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This is a translation of the original German language version, which is the sole authoritative text.

Contents

Abbreviations and symbols

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 Data unknown, not to be published or not meaningful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

Discrepancies in the totals are due to rounding.

Commentaries

Economic conditions

Underlying trends

Robust recovery of German economy flanked by supply-side constraints

The recovery of the German economy, which began in spring, continued at a faster pace in the third quarter of 2021. Private consumption and service providers received a particularly strong boost, as the pandemic-related restrictions were eased and no longer apply for the most part. According to the ifo Institute, the assessment of the current situation improved very significantly in trade and amongst other service providers. At the same time, the labour market saw the onset of a robust recovery. Supply-side constraints continued in industry and as a result the output level continued to lag considerably behind strong demand. Industrial output rose again in July for the first time in four months, but this was probably mainly due to the timing of the summer holidays. Overall, economic output is likely to have climbed more steeply in the third quarter than in the spring, when a 1.6% rise on the first quarter was reported. However, due to the supply-side problems in industry, the summer months are unlikely to have yet brought a return to the pre-crisis level of the fourth quarter of 2019, after the second quarter had still fallen around 3¼% short of that mark.

Industry

Industrial output higher in July

In July 2021, German industrial output saw a distinct seasonally adjusted rise on the month (+1¼%). This year's pattern of school holidays and plant shutdowns is likely to have played an important role in driving this first increase in four months. This holds true for the automotive sector, in particular. According to data provided by the German Association of the Automotive Industry (VDA), the number of manufactured motor vehicles declined strongly in August following an increase in July, and on an average of the two summer holiday months there was a significant decrease on the level of the second quarter. Industrial output in July was slightly higher than the second-quarter level overall (+½%). Broken down by sector, the production of consumer goods was up substantially on the quarter. The manufacture of capital goods increased only slightly, mainly due to the significant fall in the production of motor vehicles. By contrast, manufacturers of machinery and equipment and of computer, electronic and optical products ramped up their production markedly. The production of intermediate goods was down distinctly, however. Bottlenecks in the supply of intermediate products continued to impair the recovery in industry considerably. According to surveys by the ifo Institute, 64% of manufacturing enterprises reported production hold-ups due to material shortages in July. The percentage rose further in August.[1]

Steep rise in industrial orders on the back of large orders

Industrial new orders in July 2021 saw a steep rise on the month after seasonal adjustment (+3½%). The already high level of the second quarter was exceeded considerably (+5¼%), but excluding large orders there was a slight shortfall (-¼%). Broken down by region, domestic orders and, in particular, orders from non-euro area countries saw steep growth. By contrast, demand from the euro area was down strongly. Broken down by sector, the manufacturers of capital goods posted very robust order growth, driven in particular by other transport equipment. Mechanical engineering firms likewise recorded a strong increase in orders. Demand for motor vehicles was down significantly, however. New orders received by producers of consumer goods also went up steeply, with orders of pharmaceutical products considerably higher. Demand for intermediate goods eased slightly. Overall, demand for German industrial products in July exceeded the

1 See ifo Institute (2021).

Economic conditions in Germany*

Seasonally adjusted

Period	Orders received (volume); 2015 = 100			
	Industry			Main construction
	Total	of which: Domestic	of which: Foreign	
2020 Q4	106.4	101.0	110.6	128.1
2021 Q1	109.1	102.6	114.0	124.9
Q2	112.7	108.6	115.8	120.1
May	109.8	105.5	113.0	121.0
June	114.8	115.8	114.0	116.6
July	118.7	112.9	123.1	119.6

Period	Output; 2015 = 100			
	Industry			
	Total	of which: Intermediate goods	of which: Capital goods	Construction
2020 Q4	96.4	100.8	92.4	118.8
2021 Q1	96.4	102.9	90.6	113.7
Q2	95.2	103.6	86.7	116.7
May	95.2	104.1	86.3	117.1
June	94.6	103.3	84.5	114.9
July	95.8	102.8	87.2	116.2

Period	Foreign trade; € billion			Memo item:
	Exports	Imports	Balance	Current account balance in € billion
2020 Q4	319.19	269.07	50.12	67.14
2021 Q1	331.19	276.91	54.28	69.05
Q2	338.02	296.11	41.91	58.86
May	112.30	99.54	12.76	19.55
June	113.72	100.23	13.49	17.78
July	114.39	96.65	17.74	19.72

Period	Labour market			
	Employment	Vacancies[1]	Unemployment	Unemployment rate
	Number in thousands			%
2020 Q4	44,737	591	2,824	6.2
2021 Q1	44,700	607	2,749	6.0
Q2	44,788	662	2,717	5.9
June	44,850	688	2,681	5.8
July	44,950	728	2,591	5.6
Aug.	…	751	2,538	5.5

Period	Prices; 2015 = 100			
	Import prices	Producer prices of industrial products	Construction prices[2]	Harmonised consumer prices
2020 Q4	97.9	104.3	116.0	105.4
2021 Q1	101.8	106.9	121.2	107.6
Q2	106.5	110.2	125.1	108.6
June	108.4	111.7	.	109.0
July	110.9	113.8	.	109.6
Aug.	…	115.6	.	109.8

***** 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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pre-crisis level of the fourth quarter of 2019 by a hefty 18%, whilst industrial output was still 3½% below its pre-crisis level.

Industrial sales significantly higher, further slight rise in nominal exports of goods

After seasonal adjustment, nominal industrial sales were significantly higher in July 2021. They were up by 2¾% compared with both the previous month and the average of the second quarter. In a regional breakdown, industrial sales saw a strong quarter-on-quarter rise in Germany and in particular in the euro area countries. Sales in non-euro area countries were only slightly higher. Broken down by sector, sales of consumer goods increased strongly and sales of pharmaceutical products posted particularly steep growth. Sales of capital goods and intermediate goods likewise went up significantly. After seasonal adjustment, nominal exports of goods continued to rise in July 2021, edging up slightly compared with the previous month (+½%) and markedly higher than the second quarter (+1½%). In real terms, they did not quite match the level of the previous quarter (-½%), with exports to non-euro area countries down and exports to the euro area rising slightly. Nominal imports of goods receded sharply in July compared with the previous month (-3½%), and were thus also significantly lower than the average of the second quarter (-2%). After price adjustment, the gap compared with the second quarter was even more pronounced (-6%) due to the sharp increase in import prices. Supply bottlenecks may have contributed to the strong fall.

Construction

Construction output up on the month

After adjustment for seasonal variations, output in the construction sector increased distinctly in July 2021 when compared with the previous month (+1%). It was slightly lower than the average of the second quarter (-½%), however, with output in the finishing trades stagnating. Output in the main construction sector was down markedly, with a clear contraction in civil engineering and a slight decline in building construction. Material shortages

also weighed on the construction sector. According to surveys by the ifo Institute, 37% of enterprises in the main construction sector were affected in August, showing that shortages of materials continued to ease that month after having peaked in June. The reach of the order books, which was already relatively extensive on a long-term average, continued to expand, however. Equipment utilisation sank slightly in July and August, but was likewise up considerably on its long-term average.

Labour market

Robust recovery in labour market, strong rise in employment

There has been an exceptionally robust recovery in the labour market since June. The seasonally adjusted number of persons in work went up by 100,000 in July, following a similarly strong increase in June. In particular, jobs subject to social security contributions were filled in June. Bolstered by short-time work during the crisis, the number of persons in this type of employment thus already exceeded its pre-crisis level. The number of persons working exclusively in low-paid part-time employment likewise rose significantly in June for the first time since the summer of last year. More jobs were cut here in the crisis, however, so that there are currently almost 10% fewer persons in this form of employment with only low social security than at the beginning of 2020. The already long-lasting decline in self-employment at least came to a halt in July. The results from surveys on the willingness on the part of enterprises and employment agencies to recruit new staff and the constant increase in job vacancies suggest that the very favourable labour market developments will continue over the next few months.

Rapid decline in uptake of short-time work

The proportion of employees subject to social security contributions in cyclical short-time work declined to below 5% in June, thus hitting its lowest level since the beginning of the pandemic. The peak in the last quarter of 2020 and the first quarter of 2021 saw almost one in ten employees in short-time work in February 2021. In June alone, the number of short-time workers was down by 30% on the previous month. The volume of labour lost through short-time work fell even more strongly, as the working hours of short-time workers rose again on average. The uptake of short-time work is likely to have declined further in the summer holiday months. The ifo Institute estimates that only 688,000 employees were still receiving short-time working benefits in August.

Further steep drop in unemployment in August

After seasonal adjustment, registered unemployment dropped again steeply in August. With a decline of 53,000 persons compared with the previous month, the unemployment rate went down to 5.5%. The lion's share of the decrease concerned unemployment covered by the statutory insurance scheme, which is more cyclically driven. At the same time, there was also a fall in the number of unemployed persons receiving the basic welfare allowance. The IAB's unemployment barometer was still at its highest level recorded in July. The next three months could therefore see a further strong drop in unemployment.

Prices

Crude oil prices up again recently following slight decline

Demand concerns coupled with the spread of the Delta variant dampened crude oil prices in August, with prices down by around 6% compared with July. They were nonetheless still up by just under 60% on the year. Prices rose again markedly in the course of September, however. Concerns relating to the spread of the Delta variant held back demand but, on the other hand, temporary production stoppages in Mexico and the United States propped up prices. As this report went to press, the price of a barrel of Brent crude oil stood at US$77. Crude oil futures were still trading at significant discounts, however. The discount on crude oil futures was US$3¾ for deliveries six months ahead and US$6¾ for deliveries 12 months ahead.

Inflation continued to strengthen at the import level in July. Whilst energy price inflation was at

Substantial rise in import and producer prices

a level similar to previous months, prices excluding energy went up much more strongly. The monthly inflation rate was also higher at the industrial producer level, for which data are already available for August, with energy prices continuing to climb steeply and more sharply than other goods. Import prices and industrial producer prices recently outstripped prior-year levels by 15% and 12%, respectively. Excluding energy, the rate of increase was around 9% and just over 8% respectively.

Less volatile consumer prices continue to rise significantly

At 0.2%, the seasonally adjusted rise in consumer prices in August, as measured by the Harmonised Index of Consumer Prices (HICP), was no longer quite as steep as in the previous months, in which it had stood at 0.6% and 0.4% respectively. This was due to the fact that price increases for energy, food and non-energy industrial goods tailed off. In the case of the latter, this was owing to prices for clothing and shoes which normally fluctuate sharply. By contrast, the cost of other industrial goods increased at a similar rate as previously. Prices for services continued to rise steeply as well. Annual headline HICP inflation climbed from 3.1% to 3.4% and, excluding energy and food, from 1.8% to 2.1%. Much like in July, the base effect of the temporary VAT cut from the second half of 2020 drove prices upward;[2] it was dampened by a statistical effect, however. This effect is due to the coronavirus pandemic having led to fairly major adjustments to some HICP weights for 2021 in line with consumption habits of the previous year.[3] The headline rate according to the national Consumer Price Index (CPI), where there was no change to the weightings, rose from 3.8% to 3.9%. The dampening one-off effect will weaken significantly this month and next; it will turn slightly positive in November before being eliminated entirely in December. As things currently stand, rates of between 4% and 5% could be seen temporarily from September until the end of the year. Inflation is likely to ease markedly at the beginning of 2022 but will still persist at more than 2% up to the middle of the year.

Public finances[4]

Statutory health insurance scheme

Significant deficit in Q2 due to sharp rise in health insurance institutions' expenditure

The statutory health insurance (SHI) scheme – comprising the health insurance institutions and the health fund – posted a significant deficit of €2½ billion in the second quarter of 2021.[5] The deficit was €1 billion higher than it had been a year earlier, due to a sharp rise in the health insurance institutions' expenditure. This spending had fallen in the second quarter of 2020 because of a lower utilisation of services due to the pandemic.

Health fund posted deficit but much lower than in 2020

The health fund posted a deficit of almost €1 billion, which was just over €3 billion lower than in the second quarter of 2020. This improvement is attributable, among other things, to the fact that central government is now fully reimbursing the health fund's pandemic-related special payments.[6] In spring 2020, by contrast, central government only reimbursed payments for keeping hospital beds empty due to the pandemic. In addition, in the second quarter of 2021, the fund received retroactive refunds from the first quarter of the year. However, the fund's balance was reduced by the partial forwarding of the additional central government

2 See Deutsche Bundesbank (2020).
3 See Deutsche Bundesbank (2021a).
4 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.
5 In 2021, reserves totalling €8 billion will be redistributed among the health insurance institutions via the health fund (€2 billion per quarter). The associated payment flows between the health insurance institutions and the health fund do not influence the financial situation of the SHI scheme as a whole and its two constituent parts. The revenue and expenditure developments outlined below are therefore adjusted for these payment flows.
6 In the second quarter of 2021, the pandemic-related special payments amounted to €5½ billion. They encompassed financial assistance for hospitals to compensate them for empty beds due to the pandemic (€2 billion) as well as spending on tests (€2 billion), protective masks, vaccinations (mainly the cost share accruing to vaccination centres) and bonuses for nursing staff in hospitals (€½ billion each).

grant of €5 billion which it had received in full at the beginning of the year. The fund pays the money out to the health insurance institutions in equal instalments across the year. On the revenue side, contributions increased by 6½% compared with the same quarter of the previous year. Around two percentage points of this was attributable to the higher additional contribution rates. Total revenue likewise rose by 6½%. On the expenditure side, the pandemic-related special payments declined sharply. All in all, the health fund's expenditure thus increased by a mere 1½%.

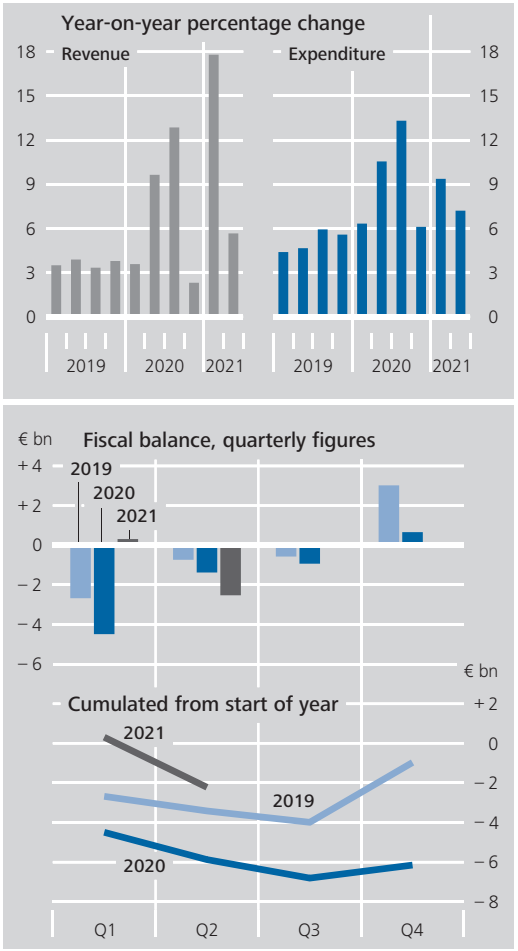
Health insurance institutions' spending up sharply from weak Q2 2020

Despite solid revenue growth of 3½% in total, the health insurance institutions recorded a deficit of almost €2 billion. A year earlier, they had posted a surplus of €2½ billion: their expenditure had fallen because of a lower utilisation of services due to the pandemic. In the second quarter of 2021, expenditure rose steeply, by 11%. Compared with the second quarter of 2019, this amounts to 5% average annual growth. Spending on hospital treatment, a particularly large expenditure item, recorded a strong increase of 15% (-8% a year earlier).[7] After declining in the second quarter of 2020 (-7%), expenditure on remedies and therapeutic appliances saw an even sharper rise (+28%). The strong growth in expenditure on pharmaceuticals (+7½%) and outpatient treatment (+6%) continued. By contrast, sick pay fell slightly (-½%). At the end of the quarter, the health insurance institutions still had reserves of €15 billion (just under two-thirds of their average monthly expenditure).

Health insurance institutions' deficit probably much lower than expected for 2021 as a whole

The health insurance institutions are set to record a significant deficit for 2021 as a whole. In autumn 2020, the Ministry of Health projected that the institutions' expenditure would increase by 6½%. The ministry estimated that the average additional contribution rate would rise by 0.3 percentage point and central government funds would increase by €5 billion. The institutions were to cover the remaining funding gap of €8 billion using their reserves.[8] Up to mid-year, expenditure growth remained somewhat below the expectations for the year as a whole. In the second half of 2021, it could tend to become weaker again as the previous year's figures were inflated by catch-up effects. The deficit could thus be only around half the size estimated by the Ministry of Health.

Finances of the statutory health insurance scheme*



Source: Federal Ministry of Health. * Health fund and health insurance institutions (consolidated). Preliminary quarterly figures. The final annual figures differ from the total of the reported preliminary quarterly figures as the latter are not revised subsequently.
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7 Combined with the compensation for empty beds, however, ongoing payments from the SHI scheme to hospitals were down by 5% on the year. Pandemic-related compensation for hospitals was down by just over €3½ billion on the year.

8 In autumn 2020, the group of SHI estimators was unable to mutually agree on an expenditure estimate. Taking the somewhat higher expenditure figure projected by the health insurance institutions would even result in a deficit of around €9½ billion, assuming that supplementary contribution rates remain unchanged.

Health fund could record almost balanced budget

The group of SHI estimators projected that the health fund would record a deficit of €1 billion for 2021 as a whole because funds from the liquidity reserve are to be transferred to the health insurance institutions. These are intended to broadly offset the losses due to reduced SHI scheme contributions on occupational pensions. Added to this are the transfers to the innovation fund and hospital structures fund to be made from the health fund's reserves. However, contribution receipts could now develop somewhat more favourably than expected. As a result, the fund could achieve a balanced budget and the reserves could remain almost unchanged at €6½ billion.

Central government funds and use of reserves intended to stabilise additional contribution rates next year

Next year, the economic situation and hence the contribution base are likely to improve significantly. Following the benefit expansions of the past, however, there is a structural funding gap. To avoid a rise in additional contribution rates, lawmakers have already decided on the provision of €7 billion in additional central government funds (+€2 billion compared with 2021). In addition, the health insurance institutions will receive a transfer from the health fund's liquidity reserve provided that it is above the fund's minimum reserve level (likely special transfer of just over €1 billion[9]). The group of SHI estimators will project the institutions' remaining funding gap in October. To close this gap, the institutions could initially use the reserves still available to them. Once these are used up from 2023 onwards, the additional contribution rates will have to increase. If, instead, the intention is to close funding gaps with continuing and potentially ever larger central government grants, adjustments will be needed in the central government budget. It is foreseeable that there will be no leeway for this in the central government budget without raising taxes or making savings elsewhere.

Public long-term care insurance scheme

Deficit due to higher pandemic-related special payments

The public long-term care insurance scheme finished the second quarter of 2021 with a deficit of €½ billion in the core area.[10] In the second quarter of 2020, its budget was still in balance. This deterioration was due to higher pandemic-related special payments (primarily aid payments and testing costs).

Sharp rise in revenue: higher contribution receipts and special payments from health insurance institutions

Revenue rose by €8½%. Employees' contributions increased by 5½%, having fallen by just under ½% a year earlier owing to the pandemic. One factor contributing to the stronger growth in other revenue was the fact that the long-term care insurance scheme received a total of €½ billion from the statutory and private health insurance institutions. In line with the legal requirements, these institutions thus contributed to the funding of the long-term care insurance scheme's pandemic-related special payments in the first half of the year. After adjustment for this effect, revenue growth came to 5%.

Expenditure growth fairly strong even without pandemic-related special payments

Expenditure rose very steeply, by 14%. Like at the start of the year, in the second quarter of 2021, extensive pandemic-related special payments were made to long-term care institutions, and for tests.[11] These special payments were up by a total of €1 billion on the year.

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9 Expected level at the end of 2021 less the planned withdrawals of just under €1 billion in 2022 (payments to the innovation fund and the hospital structures fund, and to health insurance institutions to compensate for the lower contributions on occupational pensions).

10 The developments outlined here and in the remainder of the text exclude the provident fund. This fund receives transfers from the core area corresponding to the receipts from 0.1 percentage point of the contribution rate. Assets accumulated in this way are to be depleted again in the 2030s to dampen the expected contribution rate rise. Up to the end of the second quarter, €9 billion was transferred to the long-term care provident fund.

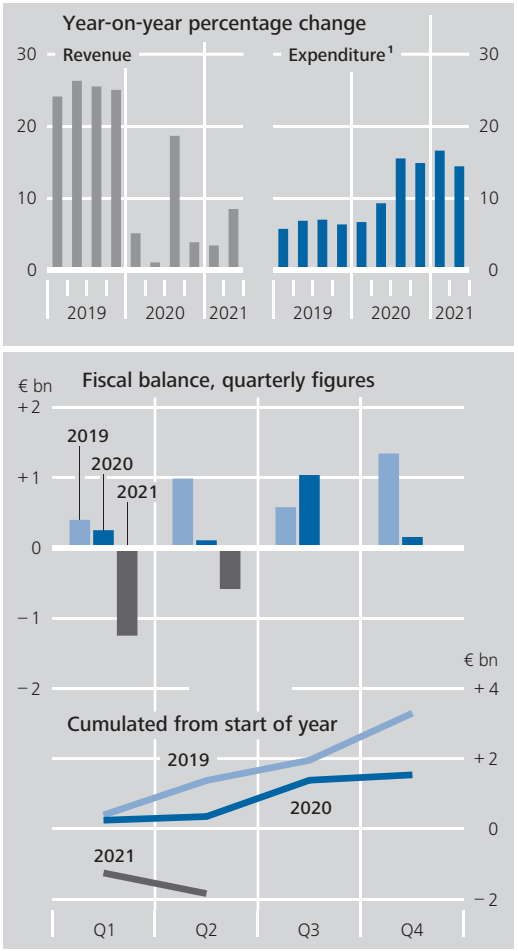
11 The long-term care insurance scheme reimburses non-residential and (partially) residential long-term care facilities for COVID-19 testing costs. Furthermore, these facilities received financial compensation for additional expenditure relating to the pandemic. They were also compensated for revenue shortfalls caused by the non-utilisation of long-term care services on account of COVID-19. If there had been no pandemic, however, spending on benefits would have been higher.

Even without these payments, the long-term care insurance scheme's expenditure saw fairly strong growth of 6½%: with benefit rates unchanged, cash benefits increased by 8½% and spending on non-cash benefits, a larger expenditure item, went up by 5½%. This was due to a strong rise in non-residential non-cash care benefits (+12%), which had seen only fairly weak growth in the previous year given the pandemic-related restrictions. By contrast, costs for residential long-term care continued to rise only slightly (+½%).

Significant deficit likely for 2021 as a whole: higher pandemic-related special expenditure and reduced central government funds

The long-term care insurance scheme's budget balance for the year as a whole looks likely to deteriorate substantially. Following a surplus of €1½ billion last year, a significant deficit is now on the cards. On the revenue side, the additional central government funds will probably be reduced from last year's total of just under €2 billion. The new contribution from the statutory and private health insurance institutions amounts to just over €½ billion and will largely offset this decline. Although the contribution base is likely to increasingly recover, the pandemic-related burdens will remain noticeable. On the expenditure side, the pandemic-related special payments to long-term care institutions will now be extended up to the end of 2021. As a result, they will probably be nearly double their size last year (€2½ billion in 2020). In addition, regular benefits have been clearly expanded in recent years, meaning that the underlying pace of expenditure growth is fairly high.

Finances of the public long-term care insurance scheme*



Source: Federal Ministry of Health. * Preliminary quarterly figures. The final annual figures differ from the total of the reported preliminary quarterly figures as the latter are not revised subsequently. **1** Including transfers to the long-term care provident fund.
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Somewhat lower deficit possible in 2022

Next year, the long-term care insurance scheme's budget balance will probably improve somewhat. As the economy continues to recover, the revenue base is likely to grow considerably. Furthermore, pandemic-related special expenditure should then play only a minor role. However, additional burdens will be generated by the latest long-term care reform, which will again entail perceptible benefit expansions.[12] These are only partly covered by a new central government grant of €1 billion per year and a higher contribution rate for childless persons (+0.1 percentage point).

Substantial pressure on contribution rates from 2023 at the latest

The underlying funding pressures are unlikely to relent in the years that follow. Consequently, once the available reserves have been used up, successive significant rises in contribution rates are on the cards from 2023 at the latest. All in all, there are already sizeable structural funding gaps in the statutory health insurance scheme, the statutory pension insurance scheme and the public long-term care insurance scheme. In addition, financial burdens due to demographic

12 See Deutsche Bundesbank (2021b).

Sales and purchases of debt securities

€ billion

Item	2020 July	2021 June	2021 July
Sales			
Domestic debt securities[1]	54.2	15.2	6.3
of which:			
Bank debt securities	– 2.0	2.0	– 9.2
Public debt securities	36.7	13.5	11.6
Foreign debt securities[2]	– 0.3	14.4	5.2
Purchases			
Residents	24.6	31.9	29.0
Credit institutions[3]	– 15.5	– 0.6	– 5.5
Deutsche Bundesbank	25.7	22.6	25.1
Other sectors[4]	14.4	9.9	9.4
of which:			
Domestic debt securities	4.3	2.5	3.6
Non-residents[2]	29.4	– 2.2	– 17.6
Total sales/purchases	53.9	29.7	11.4

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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change loom on the horizon. Social contribution rates are thus likely to come under substantial pressure.

Securities markets

Bond market

Sluggish net issuance of debt securities

At €146.8 billion, gross issuance in the German bond market in July 2021 was slightly down on the June figure (€149.7 billion). After taking account of redemptions, which increased somewhat, and changes in issuers' holdings of their own debt securities, the outstanding volume of domestic bonds expanded by €6.3 billion after having increased by €15.2 billion in June. Foreign debt securities worth €5.2 billion were placed in the German market, which meant that the outstanding volume of domestic and foreign debt instruments in Germany rose by €11.4 billion on balance.

Net public sector issuance

The public sector issued own bonds in the amount of €11.6 billion net in the reporting month. Central government, in particular, increased its capital market debt on balance (€7.6 billion), issuing primarily five-year Federal notes (Bobls: €5.3 billion) and two-year Federal Treasury notes (Schätze: €4.7 billion). Looking at Federal bonds (Bunds), issuance focused on longer maturities (30-year maturities: €4.4 billion, 15-year maturities: €2.3 billion), whereas ten-year bonds saw net redemptions totalling €11.4 billion. State and local governments issued bonds in the amount of €4.1 billion on balance.

Slight rise in enterprises' capital market debt

Domestic enterprises placed debt securities worth €3.8 billion net in the market in July. This was mainly attributable to non-financial corporations, which primarily issued paper with a maturity of up to one year.

Net redemptions of bank debt securities

By contrast, German credit institutions scaled back their capital market debt by €9.2 billion net in the reporting month, primarily redeeming, on balance, debt securities of specialised credit institutions (€4.6 billion) and other bank debt securities that can be structured flexibly (€4.2 billion).

Purchases of debt securities

The Bundesbank was the largest buyer in July, acquiring debt securities worth €25.1 billion net, for the most part under the Eurosystem's asset purchase programmes. These purchases almost exclusively involved domestic paper issued by public sector entities. German non-banks bought bonds worth €9.4 billion net, the bulk of which were foreign securities. By contrast, non-resident investors and German credit institutions pared back their bond portfolios by €17.6 billion and €5.5 billion, respectively.

Equity market

Hardly any net issuance in the German equity market

In July, domestic enterprises placed €0.8 billion worth of new shares in the German equity market. Sales of foreign shares in Germany rose by €5.1 billion in the same period. Domestic non-banks were dominant on the buyers' side

of the market, adding shares worth €3.8 billion net to their portfolios. Foreign investors bought German equities for €2.2 billion net, while domestic credit institutions sold shares for €0.1 billion on balance.

Mutual funds

German mutual funds record inflows

In July, domestic mutual funds recorded inflows of €11.8 billion. The majority of these funds were channelled into specialised funds (€7.7 billion), which are reserved for institutional investors. Among the various asset classes, the chief beneficiaries of the new funds were mixed securities funds (€5.6 billion), although bond funds (€3.0 billion) and equity and open-end real estate funds (€1.4 billion each) also profited. Foreign mutual funds sold fund shares in the German market for €5.2 billion in net terms. On balance, domestic non-banks were virtually the only purchasers of mutual fund shares in the reporting month (€16.8 billion). Domestic credit institutions purchased mutual fund shares for €1.1 billion net, while foreign investors reduced their fund portfolio in Germany by €0.8 billion.

Balance of payments

Current account surplus down

Germany's current account posted a surplus of €17.6 billion in July 2021, down €5.0 billion on the previous month's level. Although the surplus in the goods account rose, the surplus in invisible current transactions, which comprise primary and secondary income as well as services, declined significantly.

Goods account surplus up

In July, the surplus in the goods account increased by €1.1 billion on the month to €17.5 billion, with imports of goods contracting more sharply than exports.

The surplus in invisible current transactions narrowed by €6.1 billion to €0.1 billion in July, with both services and primary and secondary income contributing to this decrease. The ser-

Major items of the balance of payments

€ billion

Item	2020 July	2021 June	2021 July[p]
I. Current account	+ 20.2	+ 22.6	+ 17.6
1. Goods	+ 19.8	+ 16.4	+ 17.5
Receipts	100.7	116.9	113.0
Expenditure	80.9	100.6	95.5
Memo item:			
Foreign trade[1]	+ 19.2	+ 16.2	+ 18.1
Exports	102.3	118.7	115.0
Imports	83.1	102.5	96.9
2. Services	– 2.6	+ 0.4	– 2.4
Receipts	21.5	25.2	26.3
Expenditure	24.2	24.8	28.7
3. Primary income	+ 6.8	+ 8.7	+ 8.2
Receipts	15.4	17.2	16.6
Expenditure	8.6	8.4	8.4
4. Secondary income	– 3.7	– 2.9	– 5.7
II. Capital account	– 0.9	– 0.6	– 1.3
III. Financial account (increase: +)	+ 18.3	+ 29.2	– 7.0
1. Direct investment	– 10.5	+ 3.9	+ 6.5
Domestic investment abroad	+ 7.3	+ 21.0	+ 4.9
Foreign investment in the reporting country	+ 17.8	+ 17.1	– 1.6
2. Portfolio investment	– 8.8	+ 38.1	+ 31.0
Domestic investment in foreign securities	+ 19.7	+ 31.7	+ 14.8
Shares[2]	+ 7.9	+ 6.6	+ 4.4
Investment fund shares[3]	+ 12.1	+ 10.7	+ 5.2
Short-term debt securities[4]	+ 1.5	– 2.6	+ 1.9
Long-term debt securities[5]	– 1.7	+ 17.1	+ 3.2
Foreign investment in domestic securities	+ 28.5	– 6.4	– 16.2
Shares[2]	– 1.8	– 3.3	+ 2.2
Investment fund shares	+ 0.9	– 0.8	– 0.8
Short-term debt securities[4]	+ 8.7	+ 0.6	– 3.5
Long-term debt securities[5]	+ 20.7	– 2.8	– 14.1
3. Financial derivatives[6]	+ 11.4	+ 5.1	+ 2.0
4. Other investment[7]	+ 26.9	– 17.9	– 46.6
Monetary financial institutions[8]	– 26.4	+ 10.6	+ 26.6
of which: Short-term	– 23.7	+ 4.8	+ 39.1
Enterprises and households[9]	+ 10.5	– 1.6	– 12.4
General government	+ 2.1	– 0.1	– 0.1
Bundesbank	+ 40.7	– 26.9	– 60.7
5. Reserve assets	– 0.6	+ 0.1	+ 0.1
IV. Errors and omissions[10]	– 0.9	+ 7.3	– 23.3

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.

Deutsche Bundesbank

Surplus in invisible current transactions down sharply due to decline in all three sub-account balances

vices account recorded a shift from a surplus of €0.4 billion in June to a deficit of €2.4 billion in July. The main reason for this was the sharp rise in expenditure by residents on services abroad. This affected travel expenditure in particular, as the improved pandemic conditions increased the opportunities for travelling abroad again. As for the secondary income account, the deficit widened by €2.8 billion to €5.7 billion. Here, too, it was mainly payments abroad, which were primarily linked to increased general government expenditure on current transfers relating to international cooperation, which rose compared with the previous month. The surplus in primary income decreased slightly by €0.5 billion to €8.2 billion, largely on account of a decline in receipts from portfolio investment.

Direct investment records capital exports

Direct investment recorded net capital exports of €6.5 billion in July (June: €3.9 billion). Domestic enterprises increased their foreign direct investment by €4.9 billion. They raised their equity capital in foreign enterprises by €7.1 billion, of which just under half took the form of reinvested earnings. By contrast, they recorded outflows of funds totalling €2.2 billion through intra-group lending. Foreign firms reduced the direct investment funds of their subsidiaries domiciled in Germany by €1.6 billion. This was mainly due to capital outflows in intra-group lending (€3.5 billion), primarily attributable to the repayment of loans that foreign affiliates had previously granted to their domestic parent companies. Conversely, the branches of foreign enterprises in Germany saw inflows of equity capital (€1.9 billion).

Portfolio investment sees outflows

International financial markets saw a higher level of volatility in July 2021 on the back of temporary concerns about growth due to rising coronavirus infection numbers in various regions. It was against this backdrop that Germany's cross-border portfolio investment recorded net capital exports of €31.0 billion (after €38.1 billion in June). Domestic investors acquired foreign securities worth €14.8 billion, purchasing mutual fund shares (€5.2 billion), shares (€4.4 billion), bonds (€3.2 billion) and money market paper (€1.9 billion). Conversely, foreign investors disposed of €16.2 billion worth of German securities, which encompassed bonds (€14.1 billion), money market paper (€3.5 billion) and mutual fund shares (€0.8 billion). By contrast, they added shares issued in Germany to their portfolios (€2.2 billion).

Other investment registers inflows

Other statistically recorded investment – which comprises loans and trade credits (where these do not constitute direct investment), bank deposits and other investments – registered net inflows amounting to €46.6 billion in July (following €17.9 billion in June). In this context, the Bundesbank attracted net inflows of funds from abroad (€60.7 billion). This was chiefly because TARGET2 claims on the ECB fell considerably (€76.9 billion). On the other hand, there was a decline in the Bundesbank's liabilities vis-à-vis non-residents (€12.7 billion), especially non-euro area residents. Monetary financial institutions (excluding the Bundesbank) recorded net capital exports (€26.6 billion). Transactions by enterprises and households (€12.4 billion) and by general government (€0.1 billion) each led, on balance, to net capital inflows.

In July, the balance of financial derivatives recorded net outflows (€2.0 billion).

Reserve assets

The Bundesbank's reserve assets grew slightly – at transaction values – by €0.1 billion in July.

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The Eurosystem's monetary policy strategy

The Eurosystem's monetary policy strategy is the overarching conceptual framework within which the ECB and national central banks take concrete monetary policy decisions. The main elements of the strategy are the operationalisation of price stability, the policy approach to safeguarding price stability, and the framework for assessing and processing the relevant information for monetary policy decisions and communication to the public.

The ECB Governing Council last reviewed its strategy in 2003. Since then, however, many new developments and challenges have materialised. The most important of these is the further decline in the equilibrium real interest rate. In combination with an effective lower bound on short-term nominal interest rates, this development leads to a substantial reduction of the monetary policy space.

The Governing Council published its new monetary policy strategy in July 2021. A key new element is the symmetric inflation target of 2% over the medium term. The slightly higher level ensures the right balance between the benefits of a safety margin against deflation and the costs of higher inflation rates. Symmetry means that the Governing Council considers negative and positive deviations of inflation from its target to be equally undesirable. To ensure this symmetry, the Governing Council recognises the importance of taking into account the implications of the effective lower bound. When interest rates are close to this effective lower bound, especially forceful or persistent monetary policy actions are necessary to avoid negative deviations from the inflation target becoming entrenched. This may also imply a transitory period in which the inflation rate is moderately above target.

The Harmonised Index of Consumer Prices (HICP) remains the preferred measure of inflation against which to judge the achievement of the policy objective. However, the Eurosystem aims to improve the quality of the HICP by including the cost of owner-occupied housing. The Eurosystem will also maintain its medium-term orientation. Furthermore, a comprehensive assessment of all relevant factors will continue to underpin monetary policy decisions taken by the ECB Governing Council, including the review of the proportionality and potential side effects of its decisions. This assessment builds on two interdependent analyses: the economic analysis and the monetary and financial analysis. In the future, the Eurosystem intends to fully take into account the interdependence between these two analytical perspectives, in addition to explicitly accounting for how financial stability aspects affect price stability and having due regard for the importance of observing the transmission mechanism for the calibration of monetary policy instruments.

Nominal key interest rates will remain the primary monetary policy instrument. However, the Eurosystem will keep using a combination of unconventional measures as a way of retaining its policy space close to the effective lower bound.

Within the scope of its mandate, the Eurosystem will fully take into account the implications of climate change and the transition to a low-carbon economy. While responsibility for climate protection lies primarily with national governments, climate change will also affect macroeconomic price developments. The Eurosystem will therefore significantly expand its analytical and modelling capacities in this area. It will furthermore adapt the design of its monetary policy operational framework in relation to disclosures, risk assessment, corporate sector asset purchases and the collateral framework.

Introduction

The Eurosystem's primary objective is price stability

Safeguarding price stability is the primary objective of the Eurosystem.[1] This mandate is enshrined in the Treaty on the Functioning of the European Union (TFEU). While the TFEU sets out the Eurosystem's mandate, it is up to the Eurosystem itself to decide how it goes about operationalising and achieving this objective. For this purpose, the Governing Council of the European Central Bank (ECB), in its capacity as the Eurosystem's supreme decision-making body, develops a monetary policy strategy. This strategy defines how the primary objective of price stability in the euro area is to be achieved and which monetary policy instruments and indicators are suitable for this purpose. The strategy thus stakes out a systematic framework within which the ECB Governing Council takes monetary policy decisions geared towards price stability and explains these decisions to the public.

Monetary policy strategy defines how to achieve the objective

Eurosystem reviewed its strategy and adopted a new one

The Eurosystem's monetary policy strategy was first drawn up in 1998 and last reviewed in 2003. Since then, the euro area economies have experienced numerous developments. Combined with the persistent challenges to the implementation of monetary policy, these warranted an update of the strategy. The review process lasted one-and-a-half years and culminated in the ECB Governing Council publishing its new monetary policy strategy on 8 July 2021.

This article offers an explanation of the Eurosystem's new monetary policy strategy beginning with the previous monetary policy strategy and the key changes that have taken place in the macroeconomic environment. Given that many topics were addressed during the strategy review, it is impossible for this article to cover the review in its entirety.[2] The article will instead focus on three selected aspects that form the essence of the monetary policy strategy: the operationalisation of price stability, the policy approach to safeguarding price stability, and the framework for assessing and processing the relevant information for monetary policy decisions and communication to the public.

Main elements of the Eurosystem's previous monetary policy strategy

Previous strategy rested on three main elements

The previous monetary policy strategy, which was adopted by the Eurosystem in 2003, essentially rested on three main elements:

1. Operationalisation of price stability by means of a quantitative definition and an explicit policy objective

– First, the strategy was based on a double-key formulation of the price stability objective. The first component was a quantitative definition of price stability. According to this definition, prices were considered stable if the year-on-year increase in the Harmonised Index of Consumer Prices (HICP)[3] was below 2% over the medium term. The second component was the policy objective, which was to maintain HICP inflation "below, but close to, 2%" over the medium term within the definition of price stability. On the one hand, this was intended to provide a sufficient safety margin against deflation, i.e. an environment of persistently falling prices that can result in severe economic damage.[4] On the

1 The Eurosystem is made up of the European Central Bank and the central banks of EU Member States whose currency is the euro.
2 See the box on pp. 19 f.
3 The HICP is a price index harmonised across the Member States of the euro area that measures changes over time in household spending on a representative basket of goods.
4 Deflation is primarily an issue in cases where it sets in motion a self-perpetuating downward wage-price spiral. People expecting prices to decline further in the future might decide to hold back on spending, which could force enterprises to throttle their output, depressing wages and eliminating jobs. In an extreme scenario, this can send the economy as a whole into a downward spiral, with price and wage cuts, shrinking output and rising unemployment all reinforcing one another. A deflationary situation can furthermore significantly increase enterprises' and households' real debt burden to the point of looming overindebtedness because, whereas deflation drives down the prices of the goods offered by enterprises and tends to depress wages, nominal loan repayments remain unchanged. Hence, the real burden of existing repayment obligations increases in an environment of generally falling prices. This can increase the incidence of payment defaults and also the volume of non-performing loans carried on commercial banks' balance sheets (a phenomenon known as debt deflation), which can ultimately jeopardise financial stability and cause further damage to the economy.

Organisation of the Eurosystem's strategy review

At its meeting on 23 January 2020, the ECB's Governing Council decided to launch a review of the Eurosystem's monetary policy strategy, which it completed on 8 July 2021. At irregular intervals during this period, the Governing Council discussed a broad range of topics relating to its monetary policy strategy. These discussions formed the basis for the Governing Council's decisions on the new monetary policy strategy.[1]

The discussions incorporated feedback from numerous events with stakeholders from various sections of society, organised in a variety of formats:

- Listening events: At numerous events hosted by the ECB and national central banks (NCBs), a wide range of civil society organisations described how they are affected by, and what they expect of, monetary policy.[2]

- Online portals: Here members of the general public were invited to express their expectations and concerns by participating in surveys on price stability, economic developments and central bank communication.[3]

- Specialist conferences: Representatives of academic institutions, research facilities and the financial sector held presentations and discussed these with a broad specialist audience.[4]

- Dialogue with the European Parliament: In hearings of the Committee on Economic and Monetary Affairs, regular discussions were held about the topics and the status of the strategy review.

In addition, information collected by separate work streams set up to look at key topics fed into the Governing Council's deliberations. These work streams, comprising employees from the ECB and the Eurosystem's NCBs, prepared analyses tailored to the strategy review and worked through the relevant literature, paying attention to interdependencies and connecting factors between the individual topics. Based on their findings, the work streams drew up reports and background documents, which were incorporated into the

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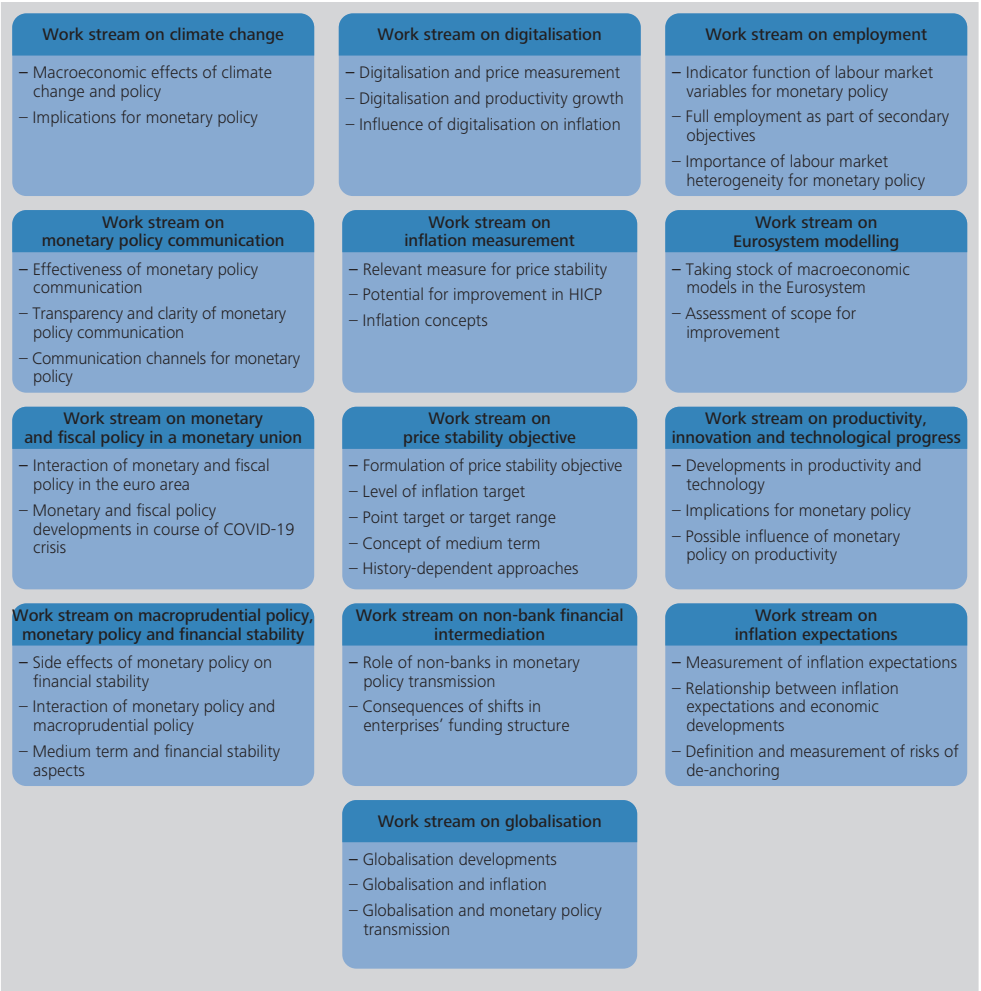
1 The decisions were communicated in the form of a monetary policy strategy statement (European Central Bank (2021a)), a slightly more detailed overview of the monetary policy strategy (European Central Bank (2021b)), a press release on the ECB's action plan to include climate change considerations in its monetary policy strategy (https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.pr210708_1~f104919225.en.html, accessed on 13 August 2021, 10:35) and a press release on the new monetary policy strategy (https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.pr210708~dc78cc4b0d.en.html, accessed on 13 August 2021, 10:40).

2 Participants included trade unions, employee associations, environmental protection organisations, industry groups, interest groups representing various sectors and taxpayer associations. For an overview of all listening events held across the euro area during the strategy review as well as links to video recordings and summaries, see https://www.ecb.europa.eu/home/search/review/html/all_events.en.html, accessed on 24 September 2021, 10:35.

3 A summary of responses from the ECB Listens Portal may be found at https://www.ecb.europa.eu/home/search/review/html/ecb.strategyreview002.en.html, accessed on 24 September 2021, 10:40.

4 For example, the conferences "The ECB and its Watchers XXI" on 30 September 2020 (https://www.imfs-frankfurt.de/en/events/imfs-conferences/the-ecb-and-its-watchers/2020.html, accessed on 11 August 2021, 16:15) and "ECB Forum on Central Banking" on 11-12 November 2020 (https://www.ecb.europa.eu/pub/pdf/sintra/ecb.ecbforumoncentralbanking202011~5078c37a89.en.pdf, accessed on 11 August 2021, 16:15) formed part of the Eurosystem's strategy review.

Work streams in the Eurosystem's strategy review



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Governing Council's discussions. The above chart gives an overview of the work streams and the key topics they covered. The reports prepared by the work streams have been published as ECB Occasional Papers.[5]

5 See Altavilla et al. (2021), Work stream on the price stability objective (2021), Work stream on employment (2021), Work stream on monetary policy communications (2021), Work stream on monetary-fiscal policy interactions (2021), Work stream on macroprudential policy, monetary policy and financial stability (2021), Work stream on climate change (2021), Work stream on non-bank financial intermediation (2021), Work stream on productivity, innovation and technological progress (2021), Work stream on Eurosystem modelling (2021), Work stream on digitalisation (2021), Work stream on inflation measurement (2021), Work stream on inflation expectations (2021) and Work stream on globalisation (2021).

other hand, the policy objective also addressed possible measurement bias in the HICP[5] and the implications of inflation differentials within the euro area.

2. Medium-term orientation of the policy objective

– The second main element of the previous monetary policy strategy was the medium-term orientation. It gave the ECB Governing Council a flexible time horizon within which to bring consumer price inflation consistently in line with the price stability objective. Consideration was thus given to the fact that monetary policy measures have variable transmission lags and that monetary policymakers calibrate their measures to suit the nature of the shocks hitting the euro area.[6] Since different types of shocks affect price developments and the real economy in different ways, eliminating all the ups and downs in the short term is not warranted, as that could produce unnecessary cyclical volatility and thus put price stability at risk.

3. Two-pillar strategy: economic and monetary analysis

– Third, the risks to price stability were assessed using a two-pillar approach relying on an economic analysis and a monetary analysis. Insights gained from these two pillars were cross-checked by the ECB Governing Council to form a unified overall judgement. The economic analysis examined the short to medium-term factors in the real economy that had a bearing on price developments, and looked primarily at developments in the real economy and cost factors that might be driving prices. Meanwhile, the monetary analysis took a medium to long-term perspective. During the early years of the monetary union, it focused on the longer-term relationship between money and prices. More recently, particularly in the aftermath of the financial crisis and the introduction of unconventional monetary policy measures, the monetary analysis has shifted in focus towards monetary policy transmission through the financial sector.[7]

Why review the monetary policy strategy?

Strategy was revisited because macroeconomic environment has changed, …

The macroeconomic environment has changed substantially since the last strategy review in 2003. In addition, the financial crisis has demonstrated the importance of financial stability as a precondition for price stability.[8] It was a major catalyst for the introduction of the banking union and macroprudential policy, heralding lasting changes to the institutional set-up of the Eurosystem. Globalisation and digitalisation as well as the ongoing process of climate change are additional key drivers of economic trends and developments that also spill over into price developments.

… the equilibrium real interest rate, which has a major bearing on policy space, declined, …

However, the main new challenge that has emerged for monetary policymakers is that structural changes[9] contributed to a noticeable decline in the equilibrium real interest rate.[10] This real rate decline also plays a decisive role in

5 Measurement bias can occur, for instance, if quality improvements are not suitably factored into goods price developments. Furthermore, the empirical finding of downward nominal wage rigidities was seen as another reason to strive for a positive rate of inflation.
6 Furthermore, the monetary policy transmission process is fraught with uncertainty. This process describes how monetary policy impulses are transmitted to the real economy and comprises a number of different mechanisms and responses on the part of economic agents at various stages of the transmission process.
7 The Eurosystem's previous monetary policy strategy is presented in detail in European Central Bank (2011), Chapter 3, and Rostagno et al. (2021).
8 One threat during the financial and sovereign debt crisis was that negative feedback loops between the financial system and real economy caused by looming shortages in the supply of credit and the like might set a downward spiral in motion and jeopardise price stability.
9 These developments include the decline in productivity growth, demographic factors and persistently higher demand for safe and liquid assets in the wake of the global financial crisis.
10 This is the short-term real interest rate that, in the long run, is consistent with aggregate production at potential and stable inflation. The precise level of the equilibrium real interest rate is unobservable, and estimating it is fraught with considerable uncertainty. Studies nonetheless agree that the equilibrium real interest rate is trending downwards, not only in the euro area but worldwide. See, for example, Brand et al. (2018), Holston et al. (2017) and Deutsche Bundesbank (2017b).

the trend decline in nominal interest rates.[11] A low interest rate environment is particularly problematic because it increases the likelihood that policy rates will hit the lower bound in the event of negative shocks.[12] This prevents monetary policy from further rate cuts in order to generate additional upside pressure on the inflation rate.[13]

… and asymmetry under previous strategy made it harder to achieve policy objective

The low inflation rates observed in recent years were the backdrop for mounting criticism of certain components of the previous strategy. For example, the previous operationalisation of price stability contained an asymmetry that might have contributed to a persistent negative deviation of inflation expectations from the inflation target. Permanently lower inflation expectations – in addition to depressed real interest rates – contribute to declines in nominal interest rates and thus further limit the policy space.

This asymmetry arose from setting the policy objective (below, but close to, 2%, medium term) at the upper limit of the range that defines price stability (below 2%, medium term). As a result, upside deviations of the inflation rate from the policy objective were compatible neither with the definition of price stability nor with the policy objective itself. By contrast, downside deviations of the inflation rate were generally consistent with the price stability definition, though not necessarily with the policy objective. This meant that, as long as deviations to the downside did not lead to deflation, they were deemed less problematic than those to the upside. Even if they were not compatible with the policy objective, they were still consistent with the definition of price stability. This asymmetric operationalisation of price stability thus left some room for interpretation in the event of downside deviations: at what level did the inflation rate still satisfy the policy objective criterion of being "close to 2%"?

This design possibly also implied an asymmetric monetary policy response, whereby policymakers responded more vigorously to positive than to negative inflation rate deviations from the policy objective. Viewed in isolation, this could have been read as implying that negative deviations from the intended inflation rate can be larger and longer-lasting than positive ones, potentially culminating in persistent episodes of low inflation rates. Combined with the effective lower bound, the previous operationalisation of price stability – particularly in an environment of adverse shocks to demand – thus had the potential to depress longer-term inflation expectations. If true, this would have complicated the Eurosystem's efforts to achieve the policy objective on a lasting basis.[14]

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11 Arbitrage considerations can be used to derive what is known as the Fisher equation, which states that the level of nominal interest rates can be computed by adding together the equilibrium real interest rate and the expected rate of inflation. Assuming monetary policy is credible, the inflation expectation in the long-run equilibrium will equal the central bank's inflation target. Hence, a falling equilibrium real interest rate lowers the level of nominal interest rates for a given inflation target.

12 Since currency holdings are unremunerated, the nominal short-term interest rate cannot fall infinitely below zero. From a certain point, which depends inter alia on cash transaction and storage costs, non-banks will withdraw their deposits and hold them as cash. In this scenario, further monetary policy rate cuts will largely be powerless to affect inflation and, because of the deposit withdrawals they induce, can in fact jeopardise financial stability. Furthermore, banks might feel compelled by the deeply negative interest rates to curb their supply of credit, which would be counterproductive in monetary policy terms. The interest rate level at which the initially accommodative effect of negative rates turns contractionary is called the reversal rate (Brunnermeier and Koby (2018)). However, this de facto, or effective, lower bound for interest rates is unobservable, changes over time and can only be roughly approximated. This article also uses the term "effective lower bound" in the following.

13 This is why the Eurosystem has deployed unconventional instruments such as forward guidance (since 2013) and extensive asset purchases (particularly since 2015). Forward guidance is generally understood to mean communicating the expected deployment and path of monetary policy instruments.

14 The real interest rate is crucially important for stabilising demand. When economic agents expect declining inflation or even deflation, the real interest rate rises, when taken in isolation (via the Fisher equation), slowing down investment and growth. The central bank can temporarily lower the real interest rate by reducing the nominal interest rate. If, however, it is unable to cut interest rates any further at the effective lower bound, the real interest rate will ultimately be determined, approximately, by inflation expectations. In principle, this can produce a deflationary spiral, because the expectation of deflation pushes up the real interest rate, which in turn reduces demand and hence the inflation rate, potentially causing deflation to become entrenched.

Latest review aimed to align monetary policy strategy with new challenges

The idea behind the strategy review was to align the existing strategy with these new challenges. The box on pp. 19 f. outlines all the topics covered by the review, its components and how it was organised. This article now turns its attention to the operationalisation of price stability, the policy approach to safeguarding price stability, and the framework for assessing and processing the relevant information for monetary policy decisions and communication to the public.

The new Eurosystem monetary policy strategy

Overview of key decisions

New monetary policy strategy …

This section begins by presenting the key decisions on the new monetary policy strategy – the background to, and intentions of, the decisions will be discussed in the subsequent sections.

… retains HICP as measure of price stability, but augments it with costs of owner-occupied housing, …

– The Governing Council of the ECB confirmed the Harmonised Index of Consumer Prices (HICP) as the appropriate measure for assessing the achievement of the price stability objective in the euro area. In its future monetary policy assessments, the Governing Council wishes to also use measures of inflation which include the costs of owner-occupied housing. While only initial estimates of these costs are available in the short term, the aim is for full inclusion of the costs of owner-occupied housing in the HICP in the long term (see the "Harmonised Index of Consumer Prices" section).

… sets annual HICP inflation rate of 2% over the medium term as symmetric point target, …

– The Governing Council considers that price stability is best maintained by aiming for a 2% annual HICP inflation rate over the medium term. The Governing Council's commitment to this target is symmetric. Symmetry in this context means that negative and positive deviations of inflation from the target are considered to be equally undesirable. To maintain the symmetry of its inflation target, the Governing Council recognises the importance of taking into account the implications of the effective lower bound. When nominal interest rates in the euro area are close to the effective lower bound, especially forceful or persistent monetary policy action should be taken to avoid negative deviations from the inflation target becoming entrenched.[15] This may imply a transitory period in which inflation is moderately above target[16] (see the sections below entitled "Point target for the inflation rate of 2%", "Symmetry of the inflation target" and "Medium-term orientation retained").

… retains policy rates as primary monetary policy instrument, but will consider use of unconventional measures in pursuit of policy objective and …

– The primary monetary policy instrument of the Eurosystem is the set of ECB policy rates. In recognition of the effective lower bound on policy rates, the Governing Council will employ asset purchases, longer-term refinancing operations and forward guidance, as appropriate. As before, the combined and calibrated use of various instruments is intended to ensure that the Eurosystem remains able to react even when close to the effective lower bound on interest rates (see the sections entitled "Unconventional measures at the effective lower bound" and "Asymmetric monetary policy response to deviations from the inflation target").

… is based on an economic analysis and an expanded monetary and financial analysis

– The basis for the Governing Council's monetary policy decisions, including the evaluation of proportionality and possible side effects, is an integrated assessment of all factors relevant to price stability. This assessment builds on two interdependent analyses: the economic analysis and the monetary and financial analysis. The economic analysis will continue to focus on real and nominal economic developments. The original "monetary pillar" will, however, become an expanded monetary and financial analysis. Its main focus will now be the analysis of monetary policy transmission via the financial sector and the possible risks to medium-

15 See European Central Bank (2021a), p. 10.
16 See European Central Bank (2021a), p. 10.

The relationship between the equilibrium real interest rate, the level of the inflation target and monetary policy space

The euro area and other leading industrial countries have seen a decline in the general interest rate level over the past decades. There is a broad consensus that this has not been caused primarily by monetary policy but that it is more a reflection of long-term structural trends. Indeed, an ageing population, shifts in the distribution of income and wealth, and slower growth in productivity (and thus in potential output) have, since the 1980s, been reflected in a downward movement in the equilibrium real interest rate, not only in the euro area but worldwide.[1]

These developments pose considerable challenges for monetary policy because the level of the equilibrium real interest rate, in combination with the level of the inflation target, is what determines average nominal interest rates. If the equilibrium real interest rate declines, so, too, does the safety margin between policy rates and the effective lower bound for a given target inflation rate. Put another way, there is a reduction in the monetary policy space available for expansionary action through lowering the short-term nominal interest rate. As a result, the incidence and duration of episodes at the effective lower bound tend to increase,[2] leaving monetary policy less able to safeguard price stability via the policy rate alone.

Compared with the situation in 2003, when the Eurosystem last reviewed its monetary policy strategy, there has been a big change in the assessment of the level of the equilibrium real interest rate. This is why the latest monetary policy strategy review paid particular attention to how the level of the equilibrium real interest rate influences monetary policy space. Consideration was also given to the potential scope for increasing monetary policy space by raising the inflation target. Setting a higher inflation target would push up the average nominal interest rate level provided that inflation expectations adjust to the inflation target.[3] Viewed in isolation, this would widen the safety margin to the effective lower bound and thus also reduce the likelihood of hitting that effective lower bound.

Below, we provide a quantitative illustration of the relationship between the equilibrium real interest rate, the level of the inflation

1 The equilibrium real interest rate is the real interest rate level that is compatible with a closed output gap (when aggregate output is equal to its potential) and with price stability. Being unobservable directly, the level of the equilibrium real interest rate can only be estimated using appropriate macroeconomic techniques. That is why any statements on the equilibrium real interest rate are fraught with considerable estimation and model uncertainty. Nonetheless, most empirical research papers conclude that the equilibrium real interest rate has fallen over the past decades. See Deutsche Bundesbank (2017a), Brandt et al. (2018) and Mian et al. (2021).

2 Schematically, this relationship can be described as follows: viewed in isolation, the decline in the equilibrium real interest rate leads to a fall in nominal interest rates via the Fisher equation (see footnote 11 in the main article), thus narrowing the margin between nominal interest rates and the effective lower bound. A smaller margin to the effective lower bound implies in turn that deflationary shocks will be associated with more frequent and longer-lasting episodes at the effective lower bound. If these shocks are large enough to trigger a decline in nominal interest rates, the narrower margin means that the effective lower bound will be reached sooner.

3 This follows from the Fisher equation. The analysis here disregards possible changes in the behaviour of economic agents in an environment of higher inflation rates. For example, interest rate cuts have a less expansionary effect in an environment of higher inflation rates. In addition, the risk of inflation expectations becoming unanchored increases. See Deutsche Bundesbank (2018) for further details.

target, and monetary policy space[4] using a dynamic stochastic general equilibrium (DSGE) model estimated with euro area data. The present model[5] is simulated for different assumptions of the level of the equilibrium annual (net) real interest rate r^* and for different assumptions of the level of the annual (net) inflation target Π^*, assuming an annual (net) nominal effective lower bound of $R_{ELB} = -0.5\%$ throughout. Above the effective lower bound, the central bank sets its policy rate based on an interest rate rule that uses the lagged interest rate level, deviations in inflation from its target, and output growth as inputs. Hence, the interest rate is set as follows:

$R_t = \max \{R_t^S . R_{ELB}\}$, where R_t^S is given by:

$$R_t^S = 0.85R_{t-1}^S + 0.15(r^* + \Pi^* + (Y_t - Y_{t-1}) + 1.5(\Pi_t - \Pi^*)).$$

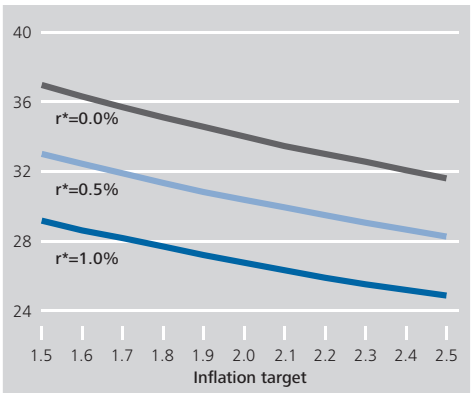
Here, R_t^S stands for the annual (net) shadow interest rate that would be set in the absence of the effective lower bound, R_t for the annual (net) policy rate that is actually set, Π_t for the annual (net) inflation rate, and $(Y_t - Y_{t-1})$ for the (net) output growth rate, with Y_t standing for output (in logs).

2,500 model simulations are carried out to identify the frequency with which the central bank hits the effective lower bound with its policy rate. The model is subject to unexpected economic developments (shocks) in each period and simulated for 200 periods in each case.[6]

The above chart shows the incidence of the binding effective lower bound (y-axis) for different inflation targets (x-axis) and real interest rates (differently coloured lines). In essence, three conclusions can be drawn from the simulations.

Effective lower bound incidence

%[1]



1 Incidence of periods in which the effective lower bound is binding for different levels of r* and inflation targets.

Deutsche Bundesbank

– First, a lower equilibrium real interest rate r^* for a given inflation target increases the frequency with which the policy rate hits the effective lower bound. This is shown by the upward shift in the lines plotted in the chart above when a lower real interest rate is assumed. Given an assumed inflation target of 2%, say, a decline in the equilibrium real interest rate from 1% to 0.5% increases the inci-

4 The following analysis disregards the possibility of the central bank being able to implement alternative monetary policy measures at the effective lower bound, such as forward guidance or asset purchase programmes. The aim here is merely to provide a quantitative description of the expected monetary policy space with respect to the traditional policy rate instrument depending on the level of the equilibrium real interest rate and the inflation target.

5 See Gerke et al. (2020) for a detailed description of the underlying model and how it is calibrated. In essence, the model resembles the generally known and widely used model of Smets and Wouters (2007), but differs in that it also features a financial market modelled as in Carlstrom et al. (2017). The model furthermore includes a heterogeneous household sector, one section of which is unable to smooth its consumption over time because of the assumption that it is unable to borrow or save (see also Galí et al. (2007) and Bilbiie (2008)).

6 The simulations are described in detail in Gerke et al. (2021). The model is simulated using a version of the algorithm developed by Fair and Taylor (1983), which allows non-linearities such as those created by the effective lower bound to be taken into account. Technical implementation is based on the Dynare software platform; see Adjemian et al. (2011).

dence of episodes at the effective lower bound by around 4 percentage points, from roughly 26.5% to around 30.5%. A further decline in the equilibrium real interest rate to 0% raises that incidence to approximately 34%.

– Second, a higher inflation target reduces the incidence of policy interest rates hitting the effective lower bound. For example, if the inflation target is raised from 1.5% to 2%, given an equilibrium real interest rate of 0.5%, this reduces the incidence from around 33% to roughly 30%.

– Third, scenarios in which both the equilibrium real interest rate and the inflation target are low are particularly daunting. Thus, a real interest rate of 0% combined with an inflation target of 1.5% puts effective lower bound episodes at an incidence of roughly 37%.

In summary, we can conclude the following. For a decline in the equilibrium real interest rate, the simulation results show a notable increase in the incidence of effective lower bound episodes. As the level of the equilibrium real interest rate in the euro area has fallen since the 2003 strategy review (even though the precise level is subject to great uncertainty), there is a greater risk, when viewed in isolation, that policy rates will hit their effective lower bound more frequently in the future. This is one reason why the Eurosystem, in the latest review of its monetary policy strategy, agreed, amongst other things, to set an inflation target of 2%, which is slightly above the target inflation rate selected in 2003.

term price stability that may arise from financial imbalances and monetary factors. The pervasive role of macro-financial linkages in economic, monetary and financial developments requires that the interdependencies across the two analyses are fully incorporated (see the section entitled "Preparation of information for monetary policy decisions: economic and monetary perspectives on price development").

Operationalising price stability

Harmonised Index of Consumer Prices

HICP confirmed as measure of price stability

Price stability has been measured on the basis of the HICP for the euro area ever since the original monetary policy strategy was formulated in 1998.[17] The choice of the HICP for measuring price stability was reaffirmed during the recent strategy review.[18] The HICP measures price developments in a timely and reliable way and is comparable across countries.[19] It is designed as a cost of goods index which captures the purchasing power of consumers based on the price of a representative basket of goods. HICP weights are updated annually to ensure that the index is underpinned by the most up-to-date consumption structures at all times. The basket of goods contains only goods and services that can be obtained on markets through actual monetary transactions.[20] The HICP is published monthly and is, in principle, not

17 The EU treaties specify price stability as the objective of the European System of Central Banks (Official Journal of the European Union, 2012/C 326/01, in particular Article 127). It was operationalised by the Governing Council of the ECB in 1998 and refined in 2003; see European Central Bank (1999 and 2003).
18 For more background information on the following remarks, see also Work stream on inflation measurement (2021).
19 See also Camba-Mendez (2003).
20 Estimated (imputed) prices are included only in exceptional cases, e.g. when extrapolating prices for food that is only seasonally available, or when extrapolating prices for products that could not be offered during the coronavirus pandemic. See, for example, Eurostat (2018), particularly pp. 23 ff.

revised.[21] The euro area index is obtained by aggregating country data derived from the national consumer price indices (CPIs), incorporating certain harmonisations.[22] These properties of the HICP ensure that households view it as representative of their purchasing power.[23] This creates the basis for an understandable monetary policy. Other indicators, such as measures of underlying inflation[24] or the GDP deflator, do not meet these requirements to the same degree.[25] However, they can help identify the medium-term trend in the HICP rate and therefore continue to play an important role in the economic analysis.

HICP quality to be further enhanced, especially by incorporating costs of owner-occupied housing …

To strengthen the HICP and thus the credibility of monetary policy, it is important for Eurostat and the national statistical offices to maintain and steadily enhance the quality of the HICP even in a changing environment (e.g. increasing online sales, dynamic and personalised pricing). To this end, a focus of the strategy review was the inclusion of owner-occupied housing (OOH). It has so far been absent from the HICP but is material to enhancing the representativeness of the HICP and its cross-country comparability. Living in one's own home is an important element of household consumption, but the costs of this have not been included in the HICP thus far. The main reasons for OOH being excluded up to now were unresolved issues surrounding the specific measurement concept and a lack of data sources, even though OOH is integrated into the national consumer price indices of certain countries – albeit using different methods.[26] After the first strategy review in 2003, during which the wish to include OOH had been reaffirmed, work began on the development of harmonised OOH price indices (OOHPIs). These price indices have been published by Eurostat on a quarterly basis for all euro area countries (except Greece) for some years now.[27] They start in 2010 and follow the net acquisition approach, meaning that they capture monetary expenditures for OOH and are thus consistent with the HICP methodology.

