towards establishing appropriate statistical data and information on planning and debt brakes. Having timely information not only on core budgets but also on the major off-budget entities would also be helpful. A sound data base will be even more important in future. Budgetary surveillance is likely to become much more challenging than in the past few years, when fiscal conditions were very positive.

State government fiscal data

Regular comprehensive review of state government finances

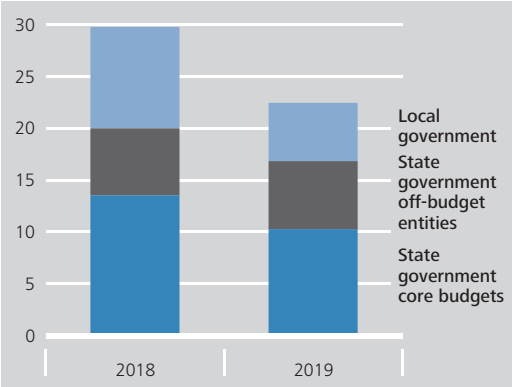
The Bundesbank's Monthly Report discusses the performance of state governments' core budgets every three months (in February, May, August and November). The preliminary result of the previous year is outlined in the following February. At this point, however, important data are still outstanding. In particular, data on closing entries as well as off-budget entities and local governments, which are ultimately attributable to the individual states, are only available at a later date. For the past two years, the Bundesbank has therefore also prepared and analysed data on financial developments for comparative purposes in autumn. The Stability Council, which is responsible for budgetary surveillance in Germany, limits its comparisons of the federal states to much more narrowly defined data.

State government finances in good shape prior to coronavirus crisis

The financial situation of the federal states will deteriorate dramatically this year as a result of the coronavirus crisis. This review looks at the good starting position last year but also points to the challenges that already existed at that time.

Breakdown of state and local governments' surplus*

€ billion



Sources: Federal Statistical Office and Bundesbank calculations.
* Financial statistics data.

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Budgetary figures for the federal states (including local governments) as a whole

€ billion

Item	2018	2019
Derivation of adjusted structural balances		
Fiscal balance (1)	29.7	22.3
Financial transactions (net) (2)	– 9.8	– 6.5
Settlement of payments under the state government revenue-sharing scheme (3)	0.0	– 0.4
Adjusted balance (4)=(1)–(2)+(3)	39.5	28.4
Cyclical component[1] (5)	14.3	11.5
One-off effects (6)	1.8	0.0
Adjusted structural balance (7)=(4)–(5)–(6)	23.5	16.9
Net interest burden[2] (8)	12.2	10.6
Adjusted structural primary balance (9)=(7)+(8)	35.6	27.5

Sources: Federal Statistical Office (financial statistics) and Bundesbank calculations. **1** Data pursuant to the Bundesbank's cyclical adjustment procedure based on figures from the spring 2020 macroeconomic forecast. **2** Interest expenditure less interest income.

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Federal states as a whole

High surplus – but down on 2018

Last year, state government budgets, including their off-budget entities and local governments, recorded a high surplus of just over €22 billion (0.6% of gross domestic product (GDP)). In 2018, the surplus was larger still – by a little more than €7 billion (see the adjacent table, item 1, and chart).[1] The core budgets alone closed 2019 with a surplus of €10 billion. In addition, off-budget entities accounted for just under €7 billion and local governments for just under €6 billion.[2]

Structural balance lower than unadjusted balance

The structural surplus, which indicates the underlying budgetary position, amounted to €17 billion. It was lower than the unadjusted balance due to the elimination of a positive cyclical effect amounting to €11 billion (see

1 The adjacent table on the budgetary figures for the federal states as a whole follows the same structure as the upper part of the subsequent tables presenting the figures for the individual states (pp. 92 f. and 96 f.). Unless otherwise indicated, the data for the individual states in the tables are reported on a per inhabitant basis in order to improve comparability.
2 Background information: The figures here contain an additional off-budget entity each for Brandenburg and Lower Saxony that have not yet been recorded in the financial statistics data. At the end of 2019, Brandenburg set up a special fund using €1 billion from its core budget (credit-based pre-financing before the debt brake enters into force). Lower Saxony transferred €1½ billion of credit-financed funds from a new off-budget entity, in particular for the capital contribution to NordLB. This means that the off-budget entities' surplus is €½ billion lower than in the financial statistics.

Preparing state government data and remaining data gaps

Procedure and methodology[1]

Financial statistics data serve as the underlying dataset; the national accounts, which play a key role in European fiscal surveillance, do not feature any data on the individual federal states. Alongside state governments' core budgets, the present analysis also takes into account off-budget entities and local government data. This allows a much more meaningful picture to be produced:

- Off-budget entities belong to the government sector in the national accounts. They play a major role in some cases.

- Local governments are not only subdivisions of the federal states in terms of constitutional law: the way in which tasks are distributed between the state government and local government levels varies from state to state. Factoring in the local government level increases comparability. In addition, this allows the non-city states to be compared more effectively with the city states, which always include the local government level. As the city states have considerably higher financial requirements, a factor that is also reflected in the state government revenue-sharing scheme, the comparability of population-based variables remains limited.

In order to improve the comparability of indicators both among federal states as well as over time, the data are processed further. This allows structural budget outturns to be depicted in a better way:

- Financial transactions reported in the financial statistics that affect the fiscal balance are excluded. Such transactions often have a strong impact on fiscal balances in the financial statistics, but, in principle, only reallocate financial assets. For example, when a loan is granted, receivables increase by the amount of the corresponding expenditure – as a result, net financial assets remain unchanged. The financial statistics, however, will show a deficit, as they do not take account of the acquisition of assets but only the cash flows on the expenditure side. To this extent, the procedure selected here (exclusion of financial transactions) follows the basic approach of the national accounts.

- In order to depict the state government revenue-sharing scheme on an accruals basis, lagged settlement payments are taken into account: for the reporting year, the cash figures are adjusted to include the provisional settlement payments for the previous year and the reporting year. These comprise transactions between the state governments, but also payments between state governments and central government.

- Temporary cyclical factors obfuscate the underlying position and are therefore factored out of the calculations using the Bundesbank's cyclical adjustment procedure for government budgets. The results are based on the forecast published in June of this year.

- Finally, the results are adjusted for major one-off effects. The relevant figures for the states' core budgets are obtained

1 The adjustments are described in greater detail in Deutsche Bundesbank (2019a), pp. 40 f.

from the monthly cash statistics published by the Federal Ministry of Finance.

Supplementary background information on the technical particularities can be found in the footnotes of the main text.

Remaining shortcomings in the dataset and areas for improvement

Yet, for all these adjustments, it is still hard to interpret the data in places. Over the course of recent years, it has become increasingly difficult to assess the situation, particularly as significant reserves have been built up in some cases. The extent to which these can be used to close possible budget gaps in future cannot be derived from the figures in the financial statistics. For the intra-year observations, matters are complicated by the fact that figures on key entities, such as the new special funds bundling all coronavirus-related costs, are only available with considerable lags. Monthly data would be desirable here. The informative value of annual data would increase significantly if payments between government entities were immediately factored out of the respective category. Otherwise, figures on revenue from fees and service purchases, for example, lose a considerable portion of their informative value as the number of off-budget entities rises. Furthermore, in several cases, government tasks are being performed by non-governmental institutions with their own sources of revenue. As a result, the data on revenue and expenditure only cover a portion of the activities commissioned by general government, and the financial statistics report grants rather than personnel and other operating expenditure. Timely figures from state governments, local governments and off-budget entities on revenue and expenditure categories broken down by area of activity could provide much needed information in this context. Such figures have been newly added to the Federal Statistical Office's publication programme. However, the current figures only extend to 2012.

Even with these kinds of adjustments and supplementary information, the financial statistics remain limited as a coordinated reporting system on government budgets. For instance, the financial data do not allow any direct conclusions to be drawn with regard to the results accomplished by the payments. It would be desirable to agree upon suitable indicators for important objectives, which would improve the comparability of developments at the state government level. A number of different areas of responsibility would be ideal candidates for this. The values of meaningful indicators for educational attainment as well as for needs-based availability and quality of childcare facilities should be captured and published on appropriate reporting dates. Indicators for transport and digital infrastructure could also provide useful information. The benefits of federalism could be realised more readily if the experiences of each federal state are reported transparently and then used as a basis for learning how to better achieve objectives. This would make it easier to utilise limited public funds as effectively and efficiently as possible.

item 5 in the table).[3] The opposite effect, particularly as a result of adjusting for financial transactions,[4] (see items 2 to 4 in the table) was considerably smaller.[5]

Fiscal stance eased markedly

The federal states' finances were thus still in very good shape. However, the fiscal stance had already been eased significantly in the previous year. This is reflected in the fact that the structural primary surplus (the structural balance adjusted for net interest expenditure) fell by €8 billion (see items 7 to 9 in the table).

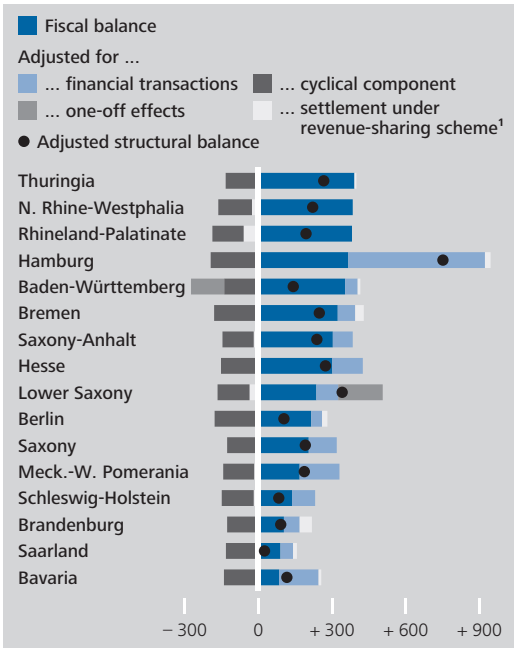
Individual federal states

States' results vary …

The results of the individual federal states are presented below. They show that, last year, not only the federal states as a whole but almost all of the states individually recorded significant structural surpluses. In Saarland, the structural balance was only slightly positive.[6] As in the previous year, Hamburg posted by far the highest surplus.

Derivation of the adjusted structural balance of state and local governments in 2019*

€ per inhabitant



Sources: Federal Statistical Office and Bundesbank calculations. * Financial statistics data. **1** Settlement of payments under the state government revenue-sharing scheme.

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… but the range is narrower

It is to be welcomed that the population-based range of structural budgetary positions has narrowed over the past year. It still amounted to just over €700 (2018: €1,100). While structural surpluses fell in most federal states, increases were recorded, particularly in states that had been in relatively unfavourable positions before. This applies, for example, to Bremen, which had still recorded the poorest result in the previous year, but also to Lower Saxony, North Rhine-Westphalia and Hesse. As was the case last year, Hamburg posted the highest structural surplus; however, this was also the surplus that fell by the largest amount (see the table on pp. 96 f., item 7).

3 Background information: Compared with the previous report, estimates of the cyclical effect in recent years are now more favourable (and estimates of the structural situation are accordingly less favourable). The reason for this is the coronavirus crisis; as a result of the pandemic, the trend in the GDP path – which was recalculated using a filtering method, including retroactively – was revised significantly downward. GDP in 2018, too, is now thus further above the trend, indicating a greater positive cyclical effect on the economy (in the cyclical adjustment procedure used).

4 Background information: As of 2019, the financial statistics no longer record claims from guarantees as loans but as grants. They are therefore no longer classified as financial transactions and are no longer deducted, which means that, to this extent, the adjusted balance is less favourable than in the years up to 2019. However, this break probably does not have a significant impact on the interpretation of structural changes compared with 2018. Using this approach would likewise mean that the extensive payment made to HSH Nordbank in this regard in 2018 would not be included in the structural balance; it would merely be deducted as a one-off effect instead of as a financial transaction. See also Deutsche Bundesbank (2019a), p. 44.

5 Background information: The exclusion of one-off effects did not change the result for the federal states as a whole on balance. On the one hand, Baden-Württemberg received revenue totalling €1½ billion stemming from fines issued to car manufacturers in relation to the diesel scandal. On the other hand, Lower Saxony paid out capital contributions of €1½ billion in the course of rescuing NordLB. It is unclear how this will be recorded in the financial statistics as they do not yet include this off-budget entity. The transaction was deducted here as a one-off effect. In the previous year, Bavaria and Lower Saxony combined received a similar amount of one-off revenue from such fines as Baden-Württemberg did in 2019.

6 Background information: In both Saarland and Bremen, the structural balance would have been clearly negative without the last full payment of consolidation assistance from central government, which was made in 2019. However, the new budgetary recovery assistance that the two states will receive starting in 2020 will be somewhat higher still in the coming years.

Budgetary figures for the federal states (including local governments) in 2019*

Item	BW	BY	BB	HE	MV	NI	NW	RP
Derivation of adjusted structural balances	€ per inhabitant							
Fiscal balance (1)	353	85	104	301	168	236	384	381
Memo item: € million	3,917	1,110	263	1,888	270	1,889	6,879	1,558
Financial transactions (net) (2)	– 51	– 160	– 64	– 124	– 162	– 89	11	10
Settlement of payments under the state government revenue-sharing scheme (3)	11	11	50	– 10	– 17	– 36	– 15	– 50
Adjusted balance (4)=(1)–(2)+(3)	415	256	219	415	313	289	357	321
Cyclical component[1] (5)	139	140	127	142	126	130	137	127
One-off effects (6)	135					– 181		
Adjusted structural balance (7)=(4)–(5)–(6)	142	116	91	273	187	341	221	194
Memo item: After deduction of consolidation assistance	.	.	.	.	.	.	.	.
Net interest burden[2] (8)	119	– 16	113	195	109	119	142	181
Adjusted structural primary balance (9)=(7)+(8)	261	100	205	468	297	460	363	376
Expenditure, revenue and debt	€ per inhabitant							
Total expenditure (10)	6,728	7,622	6,965	7,543	6,743	6,434	7,037	6,108
of which:								
Personnel expenditure[3] (11)	2,884	2,726	2,772	2,938	2,639	2,750	2,774	2,774
Expenditure on current staff (11a)	2,179	2,050	2,368	2,274	2,188	2,081	2,066	2,083
Civil service pension benefits[4] (11b)	706	676	404	663	452	669	708	690
Other operating expenditure (12)	1,136	1,241	1,295	1,538	1,327	1,100	1,561	1,245
Interest expenditure (13)	139	62	130	221	155	174	203	202
Transfers to households (14)	663	784	817	995	886	962	1,070	802
Fixed asset formation (15)	723	924	504	522	688	463	402	451
Adjusted total expenditure[5] (16)	6,409	6,736	6,730	7,017	6,130	6,309	6,863	6,066
Less interest expenditure (16a)	6,270	6,674	6,601	6,796	5,974	6,135	6,660	5,863
Less interest expenditure and fees (16b)	5,688	6,199	5,964	6,013	5,425	5,697	5,688	5,355
Total revenue (17)	7,077	7,706	7,067	7,846	6,911	6,668	7,421	6,489
of which:								
Tax revenue[6] (18)	5,005	5,058	4,668	5,251	4,627	4,769	4,992	4,705
Fees (19)	582	475	637	782	550	438	972	509
Transfers from central government[7] (20)	504	525	955	633	1,037	577	581	562
Adjusted total revenue[5] (21)	6,547	6,852	6,820	7,292	6,317	6,648	7,084	6,260
Less fees (21a)	5,964	6,377	6,183	6,510	5,768	6,210	6,112	5,751
Debt at year-end (22)	5,094	2,108	7,743	9,033	7,445	9,488	12,840	11,949
Calculated average rate of interest (%)[8] (23)	2.69	2.83	1.73	2.38	2.14	1.82	1.60	1.61
Tax rates and multipliers								
Real estate acquisition tax (%) (24)	5.0	3.5	6.5	6.0	6.0	5.0	6.5	5.0
Real estate tax B (%)[9] (25)	391	394	409	490	428	435	577	403
Local business tax (%)[9] (26)	366	376	316	414	382	408	453	381
Other figures								
Staff (FTEs per 1,000 inhabitants)[10] (27)	34.7	31.5	36.1	35.0	31.6	33.5	33.2	33.7
Recipients of pension benefits (per 1,000 inhabitants)[11] (28)	13.8	12.9	4.8	14.2	4.6	14.2	14.0	13.7
A 13 annual gross civil servant pay (in €1,000)[12] (29)	62.5	65.5	61.5	60.8	62.1	62.0	60.7	60.5

Sources: Federal Statistical Office, Federal Ministry of Finance and Bundesbank calculations. * Core budgets and off-budget entities. Abbreviations: BW – Baden-Württemberg, BY – Bavaria, BB – Brandenburg, HE – Hesse, MV – Mecklenburg-West Pomerania, NI – Lower Saxony, NW – North Rhine-Westphalia, RP – Rhineland-Palatinate, SL – Saarland, SN – Saxony, ST – Saxony-Anhalt, SH – Schleswig-Holstein, TH – Thuringia, BE – Berlin, HB – Bremen, HH – Hamburg. **1** Data pursuant to the Bundesbank's cyclical adjustment procedure based on figures from the spring 2020 macroeconomic forecast. **2** Interest expenditure less interest income. **3** Including refunds to central government for legacy claims for pension benefits in eastern Germany (under the Entitlement Transfer Act *(Anspruchs- und Anwartschaftsüberführungsgesetz* – AAÜG)). **4** Including healthcare subsidies and AAÜG payments. **5** Excluding financial transactions on the revenue side and expenditure side as well as payments under the state government revenue-sharing scheme made by states providing contributions. Lagged payments under the state government revenue-sharing scheme are settled on the income side as a correction affecting the fiscal balance. **6** Taxes and compensation for motor vehicle tax; state

SL	SN	ST	SH	TH	BE	HB	HH	Total	Item
								€ per inhabitant	**Derivation of adjusted structural balances**
90	205	303	137	391	215	323	366	268	Fiscal balance (1)
89	835	666	397	835	785	221	674	22,277	Memo item: € million
− 51	− 114	− 81	− 94	6	− 44	− 71	− 556	− 79	Financial transactions (net) (2)
16	− 2	− 19	− 19	8	22	35	23	− 5	Settlement of payments under the state government revenue-sharing scheme (3)
157	317	365	213	393	282	429	945	342	Adjusted balance (4)=(1)–(2)+(3)
132	125	127	130	127	178	180	194	138	Cyclical component[1] (5)
								1	One-off effects (6)
25	191	238	83	266	104	248	751	203	Adjusted structural balance (7)=(4)–(5)–(6)
− 238	.	202	56	.	82	− 191	.	.	Memo item: After deduction of consolidation assistance
381	− 13	110	155	127	303	802	342	128	Net interest burden[2] (8)
406	178	349	238	392	407	1,051	1,093	331	Adjusted structural primary balance (9)=(7)+(8)
								€ per inhabitant	**Expenditure, revenue and debt**
6,700	6,626	7,018	6,941	6,323	8,541	9,701	11,080	6,997	Total expenditure (10)
									of which:
2,950	2,727	2,715	2,588	2,651	3,193	3,536	3,695	2,822	Personnel expenditure[3] (11)
2,176	2,359	2,290	1,941	2,245	2,456	2,602	2,659	2,165	Expenditure on current staff (11a)
773	368	424	647	406	737	934	1,036	658	Civil service pension benefits[4] (11b)
1,487	1,209	1,635	1,113	1,102	2,590	2,379	3,535	1,432	Other operating expenditure (12)
392	43	173	189	173	314	1,042	447	177	Interest expenditure (13)
604	744	613	929	726	816	1,101	846	867	Transfers to households (14)
388	697	556	632	614	452	371	663	593	Fixed asset formation (15)
6,603	6,417	6,906	6,783	6,289	8,396	9,515	10,324	6,794	Adjusted total expenditure[5] (16)
6,211	6,373	6,732	6,594	6,116	8,083	8,473	9,877	6,617	Less interest expenditure (16a)
5,760	5,901	6,215	6,073	5,672	7,472	7,612	7,634	5,943	Less interest expenditure and fees (16b)
6,790	6,831	7,322	7,078	6,714	8,755	10,022	11,446	7,265	Total revenue (17)
									of which:
4,716	4,583	4,592	4,792	4,608	6,430	6,480	7,034	5,041	Tax revenue[6] (18)
451	472	518	521	444	610	862	2,244	674	Fees (19)
878	799	1,258	735	861	942	1,272	816	656	Transfers from central government[7] (20)
6,628	6,608	7,145	6,866	6,555	8,499	9,762	11,075	6,997	Adjusted total revenue[5] (21)
6,177	6,136	6,627	6,345	6,111	7,889	8,900	8,832	6,323	Less fees (21a)
18,023	2,321	11,089	12,902	8,595	15,795	48,437	20,642	9,190	Debt at year-end (22)
2.18	1.69	1.65	1.44	2.02	1.92	2.99	2.12	1.94	Calculated average rate of interest (%)[8] (23)
									Tax rates and multipliers
6.5	3.5	5.0	6.5	6.5	6.0	5.0	4.5	5.4	Real estate acquisition tax (%) (24)
444	498	420	399	435	810	687	540	475	Real estate tax B (%)[9] (25)
446	422	376	378	407	410	469	470	403	Local business tax (%)[9] (26)
									Other figures
32.8	35.7	36.1	31.3	35.2	41.4	43.0	38.3	34.1	Staff (FTEs per 1,000 inhabitants)[10] (27)
17.2	3.1	5.4	13.7	5.4	17.2	22.4	19.8	12.7	Recipients of pension benefits (per 1,000 inhabitants)[11] (28)
60.7	64.1	62.5	59.8	62.4	60.6	61.2	61.7	61.8	A 13 annual gross civil servant pay (in €1,000)[12] (29)

government revenue-sharing scheme and general supplementary central government grants according to provisional settlement figures. **7** Excluding general supplementary central government grants and compensation for motor vehicle tax. **8** Interest expenditure as a percentage of debt at the end of the previous year. **9** Revenue-weighted average local government multipliers for 2019. **10** Public sector staff working in state and local governments as at 30 June 2019, expressed in full-time equivalents (FTEs). Areas in which non-public sector enterprises normally operate (such as university and other hospitals, nutrition, utilities, transport, finance) are not included. **11** Recipients of state and local governments' civil service pension benefits as at 1 January 2019. **12** Total of annual basic salary at the final level of the pay grade, general job-based allowance or structural allowance, special payment(s), assuming a 40-hour week. Total column shows the unweighted mean here. The A 13 pay grade applies in particular to many school teachers. Source: DGB Besoldungsreport March 2019.

Debt of state and local governments in 2019*

€ thousand per inhabitant

Sources: Federal Statistical Office and Bundesbank calculations. * Financial statistics data. Debt in the non-public and public sectors (non-consolidated). **1** Population-weighted mean of all state and local governments.

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poses. They were able to breach this limit relatively easily without incurring repayment obligations. As a result, the (per capita) debt levels among the states are very different – irrespective of the extensive multi-year special transfers in connection with particularly high debt levels. For example, at the end of 2019, Bremen's debt exceeded the population-weighted state average by just over four times (see the table on pp. 92 f., item 22, and the adjacent chart). Hamburg and Saarland also recorded significantly above average figures, while Bavaria and Saxony were at the lower end. Interest expenditure resulting from debt (see the table on pp. 92 f., item 13) varied from state to state broadly in line with debt levels.

Debt falling in most states, but sharp rises in individual cases

Debt fell in most federal states in 2019 (see the table on pp. 96 f., item 22). However, considerable rises were recorded in some states, most notably in Bremen. It appears that Bremen had concluded forward transactions in the past to secure interest rate conditions. Consequently, the city state then had to finance the necessary collateral.[8] The rise in debt in Saxony-Anhalt resulted partly from financing a capital contribution to NordLB. In Brandenburg, loans were taken out to finance a special fund.[9]

Example: Hamburg saw strong expenditure growth and Bremen high revenue growth

The different developments can be traced back to various causes. In Hamburg, for example, adjusted[7] total expenditure rose sharply (see the table on pp. 96 f., item 16). This was due, in particular, to personnel expenditure and other operating expenditure (see the table on pp. 96 f., items 11 and 12). The largest increase in the number of staff was in Hamburg (see the table on pp. 96 f., item 27), and supplementary provisions appear to have been made, partly due to the wage agreement. At the same time, growth in adjusted total revenue was below average despite relatively steep growth in tax revenue (see the table on pp. 96 f., items 18 and 21). In Bremen, by contrast, adjusted total revenue still rose somewhat more strongly than adjusted total expenditure.

Interest burdens

Wide range of debt levels

Before the debt brake entered into force, individual federal states were able to determine their own net borrowing for investment pur-

7 Background information: Here, total revenue and total expenditure are adjusted for financial transactions as well as one-off effects and payments made under the state government revenue-sharing scheme. Cyclical effects and payments made under the state government revenue-sharing scheme concerning other reporting years are neutralised on the revenue side (see the table on pp. 92 f., items 16 and 21).

8 See Federal Statistical Office (2020). Background information: In the case of forward transactions, collateral is generally required to secure the claims arising from the contracts. However, the provision or receipt of collateral is not reported as expenditure or revenue that would affect the budget. If current interest rates deviate from the agreed rates and the market value of the derivative changes as a result, the collateral requirements are adjusted accordingly. The rise in debt in Bremen resulted from higher cash advances. Cash advances may indicate that collateral has been provided or received. Collateral received increases cash balances. However, as it is repayable, a cash advance is also recorded in the corresponding amount. Collateral to be provided is often financed using cash advances. This, however, entails a claim on the collateral taker in the amount of the collateral provided. In this way, collateral provided in connection with forward transactions can decouple debt development from the budget deficit.

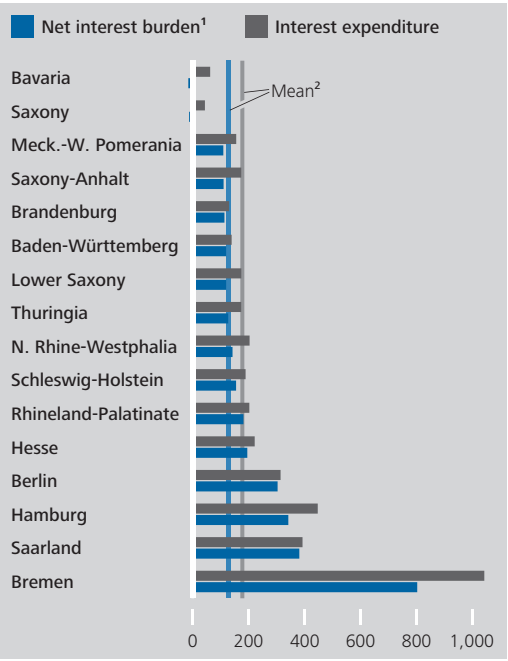
9 See Deutsche Bundesbank (2020), p. 65.

Average rate of interest down in almost all states, but considerable differences in some cases

Despite differing levels of debt, the risk premiums for borrowing do not vary widely from state to state. The capital markets appear to generally assume high creditworthiness and, if in doubt, that assistance would be provided by the German state as a whole. Nevertheless, the calculated average rates of interest that the states pay for their debt differ (see the table on pp. 92 f., item 23). Ultimately, this is due chiefly to the debt structure. For instance, there are differences in interest rate fixation periods and the percentage of loans that were taken out during years when interest rates were higher. Interest rate hedging operations are also likely to contribute to the variance. At 3%, Bremen recorded the highest average rates of interest. Schleswig-Holstein stood at the other end of the scale with rates of 1½%. In 2019, the average rate of interest still recorded a further fall of just over 0.1 percentage point across Germany as a whole.[10] Low interest rates are expected to continue to significantly dampen expenditure, especially for highly indebted states.