… using the net acquisition approach …

As an outcome of the most recent strategy review, the Eurosystem has voiced its express wish to Eurostat that the existing OOHPIs be linked to the HICPs for the euro area and all Member States, initially on a quarterly basis. OOH-augmented quarterly HICPs could be provided by statistical offices as experimental statistics from 2023 and as official statistics from 2026. Providing them as official statistics will require a time-consuming change to the European legal framework. In parallel, work is to be undertaken on the data sources, on the one hand, in order to achieve full integration into the monthly HICP without sacrificing timeliness. On the other hand, unresolved methodological issues are to be investigated further with the support of the Eurosystem. These issues primarily relate to the fact that OOH – as well as being used as a consumer good – also has the quality of an asset.[28]

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21 One exception to this rule was, in particular, the revision of the "package holidays" component of the HICP for Germany in 2019, which also affected the inflation rate for the euro area. See Deutsche Bundesbank (2019a).
22 These harmonisations relate, for example, to the standard inclusion of certain goods and services (without harmonising the national baskets of goods, however), the treatment of discounts and the price collection period. See Eurostat (2018), particularly pp. 16 ff. Harmonisation makes the data for the individual countries comparable. This is why the HICP also serves as a convergence criterion.
23 See also Issing (2003a), particularly p. 12.
24 These include, for example, core rates, trimmed means or estimated trends; see Work stream on inflation measurement (2021), in particular Section 6.
25 The last strategy review already came to this conclusion as well; see, for example, Camba-Mendez (2003). Core rates, for instance, exclude certain HICP components and thus do not represent total purchasing power. Conversely, the GDP deflator contains the prices of export goods, for instance, which have virtually no bearing on the purchasing power of domestic consumers.
26 For example, OOH is included in Germany's national CPI using the rental equivalence approach, but is not included at all in the national CPIs of Belgium, France, Italy and Spain. The Bundesbank has always advocated efforts to harmonise the measurement of OOH and to integrate it into the HICP; this wish was also expressed by the public at numerous listening events held during the latest strategy review.
27 The European Commission's (2018) key reasons for rejecting the integration of OOH into the HICP were that OOHPIs are not produced frequently enough, are published too late and partially include the price of land.
28 In addition, weights must be calculated to integrate the OOHPIs into the HICP. OOH is likely to account for around 10% of the euro area HICP.

Preliminary analyses by the Eurosystem[29] show that the inflation rates of internally computed analytical HICPs including OOH would, in principle, fluctuate somewhat more strongly than those without OOH. They could experience phases in which they are around one-quarter of a percentage point higher or lower than the official HICP rate. The mean of both series would be more or less identical, though.[30]

… and further increasing transparency

Aside from including OOH, it is important to further enhance the quality of the HICP and continually adapt it to new conditions. This is particularly the case when it comes to harmonising the integration of new products, the application of quality adjustment procedures and the selection of samples when collecting prices. At the same time, the inclusion of new data sources and methods in particular places high transparency requirements on the communication of HICP figures.[31] This is particularly true in times of shocks, which can lead to significant fluctuations in the HICP, as experience of the recent pandemic has shown, for example.[32]

Uncertainty about HICP measurement bias in euro area remains high

Even though the HICP is of a high quality and is constantly being refined, price measurement using the HICP – just the same as with other statistical variables – is subject to a certain degree of uncertainty and is likely to somewhat overestimate inflation on average.[33] This was an important reason for defining price stability as a positive annual HICP rate and establishing an inflation buffer in 2003.[34] There are no more recent findings on the size of the bias arising from all sources of measurement bias (including aggregation procedures and weighting, incomplete quality adjustment, delayed inclusion of new products and changed distribution channels, sampling errors),[35] meaning that the measurement bias problem, in and of itself, does not necessitate any adjustment to the price stability objective.[36] With a view to future strategy reviews, in particular, it would be important to close this gap in our knowledge. To this end, the microdata underlying the price statistics should be made more widely available to researchers and transparency about detailed methodologies should be established.

Similar picture of inflation differentials as in 2003

The inflation differentials between the euro area countries – another important reason for the establishment of an inflation buffer following the 2003 strategy review – have barely changed over the past two decades; taken in isolation, they likewise do not imply any need for an adjustment to the price stability objective.

Point target for the inflation rate of 2%

ECB Governing Council considers price stability maintained with HICP inflation rate of 2% over medium term

The level of the target inflation rate is the result of weighing the pros of low inflation against the cons of setting too low a target for inflation. The Governing Council of the ECB considers that price stability is best maintained by aiming for a 2% HICP inflation rate over the medium term. The formulation of the price stability objective as a specific quantitative target replaces the previous double-key formulation of the objective.

No explicit definition of price stability

In a departure from the previous monetary policy strategy, the Governing Council's new strategy does not contain an explicit formal definition of price stability. Instead, it sets a target

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29 See, for example, Work stream on inflation measurement (2021) or European Central Bank (2016). Preliminary analyses by the Bundesbank also show similar results. The analytical series were backcast to 1999 in some cases.
30 A similar picture emerges for Germany, according to the Bundesbank's preliminary analyses.
31 See, for example, Eiglsperger (2019a).
32 In Germany, for example, there is a great need for transparency, particularly in relation to the package holidays HICP sub-index in combination with the HICP's chain-linking principle. See Deutsche Bundesbank (2017b, 2019a, 2019b and 2021a) and Eiglsperger (2019b).
33 See, for example, European Central Bank (2014).
34 See, for example, European Central Bank (1999 and 2003) and Camba-Mendez (2003).
35 There are, however, findings on the size of the bias from individual sources of measurement bias. For example, Herzberg et al. (2021) showed that the bias stemming from the assumption of a temporarily fixed basket of goods (representativity bias) in Germany and the euro area is only slightly positive; at the same time, updating the weighting scheme more frequently using provisional data to calculate the weights would potentially result in new measurement uncertainties (vintage bias).
36 See Work stream on inflation measurement (2021), in particular Section 3.

inflation rate of 2% and considers this to best maintain price stability. Compared with a target inflation rate of 0%, a 2% target offers crucial advantages when it comes to maintaining price stability. Some of these advantages were already key reasons for the policy aim set during the last strategy review in 2003 and continue to exist today.

Inflation target of 2% provides necessary balance between safety margin against deflation …

One such advantage of a 2% inflation rate is that it provides a necessary safety margin against deflation, i.e. a setting of persistently falling prices.[37] This kind of setting can lead to severe economic losses and should therefore be avoided. A higher target inflation rate increases this safety margin, on the one hand. On the other, it raises the average nominal interest rates.[38] This, in turn, gives interest rate policy more space to avoid deflationary outcomes.

The equilibrium real interest rate has fallen further since the last strategy review, which in and of itself suggests implementing a higher target inflation rate, in order to increase the interest rate policy space and be able to better stabilise inflation at the target inflation rate.[39] The new operationalisation of price stability (2%, medium term) is, in fact, a slight increase compared to the previous policy aim (below, but close to 2%, medium term). The Governing Council of the ECB is thereby taking into account the reduced equilibrium real interest rate.

… and costs of higher inflation rates, such as inefficient allocation of resources, …

The Governing Council of the ECB decided against raising the target inflation rate more markedly, however. A marked increase in the monetary policy target inflation rate would entail a host of disadvantages.[40] For example, the problem of inflation-induced bias in relative prices would become greater. As a result, the steering function of relative prices would become less efficient and could thus lead to inefficient allocation of resources. Higher inflation rates also cause other inefficiencies, such as higher inflation risk premia in the interest rates on longer-term loans, distorting effects in the nominal tax and transfer system, or arbitrary redistribution of nominal income and wealth.[41]

… a potential narrowing of monetary policy space …

Furthermore, higher target inflation rates may also narrow the newly-acquired interest rate policy space once more; given high target inflation, the central bank may have to adjust monetary policy interest rates more aggressively in order to stabilise the inflation rate. Higher target inflation results in the inflation rate being shaped by expectations for future inflation to an even greater degree, meaning that it is less influenced by the current level of economic capacity utilisation. The central bank then has to generate stronger economic stimulus by means of correspondingly marked interest rate changes in order to steer inflation in the desired direction through macroeconomic capacity utilisation.[42]

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37 The arguments in favour of a positive inflation buffer over the longer term are not just based on the existence of a sufficient margin against the lower bound on interest rates or possible measurement bias which distorts inflation statistics. In particular, alongside a persistent inflation differential between the euro area countries, the existence of downward nominal price and wage rigidities is also considered relevant to the justification for an inflation buffer. Setting the policy objective at 2% can therefore also be seen as a contribution to facilitating any labour market adjustments and creating enough scope to facilitate relative price adjustment in the monetary union.

38 These are composed of the equilibrium real interest rate and the inflation rate targeted by the central bank.

39 The box on pp. 24 ff. shows the relationships between the equilibrium real interest rate, the target inflation rate and interest rate policy space in a quantitative model.

40 The costs of higher inflation are also likely to rise disproportionately with the level of the target inflation rate. See, for example, Ascari and Sbordone (2014).

41 See Deutsche Bundesbank (2019c).

42 This relationship can be illustrated using a New Keynesian Phillips curve (NKPC). Based on firms' optimal pricing conditions, it describes the relationship between the inflation rate, the aggregate output gap and inflation expectations. According to the NKPC, average higher inflation rates may have the following macroeconomic implications (for more information, see Deutsche Bundesbank (2018)): for one thing, any differences in relative prices between enterprises grow larger. The greater shifts in demand associated with this lead to a reduction in the quantity of goods produced by firms. Furthermore, demand becomes less important for firms' price setting in relative terms, as they now give a stronger weighting to the inflation path when they set their prices. Given a higher target inflation rate, then, the output gap loses significance as a determinant of price developments. That is, with a higher target inflation rate, the NKPC becomes flatter and aggregate demand, taken in isolation, accordingly becomes less important as a determinant of price developments. As a result, the price adjustment in the wake of an interest rate hike is less pronounced. In line with this, a cut in interest rates in the event of an economic downturn has less of an effect on aggregate demand than it would if the inflation rate were lower. See also Ascari and Sbordone (2014).

… or an unanchoring of inflation expectations

A high target inflation rate might also increase the risk of inflation expectations becoming unanchored. Should this occur, inflation expectations might deviate from the monetary policy target inflation rate over the long term, too, making it considerably more difficult to reach this target.[43] Furthermore, in view of the potential costs of a higher target inflation rate, it must be taken into account that the Eurosystem, like other central banks, has expanded its toolbox to include unconventional instruments that may mitigate the constraints imposed by the effective lower bound. However, unconventional instruments such as asset purchases may also potentially have undesirable side effects that must likewise be taken into consideration when setting the target inflation rate.[44]

Having weighed up the numerous pros and cons, the Governing Council of the ECB has come to the conclusion that a target inflation rate of 2% is appropriate.

Target range instead of 2% point target could indeed make it clear that monetary policymakers lack full control over inflation …

The choice to set an inflation target of 2% simultaneously represents a decision for a point target and against a target range for the inflation rate. On the face of it, it seems that a target range would offer some advantages. In the form of an uncertainty band, possibly with a focal point in the middle, it would implicitly signal that the inflation process is not perfectly controllable by monetary policy at all times. This could help enhance the credibility and comprehensibility of monetary policy. In addition, an "indifference range" within which no or a weak monetary policy response occurs could provide a certain degree of flexibility in responding appropriately to unforeseen developments.

… but would also increase the risk of a worse anchoring of inflation expectations

A target range, however, would engender the risk of inflation expectations settling at the upper or lower bound of the range following a series of uniform shocks. This could occur if the economic agents had expected either no monetary policy response at all or only a weak monetary policy response within the range. This risk would emerge particularly for disinflationary shocks, due to the effective lower bound. Consistent with this is the fact that simulation studies imply worse inflation stabilisation given a target range than given a point target.[45] Empirical studies indicate that a point target anchors long-run inflation expectations more firmly than a target range, at least when the latter is perceived as an indifference range.[46] Lastly, the concept of medium-term orientation also fulfils the function of creating monetary policy flexibility (see the section "Medium-term orientation retained"), with the result that the ECB Governing Council continues to deem a target range less than ideal in this regard.

Symmetry of the inflation target

Asymmetry of previous strategy fit for purpose at start of monetary union due to inflationary risks, …

As discussed in the section "Why review the monetary policy strategy?", the previous operationalisation of price stability was asymmetrical. This was appropriate to the situation at the time of the 2003 strategy review; in view of the high inflation rates and predominantly inflationary shocks at the start of monetary union, it was particularly important to the ECB Governing Council to anchor inflation expectations at a low level at that time.

However, over the past few years, disinflationary and deflationary shocks have tended to

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43 Economic agents' inflation expectations play a prominent role for monetary policy because they affect individual economic agents' wage and price setting behaviour, and are thus themselves an important determinant of the path of inflation. If inflation expectations are not firmly anchored, this makes it harder to stabilise the inflation rate. In a worst-case scenario, the central bank would fail to achieve its inflation target even in the medium term. A higher inflation target may increase the probability of inflation expectations becoming unanchored and, in extreme cases, result in them being inconsistent with the central bank's new target even in the long term. For a detailed explanation of this relationship and a risk-benefit analysis of aiming either for a higher target inflation rate to act as a buffer for the effective lower bound or a lower target inflation rate to prevent inefficiencies, see Deutsche Bundesbank (2018).
44 For information on the impact and potential side effects of monetary policy asset purchases, see Deutsche Bundesbank (2016).
45 See Coenen et al. (2021) or Le Bihan et al. (2021).
46 A summary of this study and a broad overview of the differences between a point target and a target range can be found in Work stream on the price stability objective (2021).

… but unsuited to current macroeconomic environment of low inflation

exert downward pressure on inflation. Against this backdrop, the Eurosystem faced the challenge of ensuring higher inflation rates. The asymmetry in the operationalisation of price stability increasingly proved to be a hindrance, as it potentially signalled a lower degree of monetary policy commitment in this context. In this respect, the ECB Governing Council's intentions were not the decisive factor. Rather, the perceived asymmetry in terms of the effective lower bound particularly heightened the risk of persistently lower inflation rates.

Policy aim is now explicitly symmetrical …

For these reasons, the ECB Governing Council has now decided to introduce an explicitly symmetrical inflation target. This means that negative and positive deviations of inflation from the target are considered to be equally undesirable.[47] The focus is not on temporary, smaller deviations, which are unavoidable in an environment characterised by myriad and unforeseeable events (see the section "Medium-term orientation retained"), but rather on larger and more persistent deviations from the medium-term inflation target of 2%.

… in order to anchor inflation expectations firmly at the target

With its symmetrical stance, the ECB Governing Council aims to anchor inflation expectations firmly at the 2% inflation target. This symmetry implies that forceful action will be taken in response to persistent positive or negative deviations in order to counteract any failure to meet the inflation target in the medium term. Economic agents can therefore expect that the medium-term inflation target will be met. In turn, such anchored expectations make it easier to reach the inflation target as they result in wage and price-setting decisions that are compatible with the aim of price stability. Firmly anchored inflation expectations remain a significant prerequisite for actually reaching the inflation target.

Medium-term orientation retained

Medium-term orientation is credible and transparent …

Although monetary policy instruments can influence price developments, they do so with time-varying lags. Short-term fluctuations in the inflation rate are therefore beyond the control of monetary policy. If monetary policymakers nonetheless attempted to offset these fluctuations, this would likely increase interest rate volatility and real economic activity without effectively stabilising inflation.

… and allows for a flexible response to economic shocks

The medium-term orientation also allows monetary policy to respond flexibly to different kinds of shocks. When demand shocks occur, inflation and real economic activity move in the same direction. Thus a monetary policy response that stabilises inflation also stabilises production and employment. By contrast, in the case of a supply-side shock, inflation and real economic activity move in opposite directions. An example of this is oil price increases. They lead to higher costs and thus higher prices, but at the same time decrease economic activity. In its attempts to stabilise the inflation rate, a highly restrictive monetary policy response would temporarily trigger an even sharper slump in real economic activity.[48] It may therefore prove wise to initially "look through" supply shocks, i.e. to show either a weaker monetary policy response or none at all, thereby accepting slightly longer deviations from the inflation target.[49] The medium-term orientation therefore allows monetary policy stabilisation to come about either more quickly or more slowly, depending on the nature of the shock.

Medium-term orientation therefore still part of strategy

For these reasons, the ECB Governing Council has decided to retain its medium-term orientation. This preserves the necessary flexibility to respond to deviations from the inflation target depending on the economic context. The Governing Council can therefore take all relevant factors into consideration when making policy decisions aimed at achieving price stability.

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47 See European Central Bank (2021a), p. 7.
48 Due to repercussions for the inflation rate, however, strong real economic fluctuations would make it more difficult for monetary policymakers to ensure price stability.
49 This is particularly true when such supply shocks only have a temporary effect and do not cause any second-round effects in wage and price negotiations on account of firmly anchored inflation expectations.

Achieving the inflation target in view of the lower bound

Effective lower bound is key challenge for monetary policy, …

The decline in the equilibrium real interest rate and the higher likelihood of a more frequently binding effective lower bound (described in the section "Why review the monetary policy strategy?") present a key challenge for monetary policymakers, particularly during periods of predominantly disinflationary shocks. If monetary policy is restricted by the effective lower bound, it runs out of policy space at precisely the moment this would be most crucial in order to prevent a potential slide into deflation. By contrast, policymakers do, in principle, possess unlimited space for raising rates and stabilising inflation when positive deviations from the inflation target occur.

… as it induces asymmetry in interest rate policy space and implies negative inflation bias

The effective lower bound thus induces asymmetry in interest rate policy space. This results, if unconventional monetary policy measures are abstracted, in an inflation rate that lies substantially below the inflation target on an average of a longer period. The effective lower bound thus results in what is known as a negative inflation bias. If inflation expectations become anchored below the inflation target because of this bias, it becomes significantly more difficult for monetary policymakers to ensure price stability in terms of the target inflation rate. In addition, the lack of interest rate policy stabilisation options at the effective lower bound increases inflation volatility. These relationships are examined in more detail in a quantitative model on pp. 34 ff.

Unconventional measures at the effective lower bound

Unconventional measures have generated upside pressure on the inflation rate

Since the financial crisis, the ECB Governing Council has implemented a series of unconventional monetary policy measures to generate upward pressure on inflation in the face of disinflationary shocks.[50] So far, these measures have proven effective in combating disinflationary pressures.[51] In situations where interest rates are close to the effective lower bound, they will thus remain a key component of the Eurosystem's toolbox in future, too.

Effectiveness of these measures fraught with uncertainty, however

However, high uncertainty remains with regard to the exact magnitude of the impact of unconventional measures. On account of the relatively recent history of such measures, there are currently insufficient data available to reach a robust assessment of any kind. Furthermore, the magnitude of the measured effects very much depends on the policy design and the models used for the assessment.[52] This is particularly true for monetary policy purchase programmes. However, the impact of forward guidance on interest rates is also difficult to estimate as it is strongly reliant on the credibility and concrete formulation of the measures.[53]

Risk of undesirable side effects, as well

The extensive implementation of unconventional measures may also bring about undesirable side effects and foster wrong incentives for both the private and public sectors, for example.[54] Although potential side effects can be mitigated through suitable policy design, this is also likely to reduce the effectiveness of the

50 Specifically, these measures included asset purchases, negative policy rates, targeted longer-term refinancing operations and forward guidance on interest and purchasing policies as well as the reinvestment policy. See Rostagno et al. (2021).
51 In the literature on monetary policy, it is widely agreed that unconventional measures such as negative interest rate policies, asset purchase programmes and forward guidance can have a positive impact on the inflation rate, in principle. For an overview of the literature, see, for instance, Work stream on the price stability objective (2021), Chapter 2, and Altavilla et al. (2021).
52 See Deutsche Bundesbank (2016).
53 A credible announcement that interest rates are going to stay at their effective lower bound tends to increase economic agents' inflation expectations. This reduces real interest rates and stimulates the inflation rate by means of higher aggregate demand. Given a less credible monetary policy, these effects would be correspondingly less pronounced. See Coenen et al. (2021).
54 Generally speaking, an expansionary monetary policy that results in low financing costs over a long period of time on account of announced asset purchases or interest rate forward guidance may have negative incentive effects on the indebtedness of euro area countries. The longer governments are able to assume that financing conditions will remain attractive, the more likely the incentive to implement economic policy reforms and pursue fiscal discipline is to decrease, while the vulnerability to a future rise in interest rates increases. For more information on this, see Röttger and Gerke (2021), who illustrate such a relationship using a quantitative model.

measures. For example, under the Eurosystem's public sector purchase programme (PSPP), asset purchases are subject to certain upper purchasing limits to prevent, amongst other things, central banks from becoming the dominant creditors of governments. Taken in isolation, limits of this kind reduce the efficacy of asset purchase programmes by restricting the potential volume of possible asset purchases and hence the degree of monetary policy accommodation.[55] They are nevertheless necessary in order to ensure, inter alia, that the monetary policy measures are compatible with the monetary union's institutional framework and the functioning of the affected markets.

For these reasons, individual unconventional measures by themselves are likely to be poorly suited to completely eliminating the negative inflation bias created by the effective lower bound. In the context of the Eurosystem's strategy review, therefore, a range of alternative, complementary means of reducing the negative inflation bias through monetary policy have been discussed.

Arguments for and against history-dependent monetary policy approaches

History-dependent approaches, as a possible alternative, …

History-dependent monetary policy approaches represent an additional way of anchoring inflation expectations more firmly at the inflation target. In monetary policy practice, past inflation developments do not usually have a bearing on the current monetary policy stance. Rather, monetary policy focuses on the current and expected inflation rates. As some would put it, monetary policymakers "let bygones be bygones". In the wake of tightened restrictions resulting from the effective lower bound over the past few years, however, the focus has increasingly shifted to history-dependent monetary policy approaches.

Such approaches are based on the idea of "making up" for past deviations from target through future deviations in the opposite direction. Take average inflation targeting as an illustrative example:[56] in this case, the target variable is the average inflation rate, with the central bank setting the time horizon for the averaging window. Should the average inflation rate fall below its target, monetary policy must temporarily increase the inflation rate above target to ensure that the average inflation rate returns to the target. This means that monetary policy is intentionally seeking to overshoot the inflation rate (or vice versa in the opposite scenario).

… use the expectation channel as an automatic stabiliser, …

History-dependent approaches use inflation expectations as automatic stabilisers: after a sustained period of below-target inflation, forward-looking economic agents anticipate that the future will bring a temporarily more expansionary monetary policy and thus higher rates of inflation for as long as it takes for average inflation to return to the desired target level. This reduces the real rate of interest and stimulates inflation via expansion of macroeconomic demand (the same applies in reverse when inflation overshoots the target for a prolonged period of time). The academic literature refers to this mechanism as the "expectation channel". At times when the monetary policy rates are constrained by their effective lower bound, this expectation channel is a particularly valuable way of providing additional monetary policy stimulus.

In analyses based on theoretical models, history-dependence performs very well in terms of the stabilisation outcomes it produces. Among other things, the results show that the negative inflation bias is reduced or even eliminated entirely – despite taking into account the effective lower bound constraint. The box

55 The influence of upper purchasing limits on the efficacy of asset purchase programmes is illustrated in the box on pp. 34 ff. in the form of a quantitative model.
56 See, for example, Nessén and Vestin (2005). Price level targeting (PLT) can be viewed as a special case in which the average inflation rate is targeted over an infinite time horizon in order to calculate this rate (again, see Nessén and Vestin (2005)). For a thorough comparison of inflation targeting and price level targeting, see Deutsche Bundesbank (2010). A model-based comparison of history-dependent approaches is carried out in the box on pp. 38 ff.

How limits affect the efficacy of asset purchase programmes

Central banks use asset purchase programmes to provide expansionary monetary policy stimulus even when operating at the effective lower bound on interest rates. In principle, the larger the asset purchase programme, the more expansionary its effect should be. However, extensive asset purchases also increase the risk of undesirable side effects. To give an example, there is the possibility that large-scale purchases of government bonds make the central bank a dominant creditor of governments. This could blur the boundaries between monetary and fiscal policy, thereby harming the independence of monetary policy.[1]

In order to mitigate these, and other, undesirable side effects, asset purchase programmes are, in practice, subject to built-in and/or legal limits, as is the case with the Eurosystem's public sector purchase programme (PSPP).[2] Limits of this kind reduce the efficacy of asset purchase programmes if they restrict the level of possible asset purchases and hence the degree of monetary policy accommodation. This interaction is illustrated in quantitative terms below using a model, which reveals the extent to which limits could reduce the efficacy of asset purchases. Possible side effects – and thus the reasons for limits – are not part of the model analysis below.

In principle, limits can reduce the efficacy of asset purchases without actually immediately restricting current purchase programmes. Limiting the future purchase volume already suffices. The reason for this is that the macroeconomic effect of an asset purchase programme materialises as soon as it is credibly announced (also referred to as a stock effect in this context). This means that the expansionary stimulus – assuming that economic agents are forward-looking – takes effect even before the central bank begins making asset purchases or before it has conducted all purchases.[3] The size of the expansionary effect is thus mainly determined by the expected sum of net purchases, i.e. the expected stock of asset purchases on the central bank's balance sheet.[4]

To quantify the effect of possible limits on the efficacy of asset purchase programmes, model simulations were used during the strategy review. Dynamic stochastic general equilibrium (DSGE) models are particularly suited to this purpose, as they can depict the core mechanisms of asset purchase programmes. They also allow for counterfactual simulations in order to analyse the effectiveness of asset purchase programmes with and without limits.[5]

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1 Large purchase volumes can additionally impair the smooth functioning of the market as well as price formation in the capital markets. See, for example, Deutsche Bundesbank (2016), Questions & Answers at https://www.ecb.europa.eu/mopo/implement/app/html/pspp-qa.en.html, or Altavilla et al. (2021).

2 For the PSPP, the Governing Council of the ECB set an issue and issuer limit; see Decision (EU) 2015/774 of the European Central Bank. However, such limits are not just applied in the euro area, but also by other central banks such as the Bank of England. See Consolidated Market Notice: Asset Purchase Facility: Gilt Purchases – Market Notice 11 June 2019.

3 By contrast, flow effects are the economic effects arising exclusively from the purchases actually made. In terms of relative efficacy, stock effects are regarded as the more significant effect by far. See, for example, D'Amico and King (2013) or Sudo and Tanaka (2021).

4 Other relevant factors are the precise path of purchases as the sum of net purchases, a possible reinvestment phase, and the reduction path. For an analysis of the extent to which a reinvestment policy can reduce the constraints imposed by limits, see Gerke, Kienzler and Scheer (2021).

5 The model used below is an estimated, medium-size New Keynesian model with a banking sector and simplified household heterogeneity. All details on the model framework, estimation, solution method (as briefly touched upon here) and simulation design can be found in Gerke, Kienzler and Scheer (2021).

A state-contingent purchase programme is assumed for asset purchases: the more the inflation rate deviates from its target, the higher the level of purchases and the greater the expected monetary policy stimulus. The asset purchase programme is formally denoted by:

$$\hat{b}_t = \rho_b \hat{b}_{t-1} + I_{R_t = ELB} \phi_b \hat{\pi}_t,$$

where $\hat{b}_t$ is the stock of government bonds on the central bank balance sheet and $\hat{\pi}_t$ is the (logarithmic) inflation rate, both given in terms of deviation from their long-term equilibrium.[6] The strength of state contingency, depicted by the coefficient ϕ_b, is estimated on the basis of past Eurosystem purchases under the PSPP. Furthermore, it is assumed that the central bank only conducts asset purchases if its conventional monetary policy instrument, the short-term interest rate, is constrained by the lower bound on interest rates (depicted in the above formula by the indicator function $I_{Rt = ELB}$). Once the effective lower bound ceases to bind, the central bank gradually reduces its balance sheet.[7]

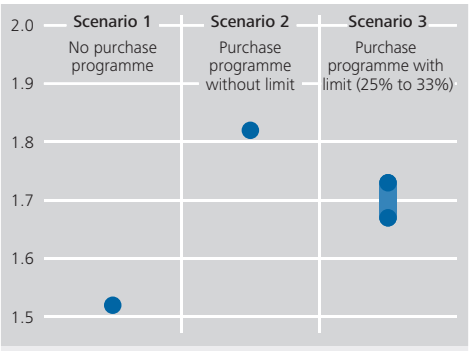
For the stochastic simulations within the above-described model framework, one methodological obstacle is capturing the various non-linearities. In this model, they are the effective lower bound on the short-term nominal interest rate, the launching of a state-contingent asset purchase programme, and any limits of the asset purchase programme.[8] One approach to capture such multiple non-linearities is the piecewise linear approach, which was used and extended for the underlying simulations.[9]

Three scenarios are compared, in each of which the short-term interest rate is constrained by the effective lower bound.[10] In the first scenario, the central bank has only the short-term nominal interest rate at its disposal. It cannot resort to an asset purchase programme as an additional monetary policy instrument. In the second scenario, the central bank can resort to asset purchases to provide further monetary policy stimulus at the effective lower bound, without being constrained by a limit on the purchase volume.[11] In the third scenario, the central bank also has to comply with a limit on asset purchases of 25% or alternatively 33% of all outstanding bonds.

The average inflation rate in the results for each simulation is mapped in the chart on p. 36. Three main results emerge. First, the effective lower bound on interest rates causes a notable negative inflation bias if the central bank has only the short-term nominal interest rate at its disposal. Accord-

6 This kind of process is also used in Bartocci et al. (2019) and Coenen et al. (2021). The latter condition the purchase programme on a shadow interest rate (i.e. on a latent variable) instead of the inflation rate.
7 For the sake of simplicity, a reinvestment policy, as used by the Eurosystem, is not considered (for inclusion of a reinvestment policy, see Gerke, Kienzler and Scheer (2021)). In principle, the operationalisation of the purchase process has an impact on the quantitative effects of the purchase programme. In contrast to the results below, alternative assumptions such as weaker state dependency and swifter balance sheet reduction could be made. In this case, the reported macroeconomic effects would be reduced accordingly.
8 State contingency has two meanings in this context. First, the central bank conducts higher net purchases if the inflation rate deviates more strongly from its target. Second, the central bank only conducts these purchases if the monetary policy interest rate is at the effective lower bound.
9 For the seminal work, see Kulish and Pagan (2017) and Guerrieri and Iacoviello (2015).
10 To generate the simulations, shocks are randomly drawn from the estimated distributions of the exogenous shocks. On this basis, 2,000 simulations with a length of 200 periods each are then generated, with the first 100 periods being discarded for the initialisation. To broadly match the current configuration in the euro area, the simulations assume an inflation target of 2%, a long-term equilibrium real interest rate of 0.5% and an effective lower bound of -0.5%.
11 The level of net purchases and the expected stock of bonds on the central bank balance sheet then exclusively stem from two endogenous factors. First, the state-contingent net purchases, if the short-term nominal interest rate is constrained by the effective lower bound. Second, the stock from past purchases.

Average inflation rates in different scenarios*



* Based on stochastic simulations. The inflation target is 2%, the effective lower bound is -0.5% and the equilibrium real interest rate is 0.5%.

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ingly, the average inflation rate settles below the inflation target. Second, asset purchases can reduce the inflation bias, but not eliminate it completely. Third, asset purchase programmes with limits – as compared with an unlimited purchase programme – increase the inflation bias. In other words, they reduce the efficacy of asset purchase programmes.

The left-hand section of the chart illustrates the first main result. It shows an average inflation rate of around 1.5% in scenario 1, the one with no asset purchase programme. According to the simulations, the effective lower bound thus causes the inflation rate to settle around 50 basis points on average, and hence notably, below its target of 2%. Taken in isolation, this could jeopardise the credibility of the central bank and make it harder to anchor long-term inflation expectations. This would further reduce the efficacy of monetary policy.

When the central bank resorts to unlimited asset purchases at the effective lower bound (scenario 2), the simulations show a marked increase in the average inflation rate towards the assumed target of 2% (middle section). The simulations underscore why asset purchase programmes have become an important component of non-standard monetary policy measures at the effective lower bound. Nonetheless, at just over 1.8%, the average inflation rate is still below the 2% target.

When monetary policy faces limits to its asset purchases (scenario 3), it becomes more difficult to achieve the inflation target as compared with a purchase programme without limits. The right-hand section of the chart illustrates the extent to which a limit on the purchase volume of 25% or 33% reduces the efficacy of asset purchase programmes. Depending on how tight the limit is, the average inflation rate falls by around 10 to 15 basis points compared with an asset purchase programme without a limit. Even though the inflation rate is closer to the 2% target as compared with the scenario with no asset purchase programme (scenario 1), at just under 1.7% it still falls further short of the target than in the scenario with unlimited asset purchases (scenario 2).

However, limits not only reduce the average inflation rate, they also increase macroeconomic volatility. For example, compared with a scenario without a limit, inflation rate volatility rises by 25% to 40%. It increases more strongly given a limit of 25% than for a limit of 33%.[12]

In summary, the following can be concluded from the illustrative simulations: the effective lower bound on interest rates con-

12 Similar results can also be found in simulations of the effect of limits in Work stream on the price stability objective (2021) or Mazelis et al. (2021). In the latter paper, however, the state dependency of the asset purchase programmes was implemented via a model-endogenous shadow interest rate (latent variable). Here, even a limit of 50% leads to a decline in the average inflation rate of up to 5 basis points and an increase in volatility of around 20% compared with an unlimited asset purchase programme.

strains the central bank in achieving the inflation target. Even using asset purchase programmes without limits does not necessarily suffice to achieve the inflation target if the empirically estimated strength of the state dependency of the purchase programme matches that of the PSPP. This is all the more true when limits restrict the possible purchase volume. For this reason, the Governing Council of the ECB decided on a comprehensive package of monetary policy measures at the effective lower bound: as part of the new strategy, the Eurosystem has agreed to continue providing expansionary stimulus at the effective lower bound using additional instruments such as forward guidance on interest rates and an asymmetric response function.[13]

13 For the impact of unconventional measures on the inflation rate, see Altavilla et al. (2021). The use of multiple instruments can also create additional synergy effects, e.g. when asset purchases are conducted in parallel to forward guidance on interest rates. For more on this, see also Gerke et al. (2020).

on pp. 38 ff. presents and explains some model results of this kind.[57]

… provided they are credible and comprehensible …

However, these benefits are only fully realised if history-dependent approaches are credible and well understood by economic agents and if those economic agents form forward-looking expectations to a sufficient degree.[58] Otherwise, they will adjust their adjustment expectations only partially or not at all. This, in turn, prevents the expectation channel from exerting its full stabilising effect, and the theoretical benefits of history-dependence diminish.[59] The box on pp. 44 f. illustrates in a model-theoretic context how a specific form of bounded rationality can considerably impair the stabilisation capacity of history-dependent approaches.[60]

… and economic agents behave in a sufficiently forward-looking manner

There is considerable uncertainty surrounding how economic agents actually form their expectations and how potent the effect of the expectation channel could be. For example, influences of a more backward-looking nature may be a dominant force in the formation of expectations if past personal experiences with varyingly high rates of inflation play an important role for inflation expectations.[61] Empirical

57 For a harmonised model analysis looking at history-dependent approaches and including a variety of models used in the Eurosystem, see Work stream on the price stability objective (2021), Chapter 4.
58 Simply put, this means that economic agents are capable of virtually unrestrictedly forming expectations about potential events far in the future. Only then can monetary policy measures that are announced today but will not be implemented until later on have a positive impact on current economic decisions.
59 See Work stream on the price stability objective (2021). In the case of strong forms of history-dependent approaches, like price level targeting, the stabilisation effect is so potent that even with hybrid expectations – a mixture of rational and backward-looking expectations – no negative inflation bias arises. Having said that, the degree of deviation from rational expectations in these simulations is small for technical reasons. Larger deviations from rational expectations or even fully backward-looking expectations could alter the results.
60 There is still no consensus in the academic literature as to the extent to which the ideal-typical preconditions for high effectiveness of history-dependent strategies actually need to be met.
61 See D'Acunto et al. (2019) plus Malmendier and Nagel (2016).

Potential stabilisation effects of history-dependent monetary policy approaches – insights from quantitative model analyses

To the vast majority of central banks, ensuring price stability means stabilising future inflation at the target value. The prime example of such a monetary policy approach is inflation targeting (IT).[1] This approach has helped many economies bring down inflation rates which were, at times, running high in the 1980s and 1990s. In an environment of low inflation rates and a falling equilibrium real interest rate, however, this approach poses challenges to monetary policy owing to the effective lower bound on nominal interest rates.[2]

In practice, central banks at the effective lower bound have attempted to compensate for the lack of space for further interest rate cuts by means of unconventional measures. However, owing not least to potential undesirable side effects of such measures, approaches above and beyond forward-looking inflation targeting are being discussed.[3] The focus is primarily on history-dependent approaches (also referred to as "make-up" approaches), which – according to monetary policy theory – can have advantages over conventional inflation targeting, especially in a low interest rate environment. This discussion is not purely academic in nature; in the aftermath of its strategy review, the US Federal Reserve switched to a version of average inflation targeting (AIT). The most salient feature of such an approach is that the monetary policy target is based on an average inflation rate – in contrast to approaches based on conventional inflation targeting. A certain monetary policy target (e.g. 2%) is set here and the average is formed over a period in the past to be defined. The potential advantage of credible and well-understood history-dependent approaches such as AIT – or its close relative, price level targeting (PLT) – lies in stabilising inflation automatically by managing private sector expectations.[4]

Central banks pursuing AIT commit, if the average inflation rate deviates negatively (positively) from the target, to aiming for a future inflation rate that is above (below) the average inflation target. On condition that the central bank's commitment is viewed as credible, the anticipated future monetary policy response, through the expectations channel, contributes to steering future inflation in the right direction in the present.[5] In this manner, the inflation rate is "automatically" stabilised by expected future actions, which lessens the central bank's need for forceful intervention. This, in turn, promotes a more effective stabilisation of inflation through corresponding effects on the short-term real interest rate.

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1 Under this approach, monetary policymakers commit, amongst other things, to meeting a numerical inflation target that is explicitly communicated to the public and to transparently explaining the measures designed to assure that this target is met. Although the inflation target is mostly adopted as a point target, it can also, in principle, be defined as a target range. This point is discussed in the main article. See also Ehrmann (2021).

2 For more, see the box on pp. 32 ff.

3 This box solely addresses the extent to which an alternative approach may enhance the effectiveness of monetary policy. Unconventional monetary policy is not discussed any further below. See pp. 34 ff. for more on the role of asset purchases at the effective lower bound.

4 The relationship between PLT and AIT is discussed in footnote 56 in the main text.

5 An average inflation rate below target triggers expectations of monetary policy expansion in the future. This, in turn, leads to an increase in future economic activity and inflation. Higher inflation expectations then push down the (expected) real interest rate in the previous periods, increasing aggregate demand and inflation in those periods. The reverse occurs if the average inflation rate is above target.

The automatic stabilisation property is helpful particularly when the effective lower bound prevents a stronger nominal interest rate response given a negative deviation from target. In this case, the central bank's commitment to "make up" the negative deviation from target by means of a more expansionary future policy allows it to increase current inflation expectations and step up the monetary expansion in the present through the consequent reduction in the real interest rate, despite the existence of a binding effective lower bound.

Alongside the aforementioned benefits, though, history-dependent approaches also have potential downsides. Chief among them is the potential amplification of monetary policy conflicts which already occur in the case of IT in connection with supply-side shocks. If, for example, under a regime of AIT, the inflation rate is above target owing to an inflationary supply-side shock (e.g. a positive oil price shock), the central bank is compelled to counteract this price movement by tightening monetary policy in the future. Since price developments are driven to a large extent by wage dynamics, aggregate activity, which is already being dampened by the supply-side shock, would have to be curbed further given sticky wages in order to achieve the desired impact on inflation. The long-run stabilisation of inflation under history-dependent approaches can therefore be associated with considerable losses in terms of macroeconomic stabilisation.[6] The scope of the aforementioned pros and cons of history-dependent approaches depends, amongst other things, on the shocks to which an economy is exposed and how they influence macroeconomic dynamics.[7] Ultimately, the net benefits can only be assessed quantitatively using counterfactual model analyses.

This box will summarise the results of a model-based comparison of various monetary policy approaches below, using two New Keynesian models.[8] They differ in terms of the macroeconomic importance of household heterogeneity, which has implications for the effectiveness of history-dependent monetary policy. In the first dynamic stochastic general equilibrium (DSGE) model, the household sector is modelled by a "representative household".[9] Models of this type, referred to below as representative agent New Keynesian (RANK) models, are currently the dominant type in the academic literature and monetary policy practice. However, this category of models possesses numerous weaknesses that could also be relevant for an assessment of history-dependent monetary policy. Above all, households' consumption and saving – compared with empirical estimates – is excessively sensitive to changes in interest rates, which means that monetary policy causes very strong direct consumption effects via the interest rate channel. This is also true for expected future interest rate changes;

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6 See the main article for more on additional challenges in connection with history-dependent approaches.

7 Non-rational expectations formation can impact considerably on, for instance, the cost-benefit ratio of history-dependent approaches; see pp. 44 f.

8 Both models are DSGE models with sticky goods prices and wages. They contain, moreover, demand-side shocks which exacerbate the problems associated with the effective lower bound as well as supply-side disruptions which could potentially be problematic for history-dependent approaches given wage stickiness. Both models therefore capture key aspects which are of relevance to an assessment of history-dependent approaches in monetary policy. See Dobrew, Gerke, Giesen and Röttger (2021) for details of the model.

9 Differences between households, especially concerning labour income and wealth, are omitted here or do not affect macroeconomic developments or the monetary transmission process. A possible rationale for a representative household can be the assumption of complete financial markets. Under this assumption, households can negotiate financial contracts amongst each other which make idiosyncratic risks perfectly insurable. It can be shown for this case that inequalities between households do not affect macroeconomic variables. See, for example, Ljungqvist and Sargent (2018).

Simulation results for various interest rate rules based on RANK/HANK models

Interest rate rule[1]	Effective lower bound incidence		Inflation rate (%)		Output gap (%)	
	Frequency (%)	Average duration (quarters)	Mean	Standard deviation	Mean	Standard deviation
IT						
RANK model	22.29	9.17	1.81	3.74	– 0.16	2.46
HANK model	18.60	7.53	1.72	3.71	– 0.19	2.79
AIT (4-year average)						
RANK model	17.67	9.22	1.95	2.20	– 0.06	2.25
HANK model	14.44	7.23	1.95	2.29	– 0.04	2.31
AIT (8-year average)						
RANK model	14.69	6.95	1.99	2.26	– 0.02	2.20
HANK model	12.06	5.64	1.99	2.31	– 0.02	2.26
PLT						
RANK model	12.64	6.58	2.00	2.06	– 0.02	2.17
HANK model	10.18	5.34	2.00	1.99	– 0.01	2.21

1 IT: inflation targeting; AIT: average inflation targeting; PLT: price level targeting.

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consequently, RANK models are typically subject to the "forward guidance puzzle", which means that the effects of interest rate forward guidance are unrealistically strong.[10] Since history-dependent approaches make up for negative deviations of inflation from target during a phase at the effective lower bound through future positive deviations, i.e. accordingly lower interest rates, the interest rate channel generally has an unrealistically large impact in RANK models and thus potentially overstates the effects of history-dependent approaches.

The second DSGE model, hereinafter referred to as the heterogeneous agent New Keynesian (HANK) model, reflects households' behaviour more realistically, giving household heterogeneity in this model a relevant macroeconomic role.[11] The relationship between economic heterogeneity and monetary policy is mutual. On the one hand, the distribution of income and wealth affects how monetary policy impacts on macroeconomic variables. When analysing history-dependent monetary policy, it is particularly that share of households which cannot borrow as much as they wish owing to credit constraints which matters. The existence of such households tends to weaken the potential of history-dependent monetary policy. In particular, household consumption is less sensitive to expected future changes in interest rates.[12] On the other hand, the wealth distribution in the model is itself also a function of monetary policy. Since households' savings and debt are nominal in the model, a tighter monetary policy, for instance, will weigh more heavily

10 See Dobrew, Gerke, Giesen and Röttger (2021) and the references contained therein.

11 Unlike in the RANK model, financial markets in HANK models are incomplete, i.e. households are subject to uninsurable idiosyncratic risks. In conjunction with the existence of credit constraints, this implies that a household's individual income and wealth inform its decisions on consumption and saving. In this case, macroeconomic variables accordingly reflect wealth and income inequality.

12 The larger the share of credit-constrained households, the less strongly the average household tends to increase its consumption if it expects higher future income or a lower real interest rate. Given a plausible model specification, the expectations channel in the model thereby tends to be weakened relative to the RANK model (see Hagedorn et al. (2019)). In the HANK model, credit constraints also give rise to precautionary saving, impacting on the equilibrium real interest rate and the transmission of monetary policy. Neither of these aspects is captured in the RANK model.

on borrowers owing to the dampening effect on inflation. This is likely to affect, above all, credit-constrained borrowers. If this group is sufficiently large, aggregate consumer demand can additionally be lowered due to the high propensity of this group to consume. Such heterogeneities can therefore also amplify a history-dependent monetary policy, which means that it is not clear a priori whether, and if so, to what extent, a history-dependent approach in the HANK model is less effective relative to the RANK model.[13]

The monetary policy approaches being looked at here are IT, AIT and PLT. They are captured in both models by interest rate rules which determine the key monetary policy interest rate as a function of the inflation rate and the output gap. In AIT and PLT, monetary policy additionally responds to the average inflation rate and the price level, respectively. For AIT, scenarios with 4-year and 8-year averaging are simulated. The extent to which the effective lower bound constrains monetary policy in the models depends in large part on the distance between the average nominal interest rate and the effective lower bound.[14] The table on p. 40 shows the simulation results on the basis of selected statistics. The results do not show any qualitative differences between the models and are quantitatively similar. The aforementioned transmission channels contained in the HANK model, as opposed to the RANK model, therefore more or less cancel each other out.[15] Three general observations can be made.

– First: history-dependent monetary policy rules decrease macroeconomic volatility. The more history-dependent a monetary policy rule is, the more effectively monetary policy is able to stabilise inflation and real economic activity. Under AIT with 4-year averaging, for instance, the standard deviation of the inflation rate is just under 40% lower than under IT for both models. The standard deviation of the output gap – as a measure of real economic activity – is, in this case, approximately 9% lower for the RANK model and roughly 17% lower for the HANK model. In the case of PLT, which is even more history-dependent, inflation volatility decreases by just under 45% for both models, whereas the volatility of the output gap falls by 12% (RANK) or 21% (HANK). These comparisons illustrate the fact that the additional gains in stabilisation decrease in line with the history-dependence of monetary policy. Thus, changing from IT to AIT with 4-year averaging improves macroeconomic stabilisation more substantially than increasing the time window from 4-year to 8-year averaging.

– Second: the more history-dependent the rule, the lower the probability of monetary policy being constrained by the effective lower bound. This observation can be made in light of the frequency at

13 See Ferrante and Paustian (2019) for more about the redistributive effects between savers and borrowers in a structurally similar HANK model and the implications for forward guidance on interest rates. Since these effects tend to make forward guidance more effective, it stands to reason that they will enhance the effect of history-dependent monetary policy, which likewise operates through the expectations channel, as well.

14 The model parameters which are decisive for the distance are chosen to realistically capture the current situation in the euro area. This implies an inflation target of 2%, a steady-state real interest rate level of 0.5% and an effective lower bound of -0.5%. The box beginning on p. 24 illustrates the impact of this distance, which is a positive function of the inflation target and steady-state real interest rate, on the problem of the effective lower bound.

15 The two models abstract from fiscal policy, which in the HANK model would lead to additional distributional effects that may alter the transmission of monetary policy relative to the RANK model. The implications for history-dependent monetary policy are impossible to identify directly; this is ultimately another quantitative issue.

which the respective model economy is located at the effective lower bound for a given interest rate rule. For both models, the number of periods at the effective lower bound falls monotonically in line with the history-dependence of the monetary policy approach. In the process, this share falls by nearly one-half under PLT compared to IT and declines in the RANK (HANK) model from 22% (19%) to 13% (10%). As is the case for macroeconomic stabilisation, an increase in history-dependence is associated with smaller additional effects. This comes as no surprise, since the reduced incidence of a binding effective lower bound is a major factor in the improved stabilisation properties of history-dependent approaches.

– Third: the more history-dependent monetary policy is, the more closely the inflation rate converges towards target. More history-dependent monetary policy approaches temper the problem of the effective lower bound, thereby also improving monetary policy's ability to achieve the inflation target (of 2%). Whereas under IT the inflation rate, at 1.81% in the RANK model and 1.72% in the HANK model, is, on average, well below target, PLT enables the inflation target to be hit without any downside bias. Again, the additional improvements decline the more history-dependent monetary policy is, though AIT with a 4-year averaging time window already pushes the exchange rate exceptionally close to target.[16]

In summary, history-dependent approaches have the potential to establish more effective macroeconomic stabilisation, especially at the effective lower bound. This outcome can be derived both from DSGE models with a representative household and in models with household heterogeneity. In the latter, although the more realistic modelling of consumption and saving tempers the impact of expected future interest rate changes, history-dependent strategies can mitigate the negative influence of a binding effective lower bound under these conditions, too. However, policymakers should take into account the fact that market participants do not necessarily form rational expectations, which could dampen the stabilising impact of history-dependent approaches (see the main text and the box on pp. 44 f.)[17]

16 The smaller incidence of a binding effective lower bound also reduces the average strength of recessions, which is reflected in the higher mean output gap.
17 See Farhi and Werning (2019) for more on the interaction between incomplete financial markets and bounded rationality.

studies examining whether an average inflation targeting regime is fundamentally understood by the public at large reach different conclusions.[62] Furthermore, it is uncertain whether higher inflation expectations actually lead to increased spending and investment, as is often assumed in theory. Recent study results suggest, for example, that households may well associate higher inflation expectations with a pessimistic outlook on economic conditions.[63] The intended real interest rate effect of higher inflation expectations would then be counteracted by commensurately more cautious spending behaviour and thus a higher propensity to save.

In any case, a history-dependent approach would therefore have to be carefully communicated. Defining and communicating as precisely as possible the specifics of how such an approach is configured would lead to a better understanding and therefore raise its effectiveness. Among other things, details of such a communication include the length of the past period relevant in terms of making up for deviations from target and the duration and magnitude of future undershoots and overshoots. However, when it comes to monetary policy practice, there is a certain tension with the desire for policymakers to flexibly react to unforeseen circumstances. For example, if monetary policymakers refrained from adopting an expansionary stance in response to a recession because there had previously been a period of above-target inflation, they might find themselves in the difficult situation of having to justify their choices. Such concerns can be dealt with by appropriate configuration of the policy, for example stipulating that deviations will only be made up in the long term or that only negative deviations from target will be responded to. However, by the same token, designs of this kind increase complexity and make it harder to understand and communicate the history-dependent approach.

In addition, the current environment of low inflation rates and persistently expansionary monetary policy measures constitutes a major hurdle towards switching to a history-dependent approach. Monetary policy rates have been fluctuating at or close to the effective lower bound for some years now. According to the current interest rate forward guidance they are set to remain there for a long time to come.[64] In such a setting it is questionable whether the promise of an overshoot, which would possibly require further expansionary measures, would be sufficiently effective.[65]

Moreover, reduced credibility of history-dependent approaches in current setting

Having weighed up all of the pros and cons, the Governing Council decided against a history-dependent approach to monetary policy.

Asymmetric monetary policy response to deviations from the inflation target

Asymmetric monetary policy responses represent another option

An asymmetric monetary policy response to deviations from the inflation target represents another way of mitigating the constraints imposed by the effective lower bound. In this approach, monetary policy reacts more forcefully to negative deviations from the inflation target than to positive ones. The aim is to offset the asymmetry created by the effective lower bound by introducing an "opposing" asymmetry in the strength of monetary policy response to deviations from the inflation target. This is designed to eliminate any negative inflation bias stemming from the asymmetry of the monetary policy space arising from the lower bound.[66]

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62 While Coibion et al. (2020) find in their survey-based study that US households by and large do not understand the concept of average inflation targeting, Hoffmann et al. (2021) come to a different conclusion for Germany.
63 See Candia et al. (2020).
64 See Deutsche Bundesbank (2021c).
65 The asset purchase programmes primarily exert their expansionary effect via the long-term interest rates. As explained above, these programmes are subject to certain constraints, meaning that they cannot be expanded infinitely. On top of this, consideration needs to be given to any undesirable side effects which may arise over time.
66 In simplified terms, this kind of asymmetric approach can be modelled in the form of an asymmetric instrument rule where the risk coefficient for deviations to the downside is bigger than that for inflation rate deviations of the same magnitude to the upside.

Limited effectiveness of history-dependent approaches under bounded rational expectations

For history-dependent monetary policy approaches to be able to generate welfare-enhancing effects via the expectations channel, economic agents must act with a sufficient degree of foresight. This means that economic agents need to be able to freely form expectations of future events. Only then can monetary policy measures that are announced today but implemented in the future have a positive impact on economic agents' current economic decisions.[1] Otherwise such approaches can even reduce welfare. They then do not generate stabilising effects by relying on forward-looking decisions, but instead lead to greater macroeconomic volatility through policy measures that are oriented to the past.

The extent to which history-dependent approaches rely on the expectations formation of economic agents is illustrated below on the basis of model simulations. The analysis uses a New Keynesian model with sticky prices and wages and bounded rational expectations.[2] Monetary policy is occasionally constrained by an effective lower bound on interest rates caused by either supply or demand shocks.

Bounded rationality is modelled using the cognitive discounting approach developed by Gabaix (2020).[3] Under this approach, economic agents are partially myopic in their reaction to future events. They anticipate their effects only imperfectly even if they already have full knowledge of their occurrence. Therefore, they only partially react to known future events. At the same time, they are fully aware of the long-term macroeconomic relationships and thus also of the long-term economic equilibrium that arises in the absence of shocks.[4]

When agents form their expectations in a predominantly rational manner, history-dependent approaches are welfare-enhancing (see the box on p. 38). The chart on p. 45 illustrates this finding, comparing the welfare losses[5] of various monetary policy rules. If cognitive discounting is low ($M > 0.8$, $M = 1$ corresponds to the assumption of rational expectations), i.e. when economic agents show a high degree of foresight, history-dependent policy rules are associated with the smallest welfare losses arising from macroeconomic fluctuations. These rules can then effectively stabilise macroeconomic developments via the

1 Additional requirements are that such measures are credible and understood. Furthermore, economic agents must not otherwise be restricted in their decision-making, e.g. by credit constraints. See the section entitled "Arguments for and against history-dependent monetary policy approaches" on pp. 33 ff.
2 Within the model, households, firms and unions have the same bounded rational expectations. The central bank is assumed to maintain rational expectations. For further details, see Dobrew, Gerke, Kienzler and Schwemmer (2021).
3 Currently, most macroeconomic models are based on the assumption of rational expectations. Divergent, older approaches often formalise non-rational expectations by incorporating backward-looking components into the expectation formation process or via ad hoc rules of thumb which economic agents mechanically follow. In recent years, a newer body of literature has increasingly provided explicit microfoundations for non-rational expectations. This includes, inter alia, approaches in which economic agents learn (Evans and Honkapohja (2001)), have finite planning horizons (García-Schmidt and Woodford (2019), Woodford (2019)) or lack common knowledge with regard to macroeconomic shocks (Angeletos and Lian (2018)).
4 In mathematical terms, bounded rational expectations $\mathbb{E}_t^{BR}$ of an economic variable x_t are modelled as a weighted average of rational expectations $\mathbb{E}_t$ and the long-term equilibrium $\bar{x}$ of this variable, i.e. $\mathbb{E}_t^{BR} = M\mathbb{E}_t\{x_t\} + (1-M)\bar{x}$. M denotes the degree of rationality, whereby $M=1$ is synonymous with rational expectations and a lower M implies greater cognitive discounting.
5 Welfare loss is measured as the representative consumer's utility loss resulting from deviations from the efficient allocation. Following the behavioural economics literature, it is assumed that consumers evaluate these utility losses objectively, i.e. under rational expectations, even if they tend to make economic decisions myopically.

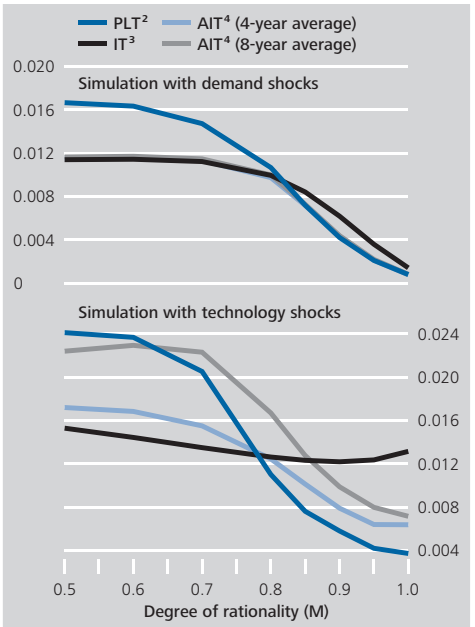
expectations channel as explained in the main article – even if monetary policy is constrained by the effective lower bound. This particularly applies to price level targeting (PLT) but is also the case for average inflation targeting (AIT).[6]

However, history-dependent approaches are welfare-reducing if economic agents tend to be myopic. A higher degree of cognitive discounting ($M < 0.8$) reverses the ranking of the various monetary policy rules. Inflation targeting (IT) now leads to the smallest welfare losses. By contrast, price level targeting is detrimental in the case of both supply and demand shocks.

Higher cognitive discounting weakens the expectations channel and therefore leads to larger welfare losses under history-dependent approaches.[7] The aim of these approaches is for inflation to overshoot its target following a low interest rate period. This in turn is supposed to have a positive impact on current inflation via the expectations channel. A high degree of discounting significantly reduces these positive expectational effects.[8] At the same time, the overshooting of inflation after a low interest rate period leads to greater fluctuations in the real economy and thus to greater volatility. With higher cognitive discounting the disadvantages of a history-dependent approach therefore outweigh the advantages.[9]

Comparison of monetary policy rules under bounded rational expectations

Welfare loss[1]



1 Welfare is based on a quadratic approximation of household utility. **2** Price level targeting. **3** Inflation targeting. **4** Average inflation targeting.

Deutsche Bundesbank

6 For an explanation of PLT and AIT, see the section entitled "Arguments for and against history-dependent monetary policy approaches" on pp. 33 ff. and footnote 59 in the main article.

7 In a New Keynesian model with sticky prices and wages, a supply shock would always lead to welfare losses because a trade-off arises between stabilising inflation and stabilising output.

8 In addition, recessions induced by the effective lower bound are less pronounced under higher discounting. Through the weakened expectations channel, economic agents are less influenced by future recessions when making current decisions. Bounded rationality therefore not only reduces the positive effects themselves, but also the scope for potential positive effects.

9 Thus far, empirical estimates of the discounting factor are sparse and inconsistent, and therefore uncertain. In addition, structural estimates also depend on the specific model assumptions. They vary between $M=0.4$ and $M=0.95$, e.g. in Illabaca et al. (2020).

Stronger response to negative deviations from the inflation target can potentially even out the asymmetry of the effective lower bound

To understand how this concept works, it is helpful first to abstract from the effective lower bound and clarify the effect of the asymmetric reaction function in isolation. If monetary policy reacts more forcefully to negative deviations from the inflation target than to positive ones, the inflation rate will be stabilised more strongly at its target level after disinflationary shocks than after inflationary shocks. If disinflationary and inflationary shocks occur with the same frequency and strength, this would mean that, over the long-term average, an inflation rate above target would set in. If the effective lower bound is occasionally binding and hence produces negative inflation bias by itself, an asymmetric reaction function can therefore achieve the inflation target in the long run.[67] However, the right calibration is important here: if the reaction function is too asymmetric, it can ultimately even lead to positive inflation bias despite the constraints of the effective lower bound.

More flexible and less dependent on the expectation channel

From the perspective of monetary policy practice, asymmetric approaches offer a few advantages over history-dependent approaches. First, their efficacy does not primarily depend on the expectation channel and the associated uncertainties. Second, monetary policy retains a greater degree of flexibility than if it ties itself to the promise of an overshoot.

New strategy thus allows for more forceful and persistent monetary policy response to negative shocks

As the outcome of its strategy review, the ECB Governing Council communicated a form of asymmetric reaction function. It implies that, in the event of strongly negative inflation shocks, the monetary policy instruments are to be deployed particularly forcefully. If the policy rates are close to the effective lower bound, the Governing Council can also maintain its deployment of instruments more persistently. This is designed to safeguard on two fronts. First, the approach signals that persistent negative deviations from the inflation target will be taken equally as seriously as positive ones. In this regard, the effective lower bound necessitates a more forceful or persistent monetary policy response to negative shocks. Second, it should anchor inflation expectations firmly to the inflation target, which is a crucial precondition for achieving the monetary policy objective.

This may imply positive, temporary, smaller deviations from target without an active intent to overshoot

A more forceful or persistent deployment of monetary policy instruments in response to negative shocks has the potential to result in a transitory period in which the inflation rate is moderately above target. However, this is not to be confused with approving of or actually actively aiming for an overshoot. That is not how the Eurosystem's new monetary policy strategy is designed. Rather, an inflation rate that might be moderately above target for a transitory period can be the result of the inability of monetary policy to fine-tune the inflation rate.

Preparation of information for monetary policy decisions: economic and monetary perspectives on price development

Integrated analytical framework for monetary policy decisions

Increasing prominence of macro-financial linkages necessitates more deeply integrated economic and monetary analysis

As part of its strategy review, the Governing Council of the ECB decided to replace its previous two-pillar strategy with an integrated analytical framework. This is composed of two interdependent analyses: the "economic analysis" and the "monetary and financial analysis".[68] The past 15 years have shown that linkages between economic, monetary and financial developments have played a key role in price stability. This means that the economic analysis and monetary analysis do not constitute two separate ways of looking at inflation.

67 For simulations with an asymmetric reaction function, see Dobrew, Gerke, Giesen and Röttger (2021), Gerke, Giesen, Kienzler, Röttger and Scheer (2021) and Bianchi et al. (2021).
68 For more details on the changes to the analytical framework and the design of the two streams of analysis described here, see Holm-Hadulla et al. (2021).

Broadening of monetary analysis to encompass monetary and financial analysis

The ECB Governing Council also broadened the scope of the monetary analysis in its previous form to encompass monetary and financial analysis. In doing so, it is following analytical practice which has evolved over the past years and no longer concentrates primarily on money supply and credit aggregates but is instead informed by a much broader dataset. This includes, in particular, trends in the money, bond and stock markets as well as inflation expectations. Data on the resilience of the banking system, on lending by non-banks, and on the financing conditions of households and non-financial corporations are important as well.

Formal cross-checking of results from both analyses discontinued

When making monetary policy decisions, the ECB Governing Council weighs up the results from both streams of analysis in a comprehensive and situation-based manner. This involves reviewing the proportionality and potential side effects of its policy. However, in future there will no longer be a formal cross-check of the information from the two streams. This is why the "monetary policy statement", which in July replaced the introductory statement given at the press conference following the ECB Governing Council's monetary policy meetings, no longer specifically refers to cross-checking. Instead, the statement has been streamlined. Its focus now lies on those results of the economic analysis as well as of the monetary and financial analysis which were decisive in forming the assessment of inflation risks at the point in question.

Economic analysis

Economic analysis examines real and nominal economic developments

The economic analysis looks at developments in real terms and nominal terms. The goal is to obtain a comprehensive idea of where prices may be heading and the risks around these developments. In the years since the last strategy review in 2003, two aspects in particular have emerged to motivate a fundamental review of the economic analysis.

First, the Eurosystem's economy – like the global economy as a whole – has undergone profound structural change. Globalisation, demographic ageing, digitalisation, climate change and slowing technological progress have had an impact on potential growth, the natural rate of interest[69] and the inflation process. As a consequence, these structural trends need to be taken into account in the preparation of monetary policy decisions. In future, they and their effects on the inflation rate will therefore be analysed regularly and to an even greater extent than previously.

Structural trends and their effects increasingly important for monetary policy

Macroeconomic projections are a central tool in the economic analysis

Second, the Eurosystem's quarterly macroeconomic projections have become more and more important in the monetary policy decision-making process over time. They have evolved into the central instrument for structuring and summarising the wealth of economic data and information in a consistent fashion. Forming the key foundation for gauging short to medium-term fluctuations in economic and price developments around their long-term trend, they help the ECB Governing Council to detect any medium-term risks to price stability. Significant improvements in data sources, along with new econometric methods and model approaches, have propelled the projections into greater prominence. Furthermore, constant advances in IT have enabled the processing of larger data volumes and the use of more complex models requiring greater computational effort.

Economic analysis to be refined in various key directions

Future work to refine the economic analysis will continue to focus on tapping new information sources and using innovative methods for interpreting them. High-frequency data make it possible to assess the repercussions of abrupt shocks more quickly, for example. This was already visible during the COVID-19 crisis. Another goal is to use surveys and the interpretation of big data to obtain deeper insights into economic relationships and structures. Recognising the nature of shocks that hit the euro area economy is of particular importance for

69 On the concept of the natural rate of interest see, for example, Deutsche Bundesbank (2017a).

the economic analysis. As discussed above, the monetary policy implications of supply-side shocks are different to those of demand shocks, for example. Another focal point lies in risk assessment, especially in terms of the medium-term outlook. Asymmetric risk distributions and the degree of uncertainty are highly relevant factors for monetary policymakers. Finally, the models used in the economic analysis need to be honed and augmented by new approaches in a targeted way, for example in respect of the effects of climate change (see the box on pp. 49 ff.). The past few years have demonstrated how crucial it is to pay greater attention to heterogeneities in the euro area, macro-financial interactions and non-linear relationships, too.

Monetary and financial analysis

Information content of monetary and financial variables remains indispensable

The monetary analysis which existed up to this point will be retained and augmented by financial aspects. This underlines the fact that the ECB Governing Council will continue to attach particular significance to monetary and financial indicators. At the same time, it is important to the Governing Council that the findings from this side of analysis feed more heavily into the economic analysis too, in order to make sure that due weight is accorded to the relationships between the real economic and financial spheres.[70] It should be noted, however, that the monetary analysis now spans a much broader range of content than it did in its infancy and incorporates short-term developments to a greater extent than before. These adjustments had previously been only partially reflected in the Eurosystem's public communications.[71] The strategy review was therefore an apt opportunity to close the gap separating public perception from the Eurosystem's analytical practice.

Transmission of monetary policy as a central component of the monetary and financial analysis

The growing importance of analyses into the transmission of monetary policy through the financial sector is a good example of the increased consideration being given to developments over the short-term horizon. In order to capture such transmission, the monetary analysis traditionally looks at bank balance sheet data and interest rate data. In its expanded form, however, it also takes into account the financing conditions of other market agents as well as financing structures of non-financial corporations and households. This makes it possible to evaluate in a timely fashion whether transmission channels – such as the bank capital, credit, interest rate and risk-taking channels – are in good working order.[72] Interest in analyses of this kind has grown considerably on the back of the increasing use being made of unconventional monetary policy measures, particularly since 2014. With this approach, the broadened monetary analysis has been able to identify disruptions in the transmission process over the past years. A credit crunch caused by weaknesses in the banking sector is one example. This allowed the ECB Governing Council to make decisive improvements to the formulation and efficacy of unconventional monetary policy.[73] On top of this, the expanded monetary analysis supplies important insights into factors which may constrain or alter the monetary policy space. These may be aspects such as potential negative effects of low interest rate policy, but also, for example, structural shifts such as the growing importance of non-banks as financial intermediaries.[74]

At the beginning of monetary union, the focus lay on the empirically observed, relatively close relationship between monetary growth and

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70 Claessens und Kose (2018) provide an overview on the topic of macro-financial linkages.
71 The last broad-ranging public discussion of the monetary analysis took place in the period from 2007 to 2010, as part of a research programme initiated by the ECB Governing Council. For details, see, in particular, Papademos und Stark (eds., 2010).
72 On the monetary policy transmission mechanisms see, for example, Deutsche Bundesbank (2017c).
73 Examples of such adjustments to the suite of unconventional monetary policy instruments include the introduction of a two-tier system for remunerating excess liquidity held with the Eurosystem, as well as the exclusion of household mortgages in the targeted longer-term refinancing operations (TLTROs).
74 On the role of non-banks in the monetary policy transmission process in the euro area see, for example, Work stream on non-bank financial intermediation (2021).

Monetary policy challenges due to climate change

Climate change is going to impact noticeably on the European economy in the coming years and decades. Climate researchers consider it largely proven that the incidence of extreme weather events will increase in the future.[1] 2020 was the warmest year on record in Europe.[2] However, it is not only climate change itself but also the policy measures taken to mitigate climate change or adapt living conditions to it that will produce economic effects.

These developments pose new challenges for the Eurosystem in the achievement of its primary objective, which is to safeguard price stability. First and foremost, it is crucial to gain a better understanding of the economic implications of climate change and climate policy, and of the resulting risks to price stability, and to incorporate them into economic analyses, forecasts and models. The action plan published by the European Central Bank in July 2021 as part of the Eurosystem's monetary policy strategy review is one of the ways in which this task will be addressed.

Following the standard classification methodology, climate-related financial risks can generally be subdivided into physical risks and transition risks. Physical risks are risks resulting from climate change itself – i.e. from changes in the statistical distribution of weather variables. Examples of such changes include an increased incidence of extreme weather events (storms, heavy precipitation, floods, droughts, heatwaves, etc.), as well as a rise in the sea level, changes in the distribution of precipitation and in ocean currents, an increase in the average temperature and increasingly frost-free winters.

Physical risks affect the economy through a variety of channels of impact, a handful of which are discussed in this box as examples. One obvious example is the risk that extreme weather events will destroy parts of the capital stock of an economy, wipe out firms and thus jobs, or impair household consumption.[3] Another is that increased investment in measures to adapt to climate change (infrastructure measures such as flood defences, private investment in residential and office buildings, etc.) will crowd out other, more productive forms of investment. The same can be said of capital used to repair and recover from the damage caused by extreme weather events. Third, there are likely to be (both positive and negative) changes in the productivity of certain sectors (e.g. agriculture), while geo-

1 A detailed presentation of the climatological changes for all regions of the world, including Europe, can be found in the latest report by the Intergovernmental Panel on Climate Change (IPCC), published in August 2021. This report's findings include the following predictions for Europe (each with relatively high confidence): The average temperature in Europe will rise faster than the global average temperature in the coming years. The frequency and intensity of extreme heatwaves will continue to increase, with critical thresholds being exceeded given global warming of more than 2°C. Days of frost will continue to fall in number. The decline in the amount of precipitation in summer will increasingly affect northerly regions as well. With the exception of the Baltic Sea, the sea level in Europe will continue to rise at least as quickly as the global average. The reduction of glaciers, permafrost and snow at high elevations will continue. For western and central Europe in particular, the IPCC report predicts more heavy precipitation events, an increase in river floods and more hydrological and agricultural droughts.
2 According to data from the EU's Copernicus Climate Change Service, the average temperature in Europe in 2020 was more than 1.6°C above the long-term mean and 0.4°C above the highest temperature measured previously. The average temperature in autumn and winter 2020 was 3.4°C above the long-term mean and 1.4°C above the highest temperature measured previously.
3 For example, the EU's European Environment Agency estimates on the basis of data sourced from Munich Re AG that the economic losses caused by extreme weather events in all 27 EU Member States came to roughly €13 billion in 2019.

physical changes might also impair global trade routes or disrupt supply chains. And lastly, all these developments are fraught with heightened macroeconomic uncertainty, which in turn can impact on household and corporate consumption and investment patterns.

Many of these risks also concern the German economy, but there is no question that they affect the European economies as a whole and thus have a bearing on price stability. Positive or negative shifts in the inflation rate as a result of the aforementioned effects will depend on how shocks to supply and demand interact and on the uncertainty surrounding these shocks, which means that there is no single way to determine them. Even so, it appears plausible that the real economy, and also inflation, will experience greater volatility in the future as a result of extreme weather events. Recent consumer price dynamics in the euro area in response to the COVID-19 pandemic may serve as a point of reference here, even if the extreme shock that triggered them in this particular case is not directly related to climate change.

Transition risks, meanwhile, are understood to be risks that result from the ongoing shift to a climate-neutral economy. These can include risks resulting from climate action but also those prompted, for example, by changes in consumer behaviour or technological advances. Economic theory suggests that the pricing of carbon (and carbon-equivalent) emissions – ideally applied globally and across all sectors – would be the most efficient policy instrument for internalising the externalities associated with climate change. The EU Emissions Trading System (ETS) implements this instrument, albeit insufficiently, at the EU level. In addition to the ETS, however, the euro area countries have a great many additional national climate policies that often lack coordination within the country itself or with other Member States.[4]

It is the task of the Eurosystem to understand the economic implications of regulatory climate policies of this kind and take account of their effects on price stability in the euro area. These effects might include unemployment or growth losses in some sectors and regions or a boost to investment and innovation in others. There is also the danger of assets becoming stranded. This happens when the capital stock of an enterprise or sector abruptly or gradually loses value if that capital can no longer be used for production, or if production itself has ceased to be profitable on account of higher carbon prices. Lastly, potential global trade conflicts are another type of climate-related transition risk.

The aforementioned challenges were the backdrop against which the Eurosystem set about revising and expanding the methodological framework for its economic analyses and forecasts. Integrated assessment models (IAMs) are the most common type of climate-related economic models.[5] By internalising the externalities of climate change for an economy's factor productivity, IAMs enable both an optimal consumption and investment pathway and the associated carbon price and emissions pathway to be determined. Alongside these cost-benefit IAMs, cost-effectiveness models also play an important role in macroeconomic

4 Survey data gathered by the European Environment Agency in 2019 reveal that some EU Member States have as many as 100 different national regulatory policies on climate and environmental protection. OECD calculations show that the effective carbon tax resulting from regulatory policies of this kind for petrol, for example, varies across all 27 EU Member States between around €150 and €350 per tonne, while the effective carbon tax for coal is less than €50 per tonne across the bloc.
5 See, for example, Nordhaus (2017).

analyses. Put simply, cost-effectiveness models can be used to compute an economically optimal pathway under the constraint of a particular climate objective (such as the 1.5°C target under the Paris Agreement). While there is now a very advanced body of literature on IAMs, particularly on the modelling of key components such as the damage function, it remains difficult to calibrate or estimate such models with any degree of reliability.

Blending IAMs with traditional economic central bank models is not only a core element of the climate action plan adopted by the Eurosystem but also a challenge that will place great demands on all the national central banks and the European Central Bank. There has been a disconnect between climate-related IAMs and central bank macroeconomic models in two key respects hitherto. Traditional central bank models often lack the granularity needed to model the highly heterogeneous effects of climate change in different sectors and regions, while IAMs do not capture many of the monetary policy transmission channels or fail to do so adequately. The Eurosystem's action plan has identified both fairly rudimentary short-term solutions ("satellite approach") as well as substantial medium-term model extensions. Scenario analyses are also under consideration for certain situations.

Furthermore, the Governing Council of the ECB decided to adapt the models the Eurosystem uses for economic forecasting, which will involve examining aspects such as the economic forecasting quality of weather and climate data or the prices of emissions allowances. It will be crucially important here to take account of non-linearities and tipping points, which also means reviewing the existing methodological framework for forecasts.

Practical monetary policy implementation hinges on functioning financial markets. This is another area where climate change – through the channels of impact outlined above – can have implications that researchers still do not fully comprehend. For example, the aforementioned risk of asset stranding at the firm level might impair monetary policy transmission, lower banks' creditworthiness and ultimately reduce the supply of credit. Financial risks to the central bank balance sheet can arise if, within a very short space of time, the prices of assets used for monetary policy transactions exhibit severe volatility or necessitate write-downs as a result of climate change. Empirical evidence suggests that capital markets are already pricing in these risks. Even so, it remains difficult to assess whether or not those market price adjustments are adequate.

Furthermore, greening the economy generally implies that there will be a surge in corporate demand for capital that could well differ across countries and sectors. Little is known about how these capital needs will be covered and how global capital flows will change in this regard. Newly emerging financing instruments such as green bonds might also have a bearing on monetary policy transmission.

One final key point for practical monetary policy implementation is that climate change could further narrow monetary policy space. That would be the case if the aforementioned macroeconomic effects end up lowering the natural rate of interest (which is often referred to as r^* in models). The economy would then move closer to the effective lower bound, possibly necessitating the increased use of unconventional monetary policy measures.

It was for these reasons that the Governing Council of the ECB decided not only to deepen its macroeconomic analytical capabilities but also to roll out a raft of additional measures aimed at overcoming these practical challenges. First, the Eurosystem intends to improve the body of statistical data used to analyse financial risks from monetary policy transactions by playing an active role in developing climate risk indicators. In addition, the disclosure and transparency requirements for monetary policy counterparties are to be tightened, taking corresponding EU policies and initiatives in this field into account. The Eurosystem will furthermore conduct regular climate stress tests on its balance sheet to identify whether climate-related financial risks give any cause for concern. Internal and external credit ratings for monetary policy transactions (collateral framework and asset purchase programmes) will also be reviewed and developed further as appropriate. And lastly, the Eurosystem will analyse in the coming years whether the risks and externalities arising from climate change will necessitate an adjustment of the eligible universe for monetary policy purchase programmes and potentially for the monetary policy collateral framework.

Monetary analyses continue to provide valuable information on longer-term price risks, despite sharply weaker empirical money-price relationship

inflation when assessing longer-term risks to price stability. This is no longer the case. In an environment of low and stable inflation rates, as seen in the euro area in recent decades, the money-price relationship is empirically only very weak.[75] Nonetheless, monetary and financial variables still contain valuable information on future price risks and economic dynamics, especially in the longer term: the models used for monetary and financial analysis can, for instance, give indications of destabilising feedback mechanisms between the financial sector and the real economy. In addition, credit and other financial variables help to empirically predict tail risks to gross domestic product (GDP), often in connection with financial instabilities.[76] On top of that, financial shocks can be identified and their impact on future developments in GDP and inflation can be determined only in macroeconomic models that also contain monetary and financial variables such as monetary and credit aggregates as well as bank lending rates.[77]

Increased inclusion of financial stability aspects, but financial stability not a monetary policy objective in its own right

As part of its strategy review, the Governing Council of the ECB also decided that financial stability considerations would be given greater weight in the monetary policy debate going forward.[78] The idea is not to make financial stability an objective in its own right. Instead, the focus lies on the effects of financial imbalances on price stability in the medium term. The increased interest on the part of the Governing Council is motivated by the recognition that financial stability is a precondition for price stability. Moreover, the experiences of the past 20 years show that the interrelationship between price stability and financial stability has gained

75 For more on the weakening of the money-price relationship, see, for instance, De Grauwe and Polan (2005) and Teles et al. (2015). For potential structural causes, see, for instance, Benati (2009) and Sargent and Surico (2011).
76 For information on the associated growth-at-risk approach, see, for instance, Deutsche Bundesbank (2021b).
77 See, e.g., Deutsche Bundesbank (2020) and Mandler and Scharnagl (2019).
78 For further explanations, see, e.g., Work stream on macroprudential policy, monetary policy and financial stability (2021).

in importance. The experiences with the financial and sovereign debt crisis also demonstrate that financial crises can cause significantly higher costs than initially expected, both because of a failure to meet the objective of price stability and through disruptions to the monetary policy transmission process.

Financial stability considerations are taken into account on a case-by-case basis and flexibly

For these reasons, the Governing Council of the ECB expressly wants the option of incorporating financial stability aspects into its monetary policy decisions. It intends to do this on a case-by-case basis and flexibly. A systematic response to financial stability risks is not being considered. The evaluation of the information needed for such decisions will be integrated into the monetary and financial analysis.

Integration of financial stability considerations into the monetary and financial analysis

It is not new for financial stability aspects to be included in the monetary analysis. The main source of trend monetary growth is bank lending,[79] and excessive growth in such lending was already considered an early warning sign for potential instabilities in the financial system at the beginning of monetary union.[80] In addition, financial stability aspects have, for years, been taken into account in the monetary policy decision-making process through the analysis of the monetary policy transmission process. The significance of financial stability for monetary policy means that this field of analysis is to be expanded even further now: a key point is a systematic assessment of potential tail risks to output and inflation that could arise from the longer-term build-up of financial vulnerabilities and imbalances. There will further be more extensive analyses of the side effects of the unconventional monetary policy. Analyses are also needed on the extent to which macroprudential measures can contain financial stability risks with a bearing on monetary policy.

However, the complex interrelationships between monetary policy, financial stability and macroprudential policy have not yet been comprehensively researched, nor their interaction in various phases of economic and financial cycles. Here lies one area for development for future monetary and financial analysis.[81] Moreover, additional work is required in order to better assess the proportionality of the use of various monetary policy instruments in an environment of mounting financial stability risks.

Complex interrelationships between monetary policy, financial stability and macroprudential policy not yet comprehensively researched

Concluding remarks

The Eurosystem's new monetary policy strategy is designed to take into account the new and altered challenges that have arisen since the last review in 2003. With a new operationalisation of price stability, an altered monetary policy reaction function and greater recognition of the interconnectedness of the real economy and the financial system, the key elements of the new strategy reflect the challenges of recent years. The inclusion of climate change means that one of the main tasks for the future has now also been incorporated into monetary policy analysis and implementation in terms of its economic impact. This is intended to equip monetary policy with the necessary framework to combat both inflationary and deflationary tendencies.

As the economic, financial and institutional environment in which monetary policy acts is subject to constant change, the ECB's Governing Council has decided, however, to regularly review its monetary policy strategy going forward. The next assessment is scheduled to take place in 2025.

79 See, for example, Deutsche Bundesbank (2017d).
80 See, e.g., Issing (2003b).
81 For more on the methodological challenges of a joint analysis of economic developments and medium-term financial cycles, see, for instance, WGEM Team on Real and Financial Cycles (2018).

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The impact of the Eurosystem's monetary policy on Bitcoin and other crypto tokens

Bitcoin and other crypto tokens attract significant attention, mainly due to their considerable fluctuations in value and, in some instances, high market valuations over a multi-year comparison. There is much evidence to show that monetary policy has a key impact on a number of conventional assets, and it could therefore be assumed that this also holds true for the prices of crypto tokens. For example, it is sometimes claimed that accommodative monetary policy may have contributed to the value gains seen by crypto tokens. This article explores the influence of monetary policy – particularly that of the Eurosystem – on the prices of Bitcoin and other crypto tokens.

Initial indications that the Eurosystem's monetary policy may have an effect on the prices of crypto tokens are found when narrow time windows around monetary policy announcements are analysed. For example, crypto tokens' considerable volatility and otherwise virtually non-existent correlation with other assets tend to be greater at times when monetary policy news is communicated. At the same time, however, there is also evidence to suggest that monetary policy has greater significance for the responses of share prices and exchange rates, for example, than for the responses of crypto token prices.

This impression is confirmed by an econometric analysis using vector autoregressive (VAR) models that can take account of the interdependencies between monetary policy and financial market developments. These models can be used to isolate monetary policy impulses and depict their effects on asset prices over a longer period of time. It is evident here, too, that the Eurosystem's monetary policy has a significant impact on the prices of major crypto tokens, but that these impulses explain only a small fraction of the volatile price developments.

There are a multitude of ways in which crypto tokens differ in design from conventional assets. For instance, these tokens are units of account in distributed payment systems that are transferred using cryptographic procedures. Since amounts of value can be transferred digitally in a largely anonymous manner, tokens are also used for illegal purposes. There are often no central issuers, and new tokens are created on the basis of defined rules that do not allow for any flexible adjustment of the number of tokens in circulation, such as in response to changes in demand. These particular features are also reflected empirically in that they contribute to the prices of crypto tokens fluctuating more strongly than share prices or exchange rates, for example, with which token prices have hardly any correlation. Thus, crypto tokens primarily serve as speculative assets; however, they are hardly suitable as a means of payment or a store of value, let alone as a unit of account.

Introduction

Growing interest in Bitcoin and other crypto tokens

Bitcoin and other crypto tokens[1] have been attracting increasing attention from the general public as well as among financial market participants for some time. Originally conceived as a digital means of payment without the involvement of intermediaries, they remained little more than a niche phenomenon for many years. However, they are increasingly being met with the interest of a wider range of private and institutional investors. This interest is attributable, amongst other things, to the pronounced fluctuations in the value of crypto tokens compared with other assets as well as their valuation level, which, in the case of some tokens, has increased on multiple occasions in the past. However, in this context, it is also often claimed that prices are driven by speculative excess, as Bitcoin and other crypto tokens have no inherent value and are not backed by underlying collateral[2] for which they could potentially be exchanged. Another view that is sometimes expressed is that accommodative monetary policy has contributed to the value gains of crypto tokens.

Central banks are interested in the impact of monetary policy on asset prices …

Central banks fundamentally have great interest in the impact of monetary policy on asset valuations. For example, changes in asset prices can provide an indication of the effectiveness of various monetary policy transmission channels. At the same time, crypto tokens such as Bitcoin are often purchased in the hope that they avoid the risks associated with conventional monetary policy. For instance, Bitcoin was designed to be limited in supply and is therefore automatically scarce in order to preserve its value over the long term.

… as well as on crypto tokens

The impact of the Eurosystem's monetary policy on Bitcoin and other crypto tokens is analysed systematically in this article. This may help us gain a better understanding not only of the role crypto tokens play in the financial system, but also of the origins of their large fluctuations in value.

Differences between crypto tokens and conventional assets

Bitcoin conceived in the wake of the financial crisis …

The oldest crypto token, Bitcoin, was created in 2008 with the aim of laying the foundation for a decentralised and largely anonymous electronic payment system.[3] Additionally, in view of the experience gained from the escalating global financial crisis at that time, the system was intended to be independent from commercial and central banks, which play key roles in the traditional financial and payments system.[4] This is because banks act as intermediaries – they carry out electronic payments by transferring funds from one account to another. Furthermore, the stability of the value of the currency itself is determined by the actions of commercial and central banks: if commercial banks become distressed, holders may lose confidence in the value of the money created by these institutions. The massive interventions made by central banks in the wake of the financial crisis also caused some observers to have concerns about the risk of inflation that could erode the value of the euro.[5]

… as a decentralised means of payment …

These considerations influenced the design of Bitcoin (see the box on pp. 63 ff.) in two ways: first, payments should be settled in a decentralised manner. Whilst only the system operator, such as a bank, can execute and view payments in the case of central database systems, Bitcoin transfers are validated by many different

1 A crypto token is a digital token that is transferred within a network using a technical protocol based on cryptographic procedures.
2 There is a specific category of crypto tokens – known as stablecoins – that is designed so that its price is stabilised vis-à-vis a reference value. The circulation of stablecoins is often backed by conventional assets; see the box on pp. 68-70. This specific form of token is not the focus of this in this article, however.
3 See Nakamoto (2008). Information on crypto tokens and the underlying technology in payments and securities settlement can be found in Deutsche Bundesbank (2017b) and Deutsche Bundesbank (2019).
4 See Nakamoto (2009).
5 Deflation – i.e. an increase in the value of the euro vis-à-vis goods – is also detrimental to the function of money as a means of payment. Many central banks therefore base their monetary policy around keeping the value of their currency stable against goods and services.

How Bitcoin works

Bitcoin, at its core, consists of a database of transactions referred to as a ledger, which is extended with each entry according to a rigid set of rules. In contrast to centralised databases – such as the account systems of commercial banks – the Bitcoin ledger is publicly viewable, maintained in a decentralised manner by many different network participants and distributed across a computer network.[1] This distributed ledger is updated when new transactions are carried out. The payment units are called bitcoins.[2] In order for a decentralised payment system to function, it must first solve two fundamental problems: it must not be possible to carry out transactions without authorisation – that is, without the payer's permission – and it must be possible to keep the ledger both synchronised across the whole network and immune to alterations to completed transactions. Bitcoin solves these problems using cryptographic mechanisms.

If the ledger is distributed and designed to operate without a central authority, how, then, can individual participants be prevented from creating unauthorised entries? In other words, what is to stop system participants from simply writing an arbitrary number of transactions in the ledger with themselves as the payee, entirely without the consent of the payer? The answer lies in digital signatures. In a conventional centralised payment system, only the payer, the payee and the central authority, such as a bank, have knowledge of the transaction. The bank can use identity checks – such as checking a signature or a PIN – to determine whether a transaction is actually being carried out by the person whose account is being debited. In Bitcoin's decentralised, public payment system, participants are assigned public keys – comparable to account numbers – in the form of character strings, between which transactions are carried out. Payments can be digitally signed by the sender via the additional use of a private key – roughly equivalent to a PIN or password.[3] A digital signature can only actually originate from the payer if the private key they enter corresponds to their public key, which any participant in the system can easily verify using cryptographic algorithms without needing to know the private key. As the digital signature, which likewise consists of a simple string of characters, can be copied an arbitrary number of times, payments could, in principle, be duplicated multiple times by any participant in the system as soon as a private key had been entered. This is, however, stymied by the fact that the digital signature is determined not only by the relevant public keys and the payment amount, but also by a unique identification number. If the same digital signature were copied and used for a second, otherwise identical payment, the second payment would be recognised as invalid and not entered into the public ledger.

If the ledger is distributed across a number of computers, how is it kept synchronised? In other words, how can it be ensured that the same transactions are always entered in the same order on every computer? When a transaction is carried out, its execution must be recorded at every node in the network before further transactions can be carried

1 Methods that rely on these and similar approaches are thus also referred to as distributed ledger technology (DLT). See, for example, Deutsche Bundesbank (2017b).
2 Every bitcoin is made up of 100 million satoshis, named in reference to the author(s) of the Bitcoin white paper, the exact authorship of which is unclear.
3 An introduction to the basics of private-public key cryptography can be found in, amongst others, Auer and Böhme (2020).

out. In fact, the "balance" on each "account" – that is, each public key – implicitly represents the balance of all previous transactions. In order for bitcoins to be transferred at all, therefore, there must have been more recorded inflows than outflows in the past. Payees can only be certain that a transfer occurred if synchronisation is guaranteed. After all, a payee can only truly be sure they received payment if the network participants agree that the amount received was not already transferred elsewhere before the transaction and that this assessment is very unlikely to change. It is therefore of the utmost importance that there is network-wide consensus about the order of transactions. It is in its solution to this problem that the truly innovative aspect of Bitcoin comes to light. Nakamoto (2008) proposed a consensus protocol: a set of rules that, using cryptographic methods, could determine the order of transactions and the right to enter new transactions into the ledger without recourse to a central authority.

The basic principles of the Bitcoin protocol are that entering new transactions into the ledger must entail costs, and that new transactions must build on previous ones. This is achieved by using hash functions. Applying a hash function to any given character string (input) produces a new character string with a fixed number of characters (output), which appears random but is in reality deterministically generated. The vital element in all this is that it is impossible to use the output to discover the input. Thus, if one wished to create an output which fulfilled certain criteria specified by the set of rules – such as an output beginning with a certain number of zeros – there would be no other option than to try a variety of random inputs.

This is how new payments are entered into the Bitcoin ledger: in order for a new payment to be recognised by the network, the participant wishing to enter the payment must have found a valid hash input. As the chances of finding such an input in any one attempt are very low, it can be assumed that an extremely high number of attempts must have been made, which would in turn require the investment of a large amount of processing power.[4] Once the input has been found, however, every participant can immediately use the hash function to verify that it solves the cryptographic puzzle – that is, that it creates an output that meets the requirements. All participants can then update their copy of the ledger to enter the new transactions. Subsequently, the hunt begins anew for inputs in order to add further entries to the ledger. One crucial detail is that the input for the hash function is not entirely random, but instead consists in part of the solution to the previous entry. This ensures that entries in the ledger build on each other, and thus have a set order. This also prevents work being done ahead of time – as the search for a solution always builds on the most recent entry, the search has to be started from scratch if another entry is added to the ledger first.[5]

Why, however, is it necessary in the first place for entering transactions in the ledger to entail costs in the form of the processing power used to solve cryptographic puzzles? The reason can be found in one of the rules of the protocol: that the network should always accept the version of the ledger that

4 As presenting a solution counts as proof of the investment of processing power, this is also referred to as proof of work (PoW).
5 Eyal and Sirer (2014) formally examine the conditions under which it is more valuable to keep a found solution to a cryptographic puzzle to oneself, and instead "secretly" start work on the next puzzle.

contains the most entries.[6] To understand why, it is helpful to imagine an attempt to manipulate the ledger by retroactively changing the chain of transactions in order to, for example, undo certain transactions and spend bitcoins twice (known as double spending). If a participant wanted to attempt this, they would need to present the network with a solution to the relevant cryptographic puzzle for the changed entry, i.e. expend processing power. That would not be all, however: the older the transaction is, the more likely it is that there are already other entries in the ledger which have been built cryptographically on the transaction marked for deletion. When would the network as a whole ignore these entries and instead accept the altered ledger? Due to the rule that new entries must build on the version of the ledger with the most entries, the above would only happen if solutions to cryptographic puzzles for more entries could be presented than had subsequently been found by all other participants. This is extremely unlikely, provided more than half the processing power of the entire network cannot be combined – a feat that would come with high costs attached.[7] The Bitcoin protocol hinges, therefore, upon the idea that the cost of altering payment entries already accepted by the network is prohibitively high, thus protecting the transaction history in the ledger from manipulation.

In practice, participants in the network who wish to have their transactions entered in the ledger do not solve the cryptographic puzzles described above themselves. Instead, they leave this job to parties known as miners, who have access to specialised hardware and thus a great deal of processing power. Furthermore, transactions are not entered into the ledger individually, but are instead combined by miners into blocks ahead of time. As the ledger is thus entirely made up of a chain of blocks that are strung together, it is also referred to as a blockchain, which is extended entry by entry.[8] The chart on p. 66 shows an example of the result of the process described above.

Adding new blocks entails high costs for miners, not only due to the high-performance hardware required but above all due to the enormous energy consumption involved.[9] They are reimbursed for this in two ways. First, participants can add fees to their transactions. In particular, when transactions need to be marked as higher priority and many participants want to make payments at the same time, they increase these fees. They do so in order to be selected as quickly as possible by miners, who bundle pending payments one after another into blocks, which are limited in size. Second, the Bitcoin protocol stipulates that successful miners be rewarded with newly created bitcoins for each new block they add to the ledger.[10]

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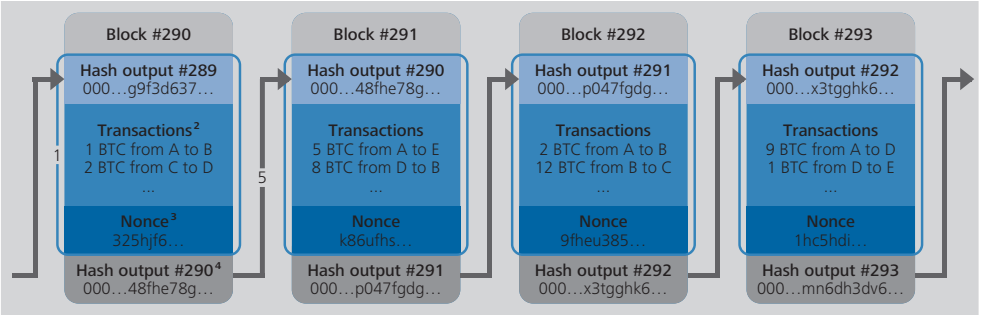
6 This is known as the longest chain rule. For an analysis of its actual suitability for maintaining consensus among system participants, see Halaburda et al. (2020).
7 For an analysis of the probability of a manipulation attempt using more than half the processing power of the network, see Garratt and Hayes (2014), Budish (2018) and Auer (2019).
8 For an overview of the concepts behind and the uses of blockchain technology, see Federal Office for Information Security (2019).
9 According to estimates from the Cambridge Centre for Alternative Finance from May 2021, total energy consumption for Bitcoin payment validation stands at 144 TWh per year, roughly the total energy consumption of the Netherlands. See also De Vries (2018). One factor in the high energy consumption is the price of Bitcoin itself. As described below, miners are remunerated in Bitcoin and compete to find solutions to cryptographic puzzles. When Bitcoin prices rise, this creates incentives to invest in higher processing power, which in turn leads to the difficulty of the cryptographic puzzles being raised – and thus increases the energy consumption required to find the solution.
10 The conceptual analogy to mining for raw materials explains the "miner" nomenclature. Economic analyses of miners' incentives can be found in, amongst others, Ma et al. (2018) and Prat and Walter (2021).

Simplified illustration of the Bitcoin blockchain



Source: Bundesbank depiction based on Auer (2019). **1** The hash input is made up of three components: the hash output of the previous block, data derived from the transactions, and the nonce. **2** Digitally signed transactions are collected by miners and arranged into blocks. **3** Character string that must be found by miners via trial and error such that the hash output meets the requirements. **4** Derived from the hash input. Must start with a specific number of zeros in order for a block to be accepted by the network. **5** As one component of the hash input is the output of the previous block, this creates a chain. Any change to an already-accepted block would mean the solutions for all the following blocks would need to be found again from scratch.

Deutsche Bundesbank

Examining the creation of new bitcoins reveals another important, unique element of the Bitcoin protocol. The rules set out roughly how long it takes to add a new block to the chain and how many bitcoins are earned for each block. The target is for a solution to a cryptographic puzzle to be found and a new block added to the chain roughly every ten minutes. To achieve this, the difficulty of the cryptographic puzzle is regularly adjusted – once every 2,016 blocks, to be precise.[11] If a lot of processing power is invested by miners over a period of time, increasing the speed at which cryptographic puzzles are solved, the requirements for the hash function output are made stricter – increasing the expected amount of time needed to find the solution. The difficulty is lowered, on the other hand, when adding new blocks has repeatedly taken longer than ten minutes on average. The number of new bitcoins that are created for each block is also periodically reduced, being halved every 210,000 blocks.[12] When the network was created in 2009, the number of bitcoins created per block was 50. This was reduced to 25 at the end of 2012 and to 12.5 in mid-2016. Since mid-2020, the block reward rate has been 6.25 bitcoins. The rules thus ensure that the supply of Bitcoin grows in a very predictable manner while being limited in the long term. Extrapolating this process into the future, the result is that there will never be more than 21 million bitcoins in existence.[13]

11 Roughly once every two weeks.
12 Roughly once every four years.
13 This limit will be reached in or around the year 2140, although more than 18 million bitcoins have already been created. Of course, it is not inconceivable that the source code into which the 21 million bitcoin hard cap is encoded could be changed in the future. This already occurred when disputes amongst users led to a hard fork in 2017, where one part of the network was split off in order to increase the number of transactions per time unit. It is certainly possible that another such hard fork might occur due to disagreement over the total number of bitcoins or the creation of new bitcoins. While the original version of the protocol could continue to operate indefinitely, if market participants prefer the other version overall, the original token could become less important.

participants and are publicly viewable in pseudonymised form.[6] This aims to prevent dependency on individual institutions at the heart of the system whose actions and continued existence would have to be relied upon.

… with a mechanically increasing, finite supply of tokens in circulation …

A second point concerns the management of the supply of tokens in circulation, which, in the case of Bitcoin, is mechanically linked to adding transaction blocks to the payment register and is therefore largely predictable. At the same time, it is stipulated that the issuance of Bitcoin will slow down over time and ultimately stop entirely, meaning that the total amount of bitcoins that will ever exist under the current ruleset is finite.[7]

In this respect, Bitcoin is comparable to other physically limited assets and means of payment.[8] The rules governing its supply do not allow for any discretionary interventions. By contrast, central banks can adjust their monetary policy stance as necessary and largely at their own discretion, thereby influencing the value of their issued currency – for instance, with the aim of maintaining price stability and preventing value fluctuations such as those typical for Bitcoin.

… without central issuers or collateral backing

Finally, the lack of an issuer is another difference between Bitcoin and conventional assets. For example, there is no central entity against which a holder of Bitcoin could assert a legal claim. In fact, holding crypto tokens means nothing more than having a record in the network's payment register stating that units of value were transferred to the current holder at a previous point in time. Holders of tokens must therefore trust that the system will not be compromised and that they will not lose access to their own tokens, since it would not be possible to assert a claim in such a scenario. Bitcoin is not backed by collateral and holding the token is not associated with any returns, such as interest payments on bonds or dividends on shares.

Numerous crypto tokens with different characteristics, …

In addition to Bitcoin, there are now a wide variety of other crypto tokens, which are referred to as "altcoins".[9] Depending on their design, these tokens can be very similar to Bitcoin in some cases or differ considerably in certain aspects (see the box on pp. 68 ff.). However, one thing many of the most important tokens in terms of market capitalisation have in common is that units of value are transferred in a decentralised manner and, although the amount in circulation is not necessarily finite, it grows mechanically without a central entity having discretion to make decisions about this. Despite the large number of altcoins, Bitcoin still remains by far the most significant token – this is referred to as Bitcoin dominance (see the box on pp. 71 f.). For these reasons – and because Bitcoin, as the first crypto token, was conceived in response to aspects of the existing financial system that were perceived by some observers as problematic – this article largely focuses on Bitcoin as well as on some other major tokens with similar designs.

… but Bitcoin still by far the most significant token

Price developments of crypto tokens

The special characteristics of crypto tokens outlined in this article also have an impact empirically.[10] For instance, their market prices often behave differently to those of conventional

6 Transfers of Bitcoin take place between public keys (see the box on pp. 63 ff.), meaning that the identities behind the keys cannot be inferred directly.
7 However, in principle, it is conceivable that the ruleset could undergo changes in future, although this would require consensus amongst users to amend the protocol in this regard. See the box on pp. 63 ff.
8 In the eyes of some users, the mechanical supply of Bitcoin is similar to that of naturally occurring commodities such as gold. In this case, too, supply is growing in a relatively predictable way as a result of mining, but the total available amount of gold in existence on earth is limited. This association is also reflected by the term "Bitcoin mining" – just like the mining of commodities, it generates costs and consumes a large amount of resources. As explained on pp. 63 ff., however, this use of resources does not actually serve to create new bitcoins, but instead is intended to protect the blockchain, i.e. the payment register, against manipulation.
9 Short for "alternative coins".
10 An overview of the empirical literature on the prices of crypto tokens can be found in Corbet et al. (2019).

Other crypto tokens: altcoins

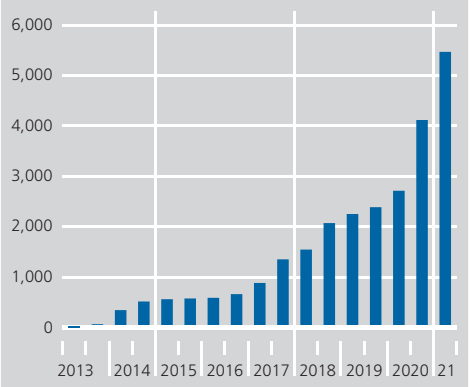
In addition to Bitcoin, there are a wide array of other crypto tokens known as altcoins.[1] The chart below illustrates the number of crypto tokens listed over time on www.coinmarketcap.com. After a period of little movement up until the end of 2017, the number of new tokens then rose sharply – chiefly on the back of the steep increase in the Bitcoin price. At last count, there were well over 5,000 different crypto tokens; yet, measured in terms of market capitalisation, many of these are of minor significance.[2]

One reason for the creation of new crypto tokens is the emergence of novel blockchain solutions that, for instance, are capable of processing a larger number of transactions, consume less energy or use a more complex computational logic than the Bitcoin blockchain.[3] These solutions vary in terms of the cryptographic hash functions used or the scale and frequency of new transaction blocks, whilst others have fundamentally different rules for validating transactions.[4] In some cases, these differences in design are an attempt to address the characteristics of Bitcoin that are considered problematic.[5]

For instance, Bitcoin Cash (BCH) was the product of a hard fork of Bitcoin created in 2017 and designed to increase the size of transaction blocks from one to eight megabytes.[6] This was to address the lack of scalability in the Bitcoin blockchain – i.e. the problem that only a very limited number of transactions could be processed within a certain period of time,[7] which can lead to delayed transactions and high transaction costs.[8] Previously, Litecoin had taken a different route by opting to generate its transaction blocks every two and a half minutes rather than every ten minutes as with Bit-

Number of recorded crypto tokens*

Semi-annual figures



Source: CoinMarketCap. * Number of crypto tokens listed on coinmarketcap.com with data on market capitalisation.
Deutsche Bundesbank

1 Short for alternative coins. For more details on their place in the development of crypto tokens, see also Deutsche Bundesbank (2017b, 2019, 2021).
2 CoinGecko's website even lists more than 8,000 tokens. CoinMarketCap, the source of the information on which this chart is based, also counts over 10,000 in total. However, it only provides figures on market prices and market capitalisation for the just over 5,000 tokens included in the chart.
3 Furthermore, a number of blockchain solutions support the issuance of more than one type of crypto token, which can then be transferred via the blockchain in question. This means that it is not always necessary to program a dedicated blockchain to issue a new crypto token.
4 For an explanation of terms such as "cryptographic hash function", "transaction block" or "validation", see pp. 63 ff.
5 By contrast, other market participants believe that the true strength of Bitcoin actually lies in some of these perceived weaknesses, such as the resource-intensive consensus mechanism.
6 This was the result of a major dispute in the Bitcoin community – the "block size wars" – which resulted in the blockchain being hard-forked, i.e. split into two ledgers. These two ledgers now coexist separately but, prior to the split, shared the same transaction history. For an overview of other hard forks in crypto tokens, see Soiman et al. (2021).
7 A maximum of around seven transactions can be validated each second – a fraction of the volume that existing payment systems can manage.
8 Average transaction fees can run to in excess of US$50, especially when network utilisation is high. At quieter times, fees are well under US$1. For an economic analysis of transaction fees, see Easley et al. (2019) and Huberman et al. (2020).

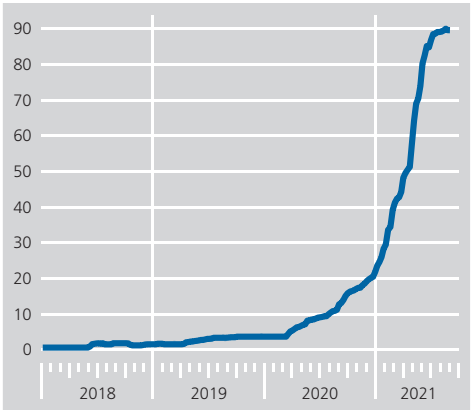
coin, thus quadrupling the number of transactions that can be validated.[9]

Other blockchains try to make up for the lack of scalability, a problem inherent in the Bitcoin blockchain, by using an alternative consensus mechanism such as proof of stake (PoS). In contrast to proof of work (PoW), the probability of a validator being selected is proportional not to their computational power but rather the amount of crypto tokens they lock up for this purpose (staking).[10] A common feature of the two consensus mechanisms is, then, that the more system participants have invested – be it in terms of computational power and specialised hardware for PoW or in terms of owning and staking crypto tokens for PoS – the greater the number of new transactions they can validate.[11] In other words, both mechanisms are based on the idea that the more participants themselves are involved in the system, the lower their incentive to manipulate it and the more expensive manipulations would be for third parties. Supporters of PoW sometimes argue that PoS is not as safe. However, as PoS does not involve mining, it consumes much less energy. The best-known blockchains developed using the PoS approach are Cardano, Solana, Algorand and Tezos. Efforts are also under way to convert existing blockchain solutions to PoS.[12]

Furthermore, blockchains have been developed over the course of time that have additional functions compared with the Bitcoin blockchain. The best-known example is the Ethereum blockchain, which was launched in 2015.[13] On the Ethereum blockchain, the execution of transactions can be "programmed" using complex smart contracts. Such contracts can be used to automatically execute complex use cases, which can sometimes lead to the creation of decentralised financial applications.[14]

Market capitalisation of stablecoins

€ billion, weekly data



Source: CoinCodex.
Deutsche Bundesbank

One important category of crypto tokens is stablecoins.[15] Unlike other tokens where prices fluctuate according to supply and demand, with stablecoins the aim is to keep

9 In 2018, the BCH block size was increased again to 32 megabytes. Other market participants use innovations in the Bitcoin network itself to address the problem of a lack of scalability. One example is the Lightning Network, which enables private payment channels to be opened between peers, with the blockchain itself being used only to validate their balances; see Divakaruni and Zimmerman (2020).
10 For a formal microeconomic analysis of PoS, see Gans and Gandal (2019).
11 With PoS, the probability of being selected is based on the number of coins that a potential validator is prepared to lock up for a certain time. These coins serve as a security of sorts for the network. In proven cases of rule-breaking, the validator's coins are destroyed as a way of incentivising honest behaviour.
12 The Ethereum Foundation, for one, is planning on making the switch for the Ethereum network described below.
13 See Buterin (2013).
14 For a detailed description of decentralised financial applications, including the challenges and risks that they pose, see Deutsche Bundesbank (2021).
15 See Arner et al. (2020).

the price stable.[16] Most existing stablecoins try to keep their exchange rate at par with the US dollar. Others are pegged to the euro or other currencies, precious metals such as gold, or a basket containing several assets.

The chart on p. 69 shows the market capitalisation of existing stablecoins.[17] In contrast to crypto tokens with fluctuating prices, growth in market capitalisation is not primarily a reflection of valuation effects. If there is demand for additional stablecoins, new tokens have to be generated in order to keep the price constant. As supply thus responds fully elastically to demand, growth in market capitalisation means an increase in the number of tokens in circulation. In comparison to the overall market for all crypto tokens, however, the market for stablecoins is still small (just over 5% at the end of August 2021). Nevertheless, measured in terms of transaction volume on both crypto exchanges and decentralised trading platforms, stablecoins are playing an increasingly important role.[18]

16 There are various approaches to trying to maintain price stability. These include backing the tokens with liquid funds from precisely those assets against which the price of the stablecoin is to be kept stable, as well as algorithms. In practice, it is not always possible to keep the price stable, and the value of some stablecoins has already drifted far from their target price. For an economic analysis of the stability risks associated with stablecoins and of issuers' incentives, see Li and Mayer (2020), Klages-Mundt et al. (2020) and d'Avernas et al. (2021). Gorton and Zhang (2021) offer an account of how stablecoins fit into the history of money and finance.
17 The underlying data are from private websites. As a result, they are less reliable than data from official institutions but nonetheless give a rough overview of conditions and are often used even in academic research; see, for example, Bouri et al. (2017a) and Liu and Tsyvinsky (2018).
18 According to Chainalysis (2021), stablecoins accounted for the largest transaction volume of all crypto tokens in the first quarter of 2021.

assets, particularly with respect to their susceptibility to fluctuations in value.

Market prices of crypto tokens exhibit gains in value …

The market prices of Bitcoin and other major tokens that have existed for many years, such as Ether and Litecoin, show an upward trend in market value overall. However, their market price movements also exhibit numerous distinct cycles. In these boom and bust phases, the token prices appreciate strongly within a relatively short period of time, and then lose a large share of their increase in value again.

… high volatility …

In order to gain a sense of the degree to which crypto tokens fluctuate in value, a comparison with the prices of other assets can be made, for example, by looking at the volatility of daily returns – a measure of the typical percentage changes in returns from day to day.[11] On average over recent years, the daily return on risky shares – for example, for an index of the largest publicly listed corporations in terms of market capitalisation in the euro area – fluctuated by around 1 percentage point over the period of one day. Return fluctuations were slightly lower in the case of gold, and the rate of change in the euro/US dollar exchange rate typically fluctuated by just less than ½ percentage point. By contrast, the volatility of crypto tokens was many times higher. While the returns on Bitcoin fluctuated in value by around 4 percentage points, the average daily shift in the value of Ether and Litecoin was even greater at around 6 percentage points. And even these considerably higher figures apply only to an average day. This means that they obscure the fact that, in the past, the market prices of the crypto tokens mentioned above rose or fell by several dozen percent multiple times within the space of just one day.

However, not only are the market prices of tokens exceptionally volatile, but the returns on

11 Calculated as the standard deviation of the daily percentage value changes in the analysed assets.

The dominance of Bitcoin in the market for crypto tokens

The market for crypto tokens has grown significantly over recent years. In the first few years following the introduction of Bitcoin, the market capitalisation of all tokens – i.e. the number of tokens in circulation multiplied by their prices, expressed in euro – amounted to just a few billion euro; over the course of 2017, it grew rapidly and exceeded €600 billion for the first time in December of that year. Market capitalisation then declined in 2018, but rose again sharply at the end of 2020, reaching a record high of almost €2 trillion in May 2021.[1]

First and foremost, this development is a reflection of valuation effects: the total market capitalisation of all tokens fluctuates primarily in line with the market values of individual tokens. Another driver of this market growth is the fact that new crypto tokens are constantly being created. In the first few years following the introduction of Bitcoin in January 2009, only a few new coins emerged – including Litecoin, Ripple and Ether – however, especially after the sharp rise in prices at the end of 2017, a large number of new crypto tokens entered into the market.[2]

While Bitcoin still represented more than 90% of market capitalisation in 2014, its market share dropped to less than 40% for a time during the course of 2017. The shares of newer, smaller crypto tokens grew to more than 20%, and other already established tokens, such as Ether, also gained ground. Although there were then thousands of crypto tokens in existence at that point, Bitcoin remained the most significant by a considerable margin. As a result, Bitcoin's sole share of the total market grew again from 2018, standing at 44% at the end of August 2021 – this is referred to as Bitcoin dominance.[3]

Alongside market capitalisation, trading volumes on crypto exchanges are an additional indicator that can be used to assess the significance of the market as a whole as well as of individual crypto tokens. There are a number of websites that provide figures on the aggregate trading volume across the many crypto trading platforms where crypto tokens can be exchanged for traditional currencies or for each other. Depending on the crypto token in question, these figures on trading volumes amount to several billion euro per day, but are often believed to be considerably

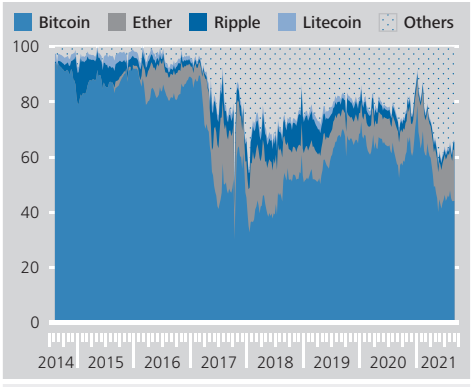
Market capitalisation of crypto tokens

€ billion, weekly data

Source: CoinMarketCap.
Deutsche Bundesbank

Shares of selected crypto tokens in total market capitalisation

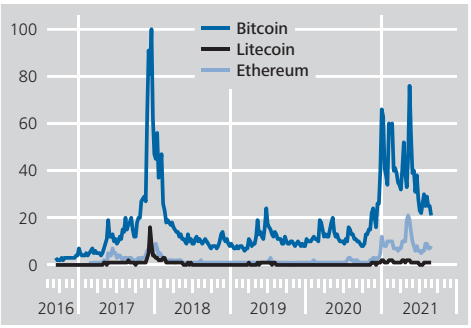
%, weekly data



Sources: CoinMarketCap and Bundesbank calculations.
Deutsche Bundesbank

1 The underlying data are from private websites. To this extent, they are less reliable than data from official institutions, but provide a rough overview of the prevailing conditions. Reference is frequently made to these data.
2 An overview of this is provided in the box on pp. 68 ff.
3 Gandal and Halaburda (2016) analyse competition between crypto tokens and investigate the extent to which network effects benefit Bitcoin as the oldest token.

Google search queries for selected crypto tokens*



Source: Google Trends. * Worldwide internet search queries for the terms "Bitcoin", "Litecoin" and "Ethereum" using the Google search engine; figures relative to the maximum number of search queries for "Bitcoin" in December 2017 (=100).
Deutsche Bundesbank

overstated.[4] Nevertheless, analysing the shares of each traded crypto token can provide some indication of their relative significance. As before, this shows the market dominance of Bitcoin with a market share of around 34%, followed by Ether with approximately 26%.[5]

Finally, the dominance of Bitcoin can also be seen in the public interest in various crypto tokens, for example, as measured by the relative frequency of worldwide search queries using the Google search engine. Here, a distinction is made between the term "Bitcoin" and the terms "Litecoin" and "Ethereum". The figures are stated relative to the maximum level of search interest for "Bitcoin", which was recorded in December 2017. The adjacent chart clearly shows that Bitcoin is dominant in the public perception, too.

4 According to estimations, a substantial proportion of the reported trading volume on the major crypto trading platforms consists of what are known as "wash sales"; see Cong et al. (2021) and Aloosh and Li (2021). In these sales, investors issue buy and sell orders at the same time in order to create artificial trading volume on the crypto trading platforms. Reported trading volumes play a role, for example, when crypto trading platforms compete for market share and transaction fees.
5 This is based on the figures provided by CoinMarketCap for the trading volumes in a 30-day period from mid-July to mid-August 2021. Stablecoins, which are often used to exchange between crypto tokens, are not taken into consideration here.

… low correlation with other assets …

the major tokens also show no systematic correlation with those of conventional assets. For instance, the returns on the three crypto tokens mentioned above barely correlate with those of shares or exchange rates: the respective correlation coefficients are close to zero. The correlation with gold is only slightly higher.

… but greater co-movement with one another

By contrast, the relationships between the three crypto tokens analysed in this context reveal a completely different picture. The correlation here is considerable – the coefficients are greater than 0.5 and thus relatively high. Token prices therefore tend to move in tandem over the course of a day, but behave differently to those of shares, exchange rates or precious metals. In fact, academic studies show that crypto tokens have risk-return relationships that have differed fundamentally from those of conventional assets in the past.[12]

Conceptual considerations regarding the impact of monetary policy on crypto tokens

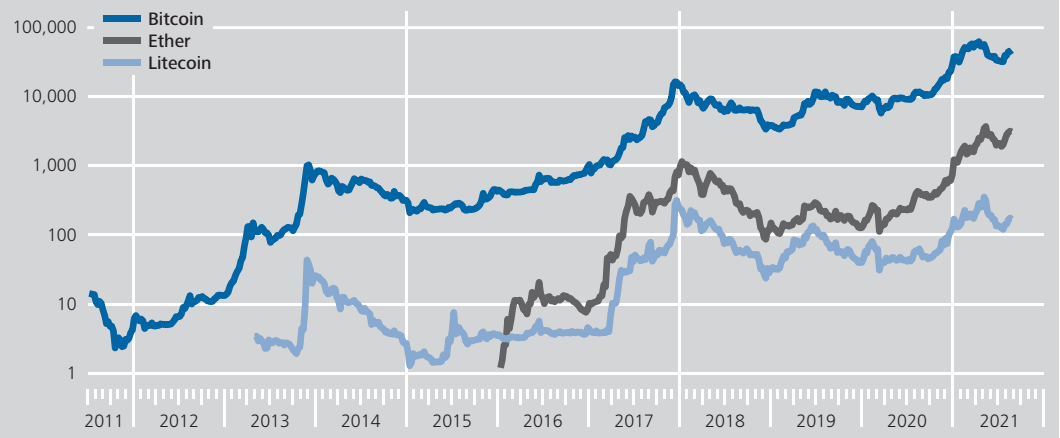
Monetary policy expected to have impact on asset prices, e.g. for shares …

A large body of literature on economics investigates how the market prices of various assets are determined. Theoretical considerations suggest that share prices, for example, are dependent on the expected future profits of the issuing enterprise and on the interest rate used to discount these profits distributed as dividends. This means that changes in monetary

12 Liu and Tsyvinski (2018) analyse the extent to which the prices of the three crypto tokens Bitcoin, Ripple and Ether are dependent on determining factors that are often employed in empirical economic research to explain returns on shares, for example. The authors come to the conclusion that the correlations detected for other asset classes do not apply to the crypto tokens mentioned above. Instead, they identify crypto token-specific determining factors, such as with regard to past returns on tokens (momentum factor). Using various criteria, Ankenbrand and Bieri (2018) confirm that crypto tokens represent their own asset class that differs in a variety of ways from conventional assets.

Market prices of selected crypto tokens*

US$, log scale



Sources: CoinMarketCap and Bitcoinity. * Values shown from a market price of US$1.
Deutsche Bundesbank

policy should affect share prices in at least two ways: if, for example, the central bank lowers its policy rate or communicates a lower future interest rate path, expected corporate profits will be discounted to a lesser extent, mechanically increasing their present value. In addition, if the interest rate cut also stimulates general economic activity, profit expectations themselves might also improve, which would likewise result in higher share prices.

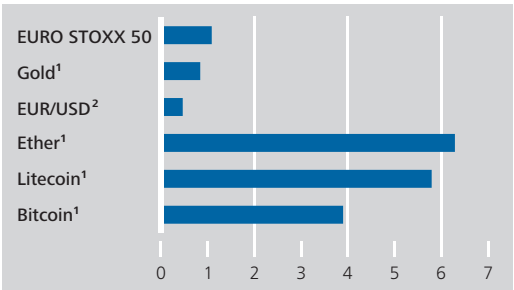
… and exchange rates

Monetary policy impulses also affect exchange rates, i.e. the relative price of two currencies. According to theory, the exchange rate between a pair of currencies should depend largely on the relative levels of interest rates in the two currency areas.[13] If, for instance, interest rates in the euro area were to fall, some of the demand for interest-bearing securities would possibly shift to the United States, provided that interest rates were not also falling there. Accordingly, there would be greater demand for the US dollar and lower demand for the euro – the single currency would hence depreciate against the US dollar.[14]

Monetary policy likely has direct impact on prices of crypto tokens expressed in euro …

It stands to reason that monetary policy impulses from the Eurosystem should have an effect on the euro prices of crypto tokens, too. Just as the euro would depreciate against, say, the US dollar if the Eurosystem were to loosen its monetary policy stance (i.e. the price of the US dollar would rise measured against the euro), it can be assumed that the euro prices of other assets and goods would also increase, in-

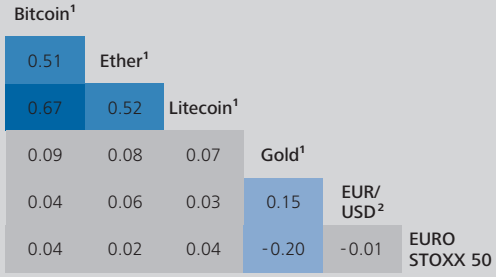
Volatility of returns of selected crypto tokens and conventional assets*



Sources: CoinMarketCap, ECB and Bundesbank calculations. * Average standard deviation of percentage value changes in the analysed assets. Sample period: August 2015 (initial listing of Ether) to June 2021. Figures from March 2020 were excluded from the calculation in view of the market crash during the COVID-19 crisis. **1** On US dollar basis. **2** Euro/US dollar exchange rate.
Deutsche Bundesbank

13 This relationship is described in the economic literature by the theorem of (uncovered) interest parity, which states that the expected return on a secure investment in domestic currency must be same as that on an equivalent secure investment in foreign currency. If the nominal returns differ between the two currency areas, an expected change in the exchange rate ensures that the expected returns balance out. For further details on this, see Deutsche Bundesbank (2005). Dedola et al. (2020) describe these and other theoretically derived determinants of the exchange rate.
14 For a detailed analysis of the impact of monetary policy on the euro's exchange rate, see Deutsche Bundesbank (2020).

Correlation of selected crypto tokens with one another and with other assets*



Sources: CoinMarketCap, ECB and Bundesbank calculations. * Darker colours indicate greater correlation. Sample period: August 2015 (initial listing of Ether) to June 2021. Figures from March 2020 were excluded from the calculation in view of the market crash during the COVID-19 crisis. **1** On US dollar basis. **2** Euro/US dollar exchange rate.

Deutsche Bundesbank

cluding the euro price of Bitcoin. As long as Bitcoin can be traded internationally against various currencies with only minimal friction, the euro price and the US dollar price of the token converted into euro at the current exchange rate should only differ marginally during the adjustment process. Otherwise, it would be possible to conduct arbitrage transactions.[15]

… but further effect on crypto tokens less obvious a priori

However, why the price of Bitcoin in US dollar should also change is less obvious at first. Unlike bonds, Bitcoin does not promise to pay any interest, and unlike shares, it promises no dividends that would increase or be less heavily discounted as a result of monetary policy easing. Furthermore, Bitcoin is still not widely used as a means of payment in day-to-day economic life, so it stands to reason that its value should not be driven primarily by the level of economic activity, which monetary policy easing is intended to stimulate.[16]

Notion of Bitcoin as protection against inflation could bring about monetary policy effects …

Instead, the effects of monetary policy on token prices could be rooted in the claim that holding Bitcoin supposedly protects against inflation. If monetary policy easing makes the hypothetical scenario of a rapid decrease in the euro's purchasing power more probable in the eyes of individual market participants, they may seek to invest primarily in assets not subject to discretionary decision-making regarding their supply. The Bitcoin price would then benefit to an especially large extent from monetary policy that is perceived as excessively expansionary.[17]

… as could search for yield …

Lastly, the high valuation levels of crypto tokens are sometimes also seen simply as an expression of speculative excesses, which are supposedly attributable to, amongst other things, loose monetary policy. Due to the fact that, in some cases, even risky bonds do not offer positive interest rates, investors may increasingly consider highly speculative assets in their search for yield and hope for further price gains.[18] So, given that crypto tokens do not promise any returns and are also not widely used as a means of payment, their high market prices can be best explained by a surge in liquidity triggered

15 Investors would buy Bitcoin at a low price in euro, sell it at a higher price in US dollar, and then exchange the acquired US dollar currency back for the depreciated euro. In fact, the prices of crypto tokens in different currencies are not entirely immune from what are ostensibly arbitrage opportunities. For example, there may be persistent differences between the US dollar price of Bitcoin and its price (converted into US dollar) in other currencies, especially those of developing countries and emerging market economies. These price differences reflect frictions in the aforementioned adjustment process, which can stem from factors such as transaction costs and capital controls or from risks arising from the high volatility of prices; see Kroeger and Sarkar (2016) and Makarov and Schoar (2020). In the past, the price difference has been particularly pronounced for the Korean won; see Choi et al. (2020). By contrast, the differences between the US dollar and euro prices of Bitcoin are usually very small, and the arbitrage transactions described above are primarily for illustrative purposes.

16 For example, Liu and Tsyvinski (2018) find no evidence that Bitcoin's market value is dependent on macroeconomic activity.

17 It is possible that an effect of this kind would be felt primarily at significantly higher inflation rates than those observed in the recent past. Such a non-linear effect would be more difficult to prove on the basis of historical data. For more details on the fundamental problem of proving the causal effects of monetary policy impulses, see the relevant section of this article on pp. 77 f.

18 See Rajan (2005) and Borio and Zhu (2012). This behaviour is documented, in particular, for financial institutions such as banks or money market and pension funds; see, for example, Jiménez et al. (2015) and Di Maggio and Kacperczyk (2016). But there is also evidence to suggest that households are searching for yield by rebalancing their portfolios in favour of more profitable forms of investment; for the case of Germany, see, for example, Deutsche Bundesbank (2016a). If asset prices rise, financial market participants might also reckon with decreasing probabilities of loss, which is why a loose monetary policy stance could help encourage them to take on additional risks; see, for example, Deutsche Bundesbank (2016b).

by monetary policy, which drives up the market prices of all kinds of risky assets.[19]

… but hypotheses require empirical testing

Therefore, if speculation fuelled by monetary policy or concerns about future inflation are indeed major factors driving the performance of Bitcoin and other crypto tokens,[20] it would be expected that their prices respond sensitively to monetary policy impulses. The extent to which this is the case is examined below.

Insights into the significance of Eurosystem monetary policy for crypto tokens

Empirical literature looks at asset price responses in narrow time windows around monetary policy decisions

In order to get a sense of whether and how monetary policy decisions affect asset prices, the economic literature often looks at the responses of these prices in narrow time windows around the announcements of monetary policy decisions.[21] If, for example, share prices rise immediately after a monetary policy announcement is made, but move sideways beforehand and afterwards, it can be plausibly concluded that the increase is primarily attributable to the monetary policy impulse. Indeed, there is ample empirical evidence that the prices of bonds, shares and foreign currencies often respond immediately and significantly to monetary policy decisions.[22] Initial insights into the effect of Eurosystem monetary policy on crypto tokens could therefore be gained by expanding this type of analysis to cover token prices, as described below. In this context, the currency in which crypto token prices are expressed is key. Given that, as stated above, the effect on token prices expressed in euro is hardly surprising and Bitcoin is mainly traded against the US dollar, token prices are expressed exclusively in US dollar in the following analysis.

Bitcoin price tends to be more volatile around monetary policy announcements …

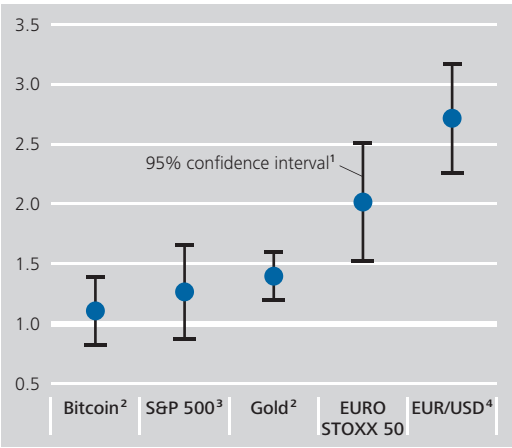
First, the average return volatility of Bitcoin and other assets in the time windows around the announcements of monetary policy decisions by the ECB Governing Council is examined. The period analysed begins 15 minutes before the ECB press release is published at 13:45 and lasts until 75 minutes after the subsequent press conference starts at 14:30, spanning all in all from 13:30 to 15:45. Studying these short time periods, it turns out that the already volatile Bitcoin prices are, on average, just over 10% more volatile than in comparable time windows on normal afternoons on which no monetary policy announcements are made. This finding could indicate that monetary policy decisions are also important to crypto token markets because they lead to unusually large price swings. However, the difference between days with monetary policy announcements and those without is not statistically significant, at least if days with extreme value fluctuations are included in the analysis.[23]

… but increase in volatility of share prices and exchange rates greater and also statistically significant in these windows

Further information can be gleaned by comparing these results with equivalent calculations for the gold price, the euro/US dollar exchange rate and the stock price indices S&P 500 (for the United States) and EURO STOXX 50 (for the euro area). It transpires that some of these returns experience considerably larger increases in volatility in the time windows around the announcements of monetary policy decisions. For example, the average volatility for the EURO STOXX 50 is twice as high as usual, while that

19 See, for example, Bloomberg (2021).
20 According to De Haan and van den End (2017), there is a connection here. In the past, unusually high asset prices were often also an indicator of high future inflation rates.
21 Kuttner (2001) and Gürkaynak et al. (2005) were among the first studies to propose this approach, which has since become established practice. Generally, all scheduled meetings of the relevant monetary policy decision-making body are taken into account, irrespective of the announcements made. In particular, whilst a monetary policy decision need not necessarily be related to a change in policy rates or asset purchase programmes, all monetary policy communication within a narrow time frame around press releases and press conferences following the meetings is analysed.
22 See Zettelmeyer (2004), Bernanke and Kuttner (2005), Altavilla et al. (2019), Gilchrist et al. (2019), Deutsche Bundesbank (2017a, 2020) and Gürkaynak et al. (2021).
23 The difference amounts to around one-third and is statistically significant if the most volatile 10% of all days are excluded when calculating the values. There have been extreme fluctuations in the price of Bitcoin on a number of days in the past. By excluding these particularly volatile movements, it is thus possible to compare more "ordinary" days with those on which monetary policy announcements were made.

Yield volatility growth in time windows around announcements of monetary policy decisions*



Sources: Tickstory, Bitcoincharts and Bundesbank calculations. * Average standard deviation of percentage value changes in the analysed assets based on data taken at five-minute intervals in the time windows around the announcements of monetary policy decisions by the ECB Governing Council (15 minutes before the start of the press statement to 75 minutes after the start of the subsequent press conference). Values given relative to equivalent windows on days on which no monetary policy decisions are announced. Sample period: January 2015 to June 2021. **1** 95% confidence bands based on t-tests to compare mean values inside and outside the monetary policy window. **2** On US dollar basis. **3** Over-the-counter (OTC) trading. **4** Euro/US dollar exchange rate.

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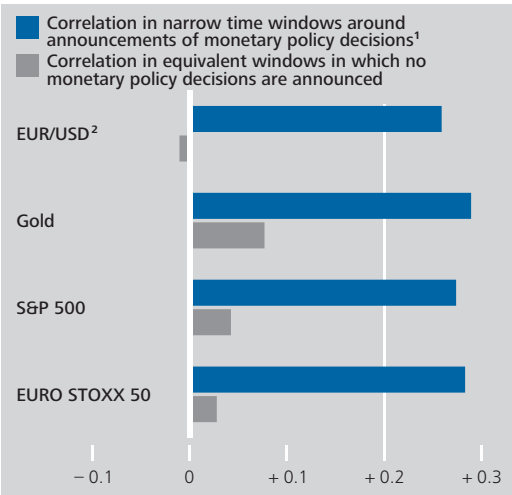
Correlation of yields from Bitcoin and conventional assets in time windows around announcements of monetary policy decisions*



Sources: Tickstory, Bitcoincharts and Bundesbank calculations. * The sample period spanned from January 2015 to June 2021. Adjusted for several days on which the analysed assets were subject to extreme value fluctuations (20 July 2017 and 12 March 2020 in the case of Bitcoin and 22 October 2015 and 3 December 2015 in the case of EURO STOXX 50). **1** 15 minutes before the start of the press statement to 75 minutes after the start of the subsequent press conference. **2** Euro/US dollar exchange rate.

Deutsche Bundesbank

of the euro/US dollar exchange rate is just over two and a half times as high. These differences are each statistically highly significant. The increases in return volatility for gold and the US stock price index S&P 500 are only somewhat higher than that for Bitcoin. However, at least for gold, the corresponding confidence intervals show that the increase in return volatility is subject to a lower degree of uncertainty than that for Bitcoin.

Bitcoin price more strongly correlated with other asset prices in time windows around monetary policy decisions

A similar comparison can be made with respect to the second characteristic of crypto tokens discussed above: their low correlation with the market prices of other assets. To this end, one can look at correlation coefficients between the returns on Bitcoin and those on stock price indices, gold and the euro/US dollar exchange rate in the aforementioned narrow time windows around monetary policy announcements by the ECB Governing Council. It turns out that the co-movement of returns is higher than normal, with correlation coefficients increasing from below 10% to almost 30%.[24] In this comparison, too, however, the increase is not statistically highly significant in all cases and it is lower than the increased correlation between stock price indices and exchange rates, for example – by way of illustration, the correlation between the EURO STOXX 50 and the euro/US dollar exchange rate amounts to around 60% within the monetary policy time window.

In summary, the findings so far indicate that monetary policy decisions could also be of relevance to crypto tokens such as Bitcoin. At the same time, the relative influence of monetary policy on the market prices of shares, precious metals and foreign currencies appears at first glance to be more significant. However, the previous analysis only considers the immediate responses of different asset prices to monetary policy announcements. The already very high

24 However, correlation with the EURO STOXX 50 is less than 20% if the analysis includes 22 October 2015, the date on which Bitcoin's value increased by just under 2% shortly before the Governing Council's monetary policy announcement.

volatility of crypto token prices could make it difficult to unambiguously demonstrate any impact of monetary policy within these short periods of time. What is more, the markets for crypto tokens are also less liquid than those of many conventional assets, which could further limit the informative value of an analysis based on high-frequency data alone. The question therefore arises as to whether any systematic impact of monetary policy can also be determined over longer periods and whether monetary policy impulses can explain a quantitatively significant portion of the movements in crypto token prices over time. Answering such questions requires econometric models that allow causal statements to be made about the dynamic effects of monetary policy impulses.

Econometric analyses on the causal effect of monetary policy impulses on crypto tokens

Differentiating monetary policy impulses from other determinants is crucial …

In order to be able to examine the impact of monetary policy on financial market prices and other variables over time, it is necessary to distinguish monetary policy impulses from other potential driving forces. Whilst in the high-frequency analysis an immediate market response to ECB announcements could plausibly be attributed primarily to monetary policy impulses, this is not the case over longer periods of time.