Interest burden of state and local governments in 2019*

€ per inhabitant



Sources: Federal Statistical Office and Bundesbank calculations. * Financial statistics data. **1** Interest expenditure less interest income. **2** Population-weighted mean of all state and local governments.

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Interest expenditure offset by substantial interest income in some cases

For a more comprehensive picture, account needs to be taken of interest income from financial assets alongside interest expenditure on debt. Netting both items (to calculate net interest) results in the per capita range between the federal states decreasing from €1,000 to €820 (see the table on pp. 92 f., item 8, and the adjacent chart). Bavaria and Saxony both posted slightly negative net interest burdens, meaning that their interest income was somewhat higher than their interest expenditure. By contrast, in spite of high revenues, Bremen had the heaviest net interest burden, and was followed some way behind by Saarland and Hamburg.

States with the highest interest rate burdens sometimes compensate for these with a more ambitious stance elsewhere

The structural primary balance shows the balance minus any existing (net) debt burden (see the table on pp. 92 f., item 9, and the chart on p. 98). In these terms, Hamburg recorded the highest surplus, closely followed by Bremen. Hamburg and Bremen adopted a more ambitious stance in the remaining areas of their budgets, evidently partly in response to their high interest burdens. The opposite was true for federal states with low interest burdens: Bavaria and Saxony used their low interest expenditure to pad out their budget more generously in other areas (low structural primary surpluses).

Borrowing for crisis management not associated with significant interest burdens

The very low interest rates will also make it easier to manage the current crisis. The high level of borrowing to be expected can probably initially be financed without incurring a significant interest burden. However, while interest rates do not look set to see a turnaround in the short term and the average interest rate is likely to fall further to begin with, it should not be assumed that today's extremely low rates will persist over the long term.

10 The booking of premiums and discounts can sometimes also play a role in annual comparisons of the calculated average rates of interest. Premiums reduce and discounts increase the underlying interest expenditure.

Budgetary figures for the federal states (including local governments) in 2019: Change against 2018*

Item	BW	BY	BB	HE	MV	NI	NW	RP
Derivation of adjusted structural balances	€ per inhabitant							
Fiscal balance (1)	– 45	– 418	– 290	42	– 335	– 231	98	25
Memo item: € million	– 488	– 5,448	– 726	268	– 539	– 1,836	1,769	105
Financial transactions (net) (2)	– 18	– 87	– 50	– 26	– 33	– 18	68	4
Settlement of payments under the state government revenue-sharing scheme (3)	– 10	21	104	– 40	– 40	– 42	– 1	– 164
Adjusted balance (4)=(1)–(2)+(3)	– 38	– 310	– 137	27	– 342	– 255	30	– 144
Cyclical component[1] (5)	– 33	– 32	– 32	– 37	– 32	– 30	– 35	– 37
One-off effects (6)	135	– 61				– 307		
Adjusted structural balance (7)=(4)–(5)–(6)	– 139	– 217	– 105	64	– 310	82	64	– 106
Net interest burden[2] (8)	– 21	– 9	– 4	– 10	– 4	– 18	– 33	– 32
Adjusted structural primary balance (9)=(7)+(8)	– 160	– 226	– 109	54	– 313	63	32	– 138
Expenditure, revenue and debt	€ per inhabitant							
Total expenditure (10)	233	667	436	247	594	452	229	235
of which:								
Personnel expenditure[3] (11)	153	122	119	124	108	132	123	144
Expenditure on current staff (11a)	166	123	119	139	95	127	118	120
Civil service pension benefits[4] (11b)	– 14	– 1	0	– 15	13	5	4	24
Other operating expenditure (12)	78	82	65	128	77	36	81	7
Interest expenditure (13)	– 23	– 8	– 4	– 10	– 5	– 12	– 27	– 37
Transfers to households (14)	14	41	14	5	7	3	29	– 5
Fixed asset formation (15)	66	107	78	52	80	77	42	66
Adjusted total expenditure[5] (16)	283	424	329	241	498	438	194	243
Less interest expenditure (16a)	306	431	333	251	503	450	221	280
Less interest expenditure and fees (16b)	177	419	328	230	440	439	197	324
Total revenue (17)	186	249	145	289	259	217	327	259
of which:								
Tax revenue[6] (18)	– 7	– 2	113	106	50	68	87	– 11
Fees (19)	129	12	5	21	63	12	24	– 44
Transfers from central government[7] (20)	121	150	62	105	97	142	105	138
Adjusted total revenue[5] (21)	143	207	223	305	188	516	258	137
Less fees (21a)	14	194	218	284	125	504	234	181
Debt at year-end (22)	– 95	– 102	214	– 322	197	– 82	135	– 632
Calculated average rate of interest (%)[8] (23)	– 0.33	– 0.05	0.01	0.05	– 0.08	– 0.13	– 0.15	– 0.26
Tax rates and multipliers								
Real estate acquisition tax (%) (24)	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
Real estate tax B (%)[9] (25)	– 6.2	0.1	0.5	17.3	1.2	3.9	6.4	1.4
Local business tax (%)[9] (26)	– 0.8	0.9	– 3.2	1.0	1.2	1.2	1.8	3.8
Other figures								
Staff (FTEs per 1,000 inhabitants)[10] (27)	0.6	0.4	0.4	0.6	0.5	0.8	0.5	0.5
Recipients of pension benefits (per 1,000 inhabitants)[11] (28)	0.4	0.3	0.5	0.2	0.3	0.3	0.3	0.2

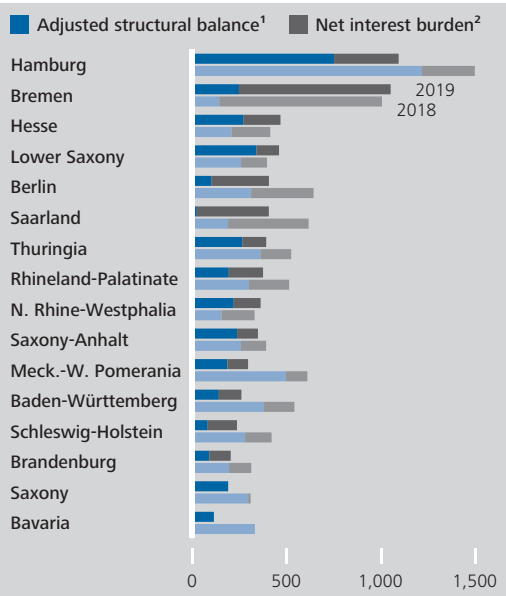
Sources: Federal Statistical Office, Federal Ministry of Finance and Bundesbank calculations. * Core budgets and off-budget entities. Abbreviations: BW – Baden-Württemberg, BY – Bavaria, BB – Brandenburg, HE – Hesse, MV – Mecklenburg-West Pomerania, NI – Lower Saxony, NW – North Rhine-Westphalia, RP – Rhineland-Palatinate, SL – Saarland, SN – Saxony, ST – Saxony-Anhalt, SH – Schleswig-Holstein, TH – Thuringia, BE – Berlin, HB – Bremen, HH – Hamburg. **1** Data pursuant to the Bundesbank's cyclical adjustment procedure based on figures from the spring 2020 macroeconomic forecast. **2** Interest expenditure less interest income. **3** Including refunds to central government for legacy claims for pension benefits in eastern Germany (under the Entitlement Transfer Act (*Anspruchs- und Anwartschaftsüberführungsgesetz* – AAÜG)). **4** Including healthcare subsidies and AAÜG payments. **5** Excluding financial transactions on the revenue side and expenditure side as well as payments under the state government revenue-sharing scheme

SL	SN	ST	SH	TH	BE	HB	HH	Total	Item
								€ per inhabitant	**Derivation of adjusted structural balances**
– 286	– 470	– 47	723	– 134	– 364	71	666	– 90	Fiscal balance (1)
– 284	– 1,916	– 108	2,093	– 290	– 1,315	49	1,224	– 7,442	Memo item: € million
– 58	– 338	– 25	1,008	3	31	49	1,237	39	Financial transactions (net) (2)
32	– 8	– 27	– 48	10	147	40	63	– 5	Settlement of payments under the state government revenue-sharing scheme (3)
– 196	– 139	– 49	– 333	– 127	– 248	62	– 508	– 135	Adjusted balance (4)=(1)–(2)+(3)
– 30	– 34	– 28	– 35	– 31	– 39	– 43	– 43	– 34	Cyclical component[1] (5)
								– 21	One-off effects (6)
– 165	– 106	– 21	– 298	– 96	– 209	104	– 465	– 80	Adjusted structural balance (7)=(4)–(5)–(6)
– 45	– 26	– 23	– 5	– 36	– 27	– 59	62	– 19	Net interest burden[2] (8)
– 210	– 132	– 43	– 303	– 132	– 236	46	– 403	– 99	Adjusted structural primary balance (9)=(7)+(8)
								€ per inhabitant	**Expenditure, revenue and debt**
763	583	288	– 377	408	432	360	– 537	342	Total expenditure (10)
									of which:
118	107	100	110	133	142	284	184	130	Personnel expenditure[3] (11)
129	112	101	113	122	134	238	139	129	Expenditure on current staff (11a)
– 11	– 5	– 1	– 2	11	8	46	45	1	Civil service pension benefits[4] (11b)
226	75	35	77	151	108	189	290	85	Other operating expenditure (12)
– 47	– 10	– 10	– 24	– 16	– 26	5	– 2	– 18	Interest expenditure (13)
– 23	11	2	17	2	– 13	48	6	17	Transfers to households (14)
103	67	81	107	100	107	39	– 72	70	Fixed asset formation (15)
771	553	261	606	413	444	429	626	347	Adjusted total expenditure[5] (16)
818	563	272	630	429	470	424	628	365	Less interest expenditure (16a)
800	575	274	595	322	559	339	565	337	Less interest expenditure and fees (16b)
476	119	240	346	274	67	428	128	251	Total revenue (17)
									of which:
– 28	53	60	73	29	155	59	131	54	Tax revenue[6] (18)
18	– 13	– 2	34	107	– 90	85	62	28	Fees (19)
157	56	90	144	58	36	154	172	115	Transfers from central government[7] (20)
606	453	240	308	317	234	530	161	267	Adjusted total revenue[5] (21)
588	465	242	274	210	324	445	98	239	Less fees (21a)
120	– 252	661	– 271	72	– 673	13,413	– 539	14	Debt at year-end (22)
– 0.23	– 0.21	– 0.04	– 0.31	– 0.07	– 0.13	– 0.07	– 0.15	– 0.15	Calculated average rate of interest (%)[8] (23)
									Tax rates and multipliers
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	Real estate acquisition tax (%) (24)
5.2	0.8	0.5	6.8	0.0	0.0	0.0	0.0	2.7	Real estate tax B (%)[9] (25)
0.8	0.7	12.6	– 2.3	– 0.9	0.0	0.0	0.0	0.9	Local business tax (%)[9] (26)
									Other figures
0.4	0.5	0.3	0.7	0.5	0.5	1.0	1.3	0.6	Staff (FTEs per 1,000 inhabitants)[10] (27)
0.4	0.3	0.4	0.3	0.7	0.2	0.1	0.1	0.3	Recipients of pension benefits (per 1,000 inhabitants)[11] (28)

made by states providing contributions. Lagged payments under the state government revenue-sharing scheme are settled on the income side as a correction affecting the fiscal balance. **6** Taxes and compensation for motor vehicle tax; state government revenue-sharing scheme and general supplementary central government grants according to provisional settlement figures. **7** Excluding general supplementary central government grants and compensation for motor vehicle tax. **8** Interest expenditure as a percentage of debt at the end of the previous year. **9** Revenue-weighted average local government multipliers. **10** Public sector staff working in state and local governments, expressed in full-time equivalents (FTEs). Areas in which non-public sector enterprises normally operate (such as university and other hospitals, nutrition, utilities, transport, finance) are not included. **11** Recipients of state and local governments' civil service pension benefits.

Adjusted structural primary balance of state and local governments*

€ per inhabitant



Sources: Federal Statistical Office and Bundesbank calculations. * Financial statistics data. The adjusted structural primary balance is the sum of the adjusted structural balance and the net interest burden. **1** Fiscal balance adjusted for financial transactions, settlement of payments under the state government revenue-sharing scheme, cyclical effects and one-off effects. **2** Interest expenditure less interest income.

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Information on debt structure needed when assessing interest burden

Relying on the information at hand, there are limits to how far it is possible to assess the way different interest rate paths impact state government finances – whether they act as a source of risk or offer potential for relief. Access to supplementary details concerning the debt structure of each federal state would therefore be a desirable addition. Alongside the residual maturities of any outstanding debt amounts, data on the average interest rate of debt maturing in a given year as well as on any hedging with derivatives would be needed. Derivative interest rate hedges prove particularly problematic in the interpretation of debt statistics, too (see footnote 8 for more information on their potential effects). It then becomes almost impossible to interpret the outstanding cash advances without explanatory notes. Drawing a distinction with conventional cash advances used to finance expenditure in the short term would be helpful for budget analysis purposes.

Selected other expenditure categories

Clear differences in expenditure for current staff …

Personnel expenditure represents the largest spending category for all federal states (see the chart on p. 99 and the table on pp. 92 f., item 11). Looking at the non-city states' expenditure for current staff (see the table on pp. 92 f., item 11a), there was a spread of almost €430 between the highest spender, Brandenburg, and the lowest, Schleswig-Holstein. Besides staffing levels (see the chart on p. 100 and the table on pp. 92 f., item 27), state-specific salaries (see the table on pp. 92 f., item 29) are a key factor behind the differences. The city states had significantly higher numbers of staff and, as a result, higher personnel expenditure.[11] However, the figures have to be interpreted with caution. A low number of staff does not necessarily indicate that tasks are being performed in a cost-effective manner, for instance. Instead of public sector staff, these services could be being provided by non-governmental institutions, which may then be receiving government grants. In these cases, lower personnel and operating costs will be recorded in the government sector and, on the revenue side, usage fees can be collected directly from the non-governmental institutions concerned (see the section on revenue from fees below).

… and on civil service pension benefits

Among the non-city states, expenditure on civil service pension benefits exhibited a similar spread as expenditure for current staff (see the table on pp. 92 f., item 11b). Given that the eastern federal states have no civil service staff of their own from the period prior to German reunification, they have far fewer recipients of civil service pension benefits (see the table on pp. 92 f., item 28, and the chart on p. 100). However, since reunification, they have employed comparatively high numbers of staff on salaried contracts rather than as civil servants,

11 Under the state government revenue-sharing scheme, the city states are estimated to require greater funding than the non-city states because their populations are given significantly larger weightings.

entailing fewer pension obligations.[12] Saxony posted the lowest expenditure while, among the non-city states in western Germany, Saarland recorded the highest. This was due not least to the state experiencing population decline over a number of years. Looking at the city states as well, pension expenditure in Hamburg was by far the highest.

Broad span for transfers to households, partly due to particularities in accounting

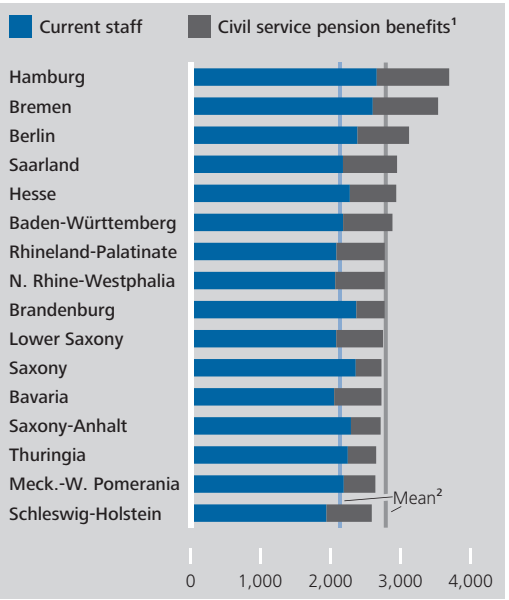
Social benefits are the prime component of transfers to households (see the table on pp. 92 f., item 14). For this item, there was likewise strong variation between the states. Expenditure was at its lowest in Saarland and Saxony-Anhalt, with particularities in accounting methods playing a role.[13] That said, even if those two states are discounted, the range in figures remains considerable: per capita expenditure in North Rhine-Westphalia was €400 higher than in Baden-Württemberg. Again, though, the data should be interpreted with caution, since they do not reflect the net burden on each state. Central government partially compensates the federal states (or – indirectly – the local governments) for various social benefits, such as accommodation costs for recipients of unemployment benefit II. Different reimbursement rates apply for different federal states because central government wished to secure specific levels of relief when unemployment assistance was abolished in 2005. In the case of the basic allowance for the elderly and for persons with reduced earning capacity, central government even reimburses the transfers in full. As a result, a federal state's net burden will be contingent, not least, on how the relevant transfers are structured.

Large differences in fixed asset formation

Particularly pronounced differences are apparent when examining fixed asset formation (see the chart on p. 100 and the table on pp. 92 f., item 15). Bavaria reported by far the highest figures, while the lowest among the non-city states came from Saarland and North Rhine-Westphalia. Despite high additional revenue stemming from the state government revenue-sharing scheme, fixed asset formation in the city states of Berlin and especially Bremen also

Personnel expenditure of state and local governments in 2019*

€ per inhabitant



Sources: Federal Statistical Office and Bundesbank calculations. * Financial statistics data. **1** Including refunds under the legislation incorporating legacy claims and entitlements to civil service pension benefits in eastern Germany into the western German pension scheme *(Anspruchs- und Anwartschaftsüberführungsgesetz)*. **2** Population-weighted mean of all state and local governments.

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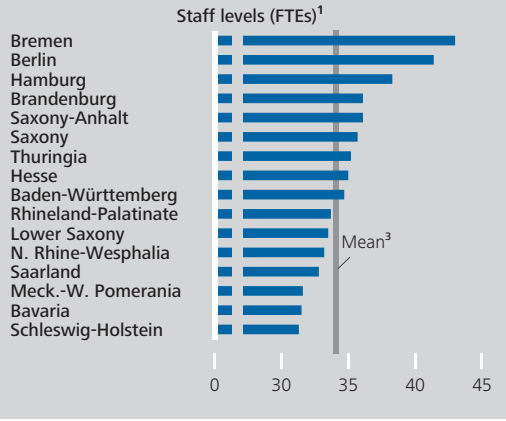
remained significantly below the national reference figure. However, the differing degree of outsourcing to non-governmental entities makes for limited informative value in this category, too. Berlin, for instance, assigned school building work to a state-owned housing construction company. Since then, the corresponding investment no longer appears as state gov-

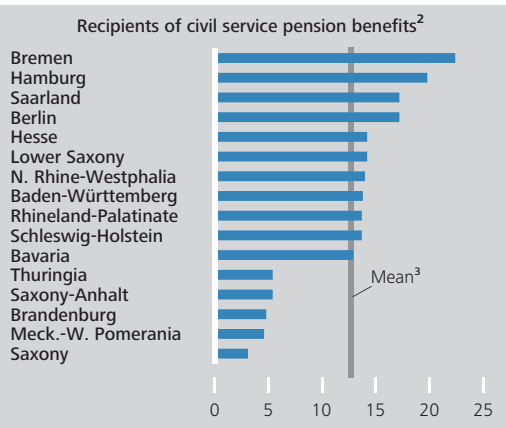
12 Background information: The pension costs reported in the eastern states and Berlin (eastern part) also include the federal states' payments of around €200 per capita to central government for special and supplementary pension payments made to former government employees up to 1990.

13 Background information: In Saxony-Anhalt (and apparently Saarland, too), some social benefits are recorded as other operating expenditure. Accordingly, its figure for that expenditure item was the highest out of all the non-city states. See Deutsche Bundesbank (2019a), p. 55. There were also sizeable differences between the non-city states when it came to other operating expenditure. It is likely that non-consolidated intra-state service purchases play a role in rendering comparison considerably more difficult here.

Staff levels and number of recipients of civil service pension benefits in state and local governments in 2019

Per 1,000 inhabitants





Sources: Federal Statistical Office and Bundesbank calculations. **1** Public sector staff in state and local governments (in full-time equivalents) as at 30 June 2019. Areas where tasks do not usually belong to enterprises that are part of the government sector are not included. **2** Recipients of state and local governments' civil service pension benefits as at 1 January 2019. **3** Population-weighted mean of all state and local governments.

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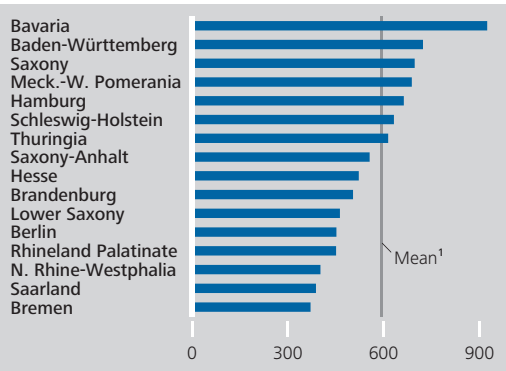
Fixed asset formation by state and local governments in 2019*

€ per inhabitant



Sources: Federal Statistical Office and Bundesbank calculations. * Financial statistics data. **1** Population-weighted mean of all state and local governments.

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ernment expenditure.[14] In any case, it is ultimately not the level of investment expenditure which is the decisive factor. Rather, it is a case of evaluating whether public infrastructure is in line with current and foreseeable future needs and thus does not present a hurdle to the location's development. There are no robust data aggregated at state level on this, however.

Selected revenue categories

Strong convergence of tax revenue due to revenue-sharing scheme

The state government revenue-sharing scheme is designed to limit differences in tax revenue between the federal states.[15] Accordingly, the scheme leads to a reduction of around three-fifths in the range of tax revenue figures (before distribution of turnover tax receipts) reported by the non-city states. Nevertheless, there are still significant differences in final tax revenue[16] (range of €670 across non-city states and of €2,450 if city states are included, see also the table on pp. 92 f., item 18, and the chart on p. 101). Hesse exceeded the reference figure for the non-city states by 6½%, which was partly due to its above average real estate acquisition tax and high multipliers for local government taxes. Under the approach applied for the revenue-sharing scheme (where this is factored out), the corresponding figure was 4½%. Calculated in these terms, Bavaria overshot Hesse by a further 2 percentage points. In Saxony, actual tax revenue was 7% lower than

14 Background information: This move was intended to accelerate investment but was evidently also motivated by options for accessing credit financing after the entry into force of the debt brake. See Sozialdemokratische Partei Deutschlands (SPD), DIE LINKE, BÜNDNIS 90/DIE GRÜNEN (2016), p. 71.

15 Background information: Just under two-thirds of local government tax revenue is included, with adjustment for different multipliers – similar to the approach used for real estate acquisition tax. The city states also benefit from the practice of upgrading their numbers of inhabitants. See the state government revenue-sharing scheme data in Federal Ministry of Finance (2020).

16 Background information: For the purposes of this report, the revenue of the states providing contributions is reduced by their payments under the state government revenue-sharing scheme.

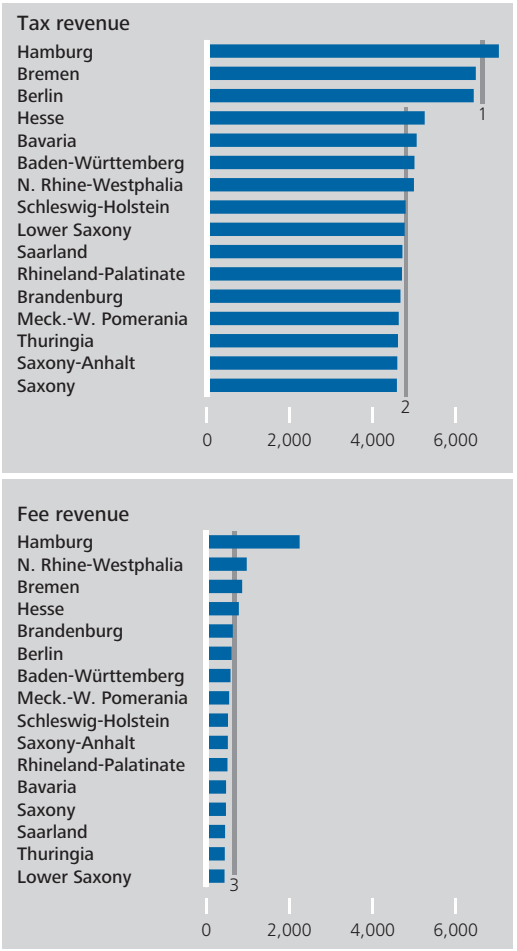
the reference figure for the non-city states.[17] Calculated for the purposes of the revenue-sharing scheme (i.e. adjusted, in particular, for Saxony's low real estate acquisition tax), it fell just 1½% short, however.

Broad spread for revenue from fees but comparability limited

Revenue from fees (see the table on pp. 92 f., item 19) differed to an even greater extent from state to state. This was due to Hamburg's extremely high revenues, which were more than three times the national reference figure.[18] Irrespective of this, higher fee revenue is not necessarily evidence that the general public is under a greater burden. Public services subject to fees may be outsourced out of the government sector to varying extents. One example would be independently operated or privately run childcare facilities. In such cases, the corresponding revenue will then be excluded from the financial statistics in the same way that the personnel and operating costs associated with the service will not be captured. Government grants to offset shortfalls of revenue over expenditure are recorded as transfers. It is not possible to estimate the impact of outsourcing on the individual categories in a reliable manner.

Tax and fee revenue of state and local governments in 2019*

€ per inhabitant



Sources: Federal Statistical Office, Federal Ministry of Finance and Bundesbank calculations. * Financial statistics data. **1** Population-weighted mean of all city states. **2** Population-weighted mean of all non-city states. **3** Population-weighted mean of all state and local governments.

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Concluding remarks

States making own contribution to coronavirus crisis assistance

Tackling the coronavirus crisis is currently the focal point for fiscal policy. Like central government, all federal states are seeking to suspend the credit limit imposed under the debt brake. To this end, they are activating the escape clauses enshrined in state law, a move which appears justified in the light of the pandemic and its ramifications. Doing so means that the federal states can not only allow pandemic-induced burdens to pass through to the budget, but are also in a position to finance assistance measures by raising new debt. For example, they are participating in various tax relief measures, often granting transfers of their own to the corporate sector, compensating for losses of income resulting from provisions under the Protection against Infection Act *(Infektionsschutzgesetz)* and purchasing personal protective equipment (PPE). Furthermore, state governments are frequently using the escape clause to stabilise their local governments' budgets, making it easier – amongst other

17 Background information: Under this approach, only the general supplementary Federal grants are included in tax revenue and the financial strength index. The special supplementary Federal grants, of which Saxony was a major recipient, are not taken into account. The values according to the state government revenue-sharing scheme are quoted in relation to the financial strength index, with the general supplementary Federal grants excluded from the denominator.

18 Background information: Hamburg's figures included around €300 per capita in internal payments for building use alone, which is something that does not incur a charge in other federal states.