… but fraught with challenges

The problem can be illustrated by means of the following example: as many central banks around the world are committed to price stability as part of their mandate, their aim is to stabilise the inflation rate at a low level. At least in the short term, however, the inflation rate is determined by many factors besides monetary policy, such as events on international commodity markets or wage agreements impacting the prices of firms' intermediate goods or labour costs. If the central bank were to anticipate increasing price pressures overall, it would raise interest rates in order to counteract rising inflation. If the central bank succeeds in keeping the inflation rate stable at close to its target in the months that follow, however, it cannot be concluded that the interest rate increase had no effect on the price level – after all, without monetary policy adjustment, inflation would have risen as expected. And even if the central bank were to react too tentatively, i.e. if the inflation rate were to increase somewhat, it would be wrong to arrive at the conclusion that interest rate hikes instead cause prices to rise rather than fall. In order to draw any conclusions regarding the causal effect of a monetary policy impulse, then, it is not enough to simply examine how certain variables behave over longer intervals after a monetary policy instrument is altered.

Econometric models enable identification of monetary policy shocks

In order to solve these problems, the economic literature has developed econometric models that enable structural shocks to be identified. In these models, the many observable potential determinants that can influence prices and other economic variables are broken down into individual, clearly differentiated components (shocks). When it comes to monetary policy, this means that the models attempt to isolate the component – such as a change in interest rates – that does not simply represent a response by the central bank to other exogenous factors, but one where it actively intervenes. If this is successful, the models are able to isolate the causal effect of monetary policy on individual variables over time and determine its relative significance.

Frequent use of VAR models …

Vector autoregressive (VAR) models are often used for this purpose. As a first step, statistical estimations are performed to assess how different variables are connected and interact with each other over time. Some of the changes in each individual variable can then be traced back to preceding developments in all of the other variables. However, another part will remain unexplained by the model structure, i.e. the estimated interdependencies of the variables, and it is this component that forms the basis for identifying the aforementioned structural shocks.

… supplemented by information from outside the model

A number of different methods have been developed over time for this purpose, and approaches that draw on information from outside the model are becoming increasingly popular, especially for identifying monetary policy shocks. Proxy VAR models, for example, make use of instrumental variables,[25] which often include the responses of short-term interest rates within narrow time windows around monetary policy announcements. Somewhat similar to the immediate responses of other financial market variables outlined above, it is plausible that such changes to short-term interest rates are predominantly triggered by monetary policy decisions or announcements, whilst other determinants are likely to have hardly any effect. The interest rate responses also indicate that, to at least some extent, these decisions were not expected by market participants. Changes to interest rates therefore do not represent merely the central bank's response to changes in economic activity, as these should have already been incorporated into market prices.[26] By adding the information on immediate interest responses, it is possible to estimate which component of the change in interest rates not explained by the first step of the model can actually be attributed to the exogenous monetary policy impulse.

Results based on a proxy VAR model

ECB monetary policy impulses have a significant impact on the prices of crypto tokens …

After identifying the monetary policy impulses, their dynamic effects on the individual model variables can then be calculated, i.e. how the variables change over time solely due to monetary policy. A study conducted at the Bundesbank reaches the conclusion that the price of Bitcoin does indeed respond to Eurosystem monetary policy impulses to a statistically significant degree.[27] An unexpected reduction in the euro area's short-term interest rate level is estimated to lead to a persistent increase in the market value of Bitcoin as well as of other crypto tokens such as Ether and Litecoin. At first glance, the increase in prices is greater here than for shares or foreign currencies, which also see gains in value. If the much higher volatility of token prices is taken into account, however, this impression is relativised and the effects are of a roughly similar magnitude (see the box on pp. 79 ff.).

… but can only explain a small portion of price movements

This observation gives rise to the question of what overall share of the pronounced fluctuations in token prices can be attributed to monetary policy impulses from the Eurosystem. This question can also be answered using the econometric model, according to which the contribution made by monetary policy impulses is moderate: they are able to explain less than 10% of the variance in Bitcoin prices. Similar results are found for Ether and Litecoin. The much larger share of the changes in token prices must therefore be attributable to factors other than monetary policy in the euro area.[28] These might include changes in the general risk appetite of financial market participants,[29] but also factors specific to crypto tokens.[30] For example, the prices of tokens have often risen markedly in the past when large enterprises an-

25 This approach was largely developed by Stock and Watson (2012) and Mertens and Ravn (2013). It was first used to identify monetary policy shocks by Gertler and Karadi (2015).
26 If the central bank has information on future economic developments that is unknown to the market and therefore as yet unpriced, the market response could be attributed to an information shock. However, as outlined in the box on pp. 79 ff., such effects are controlled for in the current econometric analysis.
27 See Karau (2021).
28 US monetary policy also has a relatively low explanatory power in the model; see the box on pp. 79 ff.
29 Dyhrberg (2016), Bouri et al. (2017a, 2017b) and Kalyvas et al. (2020) analyse, for instance, the extent to which Bitcoin benefits from uncertainty in the international financial markets and can function as a hedging instrument.
30 Conlon and McGee (2020) establish that, prior to 2016, some of Bitcoin's price changes are associated with gambling transactions that can be conducted using the Bitcoin blockchain. Corbet et al. (2020) attribute some of the high volatility in the Bitcoin price to numerous cases of fraud and hacker attacks where bitcoins were illegally misappropriated. Gandal et al. (2018) analyse price manipulations in 2013 on the most significant crypto token trading platform at the time, Mt. Gox. According to Griffin and Shams (2020), the stablecoin Tether has been used in the past to manipulate the price of Bitcoin. In any case, crypto tokens are often associated with illegal activities. Foley et al. (2019) provide estimations of this using blockchain data and conclude that the illegal use of Bitcoin is a not insignificant driver of its market value.

The impact of monetary policy on crypto tokens in a VAR model

In a forthcoming Bundesbank discussion paper, the effects of monetary policy impulses on the market for crypto tokens are investigated using vector autoregressive (VAR) models.[1]

A VAR model consists of n variables that interact with one another over time. Rather than attempting to explain a specific variable using multiple others, each variable is regressed on lagged values of all of the variables included in the model. In mathematical terms, the estimated reduced form of the model is thus represented by the following system of equations

$$y_t = c + B_1 y_{t-1} + B_2 y_{t-2} + \dots + B_p y_{t-p} + u_t,$$

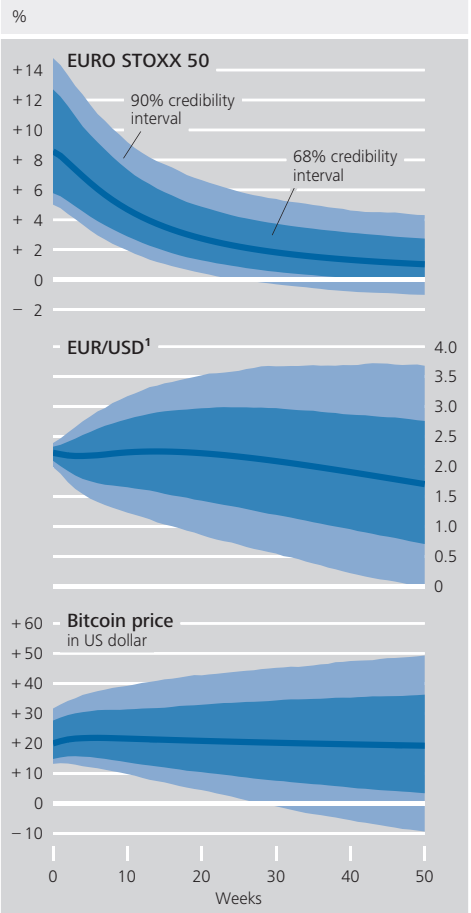
where y and c are respectively $(n \times 1)$ vectors of the endogenous model variables and constants, and p describes the number of lags taken into consideration. The $(n \times n)$ matrices B_i (where $i = 1, \dots, p$) contain the estimated regression coefficients, which indicate how the variables are dependent on one another over time. Finally, u_t is an $(n \times 1)$ vector of model residuals.

In total, six variables are included in the VAR model estimation:[2] the two-year euro area EONIA swap rate as a short-term interest rate,[3] the EURO STOXX 50 share price index, the euro/US dollar exchange rate, the VIX index (a measure of stock market volatility for the United States derived from options prices),[4] the VSTOXX (counterpart to the VIX for euro area shares), and, lastly, the price of Bitcoin in US dollars.[5] The reduced form of the model is estimated using Bayesian methods based on weekly data from the start of July 2013 to the end of June 2021.[6]

Following such a regression, the resulting model residuals are deviations of the observed data from the values predicted by the model. However, analysing the residuals

1 See Karau (2021).
2 With regard to the variables and the sample period, the model presented here is a slightly modified version of the models estimated in Karau (2021).
3 In the past, monetary policy impulses were often identified using money market interest rates with maturities shorter than two years. However, these have exhibited hardly any response to monetary policy decisions since March 2016, when the ECB Governing Council decided to lower the main refinancing rate to zero. For this reason, the literature has transitioned to analysing somewhat longer-term interest rates, which reflect monetary policy changes in the form of expectations regarding the future course of interest rates, for example (Gertler and Karadi (2015), Franz (2019), Jarociński and Karadi (2020)). Alternatively, a one-year interest rate could also be used here, or, instead of the EONIA rate, the yields on German government bonds. This changes the results of the estimations only slightly. In principle, shadow rates – i.e. counterfactual estimations of the money market rate that would have occurred without the zero lower bound – could also be used. However, these are associated with estimation uncertainty, which is not the case when using one-year or two-year market yields. Finally, the instrument variables described below are based on changes in two-year interest rates, and the use of equivalent yields in the VAR model improves instrument strength.
4 The VIX is often used to capture the uncertainty in the US and international financial markets that varies over time. It has been included here to control for such fluctuations econometrically.
5 All of the variables except for interest rates are included in the model in logarithmic form. There is hardly any change in the results if the Bitcoin price or other financial market variables are included in the system of equations in first differences.
6 Data on the market price of Bitcoin are available from as early as 2011. However, prior to mid-2013, the market was small and dominated by a single trading platform (Mt. Gox). In addition, there is evidence to suggest that, before mid-2013, the Bitcoin market was not efficient to the extent that daily returns were autocorrelated to a somewhat large degree, see Urquhart (2016). Nevertheless, if mid-2011 is chosen as the starting point for the analysis, there is hardly any change in the qualitative results; in quantitative terms, however, the effects are considerably smaller. The number of lags in the model is set as $p = 8$, which corresponds to two months. However, the exact choice of p has hardly any impact on the results.

Impulse response functions to an expansionary monetary policy shock*



* Reaction in the proxy VAR model to an expansionary monetary policy shock in the form of a reduction in the two-year interest rate by ten basis points. **1** Euro/US dollar exchange rate in direct quotation: a rise in the exchange rate corresponds to a depreciation of the euro.

Deutsche Bundesbank

alone is not sufficient to draw any conclusions regarding which factors are the determinants of each variable in the model. For example, if an unexpected (in model terms) downward deviation in the monetary policy rate – i.e. a negative residual – coincides with a subsequent unexpected upward deviation in financial market prices, this is not necessarily indicative of a causal relationship. Mathematically, the problem lies in the fact that the estimated residuals are correlated with one another. Intuitively, all possible determinants are drivers of both asset prices and monetary policy adjustments.

To be able to draw any conclusions regarding causality in the impact of monetary policy, we must isolate the component of the unexplained change in interest rates that does not represent a monetary policy response to other determinants, but instead constitutes its own exogenous impulse (structural shock). Over the course of time, the economic literature has developed a number of approaches for this purpose. These differ mainly in terms of which additional assumptions need to be made in order to identify individual structural shocks.[7] Proxy VAR models, for example, draw on information from outside the model itself in the form of instrumental variables.

A suitable instrument would be correlated with the shock to be identified, but not with other potential structural shocks. In most cases, the changes in short-term interest rates in narrow time windows around monetary policy decisions are used as instruments, as these are likely to be driven by monetary policy communication above all. However, in recent years, the economic literature has documented that the response of share prices, for instance, does not always seem to be in line with these changes in interest rates, which, according to theoretical considerations, were caused by a monetary policy shock. This phenomenon is usually explained in that the change

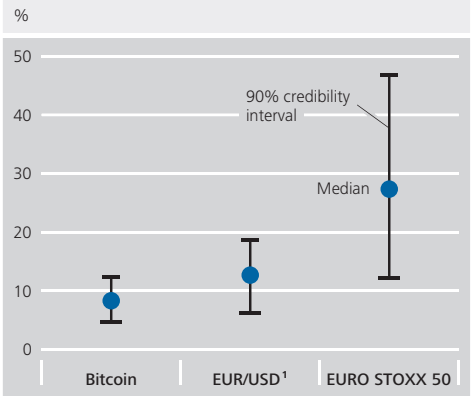
7 In the past, assumptions were often made regarding the time lags with which the individual variables respond to shocks. The individual shocks were then able to be identified by specifying a sequence of variables and subsequently decomposing the variance-covariance matrix of the residuals in triangular form. However, this approach is poorly suited to models that include financial market variables in particular. Another widely used approach for identifying shocks is based on sign restrictions imposed on the shocks. However, these must be derived from theoretical considerations, and it is often necessary to make a large number of assumptions in order to clearly differentiate individual shocks from one another. A detailed overview of procedures for identifying shocks can be found, for example, in Kilian and Lütkepohl (2017).

in interest rates by the central bank is sometimes interpreted as a signal of future economic developments – an information shock.[8] In order to filter out these non-monetary shocks, the instrument in the model described here takes account not only of the interest rate responses around monetary policy decisions, but also of the responses of share prices.[9]

Once the monetary policy shock is identified using the instrument, impulse response functions can be calculated. These show how a monetary policy impulse from the Eurosystem affects the individual variables in the system over time. In the chart on p. 80, the response of the price of Bitcoin in US dollars to a reduction in the two-year interest rate by ten basis points is compared with the responses of share prices and the exchange rate. In this context, the bands provide information on the statistical uncertainty of the estimation results. All three market prices rise to a statistically significant degree before the monetary policy effect diminishes again over time. Here, the percentage rise in the price of Bitcoin is far larger than the percentage rises in the exchange rate and the share price index. If, however, as shown in the chart on p. 73, account is taken of the high volatility of the Bitcoin price – which is four times higher than that of the share price index and eight times higher than that of the exchange rate – the relative effects of the monetary policy impulse are fairly similar in magnitude for all three asset prices.

To better assess the significance of monetary policy in each case, it is a good idea to decompose the forecast error variance. In this way, it is possible to estimate the extent to which, on average, the unexplained variations in the individual variables can be attributed to the identified monetary policy shock. Such an exercise reveals that only around 8% of the fluctuations in the Bitcoin price can be explained by monetary policy impulses from the Eurosystem. This is somewhat less than for the euro/US dollar exchange rate (around 12%) and considerably less than for the EURO STOXX 50 (around 28%), but also associated with less uncertainty.

Share of the forecast error variance explained by the monetary policy shock*



* Forecast error variance decomposition over a one-week horizon in the proxy VAR model. **1** Euro/US dollar exchange rate.

Deutsche Bundesbank

The impression that monetary policy impulses only have a moderate impact on the market movements of crypto tokens does not change when the analysis is expanded. For instance, the prices of Litecoin and Ether respond similarly to the identified

8 For example, if interest rates were lowered, this could be interpreted as the central bank having a more pessimistic assessment of the economic outlook than it had before. As share prices are a reflection of expected corporate earnings, which respond sensitively to overall economic conditions, a reduction in interest rates could therefore lead to a drop in share prices. See Melosi (2017), Nakamura and Steinsson (2018), Cieslak and Schrimpf (2019), Kerssenfischer (2019), Jarociński and Karadi (2020) and Miranda-Agrippino and Ricco (2021). For an analysis of how such information shocks impact exchange rates, see Franz (2020).

9 These data are taken from the database in Altavilla et al. (2019). Using matrix rotation, an instrument series is created based on the short-term changes in interest rates and share prices. This then captures the adjustments resulting from a monetary policy shock where the signs of the responses of interest rates and share prices differ according to theory.

monetary policy shock.[10] In fact, in these cases, monetary policy explains an even slightly smaller component of the forecast error variance. Non-standard monetary policy likewise plays a similarly significant role in the valuation of crypto tokens. For example, in the analysis described above, the two-year interest rates could be replaced with ten-year interest rates; this would identify a shock that primarily captures the Eurosystem asset purchase programmes, which mainly affect longer-term interest rates. In this case, too, the monetary policy impulse explains a just slightly larger component of the variation in the Bitcoin price (and also the variation in the euro/US dollar exchange rate).[11]

Finally, the question could be raised of whether the prices of crypto tokens are driven not primarily by the monetary policy of the Eurosystem, but instead by that of the US Federal Reserve. This can also be investigated using the model described here by replacing each of the euro area variables with their US counterparts.[12] Interestingly, a model estimated in this way comes to an entirely different conclusion in qualitative terms. In this case, a monetary policy impulse from the Federal Reserve does not cause the prices of crypto tokens and other assets to respond in the same direction at all. For example, whilst an easing of monetary policy in the United States would lead to rises in the prices of US shares and foreign currency, the market value of Bitcoin would not also rise, but instead fall. While the reason behind this response cannot be given definitively, it may, however, be linked to the especially pronounced spillover effects from US monetary policy in conjunction with the technological and institutional particularities of Bitcoin.[13] Nevertheless, irrespective of the exact reason for the qualitative response, monetary policy shocks from the Federal Reserve can likewise explain just a relatively small component of the price fluctuations.

10 In the model, the Bitcoin price is then replaced by the price of Litecoin or Ether respectively, and the sample period is adjusted accordingly.
11 A shock identified in this manner is, however, not necessarily orthogonal to the previously observed shocks from more standard monetary policy at the short end of the yield curve. The components of the forecast error variance explained in each case therefore cannot simply be added together to obtain a picture of the overall impact of monetary policy.
12 The short-term responses of interest rates and share prices, which are necessary for the construction of the instrument, have been taken from the database of Cieslak and Schrimpf (2019) for the model for the United States.
13 Karau (2021) finds evidence that the rising demand for Bitcoin as a result of monetary policy tightening by the Federal Reserve is especially pronounced in emerging market economies. The literature shows that these countries are particularly affected by rises in US interest rates (see Miranda-Agrippino and Rey (2020) and Degasperi et al. (2020)), for example due to shifts in capital by international investors and globally active banks (see Bruno and Shin (2015) and Kalemli-Özcan (2019)). Accordingly, if the economic and financial conditions in those countries deteriorate, this could boost demand for assets like crypto tokens, which, unlike the normal financial system, are subject to hardly any regulation in those jurisdictions and can be easily transferred across national borders.

nounced that they would accept Bitcoin as a means of payment for their products or that they intended to invest in Bitcoin themselves. There is also evidence to suggest that market prices often respond sensitively to announcements made by supervisory authorities indicating regulatory changes for tokens.[31]

Similar results when analysing effects of non-standard monetary policy

The assessment that the Eurosystem's monetary policy cannot sufficiently explain token price developments does not change when looking at non-standard measures either. For example, Eurosystem central banks purchase large amounts of bonds as part of various asset purchase programmes and thereby exert pressure on long-term interest rates.[32] It is sometimes argued that it is these non-standard measures in particular that are partly responsible for the high valuation of various assets.[33] The effects of this policy can be investigated using the approach described here by including the yields of long-term government bonds in the VAR model. Changes to these long-term interest rates within narrow time windows around monetary policy announcements are thus used as instrumental variables in order to identify non-standard monetary policy impulses. The results provide a similar picture to the one before: a decline in yields on ten-year German government bonds attributable to monetary policy causes a statistically significant increase in the Bitcoin price; the quantitative effect of this is small, however, and it can only explain a moderate portion of the overall fluctuations.

Conclusion

Monetary policy impulses have a significant effect on the prices of many assets. While their impact on bonds, shares or exchange rates has been studied extensively on both a theoretical and empirical level, their relationship with crypto tokens such as Bitcoin is less obvious at first. Nevertheless, the higher valuation levels of individual tokens are sometimes perceived as excessive speculation, which has occasionally been blamed partly on the more accommodative monetary policies of major central banks.

Should the prices of Bitcoin and other similarly designed tokens primarily be driven by more accommodative monetary policy or reflect, for instance, the fears of supposed inflationary pressures, they might respond sensitively to monetary policy impulses. Indeed, the already pronounced volatility of token prices does tend to be higher around monetary policy announcements made by the ECB's Governing Council than at other times. Likewise, the prices of tokens correlate somewhat more strongly with those of shares and exchange rates in immediate response to the Eurosystem's monetary policy communication. That said, the relative significance of monetary policy in the euro area does not appear to be greater at first glance, but instead it generally seems to be lower and less statistically significant than for conventional assets.

A similar picture emerges following a systematic analysis over longer periods. When econometric methods are used to identify Eurosystem monetary policy impulses, there is evidence to suggest that monetary policy has a significant effect on the price of Bitcoin, for example. However, the Eurosystem's monetary policy can only explain a relatively minor part of the overall evolution in Bitcoin's value, and most of this development has to be attributed to other determinants. Based on historical data, it thus cannot be deduced that, on account of their characteristics, the prices of crypto tokens are driven by monetary policy to any exceptional extent.

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31 See Auer and Claessens (2018).
32 Deutsche Bundesbank (2016) provides a detailed overview of the Eurosystem's purchase programmes. Their impact on the euro's exchange rate is analysed in Deutsche Bundesbank (2017a).
33 See, for example, De Haan and van den End (2018).

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The performance of German credit institutions in 2020

The coronavirus pandemic and the containment measures taken in response caused a severe economic crisis that took its toll on the performance of German credit institutions, too, in 2020. Virtually all of the categories of banks included in the statistics on banks' profit and loss accounts recorded either stagnating or receding results for the financial year before tax compared with the previous year. This was primarily due to a clear deterioration in results from the valuation of assets compared with 2019. The surge in risk provisioning in credit business in particular pushed up net valuation charges to €13.3 billion in 2020 – almost twice as much as in 2019. At the same time, operating income went up by only €1.8 billion (+1.5%) to €120.5 billion, and administrative spending fell by a mere €3.1 billion (-3.5%) to €87.0 billion.

The rise in operating income in 2020 was predominantly attributable to a €1.2 billion (+47.2%) increase in the other operating result and a €1.0 billion (+42.3%) improvement in the trading result. Furthermore, an increase of €0.9 billion (+2.8%) in net commission income helped to stabilise operating income. By contrast, net interest income fell again slightly in 2020, this time by €1.3 billion (-1.6%). However, this decline was around two-thirds lower than in 2019 as German credit institutions were able to largely compensate for the decline in interest income in 2020 with lower interest expenditure.

Aggregated across all banks, the profit for the financial year before tax amounted to €14.3 billion in 2020 – coming in below the long-term average of €17.6 billion and significantly lower than the average of the post-financial crisis years (2010 to 2018) of €25.4 billion. Nevertheless, this constituted a sharp year-on-year rise of €8.6 billion (+153.0%), attributable almost exclusively to big banks. Yet, this increase did not reflect a general improvement in profitability for this category of banks but was instead almost exclusively due to the absence of a one-off effect that weighed heavily on big banks' results for the 2019 financial year. Once this effect ceased to apply, the negative balance in the other and extraordinary account contracted by €10.3 billion to €5.8 billion overall and became the dominant factor driving year-on-year developments in the result for the financial year.

While the current year is showing signs of economic recovery, and additional credit risks have not yet materialised due to considerable fiscal support measures, uncertainty about the future course of the coronavirus pandemic continues to harbour risk for banks' profitability. The persistence of the low interest rate phase is likely to strain profitability even further.

Business environment and structural developments in the German banking sector

Against the backdrop of the coronavirus pandemic, in 2020 German credit institutions faced a market environment that was suffering a severe economic crisis, affecting not only German banks' profitability but also the structure of both their balance sheets and business operations.

Macroeconomic setting

Business environment feeling strain of coronavirus pandemic

In spring 2020, the coronavirus pandemic and the containment measures taken in response caused a macroeconomic contraction of a magnitude and speed unprecedented in German post-war history. Averaged across 2020, the German economy shrank by almost 5% on the year – a rate similar to that recorded during the global financial crisis in 2009.[1]

Coronavirus pandemic primarily affected real economy

The coronavirus pandemic primarily affected the real economy. As a result of contact restrictions, services sectors with high frequencies of interpersonal contact, in particular, were required to severely restrict or entirely suspend their business operations. Furthermore, supply chains were disrupted, especially following the first wave of infections in spring 2020, and the export-oriented industry suffered as a result of falling foreign sales. Macroeconomic development was stunted by a cutback in investment by enterprises and a massive reduction in household consumption.[2]

Bond and equity markets highly volatile

The crisis also had a dramatic impact on bond and equity markets. At the end of the first quarter of 2020, prices on European and German equity markets plummeted across the board. After a period of sharp recovery lasting into the summer, prices tumbled again as of September 2020 on the back of major uncertainty regarding how the pandemic would unfold. However, they rebounded significantly towards the end of the year following the successful development of vaccines.

On the bond markets, yields on Bunds initially fell hard and fast. Investors were attracted by their role as a safe haven. Following the Eurosystem's decision to implement the pandemic emergency purchase programme (PEPP) and various fiscal support measures, yields recovered again, only to fall as the year progressed. The impact of both the pandemic and the Eurosystem's emergency monetary policy measures caused the yield curve derived from the yields on Federal securities to shift downwards overall during the period under review.

Extensive fiscal policy and regulatory measures prevented macroeconomic downward spiral

Extensive fiscal policy measures, such as expanded short-time working benefits, government loan guarantees and compensation for lost revenue, prevented a wave of private and corporate insolvencies.[3] In addition, legislation was passed amending the bank regulatory framework, and other planned regulations were adopted ahead of schedule. This, for one, broadened the scope for banking supervision. For example, supervisors encouraged banks to use their capital and liquidity buffers if necessary in order to maintain the flow of lending. They also lowered the countercyclical capital buffer to 0%. Arrangements permitting general payment moratoria ensured that a credit moratorium did not automatically mean banks had higher capital requirements for the affected credit amounts. Together with the increased levels of equity and liquidity held by German credit institutions since the global financial crisis of 2009, these measures prevented the real economic crisis from spilling over to the financial sector. There were no major defaults on loans and banks were able to continue lending.[4]

1 See Deutsche Bundesbank (2021a), pp. 13 ff.
2 See Deutsche Bundesbank (2021a), p. 14.
3 See Deutsche Bundesbank (2021a), pp. 19 f.
4 See Deutsche Bundesbank (2020b), pp. 53 ff., and Deutsche Bundesbank (2021a), p. 24.

Methodological notes

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

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

Reporting group

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

Calculation of the long-term average

At the launch of monetary union in 1999, the reporting group relevant for calculating the money supply and for monetary analysis was uniformly defined by the ECB for the euro area as a whole and designated as the monetary financial institutions (MFI) sector. Unlike the population of banks used for the Bundesbank analysis up to that point, building and loan associations are also included. Except where another time period is explicitly mentioned, the calculations with regard to the longer-term average cover the years since the launch of monetary union, i.e. from 1999 to 2020.

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

Easing of monetary policy bolstered financing conditions and bank lending

At the outbreak of the pandemic, the Eurosystem adopted extensive non-standard measures which were modified again and again as the pandemic progressed. These measures were designed to ensure an ample supply of liquidity to banks and, ultimately, an adequate supply of credit to the real economy. To this end, it increased purchases under the asset purchase programme (APP), which had been running since 2015, and launched the PEPP. A large volume of bonds issued by euro area Member States was purchased under these programmes. Furthermore, the Eurosystem introduced a series of pandemic emergency longer-term refinancing operations (PELTROs), made conditions for the third series of targeted longer-term refinancing operations (TLTRO-III) more favourable and adopted temporary collateral easing measures.[5] Although the interest rate on the deposit facility remained negative, banks' interest expenditure was reduced by the two-tier system for remunerating reserve holdings introduced at the end of 2019, which makes a portion of excess liquidity held in the deposit facility exempt from negative interest.[6]

Structural developments in the German banking sector

Monetary and fiscal policy measures as well as persistent low interest rate environment fuelled balance sheet growth

Growth in the aggregate of German credit institutions' annual average total assets was again up significantly on the previous year. In addition to the persistent low interest rate environment, monetary and fiscal policy measures connected to the coronavirus pandemic are likely to have been a contributory factor here. Following an increase of 5.1% in 2019, German credit institutions recorded growth of €674.1 billion (+7.9%) in their balance sheets.

Looking at the individual categories of banks, big banks recorded the highest year-on-year growth figures with a rise of just under €274 billion (+11.1%). However, one-off effects were at play here: one institution merged with a group subsidiary that was not previously classified as a big bank, thus overstating actual developments. Average growth in credit cooperatives' and savings banks' total assets (+7.5% and +7.0%, respectively) was in line with the aggregate.

Lending expanded again vis-à-vis previous year

On the assets side of the aggregated bank balance sheet, lending within Germany shot up again in 2020. According to data from the monthly balance sheet statistics, on an annual average, the volume of loans to domestic non-banks was up by around €144 billion (+4.2%) on 2019.[7] Credit cooperatives' contribution (approximately 28%) to overall growth in the volume of loans was disproportionately higher than their market share (20%). By contrast, savings banks' and big banks' shares in growth in lending (circa 32% and 11%, respectively) were more or less in line with their market share.

Distinct growth was recorded, in particular, for medium and long-term loans to domestic non-financial corporations and households. In 2020, they rose by around €137 billion (+5.3%) on an annual average; the highest jump seen in the last 20 years. Growth was chiefly driven by housing loans, which rose by around €87 billion (+6.1%) in 2020 – another 20-year record high.

Factors on both the supply and the demand side were behind this growth. For instance, robust activity in the construction sector as well as a continuation of favourable financing costs probably fuelled persistently brisk demand for housing loans.[8] Greater demand for medium and long-term loans to non-financial corporations also boosted growth considerably. This rise in demand was probably due to greater funding needs for refinancing, restructuring and renegotiation as well as high financing needs for inventories and working capital as a

5 See Deutsche Bundesbank (2021a), pp. 21 f.
6 The negative interest rate on the deposit facility stood at -0.50% throughout 2020.
7 Lending by German credit institutions to domestic banks in 2020 was down on the previous year. On an annual average, the volume of loans fell by just under €28 billion (-2.1%).
8 See Deutsche Bundesbank (2021c), p. 33.

Structural data on German credit institutions

End of year

Category of banks	Number of institutions[1]			Number of branches[1]			Number of employees[2]		
	2018	2019	2020p	2018	2019	2020p	2018	2019	2020p
All categories of banks	1,602	1,553	1,519	27,834	26,620	24,060	571,084	560,895	549,276
Commercial banks	281	274	270	7,732	7,601	6,453	[3] 156,200	[3] 153,250	[3] 151,600
Big banks	4	4	3	6,298	6,219	5,146	.	.	.
Regional banks and other commercial banks	158	153	151	1,274	1,215	1,142	.	.	.
Branches of foreign banks	119	117	116	160	167	165	.	.	.
Landesbanken	6	6	6	240	236	210	28,800	28,150	27,150
Savings banks	386	380	377	9,492	8,971	8,318	209,600	205,000	200,700
Credit cooperatives	878	844	818	8,942	8,471	7,765	[4] 142,850	[4] 140,650	[4] 138,150
Mortgage banks	11	10	10	44	38	37	.	.	.
Building and loan associations	20	19	18	1,357	1,278	1,259	[5] 13,000	[5] 12,850	[5] 12,300
Banks with special, development and other central support tasks	20	20	20	27	25	18	[6] 20,634	[6] 20,995	[6] 19,376

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

Deutsche Bundesbank

result of the pandemic.[9] In addition, a further easing of Eurosystem monetary policy and changes in the design of TLTRO-III is likely to have alleviated pressure on earnings, enabling banks to significantly increase lending.[10]

Unlike medium and long-term loans, short-term loans to non-financial corporations and households remained at the previous year's level on average over the reporting year, after having recorded high growth between 2017 and 2019.

Central bank balances rose more than lending

With a rise of just over €225 billion (+42.4%), German banks' annual average holdings at central banks shot up in 2020. On an annual average in 2020, German banks thus set a new record, holding around €758 billion of their assets in central bank balances. The categories of banks contributing the most to this overall rise were regional and other commercial banks (growth of just over €62 billion, +61.8%), savings banks (growth of just over €52 billion, +88.2%) and credit cooperatives (growth of just under €19 billion, +75.4%). By contrast, big banks made only a moderate contribution (growth of just under €17 billion, +15.2%) to the rise in central bank balances. The Eurosystem's asset purchase programmes (PEPP, PSPP) and the extremely attractive conditions for TLTRO-III were the driving force behind German banks' holdings at central banks.[11]

Sharp rise in German banks' deposit holdings due to pandemic

On the liabilities side of the aggregated bank balance sheet, pandemic-related uncertainty regarding future economic development as well as restricted consumption options sent the volume of domestic households' and non-financial corporations' deposit holdings soaring.[12] This, in turn, pushed up deposits held at

9 See Deutsche Bundesbank (2021c), p. 38.
10 See Deutsche Bundesbank (2020c), pp. 35 f.
11 See Deutsche Bundesbank (2020a), p. 27.
12 See Deutsche Bundesbank (2021a), p. 14.

all domestic non-banks,[13] with their annual average volume rising by a total of just under €177 billion (+4.9%) in 2020; the year before, the increase stood at 4.0%. Growth concentrated on sight deposits which expanded at a rate of 10.7% in the reporting year, much more than in 2019 (+7.7%). However, time and savings deposits were down on 2019, by 3.9% and 2.9%, respectively. This development reflects, on the one hand, a shift in deposit customers' preferences in favour of liquidity during the pandemic. On the other hand, the extremely narrow yield spreads between the various forms of deposit are likely to have played a part in this development, too.[14]

A comparison across categories of banks shows that, in proportion to their market share, savings banks and credit cooperatives in particular recorded somewhat disproportionately higher inflows of deposits. With an annual average increase of roughly €62 billion (+6.3%), savings banks accounted for around one-third of total growth in deposits. Their market share in the overall volume of domestic non-banks' deposits amounted to just under 28% in 2020. Credit cooperatives, with a market share of just under 20% (unchanged), reported a rise of about €45 billion (+6.4%), making up approximately 26% of the overall increase in domestic non-banks' deposits. At around €16 billion (+2.4%), big banks' contribution to deposit growth was, however, disproportionately low, accounting for around 9% of total growth and out of line with their market share of approximately 18%. Roughly 70% of total growth in domestic non-banks' deposits can be attributed to these three categories of banks.

On aggregate, balance sheet equity at 2019 level

The balance sheet equity of German banks amounted to around €528 billion in total in 2020 and was thus at more or less the same level as in 2019. However, broken down by category of banks, the development is very heterogeneous. For instance, in the reporting year, big banks had around €20 billion (-19.5%) less equity than in 2019. Yet this decline is almost entirely attributable to losses reported by one institution which were actually incurred in 2019 following strategic restructuring but not booked, and thus reflected in the equity figures, until 2020.[15] By contrast, all other categories of banks[16] considered recorded clear increases in balance sheet equity. Regional banks and other commercial banks (+9.5%), credit cooperatives (+5.8%) and savings banks (+4.5%) in particular topped up their balance sheet equity.

Consolidation in German banking sector continued

The consolidation process in the German banking sector continued in 2020. However, the decline in the number of credit institutions was lower than in 2019 as fewer mergers took place in the reporting year, especially in the savings bank and credit cooperative sectors. In addition, not as many securities trading banks closed as in 2019 on account of Brexit.[17]

In contrast to the number of credit institutions, the number of branches in Germany fell much more sharply in 2020 than a year earlier. In general, the ongoing trend of thinning out the branch network affected every category of banks. However, in 2020, big banks in particular considerably cut the number of branches as part of extensive restructuring measures.[18]

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13 The deposits of all domestic non-banks comprise sight deposits, time deposits and savings deposits as well as savings bonds held by domestic households, non-financial corporations, other financial corporations, general government and non-profit institutions.
14 See Deutsche Bundesbank (2020a), pp. 32 f., and Deutsche Bundesbank (2021c), pp. 32 f.
15 When interpreting the data on the equity base, which are calculated as annual average values, it should be borne in mind that the amounts transferred from the profit for the respective financial year do not increase balance sheet equity until the year after the annual accounts are adopted, while withdrawals from equity items are to be deducted at the latest when the annual accounts are prepared.
16 Regional banks and other commercial banks, branches of foreign banks, Landesbanken, savings banks, credit cooperatives, mortgage banks, building and loan associations as well as banks with special, development and other central support tasks.
17 See Deutsche Bundesbank (2021d), p. 2.
18 See Deutsche Bundesbank (2021d), pp. 8 f.

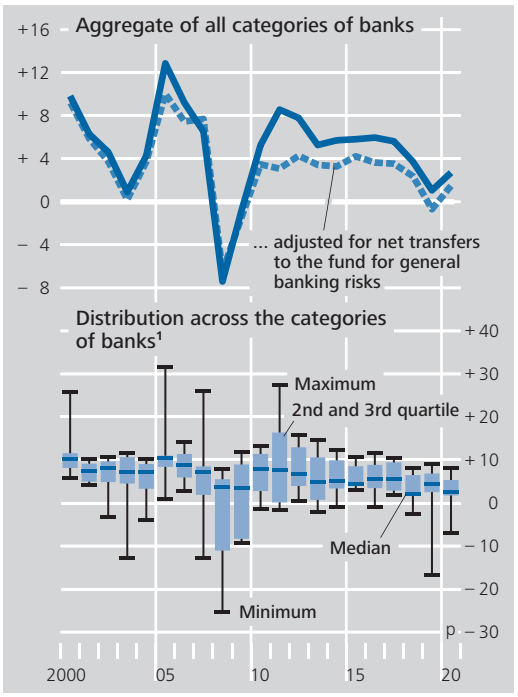
Performance, profitability and cost efficiency

Generally speaking, the performance of German credit institutions deteriorated in 2020 compared with the previous year. On account of the coronavirus pandemic, there was a significant increase in risk provisioning in credit business, in particular, which led to virtually all of the categories of banks included in the statistics on banks' profit and loss accounts[19] recording either stagnating or receding results for the financial year before tax.

Nevertheless, the fact that the aggregate profit for the financial year before tax rose considerably in the reporting year was primarily driven by big banks. There was a one-time sharp drop in the aggregate profit for the financial year in 2019 on account of a one-off effect resulting from strategic restructuring at one big bank. Once this one-off effect ceased to apply, there was an improvement not only in the aggregate profit for the financial year before tax, but also in the return on equity and the return on assets as well as the cost/income ratio in the reporting year. Nevertheless, in 2020 the profit for the financial year before tax as well as the return on equity and the return on assets stood significantly below the respective level of the long-term average and the average of the post-financial crisis years (2010 to 2018). The cost/income ratio also proved worse in the reporting year than the long-term comparative figures.

Credit institutions' return on equity*

%



* Profit or loss for the financial year before tax as a percentage of average equity. **1** Interpretation guide: The minimum (maximum) represents the respective category of bank with the smallest (largest) value.

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Return on equity and return on assets

Reduced profitability despite return on equity more than doubling on the year

Overall, the return on equity (profit for the financial year before tax in relation to balance sheet equity) more than doubled in 2020, going up by 1.6 percentage points to 2.7% compared with the previous year. However, the aforementioned one-off effect had an impact here. Accordingly, the distribution of the return on equity indicates that profitability deteriorated overall in the reporting year. In this vein, the median value[20] declined significantly from 4.4% in 2019 to 2.7% in 2020. In addition, the return on equity continued to stand considerably below the long-term average of 5.2% as well as below the average of the post-financial crisis years (2010 to 2018) of just under 6%.

A comparison of the categories of banks shows that big banks were the main drivers of the seemingly positive development in 2020 as a whole. Because the one-off effect from the previous year ceased to apply, they posted the

19 Statistics on banks' profit and loss accounts are compiled on an annual basis. This involves the evaluation of the profits and losses calculated from the annual accounts (individual accounts prepared in accordance with the German Commercial Code *(Handelsgesetzbuch)*), which the banks must submit to the Bundesbank pursuant to Section 26 of the Banking Act *(Kreditwesengesetz)*. As the annual accounts apply to the respective institution as a whole (but not to the group), the charges and income of foreign branches are also recorded. See also the methodological notes on p. 93.

20 The median value refers to the middle value of a distribution; i.e. one half of all values is below the median, while the other half is above.

Return on equity of individual categories of banks*

%

Category of banks	2016		2017		2018		2019		2020p	
All categories of banks	5.97	(4.27)	5.63	(4.08)	3.73	(2.41)	1.07	(– 0.41)	2.71	(1.12)
Commercial banks	4.51	(3.20)	3.95	(2.79)	2.07	(1.54)	– 7.70	(– 8.99)	– 1.56	(– 2.94)
of which:										
Big banks	3.45	(2.50)	2.88	(2.30)	1.14	(1.24)	– 16.63	(– 17.58)	– 7.08	(– 8.22)
Regional banks and other commercial banks	6.30	(4.45)	5.31	(3.33)	3.30	(1.89)	4.44	(2.69)	4.10	(2.45)
Landesbanken	– 1.01	(– 1.95)	1.85	(0.98)	– 2.45	(– 3.89)	2.03	(1.55)	1.29	(0.85)
Savings banks	10.42	(7.42)	9.44	(6.72)	7.19	(4.83)	6.86	(4.83)	5.36	(3.36)
Credit cooperatives	11.54	(8.39)	10.11	(7.05)	8.19	(5.50)	9.18	(6.59)	7.33	(5.00)
Mortgage banks	5.54	(4.20)	5.49	(3.56)	2.09	(0.88)	5.31	(3.75)	8.06	(1.40)
Building and loan associations	8.87	(7.28)	9.18	(7.74)	2.21	(1.02)	3.83	(2.95)	1.99	(1.19)

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

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biggest increase in the return on equity, at 9.6 percentage points. Despite this, big banks also recorded the lowest return on equity of all categories of banks in the reporting year, at -7.1%. By contrast, credit cooperatives and savings banks remained among the categories of banks with the highest return on equity, at 7.3% and 5.4%, respectively. In comparison with 2019, however, they recorded relatively sharp reductions in the return on equity of 1.9 and 1.5 percentage points, respectively, owing to the surge in risk provisioning in credit business in 2020.

Change in return on equity partially driven by change in balance sheet equity

Although the change in the profit for the financial year before tax proved to be the main driver of the development in the return on equity once again in 2020, in some categories of banks the change in balance sheet equity in comparison to the previous year was also exceptionally significant. For example, the increase in balance sheet equity alone lowered the return on equity at credit cooperatives and savings banks by 0.4 and 0.3 percentage point, respectively, in comparison with the previous year. Thus, around one-quarter of the decline in the return on equity at credit cooperatives and around 17% of the decline at savings banks were attributable to growth in balance sheet equity.

Return on assets likewise up significantly overall

An analysis of the return on assets (profit for the financial year before tax in relation to annual average total assets) painted a generally similar picture to the one for the return on equity. Increasing by just under 0.1 percentage point, the return on assets more than doubled in 2020 compared with the previous year, to 0.16%. However, it remained considerably below the long-term average of 0.22% as well as below the average of the post-financial crisis years (2010 to 2018) of 0.29%. Here, too, the distribution of the return on assets indicates generally lower profitability than in 2019, with the median, in particular, declining from 0.21% to 0.15% in the reporting year compared with

the previous year. A comparison of the categories of banks likewise presents a similar picture to that of the return on equity. Apart from big banks, which were the main drivers of the overall development on account of the one-off effect from 2019 ceasing to apply, and mortgage banks, none of the other categories of banks[21] were able to improve their return on assets. Credit cooperatives and savings banks, in particular, with figures of 0.16 and 0.15 percentage point, respectively, recorded sharp declines in their return on assets in the reporting year compared with the previous year.

Balance sheet growth had comparatively strong impact on the return on assets of individual categories of banks

All in all, strong balance sheet growth (+7.9%) compared with the previous year curbed the increase in the return on assets only slightly. Excluding balance sheet growth, the return on assets in 2020 would have been around 0.01 percentage point higher, all other things being equal. In individual categories of banks, however, the impact on the change in the return on assets was significant. Balance sheet growth had a particularly strong influence on the return on assets at credit cooperatives and savings banks, with just under one-third of the reduction in credit cooperatives' return on assets and around one-fifth of the decline in savings banks' return on assets in the reporting year attributable to balance sheet growth.

Profit for the financial year

Profit for the financial year before tax more than doubled compared with 2019, but no improvement in profitability in general

The profit for the financial year before tax went up by a total of €8.6 billion in 2020 compared with the previous year. Although, at €14.3 billion, it reached a level of around 2.5 times that of the previous year, it remained below the long-term average of €17.6 billion and significantly below the average of the post-financial crisis years (2010 to 2018) of €25.4 billion.

Looking at each category of banks individually shows that big banks were solely responsible for the surge in the profit for the financial year before tax. Although the merger between one big bank and a group subsidiary in 2020 encumbered the annual result of that category of banks, the one-off effect resulting from strategic restructuring at one big bank in 2019 ceasing to apply caused big banks' annual result before tax to rise by €11.5 billion in the reporting year. This meant that the loss for the year before tax posted by big banks in 2020 was considerably lower, at €6.0 billion, and thus stood at only one-third of the previous year's figure. By contrast, with few exceptions,[22] the other categories of banks recorded partly significant losses in 2020 compared to the previous year. Savings banks and credit cooperatives recorded the largest absolute declines, at €1.5 billion (-18.2%) and €1.2 billion (-15.5%), respectively. Nevertheless, together, savings banks and credit cooperatives also generated the lion's share of the total profit for the financial year before tax in 2020, at €6.7 billion and €6.4 billion, respectively.

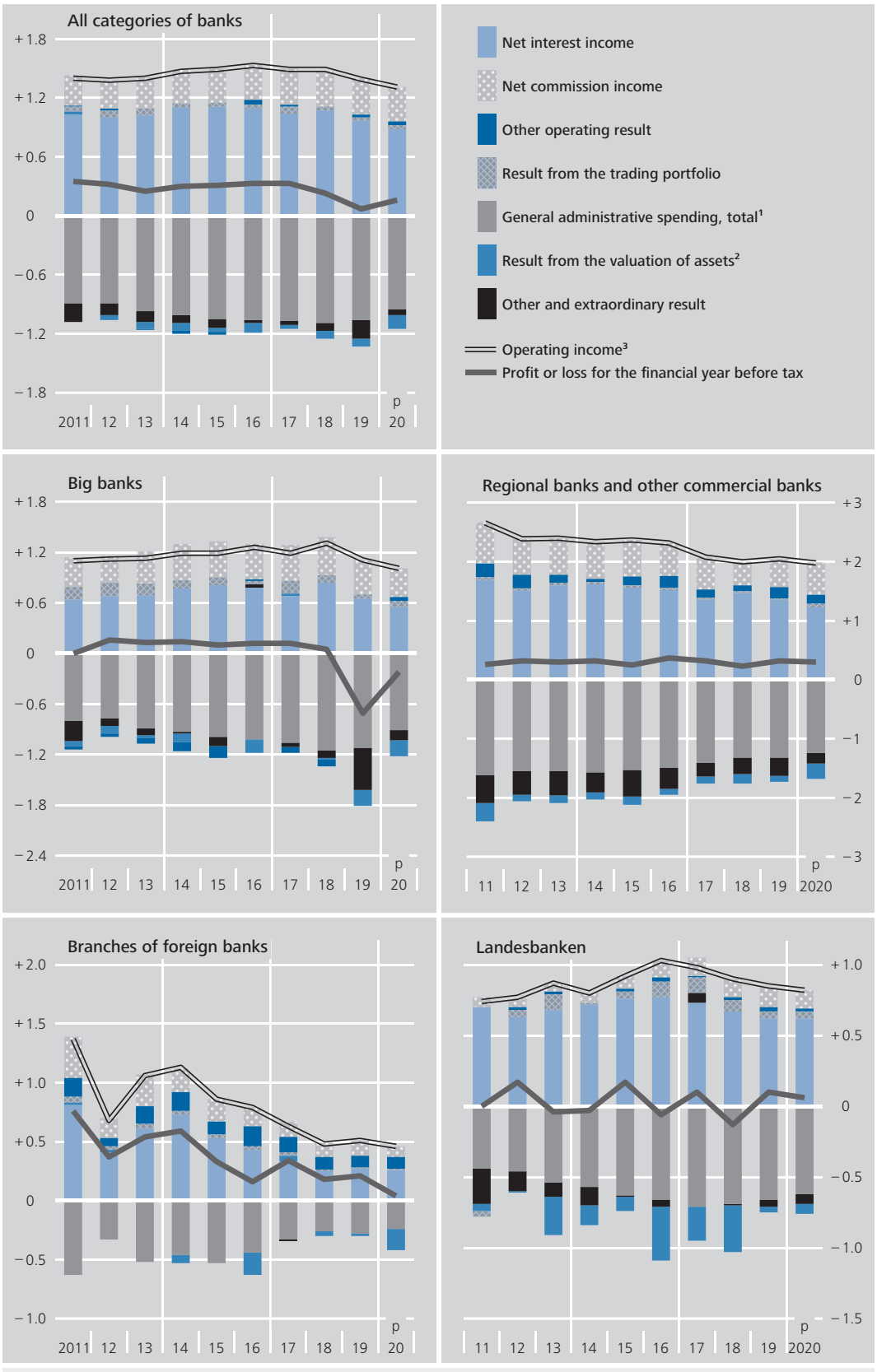
Lower negative balance in other and extraordinary account was main driver of increase in overall profit for financial year

With an increase of €10.3 billion, the balance in the other and extraordinary account[23] made the biggest contribution to growth in the overall profit for the financial year. In comparison to the previous year, the negative balance was reduced by almost two-thirds in 2020, to €5.8 billion. This extraordinarily strong improvement, which also proved to be the dominant factor behind the rise in the aggregate return on equity and return on assets, was almost exclusively driven by three one-off effects in the category of big banks. First, high loss allowances resulting from strategic restructuring at

21 Regional banks and other commercial banks, branches of foreign banks, Landesbanken, savings banks, credit cooperatives, building and loan associations as well as banks with special, development and other central support tasks.
22 Only mortgage banks and banks with special, development and other central support tasks increased their profit for the financial year at a low level, by 56.0% and 7.5%, respectively.
23 The other and extraordinary account includes depreciation of and value adjustments to participating interests, shares in affiliated enterprises and securities treated as fixed assets, income from value readjustments to participating interests, shares in affiliated enterprises and securities treated as fixed assets, charges and income from loss transfers, transfers to special reserves and income from the release of special reserves, extraordinary charges and income as well as profits transferred under profit pooling, a profit transfer agreement or a partial profit transfer agreement.

Return on assets and its components by category of banks*

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



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

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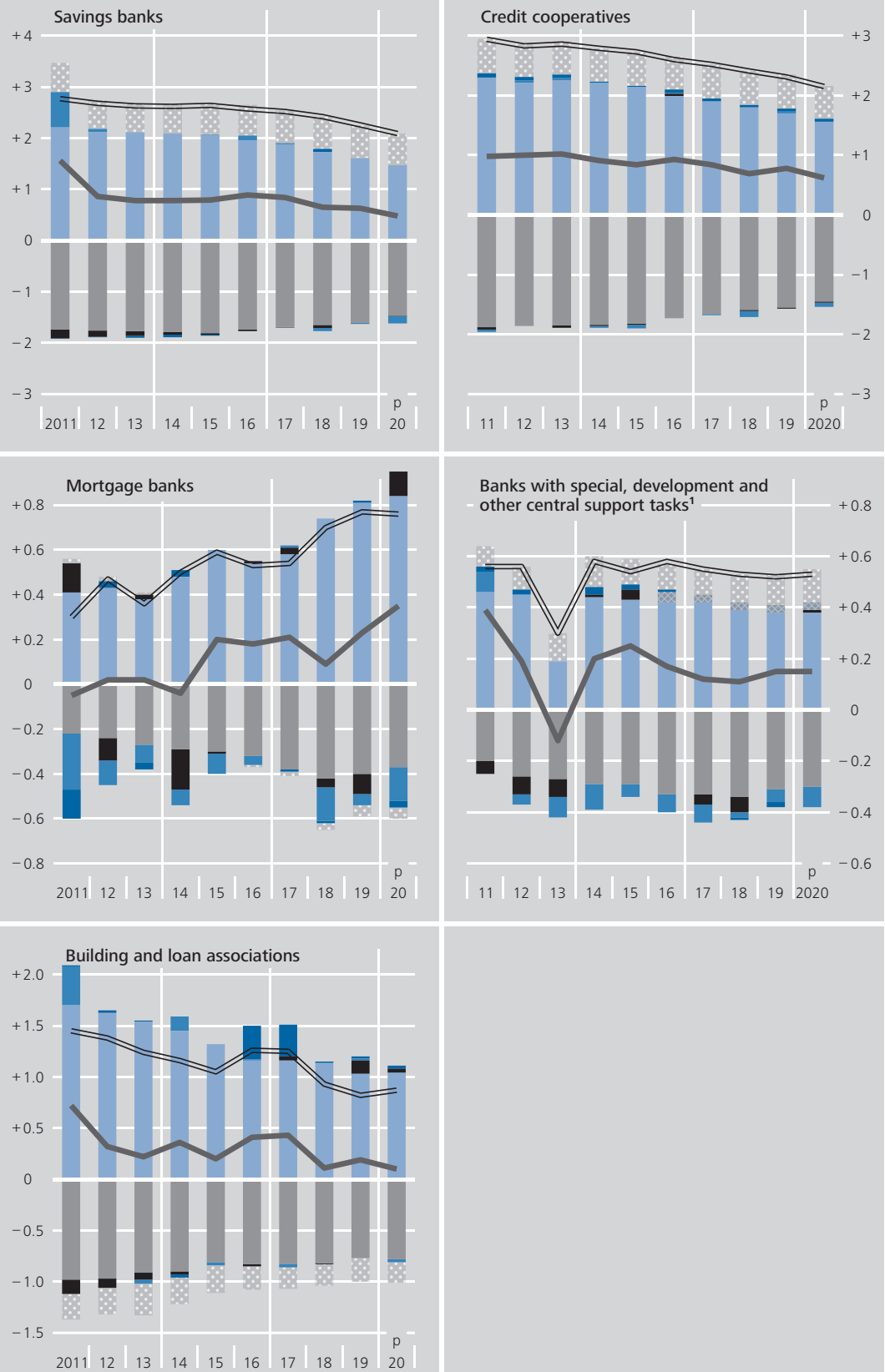
As a percentage of total assets; the charts below use differents scales



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

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Breakdown of extraordinary result

€ million

Item	2018	2019	2020p
Other and extraordinary result	– 6,831	– 16,133	– 5,801
Income (total)	2,779	4,201	3,501
Value readjustments to participating interests, shares in affiliated enterprises, and securities treated as fixed assets	876	1,609	1,347
from loss transfers	730	734	587
Extraordinary income	1,173	1,858	1,567
Charges (total)	– 9,610	– 20,334	– 9,302
Depreciation of and value adjustments to participating interests, shares in affiliated enterprises, and securities treated as fixed assets	– 1,723	– 12,158	– 2,837
from loss transfers	– 497	– 908	– 329
Extraordinary charges	– 1,700	– 3,152	– 3,206
Profits transferred under profit pooling, a profit transfer agreement or a partial profit transfer agreement	– 5,690	– 4,116	– 2,930

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one institution in 2019 led to big banks' balance in the other and extraordinary account moving significantly further into negative territory, to €12.5 billion. These loss allowances did not reoccur in the reporting year. Second, the institution in question posted extraordinary income of €1.3 billion in 2020 owing to its merger with a subsidiary which had hitherto been considered an independent institution in the category of big banks. Third, the merger between another big bank and a group subsidiary which did not previously belong to the category of big banks led to new depreciation of and value adjustments to participating interests in the amount of €5.7 billion in the same period. Together, these three one-off effects reduced big banks' negative balance in the other and extraordinary account by more than two-thirds compared with the previous year, to €3.4 billion.

Compared with big banks, the changes to the balance in the other and extraordinary account in the other categories of banks[24] were minor and had only a minimal impact on the negative balance in 2020 overall.

Reduced valuation result on account of higher risk provisioning in credit business caused general deterioration in profitability

The result from the valuation of assets,[25] as measured by the absolute amount of its change, was the second most important driver of the development in the profit for the finan-

24 For example, regional banks and other commercial banks were able to reduce their negative balance in the other and extraordinary account by €1.1 billion (-36.1%) in the reporting year, to -€2.0 billion. Savings banks recorded a negative balance of around -€0.1 billion in the reporting year after posting a slightly positive balance in the other and extraordinary account in the previous year. Landesbanken expanded their negative balance by €0.2 billion (+42.9%), to €0.6 billion. Credit cooperatives remained at the level of the previous year.

25 The valuation result comprises the effects of value adjustments, write-ups and write-downs on accounts receivable and securities in the liquidity reserve. In addition, income and charges in connection with transfers from and to loan-loss provisions are taken into account, as are transfers and releases relating to undisclosed reserves pursuant to Section 340f of the Commercial Code. However, due to the cross-offsetting option permissible under the Commercial Code, the annual accounts do not show the extent to which undisclosed reserves have been formed or released.

Credit risk provisioning by German credit institutions in 2020

Given the impact of the coronavirus pandemic on economic activity in Germany and around the world, credit risk provisioning was a particularly important issue for German credit institutions in the 2020 reporting year.

In the light of the comprehensive containment measures and the ensuing economic uncertainty, the need for greater credit risk provisioning became clear at an early stage. Model simulations warned of a significant increase in corporate insolvencies and thus also a considerable rise in loss allowance ratios.[1]

Supervisors and legislators took various measures to identify the risks associated with the coronavirus pandemic. For instance, a special reporting system was established early on. In order to ensure adequate credit risk provisioning, over the course of the pandemic, banking supervisors also explicitly communicated their expectations in terms of identifying and measuring credit risk. In its "Dear CEO" letter of 4 December 2020, the ECB outlined its expectations in this regard to the significant institutions under its supervision.[2] The Federal Financial Supervisory Authority (BaFin) communicated a similar set of expectations to the less significant institutions (LSIs) in Germany.[3] To support the functional viability of the banking system during the crisis, in March and April 2020, institutions were also advised to make use of the flexibility of the existing accounting standards under IFRS accounting rules.[4]

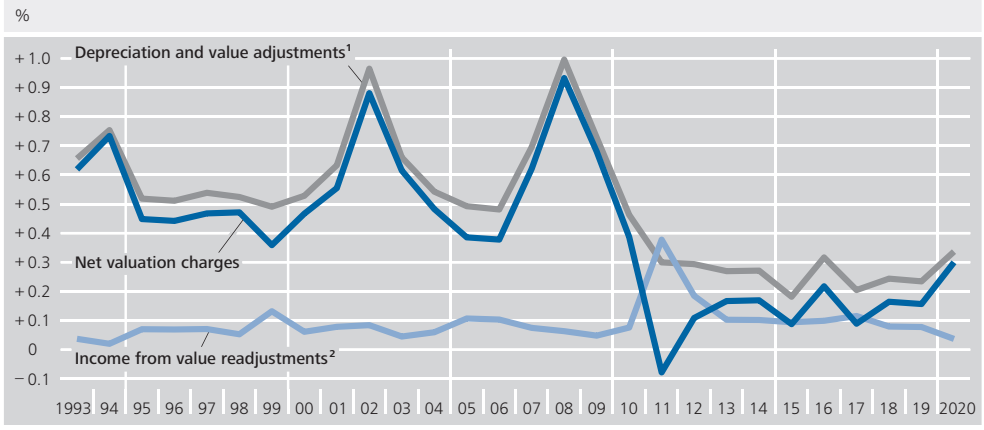
Taking into account the measures outlined, aggregate net valuation charges rose significantly in 2020 from a fairly low level in the preceding years. However, an analysis by category of bank reveals differences in the scale of this development. For instance, in 2020, according to data from credit institutions' individual accounts prepared in accordance with the German Commercial Code, the net valuation charges of big banks rose to around €5.3 billion or 0.8% of the annual average lending portfolio. Regional banks and other commercial banks likewise recorded a considerable increase in their net valuation charges to around €2.8 billion or 0.5% of the annual average lending portfolio. By contrast, despite experiencing a rise in provisions in 2020 as well, net valuation charges at Landesbanken, savings banks and credit cooperatives climbed to €0.6 billion, €1.96 billion and €0.7 billion, respectively, which was fairly moderate by historical standards.

In the past, the formation and release of undisclosed reserves has sometimes also made a major contribution to the development depicted in the chart on p. 104. However, undisclosed reserves are not only considered to be a risk provisioning tool; they are also used to shape the results.

Ultimately, economic activity, and thus the solvency of borrowers was more positive than feared in the second quarter of 2020, not least in the light of massive government support. The non-performing loans ratio in the German banking sector has not yet increased over the course of the pandemic,

1 See Deutsche Bundesbank (2020b).
2 See https://www.bankingsupervision.europa.eu/press/letterstobanks/shared/pdf/2020/ssm.2020_letter_credit_risk_identification_measurement~734f2a0b84.en.pdf?c839e6212e8a9bf18dc0d26ab0b1cd7f
3 See https://www.bafin.de/EN/Aufsicht/CoronaVirus/CoronaVirus_node_en.html, "In view of the "Dear CEO letter" on the identification and measurement of credit risk in the context of the coronavirus pandemic, what are BaFin's expectations with regard to LSIs?".
4 See www.bankingsupervision.europa.eu/press/letterstobanks/shared/pdf/2020/ssm.2020_letter_IFRS_9_in_the_context_of_the_coronavirus_COVID-19_pandemic.en.pdf and https://www.bafin.de/SharedDocs/Veroeffentlichungen/EN/Pressemitteilung/2020/pm_200324_corona-krise_aufsichtliche_anforderungen_en.html

Net valuation charges overall and by component*



* Relative to the annual average lending portfolio. **1** In respect of loans and advances, and provisions for contingent liabilities and for commitments. **2** In respect of loans and advances, and provisions for contingent liabilities and for commitments.

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either. In the first quarter of 2021, it stood at just roughly 1.2%.[5] Against this background, the increase in net valuation charges was smaller than in 2008 or 2009, for example, in the wake of the financial crisis.

Moratoria were a measure to which particular attention was paid. For instance, the European Banking Authority (EBA) published guidelines on general payment moratoria as early on as April 2020.[6] Loans that met the requirements for general payment moratoria specified in the guidelines did not have to be classified as forborne, which could also have implied lower loss allowances. At German credit institutions, the share of loans subject to moratoria in line with the EBA's criteria temporarily reached 0.4% (Q3 2020). However, German credit institutions granted forbearance independently of this option, too. The share of these other COVID-19-related forbearance measures came to 0.6% in March 2021. Although these figures seem small at first glance, a large part of the forbearance measures were granted to the sectors hit particularly hard by the pandemic. For instance, among the loans granted to the hotel and restaurant sector by Germany's significant institutions,[7] the share of loans subject to other COVID-19-related forbearance measures came to 21.5% in March 2021. Forbearance rates were also relatively high in the sectors "arts, entertainment and recreation" (4.5%), "administrative and support service activities" (4.0%), "transportation and storage" (3.0%) and "real estate activities" (2.9%).

The moratoria granted in line with the EBA's criteria have now largely expired. At the end of March 2021, they stood at just 0.1% of the lending portfolio. No cliff effects occurred. Although residual risks exist with regard to the other COVID-19-related forbearance measures that have not yet expired, they are limited because German credit institutions have made disproportionately large loss allowances for them in comparison to total lending.

5 Based on supervisory reporting data (FINREP); the time series contains a structural break from the first to the second quarter of 2020 because the item "cash balances at central banks and other demand deposits" is now no longer to be included under loans and advances in FINREP. This, taken by itself, would already mean a rise in the ratio of non-performing loans. To isolate the effect of the pandemic as precisely as possible, the time series including "cash balances at central banks and other demand deposits" has been extrapolated for the purposes of this text.
6 See EBA/GL/2020/02 in conjunction with EBA/GL/2020/08 and EBA/GL/2020/15.
7 The relevant figures are only available for the significant German institutions.

cial year in 2020. With an increase of €6.6 billion, net valuation charges virtually doubled on the year to €13.3 billion, thus encumbering German banks' profitability overall.

As a result of the pandemic, the valuation result deteriorated in all categories of banks. In particular, regional banks and other commercial banks (+€1.8 billion) and savings banks (+€1.7 billion), but also credit cooperatives (+€1.2 billion) recorded significant increases in net valuation charges in 2020 compared with the previous year. This meant that, together, these three categories of banks were responsible for just over 70% of the overall rise in 2020.

Clear increase in risk provisioning resulting from coronavirus pandemic was main reason for deterioration in valuation result

Net valuation charges increased predominantly as a result of higher depreciation of and value adjustments to loans and advances, and provisions for contingent liabilities and for commitments, which rose by €4.9 billion on the year. A great deal of uncertainty about macroeconomic developments alongside changed expectations regarding future credit defaults prompted German credit institutions to increase their risk provisioning in 2020.[26] In addition, income from value readjustments to loans and advances, and provisions for contingent liabilities and for commitments roughly halved in the reporting year overall (decline of €1.7 billion).[27]

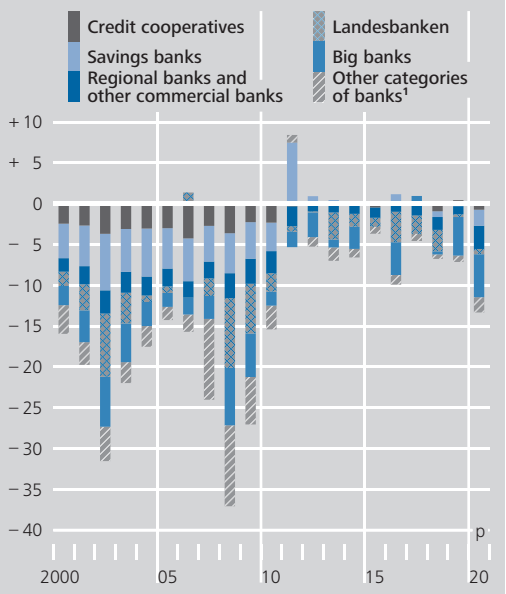
Nevertheless, net valuation charges in the reporting year remained below their long-term average of €14.0 billion. During the global financial crisis in 2008, German credit institutions' net valuation charges were even almost three times higher than in 2020. The numerous fiscal policy and regulatory measures taken in response to the coronavirus pandemic are likely to have had a major risk-reducing impact and prevented credit defaults.

Although big banks also increased their risk provisioning in credit business against the backdrop of the coronavirus pandemic, the rise in their net valuation charges in 2020, at €0.5 billion on the year, was comparatively small. This was, however, primarily driven by the negative one-off effect from the previous year ceasing to apply. Disregarding the institution affected by this, a significant rise in the net valuation charges of €3.3 billion compared with 2019 could also be observed at the other big banks, which was primarily attributable to higher depreciation of and value adjustments to loans and advances, and provisions for contingent liabilities and for commitments. Measured in terms of their share of just under 30% in aggregate total assets, the category of big banks also had a disproportionately large share in total net valuation charges[28] in 2020, at just under 40%.

Big banks' valuation result deteriorated only marginally in absence of one-off effect from previous year

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

€ billion



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

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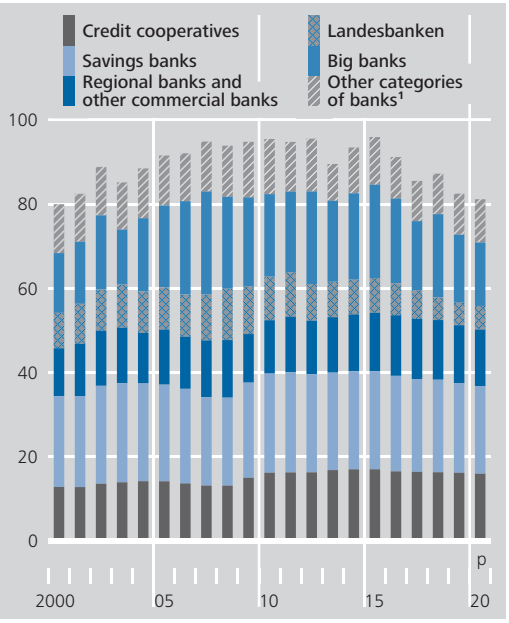
26 More information can be found in the box on pp. 103-104.
27 Together, credit cooperatives and savings banks were responsible for just under 80% of the overall decline.
28 In the reporting year, savings banks' share in total net valuation charges, at around 15%, was in line with their share in aggregate total assets. Credit cooperatives, which had a share of around 11% in aggregate total assets, had only a disproportionately small share in total net valuation charges of around 5%.

Net interest income generated by credit institutions*

€ billion



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

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Slightly improved operating income bolstered profit for the financial year and profitability, but was unable to offset rise in net valuation charges

German credit institutions' operating business proved robust in 2020 despite the prolonged low interest rate environment and the coronavirus pandemic. Operating income[29] rose by €1.8 billion (+1.5%) on the year to €120.5 billion. However, this was only able to compensate for just over one-quarter of the rise in net valuation charges.

With the exception of savings banks, whose operating income went down by €0.3 billion (-0.9%) compared with 2019, all categories of banks were able to raise their operating income, at least slightly. Regional banks and other commercial banks recorded the largest increase compared with the previous year. With growth of €0.9 billion (+4.4%), they contributed around one-half of the overall rise.

The increase in operating income in 2020 was attributable to partly significant improvements in the net commission income, the trading result and the other operating result. However, this meant that, with the trading result and the other operating result, the sources of income that had the smallest shares in operating income in 2020, at around 3% each, made the biggest individual contributions to the overall rise. Net commission income, which, at just under 27% of operating income, was the second most important source of income, experienced comparatively weak growth in the reporting year. Net interest income, which, accounting for around 67% of operating income, remained German credit institutions' most important source of income, went down again compared with 2019.

Net commission income, trading result and other operating result drove rise in operating income; net interest income down again

Net interest income is the only component of operating income that recorded a decline again in 2020. However, this decline, at €1.3 billion (-1.6%), was just over two-thirds smaller than in 2019. Total net interest income amounted to €81.1 billion in the reporting year.

Net interest income fell again overall, but considerably less sharply than in previous year

A comparison of the categories of banks shows major differences in developments. For example, in the reporting year, 81% of the total decline was attributable to big banks,[30] although they again generated less than one-fifth of the total net interest income. But savings banks and credit cooperatives also recorded declines. Savings banks' net interest income went down by €0.5 billion (-2.2%) in 2020. Compared with the previous year, however, the decrease was around one-third smaller. By contrast, at €0.2 billion (-1.4%), the decline in credit cooperatives' net interest income doubled compared with 2019. Landesbanken, in particular, recorded a rise in their net interest income. The increase of €0.3 billion (+5.4%) was, however, largely the result of a negative one-off effect at one Landesbank from the previous year ceasing to apply.

Decline in net interest income: major differences across categories of banks

29 Sum of net interest income, net commission income, the result from the trading portfolio and the other operating result.
30 In absolute terms, big banks' net interest income fell by €1.1 billion (-6.7%) in 2020.

Change in German banks' interest expenditure caused by adjustments to terms and conditions in deposit business with non-banks in the 2020 calendar year

The ECB introduced a negative interest rate on its deposit facility in 2014. Since then, German banks have been continuously reducing interest rates on customer deposits. Non-financial corporations' deposits were remunerated negatively in 2020 to an even greater extent than in the previous years. Although average remuneration on households' deposits remained in positive territory in 2020, it likewise continued its downward slide.[1] The intent of these adjustments to terms and conditions was to reduce institutions' interest expenditure and thus ultimately contain the decline in interest margins in lending and deposit business.[2]

The decrease in German banks' interest expenditure in deposit business with non-banks can be approximated using data on average interest rates and deposit holdings from the monthly balance sheet statistics of monetary financial institutions (MFIs) and the MFI interest rate statistics. The total comprises changes in sight deposits, time deposits and savings deposits held by domestic households, non-financial corporations, other financial corporations, general government and non-profit institutions, as well as by non-MFI non-resident depositors.[3] Given that, for some of these sectors,[4] no data on remuneration of deposits are collected for the MFI interest rate statistics, it is assumed that these deposits are remunerated at the interest rate reported for non-financial corporations. In order to measure the year-on-year change in interest expenditure in the 2020 calendar year, German banks' interest expenditure in deposit business is first calculated for each of the two calendar years, and then the difference is calculated. Interest expenditure for 2019 and 2020 is calculated on the basis of monthly data, thereby taking into account intra-year changes in average interest rates on deposits as well as changes in deposit holdings.

The table on p. 108 summarises the results of the calculations. On the whole, interest expenditure in deposit business is likely to have decreased by around €1.3 billion between the end of 2019 and the end of 2020, with the lion's share of the reduction, at around €1.2 billion, accounted for by residents' deposit business; interest expenditure in business with non-resident depositors was reduced by just under €0.1 billion.

A comparison of individual deposit categories reveals significant differences. German banks reduced their interest expenditure for sight deposits and time deposits each by just under €0.6 billion over the observation horizon. On the other hand, interest expenditure for savings deposits, given that average interest rates remained positive, decreased by less than €0.2 billion. Around half (just over €0.6 billion) of the entire reduction in interest expenditure was due to the introduction or expansion of negative interest rates on deposits.

The degree to which the reduction in interest expenditure is based on price and volume effects varies among the individual deposit categories. As regards sight deposits, for instance, both effects played a role: average remuneration declined slightly in 2020 and deposit holdings went up. The increase in deposit volumes, in and of itself, pushed up interest expenditure on households' sight deposits owing to the positive remuneration of the deposits. Growth in holdings of sight deposits of non-financial corporations and the other sectors, on the other hand, reduced interest expenditure on account of negative interest rates. Holdings of households' long-

1 See Deutsche Bundesbank (2021c), pp. 34-35.
2 See Deutsche Bundesbank (2020c), pp. 15 ff.
3 Changes in terms and conditions in deposit business with other banks are omitted because income and charges offset one another within the German banking system. The balance of deposit business between German and foreign banks is so small as to be considered negligible.
4 Other financial corporations, general government, non-profit institutions and non-MFI non-resident depositors.

Change in interest expenditure* in existing deposit business with the non-financial sector in 2020 vs. 2019

€ million

Deposit category	Residents				Non-residents	Total	
	Households	Non-financial corporations	Other non-financial sector	Total change in interest expenditure	Depositors, total	Change in interest expenditure	of which: Introduction or expansion of negative deposit interest
Deposits repayable on demand	– 149.25	1 – 235.27	1 – 117.43	– 501.95	1 – 66.23	– 568.17	1 – 418.92
Savings deposits2	– 166.26		– 0.85	– 167.11	– 1.94	– 169.04	.
Fixed-term deposits							
Maturity < 2 years	– 0.38	1 – 72.33	1 – 115.55	– 188.26	1 – 63.20	– 251.46	1 – 228.91
Maturity > 2 years	– 226.82	– 31.33	– 119.09	– 377.24	36.59	– 340.65	.
Total	.	.	.	– 1,234.55	– 94.77	– 1,329.32	1 – 647.83

* Negative values indicate a decrease in interest expenditure. **1** Reduction in interest expenditure in deposit business as a result of negative average interest rates. **2** Households' and non-financial corporations' holdings of savings deposits are reported only jointly in the MFI interest rate statistics.

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term time deposits did not change on balance in 2020; the reduction in interest expenditure is attributable solely to falling interest rates in new business. With regard to the long-term time deposits of non-financial corporations and the other sectors, the reverse holds: with interest rates nearly constant overall and positive on average, deposit holdings fell considerably, which indicates that a volume effect was the primary contributor to the drop in interest expenditure.

The fall of around €1.3 billion in interest expenditure in deposit business more than offset the just under €1.0 billion in net interest expenditure caused by the negative interest rates on the deposit facility in the 2020 calendar year. Here, the net interest expenditure from the negative interest on the deposit facility is the balance between the interest expenditure from remuneration of excess liquidity, less a reduction caused by the use of tiering,[5] introduced at the end of 2019, and interest income from participation in the negatively remunerated third series of targeted longer-term refinancing operations (TLTRO-III).[6]

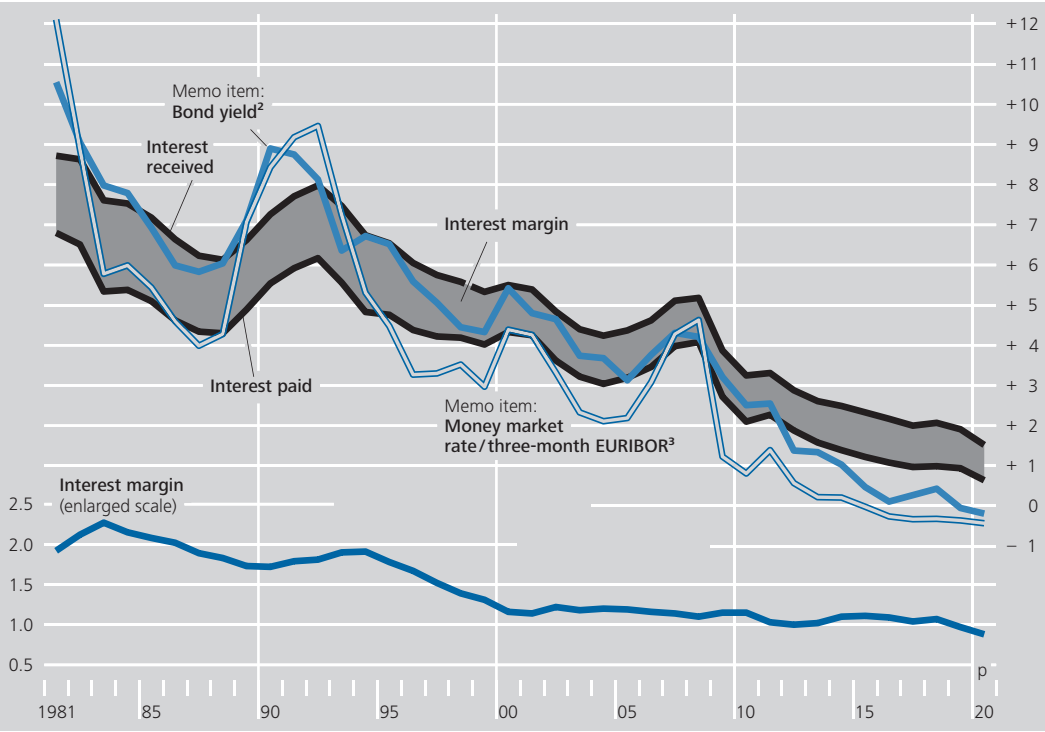
The calculation of the reduction in commercial banks' interest expenditure in deposit business presented here reflects only part of the impact of negative monetary policy interest rates on banks' net interest income. Left out are further impacts of negative interest rates on banks' interest expenditure and interest income as well as all other expenditure and income items, examples being on lending rates and volumes, net commission income and risk provisioning. These effects are, in some cases, indirectly a result of the impact of negative interest rates on economic developments, which in turn feeds back to banks' expenditure and income items. All impacts (direct and indirect on expenditure and income) would have to be looked at jointly in order to reach a conclusive assessment of the overall impact of negative interest rates on banks' earnings position.

5 For more on remuneration of excess liquidity and the impact of tiering, see Deutsche Bundesbank (2021b), pp. 59 ff.

6 See Deutsche Bundesbank (2021a), p. 70. In 2020, the Bundesbank generated just over €2.7 billion worth of interest income from (negative interest rates on) credit institutions' deposits. This interest income accruing to the central bank corresponds to commercial banks' interest expenditure from the remuneration of excess liquidity less a reduction caused by the use of tiering. According to the Bundesbank's Annual Report, this contrasts with interest expenditure by the central bank resulting from (negatively remunerated) refinancing operations amounting to just under €1.8 billion. This was expenditure on TLTRO-III, which result in interest income for commercial banks. On balance, this results in banks' aforementioned net interest expenditure of just under €1.0 billion.

Interest received and interest paid by credit institutions

As a percentage of total assets[1]



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

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Fall in interest income in 2020 almost entirely offset by lower interest expenditure

As a result of parallel developments in interest income and interest expenditure, the decline in net interest income in 2020 was considerably smaller than in the previous year. In the reporting year, unlike in 2019, German credit institutions managed to almost completely offset the fall in interest income through lower interest expenditure. Interest income in the broader sense[31] fell by €22.5 billion, while interest expenditure simultaneously went down by €21.2 billion. The fact that interest income in the broader sense ultimately recorded a somewhat greater fall on the year than interest expenditure was chiefly due to lower current income in 2020 from variable-yield securities, participating interests and shares in affiliated enterprises. In the year under review, current income fell by €1.6 billion (-21.4%), €1.0 billion of which was attributable to the lower current income from variable-yield securities at one big bank. By contrast, over the same period, the decline in interest income in the narrower sense, at €21.1 billion, was slightly more than offset by the reduction in interest expenditure. Furthermore, this development could be seen not only in aggregate terms but also separately for nearly all categories of banks.[32]

In the reporting year, the persistent low interest rate environment again led to lower interest income for German credit institutions. This was due not only to negative interest rates on excess liquidity in the Eurosystem's deposit facility, but first and foremost to the continued decline in interest rates in the high-volume lending business with households.[33] As a consequence, even the growth in the volume of lending business – particularly in the issuance

31 Interest income in the narrower sense plus current income from variable-yield securities, participating interests and shares in affiliated enterprises as well as income from profit pooling, profit transfer agreements and partial profit transfer agreements.
32 Only in the case of regional banks and other commercial banks did the fall in interest income outstrip the fall in interest expenditure, doing so by €0.5 billion.
33 See Deutsche Bundesbank (2021c), p. 37.

of new housing loans – was unable to halt the decline in interest income. Nevertheless, in 2020, German banks made increasing use of instruments to lower their interest expenditure. This included the near full utilisation of exemption allowances, introduced at the end of 2019, for the negative deposit facility rate[34] as well as the expanded use of refinancing operations with the Eurosystem at sometimes negative rates (in particular TLTRO-III). Furthermore, extensive changes to terms and conditions for customer deposit business (including the increased passing on of negative interest rates[35]) contributed to the decrease in interest expenditure.[36]

Interest margins fell to new low

After dipping below the 1% mark for the first time ever in 2019, the interest margin (net interest income in the broader sense in relation to annual average total assets) fell to a new low of 0.88% in the reporting year on account of both lower net interest income compared to the previous year as well as strong balance sheet growth. However, more than three-quarters of the 0.09 percentage point decline in the interest margin compared to 2019 was attributable to strong balance sheet growth in 2020, while just 0.02 percentage point of the overall decline was attributable to lower net interest income.

The major impact of balance sheet growth on the development of the interest margin was also observable in a breakdown by category of banks, particularly in the case of savings banks and credit cooperatives. The interest margin for both of these categories of banks fell by 0.14 percentage point in the reporting year to new historical lows. However, the increase in average total assets accounted for around 70% (0.10 percentage point) of the total decline in the interest margin at savings banks and for around 85% (0.12 percentage point) at credit cooperatives. Despite this, savings banks and credit cooperatives again recorded the highest interest margins among all categories of banks in 2020, with an interest margin of 1.47% and 1.56% respectively. At 0.55%, the interest margin at big banks was comparatively low, with balance sheet growth accounting for 60% of the overall decline here too.

Net commission income improves again

Net commission income increased by €0.9 billion (+2.8%) on the year to €32.1 billion. However, this increase was roughly half of that in 2019, when growth on the year amounted to €1.7 billion (+5.8%).

Heterogeneous developments in net commission income across the categories of banks

Developments in net commission income were very mixed in a comparison of the categories of banks. The largest contribution to the overall increase was made by regional banks and other commercial banks. Their net commission income rose by €1.1 billion (+23.5%) in the year under review. The main driver here was the relocation to Germany of some institutions' business units in the wake of Brexit. By contrast, savings banks and credit cooperatives both recorded only a slight rise of €0.2 billion (+2.4% and +3.8% respectively). Big banks even saw a decline in net commission income, which fell by €0.8 billion (-8.3%) on the year in 2020. However, this decline was primarily attributable to the merger of two institutions that had previously been taken into account as separate institutions in the big bank category. Excluding this one-off effect, net commission income at big banks would have risen by €0.2 billion (+2.65%) on the year.

No clear driver of net commission income observable

Depending on the business model and customer base, different drivers dominated the development of net commission income at indi-

34 See Deutsche Bundesbank (2021b), pp. 59 ff.
35 According to the MFI interest rate statistics, the aggregate interest rate on new overnight deposits from non-financial corporations stood at -0.09% in December 2020, compared with -0.06% in January 2020 and -0.05% in December 2019. The aggregate interest rate for new overnight deposits from retail customers was virtually zero in December 2020 (previous year: 0.008%). Furthermore, the share of non-financial corporations' overnight deposits subject to negative interest rates rose to just under 80% over the course of the reporting year. Over the same period, the share of households' overnight deposits earning negative interest rose to around 40% (see Deutsche Bundesbank (2012c), pp. 34 ff.).
36 For an assessment of the extent to which changes to terms and conditions in deposit business lowered interest expenditure in 2020, see the box on pp. 107 f.

vidual banks. Developments in 2020 were heterogeneous, not only across categories of banks, but also when looking at individual institutions within these categories. For example, numerous institutions among big banks, savings banks and credit cooperatives, but also regional and other commercial banks, recorded significant growth in safe custody business and securities trade, with corresponding increases in commission income. Many were also able to increase their commission income on the back of higher lending or in the payments domain as a result of the pandemic-related rise in cashless payment volumes. On the other hand, however, regional and other commercial banks, for example, recorded lower commission income in the area of trade finance as a consequence of the coronavirus pandemic and trade disputes.

Commission margin back at level of long-term average owing to strong balance sheet growth

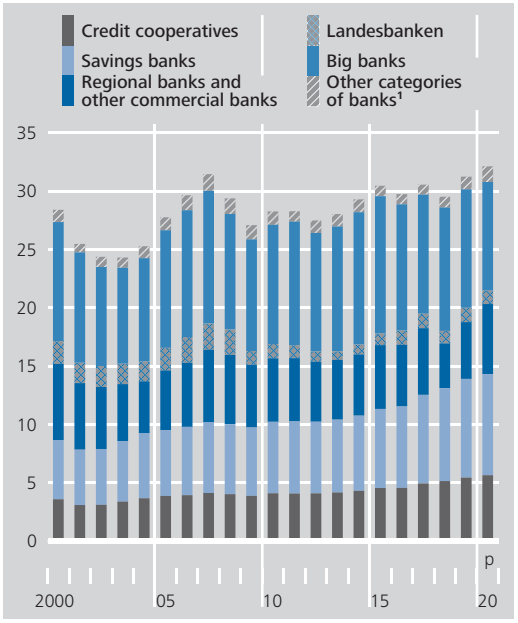
Following a slight increase in 2019, the commission margin (net commission income in relation to annual average total assets) fell by 0.02 percentage point to 0.35% in 2020, bringing it back to the level of its long-term average. However, the reason for this decline was strong balance sheet growth, which, when viewed in isolation, led to a fall in the commission margin of 0.03 percentage point. The higher net commission income in the year under review managed to push up the commission margin by a mere 0.01 percentage point, thus offsetting just one-third of the decline caused by balance sheet growth. This indicates that the increase in net commission income was primarily the result of higher transaction volumes rather than higher fees.

Improved trading result and net commission income contributed in similar measure to rise in operating income

The result from the trading portfolio increased by €1.0 billion (+42.3%) on the year in 2020 and thus made a similar sized contribution to that of net commission income to the overall increase in operating income. This increase was chiefly driven by income from derivatives business at one big bank. At €3.5 billion, net trading income in the reporting year was back to the level of its long-term average after having

Net commission income generated by credit institutions*

€ billion



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

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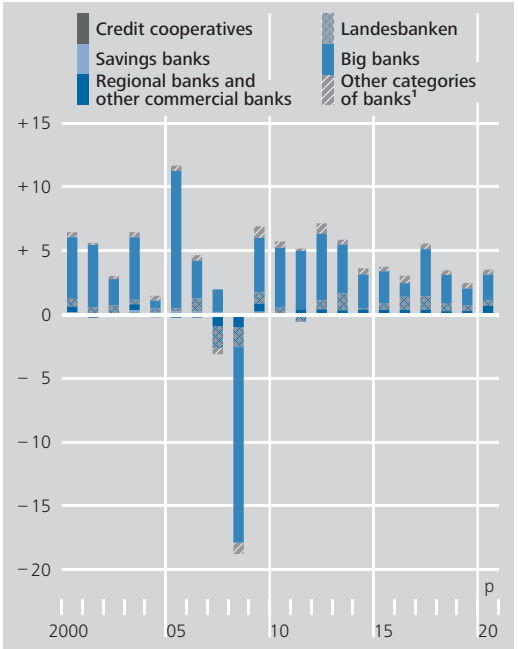
Credit institutions' trading result*

€ billion



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

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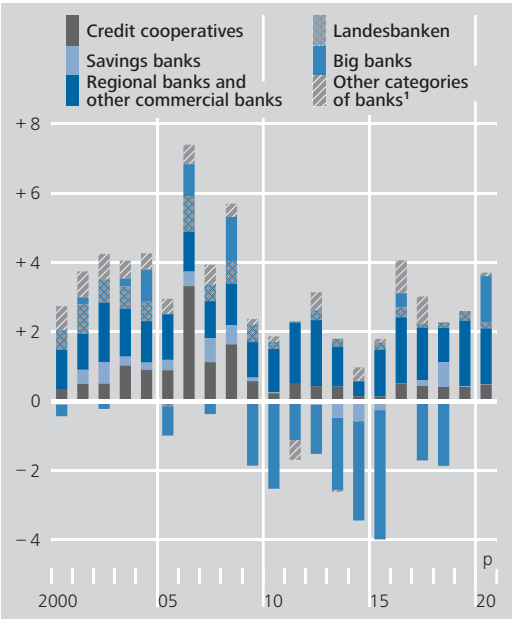
Credit institutions' other operating result*

€ billion



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

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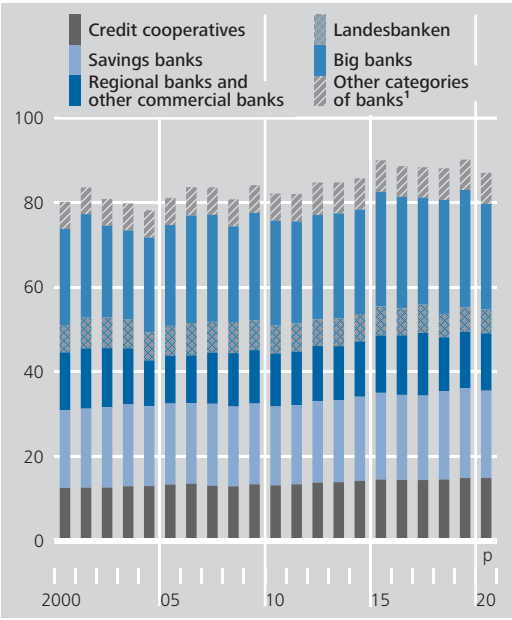
Credit institutions' administrative spending*

€ billion



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

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fallen considerably in the previous year due to losses from derivatives at one big bank.

The trading result continued to be primarily relevant for big banks and Landesbanken. In the reporting year, these two categories of banks together again generated the lion's share (just under 70%) of the overall trading result. However, in 2020 the trading result also grew in importance for regional and other commercial banks. With an increase of €0.4 billion, it more than doubled here compared to 2019, though this was attributable to just a small number of institutions in this category of banks.

Other operating result provided largest single contribution to rise in operating income and almost entirely offset the fall in net interest income

With growth of €1.2 billion (+47.2%), the other operating result[37] in 2020 made the largest single contribution to the increase in operating income and was able to almost fully offset the decline in net interest income. In addition, the other operating result, at €3.7 billion, was again of similar importance to German credit institutions in the reporting year as the trading result. However, this increase was attributable almost solely to big banks. Their other operating result rose by €1.4 billion on the year, chiefly owing to changes in the value of non-trading derivatives at one big bank.

General administrative spending[38] in 2020 fell by €3.1 billion (-3.5%) on the year to €87.0 billion.[39] However, even if the increase in operating income is factored in, this improvement was only able to offset just less than three-

37 Summary item used to record income and charges from operating business that have no connection to net interest income, net commission income or the trading result. It includes leasing expenses and income, the gross result for transactions in goods and subsidiary transactions, depreciation of assets leased, other operating charges and income, and other taxes as well as withdrawals from and transfers to the fund required by the building and loan association rules (only for building and loan associations).

38 General administrative spending encompasses staff costs and other administrative spending. Other administrative spending includes, for example, investment in product development, information technology, and digitalisation. In addition, other administrative spending also comprises depreciation of and value adjustments to tangible and intangible assets.

39 General administrative spending thus remained at a high level and above the long-term average of €83.7 billion.

Major income and cost items for individual categories of banks in 2020[p]

As a percentage of operating income

Item	All categories of banks	Big banks	Regional banks and other commercial banks	Landesbanken	Savings banks	Credit cooperatives	Mortgage banks	Building and loan associations	Banks with special, development and other central support tasks
Net interest income	67.3	54.3	61.9	76.0	70.5	72.3	110.7	120.2	71.1
Net commission income	26.7	33.6	27.7	15.5	29.4	25.5	– 6.7	– 23.5	24.3
Result from the trading portfolio	2.9	7.2	3.0	6.2	0.0	0.0	0.0	0.0	4.9
Other operating result	3.1	4.8	7.4	2.3	0.1	2.2	– 3.9	3.3	– 0.3
Operating income	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
General administrative spending	– 72.3	– 90.3	– 62.4	– 76.0	– 70.1	– 67.2	– 49.0	– 89.7	– 56.4
of which:									
Staff costs	– 36.7	– 38.0	– 28.8	– 37.8	– 43.6	– 38.5	– 22.1	– 31.5	– 27.6
Other administrative spending	– 35.5	– 52.2	– 33.6	– 38.2	– 26.5	– 28.7	– 26.8	– 58.1	– 28.7
Result from the valuation of assets	– 11.1	– 19.0	– 13.1	– 8.7	– 6.7	– 3.3	– 19.5	– 3.9	– 15.9
Other and extraordinary result	– 4.8	– 12.3	– 9.2	– 7.9	– 0.3	– 0.9	14.8	5.2	1.3

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In aggregate terms, lower general administrative spending contributed to rise in profit for the financial year, though this was primarily due to a decline in general administrative spending at big banks

quarters of the deterioration in the valuation result. Just under 90% of the overall decline was attributable to big banks, which reduced their general administrative spending by €2.8 billion (-10.1%) compared to 2019. The main reason for this was lower spending on restructuring and litigation at one big bank. This led to a fall in big banks' other administrative spending in particular, which was down by €2.5 billion compared to 2019. In addition, through a reduction in headcount, big banks also managed to reduce their staff costs by €0.3 billion in 2020.

The general administrative spending of the other categories of banks largely remained at the level of the previous year. In the reporting year, only savings banks were able to markedly reduce their general administrative spending, which was down €0.6 billion (-2.7%) compared to 2019. Of this, €0.2 billion was due to lower staff costs as a result of a reduction in headcount and €0.3 billion was due to the decline in other administrative spending.

Share of staff costs in general administrative spending virtually unchanged overall

Despite the ongoing consolidation process and further thinning out of the branch network, staff costs still accounted for roughly half of overall general administrative spending in 2020. Although staff costs declined slightly compared to 2019 (-€0.2 billion), their share in general administrative spending rose in the reporting year to 50.8% (+1.5 percentage points), as overall general administrative spending also declined. Due to their staff-intensive business model with many branches throughout Germany, savings banks and credit cooperatives continued to record the highest share of staff costs, at 62.2% and 57.3%, respectively.

Expenditure on ongoing digitalisation process impacted on other administrative spending

Except for the aforementioned declines at big banks and savings banks, other administrative spending remained virtually unchanged on the year, at €42.8 billion in 2020. The reasons for the persistent high level were, inter alia, the

Cost/income ratios by category of banks

%

Category of banks	General administrative spending in relation to operating income[1]		
	2018	2019	2020p
All categories of banks	73.1	76.0	72.3
Commercial banks	79.3	84.9	77.7
Big banks	87.9	100.9	90.3
Regional banks and other commercial banks	66.1	64.4	62.4
Branches of foreign banks	55.0	54.4	51.8
Landesbanken	76.6	78.5	76.0
Savings banks	68.3	71.4	70.1
Credit cooperatives	66.2	67.2	67.2
Mortgage banks	59.8	51.2	49.0
Building and loan associations	88.6	94.6	89.7
Banks with special, development and other central support tasks	65.6	59.7	56.4

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

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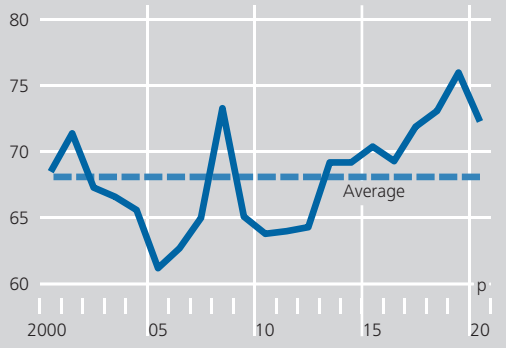
Ratio of credit institutions' administrative spending to operating income*

%



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

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continuing high expenditure on IT in the context of the ongoing digitalisation process and against the backdrop of increased mobile working during the coronavirus pandemic. Furthermore, due to the strong growth in covered deposits[40] in 2019, contributions by German institutions to the Single Resolution Fund (SRF) rose by €0.2 billion to €2.23 billion.[41]

Cost efficiency

Overall improvement in cost efficiency compared with previous year

Measured by the cost/income ratio under its broad definition (administrative spending relative to operating income), German credit institutions' cost efficiency improved slightly overall in 2020. This was due to both the lower general administrative spending and slightly higher operating income compared to the previous year. The cost/income ratio in the reporting year fell by 3.7 percentage points to 72.3% and was thus nevertheless still well above the long-term average of 68.0% and above the average of the post-financial crisis years (2010 to 2018) of 68.4%. Somewhat less than one-third of the overall decline was attributable to the rise in operating income.

In a comparison of the categories of banks, big banks recorded the largest improvement in the cost/income ratio, with a reduction of 10.6 percentage points compared to the previous year. This was primarily attributable to the decrease in other administrative spending at big banks. Nevertheless, despite the sharp fall, big banks continued to have the largest cost/income ratio of all categories of banks in 2020, at 90.3%. Savings banks lowered their cost/income ratio in the reporting year by 1.3 percentage points to 70.1%, despite their operating income falling slightly compared to 2019. In the year under review, the cost/income ratio of credit cooperatives remained unchanged compared to 2019, at 67.2%.

40 Covered deposits refer to those deposits which are covered by statutory deposit protection schemes pursuant to the Deposit Guarantee Act *(Einlagensicherungsgesetz)*. For more information, see also Deutsche Bundesbank (2015), pp. 47 ff.

41 The covered deposits in 2019 form the basis for calculating the target level for contributions to the SRF in 2020.

Outlook

Continued uncertainty surrounding macroeconomic effects of coronavirus pandemic and their repercussions for profitability of German credit institutions in 2021

The economy is currently experiencing robust growth following a downturn in the first quarter of 2021, and gross domestic product (GDP) looks set to return to its pre-crisis level before the year is out. However, supply bottlenecks are slowing the recovery, particularly in industry. Moreover, the further course of the pandemic and potentially necessary containment measures or trade barriers are leading to significant uncertainty regarding economic developments.

In 2020, German credit institutions increased their risk provisioning in credit business, but the wave of credit defaults that had been feared did not materialise. Furthermore, credit quality is improving on the whole thanks to the economic recovery. These aspects are likely to have a positive impact on profitability in 2021. Alongside the high level of uncertainty about the further course of the pandemic, the effects of expiring fiscal support measures may also affect the risk situation of banks and savings banks, however.

In addition, the profitability of German institutions will probably continue to be adversely affected in future by factors unrelated to the pandemic. For example, the expected continuation of the period of low interest rates will continue to weigh on traditional interest business and generate considerable pressure to utilise additional revenue sources and cut costs. Furthermore, it is difficult to gauge the specific impacts of the ruling by the Federal Court of Justice on 27 April 2021 regarding account management fees. The hitherto standard use of negative consent clauses that allow banks to change account management fees without seeking customers' explicit consent has been declared null and void by the ruling.[42] This means that more complicated procedures will be required for future changes.

Factors unrelated to the pandemic still important

In addition, investments in digitalisation will continue to pose a major challenge for the sector. The coronavirus pandemic has probably given a boost to existing and new digitalisation projects. At the same time, investments in decarbonising the economy are presenting banks with growth opportunities.

42 In accordance with the limitation rules of the German Civil Code, all contractual changes and fee adjustments wrongly introduced with the deemed consent of the customer in the last three years (as of 1 January 2018) are null and void.

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Deutsche Bundesbank (2020c), Monthly Report, October 2020.

Deutsche Bundesbank (2015), Monthly Report, December 2015.

Deutsche Bundesbank (2013), Financial Stability Review 2013.

The tables accompanying this article are printed on pp. 117 ff.

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

As a percentage of total assets°

Financial year	All categories of banks	Commercial banks			Landesbanken[1]	Savings banks[1]	Credit cooperatives	Mortgage banks[1]	Building and loan associations	Banks with special, development and other central support tasks
		Total	of which:							
			Big banks[1]	Regional banks and other commercial banks[1]						
	Interest received[2]									
2014	2.49	1.74	1.38	2.91	3.20	3.15	3.15	3.86	3.39	2.38
2015	2.33	1.66	1.33	2.71	3.04	2.90	2.84	4.07	3.18	2.21
2016	2.17	1.58	1.30	2.37	2.81	2.64	2.55	4.01	2.89	2.15
2017	2.00	1.54	1.26	2.25	2.74	2.42	2.33	3.35	2.63	1.78
2018	2.07	1.82	1.62	2.45	3.10	2.17	2.13	2.99	2.42	1.67
2019	1.91	1.58	1.41	2.09	3.23	2.03	2.00	2.80	2.34	1.52
2020	1.52	1.12	0.92	1.72	2.80	1.78	1.77	2.49	2.11	1.15
	Interest paid									
2014	1.39	0.77	0.60	1.30	2.47	1.06	0.94	3.38	1.95	1.95
2015	1.22	0.67	0.52	1.14	2.29	0.84	0.71	3.47	1.85	1.76
2016	1.08	0.61	0.52	0.85	2.04	0.68	0.55	3.47	1.73	1.73
2017	0.97	0.66	0.58	0.89	2.02	0.56	0.43	2.78	1.47	1.36
2018	0.99	0.82	0.77	0.98	2.43	0.44	0.33	2.25	1.29	1.28
2019	0.94	0.74	0.76	0.73	2.61	0.42	0.30	1.99	1.32	1.13
2020	0.64	0.39	0.37	0.50	2.18	0.30	0.21	1.65	1.07	0.77
	Excess of interest received over interest paid = net interest income (interest margin)									
2014	1.10	0.97	0.77	1.62	0.72	2.09	2.21	0.48	1.45	0.43
2015	1.11	0.99	0.81	1.56	0.76	2.06	2.14	0.60	1.32	0.45
2016	1.09	0.97	0.78	1.52	0.77	1.96	1.99	0.54	1.16	0.42
2017	1.04	0.87	0.68	1.36	0.73	1.87	1.90	0.58	1.16	0.42
2018	1.07	1.00	0.84	1.47	0.67	1.73	1.80	0.74	1.13	0.39
2019	0.97	0.84	0.65	1.36	0.62	1.61	1.70	0.81	1.03	0.38
2020	0.88	0.73	0.55	1.23	0.62	1.47	1.56	0.84	1.04	0.38
	Excess of commissions received over commissions paid = net commission income (commission margin)									
2014	0.35	0.47	0.43	0.63	0.07	0.58	0.56	0.00	– 0.26	0.12
2015	0.35	0.47	0.43	0.62	0.09	0.60	0.57	0.00	– 0.27	0.11
2016	0.36	0.45	0.42	0.56	0.12	0.60	0.55	– 0.01	– 0.23	0.10
2017	0.37	0.45	0.43	0.54	0.13	0.64	0.57	– 0.02	– 0.21	0.10
2018	0.36	0.43	0.45	0.40	0.13	0.63	0.57	– 0.03	– 0.21	0.11
2019	0.37	0.42	0.41	0.48	0.14	0.64	0.57	– 0.05	– 0.23	0.12
2020	0.35	0.39	0.34	0.55	0.13	0.62	0.55	– 0.05	– 0.20	0.13

* The figures for the most recent date should be regarded as provisional in all cases. ° Excluding the total assets of the foreign branches of savings banks, excluding the total assets of the foreign branches of regional institutions of credit cooperatives until 2015 and, from 2016, excluding the total assets of the foreign branches of mortgage banks. For footnotes **1** and **2**, see p. 118.

Deutsche Bundesbank

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

As a percentage of total assets°

Financial year	All categories of banks	Commercial banks			Landesbanken[1]	Savings banks[1]	Credit cooperatives	Mortgage banks[1]	Building and loan associations	Banks with special, development and other central support tasks
		Total	of which:							
			Big banks[1]	Regional banks and other commercial banks[1]						
	General administrative spending									
2014	1.01	1.08	0.93	1.57	0.57	1.79	1.84	0.29	0.90	0.32
2015	1.05	1.11	0.99	1.53	0.63	1.81	1.82	0.30	0.81	0.32
2016	1.06	1.14	1.02	1.49	0.66	1.74	1.73	0.32	0.83	0.33
2017	1.07	1.14	1.06	1.41	0.71	1.69	1.66	0.38	0.83	0.33
2018	1.09	1.17	1.15	1.32	0.69	1.65	1.59	0.42	0.82	0.34
2019	1.06	1.16	1.12	1.32	0.66	1.61	1.55	0.40	0.77	0.31
2020	0.95	0.98	0.91	1.24	0.62	1.47	1.45	0.37	0.78	0.30
	Result from the trading portfolio									
2014	0.04	0.09	0.10	0.04	0.01	0.00	0.00	0.00	0.00	0.04
2015	0.04	0.08	0.09	0.04	0.05	0.00	0.00	0.00	0.00	0.03
2016	0.04	0.04	0.04	0.04	0.11	0.00	0.00	0.00	0.00	0.04
2017	0.07	0.12	0.15	0.03	0.11	0.00	0.00	0.00	0.00	0.03
2018	0.04	0.07	0.09	0.03	0.08	0.00	0.00	0.00	0.00	0.03
2019	0.03	0.04	0.05	0.02	0.05	0.00	0.00	0.00	0.00	0.03
2020	0.04	0.07	0.07	0.06	0.05	0.00	0.00	0.00	0.00	0.03
	Operating result before the valuation of assets									
2014	0.45	0.39	0.26	0.78	0.23	0.83	0.95	0.21	0.26	0.29
2015	0.44	0.36	0.20	0.84	0.28	0.82	0.91	0.29	0.23	0.26
2016	0.47	0.39	0.23	0.83	0.38	0.83	0.87	0.21	0.43	0.25
2017	0.42	0.30	0.13	0.67	0.27	0.83	0.86	0.16	0.42	0.23
2018	0.40	0.31	0.16	0.68	0.21	0.77	0.81	0.28	0.11	0.18
2019	0.33	0.21	– 0.01	0.73	0.18	0.65	0.76	0.38	0.04	0.21
2020	0.36	0.28	0.10	0.74	0.20	0.62	0.71	0.39	0.09	0.23
	Result from the valuation of assets									
2014	– 0.08	– 0.11	– 0.10	– 0.12	– 0.14	0.00	– 0.03	– 0.07	0.14	– 0.08
2015	– 0.04	– 0.03	0.00	– 0.14	– 0.10	0.01	– 0.06	– 0.09	– 0.03	– 0.03
2016	– 0.10	– 0.14	– 0.16	– 0.10	– 0.38	0.09	0.01	– 0.04	0.01	– 0.07
2017	– 0.04	– 0.02	0.03	– 0.12	– 0.24	0.02	– 0.02	0.01	– 0.03	– 0.07
2018	– 0.08	– 0.06	– 0.02	– 0.16	– 0.33	– 0.06	– 0.10	– 0.15	0.01	– 0.02
2019	– 0.08	– 0.16	– 0.19	– 0.10	– 0.04	– 0.02	0.04	– 0.05	0.02	– 0.05
2020	– 0.14	– 0.21	– 0.19	– 0.26	– 0.07	– 0.14	– 0.07	– 0.15	– 0.03	– 0.08

For footnotes * and °, see p. 117. **1** From 2018, DB Privat- und Firmenkundenbank AG allocated to the category "Big banks", merger with Deutsche Bank AG in 2020. From 2018, HSH Nordbank allocated to the category "Regional banks and other commercial banks" and Landesbank Berlin allocated to the category "Savings banks". DSK Hyp AG (formerly SEB AG) allocated to the category "Mortgage banks". Wüstenrot Bank Aktiengesellschaft Pfandbriefbank allocated to the category "Regional banks and other commercial banks". **2** Interest received plus current income and profits transferred under profit pooling, a profit transfer agreement or a partial profit transfer agreement.

Deutsche Bundesbank

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

As a percentage of total assets°

Financial year	All categories of banks	Commercial banks			Landesbanken1	Savings banks1	Credit cooperatives	Mortgage banks1	Building and loan associations	Banks with special, development and other central support tasks
		Total	of which:							
			Big banks1	Regional banks and other commercial banks1						
	Operating result									
2014	0.37	0.28	0.16	0.65	0.10	0.83	0.93	0.14	0.39	0.21
2015	0.40	0.33	0.21	0.70	0.18	0.83	0.85	0.20	0.20	0.23
2016	0.37	0.25	0.08	0.73	0.00	0.92	0.88	0.17	0.44	0.18
2017	0.37	0.28	0.16	0.55	0.03	0.85	0.84	0.17	0.40	0.15
2018	0.32	0.25	0.14	0.51	– 0.12	0.71	0.71	0.14	0.11	0.17
2019	0.26	0.05	– 0.20	0.63	0.14	0.62	0.80	0.32	0.06	0.16
2020	0.22	0.07	– 0.09	0.48	0.13	0.48	0.64	0.24	0.06	0.15
	Other and extraordinary result									
2014	– 0.08	– 0.10	– 0.02	– 0.34	– 0.13	– 0.05	– 0.02	– 0.18	– 0.03	– 0.01
2015	– 0.09	– 0.19	– 0.11	– 0.45	– 0.01	– 0.03	– 0.02	– 0.01	0.00	– 0.01
2016	– 0.03	– 0.06	0.04	– 0.36	– 0.05	– 0.03	0.04	0.01	– 0.02	0.00
2017	– 0.04	– 0.10	– 0.05	– 0.23	0.07	– 0.01	0.00	0.03	0.04	– 0.04
2018	– 0.08	– 0.14	– 0.09	– 0.28	– 0.01	– 0.06	– 0.02	– 0.04	– 0.01	– 0.06
2019	– 0.19	– 0.43	– 0.50	– 0.31	– 0.05	0.00	– 0.02	– 0.09	0.13	0.00
2020	– 0.06	– 0.14	– 0.12	– 0.18	– 0.07	– 0.01	– 0.02	0.11	0.04	0.01
	Profit or loss (–) for the financial year before tax									
2014	0.30	0.19	0.14	0.32	– 0.03	0.78	0.91	– 0.04	0.36	0.20
2015	0.31	0.14	0.10	0.25	0.17	0.79	0.84	0.20	0.20	0.21
2016	0.33	0.19	0.12	0.37	– 0.06	0.89	0.93	0.18	0.41	0.17
2017	0.33	0.18	0.12	0.32	0.10	0.84	0.84	0.21	0.43	0.12
2018	0.23	0.10	0.05	0.23	– 0.13	0.65	0.69	0.09	0.11	0.11
2019	0.07	– 0.39	– 0.71	0.32	0.10	0.63	0.78	0.23	0.19	0.15
2020	0.16	– 0.07	– 0.22	0.30	0.06	0.48	0.62	0.35	0.10	0.15
	Profit or loss (–) for the financial year after tax									
2014	0.21	0.14	0.10	0.23	– 0.08	0.53	0.64	– 0.06	0.24	0.19
2015	0.21	0.09	0.06	0.16	0.10	0.54	0.57	0.17	0.16	0.17
2016	0.24	0.13	0.09	0.26	– 0.11	0.63	0.67	0.14	0.34	0.17
2017	0.24	0.13	0.09	0.20	0.05	0.60	0.58	0.13	0.37	0.13
2018	0.15	0.08	0.05	0.13	– 0.20	0.44	0.47	0.04	0.05	0.09
2019	– 0.03	– 0.45	– 0.75	0.20	0.07	0.44	0.56	0.16	0.15	0.12
2020	0.06	– 0.12	– 0.25	0.18	0.04	0.30	0.42	0.06	0.06	0.12

For footnotes * and °, see p. 117. For footnote 1, see p. 118.
Deutsche Bundesbank

Credit institutions' profit and loss accounts*

Financial year	Number of reporting institutions	Total assets[1]	Interest business			Commissions business			Result from the trading portfolio	Other operating result	Operating income[3] (col. 3 plus col. 6 plus col. 9 plus col. 10)
			Net interest income (col. 4 less col. 5)	Interest received[2]	Interest paid	Net commission income (col. 7 less col. 8)	Commissions received	Commissions paid			
	1	2	3	4	5	6	7	8	9	10	11
		€ billion									
2013	1,748	8,755.4	89.5	228.2	138.7	28.0	40.6	12.6	5.9	– 0.8	122.6
2014	1,715	8,452.6	93.4	210.8	117.4	29.3	42.6	13.3	3.6	– 2.5	123.8
2015	1,679	8,605.6	95.9	200.9	105.0	30.5	44.5	14.1	3.7	– 2.2	127.9
2016	1,611	8,355.0	91.1	181.5	90.4	29.7	43.2	13.5	3.0	4.1	128.0
2017	1,538	8,251.2	85.5	165.4	79.9	30.6	44.2	13.6	5.6	1.3	122.9
2018	1,484	8,118.3	87.2	167.8	80.6	29.5	43.1	13.6	3.5	0.4	120.6
2019	1,440	8,532.7	82.5	162.8	80.4	31.2	45.8	14.5	2.5	2.5	118.7
2020	1,408	9,206.9	81.1	140.3	59.2	32.1	46.7	14.6	3.5	3.7	120.5
	Year-on-year percentage change										
2014	– 1.9	– 3.5	4.4	– 7.6	– 15.3	4.5	5.0	6.1	– 38.2	– 201.2	1.0
2015	– 2.1	1.8	2.7	– 4.7	– 10.6	4.0	4.5	5.5	3.0	11.1	3.3
2016	– 4.1	– 2.9	– 4.9	– 9.6	– 13.9	– 2.3	– 3.0	– 4.4	– 18.4	.	0.1
2017	– 4.5	– 1.2	– 6.2	– 8.9	– 11.6	2.7	2.3	1.3	82.9	– 67.9	– 4.0
2018	– 3.5	– 1.6	2.0	1.4	0.8	– 3.4	– 2.4	– 0.2	– 37.7	– 70.1	– 1.9
2019	– 3.0	5.1	– 5.4	– 2.9	– 0.2	5.8	6.1	6.8	– 28.8	545.6	– 1.6
2020	– 2.2	7.9	– 1.6	– 13.8	– 26.4	2.8	2.1	0.4	42.3	47.2	1.5
	As a percentage of total assets										
2013	.	.	1.02	2.61	1.58	0.32	0.46	0.14	0.07	– 0.01	1.40
2014	.	.	1.10	2.49	1.39	0.35	0.50	0.16	0.04	– 0.03	1.47
2015	.	.	1.11	2.33	1.22	0.35	0.52	0.16	0.04	– 0.03	1.49
2016	.	.	1.09	2.17	1.08	0.36	0.52	0.16	0.04	0.05	1.53
2017	.	.	1.04	2.00	0.97	0.37	0.54	0.17	0.07	0.02	1.49
2018	.	.	1.07	2.07	0.99	0.36	0.53	0.17	0.04	0.00	1.49
2019	.	.	0.97	1.91	0.94	0.37	0.54	0.17	0.03	0.03	1.39
2020	.	.	0.88	1.52	0.64	0.35	0.51	0.16	0.04	0.04	1.31

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

General administrative spending										
Total (col. 13 plus col. 14)	Staff costs	Total other administrative spending[4]	Operating result before the valuation of assets (col. 11 less col. 12)	Result from the valuation of assets (other than tangible or financial fixed assets)	Operating result (col. 15 plus col. 16)	Other and extraordinary result	Profit or loss (–) for the financial year before tax (col. 17 plus col. 18)	Taxes on income and earnings	Profit or loss (–) for the financial year after tax (col. 19 less col. 20)	
12	13	14	15	16	17	18	19	20	21	Financial year
									€ billion	
84.8	43.8	41.0	37.8	– 6.5	31.2	– 9.3	22.0	7.4	14.6	2013
85.8	44.0	41.8	38.1	– 6.6	31.5	– 6.5	25.0	7.6	17.4	2014
90.0	46.0	44.0	37.9	– 3.5	34.4	– 7.8	26.6	8.4	18.1	2015
88.7	44.6	44.0	39.4	– 8.8	30.6	– 2.8	27.8	7.9	19.9	2016
88.4	44.6	43.8	34.5	– 3.6	30.9	– 3.4	27.5	7.5	20.0	2017
88.1	44.3	43.9	32.4	– 6.8	25.7	– 6.8	18.9	6.7	12.2	2018
90.2	44.4	45.7	28.5	– 6.7	21.8	– 16.1	5.7	7.8	– 2.2	2019
87.0	44.2	42.8	33.4	– 13.3	20.1	– 5.8	14.3	8.4	5.9	2020
									Year-on-year percentage change	
1.1	0.5	1.8	0.9	– 0.6	0.9	29.8	13.9	3.0	19.4	2014
5.0	4.7	5.3	– 0.6	46.9	9.0	– 19.7	6.3	11.2	4.1	2015
– 1.5	– 3.1	0.1	4.0	– 150.3	– 10.9	63.9	4.6	– 6.7	9.9	2016
– 0.3	– 0.1	– 0.5	– 12.2	58.7	1.0	– 20.8	– 1.0	– 4.3	0.4	2017
– 0.3	– 0.6	0.1	– 6.0	– 86.9	– 16.9	– 101.0	– 31.5	– 11.2	– 39.1	2018
2.3	0.4	4.3	– 12.2	0.8	– 15.2	– 136.2	– 70.0	16.6	.	2019
– 3.5	– 0.5	– 6.4	17.3	– 98.7	– 7.7	64.0	153.0	7.5	.	2020
									As a percentage of total assets	
0.97	0.50	0.47	0.43	– 0.07	0.36	– 0.11	0.25	0.08	0.17	2013
1.01	0.52	0.49	0.45	– 0.08	0.37	– 0.08	0.30	0.09	0.21	2014
1.05	0.53	0.51	0.44	– 0.04	0.40	– 0.09	0.31	0.10	0.21	2015
1.06	0.53	0.53	0.47	– 0.10	0.37	– 0.03	0.33	0.09	0.24	2016
1.07	0.54	0.53	0.42	– 0.04	0.37	– 0.04	0.33	0.09	0.24	2017
1.09	0.55	0.54	0.40	– 0.08	0.32	– 0.08	0.23	0.08	0.15	2018
1.06	0.52	0.54	0.33	– 0.08	0.26	– 0.19	0.07	0.09	– 0.03	2019
0.95	0.48	0.47	0.36	– 0.14	0.22	– 0.06	0.16	0.09	0.06	2020

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

Profit and loss accounts by category of banks*

Financial year	Number of reporting institutions	€ million									
			Interest business			Commissions business					
		Total assets[1]	Net interest income (col. 4 less col. 5)	Interest received[2]	Interest paid	Net commission income (col. 7 less col. 8)	Commissions received	Commissions paid	Result from the trading portfolio	Other operating result	Operating income[3] (col. 3 plus col. 6 plus col. 9 plus col. 10)
	1	2	3	4	5	6	7	8	9	10	11
	All categories of banks										
2015	1,679	8,605,560	95,887	200,861	104,974	30,461	44,542	14,081	3,734	– 2,196	127,886
2016	1,611	8,355,020	91,146	181,543	90,397	29,746	43,201	13,455	3,046	4,065	128,003
2017	1,538	8,251,175	85,486	165,387	79,901	30,559	44,190	13,631	5,572	1,304	122,921
2018	1,484	8,118,298	87,202	167,777	80,575	29,522	43,124	13,602	3,470	390	120,584
2019	1,440	8,532,738	82,453	162,845	80,392	31,244	45,765	14,521	2,469	2,518	118,684
2020	1,408	9,206,853	81,127	140,302	59,175	32,126	46,710	14,584	3,513	3,707	120,473
	Commercial banks										
2015	177	3,678,042	36,282	60,993	24,711	17,337	25,183	7,846	2,867	– 2,320	54,166
2016	171	3,580,912	34,768	56,451	21,683	16,204	23,873	7,669	1,429	2,427	54,828
2017	172	3,532,639	30,887	54,373	23,486	16,027	23,832	7,805	4,074	– 83	50,905
2018	167	3,404,697	34,140	62,134	27,994	14,514	22,145	7,631	2,462	– 779	50,337
2019	165	3,591,261	30,191	56,760	26,569	15,154	23,252	8,098	1,560	1,959	48,864
2020	164	3,966,453	28,805	44,414	15,609	15,430	23,384	7,954	2,670	3,071	49,976
	Big banks[7]										
2015	4	2,736,876	22,151	36,394	14,243	11,762	14,569	2,807	2,496	– 3,732	32,677
2016	4	2,575,072	20,126	33,572	13,446	10,817	13,510	2,693	1,069	405	32,417
2017	4	2,400,315	16,369	30,216	13,847	10,205	12,929	2,724	3,701	– 1,712	28,563
2018	4	2,346,111	19,751	37,924	18,173	10,573	13,478	2,905	2,196	– 1,866	30,654
2019	4	2,475,076	16,126	34,920	18,794	10,154	13,650	3,496	1,302	– 32	27,550
2020	3	2,748,655	15,052	25,257	10,205	9,311	12,495	3,184	2,000	1,341	27,704
	Regional banks and other commercial banks[7]										
2015	154	884,457	13,832	23,939	10,107	5,469	10,492	5,023	353	1,348	21,002
2016	148	942,665	14,369	22,343	7,974	5,286	10,245	4,959	340	1,916	21,911
2017	149	1,048,189	14,237	23,545	9,308	5,712	10,779	5,067	350	1,516	21,815
2018	145	962,520	14,149	23,562	9,413	3,827	8,543	4,716	261	986	19,223
2019	142	1,013,378	13,784	21,153	7,369	4,864	9,456	4,592	252	1,892	20,792
2020	139	1,094,301	13,433	18,863	5,430	6,006	10,758	4,752	660	1,602	21,701
	Branches of foreign banks										
2015	19	56,709	299	660	361	106	122	16	18	64	487
2016	19	63,175	273	536	263	101	118	17	20	106	500
2017	19	84,135	281	612	331	110	124	14	23	113	527
2018	18	96,066	240	648	408	114	124	10	5	101	460
2019	19	102,807	281	687	406	136	146	10	6	99	522
2020	22	123,497	320	294	– 26	113	131	18	10	128	571
	Landesbanken[7]										
2015	9	1,087,623	8,230	33,092	24,862	995	2,816	1,821	535	210	9,970
2016	9	975,957	7,558	27,464	19,906	1,216	2,810	1,594	1,026	289	10,089
2017	8	940,293	6,833	25,797	18,964	1,238	2,867	1,629	1,059	114	9,244
2018	6	803,978	5,365	24,895	19,530	1,074	2,408	1,334	634	160	7,233
2019	6	862,346	5,327	27,818	22,491	1,226	2,617	1,391	466	280	7,299
2020	6	898,328	5,614	25,181	19,567	1,146	2,720	1,574	456	169	7,385

For footnotes * and **1**-**7**, see pp. 124f.
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General administrative spending			Operating result before the valuation of assets (col. 11 less col. 12)	Result from the valuation of assets (other than tangible or financial fixed assets)	Operating result (col. 15 plus col. 16)	Other and extraordinary result	Profit or loss (–) for the financial year before tax (col. 17 plus col. 18)	Taxes on income and earnings[5]	Profit or loss (–) for the financial year after tax (col. 19 less col. 20)	Withdrawals from or transfers to (–) reserves and participation rights capital[6]	Balance sheet profit or loss (–) (col. 21 plus col. 22)	Financial year
Total (col. 13 plus col. 14)	Staff costs	Total other administrative spending[4]										
12	13	14	15	16	17	18	19	20	21	22	23	
All categories of banks												
90,033	46,039	43,994	37,853	– 3,497	34,356	– 7,791	26,565	8,445	18,120	– 15,436	2,684	2015
88,653	44,615	44,038	39,350	– 8,754	30,596	– 2,812	27,784	7,875	19,909	– 15,395	4,514	2016
88,389	44,563	43,826	34,532	– 3,619	30,913	– 3,398	27,515	7,536	19,979	– 16,777	3,202	2017
88,135	44,282	43,853	32,449	– 6,763	25,686	– 6,831	18,855	6,692	12,163	– 13,116	– 953	2018
90,191	44,447	45,744	28,493	– 6,708	21,785	– 16,133	5,652	7,806	– 2,154	7,212	5,058	2019
87,048	44,229	42,819	33,425	– 13,326	20,099	– 5,801	14,298	8,392	5,906	– 1,303	4,603	2020
Commercial banks												
40,961	17,530	23,431	13,205	– 1,183	12,022	– 6,890	5,132	1,969	3,163	– 1,870	1,293	2015
40,723	17,379	23,344	14,105	– 5,130	8,975	– 2,248	6,727	1,954	4,773	148	4,921	2016
40,400	17,160	23,240	10,505	– 540	9,965	– 3,536	6,429	1,885	4,544	– 4,064	480	2017
39,899	16,558	23,341	10,438	– 1,992	8,446	– 4,918	3,528	906	2,622	– 4,264	– 1,642	2018
41,481	16,933	24,548	7,383	– 5,743	1,640	– 15,611	– 13,971	2,356	– 16,327	18,097	1,770	2019
38,850	16,909	21,941	11,126	– 8,336	2,790	– 5,415	– 2,625	2,328	– 4,953	6,467	1,514	2020
Big banks[7]												
27,101	11,422	15,679	5,576	85	5,661	– 2,953	2,708	1,082	1,626	– 216	1,410	2015
26,378	11,134	15,244	6,039	– 4,021	2,018	1,127	3,145	864	2,281	1,918	4,199	2016
25,324	10,489	14,835	3,239	666	3,905	– 1,126	2,779	559	2,220	– 433	1,787	2017
26,944	10,660	16,284	3,710	– 382	3,328	– 2,179	1,149	– 97	1,246	22	1,268	2018
27,806	10,807	16,999	– 256	– 4,723	– 4,979	– 12,479	– 17,458	988	– 18,446	21,922	3,476	2019
25,003	10,532	14,471	2,701	– 5,270	– 2,569	– 3,415	– 5,984	960	– 6,944	7,344	400	2020
Regional banks and other commercial banks[7]												
13,562	5,987	7,575	7,440	– 1,267	6,173	– 3,937	2,236	802	1,434	– 1,633	– 199	2015
14,065	6,121	7,944	7,846	– 988	6,858	– 3,375	3,483	1,022	2,461	– 1,750	711	2016
14,795	6,538	8,257	7,020	– 1,252	5,768	– 2,405	3,363	1,257	2,106	– 3,612	– 1,506	2017
12,702	5,781	6,921	6,521	– 1,574	4,947	– 2,739	2,208	945	1,263	– 4,258	– 2,995	2018
13,391	5,998	7,393	7,401	– 997	6,404	– 3,131	3,273	1,294	1,979	– 3,794	– 1,815	2019
13,551	6,251	7,300	8,150	– 2,845	5,305	– 2,000	3,305	1,329	1,976	– 884	1,092	2020
Branches of foreign banks												
298	121	177	189	– 1	188	0	188	85	103	– 21	82	2015
280	124	156	220	– 121	99	0	99	68	31	– 20	11	2016
281	133	148	246	46	292	– 5	287	69	218	– 19	199	2017
253	117	136	207	– 36	171	0	171	58	113	– 28	85	2018
284	128	156	238	– 23	215	– 1	214	74	140	– 31	109	2019
296	126	170	275	– 221	54	0	54	39	15	7	22	2020
Landesbanken[7]												
6,893	3,488	3,405	3,077	– 1,114	1,963	– 158	1,805	764	1,041	– 580	461	2015
6,412	2,889	3,523	3,677	– 3,725	– 48	– 499	– 547	505	– 1,052	182	– 870	2016
6,699	3,083	3,616	2,545	– 2,257	288	656	944	443	501	– 741	– 240	2017
5,538	2,789	2,749	1,695	– 2,625	– 930	– 91	– 1,021	603	– 1,624	– 128	– 1,752	2018
5,729	2,805	2,924	1,570	– 337	1,233	– 410	823	196	627	– 575	52	2019
5,614	2,790	2,824	1,771	– 644	1,127	– 586	541	185	356	– 531	– 175	2020

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

Financial year	Number of reporting institutions	€ million									
			Interest business			Commissions business					
		Total assets[1]	Net interest income (col. 4 less col. 5)	Interest received[2]	Interest paid	Net commission income (col. 7 less col. 8)	Commissions received	Commissions paid	Result from the trading portfolio	Other operating result	Operating income[3] (col. 3 plus col. 6 plus col. 9 plus col. 10)
	1	2	3	4	5	6	7	8	9	10	11
	Savings banks[7]										
2015	413	1,130,688	23,285	32,807	9,522	6,776	7,211	435	– 7	– 260	29,794
2016	403	1,154,475	22,667	30,520	7,853	6,975	7,423	448	10	7	29,659
2017	390	1,179,915	22,018	28,577	6,559	7,590	8,069	479	6	169	29,783
2018	386	1,267,726	21,949	27,541	5,592	7,965	8,778	813	1	718	30,633
2019	380	1,315,579	21,217	26,758	5,541	8,458	9,405	947	10	17	29,702
2020	377	1,407,118	20,741	24,986	4,245	8,660	9,646	986	5	15	29,421
	Credit cooperatives										
2015	1,021	798,178	17,077	22,705	5,628	4,564	5,570	1,006	5	132	21,778
2016	972	832,181	16,578	21,180	4,602	4,577	5,601	1,024	10	495	21,660
2017	915	868,255	16,475	20,250	3,775	4,957	6,071	1,114	10	437	21,879
2018	875	911,385	16,375	19,424	3,049	5,160	6,318	1,158	4	408	21,947
2019	841	957,859	16,251	19,151	2,900	5,456	6,718	1,262	6	407	22,120
2020	814	1,029,671	16,029	18,238	2,209	5,662	6,954	1,292	10	479	22,180
	Mortgage banks[7]										
2015	16	376,908	2,245	15,323	13,078	– 11	212	223	– 2	9	2,241
2016	15	289,800	1,565	11,623	10,058	– 43	176	219	0	14	1,536
2017	13	236,414	1,360	7,921	6,561	– 48	158	206	0	– 35	1,277
2018	11	233,165	1,732	6,975	5,243	– 80	97	177	6	– 27	1,631
2019	10	234,978	1,908	6,576	4,668	– 109	116	225	0	15	1,814
2020	10	241,909	2,024	6,020	3,996	– 123	109	232	0	– 72	1,829
	Building and loan associations										
2015	21	214,613	2,841	6,818	3,977	– 590	1,375	1,965	0	– 2	2,249
2016	20	215,668	2,503	6,233	3,730	– 503	1,260	1,763	0	717	2,717
2017	20	227,924	2,634	5,995	3,361	– 481	1,226	1,707	0	701	2,854
2018	20	233,865	2,653	5,661	3,008	– 500	1,295	1,795	0	14	2,167
2019	19	237,363	2,438	5,566	3,128	– 548	1,309	1,857	0	52	1,942
2020	18	242,190	2,520	5,103	2,583	– 493	1,270	1,763	0	70	2,097
	Banks with special, development and other central support tasks										
2015	22	1,319,508	5,927	29,123	23,196	1,390	2,175	785	336	35	7,688
2016	21	1,306,027	5,507	28,072	22,565	1,320	2,058	738	571	116	7,514
2017	20	1,265,735	5,279	22,474	17,195	1,276	1,967	691	423	1	6,979
2018	19	1,263,482	4,988	21,147	16,159	1,389	2,083	694	363	– 104	6,636
2019	19	1,333,352	5,121	20,216	15,095	1,607	2,348	741	427	– 212	6,943
2020	19	1,421,184	5,394	16,360	10,966	1,844	2,627	783	372	– 25	7,585
	Memo item: Banks majority-owned by foreign banks[8]										
2015	33	735,491	8,383	13,502	5,119	2,919	4,834	1,915	435	456	12,193
2016	34	762,620	8,950	13,098	4,148	3,157	5,057	1,900	718	402	13,227
2017	34	765,500	8,801	12,037	3,236	3,589	5,218	1,629	812	891	14,093
2018	33	763,177	9,252	12,327	3,075	3,042	4,711	1,669	436	– 340	12,390
2019	32	849,008	9,683	12,911	3,228	3,520	5,338	1,818	546	1,184	14,933
2020	33	973,433	9,347	11,117	1,770	4,630	6,755	2,125	539	644	15,160

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

General administrative spending			Operating result before the valuation of assets (col. 11 less col. 12)	Result from the valuation of assets (other than tangible or financial fixed assets)	Operating result (col. 15 plus col. 16)	Other and extraordinary result	Profit or loss (–) for the financial year before tax (col. 17 plus col. 18)	Taxes on income and earnings	Profit or loss (–) for the financial year after tax (col. 19 less col. 20)	Withdrawals from or transfers to (–) reserves and participation rights capital[6]	Balance sheet profit or loss (–) (col. 21 plus col. 22)	Financial year
Total (col. 13 plus col. 14)	Staff costs	Total other administrative spending[4]										
12	13	14	15	16	17	18	19	20	21	22	23	
											Savings banks[7]	
20,517	12,946	7,571	9,277	92	9,369	– 392	8,977	2,913	6,064	– 4,491	1,573	2015
20,110	12,587	7,523	9,549	1,062	10,611	– 386	10,225	2,939	7,286	– 5,728	1,558	2016
19,991	12,646	7,345	9,792	283	10,075	– 153	9,922	2,861	7,061	– 5,517	1,544	2017
20,930	13,012	7,918	9,703	– 704	8,999	– 786	8,213	2,694	5,519	– 4,070	1,449	2018
21,211	13,079	8,132	8,491	– 296	8,195	41	8,236	2,437	5,799	– 4,390	1,409	2019
20,633	12,835	7,798	8,788	– 1,964	6,824	– 88	6,736	2,519	4,217	– 2,914	1,303	2020
											Credit cooperatives	
14,509	8,754	5,755	7,269	– 453	6,816	– 134	6,682	2,103	4,579	– 3,226	1,353	2015
14,423	8,649	5,774	7,237	103	7,340	361	7,701	2,104	5,597	– 4,246	1,351	2016
14,382	8,583	5,799	7,497	– 186	7,311	– 33	7,278	2,199	5,079	– 3,774	1,305	2017
14,520	8,564	5,956	7,427	– 926	6,501	– 172	6,329	2,078	4,251	– 2,978	1,273	2018
14,858	8,518	6,340	7,262	430	7,692	– 174	7,518	2,124	5,394	– 4,165	1,229	2019
14,898	8,532	6,366	7,282	– 735	6,547	– 192	6,355	2,024	4,331	– 3,125	1,206	2020
											Mortgage banks[7]	
1,147	492	655	1,094	– 327	767	– 20	747	98	649	– 1,385	– 736	2015
937	410	527	599	– 113	486	39	525	127	398	– 1,138	– 740	2016
897	411	486	380	32	412	75	487	171	316	– 722	– 406	2017
975	449	526	656	– 341	315	– 95	220	128	92	– 795	– 703	2018
929	428	501	885	– 125	760	– 217	543	160	383	– 229	154	2019
896	405	491	933	– 357	576	271	847	700	147	19	166	2020
											Building and loan associations	
1,749	721	1,028	500	– 72	428	– 2	426	78	348	– 4	344	2015
1,798	692	1,106	919	22	941	– 51	890	160	730	– 548	182	2016
1,891	719	1,172	963	– 61	902	89	991	155	836	– 622	214	2017
1,921	696	1,225	246	22	268	– 14	254	137	117	13	130	2018
1,838	647	1,191	104	49	153	303	456	105	351	– 139	212	2019
1,880	661	1,219	217	– 82	135	108	243	98	145	55	200	2020
											Banks with special, development and other central support tasks	
4,257	2,108	2,149	3,431	– 440	2,991	– 195	2,796	520	2,276	– 3,880	– 1,604	2015
4,250	2,009	2,241	3,264	– 973	2,291	– 28	2,263	86	2,177	– 4,065	– 1,888	2016
4,129	1,961	2,168	2,850	– 890	1,960	– 496	1,464	– 178	1,642	– 1,337	305	2017
4,352	2,214	2,138	2,284	– 197	2,087	– 755	1,332	146	1,186	– 894	292	2018
4,145	2,037	2,108	2,798	– 686	2,112	– 65	2,047	428	1,619	– 1,387	232	2019
4,277	2,097	2,180	3,308	– 1,208	2,100	101	2,201	538	1,663	– 1,274	389	2020
											Memo item: Banks majority-owned by foreign banks[8]	
8,503	3,992	4,511	3,690	– 479	3,211	– 1,723	1,488	430	1,058	– 396	662	2015
9,072	4,329	4,743	4,155	– 1,012	3,143	– 1,604	1,539	636	903	2,646	3,549	2016
8,817	4,070	4,747	5,276	– 590	4,686	– 1,819	2,867	808	2,059	– 565	1,494	2017
8,717	4,064	4,653	3,673	– 994	2,679	– 992	1,687	586	1,101	– 518	583	2018
9,612	4,611	5,001	5,321	– 164	5,157	– 1,952	3,205	1,189	2,016	2,664	4,680	2019
9,519	4,586	4,933	5,641	– 1,865	3,776	– 1,256	2,520	1,175	1,345	852	2,197	2020

to the fund for general banking risks. **7** From 2018, DB Privat- und Firmenkundenbank AG allocated to the category "Big banks", merger with Deutsche Bank AG in 2020. From 2018, HSH Nordbank allocated to the category "Regional banks and other commercial banks" and Landesbank Berlin allocated to the category "Savings banks". DSK Hyp AG (formerly SEB AG) allocated to the category "Mortgage banks". Wüstenrot Bank Aktiengesellschaft Pfandbriefbank allocated to the category "Regional banks and other commercial banks". **8** Separate presentation of the (legally independent) banks majority-owned by foreign banks and included in other categories of banks.