The future requirements of state-specific debt brakes on state governments' budgets

Recourse to debt brake escape clauses in 2020

As of 2020, the debt brake enshrined in Germany's Basic Law applies to state governments in full. In principle, this means they are prohibited from structural net borrowing. Due to the coronavirus crisis, however, every federal state has been planning to make use of the escape clause in their state-specific debt brake. Like central government, many federal states still aim to have these extended credit facilities next year, too.

Different future challenges

If the escape clauses cease to apply further down the line, each state will face different requirements. This is due to the following factors in particular:

- The federal states' structural budget positions varied strongly even before the crisis. This will also have an impact on any future need for action.

- Different levels of provisions formed in previous years (e.g. reserves) make it possible to spread future consolidation over a longer period.

- The debt brakes normally allow temporary cyclical burdens to be financed through new debt. The cyclical adjustment procedures used and the borrowing entitlement options derived from these vary considerably in some cases.

- The rules also sometimes differ significantly beyond just cyclical adjustment, such as regarding the inclusion of financial transactions. In addition, there are various ways in which budgetary implementation may deviate from the regular limits. Borrowing leeway when implementing a budget (especially supplementary budgets) means that fewer buffers have to be included within the budget, thereby allowing a correspondingly looser stance to be taken.

- Different levels of new debt based on the escape clause will result in different repayment burdens after the crisis. Repayment periods of different lengths are also planned.

Selected aspects of this are examined below in closer detail.

Different cyclical adjustment procedures

Under the debt brake, federal states are permitted to exclude cyclical influences on their budgets. This makes borrowing possible in tougher times, while requiring appropriate repayments when the economic situation is favourable. The procedures chosen by the federal states to adjust for cyclical influences are very different and partly complex.[1]

For federal states, cyclical effects mainly affect tax revenue.[2] The procedures are divided into three basic types (with variations occurring within these groups):

- Some procedures refer to the overall economic development expected by central government in relation to the estimated potential output ("potential output method"). The calculated cyclical

1 For more detailed information on this, see Deutsche Bundesbank (2017).
2 The aggregate revenue to be taken into account consists primarily of tax revenue after state government revenue-sharing and of general supplementary central government grants. Hence, state-specific cyclical effects are largely offset.

overutilisation or underutilisation is used to derive the cyclical impact on taxes. New estimates are to be included in the draft budgets and thus early on in many cases.

– Other procedures calculate deviations in tax revenue from its projected trend derived from past years ("tax trend method"). This approach allows the financial impact of legislative changes to be filtered out. These procedures generally permit a time adjustment of consolidation efforts in the event of shortfalls in tax revenue.

– Other procedures are based on the level (and not the trend) of tax revenue in recent years. They only rarely allow a distinct increase in new debt ("tax level method").

Looking at 2019 illustrates clearly how widely the range of results from cyclical adjustment procedures can span (see the table below, column 5). In Bremen, for example, cyclical new debt of €10 (in each case, per capita) would have conformed with the rules, whilst in Saxony taxes were €430 higher than the calculated "normal value", and in Baden-Württemberg €310 higher. Bavaria completely refrains from taking into account cyclical influences, and net borrowing is not permitted even in a severe economic downturn (meaning that no corresponding surpluses are needed to make repayments in good times).

Although these figures for 2019 do not indicate the future fiscal challenges facing individual federal states once their escape clause expires, it is clear that, depending on the cyclical adjustment procedure, very different requirements may emerge in order to

Reserve holdings as at year-end 2019*

€ per inhabitant

Federal state	Cyclical offset reserve	Budget contingency reserve	General reserve	Pre-financed special fund for investment	Memo item: Cyclical component according to state procedure	Memo item: 2020 debt brake escape clauses		
						Borrowing authorisation[1]	Repayment period in years	Start of repayment
	1	2	3	4	5	6	7	8
BW	.	.	230	34	307	649	25	2024
BY	.	788	.	.	.	3,054	30	2024
BB	.	.	692	397	.	795	30	2022
HE	159	.	.	.	101	1,912	30	2021
MV	311	.	965	.	.	[2] 1,771	20	2025
NI	.	.	316	249	.	921	25	2024
NW	.	.	114	.	.	1,394	50	2024
RP	.	257	.	12	91	294	20	2024
SL	48	40	43	91	23	1,417	30	2025
SN	.	610	.	944	426	1,473	8	2023
ST	239	.	93	.	47	118	3	2022
SH	.	.	.	399	40	[2] 1,897	40	2024
TH	.	866	.	96	0	[2] 466	5	2022
BE	90	192	.	999	141	1,643	27	2023
HB	.	490	210	96	–13	1,756	30	2024
HH	.	.	.	90	248	543	20	2025

***** Source: Federal states' finance ministries. Abbreviations: BW – Baden-Württemberg, BY – Bavaria, BB – Brandenburg, HE – Hesse, MV – Mecklenburg-West Pomerania, NI – Lower Saxony, NW – North Rhine-Westphalia, RP – Rhineland-Palatinate, SL – Saarland, SN – Saxony, ST – Saxony-Anhalt, SH – Schleswig-Holstein, TH – Thuringia, BE – Berlin, HB – Bremen, HH – Hamburg. **1** Borrowing authorisations in the core budgets for 2020; total borrowing authorisations to finance special funds. **2** Still includes draft legislation as at 22 October.

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comply with the debt brake. Tax trend methods can tend to extend consolidation requirements and initially permit larger net borrowing. That said, this does pose the risk that debt will continue to build up. Potential output methods, too, would allow cyclical debt in the medium term (coming to an end by 2024). In this case, however, there are constantly new estimations of how structural revenue is developing. By contrast, tax level methods are likely to allow a rather limited scope for cyclically induced debt.

Provisions available from better times

If repayment obligations become effective or if structural budget gaps are planned to be closed gradually after the escape clause runs out, reserves can be used here, if available. In previous fiscally favourable times, the federal states formed provisions, which are extensive in some cases. States with little or no new borrowing options from cyclical adjustment may need to draw on these reserves to a greater extent in the coming years.

These provisions can be structured in different ways. Some federal states formed reserves, for example, from unused borrowing authorisations and surpluses in recent years (when the debt brake had not yet fully entered into force). The amounts recorded as reserves differ considerably (see the summary table on p. 103, columns 2 and 3). For example, the reported per capita reserves available for balancing budgets ranged from just over €80 in Saarland to just over €960 in Mecklenburg-West Pomerania (by comparison, central government's general reserve comprised around €580 per capita at the end of 2019). This corresponds to between around 2% and 20% of the tax revenue generated last year by these federal states (including their local governments).

Furthermore, special funds primarily designed to finance future investment were often topped up.[3] Existing borrowing facilities under the old debt limits were also used to fill these funds. Brandenburg, for example, passed a supplementary budget at the end of 2019 borrowing around €400 per capita to set up an investment reserve as a special fund. Saarland and Bremen, which received considerable consolidation assistance, also filled up these types of funds. This created temporary scope to implement investment projects under the debt brake in case of a tight budget situation, thereby easing the overall burden on the budget. Investment-oriented provisioning differs significantly from state to state (see the table on p. 103, column 4): this remained very limited in Baden-Württemberg and Rhineland-Palatinate according to the reports received. By contrast, provisioning was particularly extensive in Berlin and Saxony. The state of Berlin had invested relatively little over many years.

Repayment plans

At present, it is not yet possible to reliably estimate the level of debt that the federal states will incur due to the escape clause. This year's borrowing authorisations[4] amount to somewhere in the region of €120 billion (more than €1,400 per capita). As with central government, a repayment plan must be drawn up for planned extraordinary debt, and the funds for this are to be generated within the regular debt brake limit.

The repayment plans adopted so far vary widely. In Hesse, repayment is already scheduled to begin as early as 2021. Most federal states, however, only want to com-

3 Pension reserves and pension funds are comparable special funds. They are not considered here, however, owing to their planned use over many years.
4 Borrowing authorisations are included for the core budgets in 2020. Borrowing authorisations to finance special funds cover all years.

mence their repayments after allowing slightly more time to pass after the current coronavirus crisis. In some federal states, the repayment periods are then limited to just a few years, meaning that they are quite narrow. Saxony-Anhalt, for example, envisages only three years to repay its coronavirus-related debt (given its relatively limited borrowing authorisations). By contrast, other states are extending the repayment period considerably. The longest repayment phase compared to other federal states, lasting 50 years, was adopted by North Rhine-Westphalia. The unweighted state average is close to 25 years, which is higher than central government's repayment horizon.

The widespread prohibition of new debt in state budgets is a fairly strict rule. If the debt leveraged under the escape clause is reduced evenly and reliably, longer periods of time for its repayment do not appear to be a concern either. However, a very long period gives rise to especially large uncertainties, and it might give the impression that simply postponing burdens is the underlying intention. In this respect, a very long repayment period might contradict the original legislative intent.

First stabilisation, then consolidation

As long as the COVID-19 crisis has not yet been clearly resolved, it would appear appropriate to make use of the escape clause. This means that federal states can also continue to contribute to macroeconomic stabilisation, focusing on fiscal policy measures, such as in taxation or supporting local governments. Additional measures may make sense down the line. However, these should be temporary in order to avoid a structural strain on budgets after the crisis.

It would be important to present the expected future development of state government finances regularly and in a transparent manner. The Stability Council should have access to updated forecasts whenever it assesses general government budget developments (usually twice a year). These forecasts should include core budgets and be based on the most recent expectations (such as the latest official tax estimate and updated spending plans). In addition, information should be provided stating which requirements are set by the state-specific (and sometimes quite complicated) debt brakes. To this end, there would have to be clear illustrations as to what scope for new borrowing there is likely to be, whether this gives cause to expect fiscal gaps as a result, and which budget provisions are in place in order to (temporarily) close these gaps. The full picture should also include, in particular, information on expected developments in off-budget entities, planned financial transactions and estimated global revenue and expenditure (such as global spending cuts).[5]

Uncertainty about the further course of the pandemic and the economic constraints it entails remains high. It is likely that tax revenue will also be structurally lower than was expected before the crisis, meaning that the debt brakes are likely to require adjustment measures in the future in order to close fiscal gaps. However, it seems advisable not to adopt consolidation measures for the medium term at first, but to wait for further developments. Given the current uncertain situation, it is therefore not recommended to draw up budgets where the course of fiscal policy is set for two years. First of all, it would be important to tightly limit the pandemic-related burden on potential output and to support recovery and necessary structural adjustments. Specific consolidation measures are only appropriate once a draft budget has to be adopted without recourse to the escape clause.

5 For further information on requirements, see Deutsche Bundesbank (2018).

things – to maintain their investment activity. All in all, the federal states are making key contributions to macroeconomic stabilisation.

Federal states on a solid fiscal footing

As part of the Bundesbank's regular reporting cycle, this article looks back at the starting position of federal state finances prior to the crisis. Overall, they were on a very favourable footing: together with their off-budget entities and local governments, the federal states posted a considerable budget surplus in 2019 – even after deduction of the positive cyclical effect. In addition, all states had prepared for the debt brake in Germany's Basic Law *(Grundgesetz),* which entered into force for them this year: they scaled back their structural deficits and also, in some cases, made extensive provision for harder times. As a result, some federal states closed 2019 with high reserve holdings. Based on the figures reported by the states (see the table on p. 103, columns 2 and 3), reserves expressed as a percentage of total core budget expenditure ranged from 2% in Saarland and Saxony-Anhalt to 18% in Mecklenburg-West Pomerania.

Prudent to activate escape clauses for 2021 too but also make stabilisation measures temporary

In many cases, reserves are currently being left untapped since the escape clauses are enabling temporary credit financing. As it is foreseeable that the crisis will continue into the coming year, it makes sense to make use of the clauses again. Moreover, further measures for tackling the crisis may be advisable in future. These should then be limited to specific timeframes, so as to avoid additional structural burdens in the post-crisis period.

Once the crisis eases and the escape clauses expire, consolidation measures may be necessary to achieve compliance with the debt brake. Not least, the current tax estimate suggests that the coronavirus crisis has opened up not only temporary gaps, but also structural ones. Such structural gaps would need closing in future, though the existence of reserves means that the adjustment path can be spread over time.

Consolidation likely to be needed after the crisis

Create transparency around widely different state-specific requirements without delay

At any rate, it is not yet the time to outline concrete consolidation measures; that can wait until the crisis eases and there is more clarity about the future path of events. There is a need for transparency with regard to the challenges currently anticipated, however. Gaining a clear picture of the situation is made very difficult by the complexity of state-specific sets of rules and the different sets of reserves. As a result, the post-crisis adjustment paths and needs for consolidation may vary considerably (for more details, see the box on pp. 102 ff.). It seems virtually impossible to achieve effective budgetary surveillance without access to suitable overviews of current developments and federal state planning, including reference to any need for action to maintain compliance with the respective provisions. For these purposes, more informative data on respective state outturns and budgetary planning would be required. In its capacity as Germany's core body responsible for fiscal surveillance, the Stability Council should hasten to work towards creating a more rigorous and meaningful data basis.[19]

19 See also Deutsche Bundesbank (2019b) and Independent Advisory Board to the Stability Council (2019).

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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		
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	5.7	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	10.1	9.6	7.4	4.7	– 0.6	– 0.46	– 0.44	0.0
Aug.	13.2	9.6	9.5	...	7.7	4.7	– 0.1	– 0.47	– 0.48	– 0.0
Sep.	...	...	...	...	...	...	...	– 0.47	– 0.49	– 0.1

1 Source: ECB. **2** Seasonally adjusted. **3** Excluding money market fund shares/units, money market paper and debt securities with a maturity of up to two years held by non-euro area residents. **4** Longer-term liabilities to euro area non-MFIs. **5** Euro overnight index average. **6** Euro interbank offered rate. **7** See also footnotes to Table VI.4, p. 43•. **8** GDP-weighted yield on ten-year government bonds. Countries 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 [r]								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	
2019 Jan.	+ 9,434	+ 8,547	+ 6,135	+ 14,959	– 15,673	– 644	+ 10,054	– 2,561	1.1416	98.8	94.3
Feb.	+ 18,391	+ 25,407	+ 38	+ 46,506	– 36,458	– 10,197	– 98	+ 285	1.1351	98.4	93.8
Mar.	+ 37,329	+ 31,733	+ 60,669	+ 23,068	– 29,129	– 1,359	+ 63,016	+ 5,073	1.1302	97.9	93.2
Apr.	+ 10,362	+ 24,320	– 20,679	+ 6,100	– 44,956	+ 8,031	+ 6,908	+ 3,237	1.1238	97.7	93.0
May	– 2,377	+ 26,746	– 2,612	– 27,565	– 48,475	+ 3,715	+ 67,868	+ 1,845	1.1185	98.2	93.4
June	+ 10,969	+ 26,595	+ 10,298	– 66,020	+ 26,400	+ 4,979	+ 47,208	– 2,269	1.1293	98.8	93.9
July	+ 32,110	+ 34,419	+ 28,091	– 17,130	– 23,962	+ 8,841	+ 54,894	+ 5,449	1.1218	98.4	93.4
Aug.	+ 32,133	+ 22,750	+ 20,711	+ 36,187	– 8,524	– 5,340	– 2,242	+ 629	1.1126	98.9	94.0
Sep.	+ 38,197	+ 28,258	+ 41,622	+ 10,051	– 12,393	– 5,574	+ 55,477	– 5,939	1.1004	98.2	93.1
Oct.	+ 29,033	+ 36,805	+ 39,138	+ 20,540	+ 34,604	+ 6,354	– 23,255	+ 894	1.1053	98.1	92.9
Nov.	+ 23,336	+ 29,961	+ 39,821	– 37,157	+ 43,063	+ 328	+ 37,457	– 3,870	1.1051	97.5	92.2
Dec.	+ 33,940	+ 31,597	+ 3,140	– 65,501	+ 65,880	– 11,943	+ 14,246	+ 458	1.1113	97.4	92.1
2020 Jan.	– 8,588	+ 9,479	– 8,534	+ 7,975	– 44,784	+ 7,381	+ 19,911	+ 983	1.1100	97.0	91.4
Feb.	+ 16,209	+ 29,178	+ 18,764	+ 24,919	– 26,943	+ 6,850	+ 15,046	– 1,108	1.0905	96.3	90.7
Mar.	+ 25,012	+ 38,328	+ 1,382	– 5,836	– 114,770	– 1,999	+ 120,437	+ 3,550	1.1063	99.0	93.1
Apr.	+ 11,437	+ 11,180	– 26,734	– 31,570	+ 163,322	+ 10,552	– 170,741	+ 1,703	1.0862	98.2	92.6
May	– 404	+ 16,571	– 8,701	– 57,858	+ 45,464	+ 9,339	– 7,318	+ 1,672	1.0902	98.4	92.8
June	+ 19,909	+ 27,979	+ 41,429	– 43,515	– 14,381	+ 17,563	+ 81,852	– 90	1.1255	99.8	94.0
July	+ 25,538	+ 35,642	– 5,176	+ 21,902	– 20,749	+ 8,328	– 14,140	– 516	1.1463	100.5 p	94.6
Aug.	...	...	...	...	...	...	...	...	1.1828	101.6 p	95.2
Sep.	...	...	...	...	...	...	...	...	1.1792	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	1.6	2.6	5.5	3.3	2.3	1.3	9.1	1.7	3.3
2018	1.9	1.8	1.3	4.4	1.5	1.8	1.6	8.5	1.0	4.0
2019	1.3	1.7	0.6	5.0	1.2	1.5	1.9	5.6	0.3	2.1
2019 Q1	1.5	1.4	1.0	5.1	0.4	1.4	0.8	4.4	0.2	3.4
Q2	1.3	1.3	– 0.3	3.3	1.3	1.9	3.0	5.6	0.2	1.7
Q3	1.4	1.6	1.2	6.3	2.0	2.0	3.0	6.3	0.8	2.6
Q4	1.0	1.3	0.2	5.3	0.8	0.7	0.6	5.9	0.1	0.8
2020 Q1	– 3.3	– 2.3	– 1.8	– 0.7	– 2.0	– 5.3	– 1.0	5.7	– 5.7	– 1.0
Q2	– 14.8	– 14.5	– 11.3	– 6.9	– 6.6	– 19.2	– 15.3	– 3.0	– 18.3	– 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	0.4	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	0.4	1.1	1.7	0.9	– 0.1	– 0.8
Q2	– 1.3	5.9	– 5.0	2.0	2.8	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	– 1.3	6.8	– 11.4	– 2.3
Q2	– 20.2	– 11.7	p – 22.0	– 13.3	– 5.3	– 23.5	– 8.1	– 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 Apr.	7.4	5.1	e 4.2	6.0	7.3	7.8	15.9	4.8	7.4	8.2
May	7.6	5.0	e 4.5	7.0	7.5	6.9	17.1	4.8	8.7	8.7
June	7.8	5.0	e 4.5	8.0	7.8	6.6	18.0	5.0	9.4	8.9
July	8.0	5.0	e 4.5	7.8	8.0	7.1	16.8	5.2	9.8	9.0
Aug.	8.1	5.1	e 4.5	...	8.1	7.5	...	5.2	9.7	8.8
Sep.	...	...	...	...	...	...	...	5.4	...	...
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 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
Sep.	– 0.3	0.5	5 – 0.4	– 1.3	0.3	0.0	– 2.3	– 1.2	– 1.0	– 0.4
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	65.1	9.3	61.3	98.3	176.2	67.7	134.1	39.3
2018	85.8	99.8	61.8	8.4	59.6	98.1	181.2	63.5	134.8	37.2
2019	84.1	98.6	59.6	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										
4.3	1.8	8.0	2.9	2.4	3.5	3.0	4.8	3.0	5.1	2017
3.9	3.1	5.2	2.4	2.6	2.9	3.8	4.4	2.4	5.2	2018
4.3	2.3	4.9	1.7	1.4	2.2	2.3	3.2	2.0	3.1	2019
4.6	0.2	6.7	1.6	2.2	2.4	3.7	4.4	2.6	3.1	2019 Q1
4.2	3.1	4.6	1.7	1.4	1.9	2.4	3.3	1.9	2.8	Q2
4.4	3.1	3.6	1.8	1.7	2.2	1.5	3.1	1.8	2.8	Q3
4.2	2.8	5.0	1.6	0.4	2.4	2.1	2.0	1.6	3.6	Q4
2.4	1.5	1.4	– 0.2	– 3.4	– 2.2	– 3.7	– 2.4	– 3.8	1.1	2020 Q1
– 4.6	– 7.7	– 16.3	– 9.4	– 14.3	– 16.6	– 12.1	– 13.1	– 21.5	– 12.2	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	8.0	2017
5.2	– 1.1	1.3	0.6	4.9	0.1	4.3	5.3	0.4	6.9	2018
3.5	– 3.1	1.1	– 0.9	0.2	– 2.2	0.5	2.8	0.5	4.0	2019
4.7	– 0.9	– 1.9	– 1.4	5.7	– 3.9	6.8	3.7	– 0.2	6.3	2019 Q1
5.5	– 0.8	0.5	– 1.4	0.0	– 1.7	3.0	3.3	1.4	2.4	Q2
4.1	– 1.9	3.7	0.1	– 0.3	– 3.5	– 2.8	2.5	0.7	4.6	Q3
– 0.1	– 8.7	2.1	– 0.9	– 4.2	0.5	– 4.7	1.7	0.3	2.9	Q4
– 2.2	– 10.2	10.6	– 1.2	– 6.0	– 1.3	– 7.4	– 2.7	– 6.6	– 1.3	2020 Q1
– 7.0	– 23.1	– 7.2	– 8.6	– 16.8	– 23.8	– 28.1	– 17.4	– 24.6	– 19.7	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	3.6	3.4	4.5	6.5	5.8	4.5	14.1	7.1	2019
7.8	7.4	4.5	3.4	4.7	6.3	6.7	5.4	15.3	7.7	2020 Apr.
8.5	7.6	4.5	3.6	5.5	5.9	6.8	5.5	15.4	8.1	May
8.8	7.6	4.3	4.3	5.4	7.3	6.7	5.3	15.8	7.4	June
9.0	7.2	4.2	4.5	5.2	7.9	6.7	4.8	15.9	6.9	July
9.6	6.8	4.1	4.6	5.0	8.1	6.8	4.7	16.2	7.4	Aug.
...	...	...	4.4	...	...	...	...	...	...	Sep.
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
0.9	– 0.8	1.1	1.0	1.5	– 0.1	2.1	– 1.3	– 0.7	– 1.2	2020 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.
0.6	– 0.3	0.5	1.0	1.3	– 0.8	1.4	– 0.7	– 0.6	– 1.9	Sep.
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]
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	– 15.7	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	– 93.4	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	17.1
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.	43.7	63.3	– 9.2	– 19.6	– 25.7	17.3	16.2	– 1.1	– 11.5	– 1.9	– 1.8	– 19.8	12.1
Nov.	54.4	54.9	30.9	– 0.5	3.3	10.4	– 21.5	– 31.9	19.0	0.8	– 0.8	4.7	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	– 5.9	– 7.2
2020 Jan.	101.6	51.4	1.4	50.2	28.1	24.6	295.6	271.0	– 5.5	– 6.2	– 1.0	13.0	– 11.3
Feb.	60.7	50.0	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	8.7	– 42.6	– 51.2	19.4	3.9	– 0.8	– 1.1	17.4
June	136.2	– 16.1	16.2	152.3	160.5	68.8	– 146.3	– 215.1	– 0.9	– 7.1	– 1.1	– 7.9	15.2
July	154.9	80.3	33.2	74.6	74.0	– 46.5	78.4	124.9	– 2.4	2.5	– 0.1	– 12.5	7.7
Aug.	85.2	25.4	16.8	59.9	67.6	17.1	– 2.6	– 19.6	13.8	10.5	– 0.4	– 12.5	16.3

b) German contribution

Period	I. Lending to non-banks (non-MFIs) in the euro area					II. Net claims on non-euro area residents			III. Monetary capital formation at monetary financial institutions (MFIs) in the euro area				
		Enterprises and households		General government									
	Total	Total	of which: Securities	Total	of which: Securities	Total	Claims on non-euro area residents	Liabilities to non-euro area residents	Total	Deposits with an agreed maturity of over 2 years	Deposits at agreed notice of over 3 months	Debt securities with maturities of over 2 years (net) [2]	Capital and reserves [3]
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	13.8	0.3	12.2	10.3	9.4	– 9.7	– 19.1	– 3.0	– 6.9	– 0.6	1.2	3.3
Aug.	9.4	7.5	1.9	1.8	7.9	5.3	– 8.2	– 13.4	– 5.2	– 2.2	– 0.4	– 4.4	1.8

***** 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				Deposits with an agreed maturity of up to 2 years [5]	Deposits at agreed notice of up to 3 months [5,6]	Repo transactions	Money market fund shares (net) [2,7,8]	Debt securities with maturities of up to 2 years (incl. money market paper) (net) [2,7]	
				Total	Money stock M1								
					Total	Currency in circulation	Overnight deposits [5]						
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	55.4	46.2	7.4	38.9	2.5	6.7	22.3	14.3	– 0.4	Apr.
17.8	– 7.4	–	81.1	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	87.2	98.3	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	42.9	–	– 36.5	– 18.4	– 1.1	3.3	– 4.4	– 15.6	– 1.7	– 17.9	– 13.9	– 0.4	Sep.
– 37.7	51.8	–	58.3	45.6	60.1	2.8	57.3	– 10.1	– 4.5	42.1	1.4	6.5	Oct.
– 1.1	– 53.7	–	100.6	103.3	122.4	6.9	115.5	– 17.6	– 1.5	– 14.7	3.1	– 0.7	Nov.
– 66.5	– 26.2	–	– 40.1	1.5	7.2	16.3	– 9.2	– 9.3	3.6	– 33.6	– 22.5	– 18.3	Dec.
84.6	41.9	–	5.2	– 44.3	– 52.0	– 7.3	– 44.7	0.2	7.6	– 7.1	34.8	14.0	2020 Jan.
43.7	– 34.5	–	95.8	82.6	84.1	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	– 18.6	–	171.8	174.8	175.1	20.4	154.8	– 15.0	14.7	– 4.6	24.0	– 18.4	Apr.
100.9	– 38.2	–	218.0	226.2	189.5	20.1	169.4	16.8	19.9	9.6	0.1	– 9.0	May
123.4	– 1.5	–	84.0	79.3	88.9	13.1	75.8	– 20.6	11.0	– 42.7	14.5	– 5.2	June
– 4.6	– 68.4	–	183.8	149.2	123.6	14.3	109.3	19.9	5.7	18.1	31.0	– 10.5	July
40.5	28.6	–	19.4	35.6	45.2	5.9	39.3	– 18.6	9.1	– 4.8	– 0.1	– 4.1	Aug.

b) German contribution

IV. Deposits of central governments	V. Other factors			VI. Money stock M3 (balance I plus II less III less IV less V) [10]								Period
	Total	of which:		Total	Components of the money stock							
		Intra-Eurosystem liability/ claim related to banknote issue [9,11]	Currency in circulation		Overnight deposits	Deposits with an agreed maturity of up to 2 years	Deposits at agreed notice of up to 3 months [6]	Repo transactions	Money market fund shares (net) [7,8]	maturities with maturities of up to 2 years (incl. money market paper)(net) [7]	
– 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	– 11.1	2.4	3.9	35.2	27.4	8.6	– 1.1	1.3	– 0.2	– 0.8	July
21.0	– 14.2	3.8	0.9	13.0	18.6	– 4.9	0.2	– 0.4	0.3	– 0.6	Aug.