Credit institutions' charge and income items*

Financial year	Number of reporting institutions	Charges, € billion										
							General administrative spending					
								Staff costs				
										Social security costs and costs relating to pensions and other benefits		
		Total	Interest paid	Commissions paid	Net loss from the trading portfolio	Gross loss on transactions in goods and subsidiary transactions	Total	Total	Wages and salaries	Total	of which: Pensions	Other administrative spending[1]
2012	1,776	329.0	179.2	12.5	0.2	0.0	80.9	44.6	35.5	9.1	3.4	36.3
2013	1,748	285.8	138.7	12.6	0.3	0.0	81.1	43.8	35.2	8.6	2.9	37.4
2014	1,715	262.8	117.4	13.3	0.4	0.0	82.0	44.0	35.3	8.7	3.2	38.0
2015	1,679	256.6	105.0	14.1	0.5	0.0	86.0	46.0	36.4	9.6	3.7	39.9
2016	1,611	240.9	90.4	13.5	0.2	0.0	84.4	44.6	36.1	8.6	2.7	39.8
2017	1,538	224.1	79.9	13.6	0.0	0.0	84.0	44.6	35.6	8.9	2.9	39.4
2018	1,484	226.9	80.6	13.6	0.0	0.0	83.6	44.3	34.6	9.7	3.9	39.4
2019	1,440	242.0	80.4	14.5	0.1	0.0	84.8	44.4	34.9	9.6	3.6	40.3
2020	1,408	210.8	59.2	14.6	0.1	0.0	82.6	44.2	34.7	9.5	3.6	38.4

Financial year	Income, € billion								
		Interest received			Current income				
	Total	Total	from lending and money market transactions	from debt securities and Debt Register claims	Total	from shares and other variable yield securities	from participating interests[2]	from shares in affiliated enterprises	Profits transferred under profit pooling, a profit transfer agreement or a partial profit transfer agreement
2012	351.0	256.3	220.3	36.0	12.2	7.5	1.0	3.8	6.2
2013	300.4	213.6	184.9	28.7	10.0	6.0	1.0	3.0	4.6
2014	280.2	196.4	170.2	26.1	11.3	6.3	1.1	4.0	3.1
2015	274.7	183.1	160.1	22.9	15.0	6.7	1.8	6.5	2.8
2016	260.8	166.8	147.1	19.7	10.0	5.8	1.3	2.9	4.7
2017	244.1	151.0	134.4	16.5	11.0	6.9	1.1	3.0	3.4
2018	239.1	152.4	136.9	15.5	10.0	5.3	1.1	3.5	5.4
2019	239.9	152.2	137.5	14.7	7.6	4.8	1.1	1.7	3.0
2020	216.7	131.2	118.9	12.3	6.0	3.5	0.6	1.9	3.2

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

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Depreciation of and value adjustments to tangible and intangible assets		Other operating charges	Depreciation of and value adjustments to loans and advances, and provisions for contingent liabilities and for commitments	Depreciation of and value adjustments to participating interests, shares in affiliated enterprises and securities treated as fixed assets	Charges incurred from loss transfers	Extraordinary charges	Taxes on income and earnings	Other taxes	Profits transferred under profit pooling, a profit transfer agreement or a partial profit transfer agreement	Financial year
Total	of which: Assets leased									
5.8	2.0	15.3	11.7	7.1	0.6	2.4	8.8	0.2	4.3	2012
5.5	1.9	16.8	10.6	3.6	0.7	3.4	7.4	0.2	4.9	2013
5.5	1.8	16.4	10.5	3.5	0.6	1.5	7.6	0.2	3.9	2014
5.9	1.8	17.9	7.2	3.6	1.2	2.5	8.4	0.3	4.1	2015
6.6	2.3	13.8	12.7	3.7	0.9	1.8	7.9	0.3	4.7	2016
7.0	2.6	14.8	8.3	1.5	0.6	2.3	7.5	0.3	4.3	2017
7.4	2.9	15.2	10.0	1.7	0.5	1.7	6.7	0.2	5.7	2018
9.2	3.7	14.7	10.0	12.2	0.9	3.2	7.8	0.3	4.1	2019
8.5	4.0	13.0	15.0	2.8	0.3	3.2	8.4	0.3	2.9	2020

					Other operating income				
Commissions received	Net profit from the trading portfolio	Gross profit on transactions in goods and subsidiary transactions	Value readjustments to loans and advances, and provisions for contingent liabilities and for commitments	Value readjustments to participating interests, shares in affiliated enterprises and securities treated as fixed assets	Total	of which: from leasing business	Extraordinary income	Income from loss transfers	Financial year
40.0	7.4	0.2	7.4	1.4	18.9	5.1	0.7	0.5	2012
40.6	6.2	0.2	4.0	1.5	17.9	4.7	0.9	0.9	2013
42.6	4.0	0.2	4.0	1.7	15.7	4.5	0.8	0.4	2014
44.5	4.2	0.2	3.8	1.9	17.6	4.7	0.5	1.1	2015
43.2	3.3	0.2	4.0	3.4	20.3	5.5	4.9	0.0	2016
44.2	5.6	0.2	4.7	3.1	18.8	6.0	1.6	0.6	2017
43.1	3.5	0.2	3.3	0.9	18.5	6.3	1.2	0.7	2018
45.8	2.5	0.2	3.3	1.6	21.0	8.4	1.9	0.7	2019
46.7	3.6	0.2	1.6	1.3	20.8	9.1	1.6	0.6	2020

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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 Dec.	8.0	5.7	4.9	5.2	2.0	3.3	1.6	– 0.46	– 0.40	0.2
2020 Jan.	8.0	5.6	5.2	5.2	1.9	3.2	1.2	– 0.45	– 0.39	0.2
Feb.	8.1	5.6	5.5	6.1	1.9	3.2	0.9	– 0.45	– 0.41	– 0.0
Mar.	10.4	7.4	7.5	7.1	3.6	4.2	0.3	– 0.45	– 0.42	0.2
Apr.	11.8	8.3	8.2	8.2	4.8	4.3	0.0	– 0.45	– 0.25	0.3
May	12.5	9.1	9.0	8.8	6.1	4.9	0.2	– 0.46	– 0.27	0.2
June	12.7	9.3	9.3	9.4	6.9	4.6	– 0.4	– 0.46	– 0.38	0.2
July	13.5	10.0	10.1	9.6	7.4	4.7	– 0.5	– 0.46	– 0.44	0.0
Aug.	13.3	9.6	9.5	10.0	7.7	4.7	– 0.0	– 0.47	– 0.48	– 0.0
Sep.	13.8	10.3	10.4	10.1	8.1	4.5	– 0.4	– 0.47	– 0.49	– 0.1
Oct.	13.8	10.3	10.5	10.6	8.3	4.2	– 0.5	– 0.47	– 0.51	– 0.2
Nov.	14.5	10.8	11.0	11.3	8.6	4.4	– 0.7	– 0.47	– 0.52	– 0.2
Dec.	15.6	11.7	12.3	11.9	9.3	4.9	– 0.4	– 0.47	– 0.54	– 0.2
2021 Jan.	16.5	12.2	12.5	12.4	9.4	4.8	– 0.9	– 0.48	– 0.55	– 0.2
Feb.	16.4	12.2	12.2	11.6	9.6	4.6	– 0.9	– 0.48	– 0.54	– 0.1
Mar.	13.7	10.2	10.0	10.5	8.6	4.0	– 0.3	– 0.48	– 0.54	0.0
Apr.	12.4	9.1	9.2	9.2	7.3	3.4	– 0.3	– 0.48	– 0.54	0.1
May	11.6	8.3	8.5	8.7	6.3	2.9	– 1.0	– 0.48	– 0.54	0.2
June	11.8	8.3	8.3	8.1	6.0	3.2	– 0.6	– 0.48	– 0.54	0.2
July	11.0	7.6	7.6	...	5.8	3.1	– 0.6	– 0.48	– 0.54	0.0
Aug.	...	...	...	...	...	...	...	– 0.48	– 0.55	– 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								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 Dec.	+ 30,571	+ 28,977	+ 1,600	– 88,670	+ 61,011	– 8,754	+ 37,555	+ 458	1.1113	97.3	91.9
2020 Jan.	– 6,355	+ 9,492	– 12,397	+ 3,240	– 42,356	+ 7,318	+ 17,906	+ 1,495	1.1100	96.9	91.2
Feb.	+ 15,530	+ 29,118	+ 1,840	+ 7,360	– 29,022	+ 7,458	+ 16,528	– 484	1.0905	96.2	90.5
Mar.	+ 25,901	+ 37,829	+ 19,582	+ 761	– 110,668	– 3,723	+ 129,634	+ 3,578	1.1063	98.8	92.9
Apr.	+ 12,008	+ 11,712	– 12,357	– 39,556	+ 162,069	+ 11,913	– 148,477	+ 1,694	1.0862	98.1	92.5
May	– 669	+ 16,887	+ 5,646	– 38,001	+ 42,795	+ 9,336	– 10,146	+ 1,662	1.0902	98.3	92.5
June	+ 18,353	+ 27,963	+ 30,552	– 31,008	– 30,296	+ 19,593	+ 72,433	– 169	1.1255	99.7	93.8
July	+ 26,099	+ 35,448	+ 7,370	+ 46,062	– 23,752	– 8,500	– 5,881	– 558	1.1463	100.4	94.4
Aug.	+ 22,807	+ 24,423	+ 46,877	+ 10,638	+ 38,054	– 15,540	+ 12,419	+ 1,304	1.1828	101.5	94.9
Sep.	+ 35,808	+ 34,790	+ 43,723	– 29,682	+ 3,127	– 7,762	+ 75,401	+ 2,640	1.1792	101.5	94.8
Oct.	+ 28,981	+ 38,817	+ 42,698	+ 39,710	+ 106,355	+ 2,297	– 108,580	+ 2,917	1.1775	101.3	94.6
Nov.	+ 25,269	+ 34,898	+ 33,155	– 47,379	+ 188,190	+ 8,737	– 113,795	– 2,597	1.1838	100.6	94.1
Dec.	+ 43,925	+ 39,424	+ 49,992	– 103,709	+ 300,359	– 30,604	– 117,803	+ 1,749	1.2170	101.8	95.1
2021 Jan.	+ 15,982	+ 21,780	+ 45,229	+ 42,086	+ 3,936	+ 13,703	– 13,605	– 891	1.2171	101.3	95.3
Feb.	+ 20,962	+ 33,965	+ 18,832	+ 16,584	+ 86,916	– 967	– 82,102	– 1,597	1.2098	100.6	94.5
Mar.	+ 35,649	+ 37,153	+ 20,775	+ 4,164	+ 3,451	– 5,575	+ 19,228	– 494	1.1899	100.3	94.1
Apr.	+ 31,105	+ 24,795	+ 785	+ 24,902	+ 16,135	+ 4,644	– 45,645	+ 748	1.1979	100.6	94.2
May	+ 6,540	+ 21,486	+ 36,733	+ 6,612	+ 71,708	– 2,305	– 40,729	+ 1,447	1.2146	100.8	94.3
June	+ 23,964	+ 27,754	+ 58,425	– 70,933	+ 104,277	+ 10,187	+ 9,609	+ 5,285	1.2047	100.2	93.7
July	...	...	...	...	...	...	...	...	1.1822	99.7	p 93.5
Aug.	...	...	...	...	...	...	...	...	1.1772	99.3	p 93.2

* Source: ECB, according to the international standards of the International Monetary Fund's Balance of Payments Manual (sixth edition). **1** Monthly averages, see also Tables XII.10 and 12, pp. 82•/ 83•. **2** Including employee stock options. **3** Against the currencies of the EER-19 group. **4** Based on consumer price indices.

I. Key economic data for the euro area

3. General economic indicators

Period	Euro area	Belgium	Germany	Estonia	Finland	France	Greece	Ireland	Italy	Latvia
Real gross domestic product [1] Annual percentage change										
2018	1.9	1.8	1.1	4.1	1.1	1.9	1.6	9.0	0.9	4.0
2019	1.5	1.8	1.1	4.1	1.3	1.8	1.9	4.9	0.3	2.0
2020	− 6.3	− 6.3	− 4.6	− 3.0	− 2.9	− 7.9	− 8.2	5.9	− 8.9	− 3.6
2020 Q1	− 3.0	− 1.9	− 1.5	− 0.2	− 0.1	− 5.2	− 1.5	6.5	− 5.9	− 1.1
Q2	− 14.5	− 13.8	− 11.3	− 7.3	− 7.3	− 18.7	− 15.6	1.4	− 18.2	− 8.9
Q3	− 4.0	− 4.2	− 3.6	− 2.8	− 2.9	− 3.8	− 9.4	10.8	− 5.2	− 2.8
Q4	− 4.4	− 5.0	− 1.9	− 1.5	− 1.0	− 3.7	− 5.9	4.5	− 6.1	− 1.5
2021 Q1	− 1.2	− 0.4	− 3.3	4.1	− 2.0	1.6	− 1.4	11.2	0.1	− 1.3
Q2	14.3	15.0	9.8	12.9	8.2	19.1	16.4	21.6	18.7	11.1
Industrial production [2] Annual percentage change										
2018	0.8	1.2	1.0	4.8	3.4	0.6	1.8	− 5.0	0.9	2.0
2019	− 1.3	4.8	− 4.3	6.9	1.6	0.5	− 0.7	2.8	− 1.1	0.8
2020	− 8.6	− 3.8	− 10.2	− 6.0	− 3.2	− 11.0	− 2.1	4.3	− 11.4	− 1.8
2020 Q1	− 6.0	− 0.3	− 6.3	− 8.0	− 0.3	− 7.9	− 1.2	6.8	− 11.6	− 2.6
Q2	− 20.2	− 11.7	− 21.6	− 13.3	− 5.4	− 23.8	− 8.2	− 1.6	− 25.6	− 5.1
Q3	− 6.8	− 3.5	− 10.0	− 2.2	− 5.1	− 7.9	− 2.0	− 2.2	− 5.2	− 1.8
Q4	− 1.6	0.6	− 2.9	− 0.1	− 2.0	− 4.3	3.1	12.9	− 2.5	2.2
2021 Q1	3.5	8.4	− 1.2	− 0.3	0.1	2.4	4.7	21.6	9.9	3.6
Q2	22.3	26.2	p 19.1	14.4	4.5	22.5	15.5	23.0	32.0	12.6
Capacity utilisation in industry [3] As a percentage of full capacity										
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
2020	74.4	75.5	77.0	67.4	76.8	73.5	70.8	68.5	53.1	71.8
2020 Q2	68.4	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	72.9	70.3	69.6	64.5	70.8
Q4	76.3	75.9	79.1	69.6	75.4	76.0	73.2	72.0	71.4	72.7
2021 Q1	77.5	77.4	80.4	71.6	78.1	77.1	72.5	74.5	72.8	73.1
Q2	82.5	80.2	86.7	76.5	81.0	82.8	74.7	77.2	75.7	75.0
Q3	82.9	81.3	87.0	78.8	82.5	81.6	77.8	79.7	78.8	75.4
Standardised unemployment rate [4] As a percentage of civilian labour force										
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	7.8	5.6	3.8	6.8	7.8	7.8	16.3	5.6	9.2	8.1
2021 Mar.	8.1	6.8	3.8	6.8	7.5	8.1	16.8	7.7	p 10.0	7.7
Apr.	8.2	6.7	p 3.8	6.5	8.5	8.3	p 17.1	7.4	p 10.2	7.7
May	8.0	6.5	p 3.7	6.8	8.2	8.3	p 15.6	7.0	p 9.9	7.8
June	7.8	6.2	p 3.7	6.6	7.7	8.0	14.8	6.7	p 9.4	7.8
July	7.6	5.9	p 3.6	6.5	7.8	7.9	14.6	6.5	p 9.3	7.6
Aug.	...	...	...	...	7.2	...	...	6.4	...	...
Harmonised Index of Consumer Prices Annual percentage change										
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	0.3	0.4	5 0.4	− 0.6	0.4	0.5	− 1.3	− 0.5	− 0.1	0.1
2021 Mar.	1.3	1.6	2.0	0.9	1.4	1.4	− 2.0	0.1	0.6	0.3
Apr.	1.6	2.1	2.1	1.6	2.2	1.6	− 1.1	1.1	1.0	1.7
May	2.0	2.5	2.4	3.2	2.3	1.8	− 1.2	1.9	1.2	2.6
June	1.9	2.6	2.1	3.7	1.9	1.9	0.6	1.6	1.3	2.7
July	2.2	1.4	5 3.1	4.9	1.8	1.5	0.7	2.2	1.0	2.8
Aug.	3.0	4.7	5 3.4	5.0	1.8	2.4	1.2	3.0	2.5	3.6
General government financial balance [6] As a percentage of GDP										
2018	− 0.5	− 0.8	1.9	− 0.6	− 0.9	− 2.3	0.9	0.1	− 2.2	− 0.8
2019	− 0.6	− 1.9	1.5	0.1	− 0.9	− 3.1	1.1	0.5	− 1.6	− 0.6
2020	− 7.2	− 9.4	− 4.3	− 4.9	− 5.4	− 9.2	− 9.7	− 5.0	− 9.5	− 4.5
General government debt [6] As a percentage of GDP										
2018	85.7	99.8	61.6	8.2	59.7	98.0	186.2	63.0	134.4	37.1
2019	83.9	98.1	59.2	8.4	59.5	97.6	180.5	57.4	134.6	37.0
2020	98.0	114.1	69.1	18.2	69.2	115.7	205.6	59.5	155.8	43.5

Sources: Eurostat, European Commission, European Central Bank, Federal Statistical Office, Bundesbank calculations. Latest data are partly based on press reports and are provisional. **1** Euro area: quarterly data seasonally adjusted. **2** Manufacturing, mining and energy: adjusted for working-day variations. **3** Manufacturing: quarterly data

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										
3.9	3.1	6.1	2.4	2.6	2.9	3.7	4.4	2.3	5.2	2018
4.3	2.3	5.7	2.0	1.4	2.5	2.5	3.3	2.1	3.1	2019
− 0.9	− 1.3	− 8.3	− 3.8	− 6.3	− 7.6	− 4.8	− 4.2	− 10.8	− 5.1	2020
2.4	1.2	1.5	− 0.2	− 2.9	− 2.2	− 3.5	− 1.3	− 4.0	1.0	2020 Q1
− 4.6	− 7.8	− 15.0	− 9.2	− 12.8	− 16.5	− 10.9	− 11.0	− 21.6	− 12.4	Q2
0.1	− 0.2	− 11.0	− 2.6	− 3.7	− 5.7	− 2.5	− 1.4	− 8.6	− 4.3	Q3
− 1.2	1.6	− 8.0	− 2.9	− 5.4	− 5.8	− 2.1	− 3.1	− 8.9	− 4.5	Q4
1.5	5.0	− 1.3	− 2.4	− 4.8	− 5.2	0.2	1.7	− 4.5	− 2.0	2021 Q1
7.8	...	13.4	9.7	12.0	15.6	9.6	16.3	19.9	12.8	Q2
Industrial production [2] Annual percentage change										
5.2	− 1.1	1.5	0.6	4.9	0.1	4.3	5.3	0.4	6.9	2018
3.4	− 3.1	1.1	− 0.9	− 0.0	− 2.2	0.5	2.8	0.5	4.0	2019
− 2.4	− 10.7	− 0.2	− 3.9	− 6.3	− 7.3	− 9.1	− 6.3	− 9.8	− 7.2	2020
− 2.5	− 10.0	11.3	− 0.8	− 5.9	− 0.9	− 7.4	− 3.0	− 6.6	− 2.1	2020 Q1
− 7.5	− 22.3	− 7.3	− 8.2	− 16.8	− 24.5	− 28.1	− 17.4	− 24.6	− 19.9	Q2
− 0.3	− 7.8	− 2.9	− 4.7	− 3.3	− 1.4	− 1.5	− 3.6	− 5.2	− 4.8	Q3
0.6	− 2.0	− 1.2	− 1.9	0.6	− 2.0	1.7	− 1.0	− 2.0	− 1.7	Q4
12.4	4.6	− 8.2	− 0.6	4.2	− 0.6	6.6	3.9	2.7	− 0.0	2021 Q1
23.7	22.6	13.7	10.1	24.7	24.2	35.9	25.5	27.3	19.3	Q2
Capacity utilisation in industry [3] As a percentage of full capacity										
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
72.9	72.2	70.4	78.2	79.2	75.5	79.3	78.2	74.3	51.7	2020
70.0	53.8	61.1	75.2	73.9	71.7	77.1	71.9	70.9	47.4	2020 Q2
71.9	76.3	68.0	76.3	77.2	71.9	78.3	76.1	71.5	49.2	Q3
73.4	75.3	73.5	78.0	80.8	77.8	79.7	81.6	74.8	46.7	Q4
72.4	75.6	73.7	79.2	82.2	78.4	81.4	80.9	75.7	48.6	2021 Q1
77.0	88.2	81.1	82.2	87.1	80.7	83.2	85.8	78.1	49.5	Q2
78.0	82.1	78.3	83.6	89.7	79.1	82.7	86.6	77.6	49.4	Q3
Standardised unemployment rate [4] As a percentage of civilian labour force										
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
8.6	6.8	4.3	3.9	5.4	6.9	6.7	5.0	15.5	7.6	2020
6.5	6.3	3.8	3.5	p 6.7	6.6	7.2	5.0	15.4	7.9	2021 Mar.
7.2	6.3	3.6	3.4	p 7.1	7.0	7.0	4.7	15.5	9.7	Apr.
7.7	6.2	3.4	3.3	p 6.7	7.0	6.9	4.5	15.4	10.5	May
7.8	5.9	3.4	3.2	p 6.2	6.8	6.7	4.2	15.0	8.2	June
7.5	5.7	3.3	3.1	p 6.2	p 6.6	6.6	4.0	14.3	5.2	July
...	...	...	3.2	...	...	...	...	...	...	Aug.
Harmonised Index of Consumer Prices Annual percentage change										
2.5	2.0	1.7	1.6	2.1	1.2	2.5	1.9	1.7	0.8	2018
2.2	1.6	1.5	2.7	1.5	0.3	2.8	1.7	0.8	0.5	2019
1.1	0.0	0.8	1.1	1.4	− 0.1	2.0	− 0.3	− 0.3	− 1.1	2020
1.6	2.5	0.1	1.9	2.0	0.1	1.5	0.1	1.2	0.3	2021 Mar.
2.4	3.3	0.1	1.7	1.9	− 0.1	1.7	2.2	2.0	1.2	Apr.
3.5	4.0	0.2	2.0	3.0	0.5	2.0	2.2	2.4	1.5	May
3.5	3.4	0.2	1.7	2.8	− 0.6	2.5	1.7	2.5	2.2	June
4.3	3.3	0.3	1.4	2.8	1.1	2.9	2.0	2.9	2.7	July
5.0	3.5	0.4	2.7	3.2	1.3	3.3	2.1	3.3	3.3	Aug.
General government financial balance [6] As a percentage of GDP										
0.6	3.0	1.9	1.4	0.2	− 0.3	− 1.0	0.7	− 2.5	− 3.5	2018
0.5	2.4	0.4	1.8	0.6	0.1	− 1.3	0.4	− 2.9	1.5	2019
− 7.4	− 4.1	− 10.1	− 4.3	− 8.9	− 5.7	− 6.2	− 8.4	− 11.0	− 5.7	2020
General government debt [6] As a percentage of GDP										
33.7	21.0	44.8	52.4	74.0	121.5	49.6	70.3	97.4	99.2	2018
35.9	22.0	42.0	48.7	70.5	116.8	48.2	65.6	95.5	94.0	2019
47.3	24.9	54.3	54.5	83.9	133.6	60.6	80.8	120.0	118.2	2020

seasonally adjusted. Data collection at the beginning of the quarter. **4** Monthly data seasonally adjusted. **5** Influenced by a temporary reduction of value added tax between July and December 2020. **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 Dec.	– 118.6	– 79.9	– 25.2	– 38.7	– 20.6	– 21.8	– 299.1	– 277.3	– 6.7	7.0	– 1.4	– 6.1	– 6.2
2020 Jan.	101.9	51.7	1.7	50.2	28.0	24.6	295.6	271.0	– 5.2	– 6.3	– 1.0	13.1	– 11.0
Feb.	60.7	50.0	20.1	10.7	22.1	42.1	93.3	51.2	– 2.6	– 3.0	– 0.7	– 3.3	4.4
Mar.	322.7	180.6	– 21.1	142.1	127.8	– 4.9	101.6	106.5	– 32.2	1.3	– 1.0	– 42.9	10.5
Apr.	293.3	101.3	54.4	192.0	180.9	– 100.0	14.6	114.6	– 34.2	– 9.4	– 1.1	– 4.1	– 19.7
May	293.8	121.4	32.2	172.4	177.1	8.8	– 42.3	– 51.2	21.3	5.5	– 0.8	– 0.8	17.4
June	137.5	– 14.7	16.3	152.2	160.5	68.1	– 146.0	– 214.1	– 0.7	– 6.2	– 1.2	– 8.4	15.1
July	155.6	72.5	25.4	83.1	82.5	– 35.2	89.5	124.7	0.3	1.5	– 0.1	– 7.1	6.1
Aug.	84.4	25.7	17.3	58.7	66.7	1.4	– 18.2	– 19.6	13.2	9.6	– 0.4	– 11.5	15.5
Sep.	83.8	– 3.1	– 3.2	86.9	86.1	46.9	– 25.7	– 72.6	10.6	– 11.0	– 0.2	19.4	2.5
Oct.	69.7	30.4	– 5.3	39.3	33.3	– 22.8	91.2	114.1	– 17.0	– 4.3	– 0.4	– 29.4	17.1
Nov.	117.6	73.0	29.3	44.6	45.3	– 31.7	90.9	122.5	4.8	13.2	– 0.5	– 10.7	2.7
Dec.	– 3.7	– 1.2	29.9	– 2.6	6.2	– 47.5	– 195.1	– 147.6	10.3	– 5.5	– 0.5	– 13.1	29.5
2021 Jan.	134.0	30.8	4.9	103.2	94.1	20.8	159.5	138.7	– 37.7	– 9.4	0.1	– 17.3	– 11.1
Feb.	99.9	33.9	9.1	66.0	72.7	– 14.6	28.7	43.4	– 1.4	– 5.7	– 0.5	– 2.5	7.3
Mar.	176.0	100.6	8.5	75.3	74.0	– 6.4	– 6.9	– 0.5	12.0	– 9.0	– 0.3	1.1	20.3
Apr.	55.7	13.2	8.6	42.6	29.0	– 11.3	104.9	116.1	– 36.4	– 23.7	– 0.1	– 7.2	– 5.4
May	124.8	48.3	15.2	76.5	77.4	3.5	25.1	21.6	– 23.4	– 1.2	– 0.2	– 15.0	– 6.9
June	93.6	36.6	0.7	57.1	58.0	53.6	– 74.9	– 128.6	25.8	– 6.1	– 0.4	– 4.5	36.7
July	110.8	54.8	10.4	56.0	49.9	– 11.5	74.3	85.7	1.3	– 5.4	– 0.6	10.5	– 3.3

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 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.	9.3	7.5	1.9	1.8	7.9	5.6	– 8.1	– 13.7	– 5.2	– 2.2	– 0.4	– 4.4	1.8
Sep.	22.6	4.6	1.3	18.1	15.8	– 34.8	22.9	57.8	10.4	– 3.4	– 0.4	5.1	9.1
Oct.	48.7	22.1	6.6	26.7	23.9	30.1	– 16.6	– 46.8	– 2.0	– 0.5	– 0.4	– 4.5	3.4
Nov.	44.0	19.6	4.5	24.5	26.0	– 15.1	7.4	22.5	0.6	– 1.5	– 0.4	0.2	2.3
Dec.	– 0.9	7.5	3.6	– 8.4	– 4.6	– 107.2	– 35.1	72.1	– 7.5	– 1.3	– 0.3	– 7.1	1.2
2021 Jan.	30.1	12.1	3.1	18.1	18.1	41.7	79.7	38.0	– 11.4	– 2.9	– 0.6	– 1.6	– 6.4
Feb.	29.8	18.8	4.6	11.1	13.4	26.3	7.0	– 19.3	0.8	– 1.8	– 0.3	4.3	– 1.4
Mar.	54.1	35.8	1.8	18.3	19.5	– 61.9	1.9	63.9	3.5	– 3.5	– 0.3	7.1	0.2
Apr.	11.4	0.5	2.4	10.8	7.0	67.3	25.3	– 42.0	9.3	– 2.4	– 0.3	6.4	5.6
May	33.4	16.8	3.2	16.6	18.9	– 35.0	– 10.9	24.1	– 10.3	– 2.8	– 0.1	– 7.3	0.0
June	30.0	8.7	2.4	21.4	22.3	– 36.1	– 5.3	30.8	3.2	– 3.4	– 0.2	– 7.3	14.1
July	43.0	22.5	2.1	20.4	18.4	42.9	– 14.6	– 57.5	4.7	– 2.1	– 0.3	4.3	2.8

***** 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]						
− 66.5	− 27.1	0.0	− 40.2	1.5	8.2	16.3	− 8.1	− 9.7	2.9	− 33.6	− 22.6	− 18.3	2019 Dec.
84.6	41.8	0.0	5.3	− 44.2	− 52.0	− 7.3	− 44.7	0.2	7.6	− 7.1	34.8	14.0	2020 Jan.
43.7	− 34.1	0.0	95.8	82.6	84.1	5.2	79.0	− 1.2	− 0.3	19.7	− 4.7	4.9	Feb.
4.7	− 4.5	0.0	349.7	321.2	300.5	23.8	276.8	16.2	4.5	30.0	− 18.4	22.8	Mar.
72.1	− 17.1	0.0	172.5	174.9	175.2	20.4	154.8	− 15.0	14.7	− 4.6	23.1	− 16.9	Apr.
100.9	− 37.1	0.0	217.5	226.3	189.5	20.1	169.5	16.8	19.9	9.6	− 0.4	− 9.1	May
123.4	1.0	0.0	81.9	79.0	88.5	13.1	75.4	− 20.5	10.9	− 42.7	14.4	− 6.1	June
− 4.8	− 59.3	0.0	184.1	149.5	123.6	14.3	109.3	20.1	5.8	18.1	29.9	− 10.2	July
40.7	13.9	0.0	18.1	35.3	44.8	5.9	38.9	− 18.6	9.1	− 4.8	− 0.1	− 4.3	Aug.
20.2	11.5	0.0	88.5	82.3	63.7	3.5	60.1	16.7	1.9	− 29.5	8.2	− 3.0	Sep.
− 17.2	− 31.2	0.0	112.1	85.9	101.4	7.8	93.7	− 17.9	2.5	5.3	14.3	15.5	Oct.
− 98.4	51.2	0.0	128.4	125.2	151.7	11.8	139.9	− 34.5	8.1	− 0.7	0.7	2.5	Nov.
− 128.1	− 69.8	0.0	136.4	128.3	117.1	20.8	96.2	10.6	0.6	− 24.7	20.1	− 5.4	Dec.
78.9	60.8	0.0	52.8	31.9	44.4	2.6	41.9	− 30.8	18.3	30.0	3.5	4.7	2021 Jan.
30.3	3.3	0.0	53.1	65.5	71.8	7.3	64.5	− 17.9	11.6	2.8	− 30.4	13.2	Feb.
19.6	55.8	0.0	82.1	100.8	81.9	10.4	71.5	7.3	11.7	− 18.5	− 4.8	− 13.6	Mar.
− 33.0	18.3	0.0	95.6	69.9	89.5	8.5	81.0	− 27.9	8.3	15.2	9.1	6.9	Apr.
− 8.5	49.2	0.0	111.0	115.8	116.9	13.2	103.7	− 11.7	10.7	− 4.1	− 8.9	8.8	May
16.8	29.1	0.0	75.6	88.0	119.7	10.5	109.2	− 33.9	2.3	− 10.8	− 6.9	− 4.4	June
0.4	− 44.8	0.0	142.5	111.2	100.4	14.3	86.1	11.1	− 0.4	17.4	19.4	4.2	July

b) German contribution

IV. Deposits of central governments	V. Other factors			VI. Money stock M3 (balance I plus II less III less IV less V) [10]								Period
	Total	of which: Intra-Eurosystem liability/claim related to banknote issue [9,11]	Currency in circulation	Total	Components of the money stock: Overnight deposits	Deposits with an agreed maturity of up to 2 years	Deposits at agreed notice of up to 3 months [6]	Repo transactions	Money market fund shares (net) [7,8]	maturities with maturities of up to 2 years (incl. money market paper)(net) [7]	
− 2.0	− 32.4	4.9	3.4	− 4.5	− 0.4	− 6.6	0.6	1.8	− 0.1	0.0	2019 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	13.3	18.6	− 4.9	0.2	− 0.4	0.3	− 0.3	Aug.
15.3	− 58.3	2.7	0.6	20.4	26.2	− 5.2	− 0.1	− 0.4	0.2	− 0.2	Sep.
− 20.0	70.5	2.4	1.7	30.3	30.6	− 0.1	− 0.0	0.2	0.6	− 1.0	Oct.
− 12.7	3.6	1.3	3.0	37.4	49.3	− 14.3	0.3	3.3	− 0.3	− 0.9	Nov.
− 22.9	− 73.4	2.4	5.6	− 4.3	− 5.8	− 1.7	1.3	3.1	0.1	− 1.3	Dec.
− 40.3	95.7	1.1	0.9	27.8	45.9	− 14.8	1.6	− 3.8	− 0.0	− 1.1	2021 Jan.
15.4	29.1	2.3	1.5	10.8	20.3	− 8.5	1.2	− 2.4	− 0.0	0.3	Feb.
− 2.3	− 38.0	2.5	2.7	29.1	24.3	− 0.6	0.1	5.0	0.5	− 0.1	Mar.
− 7.4	71.2	0.7	2.6	5.5	13.9	− 5.2	0.7	− 3.4	− 0.1	− 0.4	Apr.
18.8	− 44.9	3.0	2.9	34.8	27.8	2.8	0.6	1.7	− 0.1	2.0	May
6.0	− 14.0	3.1	2.3	− 1.2	7.1	− 8.0	− 0.4	− 0.2	0.1	0.3	June
− 12.0	75.7	4.2	3.7	17.5	21.2	− 4.1	− 0.3	0.6	− 0.1	0.2	July

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

II. Overall monetary survey in the euro area

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

End of month	Total assets or liabilities	Assets										
		Lending to non-banks (non-MFIs) in the euro area									Claims on non-euro area residents	Other assets
		Total	Enterprises and households				General government					
			Total	Loans	Debt securities 2	Shares and other equities	Total	Loans	Debt securities 3			
	Euro area (€ billion) 1											
2019 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	5,991.7	3,792.1	
July	28,772.9	18,602.4	13,939.8	11,584.3	1,550.8	804.7	4,662.6	1,002.8	3,659.8	6,208.8	3,961.7	
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.	28,965.9	18,689.2	14,042.6	11,660.4	1,550.6	831.6	4,646.7	1,002.4	3,644.3	6,259.5	4,017.2	
Nov.	29,017.5	18,729.4	14,099.5	11,684.5	1,569.3	845.7	4,629.9	998.5	3,631.4	6,270.8	4,017.3	
Dec.	28,326.0	18,591.5	14,008.6	11,617.0	1,543.9	847.8	4,582.9	981.0	3,601.9	5,930.7	3,803.8	
2020 Jan.	29,019.0	18,722.5	14,062.6	11,668.8	1,542.8	851.0	4,659.9	1,003.4	3,656.5	6,302.1	3,994.4	
Feb.	29,486.8	18,766.9	14,101.4	11,697.3	1,562.7	841.4	4,665.5	992.3	3,673.3	6,414.8	4,305.1	
Mar.	30,021.0	19,013.2	14,239.0	11,884.9	1,556.9	797.2	4,774.1	1,006.7	3,767.4	6,486.8	4,521.1	
Apr.	30,449.7	19,308.0	14,348.5	11,933.4	1,612.6	802.5	4,959.5	1,018.1	3,941.4	6,585.0	4,556.7	
May	30,500.6	19,609.7	14,468.3	12,020.6	1,644.9	802.8	5,141.4	1,013.8	4,127.7	6,465.5	4,425.4	
June	30,406.6	19,761.1	14,451.1	11,982.0	1,653.0	816.1	5,310.0	1,005.3	4,304.7	6,298.0	4,347.6	
July	30,599.0	19,912.0	14,334.0	12,013.7	1,505.9	814.4	5,578.0	1,006.0	4,572.1	6,291.5	4,395.5	
Aug.	30,435.3	19,984.9	14,355.0	12,019.1	1,524.9	811.0	5,629.9	997.8	4,632.1	6,242.1	4,208.3	
Sep.	30,523.7	20,084.3	14,349.1	12,019.2	1,520.0	809.9	5,735.2	998.7	4,736.5	6,239.3	4,200.1	
Oct.	30,691.3	20,161.6	14,375.7	12,054.9	1,519.6	801.3	5,785.9	1,004.2	4,781.7	6,342.3	4,187.3	
Nov.	30,752.9	20,291.3	14,456.9	12,090.4	1,541.5	825.0	5,834.4	1,003.4	4,831.0	6,334.9	4,126.7	
Dec.	30,441.6	20,265.3	14,437.5	12,042.9	1,531.4	863.2	5,827.8	990.2	4,837.6	6,112.1	4,064.2	
2021 Jan.	30,644.4	20,387.7	14,466.1	12,067.9	1,535.6	862.6	5,921.6	999.4	4,922.2	6,300.1	3,956.6	
Feb.	30,546.9	20,463.6	14,500.5	12,090.2	1,541.1	869.2	5,963.1	992.4	4,970.7	6,300.8	3,782.5	
Mar.	30,827.5	20,653.6	14,576.7	12,185.3	1,512.4	879.0	6,076.9	993.3	5,083.6	6,360.6	3,813.3	
Apr.	30,753.7	20,667.0	14,566.4	12,169.2	1,509.5	887.7	6,100.6	1,007.2	5,093.4	6,396.6	3,690.2	
May	30,891.8	20,787.9	14,612.6	12,198.6	1,521.4	892.6	6,175.4	1,006.2	5,169.2	6,435.0	3,668.9	
June	30,991.7	20,889.6	14,652.0	12,234.1	1,529.7	888.2	6,237.6	1,005.2	5,232.4	6,400.8	3,701.3	
July	31,312.7	21,027.9	14,707.9	12,277.1	1,542.8	887.9	6,320.0	1,011.3	5,308.7	6,501.0	3,783.8	
	German contribution (€ billion)											
2019 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	
Sep.	7,236.4	4,749.2	3,647.1	3,184.0	204.9	258.1	1,102.1	289.7	812.4	1,293.8	1,193.4	
Oct.	7,257.1	4,801.4	3,670.3	3,200.4	210.7	259.3	1,131.1	292.0	839.1	1,278.8	1,176.8	
Nov.	7,240.5	4,841.7	3,688.6	3,213.7	214.3	260.6	1,153.1	290.2	862.9	1,261.9	1,136.9	
Dec.	7,172.5	4,839.4	3,695.5	3,216.4	214.7	264.5	1,143.9	286.4	857.4	1,224.1	1,109.1	
2021 Jan.	7,220.7	4,865.5	3,705.9	3,224.4	216.4	265.1	1,159.6	286.5	873.1	1,307.6	1,047.6	
Feb.	7,182.0	4,885.0	3,724.3	3,238.8	217.4	268.1	1,160.7	283.8	877.0	1,305.0	991.9	
Mar.	7,233.5	4,939.8	3,761.1	3,273.4	217.3	270.4	1,178.7	282.6	896.1	1,315.4	978.3	
Apr.	7,228.4	4,946.1	3,760.5	3,270.3	217.6	272.6	1,185.6	285.7	899.9	1,333.6	948.6	
May	7,228.0	4,977.5	3,777.2	3,283.3	219.5	274.4	1,200.3	283.4	916.9	1,329.8	920.7	
June	7,277.1	5,009.8	3,786.4	3,290.4	220.8	275.2	1,223.4	282.3	941.1	1,325.1	942.1	
July	7,362.6	5,062.5	3,808.6	3,310.3	221.9	276.4	1,253.9	284.4	969.5	1,317.4	982.6	

***** 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]
1,191.7	13,181.6	12,288.1	12,335.7	7,121.7	762.8	198.3	1,894.2	2,305.5	53.2	2019 June
1,200.7	13,178.8	12,300.1	12,350.5	7,146.8	767.8	198.9	1,873.6	2,309.7	53.7	July
1,202.0	13,283.3	12,388.8	12,438.4	7,226.4	782.5	201.0	1,860.5	2,314.5	53.4	Aug.
1,205.4	13,298.4	12,383.2	12,446.2	7,221.7	769.3	200.8	1,886.9	2,314.4	53.0	Sep.
1,208.2	13,292.6	12,422.6	12,487.1	7,283.5	758.7	201.3	1,883.2	2,311.1	49.4	Oct.
1,215.1	13,389.0	12,520.8	12,572.5	7,386.6	740.9	200.6	1,885.5	2,310.4	48.6	Nov.
1,231.5	13,311.4	12,508.3	12,583.4	7,391.7	738.4	200.1	1,892.8	2,314.1	46.2	Dec.
1,224.1	13,359.6	12,460.6	12,555.5	7,362.8	734.5	200.1	1,891.0	2,322.3	44.7	2020 Jan.
1,229.3	13,477.0	12,528.5	12,615.6	7,430.6	731.6	198.6	1,888.7	2,322.0	44.1	Feb.
1,253.1	13,775.3	12,782.4	12,903.7	7,698.1	759.4	192.1	1,883.4	2,327.6	43.1	Mar.
1,273.5	13,996.0	12,953.0	13,065.1	7,852.4	762.3	188.2	1,876.7	2,343.4	42.1	Apr.
1,293.5	14,302.8	13,164.0	13,264.9	8,009.7	779.7	188.4	1,881.9	2,363.7	41.4	May
1,306.6	14,478.4	13,208.9	13,310.8	8,066.5	763.6	186.8	1,877.8	2,375.5	40.6	June
1,320.9	14,593.1	13,276.6	13,363.7	8,090.1	783.2	186.3	1,882.5	2,381.1	40.4	July
1,326.8	14,668.3	13,304.3	13,391.2	8,117.1	767.8	184.4	1,892.0	2,390.0	40.0	Aug.
1,330.3	14,758.7	13,361.0	13,467.6	8,175.8	781.0	195.4	1,883.6	2,392.0	39.8	Sep.
1,338.1	14,815.0	13,431.7	13,545.6	8,266.7	782.6	181.9	1,880.4	2,394.6	39.4	Oct.
1,349.9	14,813.3	13,527.2	13,621.6	8,358.3	756.5	179.6	1,885.7	2,402.5	39.0	Nov.
1,370.7	14,773.2	13,620.6	13,728.8	8,459.6	772.0	176.9	1,877.6	2,404.2	38.5	Dec.
1,373.3	14,874.2	13,630.7	13,752.9	8,505.4	743.9	173.8	1,870.6	2,421.0	38.1	2021 Jan.
1,380.6	14,958.1	13,678.1	13,807.9	8,569.5	733.7	169.3	1,865.1	2,432.5	37.7	Feb.
1,391.1	15,075.9	13,755.8	13,913.0	8,654.2	753.5	164.3	1,858.8	2,444.8	37.4	Mar.
1,399.6	15,060.8	13,775.2	13,935.9	8,726.8	731.7	159.5	1,827.5	2,453.0	37.3	Apr.
1,412.8	15,147.4	13,870.8	14,018.1	8,811.1	724.4	155.6	1,826.2	2,463.6	37.1	May
1,423.2	15,241.8	13,943.3	14,091.3	8,917.7	698.2	150.4	1,822.1	2,466.2	36.8	June
1,437.6	15,335.2	14,017.0	14,185.4	9,006.6	706.4	153.6	1,816.4	2,466.1	36.3	July
										German contribution (€ billion)
274.2	3,837.7	3,697.8	3,528.6	2,183.2	147.8	32.3	583.5	543.3	38.4	2019 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.
301.9	4,235.6	3,905.7	3,745.0	2,445.3	160.3	30.3	549.2	531.5	28.4	Sep.
303.6	4,245.3	3,935.3	3,781.4	2,476.4	165.4	30.5	549.7	531.5	28.0	Oct.
306.6	4,260.2	3,961.8	3,804.4	2,507.7	157.7	30.6	549.0	531.8	27.6	Nov.
312.2	4,228.5	3,954.1	3,801.5	2,500.9	160.3	31.0	548.8	533.1	27.3	Dec.
313.1	4,218.7	3,980.7	3,829.7	2,541.7	147.0	31.0	548.5	534.8	26.8	2021 Jan.
314.6	4,245.1	3,990.0	3,837.4	2,555.8	141.0	31.1	547.0	536.0	26.4	Feb.
317.3	4,264.3	4,011.8	3,863.4	2,579.8	145.1	31.7	544.6	536.1	26.1	Mar.
319.9	4,262.2	4,013.0	3,874.5	2,594.4	143.0	31.9	542.5	536.8	25.8	Apr.
322.8	4,308.8	4,040.3	3,895.1	2,613.5	146.0	32.2	540.4	537.4	25.7	May
325.1	4,311.0	4,035.3	3,890.5	2,619.4	139.3	31.9	537.5	537.0	25.5	June
328.8	4,313.6	4,047.0	3,910.9	2,645.8	136.0	31.4	535.6	536.7	25.2	July

euro banknotes put into circulation by the Bundesbank in accordance with the accounting regime chosen by the Eurosystem (see also footnote 2 on banknote circulation in Table III.2). The volume of currency actually put into circulation by the Bundesbank can be calculated by adding to this total the item "Intra-Eurosystem liability/claim related to banknote issue" (see "Other liability items"). **5** Excluding central governments' deposits. **6** In Germany, only savings deposits.

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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]												
2019 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.	297.5	430.4	224.7	85.9	33.7	59.1	23.6	3.6	250.3	249.8	520.3	2,153.8	1,486.7
2020 Jan.	381.8	422.3	209.6	92.7	33.2	59.5	23.2	4.1	243.4	242.9	555.1	2,187.7	1,500.2
Feb.	425.5	436.0	219.8	96.8	32.8	59.2	23.3	4.0	263.2	262.7	550.5	2,191.4	1,497.8
Mar.	430.2	441.4	232.8	93.3	31.0	58.2	22.3	3.9	293.2	292.6	529.8	2,175.2	1,484.3
Apr.	502.3	428.6	233.9	84.0	29.4	56.4	21.1	3.8	289.0	288.6	552.9	2,159.1	1,472.6
May	603.1	434.8	245.9	81.7	28.4	54.7	20.3	3.8	297.8	297.5	552.4	2,134.1	1,470.7
June	726.5	441.1	259.5	82.4	24.6	51.8	19.3	3.4	254.8	254.6	566.9	2,105.1	1,453.7
July	787.8	441.5	264.3	80.1	23.2	51.0	19.4	3.5	271.8	271.6	596.8	2,055.4	1,434.5
Aug.	828.6	448.5	273.6	79.5	22.1	50.3	19.6	3.5	266.9	266.7	597.4	2,036.8	1,425.3
Sep.	849.0	442.1	274.8	74.4	20.8	49.1	19.5	3.4	237.7	237.5	605.6	2,060.3	1,431.0
Oct.	831.8	437.6	277.4	69.5	20.8	47.0	19.5	3.4	243.1	242.9	619.8	2,047.2	1,418.6
Nov.	733.3	458.4	307.1	64.6	17.8	46.1	19.4	3.3	246.4	246.4	620.5	2,028.4	1,406.4
Dec.	605.1	439.3	294.7	60.3	17.2	44.8	19.0	3.3	221.4	221.3	636.2	1,998.0	1,386.3
2021 Jan.	684.1	437.2	294.4	58.8	17.3	43.9	19.1	3.8	251.7	251.6	639.7	1,991.2	1,369.7
Feb.	714.4	435.9	296.3	54.3	18.9	43.7	19.0	3.7	254.6	254.5	609.2	2,004.6	1,369.6
Mar.	733.8	429.1	295.3	52.1	16.3	42.9	18.8	3.7	236.6	236.6	604.4	2,005.4	1,357.3
Apr.	700.9	424.0	293.9	48.5	16.2	42.9	18.9	3.6	251.1	251.0	613.4	1,991.8	1,350.5
May	692.4	436.9	308.3	47.7	15.9	42.4	19.1	3.5	246.7	246.7	604.0	1,981.7	1,339.4
June	709.3	441.2	314.0	46.6	16.3	42.0	18.8	3.5	236.5	236.5	597.0	1,985.1	1,332.4
July	709.6	440.1	313.9	45.6	16.6	42.0	18.6	3.5	253.9	253.8	616.5	1,998.3	1,334.0
	German contribution (€ billion)												
2019 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	517.9	291.1
Sep.	244.7	245.8	119.4	66.0	16.5	41.1	2.5	0.3	1.3	1.1	2.0	525.3	296.1
Oct.	224.8	239.1	119.1	61.7	16.6	39.0	2.5	0.3	1.4	1.3	2.7	519.9	296.2
Nov.	212.1	243.7	131.6	57.3	14.0	38.0	2.5	0.2	9.1	9.1	2.4	515.5	296.1
Dec.	189.2	237.8	131.9	52.8	13.5	36.8	2.5	0.2	12.2	12.2	2.5	503.3	290.1
2021 Jan.	148.9	240.1	136.5	51.6	13.5	35.8	2.4	0.2	8.4	8.4	2.4	503.3	284.6
Feb.	164.3	243.4	142.8	47.3	15.2	35.5	2.5	0.2	6.0	6.0	2.4	510.0	288.4
Mar.	161.9	239.0	144.4	44.9	12.7	34.4	2.4	0.2	11.0	11.0	2.9	523.3	289.8
Apr.	154.6	233.1	142.4	41.5	12.5	34.1	2.4	0.2	7.6	7.6	2.8	524.3	296.2
May	173.3	240.3	150.8	41.0	12.5	33.4	2.4	0.2	9.2	9.2	2.2	518.0	293.2
June	179.3	241.2	152.9	39.9	13.0	32.8	2.4	0.2	9.0	9.0	2.3	515.5	294.6
July	167.3	235.3	148.0	38.9	13.3	32.5	2.4	0.2	9.6	9.6	2.2	518.4	295.1

***** 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

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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]													
20.0	21.6	2,140.6	4,640.6	2,830.3	33.6	3,469.1	0.0	8,669.1	12,114.5	12,741.2	6,980.7	155.2	2019 June
16.1	21.3	2,151.6	4,796.8	2,878.9	26.3	3,685.3	0.0	8,697.8	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	0.0	8,786.7	12,264.2	12,915.0	7,066.9	152.7	Aug.
3.2	19.0	2,158.9	4,803.5	2,942.7	25.4	3,943.1	0.0	8,788.8	12,251.2	12,883.3	7,104.7	153.4	Sep.
7.5	19.8	2,147.2	4,768.1	2,935.0	34.1	3,716.0	0.0	8,846.0	12,293.2	12,936.5	7,077.7	152.9	Oct.
6.8	19.5	2,161.5	4,770.3	2,922.7	31.1	3,675.5	0.0	8,971.7	12,401.3	13,041.7	7,081.1	157.9	Nov.
– 11.3	19.2	2,145.9	4,452.2	2,912.4	25.0	3,469.1	0.0	8,975.3	12,395.7	12,995.3	7,060.0	152.0	Dec.
– 0.4	21.9	2,166.2	4,759.3	2,949.8	24.3	3,715.6	0.0	8,927.4	12,357.5	13,006.4	7,115.3	154.9	2020 Jan.
3.6	23.4	2,164.4	4,817.2	2,966.7	26.4	3,965.0	0.0	9,012.7	12,441.8	13,104.6	7,127.1	156.9	Feb.
29.9	21.7	2,123.7	4,907.3	2,930.7	11.6	4,144.8	0.0	9,312.6	12,762.0	13,453.0	7,043.0	152.5	Mar.
12.8	21.5	2,124.8	5,048.8	2,947.0	– 25.4	4,209.0	0.0	9,490.6	12,941.2	13,629.7	7,050.8	153.0	Apr.
3.8	22.3	2,108.0	4,946.7	2,952.7	– 33.1	4,053.6	0.0	9,682.0	13,166.2	13,846.0	7,042.6	154.7	May
– 0.7	21.1	2,084.7	4,712.6	2,977.4	– 4.2	4,009.1	0.0	9,768.9	13,242.8	13,925.7	7,035.8	158.0	June
– 11.9	20.2	2,047.1	4,733.9	3,017.5	– 54.6	4,064.3	0.0	9,813.1	13,308.1	14,022.6	7,042.1	159.4	July
– 15.3	19.2	2,032.9	4,700.6	3,014.5	– 38.8	3,862.7	0.0	9,856.0	13,340.6	14,038.5	7,033.2	160.0	Aug.
– 13.9	15.5	2,058.7	4,656.3	3,011.2	– 15.9	3,879.4	0.0	9,923.5	13,428.0	14,133.0	7,045.9	163.9	Sep.
– 1.5	18.2	2,030.5	4,779.0	3,038.2	– 47.9	3,858.8	0.0	10,026.0	13,516.4	14,247.4	7,038.9	165.3	Oct.
– 0.7	19.7	2,009.5	4,857.6	2,995.8	– 44.2	3,885.1	0.0	10,167.5	13,629.7	14,367.4	6,979.5	174.0	Nov.
– 3.6	16.9	1,984.7	4,661.1	3,020.4	– 11.2	3,771.8	0.0	10,278.9	13,750.6	14,491.4	6,969.3	176.0	Dec.
1.9	15.7	1,973.6	4,826.0	2,998.3	– 10.3	3,700.5	0.0	10,326.1	13,784.5	14,546.1	6,928.2	177.5	2021 Jan.
14.0	16.3	1,974.3	4,877.2	2,952.8	– 10.9	3,520.6	0.0	10,398.6	13,851.0	14,599.7	6,877.3	176.8	Feb.
– 0.8	16.9	1,989.3	4,948.8	2,967.4	15.9	3,582.0	0.0	10,489.4	13,963.4	14,693.2	6,899.5	173.1	Mar.
6.5	16.5	1,968.8	4,994.0	2,947.8	10.5	3,484.6	0.0	10,569.8	14,021.6	14,776.4	6,827.9	173.5	Apr.
15.5	15.9	1,950.3	5,000.2	2,968.3	53.4	3,477.2	0.0	10,684.4	14,134.5	14,883.2	6,828.0	176.1	May
11.4	16.0	1,957.7	4,924.2	2,978.8	57.5	3,547.5	0.0	10,811.1	14,231.6	14,968.9	6,840.8	180.3	June
15.8	15.7	1,966.7	5,013.3	3,025.3	38.7	3,593.9	0.0	10,912.4	14,343.4	15,112.0	6,890.1	178.4	July
German contribution (€ billion)													
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	0.0	2019 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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	July
12.0	7.2	498.7	891.2	778.4	– 1,114.7	1,888.5	464.3	2,537.9	3,350.2	3,372.9	1,899.9	0.0	Aug.
12.4	6.7	506.2	952.4	787.3	– 1,172.8	1,905.3	467.0	2,564.6	3,371.8	3,394.2	1,912.5	0.0	Sep.
11.1	7.0	501.8	906.4	794.7	– 1,107.6	1,894.1	469.4	2,595.4	3,403.6	3,425.7	1,913.5	0.0	Oct.
10.0	7.1	498.4	923.3	780.2	– 1,109.5	1,859.4	470.7	2,639.3	3,433.2	3,461.8	1,893.5	0.0	Nov.
9.0	6.6	487.7	985.7	787.5	– 1,192.0	1,844.9	473.1	2,632.8	3,426.1	3,456.4	1,888.4	0.0	Dec.
7.8	6.8	488.7	1,026.4	778.3	– 1,113.3	1,796.5	474.2	2,678.2	3,458.5	3,483.9	1,878.3	0.0	2021 Jan.
7.4	7.5	495.1	1,007.6	756.3	– 1,095.7	1,750.3	476.5	2,698.6	3,471.7	3,494.9	1,860.6	0.0	Feb.
8.1	6.8	508.4	1,080.1	754.4	– 1,144.4	1,742.0	479.0	2,724.1	3,497.0	3,525.7	1,868.2	0.0	Mar.
7.8	6.6	510.0	1,029.5	759.2	– 1,074.2	1,717.0	479.7	2,736.8	3,505.0	3,529.7	1,871.8	0.0	Apr.
9.6	6.7	501.7	1,051.5	768.2	– 1,126.5	1,696.6	482.8	2,764.3	3,535.8	3,563.5	1,869.6	0.0	May
9.8	6.9	498.8	1,088.8	775.4	– 1,149.4	1,724.5	485.9	2,772.3	3,535.7	3,563.7	1,870.2	0.0	June
9.8	7.1	501.5	1,031.5	795.8	– 1,075.9	1,767.4	490.0	2,793.9	3,552.6	3,581.3	1,890.9	0.0	July

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

II. Overall monetary survey in the euro area

3. Banking systems 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]												
2019 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
Oct.	.	.	.	.	.	.	.	.	.	.	.	.
Nov.	864.4	1.3	1,707.8	0.0	3,475.8	460.7	0.0	1,389.1	749.0	653.5	2,797.0	4,646.8
Dec.	865.1	0.5	1,754.4	0.0	3,614.7	535.4	0.0	1,403.9	647.0	687.7	2,960.7	4,900.0
2021 Jan.	848.6	0.3	1,792.6	0.0	3,712.9	586.9	0.0	1,429.4	530.3	778.4	3,029.4	5,045.7
Feb.	.	.	.	.	.	.	.	.	.	.	.	.
Mar.	834.9	0.4	1,792.4	0.0	3,825.1	598.0	0.0	1,433.4	595.8	667.9	3,157.7	5,189.1
Apr.	816.7	0.3	2,054.6	0.0	3,951.4	676.4	0.0	1,447.7	644.5	633.4	3,421.1	5,545.2
May	.	.	.	.	.	.	.	.	.	.	.	.
June	809.8	0.2	2,107.0	0.0	4,092.7	706.5	0.0	1,465.8	586.7	659.1	3,591.7	5,763.9
July	821.7	0.1	2,196.0	0.0	4,244.5	736.6	0.0	1,485.8	652.3	734.5	3,653.1	5,875.5
Aug.	.	.	.	.	.	.	.	.	.	.	.	.
Deutsche Bundesbank												
2019 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
Oct.	.	.	.	.	.	.	.	.	.	.	.	.
Nov.	212.1	0.7	319.5	0.0	729.0	145.5	0.0	338.1	254.7	– 302.9	826.0	1,309.6
Dec.	213.0	0.3	333.9	0.0	768.7	166.6	0.0	341.2	217.9	– 294.5	884.7	1,392.5
2021 Jan.	208.3	0.1	341.1	0.0	791.3	178.9	0.0	347.3	189.4	– 252.8	878.0	1,404.2
Feb.	.	.	.	.	.	.	.	.	.	.	.	.
Mar.	205.3	0.1	341.0	0.0	816.9	177.5	0.0	348.3	172.7	– 298.0	962.8	1,488.6
Apr.	198.0	0.0	407.3	0.0	845.8	203.0	0.0	351.7	187.4	– 300.4	1,008.9	1,563.5
May	.	.	.	.	.	.	.	.	.	.	.	.
June	194.3	0.0	420.5	0.0	884.3	208.5	0.0	356.8	187.3	– 301.9	1,046.7	1,612.0
July	197.4	0.0	434.3	0.0	918.5	204.2	0.0	362.0	206.8	– 270.8	1,046.2	1,612.4
Aug.	.	.	.	.	.	.	.	.	.	.	.	.