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
		Total	Enterprises and households				General government					
			Total	Loans	Debt securities 2	Shares and other equities	Total	Loans	Debt securities 3			
	Euro area (€ billion) 1											
2018 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	18,522.0	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	11,583.7	1,550.8	804.7	4,662.6	1,002.8	3,659.8	6,208.8	3,961.6
Aug.	29,374.0	18,658.9	13,961.4	11,612.7	1,549.4	799.3	4,697.5	1,003.1	3,694.4	6,311.5	4,403.7
Sep.	29,193.7	18,651.6	13,971.2	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	14,042.6	11,660.4	1,550.6	831.5	4,646.8	1,002.5	3,644.3	6,259.5	4,017.3
Nov.	29,017.9	18,729.5	14,099.4	11,684.4	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	14,008.8	11,617.1	1,544.1	847.6	4,582.8	981.0	3,601.8	5,930.8	3,805.7
2020 Jan.	29,020.8	18,722.4	14,062.6	11,668.9	1,542.7	851.0	4,659.8	1,003.4	3,656.4	6,302.2	3,996.2
Feb.	29,486.3	18,767.3	14,101.8	11,697.4	1,563.0	841.4	4,665.5	992.2	3,673.3	6,414.4	4,304.6
Mar.	30,019.6	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	4,519.2
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	30,401.7	19,757.8	14,448.0	11,980.9	1,651.1	816.0	5,309.8	1,005.3	4,304.5	6,297.5	4,346.4
July	30,604.7	19,911.1	14,334.0	12,012.5	1,507.0	814.5	5,577.1	1,006.0	4,571.1	6,276.7	4,417.0
Aug.	30,457.7	19,985.2	14,360.1	12,018.2	1,525.4	816.5	5,625.1	998.2	4,626.9	6,243.6	4,228.9
	German contribution (€ billion)											
2018 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	7,267.6	4,718.8	3,634.9	3,175.5	202.7	256.7	1,083.9	293.4	790.5	1,282.9	1,265.8
Aug.	7,167.3	4,723.0	3,642.2	3,180.7	202.9	258.6	1,080.8	287.4	793.3	1,268.8	1,175.5

***** 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]
1,145.3	12,605.9	11,760.3	11,825.5	6,603.4	817.0	212.1	1,900.1	2,239.8	53.1	2018 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	12,958.0	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	13,181.6	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	767.3	198.9	1,873.6	2,309.0	53.7	July
1,202.0	13,283.3	12,388.8	12,438.4	7,227.7	782.1	201.0	1,860.5	2,313.8	53.4	Aug.
1,205.4	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	12,422.5	12,487.1	7,284.6	758.3	201.3	1,883.1	2,310.5	49.4	Oct.
1,215.1	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	738.5	200.2	1,892.5	2,314.2	46.2	Dec.
1,224.1	13,359.5	12,460.6	12,555.5	7,362.9	734.6	200.1	1,890.8	2,322.3	44.7	2020 Jan.
1,229.3	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.
1,253.1	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	14,475.7	13,206.2	13,308.1	8,066.4	763.6	186.8	1,875.1	2,375.6	40.6	June
1,320.9	14,591.0	13,272.4	13,361.6	8,090.0	783.0	186.4	1,880.8	2,381.1	40.4	July
1,326.8	14,667.6	13,301.7	13,390.5	8,117.3	767.3	184.6	1,891.3	2,389.9	40.0	Aug.
										German contribution (€ billion)
256.0	3,694.1	3,571.0	3,429.7	2,053.1	161.2	32.2	605.8	538.0	39.4	2018 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	163.5	30.0	552.8	531.5	29.2	July
301.3	4,202.4	3,889.9	3,720.2	2,419.2	159.3	30.1	551.3	531.6	28.8	Aug.

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 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	2,174.6	1,488.4
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	600.5	2,057.5	1,436.0
Aug.	828.6	448.5	273.5	79.5	22.1	50.3	19.6	3.5	266.9	266.7	600.3	2,038.0	1,426.1
	German contribution (€ billion)												
2018 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	293.3
Aug.	229.5	252.8	118.7	71.3	17.4	42.4	2.6	0.3	1.7	1.5	1.9	517.7	291.1

***** 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]													
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	2018 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	11,942.4	12,591.3	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	12,114.5	12,741.2	6,980.8	155.2	June
16.1	21.3	2,151.6	4,796.8	2,878.9	25.7	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	25.4	3,943.0	–	8,790.0	12,251.2	12,883.4	7,104.7	153.4	Sep.
7.5	19.8	2,147.2	4,768.1	2,935.0	34.3	3,716.0	–	8,847.2	12,293.3	12,936.6	7,077.6	152.9	Oct.
6.8	19.5	2,161.5	4,770.3	2,922.8	31.2	3,675.8	–	8,972.8	12,401.5	13,041.9	7,080.9	157.9	Nov.
– 11.3	19.2	2,146.1	4,452.2	2,913.9	25.2	3,469.5	–	8,975.4	12,396.0	12,995.6	7,061.4	152.0	Dec.
– 0.4	21.9	2,166.3	4,759.3	2,951.2	24.4	3,715.8	–	8,927.5	12,357.7	13,006.7	7,116.6	154.9	2020 Jan.
3.6	23.4	2,164.5	4,817.2	2,967.9	26.5	3,963.1	–	9,012.8	12,442.0	13,104.8	7,128.2	156.9	Feb.
32.0	21.6	2,123.6	4,906.1	2,930.7	12.6	4,141.3	–	9,312.2	12,761.8	13,456.0	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	4,710.6	2,977.9	– 4.8	4,004.1	–	9,768.8	13,242.8	13,930.6	7,034.5	158.0	June
– 10.9	20.1	2,048.3	4,731.5	3,019.7	– 52.7	4,064.5	–	9,812.8	13,307.6	14,026.7	7,043.7	159.4	July
– 14.5	19.2	2,033.4	4,697.8	3,017.2	– 38.0	3,880.9	–	9,856.2	13,340.7	14,042.8	7,035.7	160.0	Aug.
German contribution (€ billion)													
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	–	2018 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	503.7	907.0	784.6	– 1,089.1	1,967.5	460.5	2,519.5	3,336.8	3,360.1	1,913.6	–	July
11.8	7.1	498.7	891.5	778.4	– 1,114.7	1,888.5	464.3	2,537.9	3,350.2	3,372.6	1,899.9	–	Aug.

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 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.	.	.	.	.	.	.	.	.	.	.	.	.
Sep.	865.9	1.3	1,593.2	0.0	3,323.6	413.2	0.0	1,381.2	712.9	651.0	2,625.7	4,420.1
Deutsche Bundesbank												
2018 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.	.	.	.	.	.	.	.	.	.	.	.	.
Sep.	212.1	0.8	284.0	0.0	692.0	136.0	0.0	336.4	239.6	– 298.0	774.8	1,247.3

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

II. Overall monetary survey in the euro area

Flows

Liquidity-providing factors					Liquidity-absorbing factors					Credit institutions' current account balances (including minimum reserves) 7	Base money 8	Reserve maintenance period ending in 1
	Monetary policy operations of the Eurosystem											
Net assets in gold and foreign currency	Main refinancing operations	Longer-term refinancing operations	Marginal lending facility	Other liquidity-providing operations 3	Deposit facility	Other liquidity-absorbing operations 4	Banknotes in circulation 5	Central government deposits	Other factors (net) 6			
Eurosystem 2												
– 12.3	+ 3.9	– 12.1	± 0.0	+ 33.1	– 39.4	± 0.0	+ 2.1	+ 44.0	– 14.7	+ 20.3	– 16.9	2018 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.
– 5.4	+ 0.5	+ 191.7	± 0.0	+ 155.4	+ 57.2	± 0.0	+ 15.5	+ 41.7	– 52.1	+ 279.8	+ 352.6	Sep.
Deutsche Bundesbank												
– 4.0	+ 0.0	– 3.0	+ 0.0	+ 7.3	– 32.9	± 0.0	+ 0.6	+ 16.1	– 4.5	+ 21.1	– 11.2	2018 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.
– 10.0	+ 0.3	+ 48.9	+ 0.0	+ 36.1	+ 27.9	± 0.0	+ 5.0	+ 34.6	– 59.9	+ 67.6	+ 100.5	Sep.

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 Mar. 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	–
11	6,474.6	548.8	359.3	85.8	273.5	25.5	12.0	12.0	–
18	6,502.4	548.8	360.4	85.8	274.6	24.1	11.7	11.7	–
25	6,534.8	548.8	360.5	86.6	273.9	24.6	12.5	12.5	–
Oct. 2	6,705.1	559.3	351.3	84.7	266.6	22.2	12.4	12.4	–
9	6,725.7	559.3	350.8	84.7	266.0	23.0	12.6	12.6	–
Deutsche Bundesbank									
2020 Mar. 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	–
11	2,299.5	170.7	54.0	22.3	31.7	0.7	0.5	0.5	–
18	2,310.9	170.7	54.0	22.3	31.7	0.5	0.2	0.2	–
25	2,325.1	170.7	54.1	22.4	31.7	0.5	0.5	0.5	–
Oct. 2	2,383.8	174.0	53.2	21.9	31.2	0.1	1.2	1.2	–
9	2,379.0	174.0	53.1	21.9	31.2	0.1	1.4	1.4	–

***** The consolidated financial statement of the Eurosystem comprises the financial statement of the European Central Bank (ECB) and the financial statements of the national central banks of the euro area Member States (NCBs). The balance sheet items for foreign currency, securities, gold and financial instruments are valued at 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]													
726.1	1.5	724.6	–	–	0.0	–	37.6	2,899.6	2,697.4	202.2	23.3	282.3	2020 Mar. 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
1,596.7	1.7	1,595.0	–	–	–	–	35.7	3,589.3	3,388.2	201.1	22.8	284.4	11
1,596.7	1.7	1,595.0	–	–	–	–	37.5	3,613.8	3,413.0	200.8	22.8	286.7	18
1,596.9	1.9	1,595.0	–	–	–	–	36.7	3,643.3	3,442.5	200.8	22.8	288.7	25
1,753.3	1.2	1,752.1	–	–	–	–	34.6	3,654.3	3,454.5	199.8	22.7	294.9	Oct. 2
1,754.3	1.2	1,753.1	–	–	–	–	29.2	3,678.4	3,478.6	199.7	22.7	295.6	9
Deutsche Bundesbank													
86.7	0.5	86.3	–	–	0.0	–	8.4	574.8	574.8	–	4.4	930.2	2020 Mar. 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
285.1	0.8	284.3	–	–	0.0	–	4.5	703.4	703.4	–	4.4	1,076.1	11
285.0	0.7	284.3	–	–	0.0	–	5.6	710.4	710.4	–	4.4	1,080.0	18
285.1	0.8	284.3	–	–	–	–	5.9	718.2	718.2	–	4.4	1,085.6	25
333.8	0.7	333.1	–	–	–	–	6.0	723.5	723.5	–	4.4	1,087.5	Oct. 2
334.5	0.8	333.8	–	–	0.0	–	4.8	730.5	730.5	–	4.4	1,076.1	9

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 Mar.	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
	11	6,474.6	1,385.7	3,123.2	2,623.1	500.1	–	–	–	6.2	–	747.1	690.4	56.7
	18	6,502.4	1,385.7	3,060.9	2,732.1	328.8	–	–	–	7.4	–	836.1	784.4	51.7
	25	6,534.8	1,386.1	3,056.1	2,722.2	333.8	–	–	–	7.4	–	862.4	810.1	52.3
Oct.	2	6,705.1	1,387.9	3,303.1	2,807.7	495.4	–	–	–	7.4	–	787.8	732.8	55.1
	9	6,725.7	1,390.2	3,338.2	2,787.6	550.6	–	–	–	7.1	–	771.4	714.8	56.6
Deutsche Bundesbank														
2020 Mar.	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
	11	2,299.5	337.4	934.1	760.5	173.6	–	–	–	2.3	–	246.8	239.7	7.1
	18	2,310.9	337.8	905.4	810.9	94.6	–	–	–	2.9	–	286.3	279.0	7.3
	25	2,325.1	338.3	908.3	812.5	95.8	–	–	–	2.9	–	286.3	278.9	7.3
Oct.	2	2,383.8	337.0	1,000.3	870.0	130.3	–	–	–	3.0	–	252.3	245.0	7.3
	9	2,379.0	338.2	996.6	812.7	183.9	–	–	–	2.5	–	247.4	240.2	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]										
308.8	7.2	6.0	6.0	–	57.4	284.2	–	466.6	107.9	2020 Mar. 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
209.4	5.7	7.2	7.2	–	57.1	281.2	–	542.9	108.9	11
206.0	5.8	6.9	6.9	–	57.1	284.6	–	542.9	108.9	18
216.2	5.9	6.9	6.9	–	57.1	284.9	–	542.9	108.9	25
219.0	5.8	6.6	6.6	–	55.9	279.1	–	543.5	108.9	Oct. 2
220.6	5.8	6.4	6.4	–	55.9	277.8	–	543.5	108.9	9
Deutsche Bundesbank										
96.6	0.0	0.0	0.0	–	14.9	29.7	442.7	144.2	5.7	2020 Mar. 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
93.8	0.0	0.1	0.1	–	14.8	31.4	464.3	168.8	5.7	11
93.0	0.0	0.0	0.0	–	14.8	31.8	464.3	168.8	5.7	18
103.8	0.0	0.0	0.0	–	14.8	31.8	464.3	168.8	5.7	25
102.9	0.0	–	–	–	14.5	30.6	467.0	170.4	5.7	Oct. 2
106.0	0.0	–	–	–	14.5	30.8	467.0	170.4	5.7	9

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			
				to banks in the home country			to banks in other Member States				to non-banks in the home country		
												Enterprises and households	
			Total	Total	Loans	Securities issued by banks	Total	Loans	Securities issued by banks	Total	Total	Total	Loans
	End of year or month												
2010	8,304.8	16.5	2,361.6	1,787.8	1,276.9	510.9	573.9	372.8	201.0	3,724.5	3,303.0	2,669.2	2,354.7
2011	8,393.3	16.4	2,394.4	1,844.5	1,362.2	482.2	550.0	362.3	187.7	3,673.5	3,270.5	2,709.4	2,415.1
2012	8,226.6	19.2	2,309.0	1,813.2	1,363.8	449.4	495.9	322.2	173.7	3,688.6	3,289.4	2,695.5	2,435.7
2013	7,528.9	18.7	2,145.0	1,654.8	1,239.1	415.7	490.2	324.6	165.6	3,594.3	3,202.1	2,616.3	2,354.0
2014	7,802.3	19.2	2,022.8	1,530.5	1,147.2	383.3	492.3	333.9	158.4	3,654.5	3,239.4	2,661.2	2,384.8
2015	7,665.2	19.5	2,013.6	1,523.8	1,218.0	305.8	489.8	344.9	144.9	3,719.9	3,302.5	2,727.4	2,440.0
2016	7,792.6	26.0	2,101.4	1,670.9	1,384.2	286.7	430.5	295.0	135.5	3,762.9	3,344.5	2,805.6	2,512.0
2017	7,710.8	32.1	2,216.3	1,821.1	1,556.3	264.8	395.2	270.1	125.2	3,801.7	3,400.7	2,918.8	2,610.1
2018	7,776.0	40.6	2,188.0	1,768.3	1,500.7	267.5	419.7	284.8	134.9	3,864.0	3,458.2	3,024.3	2,727.0
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 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	2,574.4	2,099.6	1,830.7	268.9	474.8	333.3	141.5	4,153.7	3,688.0	3,258.4	2,958.3
Aug.	8,985.5	46.0	2,595.5	2,127.6	1,858.5	269.1	467.9	328.0	139.9	4,148.3	3,691.8	3,266.7	2,966.0
	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 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	67.5	– 0.5	36.5	45.1	44.3	0.8	– 8.6	– 7.5	– 1.1	3.1	6.6	10.2	10.8
Aug.	– 83.0	0.5	21.2	28.0	27.9	0.1	– 6.8	– 5.3	– 1.5	– 5.1	4.1	8.6	7.9

* This table serves to supplement the "Overall monetary survey" in Section II. Unlike the other tables in Section IV, this table includes - in addition to the figures reported by banks (including building and loan associations) - data from money market funds. **1** See footnote 1 in Table IV.2. **2** Including debt securities arising from the 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
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	2018 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	313.2	217.1	152.5	29.9	122.6	1,047.3	792.5	1,248.1	July
300.7	425.2	253.8	171.4	456.5	311.1	214.5	145.4	29.2	116.1	1,037.5	784.0	1,158.3	Aug.
Changes [3]													
– 18.0	– 74.0	– 59.1	– 14.9	– 16.6	– 13.8	– 5.5	– 2.7	8.0	– 10.7	– 39.5	– 34.9	112.9	2011
– 11.8	10.7	– 10.5	21.2	– 0.2	– 0.7	– 1.5	0.5	– 2.2	2.7	– 15.5	– 17.7	– 62.2	2012
2.0	– 7.0	– 10.9	3.9	– 3.0	– 3.4	– 9.3	0.5	– 2.6	3.1	– 38.8	– 47.2	– 420.8	2013
15.5	– 12.3	– 15.1	2.9	15.1	0.4	– 4.0	14.6	0.9	13.8	83.6	72.0	194.0	2014
11.5	– 3.9	– 4.2	0.3	0.7	4.4	1.8	– 3.7	– 1.0	– 2.8	– 88.3	– 101.0	– 150.1	2015
7.8	– 35.4	– 12.1	– 23.3	4.0	8.2	14.6	– 4.2	– 0.9	– 3.3	51.4	55.0	– 51.4	2016
13.7	– 51.3	– 22.8	– 28.5	– 12.2	– 3.4	4.0	– 8.7	0.1	– 8.9	– 12.3	– 6.7	– 173.1	2017
– 9.8	– 46.2	– 19.1	– 27.0	6.8	18.2	18.6	– 11.4	– 1.5	– 9.9	29.0	18.9	14.8	2018
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	– 3.1	– 1.1	– 2.0	– 7.3	– 3.5	– 1.1	– 3.8	– 2.3	– 1.5	3.5	3.5	16.1	2018 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	– 3.6	1.3	– 4.9	– 3.5	1.6	2.7	– 5.1	0.6	– 5.7	– 10.3	– 7.1	38.7	July
0.6	– 4.4	– 5.4	0.9	– 9.2	– 2.4	– 2.5	– 6.9	– 0.7	– 6.2	– 9.7	– 8.5	– 89.8	Aug.

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 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
Aug.	8,985.5	1,489.8	1,213.2	276.6	3,951.0	3,790.7	2,421.8	808.3	258.8	560.6	531.8	129.7	63.6
	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 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	67.5	– 11.0	– 19.0	8.1	34.1	31.5	31.0	2.1	7.4	– 1.6	– 1.1	– 5.7	– 5.4
Aug.	– 83.0	1.2	3.8	– 2.6	13.9	7.4	13.5	– 6.0	– 4.2	– 0.2	0.2	– 3.2	– 1.9

***** This table serves to supplement the "Overall monetary survey" in Section II. Unlike the other tables in Section IV, this table includes - in addition to the figures reported by banks (including building and loan associations) - data from money market funds. **1** See footnote 1 in Table IV.2. **2** 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
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	2018 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	1,067.4	25.9	698.3	694.7	1,178.9	July
63.6	19.3	2.6	2.3	30.6	29.8	1.7	1.9	1,063.6	25.2	682.1	700.2	1,095.2	Aug.
Changes [4]													
– 2.2	1.7	0.5	0.3	– 0.1	– 0.7	10.0	– 3.7	– 76.9	– 6.6	– 80.5	13.7	137.8	2011
– 7.2	– 3.6	0.5	0.3	– 7.9	– 9.2	– 19.6	1.2	– 107.0	– 18.6	54.2	21.0	– 68.5	2012
– 0.5	2.2	– 0.3	– 0.1	– 11.3	– 10.0	4.1	– 3.2	– 104.9	– 17.6	– 134.1	18.9	– 417.1	2013
– 2.3	– 1.2	– 0.2	– 0.1	– 6.4	– 4.8	– 3.4	– 0.6	– 63.7	– 0.2	35.9	26.1	178.3	2014
– 0.1	0.0	0.0	0.1	– 0.4	– 1.9	– 1.0	– 0.0	– 86.8	7.7	– 30.3	28.0	– 143.2	2015
1.1	0.0	– 0.3	– 0.1	– 2.2	– 1.2	– 0.3	– 1.1	8.6	– 1.3	116.1	26.4	– 39.5	2016
10.8	4.2	– 0.1	– 0.0	– 0.0	– 0.0	1.1	– 0.3	– 3.3	– 8.5	– 16.1	34.1	– 162.3	2017
– 6.4	– 4.1	– 0.1	– 0.1	2.1	2.1	– 2.6	0.3	30.0	– 5.9	– 36.0	7.4	10.3	2018
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
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	2018 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
– 0.3	1.2	– 0.0	– 0.0	8.3	8.3	1.3	– 0.2	3.3	– 1.2	10.9	– 4.3	33.3	July
– 1.3	– 0.8	– 0.0	– 0.0	9.8	9.8	– 0.4	0.0	– 4.2	– 1.1	– 16.2	6.0	– 83.3	Aug.

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

IV. Banks

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

€ billion

End of month	Number of reporting institutions	Balance sheet total [1]	Cash in hand and credit balances with central banks	Lending to banks (MFIs)			Lending to non-banks (non-MFIs)					Participating interests	Other assets [1]
				Total	of which:		Total	of which:					
					Balances and loans	Securities issued by banks		Loans		Bills	Securities issued by non-banks		
								for up to and including 1 year	for more than 1 year				
All categories of banks													
2020 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	4,454.7	405.3	3,348.1	0.3	678.0	98.5	1,360.4
Aug.	1,526	9,043.3	810.5	2,414.9	1,917.9	492.4	4,449.5	389.7	3,361.1	0.3	673.5	98.4	1,269.9
Commercial banks [6]													
2020 July	258	3,907.5	459.4	954.7	871.0	83.0	1,401.9	247.5	934.6	0.2	204.9	36.8	1,054.7
Aug.	258	3,832.2	459.8	965.8	883.9	81.1	1,392.1	241.2	935.2	0.2	200.7	36.8	977.8
Big banks [7]													
2020 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
Aug.	3	2,286.4	168.2	528.5	495.3	33.2	656.1	126.3	418.3	0.1	100.9	30.7	902.9
Regional banks and other commercial banks													
2020 July	146	1,116.7	177.1	245.3	197.5	47.5	618.6	79.4	441.6	0.1	94.1	5.4	70.3
Aug.	146	1,111.2	172.5	249.8	203.2	46.4	614.8	75.6	442.1	0.1	93.4	5.4	68.8
Branches of foreign banks													
2020 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
Aug.	109	434.6	119.1	187.4	185.4	1.5	121.3	39.4	74.8	0.1	6.4	0.7	6.1
Landesbanken													
2020 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
Aug.	6	864.5	82.0	250.1	190.8	58.8	405.3	43.1	314.6	0.0	43.1	8.6	118.6
Savings banks													
2020 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
Aug.	377	1,420.6	116.9	178.0	59.4	118.5	1,089.0	47.4	869.8	0.0	171.0	14.8	22.0
Credit cooperatives													
2020 July	840	1,037.3	45.4	187.6	73.7	113.7	763.6	34.6	611.2	0.0	117.7	17.8	22.9
Aug.	839	1,042.3	45.1	188.8	74.7	113.8	767.7	33.2	616.4	0.0	118.0	17.8	22.9
Mortgage banks													
2020 July	10	238.9	8.1	23.2	13.5	9.5	198.9	3.4	176.1	–	19.5	0.2	8.6
Aug.	10	238.4	8.1	22.7	12.9	9.6	199.1	3.4	176.4	–	19.3	0.2	8.5
Building and loan associations													
2020 July	18	241.1	1.4	46.8	30.5	16.3	188.5	1.0	161.7	.	25.8	0.3	4.0
Aug.	18	241.2	1.6	46.1	29.7	16.4	189.2	1.0	162.5	.	25.7	0.3	4.1
Banks with special, development and other central support tasks													
2020 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
Aug.	18	1,404.0	97.1	763.6	666.6	94.2	407.2	20.3	286.3	0.0	95.7	19.9	116.2
Memo item: Foreign banks [8]													
2020 July	143	1,372.1	241.1	407.4	368.4	38.3	566.1	110.1	359.1	0.1	92.3	3.7	153.8
Aug.	143	1,355.0	227.0	422.8	385.1	37.1	558.9	103.7	358.2	0.2	92.2	3.7	142.6
of which: Banks majority-owned by foreign banks [9]													
2020 July	34	932.8	118.7	221.7	184.7	36.8	442.4	68.6	284.0	0.1	85.9	3.0	147.1
Aug.	34	920.4	107.9	235.3	199.6	35.5	437.7	64.3	283.4	0.1	85.7	3.0	136.5

***** 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														
1,961.6	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	2020 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
2,040.4	601.0	1,439.3	4,084.0	2,562.5	279.1	643.9	40.8	567.0	537.6	31.5	1,162.2	540.0	1,216.6	Aug.
Commercial banks [6]														
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	2020 July
1,010.9	442.5	568.4	1,611.5	1,088.7	174.8	237.4	38.2	98.0	93.2	12.6	166.0	176.1	867.6	Aug.
Big banks [7]														
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	2020 July
491.7	196.6	295.2	786.8	510.5	101.8	90.2	37.8	82.7	78.8	1.5	123.4	82.7	801.8	Aug.
Regional banks and other commercial banks														
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	2020 July
271.1	102.1	168.9	657.4	462.3	43.4	125.8	0.3	14.9	14.1	11.0	42.2	83.4	57.2	Aug.
Branches of foreign banks														
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	2020 July
248.1	143.8	104.3	167.4	115.9	29.7	21.4	–	0.3	0.3	0.1	0.4	10.0	8.6	Aug.
Landesbanken														
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	2020 July
265.3	51.9	213.4	258.7	132.9	42.0	77.4	2.6	6.2	6.1	0.2	181.3	42.9	116.4	Aug.
Savings banks														
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	2020 July
161.4	7.3	154.1	1,067.9	749.4	13.0	14.0	–	278.5	259.8	13.0	17.7	127.7	45.8	Aug.
Credit cooperatives														
142.8	2.3	140.6	763.9	533.8	29.2	12.8	–	184.0	178.0	4.1	10.6	88.0	32.0	2020 July
143.3	2.0	141.3	767.8	537.3	29.4	13.2	–	183.8	178.0	4.1	10.6	88.1	32.5	Aug.
Mortgage banks														
60.6	3.2	57.4	65.1	2.0	3.5	59.6	–	–	–	.	96.1	10.7	6.5	2020 July
60.2	2.9	57.2	65.4	2.4	3.6	59.3	–	–	–	.	95.5	10.7	6.7	Aug.
Building and loan associations														
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	2020 July
27.9	2.9	25.1	188.1	3.2	1.2	183.1	–	0.4	0.4	0.1	1.7	12.3	11.2	Aug.
Banks with special, development and other central support tasks														
377.3	94.6	282.7	118.0	50.9	13.6	52.0	0.1	–	–	.	685.8	82.1	142.4	2020 July
371.4	91.6	279.8	124.6	48.5	15.1	59.4	0.1	–	–	.	689.3	82.1	136.6	Aug.
***Memo item:* Foreign banks [8]**														
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	2020 July
521.9	265.6	256.3	600.6	447.1	57.7	72.7	3.4	19.1	18.7	4.0	35.4	64.7	132.4	Aug.
***of which:* Banks majority-owned by foreign banks [9]**														
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	2020 July
273.8	121.8	151.9	433.2	331.2	28.1	51.3	3.4	18.7	18.4	4.0	35.0	54.7	123.8	Aug.

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

IV. Banks

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

€ billion

Period	Cash in hand (euro area banknotes and coins)	Credit balances with the Bundesbank	Lending to domestic banks (MFIs)						Lending to domestic non-banks (non-MFIs)				
			Total	Credit balances and loans	Bills	Negotiable money market paper issued by banks	Securities issued by banks	Memo item: Fiduciary loans	Total	Loans	Bills	Treasury bills and negotiable money market paper issued by non-banks	Securities issued by non-banks [1]
													End of year or month *
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 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
Aug.	45.7	760.8	1,348.1	1,096.7	0.0	1.1	250.3	7.8	3,629.6	3,219.5	0.2	9.4	400.5
													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 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
Aug.	+ 0.5	– 49.7	+ 77.6	+ 77.5	– 0.0	– 0.2	+ 0.3	+ 0.3	+ 3.9	+ 2.3	+ 0.0	+ 1.4	+ 0.2

***** See Table IV.2, footnote *; statistical breaks have been eliminated from the changes. The figures for the latest date are always to be regarded as provisional. Subsequent revisions, which appear in the following Monthly Report, are not specially marked. **1** 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
–	17.6	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	2019 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
–	22.5	79.2	1,211.5	126.2	1,085.3	0.0	11.5	3,820.8	2,427.7	802.9	560.6	29.6	34.0	Aug.
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
–	– 0.2	+ 0.1	+ 3.5	+ 3.8	– 0.3	– 0.0	– 0.1	+ 10.4	+ 12.0	– 3.8	+ 2.5	– 0.3	– 0.0	2019 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
–	+ 0.3	– 0.1	+ 3.7	+ 1.2	+ 2.4	+ 0.0	+ 0.4	+ 17.4	+ 13.6	+ 4.3	– 0.2	– 0.3	+ 0.2	Aug.

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 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	15.1	277.6
Aug.	0.3	1,066.8	821.2	563.3	257.9	3.5	242.1	4.1	819.9	531.3	133.7	397.6	15.6	272.9
	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 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	– 0.9	+ 5.3	+ 5.9	– 0.6	– 0.7	– 5.4
Aug.	– 0.0	– 14.4	– 11.1	– 10.0	– 1.1	+ 0.1	– 3.4	+ 0.1	– 8.4	– 4.2	– 4.8	+ 0.6	+ 0.5	– 4.7

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

IV. Banks

Memo item: Fiduciary loans	Participating interests in foreign banks and enterprises	Deposits of foreign banks (MFIs)						Deposits of foreign non-banks (non-MFIs)						Period
		Total	Sight deposits	Time deposits (including bank savings bonds)			Memo item: Fiduciary loans	Total	Sight deposits	Time deposits (including savings deposits and bank savings bonds)			Memo item: Fiduciary loans	
				Total	Short-term	Medium and long-term				Total	Short-term	Medium and long-term		
End of year or month *														
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
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	2019 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	238.8	115.8	–	270.6	139.4	131.3	72.5	58.8	0.1	July
11.2	19.0	828.9	474.8	354.1	238.8	115.2	–	263.2	134.8	128.3	69.9	58.5	0.1	Aug.
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
+ 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	2019 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	– 4.1	+ 1.0	–	– 2.7	– 4.7	+ 2.0	+ 4.0	– 2.0	+ 0.0	July
+ 0.0	– 0.0	– 13.9	– 13.8	– 0.0	+ 0.5	– 0.5	–	– 7.2	– 4.4	– 2.7	– 2.5	– 0.2	– 0.0	Aug.

IV. Banks

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

€ billion

Period	Lending to domestic non-banks, total		Short-term lending							Medium and long-term	
				to enterprises and households			to general government				to enterprises
	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 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
Aug.	3,629.6	3,219.7	265.6	237.7	236.9	0.8	28.0	19.4	8.6	3,364.0	2,967.3
											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 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
Aug.	+ 3.9	+ 2.4	– 7.5	– 4.1	– 4.1	– 0.0	– 3.5	– 4.9	+ 1.4	+ 11.5	+ 12.5

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

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
2,525.3	286.6	2,238.7	230.5	16.3	407.6	240.4	18.7	221.7	167.2	–	1.3	2019 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	2,403.2	237.5	21.0	397.7	234.9	16.7	218.1	162.8	–	1.2	July
2,729.1	313.1	2,416.0	238.2	21.3	396.7	234.4	16.7	217.7	162.3	–	1.2	Aug.
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
+ 9.1	+ 2.1	+ 6.9	– 0.3	– 0.2	– 1.9	– 0.4	– 0.3	– 0.2	– 1.5	–	+ 0.0	2019 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	– 0.9	+ 0.9	– 4.7	+ 0.3	– 0.4	+ 0.7	– 5.1	–	+ 0.0	July
+ 11.8	+ 0.6	+ 11.2	+ 0.7	+ 0.3	– 1.0	– 0.6	– 0.1	– 0.5	– 0.5	–	– 0.0	Aug.

IV. Banks

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

€ billion

Period	Lending to domestic enterprises and households (excluding holdings of negotiable money market paper and excluding securities portfolios) [1]														
		of which:				Lending to enterprises and self-employed persons									
			Housing loans												
	Total	Mortgage loans, total	Total	Mortgage loans secured by residential real estate	Other housing loans	Total	of which: Housing loans	Manufacturing	Electricity, gas and water supply; refuse disposal, mining and quarrying	Construction	Wholesale and retail trade; repair of motor vehicles and motorcycles	Agriculture, forestry, fishing and aquaculture	Transportation and storage; post and telecommunications	Financial intermediation (excluding MFIs) and insurance companies
Lending, total														**End of year or quarter ***	
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 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
Aug.	3,820.8	2,427.7	802.9	215.0	587.9	45.8	542.0	560.6	29.6	34.0	14.4	0.5
												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 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
Aug.	+ 17.4	+ 13.6	+ 4.3	– 0.6	+ 4.9	– 0.7	+ 5.6	– 0.2	– 0.3	+ 0.2	+ 0.1	+ 0.2
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 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
Aug.	237.6	79.4	151.3	76.1	75.2	19.4	55.8	2.9	3.9	26.0	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 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	–
Aug.	+ 11.1	+ 2.8	+ 8.3	+ 2.7	+ 5.6	– 0.9	+ 6.5	+ 0.0	– 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 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
Aug.	3,583.2	2,348.2	651.6	138.8	512.7	26.4	486.3	557.8	25.7	8.0	12.3	0.3
												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 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
Aug.	+ 6.3	+ 10.8	– 4.0	– 3.3	– 0.7	+ 0.2	– 0.9	– 0.2	– 0.3	+ 0.1	+ 0.1	+ 0.2
	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 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	297.1	14.5	282.6	6.1	9.8	2.4	9.8	0.1
Aug.	1,108.0	698.2	393.8	97.5	296.3	14.6	281.6	6.1	9.9	2.3	9.8	0.3
												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 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	– 0.0	– 4.1	– 0.0	– 0.1	– 0.0	– 0.1	– 0.0
Aug.	– 1.7	+ 2.1	– 3.9	– 3.0	– 0.8	+ 0.1	– 0.9	– 0.0	+ 0.0	– 0.1	+ 0.1	+ 0.2

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 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	189.2	35.4	
Aug.	2,475.2	1,650.0	1,608.8	284.2	1,160.2	164.5	41.1	257.8	244.2	19.7	190.3	34.2	
	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 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	+ 0.0	– 0.1	
Aug.	+ 8.0	+ 8.7	+ 8.4	+ 1.7	+ 6.6	+ 0.1	+ 0.3	– 0.2	– 0.3	– 0.2	+ 0.1	– 0.2	

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

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 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
Aug.	237.6	29.8	5.7	5.3	18.8	0.1	11.4	59.6	23.2	21.1	14.4	0.8	14.7
	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 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
Aug.	+ 11.1	+ 9.8	– 0.2	+ 2.8	+ 7.2	–	+ 0.0	– 1.2	– 0.6	– 0.6	– 0.0	– 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	Savings deposits [3] by maturity: up to and including 1 year	Savings deposits [3] by maturity: more than 1 year [2] Total	of which: up to and including 2 years	of which: more than 2 years	Savings deposits [3] Total	Domestic households	Domestic non-profit institutions	Bank savings bonds [4]	Memo item: Fiduciary loans	Memo item: Subordinated liabilities (excluding negotiable debt securities) [5]	Memo item: Liabilities arising from repos	Period
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
13.3	42.3	216.4	10.8	205.6	554.8	547.9	6.9	17.3	5.2	2.5	–	2020 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
13.6	41.3	216.5	11.8	204.6	551.7	545.1	6.6	15.8	5.7	2.5	–	Aug.
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
– 0.2	– 2.0	– 0.6	– 0.4	– 0.2	– 3.9	– 3.9	– 0.0	– 0.4	– 0.2	+ 0.0	–	2020 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	+ 0.5	– 0.4	– 1.5	– 1.4	– 0.1	– 0.3	+ 0.3	+ 0.0	–	July
+ 0.1	– 0.2	+ 0.1	+ 0.1	+ 0.0	– 0.2	– 0.2	+ 0.0	– 0.3	+ 0.2	+ 0.0	–	Aug.

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

Local government and local government associations (including municipal special-purpose associations) Total	Sight deposits	Time deposits [3] for up to and including 1 year	Time deposits [3] for more than 1 year	Savings deposits and bank savings bonds [2,4]	Memo item: Fiduciary loans	Social security funds [1] Total	Sight deposits	Time deposits for up to and including 1 year	Time deposits for more than 1 year	Savings deposits and bank savings bonds [2]	Memo item: Fiduciary loans	Period
End of year or month*												
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
58.5	30.6	8.7	13.8	5.3	0.0	101.9	13.7	44.8	42.3	1.1	–	2020 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
62.4	35.6	8.6	13.1	5.1	0.0	85.8	14.9	41.1	28.9	0.8	–	Aug.
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
– 2.6	– 2.4	– 0.1	– 0.2	+ 0.0	– 0.0	– 9.6	– 2.9	– 4.2	– 2.5	– 0.0	–	2020 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
+ 3.0	+ 2.8	+ 0.2	– 0.0	+ 0.0	–	– 0.5	+ 0.8	+ 0.3	– 1.5	– 0.0	–	Aug.

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

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

€ billion

Period	Savings deposits 1								Memo item: Interest credited on savings deposits	Bank savings bonds, 3 sold to			
		of residents					of non-residents				domestic non-banks		
			at 3 months' notice		at more than 3 months' notice								
	Total	Total	Total	of which: Special savings facilities 2	Total	of which: Special savings facilities 2	Total	of which: At 3 months' notice		non-banks, total	Total	of which: With maturities of more than 2 years	foreign non-banks
	End of year or month*												
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 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	293.2	29.2	19.8	6.4	5.8	0.1	31.8	29.9	23.1	1.9
Aug.	567.0	560.6	531.8	291.2	28.8	19.4	6.3	5.8	0.1	31.5	29.6	22.9	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 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	– 2.2	– 0.6	– 0.5	– 0.0	– 0.0	.	– 0.4	– 0.4	– 0.2	– 0.0
Aug.	– 0.3	– 0.2	+ 0.2	– 2.0	– 0.4	– 0.4	– 0.0	– 0.0	.	– 0.3	– 0.3	– 0.1	– 0.0

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

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

€ billion

Period	Negotiable bearer debt securities and money market paper									Non-negotiable bearer debt securities and money market paper 6		Subordinated	
		of which:				with maturities of							
						up to and including 1 year		more than 1 year up to and including 2 years					
	Total	Floating rate bonds 1	Zero coupon bonds 1,2	Foreign currency bonds 3,4	Certificates of deposit	Total	of which: without a nominal guarantee 5	Total	of which: without a nominal guarantee 5	more than 2 years	Total	of which: with maturities of more than 2 years	negotiable debt securities	non-negotiable debt securities
	End of year or month*													
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 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
Aug.	1,127.8	118.8	12.5	328.6	93.6	98.2	1.8	25.6	3.3	1,003.9	1.0	0.8	34.5	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 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	–
Aug.	– 1.0	– 1.4	+ 2.3	+ 0.7	+ 1.3	+ 3.4	+ 0.0	– 0.1	– 0.1	– 4.3	+ 0.1	+ 0.1	+ 1.2	–

***** See Table IV.2, footnote *; statistical breaks have been eliminated from the changes. The figures for the latest date are always to be regarded as provisional. Subsequent revisions, which appear in the following Monthly Report, are not specially marked. **1** Including 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 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
Aug.	18	241.2	31.3	0.0	16.4	11.0	122.1	30.4	25.7	2.9	25.0	179.7	8.3	1.7	12.3	5.6
Private building and loan associations																
2020 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
Aug.	10	166.6	15.8	–	6.9	8.2	95.1	25.9	11.4	1.7	22.2	116.5	8.0	1.7	8.4	3.8
Public building and loan associations																
2020 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
Aug.	8	74.5	15.4	0.0	9.4	2.8	27.0	4.5	14.3	1.2	2.8	63.2	0.3	–	3.8	1.8

Trends in building and loan association business

€ billion

Period	Changes in deposits under savings and loan contracts			Capital promised		Capital disbursed						Disbursement commitments outstanding at end of period		Interest and repayments received on building loans 10		
							Allocations									
							Deposits under savings and loan contracts		Loans under savings and loan contracts 9							
	Amounts paid into savings and loan accounts 9	Interest credited on deposits under savings and loan contracts	Repayments of deposits under cancelled savings and loan contracts	Total	of which: Net allocations 11	Total	Total	of which: Applied to settlement of interim and bridging loans	Total	of which: Applied to settlement of interim and bridging loans	Newly granted interim and bridging loans and other building loans	Total	of which: Under allocated contracts	Total	of which: Repayments during quarter	Memo item: Housing bonuses received 12
All building and loan associations																
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 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
Aug.	2.0	0.0	0.5	4.1	2.2	3.6	1.4	0.3	0.3	0.3	1.9	18.7	6.5	0.5		0.0
Private building and loan associations																
2020 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
Aug.	1.3	0.0	0.3	3.0	1.5	2.9	1.0	0.3	0.2	0.2	1.6	13.9	3.5	0.4		0.0
Public building and loan associations																
2020 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
Aug.	0.6	0.0	0.2	1.1	0.8	0.8	0.4	0.1	0.1	0.1	0.3	4.8	3.0	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 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
July	51	206	1,774.6	438.1	424.1	264.7	159.4	14.0	546.4	452.9	19.7	433.3	93.5	790.1	625.7
															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 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
July	− 1	+ 9	− 3.1	+ 2.4	+ 2.6	+14.3	− 11.7	− 0.2	+ 0.7	+ 0.8	+ 0.1	+ 0.7	− 0.1	+ 12.6	+ 26.8
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 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	−
July	13	37	238.4	46.0	40.3	19.9	20.4	5.7	141.2	115.8	14.8	101.1	25.4	51.2	−
															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 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	−
July	−	− 1	− 5.8	− 5.9	− 5.5	− 0.9	− 4.6	− 0.3	− 0.5	− 1.0	− 0.3	− 0.7	+ 0.5	+ 0.6	−

* 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]		Period
	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	
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
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	2019 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
959.1	661.2	468.6	192.6	297.9	17.3	15.6	1.8	280.6	80.2	53.5	681.8	624.2	July
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
− 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	2019 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
− 13.9	− 13.2	− 15.6	+ 2.4	− 0.7	+ 2.9	+ 3.0	− 0.1	− 3.6	− 2.8	− 0.8	+ 20.5	+ 16.6	July
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
168.3	70.9	36.7	34.2	97.4	7.0	4.3	2.8	90.4	16.3	22.1	32.2	–	2019 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
171.1	67.2	38.9	28.3	103.9	7.3	4.8	2.5	96.6	16.6	20.7	30.1	–	July
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
− 1.6	− 0.6	+ 0.0	− 0.6	− 1.0	− 0.1	− 0.1	− 0.0	− 0.9	− 0.2	+ 0.0	− 0.8	–	2019 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
− 5.4	− 6.4	− 2.1	− 4.3	+ 1.0	+ 0.5	+ 0.5	− 0.0	+ 0.5	+ 0.2	− 0.1	− 0.5	–	July

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	14,276.1	142.8	142.4	2,625.7	2,483.3	0.0
Aug.	.	.	.	.	.	.
Sep. p	14,394.3	143.9	143.6	...	...	...

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	3,932,404	27.5	39,324	39,176	774,776	735,600	0
Aug.	.	.	.	.	.	.	.
Sep. p	3,967,784	27.6	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 / base 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 Sep. 23	1,860	1,860	0.00	-	-	-	7
Sep. 30	1,221	1,221	0.00	-	-	-	7
Oct. 7	1,168	1,168	0.00	-	-	-	7
Oct. 14	1,010	1,010	0.00	-	-	-	7
Oct. 21	1,007	1,007	0.00	-	-	-	7
Long-term refinancing operations							
2020 Aug. 6	5,684	5,684	[2] …	-	-	-	420
Aug. 27	243	243	[2] …	-	-	-	91
Sep. 3	794	794	[2] …	-	-	-	357
Oct. 1	510	510	[2] …	-	-	-	77
Oct. 8	1,008	1,008	[2] …	-	-	-	322

***** 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 Mar.	– 0.534	– 0.45	– 0.51	– 0.48	– 0.42	– 0.37	– 0.27
Apr.	– 0.537	– 0.45	– 0.51	– 0.43	– 0.25	– 0.19	– 0.11
May	– 0.542	– 0.46	– 0.51	– 0.46	– 0.27	– 0.14	– 0.08
June	– 0.546	– 0.46	– 0.52	– 0.49	– 0.38	– 0.22	– 0.15
July	– 0.550	– 0.46	– 0.53	– 0.51	– 0.44	– 0.35	– 0.28
Aug.	– 0.553	– 0.47	– 0.53	– 0.52	– 0.48	– 0.43	– 0.36
Sep.	– 0.554	– 0.47	– 0.54	– 0.52	– 0.49	– 0.46	– 0.41

***** 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 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	53,945	1.06	218,177	– 0.08	86,703	0.90	22,652
Aug.	0.26	53,971	1.03	218,020	– 0.08	82,164	0.89	22,508

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 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	45,560	3.41	86,188	3.55	321,139
Aug.	1.98	4,727	1.64	26,690	2.05	1,315,489	6.98	45,609	3.40	86,214	3.53	321,768

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 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	169,944	1.66	186,433	1.80	769,953
Aug.	1.98	165,200	1.66	187,604	1.78	779,507

***** 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 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
Aug.	0.00	1,650,274	0.16	2,643	0.59	563	0.64	555	0.10	531,275	0.18	28,764

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 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	592	0.26	208
Aug.	– 0.08	528,905	– 0.34	35,771	– 0.02	170	0.20	164

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 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	9,986	6.52	2,114	8.75	439	4.26	3,744	6.29	5,804
Aug.	5.73	5.62	8,341	6.43	1,738	8.79	391	4.33	3,050	6.18	4,900

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 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	5,293	1.61	1,536	1.84	2,241	2.32	774	1.53	2,278
Aug.	1.87	4,188	1.60	1,055	1.94	1,710	2.55	773	1.49	1,705
	of which: Loans to sole proprietors									
2019 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	1.81	3,472	.	.	1.87	1,355	2.30	600	1.57	1,517
Aug.	1.75	2,732	.	.	1.70	1,135	2.47	462	1.52	1,135

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 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	24,349	1.44	4,233	1.81	2,518	1.39	1,847	1.12	8,036	1.24	11,949
Aug.	1.28	1.23	21,279	1.41	3,135	1.80	2,209	1.44	1,500	1.07	7,031	1.20	10,539
	of which: Collateralised loans [11]												
2019 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
Aug.	.	1.16	9,073	.	.	1.77	748	1.17	673	0.98	3,136	1.17	4,516

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 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
Aug.	7.51	36,716	7.31	29,015	15.08	4,204	2.77	76,919	2.78	76,658

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 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	72,399	1.41	23,407	1.94	10,302	2.35	1,419	1.66	2,518	1.29	44,151	1.55	4,770	1.25	9,141
Aug.	1.51	55,732	1.36	16,571	1.78	8,324	2.40	1,236	1.39	2,209	1.46	35,801	1.62	3,186	1.22	5,659
of which: Collateralised loans [11]																
2019 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	10,021	.	.	1.80	504	1.96	133	1.31	478	1.42	5,085	1.59	1,108	1.10	2,713
Aug.	1.47	7,031	.	.	1.86	346	2.14	123	1.26	369	1.52	4,545	1.79	458	1.05	1,190

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 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
Q2	2,523.3	318.3	461.8	371.6	411.9	789.6	4.3	68.3	39.0	58.5
Life insurance										
2017 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
Q2	1,348.0	192.9	234.1	223.3	64.2	577.8	2.8	13.6	20.7	18.6
Non-life insurance										
2017 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
Q2	690.4	112.6	136.0	82.5	83.7	197.1	0.4	39.4	12.0	26.6
Reinsurance 3										
2017 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
Q2	484.8	12.8	91.7	65.8	264.0	14.6	1.1	15.2	6.3	13.3
Pension funds 4										
2017 Q4	646.8	96.7	65.1	29.7	25.0	360.4	–	7.1	41.2	21.5
2018 Q1	651.2	94.5	65.3	30.0	26.2	364.6	–	7.4	41.7	21.5
Q2	658.7	94.8	65.7	30.4	28.1	368.2	–	7.6	42.2	21.7
Q3	666.0	92.1	66.3	30.5	29.6	375.1	–	7.9	42.8	21.8
Q4	672.2	91.5	67.5	30.7	30.6	378.0	–	8.1	43.8	22.1
2019 Q1	689.2	89.4	72.0	30.7	31.5	389.8	–	8.3	44.9	22.6
Q2	703.0	87.4	75.6	31.3	32.1	399.3	–	8.5	45.4	23.5
Q3	718.3	85.3	79.2	31.5	33.1	410.9	–	8.6	45.7	23.9
Q4	726.8	84.9	77.8	31.9	33.4	417.2	–	8.8	47.6	25.1
2020 Q1	709.2	81.1	75.2	31.7	33.2	405.1	–	8.9	48.4	25.5
Q2	728.5	80.0	79.4	31.9	33.3	419.8	–	8.9	48.7	26.5

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 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	–
Q2	2,523.3	33.1	82.2	509.2	1,767.4	1,527.4	240.1	1.9	129.4	–
Life insurance										
2017 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	–
Q2	1,348.0	3.8	19.2	130.2	1,150.3	1,150.3	–	0.5	44.0	–
Non-life insurance										
2017 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	–
Q2	690.4	1.2	9.5	153.3	478.7	355.6	123.1	0.1	47.7	–
Reinsurance [3]										
2017 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	–
Q2	484.8	28.1	53.5	225.8	138.5	21.5	117.0	1.3	37.7	–
Pension funds [4]										
2017 Q4	646.8	–	7.1	7.6	574.3	574.3	–	–	2.7	55.2
2018 Q1	651.2	–	7.3	7.6	580.5	580.5	–	–	2.7	53.0
Q2	658.7	–	7.5	7.7	588.1	588.1	–	–	2.8	52.5
Q3	666.0	–	7.7	7.8	595.2	595.2	–	–	2.9	52.4
Q4	672.2	–	7.9	8.0	605.8	605.8	–	–	2.8	47.6
2019 Q1	689.2	–	8.1	8.1	613.9	613.9	–	–	2.9	56.3
Q2	703.0	–	8.1	8.3	619.8	619.8	–	–	2.9	64.0
Q3	718.3	–	8.2	8.4	626.8	626.8	–	–	2.9	72.1
Q4	726.8	–	8.4	8.6	637.5	637.5	–	–	2.9	69.4
2020 Q1	709.2	–	8.6	8.7	639.4	639.4	–	–	3.0	49.6
Q2	728.5	–	8.5	8.8	645.1	645.1	–	–	3.0	63.1

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 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	48,626	49,142	– 2,041	15,549	35,635	– 516	18,636	– 15,536	25,721	8,451	29,990
Aug.	55,948	60,363	1,681	8,739	49,943	– 4,416	– 337	– 7,604	18,004	– 10,737	56,285

€ 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 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	9,101	2,144	6,957	25,177	676	24,501	– 16,076	
Aug.	9,278	2,900	6,378	8,570	1,020	7,550	709	

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 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	169,956	61,678	1,366	20	55,810	4,483	21,023	87,255
Aug.	144,793	56,949	16	13	53,335	3,586	8,545	79,298
	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 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	60,086	14,074	1,366	20	11,331	1,356	13,242	32,769
Aug.	42,384	6,745	16	13	5,294	1,422	1,597	34,043
	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 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	37,510	– 4,679	– 1,443	– 714	240	– 2,762	12,135	30,054
Aug.	61,250	1,717	– 1,512	– 136	4,489	– 1,123	464	59,069

***** 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 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	3,343,839	1,186,873	190,611	58,228	685,891	252,143	379,558	1,777,408
Aug.	2 3,402,082	1,187,515	189,111	58,097	689,286	251,022	2 378,950	1,835,616
Breakdown by remaining period to maturity 3								**Position at end-August 2020**
bis unter 2	1 127 631	434 876	51 105	16 587	286 081	81 103	71 759	620 996
2 bis unter 4	686 183	282 004	49 909	15 372	164 017	52 706	64 836	339 343
4 bis unter 6	486 958	192 426	35 469	11 679	100 208	45 070	57 701	236 832
6 bis unter 8	363 730	132 097	29 125	6 872	63 414	32 685	41 073	190 560
8 bis unter 10	234 894	66 653	14 624	4 418	34 917	12 694	24 838	143 403
10 bis unter 15	152 453	39 340	6 126	2 191	19 285	11 739	33 367	79 746
15 bis unter 20	107 663	19 348	1 758	856	14 610	2 124	9 069	79 247
20 und darüber	242 570	20 772	995	123	6 755	12 899	76 308	145 490

* 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 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	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
Aug.	180,820	409	434	36	–	– 23	22	– 61	1,887,713

* 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 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
Sep.	– 0.2	– 0.4	– 0.5	– 0.5	– 0.1	– 0.0	1.1	145.96	112.79	544.40	12,760.73

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 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	18,259	7,417	1,671	– 195	1,460	400	5,746	10,842	17,389	– 143	– 89	17,532	10,931	870
Aug.	16,590	6,268	2,049	12	1,759	297	4,219	10,322	16,561	740	– 104	15,821	10,426	28