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

II. Overall monetary survey in the euro area

Flows

Liquidity-providing factors					Liquidity-absorbing factors							
	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]	Reserve maintenance period ending in [1]
Eurosystem [2]												
+ 9.9	− 1.6	− 7.6	± 0.0	− 8.0	− 15.1	± 0.0	+ 10.3	− 27.4	+ 29.0	− 4.2	− 9.1	2019 Aug. 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.
+ 14.8	− 0.2	− 4.8	± 0.0	+ 10.1	− 198.7	± 0.0	+ 10.2	− 72.0	+ 6.8	+ 273.6	+ 85.1	Nov. 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.
− 1.5	− 1.5	− 0.2	± 0.0	+ 27.6	− 10.0	± 0.0	− 5.1	+ 56.8	− 35.9	+ 18.6	+ 3.5	Feb. Mar.
+ 159.2	− 0.8	+ 249.8	± 0.0	+ 117.5	+ 27.2	± 0.0	+ 44.8	+105.8	+ 170.2	+ 177.9	+ 249.7	Apr. 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
− 5.4	+ 0.5	+ 191.7	± 0.0	+ 155.4	+ 57.2	± 0.0	+ 15.5	+ 41.7	− 52.1	+ 279.8	+ 352.6	Aug. Sep.
− 1.5	± 0.0	+ 114.6	± 0.0	+ 152.2	+ 47.5	± 0.0	+ 7.9	+ 36.1	+ 2.5	+ 171.3	+ 226.7	Oct. Nov.
+ 0.7	− 0.8	+ 46.6	± 0.0	+ 138.9	+ 74.7	± 0.0	+ 14.8	−102.0	+ 34.2	+ 163.7	+ 253.2	Dec.
− 16.5	− 0.2	+ 38.2	± 0.0	+ 98.2	+ 51.5	± 0.0	+ 25.5	−116.7	+ 90.7	+ 68.7	+ 145.7	2021 Jan.
− 13.7	+ 0.1	− 0.2	± 0.0	+ 112.2	+ 11.1	± 0.0	+ 4.0	+ 65.5	− 110.5	+ 128.3	+ 143.4	Feb. Mar.
− 18.2	− 0.1	+ 262.2	± 0.0	+ 126.3	+ 78.4	± 0.0	+ 14.3	+ 48.7	− 34.5	+ 263.4	+ 356.1	Apr.
− 6.9	− 0.1	+ 52.4	± 0.0	+ 141.3	+ 30.1	± 0.0	+ 18.1	− 57.8	+ 25.7	+ 170.6	+ 218.7	May June
+ 11.9	− 0.1	+ 89.0	± 0.0	+ 151.8	+ 30.1	± 0.0	+ 20.0	+ 65.6	+ 75.4	+ 61.4	+ 111.6	July Aug.
Deutsche Bundesbank												
+ 3.2	− 0.2	− 0.4	− 0.0	− 0.4	+ 0.0	± 0.0	+ 2.5	− 8.1	+ 17.4	− 9.6	− 7.1	2019 Aug. 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.
+ 4.1	+ 0.0	− 0.4	+ 0.0	+ 6.1	− 69.3	± 0.0	+ 1.1	− 14.9	+ 24.1	+ 68.8	+ 0.6	Nov. 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.
− 1.0	− 0.5	+ 0.0	− 0.0	+ 5.8	− 8.2	± 0.0	− 0.5	+ 11.7	− 29.3	+ 30.7	+ 21.9	Feb. Mar.
+ 53.0	− 0.2	+ 32.9	− 0.0	+ 11.6	+ 10.9	± 0.0	+ 12.9	+ 37.6	− 49.6	+ 85.6	+ 109.5	Apr. 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
− 10.0	+ 0.3	+ 48.9	+ 0.0	+ 36.1	+ 27.9	± 0.0	+ 5.0	+ 34.6	− 59.9	+ 67.6	+ 100.5	Aug. Sep.
+ 0.0	− 0.1	+ 35.5	− 0.0	+ 37.0	+ 9.5	± 0.0	+ 1.7	+ 15.0	− 5.0	+ 51.2	+ 62.3	Oct. Nov.
+ 0.9	− 0.4	+ 14.4	+ 0.0	+ 39.8	+ 21.1	± 0.0	+ 3.1	− 36.8	+ 8.4	+ 58.7	+ 82.9	Dec.
− 4.7	− 0.2	+ 7.1	+ 0.0	+ 22.6	+ 12.3	± 0.0	+ 6.1	− 28.5	+ 41.7	− 6.7	+ 11.7	2021 Jan.
− 3.0	− 0.0	− 0.1	− 0.0	+ 25.6	− 1.4	± 0.0	+ 1.0	− 16.7	− 45.2	+ 84.8	+ 84.4	Feb. Mar.
− 7.3	− 0.1	+ 66.3	+ 0.0	+ 28.8	+ 25.5	± 0.0	+ 3.4	+ 14.7	− 2.4	+ 46.0	+ 74.9	Apr.
− 3.7	+ 0.0	+ 13.2	+ 0.0	+ 38.6	+ 5.5	± 0.0	+ 5.1	− 0.1	− 1.5	+ 37.9	+ 48.5	May June
+ 3.1	− 0.0	+ 13.8	− 0.0	+ 34.2	− 4.3	± 0.0	+ 5.2	+ 19.4	+ 31.1	− 0.5	+ 0.4	July Aug.

allocated to the ECB on a monthly basis. The counterpart of this adjustment is shown under "Other factors". The remaining 92% of the value of the euro banknotes in circulation is allocated, likewise on a monthly basis, to the NCBs, with each NCB showing in its balance sheet the share of the euro banknotes issued corresponding to its paid-up share in the ECB's capital. The difference between the value of the euro banknotes allocated to an NCB and the value of the euro banknotes which that NCB has put into circulation is likewise shown under "Other factors". From 2003 euro banknotes only. **6** Remaining items in the consolidated financial statement of the Eurosystem and the financial statement of the Bundesbank. **7** Equal to the difference between the sum of liquidity-pro viding 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]									
2021 Feb. 19	7,101.2	536.5	338.8	85.2	253.6	26.7	11.1	11.1	–
26	7,110.5	536.5	341.0	85.2	255.8	24.8	10.9	10.9	–
Mar. 5	7,120.3	536.5	342.6	85.2	257.4	25.4	11.2	11.2	–
12	7,137.5	536.5	340.7	85.2	255.6	25.8	11.2	11.2	–
19	7,162.2	536.5	338.9	84.4	254.5	26.8	11.5	11.5	–
26	7,505.0	536.5	340.0	84.4	255.6	25.9	12.1	12.1	–
Apr. 2	7,494.1	499.3	350.7	86.6	264.2	26.6	11.5	11.5	–
9	7,514.3	499.3	350.7	86.6	264.1	26.8	10.9	10.9	–
16	7,522.2	499.3	350.7	86.5	264.1	26.8	11.1	11.1	–
23	7,558.3	499.3	351.2	86.5	264.7	27.1	10.9	10.9	–
30	7,567.9	499.3	352.0	86.5	265.4	26.5	10.6	10.6	–
May 7	7,588.8	499.3	352.6	86.5	266.0	25.7	10.8	10.8	–
14	7,615.7	499.3	352.1	86.5	265.5	27.0	11.4	11.4	–
21	7,643.2	499.3	353.9	86.5	267.4	25.6	11.1	11.1	–
28	7,657.6	499.2	353.9	86.5	267.4	25.8	11.2	11.2	–
June 4	7,680.1	499.2	354.2	86.5	267.7	26.7	10.3	10.3	–
11	7,700.9	499.2	354.7	87.1	267.6	27.6	10.7	10.7	–
18	7,736.5	499.2	358.8	87.1	271.8	24.7	10.6	10.6	–
25	7,877.1	499.2	359.9	87.0	272.9	23.8	13.5	13.5	–
July 2	7,907.8	514.7	354.5	87.1	267.5	25.6	13.1	13.1	–
9	7,926.6	514.7	355.1	87.1	268.0	24.8	10.7	10.7	–
16	7,950.7	514.7	354.9	87.1	267.9	25.4	10.3	10.3	–
23	7,988.0	514.7	354.0	87.2	266.7	26.6	10.9	10.9	–
30	7,987.4	514.7	354.8	87.2	267.5	25.3	10.3	10.3	–
Aug. 6	8,009.7	514.7	354.8	87.3	267.4	25.4	10.5	10.5	–
13	8,036.0	514.7	355.5	87.3	268.2	24.5	10.6	10.6	–
20	8,052.8	514.7	355.7	87.3	268.4	24.2	10.6	10.6	–
27	8,191.3	514.7	477.1	209.7	267.4	25.0	10.8	10.8	–
Sep. 3	8,207.5	514.7	477.3	209.7	267.6	24.8	11.1	11.1	–
10	8,222.7	514.7	477.6	210.1	267.5	24.9	10.6	10.6	–
Deutsche Bundesbank									
2021 Feb. 19	2,480.1	166.9	53.1	22.0	31.1	0.1	–	–	–
26	2,472.3	166.9	53.1	22.0	31.1	0.1	–	–	–
Mar. 5	2,468.0	166.9	53.0	22.0	31.0	0.1	–	–	–
12	2,469.3	166.9	53.3	22.0	31.3	0.1	–	–	–
19	2,465.0	166.9	52.9	21.8	31.1	0.1	–	–	–
26	2,551.4	166.9	52.8	21.8	31.0	0.1	–	–	–
Apr. 2	2,556.4	155.3	53.9	22.3	31.6	0.2	–	–	–
9	2,558.7	155.3	53.9	22.3	31.6	0.1	–	–	–
16	2,548.1	155.3	53.8	22.3	31.5	0.1	–	–	–
23	2,554.0	155.3	53.8	22.3	31.5	0.1	–	–	–
30	2,562.0	155.3	53.8	22.3	31.5	0.1	–	–	–
May 7	2,568.4	155.3	53.6	22.3	31.4	0.1	–	–	–
14	2,592.5	155.3	54.0	22.3	31.7	0.1	–	–	–
21	2,617.3	155.3	54.0	22.3	31.7	0.1	–	–	–
28	2,639.3	155.2	54.0	22.3	31.8	0.1	–	–	–
June 4	2,634.5	155.2	54.0	22.3	31.8	0.0	–	–	–
11	2,605.1	155.2	54.0	22.4	31.6	0.0	–	–	–
18	2,608.1	155.2	54.0	22.4	31.6	0.0	–	–	–
25	2,648.6	155.2	54.0	22.3	31.7	0.0	–	–	–
July 2	2,679.7	160.0	53.8	22.4	31.4	0.0	–	–	–
9	2,640.1	160.0	53.8	22.4	31.3	0.0	–	–	–
16	2,668.1	160.0	53.8	22.4	31.3	0.0	–	–	–
23	2,665.0	160.0	53.8	22.4	31.3	0.0	0.3	0.3	–
30	2,659.0	160.0	53.7	22.4	31.3	0.0	0.1	0.1	–
Aug. 6	2,687.1	160.0	53.7	22.5	31.2	0.0	–	–	–
13	2,696.2	160.0	53.6	22.5	31.2	0.0	–	–	–
20	2,694.4	160.0	53.7	22.5	31.2	0.0	–	–	–
27	2,724.3	160.0	84.7	53.4	31.3	0.0	0.0	0.0	–
Sep. 3	2,749.6	160.0	85.0	53.4	31.6	0.0	0.6	0.6	–
10	2,747.9	160.0	84.7	53.4	31.3	0.0	–	–	–

***** 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]													
1,792.9	0.5	1,792.5	–	–	–	–	42.3	4,028.3	3,832.4	195.9	22.6	301.8	2021 Feb. 19
1,792.8	0.6	1,792.2	–	–	–	–	43.8	4,042.1	3,846.1	196.0	22.6	296.0	26
1,792.7	0.5	1,792.2	–	–	0.0	–	41.2	4,053.5	3,858.5	195.1	22.6	294.5	Mar. 5
1,792.9	0.7	1,792.2	–	–	–	–	38.3	4,072.1	3,877.8	194.3	22.6	297.4	12
1,792.8	0.6	1,792.2	–	–	–	–	41.0	4,100.6	3,906.4	194.1	22.6	291.6	19
2,107.6	0.3	2,107.4	–	–	0.0	–	40.7	4,125.7	3,930.4	195.3	22.6	293.7	26
2,107.4	0.5	2,107.0	–	–	–	–	39.0	4,132.8	3,936.7	196.1	22.6	304.0	Apr. 2
2,107.2	0.2	2,107.0	–	–	0.0	–	37.0	4,153.4	3,956.8	196.5	22.6	306.4	9
2,107.1	0.1	2,107.0	–	–	–	–	31.9	4,167.9	3,973.1	194.8	22.6	304.8	16
2,107.1	0.1	2,107.0	–	–	–	–	34.3	4,199.5	4,005.1	194.4	22.6	306.2	23
2,107.2	0.3	2,107.0	–	–	–	–	37.5	4,208.0	4,019.9	188.1	22.6	304.2	30
2,107.1	0.1	2,107.0	–	–	0.0	–	35.7	4,230.0	4,044.1	186.0	22.6	305.0	May 7
2,107.1	0.1	2,107.0	–	–	–	–	29.1	4,258.5	4,072.7	185.8	22.6	308.7	14
2,107.1	0.1	2,107.0	–	–	–	–	28.2	4,287.4	4,101.2	186.3	22.6	307.9	21
2,107.4	0.4	2,107.0	–	–	–	–	29.4	4,302.9	4,116.5	186.4	22.6	305.3	28
2,107.2	0.2	2,107.0	–	–	0.0	–	28.4	4,327.0	4,140.5	186.6	22.6	304.5	June 4
2,107.2	0.2	2,107.0	–	–	–	–	33.9	4,339.8	4,154.0	185.8	22.6	305.1	11
2,107.1	0.1	2,107.0	–	–	–	–	35.4	4,368.4	4,182.6	185.8	22.6	309.7	18
2,217.3	0.1	2,217.2	–	–	0.0	–	33.7	4,400.5	4,214.5	186.0	22.6	306.6	25
2,217.3	0.1	2,217.2	–	–	0.0	–	35.1	4,414.5	4,228.2	186.2	22.1	311.0	July 2
2,216.8	0.1	2,216.7	–	–	–	–	32.9	4,438.5	4,252.3	186.2	22.1	310.9	9
2,216.8	0.0	2,216.7	–	–	–	–	31.7	4,466.7	4,280.2	186.6	22.1	308.1	16
2,216.8	0.1	2,216.7	–	–	–	–	31.2	4,499.4	4,313.0	186.4	22.1	312.3	23
2,214.3	0.1	2,214.1	–	–	0.1	–	34.2	4,509.0	4,322.0	187.1	22.1	302.6	30
2,214.2	0.1	2,214.1	–	–	–	–	32.3	4,526.9	4,341.1	185.8	22.1	308.8	Aug. 6
2,214.2	0.2	2,214.1	–	–	–	–	33.2	4,549.7	4,363.9	185.8	22.1	311.3	13
2,214.3	0.2	2,214.1	–	–	–	–	32.1	4,571.2	4,384.6	186.6	22.1	307.8	20
2,212.4	0.1	2,212.3	–	–	–	–	34.6	4,584.6	4,398.5	186.1	22.1	310.0	27
2,211.5	0.0	2,211.4	–	–	–	–	35.4	4,596.1	4,412.8	183.2	22.1	314.6	Sep. 3
2,211.8	0.3	2,211.4	–	–	0.0	–	32.9	4,613.1	4,430.7	182.4	22.1	315.1	10
Deutsche Bundesbank													
341.1	0.1	341.0	–	–	0.0	–	9.0	818.4	818.4	–	4.4	1,086.9	2021 Feb. 19
341.0	0.1	340.9	–	–	–	–	9.2	823.6	823.6	–	4.4	1,073.9	26
341.0	0.1	340.9	–	–	0.0	–	5.6	824.9	824.9	–	4.4	1,072.0	Mar. 5
341.1	0.2	340.9	–	–	0.0	–	8.4	827.3	827.3	–	4.4	1,067.8	12
341.0	0.1	340.9	–	–	0.0	–	6.2	834.3	834.3	–	4.4	1,059.1	19
420.7	0.0	420.7	–	–	0.0	–	4.8	841.4	841.4	–	4.4	1,060.1	26
420.5	0.0	420.5	–	–	0.0	–	5.2	844.9	844.9	–	4.4	1,071.9	Apr. 2
420.5	0.0	420.5	–	–	0.0	–	7.3	844.2	844.2	–	4.4	1,072.9	9
420.5	0.0	420.5	–	–	0.0	–	5.0	848.5	848.5	–	4.4	1,060.5	16
420.5	0.0	420.5	–	–	0.0	–	6.5	858.4	858.4	–	4.4	1,055.0	23
420.5	0.0	420.5	–	–	0.0	–	5.0	866.6	866.6	–	4.4	1,056.2	30
420.5	0.0	420.5	–	–	0.0	–	7.6	870.9	870.9	–	4.4	1,055.9	May 7
420.5	0.0	420.5	–	–	0.0	–	5.7	879.5	879.5	–	4.4	1,073.0	14
420.5	0.0	420.5	–	–	0.0	–	6.7	886.6	886.6	–	4.4	1,089.7	21
420.6	0.1	420.5	–	–	0.0	–	6.0	891.4	891.4	–	4.4	1,107.6	28
420.6	0.1	420.5	–	–	0.0	–	7.1	899.3	899.3	–	4.4	1,093.9	June 4
420.5	0.0	420.5	–	–	0.0	–	5.9	895.5	895.5	–	4.4	1,069.5	11
420.5	0.0	420.5	–	–	0.0	–	6.9	903.4	903.4	–	4.4	1,063.7	18
437.6	0.0	437.6	–	–	0.0	–	5.1	912.4	912.4	–	4.4	1,079.9	25
437.5	–	437.5	–	–	0.0	–	5.8	917.1	917.1	–	4.4	1,101.0	July 2
437.5	0.0	437.5	–	–	0.0	–	4.6	917.1	917.1	–	4.4	1,062.6	9
437.5	0.0	437.5	–	–	–	–	6.3	927.1	927.1	–	4.4	1,078.9	16
437.6	0.0	437.5	–	–	0.0	–	7.1	935.9	935.9	–	4.4	1,065.9	23
437.2	0.1	437.1	–	–	0.1	–	8.3	938.4	938.4	–	4.4	1,056.9	30
437.1	0.0	437.1	–	–	0.0	–	8.7	943.1	943.1	–	4.4	1,080.0	Aug. 6
437.2	0.1	437.1	–	–	0.0	–	7.9	948.9	948.9	–	4.4	1,084.1	13
437.2	0.1	437.1	–	–	0.0	–	7.6	954.9	954.9	–	4.4	1,076.5	20
436.3	0.0	436.3	–	–	0.0	–	8.2	954.6	954.6	–	4.4	1,075.9	27
436.2	–	436.2	–	–	0.0	–	10.8	960.0	960.0	–	4.4	1,092.6	Sep. 3
436.5	0.3	436.2	–	–	0.0	–	8.6	957.0	957.0	–	4.4	1,096.6	10

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]													
2021 Feb. 19	7,101.2	1,432.8	3,703.8	3,086.0	617.7	–	–	0.0	14.6	–	755.1	667.2	87.9
26	7,110.5	1,434.9	3,739.6	3,094.0	645.6	–	–	0.0	14.3	–	722.0	630.5	91.5
Mar. 5	7,120.3	1,438.3	3,843.0	3,187.7	655.3	–	–	–	18.7	–	621.3	538.7	82.6
12	7,137.5	1,440.7	3,840.5	3,183.7	656.8	–	–	–	14.6	–	653.9	567.2	86.7
19	7,162.2	1,441.5	3,785.4	3,249.3	536.1	–	–	–	17.8	–	734.0	648.5	85.5
26	7,505.0	1,443.9	4,089.1	3,445.2	643.9	–	–	–	16.5	–	772.7	683.6	89.1
Apr. 2	7,494.1	1,450.1	4,134.3	3,400.2	734.0	–	–	–	16.8	–	722.4	634.8	87.7
9	7,514.3	1,449.5	4,213.7	3,470.2	743.5	–	–	–	19.2	–	678.0	597.4	80.6
16	7,522.2	1,449.8	4,183.5	3,478.4	703.4	–	–	1.6	17.0	–	715.0	632.8	82.2
23	7,558.3	1,452.1	4,183.6	3,465.6	716.3	–	–	1.7	17.4	–	748.0	670.3	77.7
30	7,567.9	1,455.1	4,237.2	3,633.7	601.8	–	–	1.7	17.4	–	687.2	605.9	81.3
May 7	7,588.8	1,459.4	4,321.4	3,654.5	665.2	–	–	1.7	18.0	–	619.6	540.0	79.6
14	7,615.7	1,463.1	4,305.6	3,573.8	730.1	–	–	1.7	18.5	–	652.7	572.3	80.4
21	7,643.2	1,467.3	4,281.3	3,541.3	738.2	–	–	1.7	19.3	–	698.8	612.8	86.0
28	7,657.6	1,469.4	4,264.4	3,503.7	758.9	–	–	1.7	19.7	–	717.8	627.7	90.1
June 4	7,680.1	1,473.0	4,350.1	3,611.8	736.6	–	–	1.7	25.8	–	656.9	565.5	91.3
11	7,700.9	1,474.8	4,361.3	3,614.8	744.8	–	–	1.7	18.6	–	657.0	559.4	97.6
18	7,736.5	1,477.4	4,271.6	3,739.2	530.7	–	–	1.7	18.7	–	775.8	668.9	106.9
25	7,877.1	1,479.6	4,377.8	3,691.7	684.3	–	–	1.8	21.7	–	780.5	683.2	97.3
July 2	7,907.8	1,484.5	4,441.8	3,653.2	786.8	–	–	1.8	22.3	–	712.6	616.0	96.6
9	7,926.6	1,488.7	4,465.0	3,671.5	791.6	–	–	1.8	18.1	–	693.5	600.2	93.4
16	7,950.7	1,491.7	4,430.6	3,610.6	818.1	–	–	1.9	20.8	–	752.2	650.5	101.8
23	7,988.0	1,494.0	4,391.4	3,605.7	783.9	–	–	1.8	23.1	–	807.7	702.5	105.2
30	7,987.4	1,497.9	4,440.0	3,756.8	681.0	–	–	2.3	25.8	–	732.8	618.6	114.2
Aug. 6	8,009.7	1,499.6	4,492.6	3,758.1	732.2	–	–	2.3	23.1	–	699.2	584.6	114.6
13	8,036.0	1,500.7	4,488.3	3,674.7	811.4	–	–	2.2	23.7	–	751.3	635.3	116.0
20	8,052.8	1,499.9	4,471.8	3,665.0	804.7	–	–	2.0	24.3	–	803.8	681.1	122.7
27	8,191.3	1,500.1	4,454.5	3,663.0	789.2	–	–	2.3	23.2	–	828.0	703.6	124.3
Sep. 3	8,207.5	1,500.8	4,543.2	3,728.0	813.0	–	–	2.3	30.5	–	736.3	617.5	118.8
10	8,222.7	1,502.0	4,567.5	3,744.0	821.4	–	–	2.1	23.6	–	731.8	617.6	114.3
Deutsche Bundesbank													
2021 Feb. 19	2,480.1	348.4	1,137.5	949.3	188.2	–	–	0.0	6.6	–	206.7	192.6	14.1
26	2,472.3	348.0	1,139.3	931.1	208.2	–	–	0.0	7.0	–	193.0	180.6	12.4
Mar. 5	2,468.0	349.5	1,158.3	948.8	209.5	–	–	–	10.6	–	170.5	158.5	12.0
12	2,469.3	350.8	1,153.2	948.3	204.8	–	–	–	8.4	–	183.6	169.3	14.3
19	2,465.0	350.9	1,125.2	983.0	142.2	–	–	–	10.2	–	211.0	198.0	13.0
26	2,551.4	351.9	1,206.0	1,043.7	162.3	–	–	–	8.5	–	218.9	205.1	13.8
Apr. 2	2,556.4	351.9	1,232.6	1,003.1	229.5	–	–	–	7.8	–	196.3	182.9	13.4
9	2,558.7	351.6	1,254.8	1,012.5	242.4	–	–	–	10.2	–	181.8	169.4	12.4
16	2,548.1	351.9	1,231.4	1,013.3	216.4	–	–	1.6	8.0	–	191.1	179.9	11.1
23	2,554.0	352.2	1,228.3	1,003.3	223.4	–	–	1.7	9.2	–	200.5	187.9	12.6
30	2,562.0	352.9	1,247.3	1,061.8	183.8	–	–	1.7	8.3	–	185.3	172.3	12.9
May 7	2,568.4	354.7	1,259.9	1,103.0	155.2	–	–	1.7	9.1	–	175.4	162.3	13.1
14	2,592.5	356.5	1,254.7	1,035.4	217.6	–	–	1.7	8.9	–	198.6	185.6	12.9
21	2,617.3	358.4	1,265.1	1,046.0	217.4	–	–	1.7	10.0	–	210.5	196.4	14.1
28	2,639.3	359.2	1,257.5	1,028.2	227.6	–	–	1.7	10.6	–	232.6	218.0	14.6
June 4	2,634.5	358.0	1,271.5	1,035.8	234.0	–	–	1.7	13.3	–	212.5	197.0	15.6
11	2,605.1	359.1	1,259.4	1,028.8	228.9	–	–	1.7	9.4	–	192.5	179.3	13.2
18	2,608.1	360.2	1,224.5	1,085.7	137.0	–	–	1.7	7.9	–	230.2	215.5	14.8
25	2,648.6	361.1	1,249.1	1,086.0	161.4	–	–	1.8	10.1	–	241.3	226.9	14.4
July 2	2,679.7	360.3	1,280.8	1,050.0	229.1	–	–	1.8	9.8	–	220.9	204.6	16.3
9	2,640.1	362.1	1,265.0	1,042.1	221.1	–	–	1.8	7.0	–	194.4	178.7	15.7
16	2,668.1	363.6	1,253.6	1,022.7	229.1	–	–	1.8	9.1	–	227.6	212.5	15.1
23	2,665.0	364.7	1,243.3	1,010.4	231.1	–	–	1.8	11.4	–	230.8	215.5	15.3
30	2,659.0	363.3	1,249.8	1,055.6	192.0	–	–	2.2	12.7	–	206.4	189.2	17.2
Aug. 6	2,687.1	364.3	1,278.2	1,117.5	158.5	–	–	2.2	11.4	–	203.9	188.3	15.6
13	2,696.2	365.0	1,255.4	1,025.3	227.8	–	–	2.2	11.6	–	233.1	216.0	17.1
20	2,694.4	365.2	1,246.9	1,024.4	220.4	–	–	2.0	13.5	–	238.5	223.2	15.3
27	2,724.3	366.3	1,234.2	1,008.2	223.6	–	–	2.3	11.9	–	244.1	227.6	16.4
Sep. 3	2,749.6	364.8	1,281.0	1,037.1	241.7	–	–	2.3	17.8	–	213.1	196.5	16.6
10	2,747.9	366.0	1,273.8	1,031.0	240.7	–	–	2.1	11.4	–	217.7	200.2	17.5

***** The consolidated financial statement of the Eurosystem comprises the financial statement of the European Central Bank (ECB) and the financial statements of the national central banks of the euro area Member States (NCBs). The balance sheet items for foreign currency, securities, gold and financial instruments are valued at 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			Counterpart of special drawing rights allocated by the IMF	Other liabilities [2]	Intra-Eurosystem liability related to euro banknote issue [1]	Revaluation accounts	Capital and reserves	As at reporting date
		Total	Deposits, balances and other liabilities	Liabilities arising from the credit facility under ERM II						
Eurosystem [3]										
209.0	8.4	4.1	4.1	–	54.8	297.8	–	512.5	108.3	2021 Feb. 19
214.2	8.2	4.3	4.3	–	54.8	297.1	–	512.5	108.5	26
208.8	10.3	4.5	4.5	–	54.8	299.5	–	512.5	108.5	Mar. 5
199.3	8.5	4.6	4.6	–	54.8	298.5	–	512.5	109.6	12
194.4	8.9	3.9	3.9	–	54.8	299.4	–	512.5	109.6	19
193.1	9.4	3.4	3.4	–	54.8	299.8	–	512.5	109.7	26
207.5	9.7	3.4	3.4	–	56.2	298.2	–	485.4	110.1	Apr. 2
198.5	9.8	3.3	3.3	–	56.2	290.7	–	485.4	110.1	9
202.3	9.8	3.2	3.2	–	56.2	289.9	–	485.4	110.1	16
199.8	9.8	3.2	3.2	–	56.2	292.7	–	485.4	110.1	23
208.0	10.0	3.0	3.0	–	56.2	298.4	–	485.4	110.0	30
206.6	10.0	2.8	2.8	–	56.2	299.1	–	485.4	110.2	May 7
210.5	10.3	2.7	2.7	–	56.2	300.3	–	485.4	110.2	14
211.4	10.7	2.4	2.4	–	56.2	300.2	–	485.4	110.2	21
219.4	10.6	2.1	2.1	–	56.2	302.4	–	485.4	110.2	28
211.5	11.0	2.1	2.1	–	56.2	298.7	–	485.4	109.5	June 4
220.2	11.3	2.1	2.1	–	56.2	304.6	–	485.4	109.5	11
218.2	11.4	2.5	2.5	–	56.2	309.9	–	485.4	109.5	18
242.2	11.1	2.9	2.9	–	56.2	310.2	–	485.4	109.5	25
264.5	10.4	2.7	2.7	–	55.8	306.1	–	497.6	109.5	July 2
278.5	10.3	2.7	2.7	–	55.8	306.9	–	497.6	109.5	9
277.6	10.3	2.5	2.5	–	55.8	302.1	–	497.6	109.5	16
292.9	10.2	2.4	2.4	–	55.8	303.4	–	497.6	109.5	23
312.3	9.9	2.7	2.7	–	55.8	303.1	–	497.6	109.4	30
312.4	9.9	2.7	2.7	–	55.8	307.3	–	497.6	109.4	Aug. 6
286.1	9.8	2.6	2.6	–	55.8	310.6	–	497.6	109.4	13
270.4	9.4	2.8	2.8	–	55.8	307.7	–	497.6	109.4	20
279.4	12.4	3.0	3.0	–	174.7	309.0	–	497.6	109.4	27
286.0	12.3	2.9	2.9	–	174.7	313.9	–	497.6	109.4	Sep. 3
286.7	12.4	2.8	2.8	–	174.7	314.3	–	497.6	109.4	10
Deutsche Bundesbank										
91.1	0.4	0.2	0.2	–	14.2	33.2	474.2	161.8	5.7	2021 Feb. 19
93.0	0.4	0.2	0.2	–	14.2	33.2	476.5	161.8	5.7	26
87.2	0.4	0.2	0.2	–	14.2	33.1	476.5	161.8	5.7	Mar. 5
81.1	0.4	0.4	0.4	–	14.2	33.3	476.5	161.8	5.7	12
75.1	0.3	0.4	0.4	–	14.2	33.7	476.5	161.8	5.7	19
73.6	0.3	0.3	0.3	–	14.2	33.6	476.5	161.8	5.7	26
84.5	0.1	0.0	0.0	–	14.6	32.7	479.0	151.2	5.7	Apr. 2
76.5	0.0	0.2	0.2	–	14.6	33.0	479.0	151.2	5.7	9
82.2	0.0	0.2	0.2	–	14.6	32.9	479.0	151.2	5.7	16
80.1	0.0	0.2	0.2	–	14.6	33.0	479.0	151.2	5.7	23
83.4	0.0	0.2	0.2	–	14.6	33.4	479.7	151.2	5.7	30
84.5	0.0	0.0	0.0	–	14.6	33.5	479.7	151.2	5.7	May 7
88.5	0.4	0.0	0.0	–	14.6	33.6	479.7	151.2	5.7	14
87.8	0.4	0.0	0.0	–	14.6	33.7	479.7	151.2	5.7	21
93.9	0.4	0.0	0.0	–	14.6	33.8	479.7	151.2	5.7	28
90.6	0.4	0.0	0.0	–	14.6	33.9	482.8	151.2	5.7	June 4
96.2	0.3	0.0	0.0	–	14.6	33.9	482.8	151.2	5.7	11
96.2	0.3	0.0	0.0	–	14.6	34.5	482.8	151.2	5.7	18
97.5	0.2	0.2	0.2	–	14.6	34.8	482.8	151.2	5.7	25
112.0	0.4	–	–	–	14.5	33.9	485.9	155.5	5.7	July 2
113.8	0.4	–	–	–	14.5	35.6	485.9	155.5	5.7	9
116.6	0.4	–	–	–	14.5	35.6	485.9	155.5	5.7	16
117.1	0.4	–	–	–	14.5	35.7	485.9	155.5	5.7	23
124.6	0.4	–	–	–	14.5	36.2	490.0	155.5	5.7	30
127.1	0.3	–	–	–	14.5	36.1	490.0	155.5	5.7	Aug. 6
128.9	0.3	–	–	–	14.5	36.1	490.0	155.5	5.7	13
128.0	0.3	–	–	–	14.5	36.3	490.0	155.5	5.7	20
134.4	0.3	–	–	–	45.4	36.4	490.0	155.5	5.7	27
136.6	0.3	0.2	0.2	–	45.4	36.2	492.9	155.5	5.7	Sep. 3
142.0	0.2	0.0	0.0	–	45.4	37.2	492.9	155.5	5.7	10

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
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
2020	8,943.3	47.5	2,622.7	2,177.9	1,913.5	264.4	444.8	307.1	137.7	4,179.6	3,709.8	3,297.0	2,993.1
2019 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	2,595.4	2,127.5	1,858.5	269.0	467.9	328.0	139.9	4,148.3	3,691.9	3,266.7	2,966.1
Sep.	9,097.4	46.1	2,657.2	2,196.9	1,926.4	270.6	460.3	320.7	139.5	4,153.9	3,696.5	3,269.8	2,968.7
Oct.	9,124.3	46.3	2,686.7	2,226.8	1,957.0	269.8	459.9	320.9	139.0	4,181.8	3,713.6	3,283.1	2,980.6
Nov.	9,096.0	45.7	2,684.1	2,232.1	1,965.3	266.9	452.0	313.9	138.1	4,198.6	3,723.7	3,293.3	2,991.0
Dec.	8,943.3	47.5	2,622.7	2,177.9	1,913.5	264.4	444.8	307.1	137.7	4,179.6	3,709.8	3,297.0	2,993.1
2021 Jan.	9,150.4	44.9	2,793.5	2,309.4	2,042.2	267.2	484.1	348.8	135.3	4,195.0	3,716.6	3,302.6	2,997.8
Feb.	9,148.1	45.5	2,824.0	2,328.8	2,060.6	268.2	495.2	361.1	134.1	4,210.4	3,731.9	3,318.5	3,011.4
Mar.	9,261.9	45.7	2,904.5	2,419.8	2,145.0	274.8	484.8	351.2	133.6	4,245.8	3,762.0	3,347.6	3,038.5
Apr.	9,269.2	44.9	2,935.1	2,441.4	2,168.7	272.8	493.7	360.0	133.7	4,236.4	3,756.9	3,347.0	3,036.8
May	9,277.1	45.7	2,974.7	2,485.3	2,212.9	272.4	489.4	355.6	133.9	4,246.1	3,772.8	3,363.3	3,049.8
June	9,293.7	46.5	2,959.9	2,469.9	2,197.4	272.5	490.0	356.7	133.3	4,253.7	3,772.0	3,370.7	3,056.9
July	9,320.9	46.8	2,942.8	2,447.5	2,177.6	269.9	495.3	361.1	134.2	4,270.3	3,788.3	3,386.1	3,071.9
													Changes [3]
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
2020	769.5	4.1	505.4	524.2	512.6	11.6	− 18.8	− 16.2	− 2.6	161.0	130.0	132.3	132.2
2019 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.	− 79.5	0.5	21.7	28.2	28.0	0.1	− 6.4	− 4.9	− 1.5	− 4.9	4.3	8.7	8.1
Sep.	104.9	0.1	60.5	69.0	67.5	1.5	− 8.5	− 8.0	− 0.4	5.2	4.5	3.0	2.6
Oct.	25.2	0.2	29.1	29.7	30.5	− 0.8	− 0.6	0.1	− 0.7	27.6	17.3	12.9	11.3
Nov.	12.0	− 0.6	29.0	35.8	37.2	− 1.4	− 6.8	− 6.1	− 0.8	18.6	11.3	11.2	11.5
Dec.	− 141.5	1.8	− 59.5	− 53.6	− 51.2	− 2.4	− 5.9	− 5.8	− 0.2	− 18.3	− 13.3	4.2	2.7
2021 Jan.	201.4	− 2.6	169.3	131.0	128.3	2.8	38.2	40.5	− 2.3	16.8	7.7	6.6	5.1
Feb.	− 2.3	0.7	30.3	19.2	18.2	1.1	11.0	12.2	− 1.2	15.9	15.5	15.7	13.4
Mar.	100.0	0.2	78.0	90.0	83.7	6.3	− 12.0	− 11.5	− 0.5	34.3	29.7	28.8	27.0
Apr.	21.2	− 0.8	33.6	23.0	24.6	− 1.6	10.6	10.5	0.2	− 8.8	− 5.2	− 0.1	− 1.1
May	10.7	0.8	38.9	44.1	44.4	− 0.3	− 5.2	− 5.5	0.3	10.4	16.0	15.7	13.0
June	5.3	0.9	− 17.1	− 16.3	− 15.8	− 0.5	− 0.8	− 0.2	− 0.6	7.3	− 0.5	7.6	6.7
July	26.6	0.2	− 15.6	− 20.2	− 18.2	− 2.0	4.6	4.4	0.2	17.6	16.7	15.9	15.6

***** This table serves to supplement the "Overall monetary survey" in Section II. Unlike the other tables in Section IV, this table includes - in addition to the figures reported by banks (including building and loan associations) - data from money market funds. **1** See footnote 1 in Table IV.2. **2** 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													
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
303.9	412.8	252.3	160.5	469.8	327.5	222.2	142.3	29.7	112.7	1,003.2	751.2	1,090.3	2020
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	2019 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	425.1	253.7	171.4	456.5	311.1	214.5	145.4	29.2	116.1	1,037.6	784.0	1,158.2	Aug.
301.1	426.7	256.0	170.8	457.4	311.0	215.2	146.4	29.3	117.0	1,063.9	808.9	1,176.3	Sep.
302.5	430.5	257.3	173.2	468.2	318.6	219.6	149.5	30.2	119.3	1,049.9	793.4	1,159.6	Oct.
302.2	430.5	256.7	173.8	474.8	325.6	222.5	149.2	29.1	120.1	1,048.0	792.3	1,119.7	Nov.
303.9	412.8	252.3	160.5	469.8	327.5	222.2	142.3	29.7	112.7	1,003.2	751.2	1,090.3	Dec.
304.9	414.0	253.3	160.7	478.4	330.8	224.5	147.6	28.7	118.9	1,087.5	834.6	1,029.5	2021 Jan.
307.1	413.4	250.6	162.9	478.5	334.5	227.0	144.0	28.8	115.2	1,093.8	843.9	974.4	Feb.
309.1	414.4	249.3	165.1	483.8	339.4	232.3	144.4	28.9	115.5	1,105.7	855.5	960.1	Mar.
310.2	409.9	251.0	158.9	479.5	339.8	232.3	139.7	30.3	109.4	1,122.5	876.2	930.3	Apr.
313.5	409.5	250.6	158.9	473.2	339.1	231.9	134.1	28.4	105.7	1,108.3	862.4	902.3	May
313.8	401.4	249.1	152.3	481.7	339.4	231.8	142.3	28.8	113.5	1,111.0	864.8	922.5	June
314.2	402.2	251.3	150.8	482.0	344.2	236.6	137.8	28.6	109.2	1,097.1	849.1	964.0	July
Changes [3]													
– 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
0.2	– 2.4	– 1.7	– 0.7	31.0	30.6	20.9	0.3	– 0.4	0.7	– 9.7	– 8.2	108.8	2020
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	2019 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	– 2.3	– 2.5	– 6.9	– 0.7	– 6.2	– 7.0	– 6.0	– 89.8	Aug.
0.4	1.5	2.2	– 0.7	0.7	– 0.1	0.7	0.9	0.1	0.7	21.1	20.0	18.0	Sep.
1.6	4.4	2.0	2.5	10.4	7.3	4.2	3.0	0.9	2.1	– 15.3	– 16.7	– 16.4	Oct.
– 0.3	0.2	– 0.5	0.7	7.3	7.6	3.6	– 0.3	– 1.1	0.8	6.4	6.6	– 41.4	Nov.
1.5	– 17.5	– 4.4	– 13.2	– 4.9	1.9	0.3	– 6.9	0.6	– 7.4	– 36.3	– 34.4	– 29.3	Dec.
1.5	1.1	0.9	0.2	9.1	3.8	2.9	5.3	– 0.9	6.2	80.2	79.8	– 62.3	2021 Jan.
2.3	– 0.2	– 2.4	2.3	0.3	3.7	2.4	– 3.4	0.1	– 3.4	6.3	8.9	– 55.4	Feb.
1.9	0.9	– 1.3	2.2	4.6	4.2	4.9	0.4	0.1	0.3	2.8	3.3	– 15.3	Mar.
1.0	– 5.0	1.7	– 6.7	– 3.6	0.9	0.7	– 4.5	1.5	– 6.0	26.0	29.0	– 28.8	Apr.
2.7	0.4	– 0.3	0.7	– 5.6	– 0.1	0.3	– 5.5	– 1.9	– 3.6	– 11.4	– 11.4	– 28.0	May
0.8	– 8.1	– 1.4	– 6.7	7.8	– 0.4	– 0.6	8.2	0.4	7.7	– 5.7	– 5.3	19.9	June
0.4	0.8	2.3	– 1.5	0.9	5.6	4.9	– 4.7	– 0.2	– 4.5	– 14.1	– 15.7	38.4	July

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

IV. Banks

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

€ billion

Period	Balance sheet total 1	Deposits of banks (MFIs) in the euro area			Deposits of non-banks (non-MFIs) in the euro area								
						Deposits of non-banks in the home country						Deposits of non-banks	
			of banks					With agreed maturities		At agreed notice			
		Total	in the home country	in other Member States	Total	Total	Overnight	Total	of which: up to 2 years	Total	of which: up to 3 months	Total	Overnight
	End of year or month												
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
2020	8,943.3	1,493.2	1,237.0	256.3	4,021.6	3,836.7	2,508.4	767.8	227.1	560.5	533.2	135.1	57.0
2019 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
Sep.	9,097.4	1,523.9	1,252.4	271.5	3,975.9	3,795.1	2,436.7	798.3	251.4	560.1	531.7	140.6	72.8
Oct.	9,124.3	1,536.3	1,264.9	271.4	4,015.2	3,827.0	2,473.1	794.2	249.1	559.7	531.7	140.8	69.6
Nov.	9,096.0	1,515.4	1,245.5	269.9	4,035.0	3,846.2	2,508.7	778.0	235.3	559.6	532.0	140.2	69.0
Dec.	8,943.3	1,493.2	1,237.0	256.3	4,021.6	3,836.7	2,508.4	767.8	227.1	560.5	533.2	135.1	57.0
2021 Jan.	9,150.4	1,560.0	1,262.3	297.7	4,044.0	3,855.8	2,536.8	757.4	219.4	561.6	534.8	138.4	65.8
Feb.	9,148.1	1,584.4	1,261.7	322.7	4,053.2	3,865.2	2,552.4	750.1	214.1	562.6	536.1	137.7	68.2
Mar.	9,261.9	1,634.1	1,336.6	297.6	4,068.3	3,876.2	2,569.2	744.7	212.3	562.3	536.2	142.2	71.0
Apr.	9,269.2	1,659.9	1,344.1	315.8	4,079.3	3,886.3	2,588.3	735.3	205.8	562.7	536.9	143.0	70.2
May	9,277.1	1,661.1	1,353.0	308.1	4,103.8	3,909.2	2,614.0	732.0	205.0	563.2	537.5	146.4	70.4
June	9,293.7	1,670.8	1,357.4	313.4	4,088.4	3,890.3	2,605.4	722.3	198.1	562.6	537.1	151.3	76.7
July	9,320.9	1,681.5	1,361.1	320.4	4,110.4	3,918.9	2,638.7	718.3	196.7	562.0	536.8	146.0	74.0
	Changes 4												
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
2020	769.5	340.0	317.0	23.0	244.9	188.4	277.6	– 74.7	– 34.9	– 14.5	– 7.2	18.7	1.8
2019 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.	– 79.5	1.6	4.0	– 2.4	14.4	7.7	13.8	– 5.9	– 4.1	– 0.2	0.2	– 3.2	– 1.9
Sep.	104.9	33.1	38.7	– 5.7	24.1	3.7	14.4	– 10.2	– 7.6	– 0.5	– 0.1	10.7	9.1
Oct.	25.2	12.3	12.4	– 0.1	39.1	32.1	36.4	– 3.9	– 3.3	– 0.4	– 0.0	0.1	– 3.3
Nov.	12.0	8.2	8.4	– 0.1	25.6	20.2	36.4	– 16.0	– 13.6	– 0.1	0.3	4.1	3.9
Dec.	– 141.5	– 25.2	– 7.9	– 17.3	– 12.3	– 8.7	0.3	– 10.0	– 8.0	1.0	1.3	– 4.8	– 11.8
2021 Jan.	201.4	65.4	25.0	40.4	21.0	18.6	28.1	– 10.6	– 7.8	1.1	1.6	2.6	9.7
Feb.	– 2.3	24.4	– 0.7	25.1	9.0	9.2	15.5	– 7.3	– 5.3	1.0	1.3	– 0.7	2.4
Mar.	100.0	47.8	73.8	– 26.0	13.6	9.9	15.8	– 5.6	– 1.9	– 0.3	0.1	4.0	2.5
Apr.	21.2	27.6	8.3	19.3	12.5	11.2	20.1	– 9.4	– 6.5	0.4	0.7	1.2	– 0.6
May	10.7	0.6	9.1	– 8.5	24.9	23.2	26.0	– 3.2	– 0.7	0.5	0.6	3.5	0.3
June	5.3	8.2	3.7	4.4	– 16.6	– 19.8	– 9.4	– 9.8	– 7.1	– 0.6	– 0.4	4.5	6.1
July	26.6	13.5	6.5	7.0	22.0	28.7	33.3	– 4.1	– 1.4	– 0.6	– 0.3	– 5.3	– 3.1

* 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													
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
75.6	30.6	2.6	2.3	49.8	48.6	9.4	2.5	1,056.9	21.2	617.6	710.8	1,031.3	2020
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	2019 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	1,063.9	25.5	682.1	699.9	1,095.2	Aug.
65.2	21.8	2.6	2.3	40.2	39.0	1.2	2.6	1,077.3	25.6	687.1	720.4	1,108.9	Sep.
68.6	25.0	2.6	2.3	47.3	46.6	1.4	2.7	1,075.1	24.6	687.8	712.4	1,093.3	Oct.
68.7	24.3	2.6	2.3	48.5	47.6	9.1	2.5	1,070.0	23.3	696.7	713.1	1,054.3	Nov.
75.6	30.6	2.6	2.3	49.8	48.6	9.4	2.5	1,056.9	21.2	617.6	710.8	1,031.3	Dec.
70.0	23.7	2.6	2.3	49.7	48.3	6.3	2.5	1,058.8	19.7	790.8	708.3	979.7	2021 Jan.
67.0	20.5	2.5	2.3	50.3	48.2	4.5	2.5	1,068.3	19.6	803.5	702.4	929.4	Feb.
68.7	22.0	2.5	2.3	49.9	48.9	6.7	2.9	1,090.4	21.5	833.7	712.0	913.8	Mar.
70.3	23.2	2.5	2.3	50.0	48.6	5.1	2.9	1,091.8	21.0	839.1	705.9	885.3	Apr.
73.5	26.7	2.5	2.3	48.2	46.6	6.0	2.3	1,087.7	23.5	854.7	702.7	858.8	May
72.0	25.9	2.5	2.3	46.9	45.6	4.5	2.3	1,084.6	23.8	836.9	725.4	880.7	June
69.5	22.9	2.5	2.3	45.5	44.3	6.0	2.3	1,087.2	23.6	800.0	719.2	914.3	July
Changes [4]													
– 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
17.0	14.3	– 0.1	– 0.1	37.8	37.3	3.6	0.6	11.8	– 9.3	61.6	– 1.5	108.5	2020
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	2019 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	– 0.5	0.0	– 2.2	– 0.4	– 14.9	5.7	– 83.7	Aug.
1.6	2.4	– 0.0	– 0.0	9.6	9.2	– 0.5	0.7	10.5	0.0	2.6	19.6	14.9	Sep.
3.4	3.2	– 0.0	0.0	7.0	7.5	0.3	0.1	– 2.9	– 1.0	– 0.1	– 8.2	– 15.5	Oct.
0.2	– 0.6	– 0.0	– 0.0	1.2	1.0	3.3	– 0.2	– 0.9	– 1.2	12.6	3.3	– 39.9	Nov.
7.0	6.3	0.0	0.0	1.3	1.0	0.3	– 0.0	– 9.0	– 1.9	– 71.4	– 0.7	– 23.2	Dec.
– 7.1	– 6.9	0.0	0.0	– 0.1	– 0.2	– 3.0	– 0.0	– 0.5	– 1.5	171.3	– 3.7	– 49.0	2021 Jan.
– 3.1	– 3.2	– 0.0	– 0.0	0.6	– 0.2	– 1.8	– 0.0	8.9	– 0.1	12.2	– 6.2	– 48.9	Feb.
1.5	1.3	– 0.0	0.0	– 0.4	0.8	2.1	0.5	15.7	1.7	24.0	7.1	– 10.8	Mar.
1.8	1.3	– 0.0	– 0.0	0.1	– 0.4	– 2.2	– 0.1	7.3	– 0.4	11.1	– 3.7	– 31.3	Apr.
3.2	3.5	– 0.0	0.0	– 1.8	– 1.9	0.9	– 0.1	– 2.7	2.5	17.0	– 2.8	– 27.1	May
– 1.6	– 0.9	– 0.0	– 0.0	– 1.3	– 1.0	– 1.5	0.1	– 7.7	0.2	– 22.7	20.9	24.6	June
– 2.1	– 2.6	– 0.0	– 0.0	– 1.4	– 1.3	1.5	– 0.1	2.8	– 0.1	– 36.9	– 5.5	29.3	July

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

IV. Banks

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

€ billion

End of month	Number of reporting institutions	Balance sheet total [1]	Cash in hand and credit balances with central banks	Lending to banks (MFIs)			Lending to non-banks (non-MFIs)					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													
2021 Feb.	1,494	9,207.5	975.3	2,528.6	2,042.8	482.6	4,522.9	392.2	3,417.5	0.3	690.7	94.9	1,085.7
Mar.	1,494	9,321.2	1,029.8	2,559.8	2,068.8	487.7	4,563.9	407.6	3,439.2	0.3	698.3	95.1	1,072.7
Apr.	1,494	9,329.3	1,107.6	2,534.6	2,048.7	482.7	4,549.4	395.3	3,447.6	0.3	687.5	95.1	1,042.7
May	1,492	9,338.4	1,090.9	2,580.8	2,095.4	482.1	4,555.7	391.2	3,459.0	0.2	688.8	95.3	1,015.6
June	1,487	9,355.0	1,089.8	2,569.0	2,084.1	481.5	4,564.4	391.3	3,465.9	0.3	690.6	95.4	1,036.5
July	1,484	9,383.6	1,106.7	2,511.3	2,028.4	480.2	4,592.5	400.2	3,487.5	0.3	685.3	94.3	1,078.9
Commercial banks [6]													
2021 June	253	3,950.4	618.5	1,099.4	1,014.1	84.0	1,417.1	251.1	947.3	0.2	209.0	32.8	782.5
July	255	3,942.0	588.9	1,080.0	996.3	82.8	1,428.0	256.4	952.9	0.2	205.6	32.4	812.7
Big banks [7]													
2021 June	3	2,110.4	203.4	510.8	477.9	32.9	670.8	124.1	435.8	0.1	105.7	26.8	698.6
July	3	2,146.2	195.5	524.6	492.2	32.3	675.8	129.8	437.9	0.0	100.5	26.8	723.6
Regional banks and other commercial banks													
2021 June	143	1,389.6	270.8	401.0	350.7	49.5	636.1	93.3	441.8	0.1	97.3	5.3	76.4
July	143	1,328.7	247.0	354.1	304.8	49.0	640.9	92.0	445.1	0.1	99.0	4.8	82.0
Branches of foreign banks													
2021 June	107	450.3	144.3	187.6	185.5	1.5	110.2	33.8	69.7	0.0	6.0	0.7	7.5
July	109	467.0	146.4	201.3	199.3	1.6	111.4	34.6	69.8	0.1	6.1	0.7	7.1
Landesbanken													
2021 June	6	831.6	100.4	237.7	187.3	50.1	393.7	39.0	312.5	0.0	40.3	8.5	91.3
July	6	851.5	90.3	261.3	211.6	49.5	394.1	38.4	313.1	0.0	40.6	7.8	98.0
Savings banks													
2021 June	372	1,515.9	175.4	171.4	53.1	118.2	1,131.5	46.7	907.3	–	175.8	14.9	22.6
July	372	1,526.6	180.4	171.2	53.3	117.8	1,137.1	46.2	913.7	–	175.8	15.0	22.9
Credit cooperatives													
2021 June	810	1,106.7	60.0	196.5	82.4	113.9	806.2	33.0	651.4	0.0	121.6	18.6	25.5
July	805	1,114.4	60.6	198.5	84.5	113.8	811.1	32.3	656.7	0.0	121.8	18.6	25.6
Mortgage banks													
2021 June	10	245.6	11.6	19.5	10.4	8.9	206.2	3.1	184.4	–	18.7	0.1	8.1
July	10	246.4	10.9	19.4	10.4	8.7	207.1	2.7	185.5	–	18.8	0.2	8.9
Building and loan associations													
2021 June	18	248.2	2.2	44.3	28.5	15.8	198.0	1.0	171.4	.	25.6	0.3	3.5
July	18	248.9	2.5	43.9	28.2	15.7	198.8	1.0	172.2	.	25.6	0.3	3.5
Banks with special, development and other central support tasks													
2021 June	18	1,456.6	121.6	800.1	708.3	90.6	411.7	17.4	291.7	0.0	99.7	20.1	103.0
July	18	1,454.0	173.0	737.1	644.2	91.8	416.4	23.3	293.3	0.0	97.1	20.1	107.3
Memo item: Foreign banks [8]													
2021 June	140	1,645.8	324.2	599.8	561.0	37.6	564.3	108.4	356.6	0.1	95.1	3.7	153.7
July	142	1,600.6	296.9	570.2	533.1	36.4	568.5	108.3	358.3	0.2	97.0	3.7	161.2
of which: Banks majority-owned by foreign banks [9]													
2021 June	33	1,195.5	179.9	412.2	375.4	36.0	454.1	74.6	286.9	0.1	89.1	3.0	146.3
July	33	1,133.5	150.4	368.9	333.8	34.8	457.2	73.7	288.5	0.1	91.0	3.0	154.0

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

IV. Banks

Deposits of banks (MFIs)			Deposits of non-banks (non-MFIs)											
	of which:			of which:										
					Time deposits [2]			Savings deposits [4]						
Total	Sight deposits	Time deposits	Total	Sight deposits	for up to and including 1 year	for more than 1 year [2]	Memo item: Liabilities arising from repos [3]	Total	of which: At 3 months' notice	Bank savings bonds	Bearer debt securities out-standing [5]	Capital including published reserves, partici-pation rights capital, funds for general banking risks	Other liabi-lities [1]	End of month
All categories of banks														
2,248.4	658.1	1,590.3	4,197.1	2,702.6	240.5	656.3	42.7	568.8	541.8	28.9	1,164.6	547.0	1,050.4	2021 Feb.
2,327.6	655.7	1,671.9	4,214.7	2,722.9	243.4	651.8	42.9	568.5	541.9	28.0	1,195.6	548.9	1,034.5	Mar.
2,351.7	658.3	1,693.4	4,231.4	2,745.3	244.2	645.4	49.7	568.9	542.5	27.6	1,184.0	555.0	1,007.1	Apr.
2,365.0	653.9	1,711.1	4,260.3	2,768.9	248.3	646.9	50.8	569.4	543.1	26.8	1,176.6	550.7	985.8	May
2,373.2	672.2	1,701.0	4,227.2	2,760.4	232.4	639.4	41.7	568.7	542.7	26.2	1,184.3	560.1	1,010.2	June
2,342.3	661.1	1,681.1	4,256.8	2,797.7	229.1	635.9	49.5	568.1	542.4	26.0	1,179.4	560.4	1,044.8	July
Commercial banks [6]														
1,236.9	504.7	732.1	1,656.4	1,166.0	149.4	229.2	40.2	100.5	96.6	11.3	163.5	185.1	708.5	2021 June
1,186.7	486.3	700.3	1,673.3	1,185.4	149.0	226.8	48.1	100.9	97.0	11.2	163.9	185.3	732.9	July
Big banks [7]														
463.9	181.4	282.5	821.7	578.4	77.0	79.8	30.8	85.3	82.0	1.2	122.2	72.2	630.4	2021 June
469.2	189.8	279.4	830.6	585.5	78.9	79.4	38.6	85.6	82.4	1.2	122.7	72.2	651.6	July
Regional banks and other commercial banks														
510.2	164.6	345.6	667.2	471.0	45.8	125.6	9.4	14.8	14.1	10.0	40.9	101.3	70.1	2021 June
444.4	134.3	310.0	669.6	476.8	44.4	123.7	9.5	14.8	14.1	9.9	40.8	101.5	72.5	July
Branches of foreign banks														
262.8	158.8	104.0	167.5	116.6	26.6	23.8	–	0.4	0.4	0.1	0.5	11.5	8.1	2021 June
273.2	162.3	110.9	173.1	123.1	25.7	23.7	–	0.4	0.4	0.1	0.4	11.6	8.8	July
Landesbanken														
283.0	55.4	227.5	238.3	140.6	24.0	67.5	1.5	6.2	6.1	0.0	181.3	43.2	85.8	2021 June
297.9	60.8	237.2	242.7	146.9	22.7	66.9	0.8	6.1	6.1	0.0	180.2	43.2	87.6	July
Savings banks														
192.4	4.0	188.4	1,128.1	816.0	9.8	13.3	–	278.2	261.0	10.9	17.1	131.3	47.0	2021 June
193.9	3.8	190.1	1,136.2	823.9	10.5	13.3	–	277.8	260.9	10.7	17.2	131.9	47.4	July
Credit cooperatives														
159.7	1.3	158.3	811.6	582.1	28.3	14.0	–	183.4	178.6	3.8	9.7	93.3	32.5	2021 June
160.5	1.3	159.2	817.9	589.3	28.0	14.0	–	182.8	178.0	3.8	9.7	93.7	32.6	July
Mortgage banks														
64.3	2.2	62.1	61.0	2.4	3.9	54.6	–	–	–	.	102.9	10.8	6.6	2021 June
62.0	2.4	59.6	60.7	1.9	4.1	54.7	–	–	–	.	103.4	10.0	10.3	July
Building and loan associations														
29.9	2.2	27.7	191.9	3.6	1.4	186.4	–	0.5	0.5	0.1	3.3	12.3	10.9	2021 June
30.8	2.0	28.7	191.7	3.5	1.5	186.2	–	0.5	0.5	0.1	3.3	12.3	10.9	July
Banks with special, development and other central support tasks														
407.2	102.4	304.8	139.9	49.7	15.7	74.3	0.0	–	–	.	706.6	84.1	118.8	2021 June
410.5	104.5	306.0	134.3	46.8	13.5	73.9	0.5	–	–	.	701.8	84.1	123.2	July
***Memo item:* Foreign banks [8]**														
741.0	335.0	405.9	629.7	476.1	52.4	78.4	7.0	19.6	19.3	3.3	37.0	78.7	159.4	2021 June
683.9	308.9	374.9	638.2	485.0	52.0	78.0	8.0	19.9	19.6	3.2	37.5	78.7	162.3	July
***of which:* Banks majority-owned by foreign banks [9]**														
478.2	176.3	301.9	462.2	359.5	25.8	54.6	7.0	19.1	18.8	3.2	36.6	67.1	151.3	2021 June
410.7	146.7	264.0	465.2	361.9	26.3	54.3	8.0	19.5	19.2	3.1	37.0	67.1	153.5	July

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

IV. Banks

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

€ billion

Period	Cash in hand (euro area banknotes and coins)	Credit balances with the Bundesbank	Lending to domestic banks (MFIs)						Lending to domestic non-banks (non-MFIs)				
			Total	Credit balances and loans	Bills	Negotiable money market paper issued by banks	Securities issued by banks	Memo item: Fiduciary loans	Total	Loans	Bills	Treasury bills and negotiable money market paper issued by non-banks	Securities issued by non-banks [1]
													End of year or month *
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
2020	47.2	792.9	1,367.9	1,119.7	0.0	0.7	247.5	8.8	3,647.0	3,245.1	0.2	4.0	397.7
2020 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	3,629.7	3,219.6	0.2	9.4	400.5
Sep.	45.8	884.4	1,293.9	1,041.1	0.0	1.0	251.8	8.3	3,634.2	3,224.4	0.2	8.4	401.3
Oct.	46.1	811.0	1,397.3	1,145.2	0.0	0.8	251.2	8.6	3,651.1	3,237.6	0.2	9.0	404.3
Nov.	45.4	863.2	1,351.9	1,101.3	0.0	0.8	249.8	8.6	3,661.1	3,247.4	0.2	7.6	405.8
Dec.	47.2	792.9	1,367.9	1,119.7	0.0	0.7	247.5	8.8	3,647.0	3,245.1	0.2	4.0	397.7
2021 Jan.	44.6	1,009.1	1,283.1	1,032.1	0.0	0.7	250.2	9.2	3,654.0	3,250.7	0.3	6.6	396.3
Feb.	45.0	929.2	1,382.3	1,130.2	0.0	1.0	251.1	9.6	3,669.3	3,261.7	0.2	7.4	400.0
Mar.	45.5	983.4	1,419.4	1,160.8	0.0	0.9	257.7	9.8	3,699.1	3,287.5	0.2	6.7	404.7
Apr.	44.7	1,062.1	1,362.4	1,105.7	0.0	0.9	255.8	9.8	3,693.9	3,287.5	0.2	5.6	400.5
May	45.4	1,044.7	1,423.6	1,167.3	0.0	0.9	255.4	10.1	3,709.6	3,300.2	0.1	4.6	404.7
June	46.1	1,042.8	1,409.7	1,153.8	0.0	0.8	255.1	10.3	3,709.2	3,305.7	0.2	5.8	397.6
July	46.3	1,059.2	1,372.0	1,118.1	0.0	0.8	253.2	10.3	3,725.3	3,322.9	0.2	6.1	396.2
													Changes *
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
2020	+ 4.1	+ 316.4	+ 201.2	+ 191.6	– 0.0	+ 0.0	+ 9.6	+ 4.3	+ 123.2	+ 123.6	– 0.1	+ 0.7	– 1.1
2020 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	+ 4.0	+ 2.4	+ 0.0	+ 1.4	+ 0.2
Sep.	+ 0.1	+ 123.6	– 54.2	– 55.6	+ 0.0	– 0.0	+ 1.5	+ 0.5	+ 4.6	+ 4.8	+ 0.0	– 1.0	+ 0.7
Oct.	+ 0.2	– 73.5	+ 103.4	+ 104.2	–	– 0.2	– 0.6	+ 0.3	+ 16.5	+ 12.9	+ 0.0	+ 0.6	+ 3.0
Nov.	– 0.6	+ 52.3	– 17.1	– 15.6	– 0.0	– 0.0	– 1.5	– 0.0	+ 10.6	+ 10.5	– 0.0	– 1.4	+ 1.6
Dec.	+ 1.8	– 70.3	+ 16.0	+ 18.4	–	– 0.1	– 2.3	+ 0.2	– 14.1	– 2.3	+ 0.0	– 3.6	– 8.1
2021 Jan.	– 2.6	+ 216.2	– 84.9	– 87.8	+ 0.0	+ 0.0	+ 2.8	+ 0.4	+ 6.6	+ 5.3	+ 0.0	+ 2.6	– 1.4
Feb.	+ 0.3	– 79.9	+ 98.9	+ 97.8	–	+ 0.3	+ 0.8	+ 0.4	+ 15.3	+ 11.0	– 0.0	+ 0.7	+ 3.6
Mar.	+ 0.6	+ 54.3	+ 37.1	+ 30.6	–	– 0.1	+ 6.6	+ 0.2	+ 29.7	+ 25.6	– 0.0	– 1.4	+ 5.4
Apr.	– 0.8	+ 78.7	– 56.7	– 54.9	– 0.0	– 0.1	– 1.7	+ 0.0	– 5.2	+ 0.0	– 0.0	– 1.1	– 4.1
May	+ 0.8	– 17.5	+ 61.2	+ 61.6	–	+ 0.0	– 0.4	+ 0.4	+ 15.6	+ 12.5	– 0.0	– 1.1	+ 4.2
June	+ 0.6	– 1.9	– 13.6	– 13.3	– 0.0	– 0.1	– 0.3	+ 0.1	– 0.4	+ 5.5	+ 0.0	+ 1.3	– 7.1
July	+ 0.2	+ 15.3	– 35.1	– 33.1	–	– 0.0	– 1.9	+ 0.1	+ 16.1	+ 17.2	+ 0.0	+ 0.3	– 1.4

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

			Deposits of domestic banks (MFIs) [3]					Deposits of domestic non-banks (non-MFIs)						
Equalisation claims [2]	Memo item: Fiduciary loans	Participating interests in domestic banks and enterprises	Total	Sight deposits [4]	Time deposits [4]	Redis-counted bills [5]	Memo item: Fiduciary loans	Total	Sight deposits	Time deposits [6]	Savings deposits [7]	Bank savings bonds [8]	Memo item: Fiduciary loans	Period
End of year or month *														
–	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
–	23.5	78.3	1,236.7	125.0	1,111.6	0.0	13.1	3,885.2	2,513.0	783.3	560.6	28.3	34.4	2020
–	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	2020 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.
–	22.7	79.2	1,251.5	123.8	1,127.8	0.0	12.0	3,834.2	2,442.8	802.0	560.1	29.3	34.3	Sep.
–	22.8	79.4	1,263.7	131.5	1,132.2	0.0	12.3	3,874.1	2,481.4	804.1	559.7	28.9	34.6	Oct.
–	22.9	78.1	1,244.8	134.6	1,110.2	0.0	12.5	3,894.3	2,515.3	790.9	559.6	28.5	34.4	Nov.
–	23.5	78.3	1,236.7	125.0	1,111.6	0.0	13.1	3,885.2	2,513.0	783.3	560.6	28.3	34.4	Dec.
–	23.7	78.2	1,261.6	140.5	1,121.2	0.0	13.6	3,904.5	2,542.0	773.1	561.6	27.9	34.3	2021 Jan.
–	24.0	78.2	1,260.6	138.0	1,122.5	0.0	14.2	3,913.7	2,557.5	766.1	562.6	27.5	34.3	Feb.
–	24.3	78.3	1,336.0	135.4	1,200.6	0.0	14.7	3,925.8	2,575.2	761.2	562.3	27.1	34.4	Mar.
–	24.5	77.7	1,343.0	136.2	1,206.8	0.0	15.1	3,935.7	2,594.6	751.6	562.8	26.8	34.4	Apr.
–	24.7	78.6	1,351.9	140.0	1,211.9	0.0	15.5	3,956.3	2,620.5	746.2	563.2	26.3	34.6	May
–	25.0	78.7	1,357.0	132.7	1,224.3	0.0	15.8	3,936.4	2,612.1	735.7	562.6	26.1	34.6	June
–	25.1	78.1	1,360.7	136.1	1,224.5	0.0	15.9	3,964.6	2,646.0	730.7	562.0	25.9	34.5	July
Changes *														
–	– 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
–	+ 5.7	– 3.3	+ 313.4	+ 23.2	+ 290.2	– 0.0	+ 8.2	+ 221.6	+ 273.7	– 32.7	– 14.5	– 4.9	+ 1.9	2020
–	– 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	2020 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.
–	+ 0.2	+ 0.0	+ 40.0	– 2.5	+ 42.5	+ 0.0	+ 0.5	+ 13.4	+ 15.1	– 0.9	– 0.5	– 0.4	+ 0.3	Sep.
–	+ 0.1	+ 0.2	+ 12.2	+ 7.7	+ 4.4	–	+ 0.2	+ 40.0	+ 38.6	+ 2.2	– 0.4	– 0.4	+ 0.3	Oct.
–	+ 0.2	+ 0.1	+ 8.3	+ 3.5	+ 4.8	– 0.0	+ 0.3	+ 20.5	+ 34.1	– 13.2	– 0.1	– 0.3	– 0.2	Nov.
–	+ 0.6	+ 0.1	– 8.1	– 9.6	+ 1.5	–	+ 0.5	– 9.2	– 2.3	– 7.6	+ 1.0	– 0.2	– 0.0	Dec.
–	+ 0.2	– 0.1	+ 24.9	+ 15.7	+ 9.2	+ 0.0	+ 0.5	+ 19.2	+ 28.9	– 10.3	+ 1.1	– 0.4	– 0.1	2021 Jan.
–	+ 0.3	+ 0.1	– 1.2	– 2.4	+ 1.2	– 0.0	+ 0.6	+ 9.1	+ 15.4	– 7.0	+ 1.0	– 0.4	– 0.0	Feb.
–	+ 0.3	+ 0.1	+ 75.1	– 2.6	+ 77.7	–	+ 0.5	+ 12.2	+ 17.7	– 4.8	– 0.3	– 0.4	+ 0.1	Mar.
–	+ 0.2	– 0.6	+ 7.1	+ 0.8	+ 6.3	+ 0.0	+ 0.3	+ 9.8	+ 19.6	– 9.8	+ 0.4	– 0.3	– 0.0	Apr.
–	+ 0.3	+ 0.3	+ 8.9	+ 3.9	+ 5.0	–	+ 0.5	+ 20.6	+ 26.0	– 5.3	+ 0.5	– 0.5	+ 0.2	May
–	+ 0.2	+ 0.1	+ 5.0	– 7.3	+ 12.3	+ 0.0	+ 0.3	– 19.8	– 8.5	– 10.5	– 0.6	– 0.2	– 0.0	June
–	+ 0.1	+ 0.1	+ 6.6	+ 3.5	+ 3.1	–	+ 0.1	+ 28.2	+ 33.9	– 5.0	– 0.6	– 0.2	– 0.1	July

including subordinated liabilities. **4** Including liabilities arising from monetary policy operations with the Bundesbank. **5** Own acceptances and promissory notes outstanding. **6** Since the inclusion of building and loan associations in January 1999, including deposits under savings and loan contracts (see Table IV.12). **7** Excluding deposits under savings and loan contracts (see also footnote 8). **8** Including liabilities arising from non-negotiable bearer debt securities.