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	2019 Q1	2019 Q2	2019 Q3	2019 Q4	2020 Q1	2020 Q2
Acquisition of financial assets									
Currency and deposits	46.39	21.80	25.89	– 18.76	– 9.14	37.45	16.34	8.56	46.90
Debt securities	– 7.53	5.24	– 2.23	0.60	– 1.31	– 0.59	– 0.94	0.15	1.86
Short-term debt securities	– 2.97	1.42	– 1.31	– 0.08	– 1.26	0.33	– 0.31	– 0.32	0.48
Long-term debt securities	– 4.55	3.82	– 0.91	0.68	– 0.05	– 0.92	– 0.63	0.47	1.38
Memo item:									
Debt securities of domestic sectors	– 3.64	0.65	– 0.47	0.54	– 0.24	– 0.46	– 0.31	– 0.04	1.48
Non-financial corporations	– 0.61	0.59	0.51	0.70	– 0.25	0.31	– 0.25	– 0.02	0.19
Financial corporations	– 0.52	1.40	– 0.56	– 0.11	0.08	– 0.71	0.18	– 0.16	0.39
General government	– 2.50	– 1.34	– 0.41	– 0.05	– 0.07	– 0.05	– 0.24	0.14	0.91
Debt securities of the rest of the world	– 3.88	4.60	– 1.76	0.06	– 1.06	– 0.13	– 0.63	0.19	0.38
Loans	56.22	– 25.67	2.21	12.12	– 6.79	– 7.51	4.39	– 1.00	9.56
Short-term loans	27.83	– 0.14	7.85	14.89	– 7.92	– 5.41	6.29	– 1.34	16.87
Long-term loans	28.39	– 25.53	– 5.64	– 2.77	1.13	– 2.11	– 1.90	0.34	– 7.31
Memo item:									
Loans to domestic sectors	24.05	– 10.63	– 9.00	0.86	– 5.70	– 7.02	2.86	– 1.17	6.18
Non-financial corporations	15.23	– 10.03	– 8.19	0.94	– 6.71	– 8.09	5.67	– 1.29	6.25
Financial corporations	8.42	– 0.97	– 1.03	– 0.13	0.96	1.01	– 2.87	0.11	– 0.07
General government	0.40	0.36	0.22	0.06	0.06	0.06	0.06	0.00	0.00
Loans to the rest of the world	32.17	– 15.03	11.21	11.26	– 1.09	– 0.50	1.54	0.17	3.38
Equity and investment fund shares	79.82	120.60	76.61	14.29	10.76	33.88	17.68	57.65	– 4.76
Equity	71.73	118.60	67.61	11.72	9.07	30.68	16.14	56.80	– 5.67
Listed shares of domestic sectors	– 3.82	18.82	6.18	1.82	– 3.35	15.19	– 7.49	– 1.51	– 18.72
Non-financial corporations	– 3.76	18.27	4.62	1.84	– 3.32	15.24	– 9.14	– 1.32	– 18.55
Financial corporations	– 0.06	0.55	1.55	– 0.02	– 0.03	– 0.05	1.65	– 0.19	– 0.18
Listed shares of the rest of the world	6.99	– 3.84	5.55	1.06	1.14	2.80	0.55	0.72	– 1.45
Other equity [1]	68.56	103.62	55.88	8.84	11.28	12.68	23.08	57.59	14.51
Investment fund shares	8.09	2.01	9.00	2.57	1.69	3.21	1.54	0.85	0.91
Money market fund shares	– 0.85	– 0.53	1.78	– 0.03	0.23	– 0.03	1.61	– 1.80	0.98
Non-MMF investment fund shares	8.94	2.54	7.22	2.60	1.46	3.24	– 0.08	2.65	– 0.07
Insurance technical reserves	1.56	0.38	1.63	0.49	0.44	0.38	0.32	0.32	0.61
Financial derivatives	– 11.32	2.15	0.52	1.03	– 7.36	– 3.73	10.57	– 1.08	– 10.52
Other accounts receivable	155.71	11.07	– 62.59	24.30	– 40.07	– 5.66	– 41.15	0.08	– 57.61
Total	320.86	135.58	42.05	34.08	– 53.47	54.23	7.21	64.68	– 13.96
External financing									
Debt securities	8.56	7.08	19.19	5.77	5.87	5.00	2.55	5.75	23.51
Short-term securities	0.60	4.08	2.74	1.23	1.75	0.46	– 0.70	1.60	2.78
Long-term securities	7.95	3.00	16.45	4.54	4.12	4.54	3.25	4.15	20.73
Memo item:									
Debt securities of domestic sectors	7.09	3.94	7.03	4.05	0.17	2.67	0.14	1.32	11.06
Non-financial corporations	– 0.61	0.59	0.51	0.70	– 0.25	0.31	– 0.25	– 0.02	0.19
Financial corporations	9.16	3.35	5.72	2.46	0.91	2.38	– 0.03	1.82	10.79
General government	0.01	0.01	0.47	0.69	– 0.61	– 0.04	0.42	– 0.10	– 0.19
Households	– 1.47	– 0.01	0.34	0.20	0.12	0.03	– 0.01	– 0.39	0.26
Debt securities of the rest of the world	1.46	3.14	12.15	1.72	5.69	2.33	2.41	4.43	12.45
Loans	99.28	126.08	76.61	22.71	38.82	10.75	4.33	26.43	20.83
Short-term loans	23.11	60.22	19.68	16.28	17.70	– 6.91	– 7.39	6.93	– 5.86
Long-term loans	76.18	65.87	56.93	6.43	21.12	17.65	11.73	19.50	26.69
Memo item:									
Loans from domestic sectors	51.38	70.84	49.84	19.69	18.18	– 6.60	18.57	9.62	23.81
Non-financial corporations	15.23	– 10.03	– 8.19	0.94	– 6.71	– 8.09	5.67	– 1.29	6.25
Financial corporations	37.09	79.18	57.07	22.44	24.07	1.80	8.76	15.18	1.52
General government	– 0.95	1.68	0.96	– 3.69	0.82	– 0.31	4.14	– 4.27	16.04
Loans from the rest of the world	47.91	55.25	26.78	3.02	20.64	17.35	– 14.24	16.81	– 2.98
Equity	33.18	20.63	17.97	5.12	4.19	3.82	4.83	6.51	9.69
Listed shares of domestic sectors	8.46	73.23	– 24.47	4.47	– 34.72	15.17	– 9.39	7.19	– 13.51
Non-financial corporations	– 3.76	18.27	4.62	1.84	– 3.32	15.24	– 9.14	– 1.32	– 18.55
Financial corporations	11.11	46.75	– 33.11	– 0.26	– 32.78	– 0.68	0.60	1.64	1.45
General government	0.51	0.53	– 0.01	– 0.04	0.04	0.04	– 0.05	0.20	0.09
Households	0.60	7.67	4.03	2.93	1.33	0.57	– 0.80	6.66	3.50
Listed shares of the rest of the world	– 4.12	– 31.96	– 1.61	– 4.23	2.75	– 14.41	14.28	– 5.94	18.38
Other equity [1]	28.84	– 20.65	44.05	4.88	36.17	3.06	– 0.06	5.26	4.83
Insurance technical reserves	6.89	6.08	2.81	0.70	0.70	0.70	0.70	0.70	0.70
Financial derivatives and employee stock options	1.35	– 0.49	– 1.38	1.19	– 2.06	2.69	– 3.21	1.94	– 1.74
Other accounts payable	58.94	22.29	7.95	12.39	– 18.43	16.19	– 2.20	– 16.77	– 48.24
Total	208.20	181.66	123.15	47.89	29.10	39.15	7.01	24.56	4.75

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	2019 Q1	2019 Q2	2019 Q3	2019 Q4	2020 Q1	2020 Q2
Financial assets									
Currency and deposits	550.8	560.2	556.8	528.2	508.7	558.4	556.8	577.2	609.6
Debt securities	47.0	50.8	49.6	52.2	51.0	51.1	49.6	48.2	51.8
Short-term debt securities	3.5	4.9	3.7	4.8	3.6	3.9	3.7	3.4	3.8
Long-term debt securities	43.5	45.9	45.9	47.3	47.4	47.1	45.9	44.9	47.9
Memo item:									
Debt securities of domestic sectors	21.1	21.3	21.1	22.2	22.1	21.7	21.1	20.3	22.3
Non-financial corporations	4.0	4.5	5.0	5.2	5.0	5.3	5.0	4.7	5.0
Financial corporations	12.7	13.8	13.6	14.0	14.2	13.6	13.6	12.9	13.6
General government	4.4	3.0	2.6	3.0	2.9	2.9	2.6	2.7	3.7
Debt securities of the rest of the world	25.8	29.5	28.4	30.0	29.0	29.3	28.4	28.0	29.5
Loans	620.9	591.4	595.3	605.1	597.4	591.8	595.3	593.9	602.8
Short-term loans	495.1	491.1	499.9	506.7	498.4	494.1	499.9	498.2	514.6
Long-term loans	125.8	100.3	95.4	98.3	99.0	97.8	95.4	95.7	88.2
Memo item:									
Loans to domestic sectors	402.1	391.5	382.5	392.4	386.7	379.7	382.5	381.4	387.5
Non-financial corporations	297.8	287.8	279.6	288.7	282.0	273.9	279.6	278.3	284.6
Financial corporations	97.6	96.7	95.6	96.5	97.5	98.5	95.6	95.8	95.7
General government	6.7	7.1	7.3	7.1	7.2	7.2	7.3	7.3	7.3
Loans to the rest of the world	218.8	199.9	212.8	212.7	210.7	212.2	212.8	212.6	215.3
Equity and investment fund shares	2,153.0	2,110.7	2,349.8	2,207.5	2,215.5	2,246.2	2,349.8	2,145.7	2,311.9
Equity	1,981.3	1,944.4	2,159.8	2,031.2	2,035.0	2,059.6	2,159.8	1,969.9	2,125.4
Listed shares of domestic sectors	332.2	302.6	342.0	318.3	319.7	328.8	342.0	288.4	337.2
Non-financial corporations	325.3	296.0	332.9	311.3	312.1	321.4	332.9	281.4	329.6
Financial corporations	6.8	6.6	9.0	7.0	7.7	7.3	9.0	7.0	7.6
Listed shares of the rest of the world	48.3	40.2	50.7	44.6	45.8	47.8	50.7	45.3	47.3
Other equity [1]	1,600.8	1,601.6	1,767.1	1,668.4	1,669.4	1,683.0	1,767.1	1,636.3	1,740.8
Investment fund shares	171.7	166.4	190.0	176.3	180.6	186.6	190.0	175.8	186.5
Money market fund shares	1.6	1.0	3.2	1.0	1.2	1.2	3.2	1.4	2.4
Non-MMF investment fund shares	170.1	165.4	186.8	175.3	179.3	185.4	186.8	174.4	184.1
Insurance technical reserves	54.2	56.3	59.1	57.0	57.7	58.4	59.1	59.9	60.6
Financial derivatives	34.1	33.4	31.5	31.4	32.6	32.1	31.5	44.9	34.7
Other accounts receivable	1,122.7	1,154.8	1,231.4	1,200.6	1,181.3	1,206.3	1,231.4	1,183.1	1,091.6
Total	4,582.8	4,557.6	4,873.6	4,681.9	4,644.3	4,744.3	4,873.6	4,652.9	4,763.0
Liabilities									
Debt securities	210.6	187.8	214.0	196.4	205.6	217.0	214.0	229.3	245.8
Short-term securities	3.4	6.1	8.8	7.4	9.1	9.5	8.8	14.0	16.8
Long-term securities	207.2	181.6	205.2	189.1	196.5	207.4	205.2	215.2	229.0
Memo item:									
Debt securities of domestic sectors	83.1	79.6	88.5	85.9	86.4	89.1	88.5	85.1	100.3
Non-financial corporations	4.0	4.5	5.0	5.2	5.0	5.3	5.0	4.7	5.0
Financial corporations	64.4	61.0	68.6	65.5	66.7	69.2	68.6	67.1	81.2
General government	0.1	0.1	0.6	0.8	0.2	0.2	0.6	0.5	0.3
Households	14.5	14.0	14.4	14.4	14.5	14.5	14.4	12.8	13.8
Debt securities of the rest of the world	127.4	108.2	125.5	110.5	119.2	127.8	125.5	144.2	145.5
Loans	1,631.0	1,749.6	1,828.6	1,775.5	1,811.6	1,826.3	1,828.6	1,855.2	1,877.3
Short-term loans	650.7	710.2	732.9	729.2	745.8	740.8	732.9	739.8	732.5
Long-term loans	980.3	1,039.4	1,095.7	1,046.3	1,065.8	1,085.5	1,095.7	1,115.4	1,144.8
Memo item:									
Loans from domestic sectors	1,225.2	1,281.2	1,330.0	1,301.4	1,318.4	1,312.7	1,330.0	1,339.6	1,365.4
Non-financial corporations	297.8	287.8	279.6	288.7	282.0	273.9	279.6	278.3	284.6
Financial corporations	874.4	939.9	995.7	962.6	985.5	988.1	995.7	1,010.3	1,013.3
General government	53.0	53.5	54.7	50.1	50.9	50.7	54.7	51.0	67.5
Loans from the rest of the world	405.8	468.4	498.6	474.1	493.2	513.6	498.6	515.6	511.9
Equity	3,078.3	2,707.0	3,108.1	2,806.1	2,894.0	2,900.3	3,108.1	2,579.1	2,956.5
Listed shares of domestic sectors	721.3	659.3	733.5	704.8	682.4	692.4	733.5	595.2	710.9
Non-financial corporations	325.3	296.0	332.9	311.3	312.1	321.4	332.9	281.4	329.6
Financial corporations	149.6	161.9	157.4	173.7	145.9	145.7	157.4	126.2	150.1
General government	46.0	41.6	51.8	44.3	45.0	47.9	51.8	41.8	50.5
Households	200.4	159.8	191.3	175.5	179.5	177.4	191.3	145.7	180.8
Listed shares of the rest of the world	960.5	764.8	959.2	788.8	859.9	857.6	959.2	689.3	856.3
Other equity [1]	1,396.5	1,282.9	1,415.5	1,312.5	1,351.6	1,350.2	1,415.5	1,294.7	1,389.2
Insurance technical reserves	263.7	269.8	272.6	270.5	271.2	271.9	272.6	273.3	274.0
Financial derivatives and employee stock options	63.1	65.3	76.1	69.4	83.3	91.8	76.1	96.6	97.8
Other accounts payable	1,124.9	1,174.3	1,305.5	1,203.3	1,202.4	1,262.8	1,305.5	1,259.1	1,218.3
Total	6,371.5	6,153.8	6,804.9	6,321.1	6,468.0	6,570.1	6,804.9	6,292.4	6,669.7

1 Including unlisted shares.

IX. Financial accounts

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

€ billion

Item	2017	2018	2019	2019 Q1	2019 Q2	2019 Q3	2019 Q4	2020 Q1	2020 Q2
Acquisition of financial assets									
Currency and deposits	107.93	138.24	139.78	24.80	42.34	23.63	49.02	24.14	72.49
Currency	21.42	30.20	32.78	3.80	8.50	10.34	10.13	19.55	16.39
Deposits	86.51	108.04	107.01	21.00	33.83	13.29	38.89	4.59	56.10
Transferable deposits	99.78	109.88	111.01	17.18	34.39	17.27	42.16	18.74	58.64
Time deposits	– 4.03	6.79	1.47	1.86	– 0.79	– 0.30	0.70	– 3.11	– 0.85
Savings deposits (including savings certificates)	– 9.24	– 8.63	– 5.47	1.95	0.23	– 3.68	– 3.97	– 11.04	– 1.70
Debt securities	– 8.39	1.62	– 1.85	0.51	0.60	– 1.35	– 1.61	– 1.47	0.32
Short-term debt securities	– 0.20	– 0.13	– 0.53	– 0.23	– 0.13	– 0.19	0.02	– 0.03	0.16
Long-term debt securities	– 8.19	1.74	– 1.32	0.73	0.73	– 1.16	– 1.63	– 1.44	0.16
Memo item:									
Debt securities of domestic sectors	– 5.11	2.24	– 2.93	0.69	0.28	– 1.52	– 2.38	– 0.14	0.54
Non-financial corporations	– 1.45	– 0.10	0.21	0.21	0.08	– 0.04	– 0.04	– 0.32	0.19
Financial corporations	– 2.68	2.81	– 2.22	0.57	0.27	– 1.31	– 1.75	– 0.35	0.46
General government	– 0.99	– 0.46	– 0.92	– 0.09	– 0.07	– 0.18	– 0.58	0.53	– 0.11
Debt securities of the rest of the world	– 3.27	– 0.62	1.08	– 0.18	0.32	0.18	0.77	– 1.32	– 0.22
Equity and investment fund shares	55.17	38.44	49.78	10.72	10.90	11.96	16.20	19.39	28.81
Equity	14.88	18.84	18.94	6.83	4.29	4.40	3.43	13.62	15.57
Listed shares of domestic sectors	0.85	9.44	6.61	4.31	1.43	1.11	– 0.24	8.07	6.35
Non-financial corporations	0.49	6.28	3.52	2.52	1.31	0.88	– 1.19	6.47	3.41
Financial corporations	0.36	3.16	3.09	1.79	0.12	0.23	0.95	1.61	2.94
Listed shares of the rest of the world	9.87	4.37	7.46	0.97	1.72	2.19	2.58	3.02	6.40
Other equity [1]	4.16	5.03	4.86	1.55	1.13	1.10	1.08	2.53	2.82
Investment fund shares	40.29	19.60	30.84	3.89	6.61	7.57	12.78	5.76	13.24
Money market fund shares	– 0.30	– 0.22	– 0.32	– 0.12	– 0.01	0.18	– 0.37	0.38	– 0.14
Non-MMF investment fund shares	40.59	19.81	31.16	4.01	6.62	7.39	13.14	5.38	13.39
Non-life insurance technical reserves and provision for calls under standardised guarantees	20.23	15.80	17.93	3.44	3.45	4.46	6.57	5.29	5.62
Life insurance and annuity entitlements	37.42	28.18	38.28	10.90	9.24	8.62	9.52	10.62	6.44
Pension entitlement, claims of pension funds on pension managers, entitlements to non-pension benefits	35.52	37.28	27.51	11.20	6.59	4.98	4.75	11.53	7.90
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	– 9.52	– 3.60	22.06	– 7.78	7.25	– 25.13	20.87	– 12.41
Total	221.96	250.03	267.83	83.61	65.34	59.56	59.32	90.36	109.17
External financing									
Loans	55.38	68.41	81.16	15.88	23.84	24.85	16.59	13.08	17.62
Short-term loans	– 2.19	2.44	0.92	0.47	0.87	– 0.62	0.20	– 1.58	– 2.29
Long-term loans	57.57	65.97	80.23	15.41	22.97	25.47	16.39	14.66	19.90
Memo item:									
Mortgage loans	47.24	57.42	67.17	9.09	16.62	21.66	19.79	15.65	18.46
Consumer loans	11.25	11.14	14.42	6.15	6.56	3.67	– 1.96	– 2.67	– 2.05
Entrepreneurial loans	– 3.11	– 0.14	– 0.43	0.65	0.66	– 0.49	– 1.25	0.10	1.21
Memo item:									
Loans from monetary financial institutions	49.99	61.72	73.41	12.51	21.22	21.09	18.60	15.52	17.96
Loans from other financial institutions	5.40	6.69	7.74	3.38	2.62	3.76	– 2.01	– 2.44	– 0.35
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	0.80	0.31	0.51	0.10	0.20	– 0.50	– 0.16	0.25
Total	56.04	69.21	81.46	16.39	23.94	25.04	16.09	12.92	17.87

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	2019 Q1	2019 Q2	2019 Q3	2019 Q4	2020 Q1	2020 Q2
Financial assets									
Currency and deposits	2,317.5	2,457.4	2,597.2	2,482.2	2,524.6	2,548.2	2,597.2	2,621.4	2,693.8
Currency	197.1	227.3	260.1	231.1	239.6	249.9	260.1	279.6	296.0
Deposits	2,120.3	2,230.1	2,337.1	2,251.1	2,285.0	2,298.3	2,337.1	2,341.7	2,397.8
Transferable deposits	1,288.4	1,398.0	1,509.1	1,415.2	1,449.6	1,466.9	1,509.1	1,527.8	1,586.4
Time deposits	245.4	252.4	253.9	254.3	253.5	253.2	253.9	250.8	249.9
Savings deposits (including savings certificates)	586.5	579.7	574.2	581.6	581.9	578.2	574.2	563.2	561.5
Debt securities	122.5	117.5	121.4	121.2	123.1	122.5	121.4	108.9	114.5
Short-term debt securities	2.5	2.1	1.6	2.0	1.8	1.6	1.6	1.5	1.7
Long-term debt securities	120.0	115.4	119.7	119.3	121.2	120.9	119.7	107.4	112.7
Memo item:									
Debt securities of domestic sectors	82.9	80.2	81.4	83.3	84.5	83.4	81.4	72.3	76.7
Non-financial corporations	12.6	12.1	12.4	12.5	12.6	12.5	12.4	11.0	11.8
Financial corporations	66.4	64.6	66.6	67.4	68.6	67.7	66.6	58.2	61.9
General government	3.9	3.4	2.5	3.4	3.3	3.2	2.5	3.1	3.0
Debt securities of the rest of the world	39.6	37.4	39.9	37.9	38.6	39.2	39.9	36.6	37.7
Equity and investment fund shares	1,242.4	1,160.2	1,381.9	1,253.1	1,290.1	1,319.8	1,381.9	1,216.0	1,369.5
Equity	646.5	586.8	701.7	638.4	658.9	669.8	701.7	614.1	703.7
Listed shares of domestic sectors	227.9	184.1	223.9	203.7	210.1	209.3	223.9	171.7	209.2
Non-financial corporations	191.5	151.9	182.3	166.9	171.0	169.3	182.3	138.7	172.3
Financial corporations	36.4	32.2	41.6	36.8	39.1	40.0	41.6	33.0	36.9
Listed shares of the rest of the world	103.1	100.1	136.1	116.4	120.0	126.1	136.1	116.8	144.5
Other equity [1]	315.4	302.7	341.6	318.3	328.8	334.5	341.6	325.7	349.9
Investment fund shares	595.9	573.4	680.2	614.7	631.2	650.0	680.2	601.9	665.8
Money market fund shares	2.7	2.4	2.3	2.2	2.3	2.5	2.3	2.7	2.7
Non-MMF investment fund shares	593.2	571.1	678.0	612.5	628.9	647.5	678.0	599.2	663.2
Non-life insurance technical reserves and provision for calls under standardised guarantees	360.1	375.9	393.8	379.3	382.8	387.2	393.8	399.1	404.7
Life insurance and annuity entitlements	991.4	1,011.1	1,069.1	1,027.6	1,041.6	1,054.7	1,069.1	1,080.2	1,087.0
Pension entitlement, claims of pension funds on pension managers, entitlements to non-pension benefits	846.5	883.8	911.4	889.4	894.0	899.6	911.4	922.9	930.8
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	29.6	30.6	31.5	32.3	29.6	29.0	29.6
Total	5,911.5	6,035.6	6,504.5	6,183.5	6,287.6	6,364.3	6,504.5	6,377.4	6,629.9
Liabilities									
Loans	1,711.8	1,775.6	1,857.8	1,791.4	1,816.3	1,841.1	1,857.8	1,871.0	1,886.6
Short-term loans	54.4	58.1	58.8	58.5	59.4	58.8	58.8	57.2	54.9
Long-term loans	1,657.3	1,717.5	1,799.0	1,732.9	1,756.9	1,782.4	1,799.0	1,813.8	1,831.6
Memo item:									
Mortgage loans	1,247.3	1,307.9	1,378.6	1,316.9	1,337.4	1,359.0	1,378.6	1,394.3	1,412.5
Consumer loans	211.8	218.1	231.4	224.1	229.7	233.3	231.4	228.8	226.0
Entrepreneurial loans	252.7	249.7	247.7	250.4	249.2	248.8	247.7	247.8	248.1
Memo item:									
Loans from monetary financial institutions	1,610.0	1,667.2	1,741.6	1,679.6	1,701.8	1,722.9	1,741.6	1,757.2	1,773.2
Loans from other financial institutions	101.8	108.5	116.2	111.8	114.5	118.2	116.2	113.8	113.4
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	17.3	18.3	19.2	20.2	20.4	20.8	19.2	20.7	21.6
Total	1,729.1	1,793.9	1,877.0	1,811.6	1,836.7	1,862.0	1,877.0	1,891.7	1,908.1

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

X. Public finances in Germany

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

Period	General government	Central government	State government	Local government	Social security funds	General government	Central government	State government	Local government	Social security funds
	€ billion					As a percentage of GDP				
	Deficit/surplus[1]									
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	2,213.6	1,395.8	658.2	176.1	1.4	75.6	47.7	22.5	6.0	0.0
2015	2,188.4	1,371.6	658.2	176.3	1.4	72.3	45.3	21.8	5.8	0.0
2016	2,171.6	1,365.2	640.9	178.0	1.1	69.3	43.6	20.4	5.7	0.0
2017 p	2,122.2	1,349.7	613.6	175.2	0.8	65.1	41.4	18.8	5.4	0.0
2018 p	2,073.6	1,322.5	599.8	167.4	0.7	61.8	39.4	17.9	5.0	0.0
2019 p	2,057.2	1,299.4	609.4	165.1	0.7	59.6	37.7	17.7	4.8	0.0
2018 Q1 p	2,100.3	1,337.1	604.1	174.0	1.0	64.0	40.7	18.4	5.3	0.0
Q2 p	2,085.8	1,328.7	600.6	172.5	0.9	62.9	40.1	18.1	5.2	0.0
Q3 p	2,086.2	1,334.9	599.9	167.2	0.8	62.6	40.0	18.0	5.0	0.0
Q4 p	2,073.6	1,322.5	599.8	167.4	0.7	61.8	39.4	17.9	5.0	0.0
2019 Q1 p	2,083.9	1,324.0	611.7	165.7	0.7	61.6	39.2	18.1	4.9	0.0
Q2 p	2,074.3	1,319.9	609.9	164.3	0.7	61.1	38.9	18.0	4.8	0.0
Q3 p	2,091.2	1,327.6	619.9	163.7	0.6	61.0	38.7	18.1	4.8	0.0
Q4 p	2,057.2	1,299.4	609.4	165.1	0.7	59.6	37.7	17.7	4.8	0.0
2020 Q1 p	2,110.1	1,327.0	631.8	165.1	0.8	61.1	38.4	18.3	4.8	0.0
Q2 p	2,278.5	1,473.2	653.0	165.2	1.0	67.4	43.6	19.3	4.9	0.0

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

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

Period	Revenue				Expenditure							Deficit/ surplus	Memo item: Total tax burden [1]
		of which:				of which:							
	Total	Taxes	Social contributions	Other	Total	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
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
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
Q2 p	70.8	114.8	– 44.0	108.2	125.3	– 17.1	69.4	69.4	+ 0.1

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	158,161	135,185	68,653	59,557	6,974	25,107	– 2,131	6,997
2019 July	.	50,036	25,537	21,917	2,582	.	.	3,001
Aug.	.	49,231	25,597	20,974	2,660	.	.	2,201
2020 July	.	49,759	24,835	23,238	1,686	.	.	3,113
Aug.	.	47,982	24,645	21,908	1,429	.	.	4,546

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					Value added taxes (VAT) 5			Local business tax transfers 6				
		Total	Wage tax 3	Assessed income tax	Corporation tax	Investment income tax 4	Total	Domestic VAT	Import VAT					
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
Aug.	52,670	19,616	18,140	– 488	71	1,892	21,126	15,473	5,653	292	8,843	2,315	479	3,439
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
Aug.	51,443	18,343	16,939	– 265	9	1,660	21,645	17,418	4,227	144	8,700	2,127	483	3,461

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	12,971	8,842	3,895
2019 July	3,523	1,235	1,450	718	810	543	181	212	1,276	555	163	85	.	.	.
Aug.	3,325	1,142	1,294	1,382	752	556	160	232	1,349	723	154	89	.	.	.
2020 July	3,141	1,200	1,681	747	849	484	154	122	1,274	734	182	79	.	.	.
Aug.	3,347	1,102	1,261	1,370	744	562	165	149	1,188	691	156	93	.	.	.

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
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.

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9. Federal Employment Agency: budgetary development*

€ million

Period	Revenue				Expenditure							Deficit/ surplus	Deficit-offsetting grant or loan from central government
	Total 1	of which:			Total	of which:							
		Contributions	Insolvency compensation levy	Central government subscriptions		Unemployment benefit 2	Short-time working benefits 3	Job promotion 4	Re-integration payment 5	Insolvency benefit payment	Administrative expenditure 6		
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	–
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
	Total	of which:		Total	of which:							
		Contributions 2	Central government funds 3		Hospital treatment	Pharmaceuticals	Medical treatment	Dental treatment 4	Remedies and therapeutic appliances	Sickness benefits	Administrative expenditure 5	
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
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.

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

€ million

Period	Revenue 1		Expenditure 1						Deficit/ surplus	
				of which:						
	Total	of which: Contributions 2	Total	Non-cash care benefits	Inpatient care	Nursing benefit	Contributions to pension insurance scheme 3	Administrative expenditure		
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
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
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
Q2	+ 185,560	+ 126,585	+ 31,212	– 7,314

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	2,211,421	12,438	661,141	190,555	43,675	1,303,612
2014	2,213,569	12,774	632,927	190,130	44,640	1,333,098
2015	2,188,404	85,952	621,415	186,661	48,583	1,245,794
2016	2,171,646	205,391	598,526	179,755	45,046	1,142,929
2017	2,122,248	319,159	552,504	175,617	42,121	1,032,847
2018	2,073,595	364,731	508,821	181,077	42,009	976,956
2019 p	2,057,166	366,562	476,020	177,601	49,707	987,276
2018 Q1	2,100,279	329,387	529,897	176,495	42,221	1,022,280
Q2	2,085,756	344,279	514,227	179,856	41,938	1,005,455
Q3	2,086,219	356,899	502,476	180,464	42,726	1,003,653
Q4	2,073,595	364,731	508,821	181,077	42,009	976,956
2019 Q1 p	2,083,861	359,884	498,724	179,512	42,186	1,003,554
Q2 p	2,074,252	361,032	492,046	179,168	41,438	1,000,567
Q3 p	2,091,213	358,813	489,832	179,228	47,831	1,015,509
Q4 p	2,057,166	366,562	476,020	177,601	49,707	987,276
2020 Q1 p	2,110,059	371,076	496,703	180,477	56,098	1,005,705
Q2 p	2,278,477	424,141	561,244	181,288	55,800	1,056,004

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		Loans by original maturity		Memo item: [2]	
			Short-term debt securities (up to one year)	Long-term debt securities (more than one year)	Short-term loans (up to one year)	Long-term loans (more than one year)	Debt vis-à-vis other government subsectors	Claims vis-à-vis other government subsectors
General government								
2013	2,211,421	10,592	85,836	1,470,698	100,594	543,700	.	.
2014	2,213,569	12,150	72,618	1,501,494	95,896	531,412	.	.
2015	2,188,404	14,303	65,676	1,499,010	89,074	520,341	.	.
2016	2,171,646	15,845	69,715	1,483,871	94,976	507,239	.	.
2017	2,122,248	14,651	48,789	1,484,462	86,513	487,832	.	.
2018 Q1	2,100,279	12,472	48,431	1,479,513	76,260	483,604	.	.
Q2	2,085,756	12,636	54,933	1,465,727	73,256	479,204	.	.
Q3	2,086,219	15,607	59,989	1,465,852	68,923	475,847	.	.
Q4	2,073,595	14,833	52,572	1,456,543	75,999	473,648	.	.
2019 Q1 p	2,083,861	15,663	64,218	1,460,634	71,234	472,112	.	.
Q2 p	2,074,252	12,868	56,256	1,463,027	74,511	467,589	.	.
Q3 p	2,091,213	17,586	62,602	1,465,529	79,144	466,353	.	.
Q4 p	2,057,166	14,595	49,180	1,459,128	68,519	465,743	.	.
2020 Q1 p	2,110,059	11,564	70,930	1,472,976	89,468	465,121	.	.
Q2 p	2,278,477	13,282	122,238	1,534,559	132,678	475,720	.	.
Central government								
2013	1,389,791	10,592	78,996	1,113,029	64,970	122,204	2,696	10,303
2014	1,395,841	12,150	64,230	1,141,973	54,388	123,100	1,202	12,833
2015	1,371,573	14,303	49,512	1,138,951	45,256	123,550	1,062	13,577
2016	1,365,248	15,845	55,208	1,123,853	50,004	120,337	556	8,478
2017	1,349,683	14,651	36,297	1,131,896	47,761	119,078	1,131	10,603
2018 Q1	1,337,071	12,472	35,923	1,132,746	37,211	118,719	1,065	9,887
Q2	1,328,657	12,636	42,888	1,119,893	35,048	118,192	1,036	10,693
Q3	1,334,898	15,607	46,614	1,118,470	36,633	117,575	817	10,260
Q4	1,322,526	14,833	42,246	1,107,140	42,057	116,250	933	9,959
2019 Q1 p	1,323,993	15,663	50,032	1,102,604	39,185	116,508	809	11,566
Q2 p	1,319,861	12,868	42,752	1,109,057	38,950	116,234	835	13,845
Q3 p	1,327,584	17,586	48,934	1,105,439	39,067	116,558	704	13,833
Q4 p	1,299,384	14,595	38,480	1,101,866	28,592	115,850	605	10,285
2020 Q1 p	1,327,045	11,564	56,680	1,103,935	38,708	116,157	546	8,229
Q2 p	1,473,233	13,282	109,221	1,139,513	80,942	130,275	510	7,296
State government								
2013	663,944	–	6,847	360,706	11,921	284,470	12,141	2,655
2014	658,164	–	8,391	361,916	19,245	268,612	14,825	2,297
2015	658,234	–	16,169	362,376	22,133	257,557	15,867	2,348
2016	640,887	–	14,515	361,996	19,266	245,110	11,273	1,694
2017	613,601	–	12,543	354,688	18,412	227,958	14,038	2,046
2018 Q1	604,075	–	12,548	349,682	17,372	224,473	12,997	1,882
Q2	600,595	–	12,073	348,833	17,668	222,020	13,952	2,018
Q3	599,864	–	13,392	350,399	15,235	220,838	13,674	1,936
Q4	599,845	–	10,332	352,376	17,647	219,490	14,035	1,891
2019 Q1 p	611,666	–	14,190	361,293	18,657	217,526	15,229	2,004
Q2 p	609,890	–	13,508	357,571	24,068	214,743	17,631	1,887
Q3 p	619,884	–	13,671	363,723	29,048	213,442	17,755	1,957
Q4 p	609,431	–	10,703	361,084	25,049	212,595	14,934	1,831
2020 Q1 p	631,833	–	14,252	372,596	34,508	210,477	12,233	1,815
Q2 p	652,968	–	13,020	398,890	34,218	206,839	11,073	2,190
Local government								
2013	173,759	–	–	646	25,325	147,788	2,523	530
2014	176,120	–	–	1,297	26,009	148,814	1,959	734
2015	176,259	–	–	2,047	27,414	146,798	2,143	463
2016	178,016	–	–	2,404	26,941	148,671	1,819	431
2017	175,220	–	–	3,082	24,503	147,636	1,881	466
2018 Q1	173,997	–	–	2,426	24,662	146,909	1,777	460
Q2	172,519	–	–	2,561	24,467	145,490	1,909	465
Q3	167,189	–	1	2,703	20,543	143,943	2,031	485
Q4	167,403	–	1	3,046	20,344	144,012	1,884	497
2019 Q1 p	165,673	–	1	2,960	18,801	143,911	2,139	498
Q2 p	164,257	–	–	2,961	18,757	142,538	2,016	525
Q3 p	163,691	–	–	3,016	18,517	142,158	2,065	555
Q4 p	165,057	–	–	2,996	19,052	143,009	1,862	532
2020 Q1 p	165,094	–	–	3,128	18,125	143,842	1,893	528
Q2 p	165,159	–	–	3,094	18,307	143,759	2,265	367

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		Loans by original maturity		Memo item: [2]	
			Short-term debt securities (up to one year)	Long-term debt securities (more than one year)	Short-term loans (up to one year)	Long-term loans (more than one year)	Debt vis-à-vis other government subsectors	Claims vis-à-vis other government subsectors
Social security funds								
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	792	–	–	–	247	545	–	3,934
2018 Q1	975	–	–	–	424	551	–	3,610
Q2	883	–	–	–	383	500	–	3,721
Q3	790	–	–	–	400	390	–	3,841
Q4	674	–	–	–	372	302	–	4,506
2019 Q1 **p**	707	–	–	–	437	270	–	4,110
Q2 **p**	726	–	–	–	541	185	–	4,224
Q3 **p**	578	–	–	–	375	203	–	4,179
Q4 **p**	695	–	–	–	359	336	–	4,753
2020 Q1 **p**	759	–	–	–	271	488	–	4,100
Q2 **p**	964	–	–	–	565	399	–	3,995

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]		Debt securities									Loans [1]
		Total [1]	of which: [3] Federal day bond	Total [1]	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	
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	1,333,248	10,890	1,975	1,084,019	602,624	185,586	25,958	9,948	2,396	126,220	85,867	8,704	238,339
2011	1,343,276	10,429	2,154	1,121,331	615,200	199,284	29,313	14,927	3,961	130,648	58,297	8,208	211,516
2012	1,387,104	9,742	1,725	1,177,168	631,425	217,586	35,350	16,769	5,374	117,719	56,222	6,818	200,194
2013	1,389,791	10,592	1,397	1,192,025	643,200	234,759	41,105	10,613	4,730	110,029	50,004	4,488	187,174
2014	1,395,841	12,150	1,187	1,206,203	653,823	244,633	48,692	14,553	5,368	103,445	27,951	2,375	177,488
2015	1,371,573	14,303	1,070	1,188,463	663,296	232,387	59,942	14,553	5,607	96,389	18,536	1,305	168,806
2016	1,365,248	15,845	1,010	1,179,062	670,245	221,551	51,879	14,585	3,602	95,727	23,609	737	170,341
2017	1,349,683	14,651	966	1,168,193	693,687	203,899	58,365	14,490	4,720	91,013	10,037	289	166,839
2018	1,322,526	14,833	921	1,149,386	710,513	182,847	64,647	–	5,139	86,009	12,949	48	158,307
2019 **p**	1,299,384	14,595	–	1,140,346	719,747	174,719	69,805	–	6,021	89,230	13,487	.	144,442
2018 Q1	1,337,071	12,472	951	1,168,669	699,638	193,811	60,778	14,455	4,421	94,282	9,031	219	155,930
Q2	1,328,657	12,636	941	1,162,780	710,784	185,042	62,863	–	4,276	92,639	15,049	141	153,240
Q3	1,334,898	15,607	932	1,165,084	703,682	194,356	64,304	–	4,548	90,575	17,340	75	154,208
Q4	1,322,526	14,833	921	1,149,386	710,513	182,847	64,647	–	5,139	86,009	12,949	48	158,307
2019 Q1 **p**	1,323,993	15,663	902	1,152,636	709,008	178,900	66,531	–	4,191	89,782	18,288	31	155,693
Q2 **p**	1,319,861	12,868	852	1,151,809	720,904	173,313	68,110	–	5,691	91,024	15,042	19	155,184
Q3 **p**	1,327,584	17,586	822	1,154,373	711,482	183,268	69,088	–	5,639	90,416	18,100	–	155,625
Q4 **p**	1,299,384	14,595	–	1,140,346	719,747	174,719	69,805	–	6,021	89,230	13,487	.	144,442
2020 Q1 **p**	1,327,045	11,564	.	1,160,616	721,343	182,095	71,028	–	5,310	91,084	23,572	.	154,865
Q2 **p**	1,473,233	13,282	.	1,248,734	774,587	178,329	56,061	–	3,752	95,622	79,987	.	211,217

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**

	Production sector, total	of which: Construction	of which: Energy	Industry: Total	Industry: of which: by main industrial grouping: Intermediate goods	Capital goods	Durable goods	Non-durable goods	Industry: of which: by economic sector: Manufacture of basic metals and fabricated metal products	Manufacture of computers, electronic and optical products and electrical equipment	Macinery and equipment	Motor vehicels, trailers and semi-trailers
2015 = 100												
% of total **1**	100	14,04	6,37	79,59	29,45	36,98	2.27	10,89	10,31	9,95	12,73	14,16
Period												
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 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**	93.2	119.6	75.7	90.0	92.7	85.4	93.7	97.8	85.8	94.7	86.1	75.7
Aug. **x,p**	87.4	111.7	79.9	83.7	91.0	74.2	93.6	93.9	85.2	93.8	78.3	55.6
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 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**	− 10.0	− 2.0	− 7.0	− 11.8	− 10.6	− 15.4	− 5.9	− 3.7	− 17.8	− 10.2	− 16.3	− 16.9
Aug. **x,p**	− 9.6	− 1.8	− 0.5	− 11.9	− 7.5	− 18.6	− 2.3	− 4.8	− 12.3	− 9.0	− 16.7	− 27.6

Source of the unadjusted figures: Federal Statistical Office. ***** For explanatory notes, see Statistical Series - Seasonally adjusted business statistics, Tabels 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												
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 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	96.0	− 7.2	94.1	− 8.5	96.0	− 6.7	104.4	− 5.6	120.5	− 1.1	99.2	− 7.3
Aug. **p**	90.8	− 2.5	90.2	− 6.0	89.5	− 0.4	102.9	− 0.8	122.9	+ 1.5	96.4	− 1.7
From the domestic market												
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 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	94.7	− 7.5	92.7	− 7.9	95.9	− 7.4	97.5	− 6.1	103.8	− 9.4	95.3	− 4.9
Aug. **p**	87.3	− 4.1	88.4	− 3.0	84.6	− 5.9	98.6	+ 1.0	109.7	+ 1.5	94.9	+ 0.9
From abroad												
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 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	97.0	− 7.0	95.7	− 8.9	96.1	− 6.2	109.8	− 5.3	133.9	+ 4.9	102.1	− 9.0
Aug. **p**	93.4	− 1.4	92.1	− 9.1	92.5	+ 2.9	106.3	− 2.0	133.6	+ 1.5	97.5	− 3.6

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**

Zeit	Total		Breakdown by type of construction										Breakdown by client **1**			
			Structural engineering													
			Total		Residential construction		Industrial construction		Public sector construction		Civil engineering		Industrial clients		Public sector **2**	
	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change
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 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	164.8	+ 0.7	186.1	+ 14.4	144.4	− 12.7	197.9	+ 23.5
July	150.0	− 2.5	151.6	+ 2.4	157.8	+ 2.1	137.0	− 3.6	186.0	+ 25.7	148.1	− 7.9	136.6	− 10.4	160.6	+ 3.5

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**

Zeit	Total				of which:											
					In stores by enterprises main product range											
					Food, beverages, tobacco **1**		Textiles, clothing, foodwear and leather goods		Information and communications equipment		Construction and flooring materials, household appliances, furniture		Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles		Retail sale via mail order houses or via internet as well as other retail sale **2**	
	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	102.1	+ 2.0	101.6	+ 1.5	101.0	+ 0.8	99.9	− 0.3	101.5	+ 1.3	103.9	+ 3.9	109.5	+ 9.4
2017	107.6	+ 5.0	105.8	+ 3.6	105.9	+ 4.2	108.1	+ 7.0	106.2	+ 6.3	103.0	+ 1.5	107.7	+ 3.7	120.5	+ 10.0
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	112.4	+ 4.4	127.7	+ 6.0
2019 **3**	114.8	+ 3.7	110.9	+ 3.2	112.1	+ 2.3	106.5	+ 0.9	108.7	+ 1.5	107.1	+ 3.9	118.4	+ 5.3	138.3	+ 8.3
2019 Aug.	111.0	+ 4.1	107.5	+ 3.5	110.9	+ 3.4	98.5	+ 0.2	102.0	+ 4.9	101.1	+ 5.0	114.6	+ 4.2	124.2	+ 6.6
Sep.	112.0	+ 3.9	107.9	+ 3.8	106.5	+ 0.9	110.0	+ 1.2	110.4	+ 2.0	103.6	+ 4.9	117.5	+ 6.2	139.4	+ 11.3
Oct.	117.1	+ 2.4	112.5	+ 2.3	112.8	+ 1.8	116.3	+ 0.1	110.2	+ 2.1	111.1	+ 2.6	121.7	+ 5.5	141.3	+ 3.3
Nov.	123.4	+ 3.8	118.7	+ 3.5	114.8	+ 4.9	115.6	+ 3.0	133.0	+ 0.9	115.9	+ 3.4	123.9	+ 5.0	164.3	+ 1.0
Dec.	133.1	+ 3.3	128.2	+ 2.3	128.0	+ 1.2	118.7	− 3.0	158.9	+ 1.0	113.3	+ 3.3	133.0	+ 6.7	171.8	+ 11.6
2020 Jan.	107.8	+ 3.5	104.0	+ 2.3	103.9	+ 1.6	87.9	− 2.7	113.3	+ 1.8	96.5	+ 4.9	119.9	+ 5.6	138.3	+ 5.4
Feb.	105.7	+ 3.7	101.3	+ 2.3	108.1	+ 6.4	80.6	− 6.5	96.5	+ 2.6	97.1	+ 3.3	114.5	+ 3.5	126.4	+ 3.7
Mar.	118.0	+ 1.8	112.8	+ 0.4	130.7	+ 14.9	49.2	− 53.9	83.4	− 21.5	106.9	− 6.8	135.2	+ 14.7	154.4	+ 15.3
Apr.	110.6	− 4.2	105.1	− 5.5	125.2	+ 10.5	28.7	− 74.9	55.1	− 40.4	100.4	− 12.8	112.8	− 3.3	173.4	+ 28.3
May	123.0	+ 8.6	117.2	+ 7.7	127.7	+ 14.2	78.2	− 23.6	93.5	+ 0.6	127.0	+ 15.7	111.5	− 3.7	169.8	+ 33.1
June	120.9	+ 5.1	115.5	+ 4.1	119.4	+ 3.4	96.0	− 16.2	100.9	+ 3.0	121.7	+ 14.3	117.4	+ 2.1	162.9	+ 23.5
July	122.5	+ 6.2	117.1	+ 4.8	119.3	+ 4.8	98.0	− 5.6	107.1	+ 13.2	125.0	+ 15.3	120.4	± 0.0	156.1	+ 13.9
Aug.	119.8	+ 7.9	114.4	+ 6.4	121.0	+ 9.1	90.4	− 8.2	101.3	− 0.7	116.3	+ 15.0	118.3	+ 3.2	154.1	+ 24.1

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** Excluding stores, stalls and 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 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	33,642	+ 1.3	9,439	23,284	686	4,458	1,219	949	2,385	960	5.2	683
Q2	[9] 44,666	[9] – 1.3	[10] 33,426	[10] + 0.1	[10] 9,390	[10] 23,145	[10] 641	[10] 4,255	...	[10] 5,501	2,770	1,154	[11] 6.0	593
Q3	...	...	...	...	...	...	...	...	...	...	2,904	1,266	6.3	583
2017 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	33,648	+ 1.1	9,440	23,290	675	4,350	2,834	2,580	2,335	925	5.1	691
Apr.	44,734	– 0.9	[10] 33,428	[10] + 0.1	[10] 9,395	[10] 23,140	[10] 643	[10] 4,211	...	[10] 5,953	2,644	1,093	5.8	626
May	44,642	– 1.4	[10] 33,353	[10] – 0.2	[10] 9,373	[10] 23,099	[10] 626	[10] 4,240	...	[10] 5,919	2,813	1,172	[11] 6.1	584
June	[9] 44,623	[9] – 1.5	[10] 33,347	[10] – 0.2	[10] 9,361	[10] 23,099	[10] 631	[10] 4,282	...	[10] 4,632	2,853	1,197	6.2	570
July	[9] 44,694	[9] – 1.4	[10] 33,254	[10] – 0.3	[10] 9,327	[10] 23,039	[10] 637	[10] 4,319	...	[10] 4,236	2,910	1,258	6.3	573
Aug.	[9] 44,708	[9] – 1.3	...	...	...	...	...	...	...	...	2,955	1,302	6.4	584
Sep.	...	...	...	...	...	...	...	...	...	...	2,847	1,238	6.2	591

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** Initial preliminary estimate by the Federal Statistical Office. **10** 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. **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						Memo item: Consumer price index (national concept)	Construction price index	Index of producer prices of industrial products sold on the domestic market 6	Index of producer prices of agricultural products 6	Indices of foreign trade prices		HWWI Index of World Market Prices of Raw Materials 7	
	Total 2	of which: 1 Food 3	Non-energy industrial goods 4	Energy 4, 5	Services 2, 4	of which: Actual rents for housing					Exports	Imports	Energy 8	Other raw materials 9
	2015 = 100													
Index level														
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	111.5	102.4	101.7	110.0	108.1
2018 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	109.9	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	110.3	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	112.1	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	10 113.3	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	114.2	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	113.8	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	112.5	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	109.2	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	109.9	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	107.5	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	11 115.7	103.2	104.8	101.2	96.5	71.2	111.7
Sep.	11 105.8	11 109.9	11 103.6	11 96.9	11 108.0	11 107.8	11 105.8		103.6	...	...	...	70.4	117.9
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	+ 2.3	+ 0.5	– 1.0	– 11.7	+ 1.8
2018 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	– 1.5	± 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	– 1.0	– 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	10 + 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	+ 1.9	+ 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	+ 0.7	– 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	– 2.6	– 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	– 5.6	– 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	– 4.5	– 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	– 5.9	– 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	11 – 0.1	– 1.2	– 6.8	– 1.1	– 4.0	– 28.9	+ 5.4
Sep.	11 – 0.4	11 + 1.0	11 – 1.1	11 – 6.6	11 + 1.0	11 + 1.3	11 – 0.2		– 1.0	...	...	...	– 33.5	+ 9.7

Sources: Eurostat; Federal Statistical Office and Bundesbank calculation based on data from the Federal Statistical Office; for the Index of World Market Prices of Raw Materials: HWWI. **1** Deviations from the official figures are due to rounding. **2** With effect from 2015, methodological changes to the collection of data on the prices of package holidays, impacting until the beginning of the series. **3** Including alcoholic beverages and tobacco. **4** Modified procedure as of 2017 due to calculations on the basis of the five digit structure set out in the European Classification of Individual Consumption according to Purpose (ECOICOP). **5** Electricity, gas and other fuels as well as transport fuels and lubricants, from January 2017 excluding lubricants. **6** Excluding value added tax. **7** For the euro area, in euro. **8** Coal, crude oil (Brent) and natural gas. **9** Food, beverages and tobacco as well as industrial raw materials. **10** From January 2020 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	4.2	112.4	2.6	110.5	2.5	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	105.1	2.1	112.1	2.1	104.9	– 3.9
2020 Feb.	104.2	2.2	104.2	2.1	104.2	2.4	111.6	2.4	.	.
Mar.	104.3	2.5	104.3	2.4	104.4	2.5	111.8	2.4	.	.
Apr.	105.0	2.1	104.9	2.0	105.1	2.1	112.0	2.1	.	.
May	105.2	2.3	105.2	2.2	105.3	2.2	112.1	2.2	.	.
June	104.7	1.5	104.7	1.5	104.8	2.1	112.2	2.1	.	.
July	138.5	1.9	138.5	1.9	133.3	1.8	112.4	1.9	.	.
Aug.	105.1	1.8	105.1	1.8	105.0	1.8	112.5	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 r	2018 r	2019 r	2019 r Q4	2020 Q1 r	2020 Q2 r	2020 May r	2020 June r	2020 July p
A. Current account	+ 349,402	+ 334,328	+ 272,857	+ 86,309	+ 32,633	+ 30,942	– 404	+ 19,909	+ 25,538
1. Goods									
Exports	2,264,461	2,333,092	2,410,872	622,749	578,610	463,489	148,221	173,972	192,726
Imports	1,918,923	2,046,438	2,083,735	524,386	501,626	407,759	131,650	145,993	157,083
Balance	+ 345,535	+ 286,654	+ 327,138	+ 98,363	+ 76,985	+ 55,730	+ 16,571	+ 27,979	+ 35,642
2. Services									
Receipts	890,900	941,556	997,984	263,311	220,638	190,212	61,409	70,176	71,980
Expenditure	803,086	828,078	939,691	267,163	236,044	178,594	57,026	65,975	63,771
Balance	+ 87,816	+ 113,478	+ 58,290	– 3,851	– 15,405	+ 11,618	+ 4,383	+ 4,201	+ 8,209
3. Primary income									
Receipts	772,703	850,553	851,320	212,860	190,508	185,243	59,448	62,425	52,704
Expenditure	718,927	764,515	812,307	190,185	172,137	185,764	66,813	65,339	59,923
Balance	+ 53,778	+ 86,037	+ 39,014	+ 22,676	+ 18,371	– 521	– 7,366	– 2,914	– 7,220
4. Secondary income									
Receipts	106,489	110,165	113,380	30,062	27,749	28,167	9,761	10,148	8,958
Expenditure	244,215	262,009	264,961	60,940	75,065	64,052	23,753	19,505	20,051
Balance	– 137,726	– 151,844	– 151,581	– 30,877	– 47,316	– 35,885	– 13,992	– 9,357	– 11,093
B. Capital account	– 20,154	– 35,493	– 25,205	– 2,607	+ 60	– 4,753	– 1,061	– 1,717	+ 165
C. Financial account (increase: +)	+ 350,102	+ 301,200	+ 226,372	+ 82,099	+ 11,612	+ 5,994	– 8,701	+ 41,429	– 5,176
1. Direct investment	+ 48,150	+ 137,001	– 55,962	– 82,118	+ 27,058	– 132,943	– 57,858	– 43,515	+ 21,902
By resident units abroad	+ 373,767	– 230,442	+ 42,937	– 144,668	– 33,442	+ 22,905	+ 81,804	– 52,098	+ 33,198
By non-resident units in the euro area	+ 325,618	– 367,443	+ 98,896	– 62,551	– 60,500	+ 155,847	+ 139,662	– 8,584	+ 11,296
2. Portfolio investment	+ 360,951	+ 204,517	– 49,623	+ 143,547	– 186,497	+ 194,405	+ 45,464	– 14,381	– 20,749
By resident units abroad	+ 651,777	+ 192,849	+ 434,814	+ 155,163	– 127,378	+ 383,253	+ 103,965	+ 114,219	+ 25,169
Equity and investment fund shares	+ 204,779	+ 33,357	+ 67,857	+ 83,174	– 50,074	+ 93,295	+ 20,208	+ 40,070	+ 29,646
Long-term debt securities	+ 372,797	+ 209,586	+ 362,009	+ 92,441	– 30,047	+ 134,393	+ 63,378	+ 30,327	– 2,053
Short-term debt securities	+ 74,200	– 50,092	+ 4,949	– 20,451	– 47,257	+ 155,565	+ 20,378	+ 43,822	– 2,425
By non-resident units in the euro area	+ 290,825	– 11,665	+ 484,439	+ 11,616	+ 59,119	+ 188,847	+ 58,500	+ 128,600	+ 45,918
Equity and investment fund shares	+ 420,726	+ 112,108	+ 255,284	+ 77,902	– 72,236	+ 119,699	+ 30,317	+ 39,465	+ 54,050
Long-term debt securities	– 137,401	– 59,148	+ 222,427	– 24,221	+ 54,040	– 31,298	– 21,740	+ 45,334	– 18,425
Short-term debt securities	+ 7,502	– 64,626	+ 6,727	– 42,064	+ 77,316	+ 100,446	+ 49,923	+ 43,801	+ 10,293
3. Financial derivatives and employee stock options	+ 22,866	+ 40,233	– 2,809	– 5,261	+ 12,232	+ 37,454	+ 9,339	+ 17,563	+ 8,328
4. Other investment	– 80,583	– 105,624	+ 331,533	+ 28,448	+ 155,394	– 96,207	– 7,318	+ 81,852	– 14,140
Eurosystem	– 179,132	– 133,831	+ 142,656	– 37,545	– 58,087	+ 45,217	+ 12,905	+ 68,871	+ 43,168
General government	+ 24,957	– 4,966	– 83	+ 11,176	+ 4,118	– 8,143	– 4,789	– 5,345	+ 3,118
MFIs (excluding the Eurosystem)	+ 144,402	+ 108,053	+ 182,364	+ 10,327	+ 126,261	– 136,353	– 12,122	– 6,419	– 61,652
Enterprises and households	– 70,813	– 74,878	+ 6,601	+ 44,491	+ 83,106	+ 3,071	– 3,311	+ 24,744	+ 1,225
5. Reserve assets	– 1,279	+ 25,075	+ 3,231	– 2,518	+ 3,425	+ 3,285	+ 1,672	– 90	– 516
D. Net errors and omissions	+ 20,857	+ 2,365	– 21,280	– 1,602	– 21,083	– 20,196	– 7,236	+ 23,236	– 30,879

* 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	+ 65,441	+ 53,574	– 2,210	– 1,125	+ 27,016	– 14,024	– 541	+ 42,281	+ 133	– 22,618
Q2	+ 36,268	+ 28,578	– 1,594	+ 3,482	+ 13,319	– 9,111	+ 459	+ 45,358	+ 243	+ 8,630
2018 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.	+ 16,607	+ 14,306	– 744	– 740	+ 10,194	– 7,153	+ 301	+ 3,033	+ 898	– 13,875
Feb.	+ 23,347	+ 20,495	– 1,664	– 243	+ 7,275	– 4,181	+ 65	+ 20,957	+ 750	– 2,454
Mar.	+ 25,487	+ 18,773	+ 199	– 142	+ 9,547	– 2,690	– 907	+ 18,292	– 1,514	– 6,289
Apr.	+ 8,896	+ 3,957	– 536	+ 791	+ 8,471	– 4,324	+ 132	+ 14,114	+ 950	+ 5,086
May	+ 6,952	+ 9,331	+ 870	+ 1,142	– 88	– 3,432	+ 65	+ 2,712	+ 33	– 4,306
June	+ 20,420	+ 15,289	– 1,928	+ 1,550	+ 4,936	– 1,354	+ 262	+ 28,532	– 740	+ 7,850
July	+ 21,043	+ 20,091	– 247	– 2,649	+ 7,158	– 3,556	– 901	+ 10,417	– 611	– 9,724
Aug. p	+ 16,471	+ 14,415	– 459	– 2,949	+ 8,221	– 3,215	+ 613	+ 35,718	– 611	+ 18,634

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./Aug. p	Apr.	May	June	July	Aug. p
All countries 1	Exports	1,278,958	1,317,440	1,327,772	770,267	75,729	80,214	96,092	102,296	91,211
	Imports	1,031,013	1,088,720	1,104,568	661,152	72,281	73,261	80,550	83,093	78,460
	Balance	+ 247,946	+ 228,720	+ 223,204	+ 109,114	+ 3,448	+ 6,953	+ 15,542	+ 19,202	+ 12,751
I. European countries	Exports	872,427	900,141	902,684	526,130	50,162	54,239	66,504	68,319	63,137
	Imports	699,677	744,575	747,964	437,962	45,206	47,365	54,607	54,976	51,205
	Balance	+ 172,749	+ 155,566	+ 154,719	+ 88,169	+ 4,955	+ 6,874	+ 11,897	+ 13,343	+ 11,932
1. EU Member States (27)	Exports	664,410	696,480	698,379	404,490	38,247	42,328	51,137	52,393	48,196
	Imports	549,250	586,433	593,132	349,563	35,133	38,356	44,876	44,382	41,593
	Balance	+ 115,160	+ 110,047	+ 105,247	+ 54,928	+ 3,114	+ 3,972	+ 6,261	+ 8,012	+ 6,603
Euro area (19) countries	Exports	471,213	492,469	492,196	281,646	26,450	29,911	36,046	36,786	32,445
	Imports	378,700	405,810	409,237	240,425	24,703	26,663	30,992	30,077	28,001
	Balance	+ 92,513	+ 86,659	+ 82,960	+ 41,221	+ 1,748	+ 3,248	+ 5,054	+ 6,709	+ 4,444
of which:										
Austria	Exports	62,656	65,027	66,099	38,581	3,898	4,262	4,787	4,954	4,718
	Imports	40,686	42,994	44,090	25,806	2,795	2,767	3,242	3,618	2,854
	Balance	+ 21,970	+ 22,033	+ 22,008	+ 12,775	+ 1,102	+ 1,495	+ 1,545	+ 1,336	+ 1,864
Belgium and Luxembourg	Exports	50,071	50,389	51,901	30,832	3,102	3,131	4,107	3,910	3,632
	Imports	43,689	49,315	46,406	26,193	2,925	2,895	3,139	3,093	3,094
	Balance	+ 6,381	+ 1,074	+ 5,495	+ 4,640	+ 178	+ 237	+ 968	+ 817	+ 538
France	Exports	105,687	105,359	106,674	58,399	4,796	6,107	7,747	7,693	6,483
	Imports	64,329	65,024	65,992	36,506	3,462	3,944	4,440	4,372	4,160
	Balance	+ 41,359	+ 40,335	+ 40,682	+ 21,893	+ 1,334	+ 2,163	+ 3,307	+ 3,321	+ 2,324
Italy	Exports	65,422	69,813	68,071	38,435	3,332	4,371	4,892	5,293	4,108
	Imports	55,342	60,223	57,232	34,248	3,223	3,909	4,328	4,583	4,131
	Balance	+ 10,080	+ 9,591	+ 10,840	+ 4,187	+ 109	+ 462	+ 564	+ 710	– 23
Netherlands	Exports	84,661	91,061	91,607	54,435	5,972	6,008	6,832	6,817	6,441
	Imports	90,597	97,709	98,509	58,119	6,501	6,669	6,850	7,033	6,789
	Balance	– 5,935	– 6,649	– 6,901	– 3,684	– 529	– 661	– 18	– 216	– 348
Spain	Exports	43,067	44,184	44,307	23,801	1,939	2,349	3,105	3,258	2,526
	Imports	31,396	32,399	33,188	20,138	1,786	2,220	3,058	2,690	2,114
	Balance	+ 11,671	+ 11,785	+ 11,119	+ 3,663	+ 152	+ 129	+ 47	+ 568	+ 412
Other EU Member States	Exports	193,198	204,011	206,183	122,844	11,797	12,417	15,091	15,608	15,751
	Imports	170,551	180,623	183,895	109,138	10,430	11,693	13,884	14,305	13,592
	Balance	+ 22,647	+ 23,388	+ 22,287	+ 13,707	+ 1,366	+ 724	+ 1,207	+ 1,303	+ 2,159
2. Other European countries	Exports	208,016	203,661	204,305	121,640	11,915	11,911	15,367	15,925	14,941
	Imports	150,427	158,142	154,832	88,399	10,073	9,009	9,731	10,594	9,612
	Balance	+ 57,589	+ 45,519	+ 49,473	+ 33,241	+ 1,841	+ 2,902	+ 5,636	+ 5,331	+ 5,329
of which:										
Switzerland	Exports	53,913	54,021	56,367	37,532	4,371	4,384	4,877	4,752	4,312
	Imports	45,689	45,913	46,275	29,953	3,513	3,606	3,475	3,794	3,096
	Balance	+ 8,224	+ 8,108	+ 10,092	+ 7,580	+ 858	+ 778	+ 1,402	+ 957	+ 1,217
United Kingdom	Exports	85,440	82,164	78,874	42,447	3,265	3,439	5,029	5,493	5,555
	Imports	36,820	37,025	38,337	22,970	3,080	2,151	2,438	2,426	2,441
	Balance	+ 48,620	+ 45,139	+ 40,538	+ 19,477	+ 185	+ 1,288	+ 2,591	+ 3,067	+ 3,114
II. Non-European countries	Exports	403,490	413,483	421,496	243,021	25,473	25,906	29,512	33,869	27,967
	Imports	328,606	342,980	355,388	222,175	26,991	25,745	25,789	27,963	27,106
	Balance	+ 74,884	+ 70,503	+ 66,108	+ 20,846	– 1,518	+ 162	+ 3,723	+ 5,907	+ 860
1. Africa	Exports	25,431	22,524	23,734	13,050	1,422	1,187	1,606	1,576	1,450
	Imports	20,428	22,542	24,441	11,841	1,144	930	1,216	1,472	1,399
	Balance	+ 5,003	– 18	– 708	+ 1,209	+ 278	+ 256	+ 390	+ 105	+ 51
2. America	Exports	154,644	158,952	165,358	90,522	8,675	8,659	9,982	12,737	10,627
	Imports	89,927	92,444	99,884	60,895	7,947	6,382	6,278	7,144	7,506
	Balance	+ 64,717	+ 66,508	+ 65,474	+ 29,628	+ 727	+ 2,278	+ 3,704	+ 5,594	+ 3,121
of which:										
United States	Exports	111,805	113,341	118,659	65,887	6,291	6,473	7,325	9,338	7,689
	Imports	61,902	64,493	71,358	44,129	6,027	4,442	4,480	5,195	5,418
	Balance	+ 49,903	+ 48,847	+ 47,302	+ 21,758	+ 263	+ 2,032	+ 2,845	+ 4,143	+ 2,271
3. Asia	Exports	212,070	219,716	221,185	132,423	14,786	14,797	17,097	18,531	15,100
	Imports	214,393	224,355	227,194	146,776	17,603	18,046	17,988	19,002	17,928
	Balance	– 2,323	– 4,639	– 6,008	– 14,354	– 2,817	– 3,249	– 891	– 471	– 2,828
of which:										
Middle East	Exports	33,104	29,144	28,636	15,918	1,681	1,686	1,824	2,133	1,875
	Imports	6,963	8,156	7,431	3,886	431	374	572	457	511
	Balance	+ 26,141	+ 20,989	+ 21,205	+ 12,032	+ 1,250	+ 1,312	+ 1,252	+ 1,675	+ 1,364
Japan	Exports	19,546	20,436	20,663	11,303	1,129	1,424	1,283	1,447	1,137
	Imports	22,955	23,710	23,994	13,995	1,641	1,375	1,670	1,705	1,540
	Balance	– 3,410	– 3,275	– 3,332	– 2,692	– 513	+ 49	– 387	– 257	– 404
People's Republic of China 2	Exports	86,141	93,004	95,973	60,212	7,220	7,158	8,304	8,707	7,306
	Imports	101,837	106,065	109,986	75,304	9,422	10,736	9,692	10,292	9,360
	Balance	– 15,695	– 13,061	– 14,013	– 15,091	– 2,203	– 3,577	– 1,387	– 1,585	– 2,054
New industrial countries and emerging markets of Asia 3	Exports	53,425	54,995	54,144	33,686	3,769	3,486	4,167	4,594	3,544
	Imports	50,873	52,945	51,902	32,128	3,817	3,684	3,815	3,817	3,570
	Balance	+ 2,552	+ 2,050	+ 2,242	+ 1,558	– 48	– 198	+ 352	+ 777	– 26
4. Oceania and polar regions	Exports	11,344	12,291	11,219	7,026	590	1,263	827	1,025	789
	Imports	3,857	3,639	3,869	2,664	296	386	306	345	273
	Balance	+ 7,487	+ 8,652	+ 7,350	+ 4,362	+ 294	+ 877	+ 521	+ 679	+ 516

* 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 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	– 2,649	– 375	– 2,320	+ 1,006	+ 682	– 866	– 1,009	+ 273	– 373	+ 7,984	– 453
Aug. p	– 2,949	– 418	– 3,530	+ 657	+ 1,394	– 832	– 650	+ 263	– 335	+ 8,865	– 309

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 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	– 3,556	– 2,129	– 1,085	+ 631	– 1,427	– 493	– 492
Aug. p	– 3,215	– 2,256	– 1,175	+ 147	– 959	– 494	– 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 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	– 901	– 459	– 442
Aug. p	+ 613	+ 692	– 78

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 June	2020 July	2020 Aug. p
I. Net domestic investment abroad (increase: +)	+ 406,588	+ 390,059	+ 213,212	– 49,356	+ 277,296	+ 134,310	+ 87,249	+ 43,237	+ 64,331
1. Direct investment	+ 143,931	+ 148,042	+ 119,972	+ 23,475	+ 51,695	+ 5,278	+ 10,030	+ 9,038	+ 13,598
Equity	+ 92,843	+ 147,471	+ 105,956	+ 29,921	+ 41,164	+ 22,728	+ 5,270	+ 5,815	+ 9,872
of which: Reinvestment of earnings [1]	+ 32,233	+ 34,769	+ 40,983	+ 1,117	+ 16,572	+ 4,033	+ 576	+ 3,768	+ 5,231
Debt instruments	+ 51,088	+ 571	+ 14,016	– 6,446	+ 10,531	– 17,451	+ 4,761	+ 3,223	+ 3,726
2. Portfolio investment	+ 115,466	+ 83,229	+ 123,681	+ 32,768	+ 8,730	+ 59,227	+ 28,986	+ 18,245	+ 10,632
Shares [2]	+ 14,673	+ 9,613	+ 14,248	+ 9,407	+ 4,988	+ 18,970	+ 7,275	+ 7,919	+ 4,726
Investment fund shares [3]	+ 58,562	+ 28,263	+ 52,930	+ 20,920	– 14,167	+ 14,425	+ 3,022	+ 10,842	+ 10,322
Long-term debt securities [4]	+ 42,724	+ 41,577	+ 54,493	+ 4,408	+ 15,801	+ 23,042	+ 13,574	– 1,855	– 2,403
Short-term debt securities [5]	– 492	+ 3,776	+ 2,009	– 1,968	+ 2,107	+ 2,790	+ 5,115	+ 1,339	– 2,012
3. Financial derivatives and employee stock options [6]	+ 10,974	+ 23,126	+ 22,383	+ 1,772	+ 32,058	+ 31,257	+ 12,086	+ 11,571	+ 9,215
4. Other investment [7]	+ 137,485	+ 135,271	– 52,280	– 106,796	+ 184,680	+ 38,306	+ 36,887	+ 4,994	+ 31,496
Monetary financial institutions [8]	– 20,985	+ 49,862	+ 9,292	– 72,576	+ 104,408	– 47,120	– 39,324	– 11,754	– 14,688
Long-term	+ 19,642	+ 4,462	+ 18,194	– 3,247	– 4,261	– 1,101	– 4,091	– 3,660	– 425
Short-term	– 40,627	+ 45,400	– 8,901	– 69,329	+ 108,669	– 46,019	– 35,234	– 8,094	– 14,263
Enterprises and households [9]	+ 5,827	+ 37,324	+ 13,584	– 964	+ 32,751	+ 24,211	– 3,999	– 6,387	+ 11,684
Long-term	– 2,291	+ 17,182	+ 10,566	+ 5,775	+ 9,160	+ 5,849	+ 456	– 729	+ 15,659
Short-term	+ 8,118	+ 20,143	+ 3,018	– 6,739	+ 23,591	+ 18,362	– 4,455	– 5,657	– 3,975
General government	– 3,993	– 8,710	– 4,242	– 12,009	+ 4,385	+ 1,014	– 1,251	+ 1,834	– 2,738
Long-term	– 4,408	– 999	– 3,103	– 981	– 289	– 154	– 342	– 543	– 48
Short-term	+ 415	– 7,711	– 1,139	– 11,028	+ 4,674	+ 1,168	– 909	+ 2,377	– 2,690
Bundesbank	+ 156,637	+ 56,795	– 70,915	– 21,247	+ 43,136	+ 60,201	+ 81,461	+ 21,300	+ 37,239
5. Reserve assets	– 1,269	+ 392	– 544	– 576	+ 133	+ 243	– 740	– 611	– 611
II. Net foreign investment in the reporting country (increase: +)	+ 123,380	+ 153,123	+ 7,670	– 142,203	+ 235,015	+ 88,952	+ 58,717	+ 32,820	+ 28,613
1. Direct investment	+ 105,218	+ 143,602	+ 64,284	– 1,710	+ 30,053	+ 1,499	+ 3,538	+ 18,617	+ 9,895
Equity	+ 40,568	+ 60,751	+ 40,113	+ 22,614	+ 10,536	+ 4,806	– 463	– 4,537	+ 1,081
of which: Reinvestment of earnings [1]	+ 17,094	+ 15,743	+ 17,310	+ 2,189	+ 6,006	+ 1,110	– 759	+ 560	+ 772
Debt instruments	+ 64,650	+ 82,851	+ 24,172	– 24,324	+ 19,517	– 3,307	+ 4,001	+ 23,154	+ 8,813
2. Portfolio investment	– 89,846	– 73,978	+ 28,479	– 38,738	+ 49,231	+ 57,347	+ 27,740	+ 30,324	+ 56,972
Shares [2]	– 705	– 30,651	– 6,392	– 2,801	– 6,120	– 9,056	– 1,256	– 536	+ 659
Investment fund shares [3]	– 2,519	– 6,298	– 4,963	+ 1,400	– 797	+ 235	+ 419	+ 870	+ 28
Long-term debt securities [4]	– 72,291	– 41,376	+ 32,911	– 20,338	+ 29,298	+ 34,249	+ 13,350	+ 21,297	+ 37,124
Short-term debt securities [5]	– 14,330	+ 4,348	+ 6,923	– 16,999	+ 26,850	+ 31,919	+ 15,228	+ 8,692	+ 19,161
3. Other investment [7]	+ 108,008	+ 83,499	– 85,093	– 101,755	+ 155,731	+ 30,106	+ 27,438	– 16,121	– 38,254
Monetary financial institutions [8]	+ 17,508	– 35,902	– 10,010	– 134,499	+ 181,993	– 1,879	+ 4,467	+ 14,686	– 21,235
Long-term	+ 7,574	– 8,433	+ 10,968	+ 979	+ 12,909	+ 8,172	+ 7,124	– 913	– 724
Short-term	+ 9,935	– 27,469	– 20,978	– 135,479	+ 169,084	– 10,051	– 2,657	+ 15,599	– 20,511
Enterprises and households [9]	+ 22,063	+ 14,829	+ 21,959	– 2,994	+ 26,093	+ 29,490	+ 16,805	– 11,057	– 11,327
Long-term	+ 6,881	+ 7,805	+ 12,412	+ 1,609	+ 5,945	– 108	– 2,690	+ 4,008	+ 2,629
Short-term	+ 15,182	+ 7,024	+ 9,547	– 4,603	+ 20,149	+ 29,598	+ 19,495	– 15,065	– 13,956
General government	– 8,719	+ 2,926	+ 257	– 11,968	+ 3,478	+ 1,364	– 285	– 367	– 7,193
Long-term	– 3,724	+ 697	+ 133	– 449	+ 565	– 104	– 66	+ 143	– 331
Short-term	– 4,996	+ 2,230	+ 124	– 11,519	+ 2,914	+ 1,468	– 218	– 511	– 6,862
Bundesbank	+ 77,156	+ 101,646	– 97,299	+ 47,706	– 55,834	+ 1,131	+ 6,452	– 19,382	+ 1,502
III. Net financial account (net lending: +/net borrowing: -)	+ 283,208	+ 236,936	+ 205,543	+ 92,848	+ 42,281	+ 45,358	+ 28,532	+ 10,417	+ 35,718

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 o

€ 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
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
Sep.	1,414,933	227,150	173,979	14,293	7,632	31,246	1,131,686	1,115,189	56,097	649,781	765,151

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 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	975,280	254,803	720,478	507,223	213,255	197,218	16,037	1,340,169	196,590	1,143,579	949,361	194,217	116,893	77,324
Aug.	985,418	264,643	720,775	511,526	209,249	193,239	16,010	1,338,112	187,934	1,150,179	958,885	191,294	113,482	77,812
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 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	583,436	191,914	391,522	306,807	84,714	75,983	8,731	874,183	110,177	764,006	684,264	79,743	56,675	23,067
Aug.	590,946	201,658	389,288	306,719	82,569	73,854	8,715	874,274	109,800	764,473	687,025	77,449	54,365	23,084
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 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	391,844	62,888	328,956	200,415	128,541	121,235	7,305	465,986	86,413	379,573	265,098	114,475	60,218	54,257
Aug.	394,471	62,985	331,487	204,807	126,680	119,385	7,295	463,839	78,133	385,705	271,860	113,845	59,117	54,728
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 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	503,799	171,546	332,253	266,887	65,366	57,739	7,627	798,703	88,669	710,033	648,187	61,846	44,029	17,817
Aug.	514,584	184,173	330,411	267,209	63,202	55,610	7,592	801,394	90,263	711,131	650,829	60,302	42,464	17,838
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 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	471,482	83,257	388,225	240,336	147,889	139,480	8,409	541,466	107,921	433,545	301,174	132,371	72,864	59,507
Aug.	470,834	80,470	390,364	244,317	146,047	137,629	8,418	536,719	97,671	439,047	308,055	130,992	71,018	59,974

* 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 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
Sep.	1.6307	1.5586	8.0333	7.4418	124.50	10.7769	10.4279	1.0786	0.90947	1.1792

* 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	92.4	95.6	88.6	91.1	93.4	92.1	91.9
2003	100.5	101.3	101.1	101.8	106.4	101.5	95.9	94.7	97.7	95.3	97.0	96.6	96.8
2004	104.3	105.2	104.0	105.2	110.8	105.3	96.2	93.5	100.2	95.6	98.4	98.1	98.5
2005	102.9	103.9	102.1	103.4	109.0	102.9	94.8	91.9	99.0	93.3	98.4	97.1	96.8
2006	102.9	103.9	101.5	102.3	109.1	102.3	93.6	90.3	98.4	91.6	98.5	96.7	96.0
2007	106.4	106.9	103.8	104.7	112.7	104.5	94.5	89.5	102.1	92.0	100.9	98.2	97.4
2008	110.2	109.8	106.0	109.0	117.4	106.9	94.9	88.3	105.3	91.3	102.3	98.4	97.6
2009	111.7	110.6	107.1	114.7	120.5	108.0	95.2	89.1	104.8	92.0	101.9	98.5	98.0
2010	104.5	102.9	99.0	106.6	111.9	99.0	92.6	88.7	98.3	88.2	98.8	94.2	92.5
2011	104.3	102.0	97.0	105.0	112.7	98.6	92.2	88.5	97.7	87.4	98.2	93.4	92.0
2012	98.6	96.8	91.5	98.9	107.5	93.8	90.1	88.3	92.6	84.7	95.9	90.5	89.0
2013	102.2	99.9	94.4	101.9	112.2	96.8	92.4	88.8	97.6	86.7	98.2	92.3	90.9
2014	102.4	99.3	94.3	102.6	114.6	97.2	92.9	89.6	97.8	87.4	98.2	92.5	91.5
2015	92.6	89.6	85.8	92.2	106.1	88.7	89.8	90.3	88.9	83.6	94.4	87.8	87.0
2016	95.3	91.6	88.0	p 93.4	110.1	90.7	90.7	90.7	90.5	84.9	95.1	88.8	88.2
2017	97.5	93.5	89.1	p 94.1	112.4	91.9	91.8	90.8	93.2	85.6	96.4	89.9	89.0
2018	100.0	95.7	90.5	p 95.5	117.3	95.1	92.9	90.7	96.0	86.4	97.7	91.2	90.9
2019	98.2	93.3	88.7	p 92.8	115.5	92.4	92.0	91.1	93.2	85.6	96.4	89.9	89.5
2018 Apr.	100.8	96.3			117.6	95.4					98.4	91.4	91.0
May	99.4	95.2	90.3	p 95.4	116.2	94.4	92.9	90.7	96.2	86.2	97.8	90.8	90.5
June	99.1	94.9			116.1	94.2					97.5	90.7	90.4
July	100.2	95.9			117.4	95.2					97.4	91.1	90.8
Aug.	99.9	95.5	90.4	p 95.8	117.8	95.4	92.7	90.7	95.6	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					97.4	91.1	91.1
Nov.	99.2	95.0	89.9	p 94.8	116.8	94.5	92.6	91.0	94.8	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	90.1
Feb.	98.4	93.8	88.9	p 93.3	115.6	93.1	92.0	90.7	93.9	85.6	96.7	90.1	89.7
Mar.	97.9	93.2			115.2	92.6					96.4	89.7	89.4
Apr.	97.7	93.0			115.0	92.3					96.5	89.8	89.4
May	98.2	93.4	88.6	p 93.0	115.7	92.8	92.1	91.0	93.6	85.5	96.6	90.1	89.7
June	98.8	93.9			116.2	93.1					96.8	90.3	89.9
July	98.4	93.4			115.4	92.3					96.7	90.1	89.5
Aug.	98.9	94.0	88.9	p 93.2	116.2	93.0	92.0	91.2	93.1	85.7	96.5	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	89.8	89.2
Nov.	97.5	92.2	88.4	p 92.0	114.6	91.3	91.8	91.3	92.3	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	88.1	p 92.6	113.5	89.9	91.6	91.4	91.7	85.4	95.6	88.8	88.2
Mar.	99.0	93.1			117.8	p 93.2					96.6	90.2	p 90.2
Apr.	98.2	92.6			117.5	p 93.1					96.3	90.1	p 90.3
May	98.4	92.8	p 88.1	p 92.1	117.6	p 93.0	91.6	91.5	91.4	85.9	96.2	90.1	p 90.2
June	99.8	94.0			119.1	p 94.1					96.9	90.7	p 90.8
July	100.5	p 94.6			120.3	p 94.9					96.0	p 90.0	p 90.2
Aug.	101.6	p 95.2	...	...	122.4	p 96.1	...	...	...	...	p 97.0	p 90.8	p 91.4
Sep.	101.6	p 95.0			122.5	p 95.8					p 96.8	p 90.6	p 91.1

***** The effective exchange rate corresponds to the weighted external value of the currency concerned. The method of calculating the indicators of the German economy's price competitiveness is consistent with the procedure used by the ECB to compute the effective exchange rates of the euro. 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

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

October 2020
- Developments in the German banking system during the negative interest rate policy period
- Patterns of international business cycles
- The protracted rise in residential property prices in Germany from a macroeconomic perspective: transmission channels and fundamental determinants
- State government budgets: results for 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°

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

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

For footnotes, see p. 88•.

51/2020
Classification of monetary and fiscal dominance regimes using machine learning techniques

52/2020
Anticipation effects of protectionist U.S. trade policies

53/2020
Real effects of foreign exchange risk migration: Evidence from matched firm-bank microdata

54/2020
Sovereign risk and bank fragility

55/2020
A random forest-based approach to identifying the most informative seasonality tests

56/2020
Bank capital forbearance and serial gambling

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.