IV. Banks

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

€ billion

Period	Cash in hand (non-euro area banknotes and coins)	Lending to foreign banks (MFIs)							Lending to foreign non-banks (non-MFIs)					
		Total	Credit balances and loans, bills			Negotiable money market paper issued by banks	Securities issued by banks	Memo item: Fiduciary loans	Total	Loans and bills			Treasury bills and negotiable money market paper issued by non-banks	Securities issued by non-banks
			Total	Short-term	Medium and long-term					Total	Short-term	Medium and long-term		
	End of year or month *													
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
2020	0.2	1,024.3	784.8	532.1	252.8	2.6	236.8	4.0	822.8	523.0	125.4	397.5	11.3	288.5
2020 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
Sep.	0.2	1,084.3	841.3	583.4	257.9	3.6	239.4	4.1	821.9	530.4	130.3	400.2	15.2	276.3
Oct.	0.3	1,064.7	822.9	564.5	258.5	3.5	238.3	4.1	839.8	539.3	137.7	401.6	16.5	284.1
Nov.	0.2	1,056.0	815.8	563.4	252.4	3.5	236.7	4.0	845.6	539.5	139.8	399.7	14.0	292.1
Dec.	0.2	1,024.3	784.8	532.1	252.8	2.6	236.8	4.0	822.8	523.0	125.4	397.5	11.3	288.5
2021 Jan.	0.2	1,135.1	897.8	645.6	252.2	2.6	234.7	3.8	846.9	538.6	142.7	395.8	14.0	294.3
Feb.	0.6	1,146.4	912.7	659.6	253.1	2.2	231.5	3.8	853.6	548.2	150.4	397.7	14.7	290.7
Mar.	0.2	1,140.4	908.0	646.7	261.3	2.3	230.1	3.8	864.8	559.3	153.3	406.1	11.9	293.5
Apr.	0.2	1,172.3	943.1	680.7	262.3	2.3	227.0	3.9	855.5	555.5	152.6	402.9	13.0	287.0
May	0.2	1,157.2	928.1	669.8	258.3	2.4	226.8	3.9	846.1	550.1	147.3	402.8	11.9	284.2
June	0.4	1,159.3	930.3	666.6	263.7	2.5	226.4	3.9	855.1	551.6	146.7	404.9	10.5	293.0
July	0.4	1,139.3	910.4	651.3	259.1	1.9	227.0	3.8	867.2	565.0	158.4	406.6	13.1	289.2
	Changes *													
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
2020	− 0.0	− 32.0	− 22.4	− 6.6	− 15.8	+ 0.9	− 10.5	+ 0.3	+ 34.4	+ 14.7	+ 9.0	+ 5.7	+ 3.6	+ 16.1
2020 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
Sep.	− 0.0	+ 13.9	+ 16.6	+ 18.2	− 1.6	+ 0.1	− 2.8	− 0.0	+ 0.1	− 2.5	− 3.8	+ 1.3	− 0.4	+ 3.0
Oct.	+ 0.0	− 20.8	− 19.5	− 19.8	+ 0.3	− 0.1	− 1.2	+ 0.1	+ 16.7	+ 7.8	+ 6.9	+ 0.9	+ 1.3	+ 7.6
Nov.	− 0.0	− 3.4	− 1.9	+ 1.8	− 3.7	− 0.0	− 1.5	− 0.1	+ 9.7	+ 3.6	+ 2.8	+ 0.8	− 2.5	+ 8.6
Dec.	− 0.0	− 26.9	− 26.3	− 28.9	+ 2.6	− 0.9	+ 0.2	− 0.1	− 19.3	− 13.7	− 13.6	− 0.0	− 2.7	− 3.0
2021 Jan.	− 0.0	+ 106.1	+ 108.3	+ 110.3	− 1.9	− 0.1	− 2.1	− 0.1	+ 22.5	+ 14.5	+ 17.8	− 3.3	+ 2.7	+ 5.3
Feb.	+ 0.3	+ 11.1	+ 14.7	+ 14.0	+ 0.7	− 0.4	− 3.2	− 0.1	+ 6.3	+ 9.0	+ 7.5	+ 1.5	+ 0.7	− 3.5
Mar.	− 0.3	− 11.7	− 10.1	− 15.8	+ 5.6	+ 0.1	− 1.7	+ 0.0	+ 3.9	+ 4.9	+ 0.7	+ 4.1	− 2.8	+ 1.8
Apr.	− 0.0	+ 37.7	+ 40.7	+ 36.8	+ 3.9	− 0.1	− 2.9	+ 0.1	− 4.0	+ 0.6	+ 0.7	− 0.0	+ 1.1	− 5.6
May	+ 0.0	− 14.9	− 14.6	− 11.5	− 3.1	− 0.1	− 0.3	+ 0.0	− 7.7	− 4.2	− 4.4	+ 0.2	− 0.9	− 2.6
June	+ 0.2	− 4.1	− 3.7	− 6.3	+ 2.6	+ 0.1	− 0.5	− 0.0	+ 4.9	− 1.8	− 1.7	− 0.2	− 1.5	+ 8.2
July	+ 0.0	− 21.8	− 20.5	− 15.7	− 4.8	− 0.6	− 0.7	− 0.1	+ 12.9	+ 13.0	+ 11.7	+ 1.4	+ 2.6	− 2.8

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

IV. Banks

Memo item: Fiduciary loans	Participating interests in foreign banks and enterprises	Deposits of foreign banks (MFIs)						Deposits of foreign non-banks (non-MFIs)						Period
		Total	Sight deposits	Time deposits (including bank savings bonds)			Memo item: Fiduciary loans	Total	Sight deposits	Time deposits (including savings deposits and bank savings bonds)			Memo item: Fiduciary loans	
				Total	Short-term	Medium and long-term				Total	Short-term	Medium and long-term		
End of year or month *														
32.9	45.0	655.7	242.6	413.1	289.4	123.7	0.1	225.9	92.3	133.6	66.9	66.6	1.3	2011
32.6	46.4	691.1	289.4	401.7	284.6	117.0	0.1	237.6	107.2	130.3	69.1	61.2	1.2	2012
30.8	39.0	515.7	222.6	293.2	196.0	97.2	0.1	257.8	118.1	139.7	76.8	62.9	1.0	2013
14.0	35.6	609.2	277.1	332.1	242.7	89.4	0.1	221.0	113.0	107.9	47.8	60.1	0.7	2014
13.1	30.5	611.9	323.4	288.5	203.8	84.7	0.1	201.1	102.6	98.5	49.3	49.2	0.7	2015
13.1	28.7	696.1	374.4	321.6	234.2	87.5	0.0	206.2	100.3	105.9	55.2	50.8	0.7	2016
12.1	24.3	659.0	389.6	269.4	182.4	87.0	0.0	241.2	109.4	131.8	68.1	63.8	0.3	2017
11.8	22.1	643.1	370.6	272.5	185.6	86.8	0.0	231.5	110.2	121.3	63.7	57.6	0.1	2018
11.5	21.3	680.6	339.3	341.2	243.2	98.0	–	229.8	112.3	117.4	60.5	57.0	0.1	2019
11.3	17.2	761.2	428.8	332.5	205.1	127.3	–	258.5	133.3	125.2	65.6	59.7	0.1	2020
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	2020 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.
11.4	19.0	832.4	486.5	345.9	226.4	119.6	–	269.6	145.5	124.1	66.0	58.1	0.1	Sep.
11.5	19.0	833.2	487.3	345.9	224.6	121.3	–	269.5	142.6	127.0	68.5	58.4	0.1	Oct.
11.5	19.0	836.8	491.3	345.5	219.0	126.5	–	279.9	154.2	125.8	66.0	59.7	0.1	Nov.
11.3	17.2	761.2	428.8	332.5	205.1	127.3	–	258.5	133.3	125.2	65.6	59.7	0.1	Dec.
11.3	16.5	954.9	507.8	447.0	298.5	148.5	–	279.8	145.0	134.8	69.4	65.3	0.1	2021 Jan.
11.3	16.5	987.8	520.0	467.7	318.0	149.7	–	283.4	145.2	138.3	71.5	66.8	0.1	Feb.
11.3	16.6	991.5	520.2	471.3	319.5	151.8	–	288.9	147.8	141.1	73.7	67.4	0.1	Mar.
11.3	16.5	1,008.7	522.1	486.6	343.1	143.5	–	295.8	150.7	145.0	81.0	64.1	0.1	Apr.
11.3	16.5	1,013.1	513.9	499.2	360.2	139.0	–	304.0	148.4	155.6	88.0	67.6	0.1	May
11.3	16.5	1,016.2	539.5	476.7	335.5	141.3	–	290.8	148.4	142.5	79.9	62.6	0.1	June
11.2	16.0	981.6	525.0	456.6	304.9	151.7	–	292.2	151.7	140.5	79.3	61.2	0.1	July
Changes *														
– 0.3	+ 1.5	+ 38.2	+ 51.7	– 13.5	– 7.5	– 6.0	– 0.0	+ 12.6	+ 15.2	– 2.6	+ 2.5	– 5.1	– 0.1	2012
– 1.8	– 7.2	– 174.0	– 75.6	– 98.4	– 83.1	– 15.4	– 0.0	+ 13.5	+ 9.6	+ 3.9	+ 6.9	– 3.0	– 0.2	2013
+ 0.1	– 3.8	+ 76.3	+ 47.8	+ 28.5	+ 39.0	– 10.5	– 0.0	– 43.6	– 8.3	– 35.3	– 30.7	– 4.6	+ 0.2	2014
– 0.6	– 6.1	– 15.4	+ 40.6	– 56.0	– 48.6	– 7.4	– 0.0	– 26.5	– 13.9	– 12.6	+ 0.3	– 13.0	– 0.0	2015
– 0.1	– 1.5	+ 82.7	+ 51.0	+ 31.7	+ 27.0	+ 4.7	– 0.0	+ 3.5	– 3.1	+ 6.7	+ 5.9	+ 0.8	– 0.0	2016
– 1.0	– 4.1	– 15.5	+ 25.3	– 40.8	– 43.2	+ 2.4	± 0.0	+ 31.8	+ 11.0	+ 20.8	+ 15.6	+ 5.2	– 0.4	2017
– 0.2	– 2.2	– 23.9	– 23.4	– 0.4	+ 2.1	– 2.6	– 0.0	– 11.9	– 0.2	– 11.8	– 5.7	– 6.0	– 0.2	2018
– 0.3	– 0.9	– 9.5	– 49.4	+ 39.8	+ 28.0	+ 11.8	– 0.0	– 0.8	+ 2.1	– 2.9	– 1.8	– 1.1	– 0.0	2019
– 0.2	– 3.9	+ 83.8	+ 87.8	– 4.1	– 34.7	+ 30.6	–	+ 23.6	+ 13.8	+ 9.8	+ 7.1	+ 2.8	+ 0.0	2020
– 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	2020 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.
+ 0.2	+ 0.0	+ 1.0	+ 10.4	– 9.5	– 13.5	+ 4.0	–	+ 5.8	+ 10.4	– 4.6	– 4.1	– 0.5	+ 0.0	Sep.
+ 0.0	– 0.0	+ 0.1	+ 0.5	– 0.4	– 2.0	+ 1.6	–	– 0.6	– 3.2	+ 2.6	+ 2.3	+ 0.3	+ 0.0	Oct.
+ 0.0	+ 0.0	+ 7.9	+ 5.9	+ 2.0	– 3.7	+ 5.7	–	+ 11.6	+ 12.2	– 0.6	– 2.1	+ 1.5	– 0.0	Nov.
– 0.2	– 1.7	– 72.1	– 60.9	– 11.2	– 12.6	+ 1.4	–	– 20.3	– 20.3	– 0.0	– 0.1	+ 0.1	+ 0.0	Dec.
– 0.0	– 0.8	+ 191.3	+ 78.5	+ 112.9	+ 92.4	+ 20.5	–	+ 20.1	+ 12.3	+ 7.8	+ 3.6	+ 4.2	– 0.0	2021 Jan.
– 0.0	– 0.0	+ 32.7	+ 12.2	+ 20.5	+ 19.3	+ 1.2	–	+ 3.4	+ 0.0	+ 3.4	+ 2.0	+ 1.4	– 0.0	Feb.
+ 0.1	– 0.0	– 1.8	– 2.6	+ 0.8	– 1.1	+ 1.9	–	+ 3.2	+ 1.6	+ 1.6	+ 1.3	+ 0.3	+ 0.0	Mar.
– 0.0	+ 0.0	+ 23.2	+ 4.3	+ 19.0	+ 26.8	– 7.8	–	+ 7.9	+ 3.7	+ 4.2	+ 7.3	– 3.0	+ 0.0	Apr.
+ 0.0	+ 0.0	+ 4.9	– 7.4	+ 12.2	+ 16.6	– 4.4	–	+ 8.6	– 2.2	+ 10.8	+ 7.2	+ 3.5	– 0.0	May
– 0.1	– 0.0	– 1.9	+ 23.7	– 25.6	– 27.4	+ 1.8	–	– 14.8	– 0.6	– 14.2	– 9.0	– 5.2	– 0.0	June
– 0.1	– 0.5	– 34.8	– 14.6	– 20.2	– 30.6	+ 10.4	–	+ 1.3	+ 2.9	– 1.6	– 0.3	– 1.3	+ 0.0	July

IV. Banks

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

€ billion

Period	Lending to domestic non-banks, total		Short-term lending							Medium and long-term	
				to enterprises and households			to general government				to enterprises
	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 *										
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
2020	3,647.0	3,245.3	243.3	221.6	221.2	0.4	21.6	18.0	3.6	3,403.8	3,013.0
2020 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.	3,629.7	3,219.7	265.6	237.7	236.9	0.8	28.0	19.4	8.6	3,364.0	2,967.3
Sep.	3,634.2	3,224.6	261.9	232.0	231.3	0.7	29.9	22.3	7.7	3,372.3	2,976.0
Oct.	3,651.1	3,237.8	261.0	229.5	228.7	0.7	31.6	23.3	8.2	3,390.1	2,991.5
Nov.	3,661.1	3,247.6	258.7	229.3	228.7	0.6	29.4	22.4	7.0	3,402.4	3,001.7
Dec.	3,647.0	3,245.3	243.3	221.6	221.2	0.4	21.6	18.0	3.6	3,403.8	3,013.0
2021 Jan.	3,654.0	3,251.0	247.7	221.9	221.3	0.6	25.8	19.7	6.1	3,406.3	3,018.4
Feb.	3,669.3	3,261.9	249.5	224.2	223.6	0.6	25.3	18.5	6.8	3,419.7	3,031.9
Mar.	3,699.1	3,287.7	261.3	236.6	236.0	0.6	24.7	18.6	6.1	3,437.8	3,048.6
Apr.	3,693.9	3,287.7	248.6	223.5	222.8	0.7	25.1	20.2	4.9	3,445.2	3,061.5
May	3,709.6	3,300.4	248.7	225.4	224.6	0.8	23.3	19.5	3.8	3,460.9	3,075.1
June	3,709.2	3,305.8	250.7	225.8	225.0	0.8	24.9	19.9	5.1	3,458.5	3,082.5
July	3,725.3	3,323.0	248.2	221.0	220.2	0.8	27.2	21.9	5.3	3,477.1	3,102.5
	Changes *										
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
2020	+ 123.2	+ 123.6	– 19.6	– 19.8	– 19.8	– 0.0	+ 0.2	– 0.5	+ 0.7	+ 142.8	+ 145.6
2020 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.	+ 4.0	+ 2.4	– 7.5	– 4.1	– 4.1	– 0.0	– 3.5	– 4.9	+ 1.4	+ 11.5	+ 12.6
Sep.	+ 4.6	+ 4.9	– 3.7	– 5.6	– 5.6	– 0.1	+ 2.0	+ 2.9	– 0.9	+ 8.3	+ 8.6
Oct.	+ 16.5	+ 12.9	– 0.9	– 2.6	– 2.6	+ 0.0	+ 1.7	+ 1.1	+ 0.6	+ 17.4	+ 14.6
Nov.	+ 10.6	+ 10.4	– 2.1	– 0.1	+ 0.0	– 0.1	– 2.0	– 0.7	– 1.2	+ 12.7	+ 10.6
Dec.	– 14.1	– 2.3	– 15.5	– 7.7	– 7.5	– 0.2	– 7.8	– 4.4	– 3.4	+ 1.4	+ 11.2
2021 Jan.	+ 6.6	+ 5.3	+ 4.4	+ 0.3	+ 0.1	+ 0.2	+ 4.2	+ 1.7	+ 2.5	+ 2.1	+ 5.2
Feb.	+ 15.3	+ 10.9	+ 1.8	+ 2.3	+ 2.3	+ 0.0	– 0.5	– 1.2	+ 0.7	+ 13.5	+ 13.3
Mar.	+ 29.7	+ 25.6	+ 11.2	+ 12.5	+ 12.5	– 0.0	– 1.3	+ 0.0	– 1.4	+ 18.5	+ 16.3
Apr.	– 5.2	– 0.0	– 12.8	– 13.1	– 13.2	+ 0.1	+ 0.3	+ 1.6	– 1.2	+ 7.5	+ 13.0
May	+ 15.6	+ 12.5	+ 0.1	+ 1.8	+ 1.7	+ 0.1	– 1.8	– 0.6	– 1.2	+ 15.5	+ 13.4
June	– 0.4	+ 5.5	+ 2.0	+ 0.3	+ 0.4	– 0.1	+ 1.7	+ 0.4	+ 1.3	– 2.4	+ 7.3
July	+ 16.1	+ 17.2	– 2.0	– 4.2	– 4.3	+ 0.0	+ 2.3	+ 2.0	+ 0.3	+ 18.1	+ 19.5

***** 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 *												
2,099.5	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
2,771.8	310.5	2,461.4	241.1	22.4	390.8	234.3	15.7	218.6	156.6	–	1.1	2020
2,646.4	302.5	2,344.0	242.5	15.7	391.0	235.7	17.2	218.5	155.3	–	1.2	2020 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.
2,737.4	313.1	2,424.2	238.6	21.5	396.3	233.7	16.2	217.5	162.6	–	1.2	Sep.
2,751.8	313.2	2,438.6	239.7	21.6	398.6	234.0	15.9	218.1	164.6	–	1.2	Oct.
2,762.3	311.5	2,450.8	239.4	21.8	400.7	234.2	15.7	218.6	166.4	–	1.2	Nov.
2,771.8	310.5	2,461.4	241.1	22.4	390.8	234.3	15.7	218.6	156.6	–	1.1	Dec.
2,776.4	307.8	2,468.6	242.0	22.5	387.9	233.6	15.3	218.3	154.3	–	1.2	2021 Jan.
2,787.7	309.7	2,478.1	244.2	22.8	387.8	232.0	15.4	216.6	155.8	–	1.1	Feb.
2,802.4	314.5	2,487.9	246.1	23.1	389.3	230.7	15.2	215.5	158.6	–	1.1	Mar.
2,813.9	313.6	2,500.3	247.6	23.4	383.7	230.8	15.0	215.8	153.0	–	1.1	Apr.
2,825.1	311.7	2,513.5	249.9	23.6	385.9	231.1	14.9	216.2	154.8	–	1.1	May
2,831.8	310.0	2,521.8	250.7	23.9	376.0	229.2	14.7	214.5	146.8	–	1.1	June
2,851.4	310.7	2,540.8	251.0	24.0	374.6	229.5	14.9	214.6	145.1	–	1.1	July
Changes *												
+ 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
+ 145.0	+ 9.4	+ 135.5	+ 0.6	+ 6.1	– 2.8	– 1.1	– 1.5	+ 0.4	– 1.7	–	– 0.4	2020
+ 14.6	+ 2.4	+ 12.2	+ 0.0	– 0.0	– 1.7	– 0.3	+ 0.1	– 0.5	– 1.3	–	+ 0.0	2020 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
+ 11.9	+ 0.7	+ 11.2	+ 0.7	+ 0.3	– 1.0	– 0.6	– 0.1	– 0.5	– 0.5	–	– 0.0	Aug.
+ 8.2	– 0.0	+ 8.2	+ 0.4	+ 0.1	– 0.4	– 0.7	– 0.4	– 0.3	+ 0.3	–	+ 0.0	Sep.
+ 13.5	+ 0.1	+ 13.5	+ 1.1	+ 0.1	+ 2.8	+ 0.9	– 0.4	+ 1.2	+ 1.9	–	+ 0.0	Oct.
+ 10.9	– 1.2	+ 12.1	– 0.3	+ 0.2	+ 2.1	+ 0.3	– 0.2	+ 0.5	+ 1.8	–	– 0.0	Nov.
+ 9.5	– 1.0	+ 10.5	+ 1.7	+ 0.7	– 9.8	+ 0.0	– 0.0	+ 0.0	– 9.9	–	– 0.1	Dec.
+ 4.3	– 2.7	+ 7.1	+ 0.9	+ 0.1	– 3.1	– 0.8	– 0.4	– 0.5	– 2.3	–	+ 0.1	2021 Jan.
+ 11.1	+ 1.8	+ 9.3	+ 2.1	+ 0.3	+ 0.2	– 1.3	+ 0.1	– 1.4	+ 1.5	–	– 0.0	Feb.
+ 14.4	+ 4.7	+ 9.7	+ 1.9	+ 0.3	+ 2.1	– 1.4	– 0.2	– 1.2	+ 3.5	–	– 0.0	Mar.
+ 11.5	– 0.9	+ 12.4	+ 1.5	+ 0.2	– 5.5	+ 0.1	– 0.2	+ 0.3	– 5.6	–	– 0.0	Apr.
+ 11.0	– 1.9	+ 13.0	+ 2.3	+ 0.2	+ 2.1	+ 0.3	– 0.1	+ 0.4	+ 1.8	–	+ 0.0	May
+ 6.5	– 1.7	+ 8.2	+ 0.8	+ 0.3	– 9.7	– 1.8	– 0.2	– 1.5	– 7.9	–	– 0.0	June
+ 19.2	+ 0.2	+ 19.0	+ 0.3	+ 0.1	– 1.4	+ 0.3	+ 0.2	+ 0.1	– 1.7	–	– 0.0	July

IV. Banks

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

€ billion

Period	Lending to domestic enterprises and households (excluding holdings of negotiable money market paper and excluding securities portfolios) [1]													
		of which:				Lending to enterprises and self-employed persons								
			Housing loans											
	Total	Mortgage loans, total	Total	Mortgage loans secured by residential real estate	Other housing loans	Total	of which: Housing loans	Manufacturing	Electricity, gas and water supply; refuse disposal, mining and quarrying	Construction	Wholesale and retail trade; repair of motor vehicles and motorcycles	Agriculture, forestry, fishing and aquaculture	Transportation and storage; post and telecommunications	Financial intermediation (excluding MFIs) and insurance companies
Lending, total														**End of year or quarter ***
2019	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 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
Sep.	2,968.6	1,580.1	1,537.3	1,265.4	272.0	1,616.8	434.6	157.2	121.1	82.2	135.9	55.5	57.7	173.7
Dec.	2,993.0	1,601.8	1,565.6	1,285.1	280.5	1,623.4	443.3	146.7	123.4	82.7	135.8	55.3	59.8	176.0
2021 Mar.	3,038.4	1,618.9	1,587.9	1,302.5	285.4	1,657.2	451.2	149.2	123.0	84.6	139.1	55.4	60.1	182.5
June	3,056.8	1,634.6	1,619.5	1,316.7	302.8	1,654.3	461.4	142.5	122.1	85.7	135.5	56.0	57.9	182.6
Short-term lending														
2019	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 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
Sep.	231.3	–	8.5	–	8.5	201.4	5.0	36.9	6.5	16.9	38.4	4.2	5.3	30.0
Dec.	221.2	–	8.0	–	8.0	192.1	4.6	29.0	6.9	16.0	37.0	3.6	6.1	31.6
2021 Mar.	236.0	–	8.0	–	8.0	207.4	4.7	33.4	6.4	16.7	38.9	3.9	6.1	34.2
June	225.0	–	7.8	–	7.8	195.9	4.5	28.8	5.5	16.7	34.7	4.2	4.4	34.4
Medium-term lending														
2019	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 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
Sep.	313.1	–	38.0	–	38.0	232.1	17.9	33.1	5.3	14.6	19.2	4.6	14.3	51.4
Dec.	310.5	–	38.5	–	38.5	230.4	18.5	30.2	5.4	14.8	19.3	4.8	15.0	51.4
2021 Mar.	314.5	–	38.9	–	38.9	236.4	19.1	29.2	5.1	15.3	19.7	4.5	14.7	52.9
June	310.0	–	39.7	–	39.7	232.8	19.8	27.7	5.0	15.3	19.5	4.5	14.1	51.2
Long-term lending														
2019	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 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
Sep.	2,424.2	1,580.1	1,490.9	1,265.4	225.5	1,183.3	411.6	87.2	109.3	50.7	78.2	46.7	38.2	92.2
Dec.	2,461.4	1,601.8	1,519.1	1,285.1	234.0	1,201.0	420.2	87.5	111.2	51.8	79.4	47.0	38.7	93.0
2021 Mar.	2,487.9	1,618.9	1,541.0	1,302.5	238.5	1,213.5	427.4	86.6	111.5	52.6	80.5	47.1	39.3	95.4
June	2,521.8	1,634.6	1,572.0	1,316.7	255.3	1,225.5	437.2	86.0	111.6	53.7	81.3	47.3	39.4	97.0
Lending, total														**Change during quarter ***
2020 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
Q3	+ 19.7	+ 21.7	+ 26.5	+ 18.8	+ 7.7	– 1.9	+ 6.4	– 7.4	+ 0.5	+ 1.4	– 2.6	+ 0.1	+ 1.1	– 2.1
Q4	+ 23.9	+ 21.3	+ 27.7	+ 19.3	+ 8.4	+ 6.1	+ 8.4	– 10.3	+ 2.0	+ 0.5	– 0.0	– 0.2	+ 2.2	+ 2.4
2021 Q1	+ 44.8	+ 17.1	+ 22.2	+ 17.3	+ 4.9	+ 33.0	+ 7.6	+ 2.5	– 0.7	+ 1.9	+ 3.2	+ 0.1	+ 0.2	+ 6.2
Q2	+ 17.9	+ 20.9	+ 30.7	+ 21.0	+ 9.7	– 3.2	+ 9.6	– 6.7	– 0.9	+ 1.1	– 3.7	+ 0.6	– 2.2	– 0.0
Short-term lending														
2020 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
Q3	– 16.5	–	+ 0.3	–	+ 0.3	– 16.7	+ 0.3	– 7.6	+ 0.5	– 0.0	– 3.4	– 0.1	– 0.1	– 3.4
Q4	– 10.0	–	– 0.5	–	– 0.5	– 9.3	– 0.4	– 8.0	+ 0.4	– 0.9	– 1.4	– 0.6	+ 0.8	+ 1.6
2021 Q1	+ 14.9	–	+ 0.0	–	+ 0.0	+ 15.4	+ 0.1	+ 4.4	– 0.5	+ 0.7	+ 1.8	+ 0.3	+ 0.1	+ 2.6
Q2	– 11.1	–	– 0.2	–	– 0.2	– 11.6	– 0.2	– 4.6	– 0.9	– 0.1	– 4.2	+ 0.4	– 1.7	+ 0.2
Medium-term lending														
2020 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
Q3	+ 2.3	–	+ 0.2	–	+ 0.2	+ 2.1	+ 0.1	– 0.5	+ 0.0	+ 0.3	– 0.4	+ 0.1	+ 0.9	+ 0.6
Q4	– 2.2	–	+ 0.6	–	+ 0.6	– 1.6	+ 0.6	– 2.8	+ 0.1	+ 0.3	+ 0.1	+ 0.2	+ 0.8	– 0.2
2021 Q1	+ 3.8	–	+ 0.4	–	+ 0.4	+ 5.9	+ 0.6	– 1.0	– 0.2	+ 0.4	+ 0.4	– 0.2	– 0.4	+ 1.5
Q2	– 4.5	–	+ 0.8	–	+ 0.8	– 3.5	+ 0.7	– 1.5	– 0.1	+ 0.0	– 0.3	– 0.1	– 0.6	– 1.8
Long-term lending														
2020 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
Q3	+ 33.9	+ 21.7	+ 26.0	+ 18.8	+ 7.2	+ 12.7	+ 6.0	+ 0.7	– 0.0	+ 1.0	+ 1.2	+ 0.1	+ 0.4	+ 0.7
Q4	+ 36.1	+ 21.3	+ 27.7	+ 19.3	+ 8.4	+ 16.9	+ 8.2	+ 0.4	+ 1.6	+ 1.1	+ 1.2	+ 0.3	+ 0.6	+ 1.0
2021 Q1	+ 26.1	+ 17.1	+ 21.8	+ 17.3	+ 4.5	+ 11.7	+ 6.9	– 0.9	+ 0.1	+ 0.7	+ 1.0	+ 0.1	+ 0.5	+ 2.2
Q2	+ 33.6	+ 20.9	+ 30.2	+ 21.0	+ 9.1	+ 12.0	+ 9.1	– 0.7	+ 0.1	+ 1.1	+ 0.7	+ 0.3	+ 0.2	+ 1.5

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

IV. Banks

Services sector (including the professions)				Memo items:		Lending to employees and other individuals					Lending to non-profit institutions		Period
	of which:							Other lending					
									of which:				
Total	Housing enterprises	Holding companies	Other real estate activities	Lending to self-employed persons [2]	Lending to craft enterprises	Total	Housing loans	Total	Instalment loans [3]	Debit balances on wage, salary and pension accounts	Total	of which: Housing loans	
End of year or quarter *												**Lending, total**	
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	2019
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	2020 June
833.5	281.7	55.1	201.9	458.9	48.1	1,335.9	1,098.8	237.0	178.3	7.5	16.0	3.9	Sep.
843.7	286.6	53.8	204.1	464.0	47.9	1,353.4	1,118.3	235.2	177.4	6.7	16.2	4.0	Dec.
863.3	293.7	59.2	204.3	467.7	48.3	1,364.8	1,132.6	232.2	175.4	6.6	16.4	4.1	2021 Mar.
872.0	296.9	58.2	208.6	473.6	48.7	1,386.3	1,154.0	232.4	174.8	6.6	16.2	4.1	June
												Short-term lending	
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	2019
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	2020 June
63.1	15.6	10.7	10.9	21.7	4.3	29.3	3.5	25.8	1.3	7.5	0.6	0.0	Sep.
61.9	15.7	9.6	10.5	20.9	3.7	28.6	3.4	25.2	1.3	6.7	0.6	0.0	Dec.
67.9	16.5	12.3	10.2	20.5	3.9	27.9	3.4	24.6	1.3	6.6	0.7	0.0	2021 Mar.
67.1	16.0	11.5	10.4	21.0	4.1	28.6	3.4	25.2	1.4	6.6	0.5	0.0	June
												Medium-term lending	
85.7	18.1	11.0	22.9	31.9	3.5	81.4	19.9	61.4	58.0	–	0.5	0.0	2019
89.0	19.7	12.6	23.5	31.6	3.5	80.4	20.0	60.4	56.9	–	0.6	0.0	2020 June
89.6	20.0	12.6	24.1	31.9	3.6	80.6	20.0	60.6	57.2	–	0.5	0.0	Sep.
89.6	20.4	11.8	24.5	32.0	3.5	79.6	20.0	59.6	56.1	–	0.5	0.0	Dec.
94.9	21.9	14.4	25.2	31.5	3.6	77.6	19.8	57.8	54.2	–	0.5	0.0	2021 Mar.
95.7	22.2	14.4	26.4	31.3	3.4	76.7	19.8	56.9	53.1	–	0.5	0.0	June
												Long-term lending	
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	2019
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	2020 June
680.8	246.1	31.8	166.9	405.3	40.1	1,226.0	1,075.4	150.7	119.8	–	15.0	3.9	Sep.
692.3	250.5	32.4	169.1	411.1	40.7	1,245.3	1,094.9	150.4	120.0	–	15.1	4.0	Dec.
700.5	255.3	32.5	168.9	415.7	40.8	1,259.3	1,109.5	149.8	119.9	–	15.2	4.1	2021 Mar.
709.2	258.7	32.3	171.8	421.3	41.1	1,281.1	1,130.8	150.3	120.3	–	15.2	4.1	June
Change during quarter *												**Lending, total**	
+ 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	2020 Q2
+ 7.0	+ 3.9	– 0.8	+ 3.2	+ 5.4	+ 0.0	+ 21.7	+ 20.0	+ 1.6	+ 1.7	+ 0.1	– 0.1	+ 0.0	Q3
+ 9.6	+ 5.2	– 1.5	+ 1.8	+ 4.4	– 0.2	+ 17.6	+ 19.3	– 1.6	– 0.7	– 0.8	+ 0.2	+ 0.1	Q4
+ 19.6	+ 7.0	+ 5.4	+ 0.3	+ 3.2	+ 0.4	+ 11.6	+ 14.6	– 2.9	– 2.0	– 0.0	+ 0.2	+ 0.1	2021 Q1
+ 8.7	+ 3.2	– 0.9	+ 4.3	+ 5.8	+ 0.4	+ 21.3	+ 21.1	+ 0.2	– 0.4	– 0.1	– 0.2	+ 0.0	Q2
												Short-term lending	
– 3.5	– 0.1	– 0.3	+ 0.3	– 2.0	– 0.5	– 1.0	– 0.0	– 1.0	+ 0.1	– 0.6	+ 0.0	–	2020 Q2
– 2.6	+ 0.8	– 1.2	– 0.5	– 0.0	– 0.3	+ 0.3	+ 0.1	+ 0.3	– 0.1	+ 0.1	– 0.1	+ 0.0	Q3
– 1.2	+ 0.2	– 1.1	– 0.4	– 0.8	– 0.6	– 0.7	– 0.1	– 0.6	– 0.1	– 0.8	– 0.1	– 0.0	Q4
+ 6.0	+ 0.7	+ 2.7	– 0.3	– 0.4	+ 0.2	– 0.5	– 0.0	– 0.5	– 0.0	– 0.0	+ 0.1	– 0.0	2021 Q1
– 0.8	– 0.5	– 0.8	+ 0.2	+ 0.5	+ 0.2	+ 0.6	+ 0.0	+ 0.6	+ 0.1	– 0.1	– 0.1	+ 0.0	Q2
												Medium-term lending	
+ 1.8	+ 0.6	+ 1.0	+ 0.3	– 0.1	– 0.0	– 1.3	+ 0.0	– 1.3	– 1.3	–	+ 0.0	– 0.0	2020 Q2
+ 1.1	+ 0.4	– 0.0	+ 0.8	+ 0.0	+ 0.1	+ 0.3	+ 0.0	+ 0.2	+ 0.3	–	– 0.1	+ 0.0	Q3
– 0.0	+ 0.4	– 0.9	+ 0.4	+ 0.2	– 0.1	– 0.6	+ 0.0	– 0.7	– 0.7	–	+ 0.0	– 0.0	Q4
+ 5.6	+ 1.5	+ 2.6	+ 0.9	– 0.5	+ 0.1	– 2.2	– 0.3	– 1.9	– 1.9	–	+ 0.0	+ 0.0	2021 Q1
+ 0.8	+ 0.3	– 0.0	+ 1.2	– 0.2	– 0.2	– 0.9	+ 0.1	– 1.0	– 1.1	–	– 0.1	+ 0.0	Q2
												Long-term lending	
+ 11.6	+ 4.1	+ 0.9	+ 1.5	+ 5.7	+ 0.6	+ 15.7	+ 15.8	– 0.2	+ 0.2	–	+ 0.1	+ 0.0	2020 Q2
+ 8.6	+ 2.8	+ 0.4	+ 3.0	+ 5.4	+ 0.2	+ 21.1	+ 20.0	+ 1.1	+ 1.5	–	+ 0.1	+ 0.0	Q3
+ 10.8	+ 4.6	+ 0.4	+ 1.8	+ 4.9	+ 0.5	+ 19.0	+ 19.3	– 0.4	+ 0.1	–	+ 0.2	+ 0.1	Q4
+ 8.0	+ 4.8	+ 0.1	– 0.2	+ 4.1	+ 0.1	+ 14.3	+ 14.8	– 0.6	– 0.1	–	+ 0.1	+ 0.1	2021 Q1
+ 8.8	+ 3.4	– 0.1	+ 2.9	+ 5.5	+ 0.3	+ 21.6	+ 21.0	+ 0.6	+ 0.6	–	– 0.0	+ 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***
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
2020	3,885.2	2,513.0	783.3	188.9	594.4	47.9	546.5	560.6	28.3	34.4	14.4	0.1
2020 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
Sep.	3,834.2	2,442.8	802.0	210.1	591.9	48.1	543.8	560.1	29.3	34.3	14.3	0.4
Oct.	3,874.1	2,481.4	804.1	207.6	596.5	50.7	545.8	559.7	28.9	34.6	14.3	0.6
Nov.	3,894.3	2,515.3	790.9	196.4	594.5	48.1	546.4	559.6	28.5	34.4	14.3	0.7
Dec.	3,885.2	2,513.0	783.3	188.9	594.4	47.9	546.5	560.6	28.3	34.4	14.4	0.1
2021 Jan.	3,904.5	2,542.0	773.1	181.6	591.5	47.4	544.2	561.6	27.9	34.3	14.3	0.5
Feb.	3,913.7	2,557.5	766.1	174.7	591.4	49.0	542.4	562.6	27.5	34.3	14.4	0.5
Mar.	3,925.8	2,575.2	761.2	175.4	585.9	46.9	539.0	562.3	27.1	34.4	14.4	0.9
Apr.	3,935.7	2,594.6	751.6	168.9	582.7	46.8	535.9	562.8	26.8	34.4	14.4	1.0
May	3,956.3	2,620.5	746.2	165.9	580.3	47.3	533.1	563.2	26.3	34.6	14.4	0.7
June	3,936.4	2,612.1	735.7	158.1	577.5	47.4	530.1	562.6	26.1	34.6	14.4	1.0
July	3,964.6	2,646.0	730.7	155.4	575.3	47.7	527.6	562.0	25.9	34.5	14.3	1.5
												Changes*
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
2020	+ 221.6	+ 273.7	– 32.7	– 15.0	– 17.7	– 4.8	– 12.9	– 14.5	– 4.9	+ 1.9	– 0.3	– 0.1
2020 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
Sep.	+ 13.4	+ 15.1	– 0.9	– 4.9	+ 4.0	+ 2.3	+ 1.7	– 0.5	– 0.4	+ 0.3	– 0.1	– 0.1
Oct.	+ 40.0	+ 38.6	+ 2.2	– 3.5	+ 5.7	+ 2.5	+ 3.2	– 0.4	– 0.4	+ 0.3	+ 0.0	+ 0.3
Nov.	+ 20.5	+ 34.1	– 13.2	– 11.2	– 2.0	– 2.6	+ 0.6	– 0.1	– 0.3	– 0.2	– 0.0	+ 0.1
Dec.	– 9.2	– 2.3	– 7.6	– 7.5	– 0.1	– 0.2	+ 0.1	+ 1.0	– 0.2	– 0.0	+ 0.1	– 0.6
2021 Jan.	+ 19.2	+ 28.9	– 10.3	– 7.3	– 3.0	– 0.6	– 2.5	+ 1.1	– 0.4	– 0.1	– 0.1	+ 0.4
Feb.	+ 9.1	+ 15.4	– 7.0	– 6.9	– 0.1	+ 1.7	– 1.8	+ 1.0	– 0.4	– 0.0	+ 0.0	– 0.0
Mar.	+ 12.2	+ 17.7	– 4.8	+ 0.7	– 5.5	– 2.2	– 3.4	– 0.3	– 0.4	+ 0.1	+ 0.0	+ 0.4
Apr.	+ 9.8	+ 19.6	– 9.8	– 6.6	– 3.2	– 0.0	– 3.1	+ 0.4	– 0.3	– 0.0	+ 0.0	+ 0.1
May	+ 20.6	+ 26.0	– 5.3	– 3.0	– 2.4	+ 0.4	– 2.8	+ 0.5	– 0.5	+ 0.2	– 0.0	– 0.3
June	– 19.8	– 8.5	– 10.5	– 7.8	– 2.7	+ 0.2	– 2.9	– 0.6	– 0.2	– 0.0	– 0.0	+ 0.2
July	+ 28.2	+ 33.9	– 5.0	– 2.8	– 2.2	+ 0.3	– 2.5	– 0.6	– 0.2	– 0.1	– 0.0	+ 0.6
Domestic government												**End of year or month***
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
2020	229.5	80.1	143.0	59.6	83.5	20.9	62.6	2.7	3.7	25.4	2.1	–
2020 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
Sep.	236.6	77.4	152.6	72.4	80.2	21.5	58.7	2.8	3.8	26.1	2.1	0.2
Oct.	240.1	81.5	152.0	68.0	84.0	24.0	60.1	2.8	3.7	26.1	2.1	0.2
Nov.	237.2	83.9	146.8	63.7	83.1	21.3	61.8	2.8	3.7	25.6	2.1	–
Dec.	229.5	80.1	143.0	59.6	83.5	20.9	62.6	2.7	3.7	25.4	2.1	–
2021 Jan.	224.1	77.5	140.3	57.8	82.5	20.8	61.7	2.7	3.7	25.3	2.1	–
Feb.	224.4	80.7	137.3	53.6	83.8	22.4	61.3	2.7	3.6	25.3	2.1	–
Mar.	214.4	76.8	131.4	51.2	80.2	19.9	60.3	2.6	3.5	25.3	2.0	–
Apr.	213.7	80.5	127.0	47.8	79.3	19.8	59.5	2.6	3.5	25.4	2.0	–
May	218.4	88.4	123.8	45.8	78.0	19.8	58.2	2.6	3.5	25.3	2.0	–
June	209.0	81.5	121.5	43.8	77.6	20.3	57.3	2.6	3.4	25.2	2.0	0.2
July	211.8	86.6	119.2	41.6	77.7	20.6	57.0	2.6	3.4	25.2	2.0	–
												Changes*
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
2020	– 6.9	+ 5.7	– 11.6	– 16.5	+ 4.8	– 5.3	+ 10.1	– 0.6	– 0.4	+ 0.7	– 0.1	– 0.2
2020 Aug.	+ 11.1	+ 2.8	+ 8.3	+ 2.7	+ 5.6	– 0.9	+ 6.5	+ 0.0	– 0.0	+ 0.1	– 0.0	–
Sep.	– 0.8	– 2.1	+ 1.4	– 3.7	+ 5.1	+ 2.1	+ 3.0	– 0.1	– 0.1	+ 0.1	– 0.0	–
Oct.	+ 3.7	+ 4.2	– 0.4	– 4.5	+ 4.0	+ 2.4	+ 1.7	– 0.0	– 0.0	+ 0.0	– 0.0	–
Nov.	– 2.7	+ 2.6	– 5.2	– 4.3	– 0.9	– 2.6	+ 1.7	– 0.0	– 0.0	– 0.5	–	– 0.2
Dec.	– 7.7	– 3.8	– 3.8	– 4.1	+ 0.4	– 0.5	+ 0.8	– 0.0	– 0.0	– 0.2	+ 0.0	–
2021 Jan.	– 5.5	– 2.6	– 2.8	– 1.8	– 1.0	– 0.1	– 0.9	– 0.0	– 0.0	– 0.2	– 0.0	–
Feb.	+ 0.3	+ 3.3	– 3.0	– 4.2	+ 1.3	+ 1.6	– 0.4	+ 0.0	– 0.0	+ 0.0	+ 0.0	–
Mar.	– 10.0	– 4.0	– 5.9	– 2.3	– 3.6	– 2.5	– 1.0	– 0.1	– 0.1	+ 0.0	– 0.0	–
Apr.	– 0.7	+ 3.7	– 4.4	– 3.5	– 0.9	– 0.1	– 0.8	– 0.0	– 0.0	+ 0.0	–	–
May	+ 4.7	+ 7.9	– 3.2	– 2.0	– 1.3	+ 0.0	– 1.3	+ 0.0	– 0.0	– 0.0	– 0.0	–
June	– 9.3	– 6.9	– 2.3	– 2.0	– 0.4	+ 0.5	– 0.9	– 0.0	– 0.1	– 0.1	– 0.0	+ 0.2
July	+ 2.7	+ 5.0	– 2.2	– 2.2	+ 0.0	+ 0.3	– 0.3	– 0.0	– 0.0	– 0.0	– 0.0	– 0.2

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

IV. Banks

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

€ billion

Period	Deposits, total	Sight deposits	Time deposits [1,2]					Savings deposits [3]	Bank savings bonds [4]	Memo item:		
			Total	for up to and including 1 year	for more than 1 year [2]					Fiduciary loans	Subordinated liabilities (excluding negotiable debt securities)	Liabilities arising from repos
					Total	for up to and including 2 years	for more than 2 years					
	Domestic enterprises and households											**End of year or month***
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
2020	3,655.7	2,432.9	640.3	129.3	511.0	27.0	483.9	557.9	24.6	9.0	12.3	0.1
2020 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
Sep.	3,597.6	2,365.4	649.4	137.7	511.7	26.6	485.1	557.3	25.5	8.2	12.2	0.2
Oct.	3,634.0	2,399.9	652.1	139.7	512.4	26.7	485.7	556.9	25.1	8.5	12.2	0.5
Nov.	3,657.1	2,431.4	644.1	132.7	511.4	26.7	484.7	556.8	24.8	8.8	12.2	0.7
Dec.	3,655.7	2,432.9	640.3	129.3	511.0	27.0	483.9	557.9	24.6	9.0	12.3	0.1
2021 Jan.	3,680.4	2,464.5	632.8	123.8	509.0	26.6	482.5	558.9	24.2	9.0	12.3	0.5
Feb.	3,689.2	2,476.7	628.8	121.1	507.7	26.6	481.1	559.9	23.9	9.0	12.3	0.5
Mar.	3,711.4	2,498.4	629.8	124.1	505.7	27.0	478.7	559.7	23.5	9.1	12.3	0.9
Apr.	3,721.9	2,514.1	624.5	121.1	503.4	27.1	476.4	560.1	23.2	9.0	12.3	1.0
May	3,737.9	2,532.1	622.4	120.1	502.3	27.5	474.9	560.6	22.8	9.2	12.3	0.7
June	3,727.4	2,530.5	614.2	114.3	499.9	27.1	472.8	560.0	22.6	9.3	12.4	0.7
July	3,752.8	2,559.4	611.4	113.8	497.7	27.1	470.6	559.5	22.4	9.3	12.3	1.5
												Changes*
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
2020	+ 228.5	+ 268.0	– 21.1	+ 1.5	– 22.6	+ 0.5	– 23.0	– 13.9	– 4.6	+ 1.2	– 0.2	+ 0.1
2020 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
Sep.	+ 14.2	+ 17.2	– 2.2	– 1.2	– 1.1	+ 0.2	– 1.2	– 0.4	– 0.3	+ 0.2	– 0.1	– 0.1
Oct.	+ 36.3	+ 34.4	+ 2.6	+ 1.0	+ 1.7	+ 0.2	+ 1.5	– 0.4	– 0.4	+ 0.3	+ 0.0	+ 0.3
Nov.	+ 23.1	+ 31.5	– 8.0	– 6.9	– 1.0	+ 0.0	– 1.1	– 0.1	– 0.3	+ 0.3	– 0.0	+ 0.2
Dec.	– 1.5	+ 1.5	– 3.8	– 3.4	– 0.4	+ 0.3	– 0.7	+ 1.0	– 0.2	+ 0.2	+ 0.1	– 0.6
2021 Jan.	+ 24.6	+ 31.5	– 7.6	– 5.6	– 2.0	– 0.5	– 1.5	+ 1.1	– 0.4	+ 0.1	– 0.1	+ 0.4
Feb.	+ 8.8	+ 12.1	– 4.0	– 2.6	– 1.4	+ 0.0	– 1.4	+ 1.0	– 0.3	– 0.0	– 0.0	– 0.0
Mar.	+ 22.2	+ 21.7	+ 1.0	+ 3.0	– 2.0	+ 0.4	– 2.4	– 0.2	– 0.3	+ 0.0	+ 0.1	+ 0.4
Apr.	+ 10.5	+ 15.8	– 5.4	– 3.2	– 2.2	+ 0.1	– 2.3	+ 0.4	– 0.3	– 0.1	+ 0.0	+ 0.1
May	+ 16.0	+ 18.1	– 2.1	– 1.0	– 1.1	+ 0.4	– 1.5	+ 0.4	– 0.4	+ 0.2	– 0.0	– 0.3
June	– 10.5	– 1.6	– 8.2	– 5.8	– 2.4	– 0.4	– 2.0	– 0.6	– 0.2	+ 0.1	+ 0.0	– 0.0
July	+ 25.4	+ 28.9	– 2.7	– 0.5	– 2.2	+ 0.0	– 2.2	– 0.5	– 0.2	– 0.1	– 0.0	+ 0.8
	of which: Domestic enterprises											**End of year or month***
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
2020	1,116.1	719.1	381.7	89.2	292.5	15.0	277.5	5.8	9.4	2.3	9.7	0.1
2020 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
Sep.	1,114.5	707.3	391.4	96.5	294.9	14.7	280.2	6.0	9.8	2.3	9.7	0.2
Oct.	1,129.9	720.0	394.2	98.6	295.6	14.7	280.9	6.0	9.6	2.3	9.7	0.5
Nov.	1,132.1	729.2	387.4	92.7	294.8	14.8	279.9	5.9	9.5	2.3	9.6	0.7
Dec.	1,116.1	719.1	381.7	89.2	292.5	15.0	277.5	5.8	9.4	2.3	9.7	0.1
2021 Jan.	1,122.7	732.9	374.7	84.2	290.5	14.8	275.7	5.8	9.3	2.3	9.6	0.5
Feb.	1,109.4	723.5	370.9	82.0	288.9	14.9	274.0	5.8	9.1	2.3	9.6	0.5
Mar.	1,134.9	748.2	371.8	85.1	286.7	15.2	271.5	5.8	9.0	2.2	9.6	0.9
Apr.	1,124.8	742.4	367.7	83.4	284.3	15.2	269.2	5.8	8.9	2.2	9.6	1.0
May	1,128.0	746.8	366.7	83.6	283.1	15.7	267.4	5.8	8.7	2.2	9.6	0.7
June	1,115.6	742.7	358.5	77.6	280.9	15.4	265.5	5.8	8.6	2.3	9.6	0.7
July	1,133.9	760.0	359.6	80.7	278.9	15.4	263.6	5.7	8.5	2.3	9.6	1.5
												Changes*
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
2020	+ 81.0	+ 101.2	– 18.0	+ 7.0	– 25.0	– 0.4	– 24.6	– 0.8	– 1.3	– 0.0	– 0.5	+ 0.1
2020 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
Sep.	+ 7.7	+ 10.4	– 2.5	– 1.0	– 1.5	+ 0.1	– 1.5	– 0.1	– 0.1	+ 0.0	– 0.1	– 0.1
Oct.	+ 15.2	+ 12.6	+ 2.8	+ 1.1	+ 1.7	+ 0.1	+ 1.6	– 0.0	– 0.2	– 0.0	+ 0.0	+ 0.3
Nov.	+ 2.2	+ 9.2	– 6.8	– 6.0	– 0.8	+ 0.1	– 1.0	– 0.1	– 0.1	– 0.1	– 0.1	+ 0.2
Dec.	– 15.9	– 10.1	– 5.7	– 3.4	– 2.3	+ 0.2	– 2.5	– 0.1	– 0.0	+ 0.0	+ 0.1	– 0.6
2021 Jan.	+ 6.5	+ 13.8	– 7.0	– 5.0	– 2.1	– 0.2	– 1.9	– 0.0	– 0.1	+ 0.0	– 0.1	+ 0.4
Feb.	– 13.4	– 9.4	– 3.8	– 2.2	– 1.5	+ 0.1	– 1.6	+ 0.0	– 0.2	– 0.1	– 0.0	– 0.0
Mar.	+ 25.6	+ 24.8	+ 0.9	+ 3.1	– 2.2	+ 0.3	– 2.5	+ 0.0	– 0.1	– 0.0	+ 0.0	+ 0.4
Apr.	– 10.0	– 5.7	– 4.2	– 1.8	– 2.4	– 0.0	– 2.4	– 0.0	– 0.1	– 0.0	– 0.0	+ 0.1
May	+ 3.2	+ 4.4	– 1.1	+ 0.2	– 1.3	+ 0.5	– 1.8	+ 0.0	– 0.2	+ 0.0	– 0.0	– 0.3
June	– 12.3	– 4.2	– 8.0	– 6.0	– 2.0	– 0.3	– 1.8	– 0.1	– 0.0	+ 0.1	+ 0.0	– 0.0
July	+ 18.3	+ 17.4	+ 1.1	+ 3.1	– 2.0	– 0.0	– 2.0	– 0.0	– 0.1	– 0.0	– 0.0	+ 0.8

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

IV. Banks

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

€ billion

Period	Deposits of domestic households and non-profit institutions, total	Sight deposits						Time deposits [1,2]					
		Total	by creditor group					Total	by creditor group				
			Domestic households				Domestic non-profit institutions		Domestic households				
			Total	Self-employed persons	Employees	Other individuals			Total	Self-employed persons	Employees	Other individuals	
	End of year or month*												
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	2,539.5	1,713.8	1,672.7	291.1	1,215.4	166.2	41.1	258.6	245.1	19.3	190.5	35.2	
2021 Feb.	2,579.9	1,753.2	1,711.1	297.6	1,245.8	167.7	42.1	257.8	244.6	19.0	190.4	35.2	
Mar.	2,576.5	1,750.1	1,707.1	294.1	1,246.0	166.9	43.1	258.0	244.8	19.2	190.6	35.1	
Apr.	2,597.1	1,771.6	1,729.4	299.9	1,261.2	168.3	42.2	256.8	244.0	19.0	190.1	34.9	
May	2,610.0	1,785.3	1,742.1	300.8	1,272.0	169.2	43.2	255.8	242.8	18.9	189.3	34.7	
June	2,611.8	1,787.9	1,744.7	298.8	1,277.2	168.7	43.2	255.7	242.3	18.7	189.0	34.5	
July	2,618.9	1,799.4	1,755.5	306.6	1,280.3	168.5	44.0	251.8	238.7	18.3	186.4	34.0	
	Changes*												
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	+ 147.5	+ 166.9	+ 165.0	+ 26.0	+ 131.5	+ 7.5	+ 1.8	– 3.1	– 3.2	– 1.5	– 1.6	– 0.2	
2021 Feb.	+ 22.1	+ 21.6	+ 20.5	+ 2.3	+ 17.3	+ 0.9	+ 1.1	– 0.3	– 0.2	– 0.1	– 0.0	+ 0.0	
Mar.	– 3.4	– 3.1	– 4.1	– 3.5	+ 0.3	– 0.8	+ 0.9	+ 0.1	+ 0.2	+ 0.2	+ 0.2	– 0.1	
Apr.	+ 20.6	+ 21.5	+ 22.3	+ 5.8	+ 15.2	+ 1.3	– 0.8	– 1.2	– 0.8	– 0.1	– 0.5	– 0.2	
May	+ 12.8	+ 13.6	+ 12.7	+ 1.0	+ 10.7	+ 1.0	+ 1.0	– 1.0	– 1.2	– 0.2	– 0.8	– 0.2	
June	+ 1.8	+ 2.6	+ 2.6	– 2.1	+ 5.2	– 0.5	– 0.0	– 0.1	– 0.6	– 0.1	– 0.3	– 0.2	
July	+ 7.1	+ 11.5	+ 10.8	+ 7.8	+ 3.2	– 0.2	+ 0.7	– 3.8	– 3.5	– 0.5	– 2.6	– 0.5	

* 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 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*												
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	229.5	48.6	4.8	7.2	36.5	0.0	11.3	46.5	21.2	11.4	13.2	0.7	14.1
2021 Feb.	224.4	48.2	5.0	6.7	36.4	0.0	11.4	46.1	22.0	11.3	12.1	0.7	13.9
Mar.	214.4	48.9	5.8	6.7	36.4	0.0	11.4	43.1	19.4	11.2	11.9	0.6	13.9
Apr.	213.7	48.6	6.0	6.6	35.9	0.0	11.5	43.7	20.6	10.6	11.9	0.6	13.9
May	218.4	46.6	6.1	5.1	35.3	0.0	11.5	45.3	22.3	10.4	12.0	0.6	13.8
June	209.0	45.6	6.3	4.3	35.0	0.0	11.4	43.0	19.8	10.6	12.1	0.6	13.8
July	211.8	44.3	6.2	3.0	35.0	0.0	11.3	48.7	24.8	11.2	12.1	0.6	13.9
	Changes*												
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	– 6.9	+ 37.3	– 0.6	+ 5.7	+ 32.2	– 0.0	– 0.3	– 7.0	+ 0.2	– 5.7	– 1.3	– 0.2	+ 1.0
2021 Feb.	+ 0.3	– 0.2	– 0.1	+ 0.1	– 0.1	–	– 0.0	– 2.4	– 0.5	– 1.7	– 0.2	– 0.0	+ 0.0
Mar.	– 10.0	+ 0.8	+ 0.8	– 0.0	– 0.0	– 0.0	+ 0.1	– 2.9	– 2.6	– 0.1	– 0.2	– 0.0	– 0.0
Apr.	– 0.7	– 0.4	+ 0.2	– 0.1	– 0.5	– 0.0	+ 0.1	+ 0.6	+ 1.2	– 0.6	– 0.0	– 0.0	– 0.0
May	+ 4.7	– 1.9	+ 0.1	– 1.5	– 0.6	–	+ 0.0	+ 1.6	+ 1.7	– 0.2	+ 0.1	+ 0.0	– 0.0
June	– 9.3	– 1.0	+ 0.1	– 0.8	– 0.3	–	– 0.1	– 2.2	– 2.5	+ 0.2	+ 0.1	– 0.0	– 0.0
July	+ 2.7	– 1.3	– 0.1	– 1.2	– 0.0	–	– 0.1	+ 5.6	+ 5.0	+ 0.6	+ 0.0	– 0.0	+ 0.0

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

IV. Banks

Savings deposits [3]								Memo item:			
	by maturity										
		more than 1 year [2]									
			of which:								
Domestic non-profit institutions	up to and including 1 year	Total	up to and including 2 years	more than 2 years	Total	Domestic households	Domestic non-profit institutions	Bank savings bonds [4]	Fiduciary loans	Subordinated liabilities (excluding negotiable debt securities) [5]	Liabilities arising from repos	Period
End of year or month*												
13.7	49.4	211.0	11.1	199.9	567.9	560.6	7.2	21.7	5.8	2.4	–	2018
13.3	45.6	216.1	11.2	204.9	565.1	558.1	7.0	18.4	5.4	2.4	–	2019
13.5	40.1	218.5	12.0	206.5	552.0	545.7	6.3	15.1	6.7	2.7	–	2020
13.2	39.1	218.8	11.7	207.0	554.1	547.8	6.3	14.7	6.8	2.7	–	2021 Feb.
13.2	39.0	219.0	11.8	207.2	553.8	547.6	6.3	14.6	6.8	2.7	–	Mar.
12.8	37.7	219.1	11.9	207.2	554.3	548.0	6.3	14.4	6.8	2.7	–	Apr.
13.0	36.5	219.3	11.8	207.5	554.8	548.4	6.3	14.1	7.0	2.7	–	May
13.4	36.7	218.9	11.7	207.2	554.2	547.9	6.3	14.0	7.0	2.8	–	June
13.1	33.1	218.7	11.7	207.0	553.7	547.5	6.2	13.9	7.0	2.8	–	July
Changes*												
– 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	– 5.5	+ 2.4	+ 0.9	+ 1.6	– 13.0	– 12.3	– 0.7	– 3.3	+ 1.3	+ 0.2	–	2020
– 0.1	– 0.4	+ 0.2	– 0.0	+ 0.2	+ 0.9	+ 0.9	– 0.0	– 0.2	+ 0.0	+ 0.0	–	2021 Feb.
– 0.0	– 0.0	+ 0.2	+ 0.1	+ 0.1	– 0.2	– 0.3	+ 0.0	– 0.2	+ 0.1	+ 0.0	–	Mar.
– 0.3	– 1.3	+ 0.1	+ 0.1	+ 0.0	+ 0.5	+ 0.5	+ 0.0	– 0.2	– 0.0	+ 0.0	–	Apr.
+ 0.1	– 1.2	+ 0.2	– 0.1	+ 0.3	+ 0.4	+ 0.4	+ 0.0	– 0.2	+ 0.2	+ 0.0	–	May
+ 0.4	+ 0.2	– 0.3	– 0.1	– 0.2	– 0.5	– 0.5	– 0.0	– 0.1	+ 0.0	+ 0.0	–	June
– 0.3	– 3.6	– 0.2	+ 0.0	– 0.3	– 0.5	– 0.4	– 0.1	– 0.1	– 0.1	+ 0.0	–	July

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

Local government and local government associations (including municipal special-purpose associations)						Social security funds						
		Time deposits [3]						Time deposits				
Total	Sight deposits	for up to and including 1 year	for more than 1 year	Savings deposits and bank savings bonds [2,4]	Memo item: Fiduciary loans	Total	Sight deposits	for up to and including 1 year	for more than 1 year	Savings deposits and bank savings bonds [2]	Memo item: Fiduciary loans	Period
End of year or month*												
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
68.5	43.2	8.0	12.4	4.9	0.0	66.0	10.9	32.9	21.4	0.8	–	2020
62.1	38.1	6.3	12.8	4.9	0.0	68.1	15.7	29.2	22.5	0.8	–	2021 Feb.
60.1	37.1	5.7	12.5	4.7	0.0	62.3	14.5	27.6	19.4	0.8	–	Mar.
61.3	37.6	6.5	12.5	4.7	0.0	60.2	16.3	24.1	18.9	0.8	–	Apr.
65.1	41.7	6.5	12.2	4.7	0.0	61.4	18.3	23.8	18.4	0.8	–	May
62.5	39.6	6.0	12.2	4.6	0.0	57.9	15.9	22.9	18.3	0.8	–	June
62.0	39.3	5.9	12.2	4.6	0.0	56.8	16.2	21.5	18.4	0.8	–	July
Changes*												
– 0.8	+ 2.1	– 1.4	– 1.2	– 0.3	+ 0.0	+ 2.8	+ 1.3	+ 3.7	– 2.2	+ 0.1	–	2019
+ 3.5	+ 5.9	– 0.6	– 1.3	– 0.5	– 0.0	– 40.8	+ 0.2	– 15.9	– 24.8	– 0.3	–	2020
+ 2.2	+ 2.5	– 0.5	+ 0.2	– 0.0	–	+ 0.7	+ 1.4	– 2.1	+ 1.3	+ 0.0	–	2021 Feb.
– 2.0	– 1.0	– 0.6	– 0.3	– 0.1	–	– 5.9	– 1.1	– 1.7	– 3.1	– 0.0	–	Mar.
+ 1.2	+ 0.5	+ 0.7	– 0.0	– 0.0	–	– 2.1	+ 1.8	– 3.4	– 0.5	+ 0.0	–	Apr.
+ 3.8	+ 4.1	+ 0.0	– 0.3	– 0.0	–	+ 1.2	+ 2.0	– 0.3	– 0.5	+ 0.0	–	May
– 2.6	– 2.1	– 0.5	+ 0.0	– 0.0	–	– 3.5	– 2.4	– 0.9	– 0.1	– 0.0	–	June
– 0.4	– 0.2	– 0.1	+ 0.0	– 0.1	–	– 1.1	+ 0.3	– 1.5	+ 0.0	– 0.0	–	July

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

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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*												
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	566.8	560.6	533.3	288.0	27.3	18.0	6.3	5.7	1.8	30.2	28.3	22.1	1.9
2021 Mar.	568.5	562.3	536.2	277.1	26.1	17.1	6.2	5.6	0.1	28.0	27.1	21.3	0.9
Apr.	568.9	562.8	536.9	275.6	25.8	16.8	6.2	5.6	0.1	27.6	26.8	21.1	0.8
May	569.4	563.2	537.5	276.4	25.7	16.5	6.1	5.6	0.1	26.8	26.3	20.8	0.5
June	568.7	562.6	537.1	274.7	25.5	16.3	6.1	5.6	0.1	26.2	26.1	20.6	0.2
July	568.1	562.0	536.8	273.0	25.2	16.1	6.1	5.6	0.1	26.0	25.9	20.4	0.2
	Changes*												
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	– 14.8	– 14.5	– 7.2	– 24.6	– 7.3	– 6.7	– 0.3	– 0.2	.	– 5.7	– 4.9	– 3.0	– 0.7
2021 Mar.	– 0.3	– 0.3	+ 0.1	– 1.0	– 0.3	– 0.3	– 0.0	– 0.0	.	– 0.8	– 0.4	– 0.3	– 0.4
Apr.	+ 0.4	+ 0.4	+ 0.7	– 1.5	– 0.3	– 0.3	– 0.0	– 0.0	.	– 0.4	– 0.3	– 0.2	– 0.1
May	+ 0.4	+ 0.5	+ 0.6	+ 0.8	– 0.1	– 0.2	– 0.0	– 0.0	.	– 0.8	– 0.5	– 0.3	– 0.4
June	– 0.6	– 0.6	– 0.4	– 1.7	– 0.2	– 0.2	– 0.0	– 0.0	.	– 0.5	– 0.2	– 0.2	– 0.3
July	– 0.6	– 0.6	– 0.3	– 1.7	– 0.3	– 0.3	– 0.0	– 0.0	.	– 0.2	– 0.2	– 0.2	– 0.0

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

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

€ billion

Period	Negotiable bearer debt securities and money market paper									Non-negotiable bearer debt securities and money market paper [6]		Subordinated	
		of which:				with maturities of							
						up to and including 1 year		more than 1 year up to and including 2 years					
	Total	Floating rate bonds [1]	Zero coupon bonds [1,2]	Foreign currency bonds [3,4]	Certificates of deposit	Total	of which: without a nominal guarantee [5]	Total	of which: without a nominal guarantee [5]	more than 2 years	Total	of which: with maturities of more than 2 years	negotiable debt securities	non-negotiable debt securities
	End of year or month*													
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	1,119.0	117.1	12.7	313.6	89.4	94.3	1.5	23.8	3.1	1,000.9	1.1	0.9	34.8	0.4
2021 Mar.	1,161.9	114.8	11.9	342.4	100.9	105.6	1.7	21.1	3.5	1,035.3	1.2	0.9	33.6	0.3
Apr.	1,150.6	114.7	11.6	324.2	88.1	92.8	1.9	20.4	3.7	1,037.4	1.5	1.0	33.4	0.2
May	1,143.7	112.1	11.3	317.4	86.6	91.5	2.0	20.9	3.8	1,031.3	1.6	0.9	32.9	0.1
June	1,150.2	111.3	11.3	324.1	97.6	102.4	2.0	21.1	3.9	1,026.7	1.8	1.0	34.1	0.1
July	1,145.3	111.6	11.5	318.8	89.5	94.3	2.0	21.4	4.1	1,029.5	1.7	1.0	34.1	0.1
	Changes*													
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	– 20.5	– 5.2	– 0.8	– 54.1	– 22.3	– 22.2	– 1.1	+ 0.2	– 1.1	+ 1.5	+ 0.3	+ 0.2	+ 2.1	– 0.0
2021 Mar.	+ 32.0	+ 1.7	– 0.0	+ 20.5	+ 12.4	+ 12.3	– 0.0	– 1.6	– 0.1	+ 21.3	+ 0.1	+ 0.1	– 1.1	– 0.1
Apr.	– 11.4	– 0.0	– 0.3	– 18.1	– 12.8	– 12.8	+ 0.1	– 0.6	+ 0.2	+ 2.1	+ 0.3	+ 0.0	– 0.2	– 0.1
May	– 6.9	– 2.6	– 0.3	– 6.8	– 1.5	– 1.3	+ 0.1	+ 0.5	+ 0.1	– 6.0	+ 0.1	– 0.0	– 0.5	– 0.1
June	+ 6.5	– 0.7	+ 0.0	+ 6.7	+ 11.1	+ 11.0	– 0.0	+ 0.2	+ 0.1	– 4.6	+ 0.2	+ 0.0	+ 1.2	–
July	– 4.9	+ 0.3	+ 0.2	– 5.3	– 8.2	– 8.1	+ 0.1	+ 0.3	+ 0.2	+ 2.8	– 0.1	+ 0.0	– 0.0	–

***** See Table IV.2, footnote *; statistical breaks have been eliminated from the changes. The figures for the latest date are always to be regarded as provisional. Subsequent revisions, which appear in the following Monthly Report, are not specially marked. **1** Including 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																
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	18	244.9	31.9	0.0	16.1	10.8	125.1	31.7	25.5	2.9	26.7	181.4	8.4	2.8	12.3	76.5
2021 June	18	248.2	30.7	0.0	15.8	10.3	127.7	34.3	25.6	2.9	26.9	183.0	8.9	3.3	12.3	6.3
July	18	248.9	30.6	0.0	15.7	10.3	128.0	34.8	25.6	2.9	27.8	182.8	8.9	3.3	12.3	6.1
Aug.	18	250.0	30.9	0.0	15.7	10.3	128.3	35.3	25.7	2.9	28.8	182.9	8.9	3.3	12.3	5.4
Private building and loan associations																
2021 June	10	173.1	15.3	–	6.9	7.6	99.8	29.2	11.4	1.7	24.4	118.9	8.6	3.3	8.4	4.2
July	10	173.8	15.4	–	6.9	7.6	100.0	29.7	11.4	1.7	25.4	118.7	8.6	3.3	8.4	4.0
Aug.	10	174.9	15.8	–	6.9	7.6	100.2	30.1	11.5	1.7	26.5	118.7	8.6	3.3	8.4	3.4
Public building and loan associations																
2021 June	8	75.2	15.4	0.0	8.9	2.7	27.9	5.1	14.2	1.2	2.5	64.1	0.3	–	3.9	2.1
July	8	75.1	15.3	0.0	8.9	2.7	28.0	5.1	14.2	1.2	2.4	64.1	0.3	–	3.9	2.1
Aug.	8	75.1	15.1	0.0	8.9	2.7	28.2	5.1	14.2	1.2	2.3	64.2	0.3	–	3.9	2.0

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																
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	26.6	2.1	8.2	53.8	29.0	48.0	18.8	4.2	4.4	3.5	24.8	18.3	6.3	6.7	5.2	0.2
2021 June	2.3	0.0	0.7	4.5	2.5	4.3	1.7	0.3	0.3	0.3	2.2	19.4	6.5	0.5	1.2	0.0
July	2.3	0.0	0.8	4.4	2.5	4.3	1.8	0.4	0.4	0.3	2.1	19.0	6.4	0.5		0.0
Aug.	2.2	0.0	0.7	4.1	2.3	3.8	1.4	0.4	0.4	0.3	2.0	19.0	6.4	0.5		0.0
Private building and loan associations																
2021 June	1.5	0.0	0.3	3.5	1.9	3.2	1.2	0.2	0.2	0.2	1.8	14.6	3.6	0.4	0.9	0.0
July	1.5	0.0	0.4	3.2	1.8	3.3	1.3	0.3	0.3	0.3	1.7	14.3	3.5	0.4		0.0
Aug.	1.4	0.0	0.4	3.0	1.6	2.9	1.1	0.3	0.3	0.2	1.6	14.1	3.5	0.4		0.0
Public building and loan associations																
2021 June	0.8	0.0	0.4	1.1	0.6	1.0	0.5	0.1	0.1	0.1	0.4	4.8	2.9	0.1	0.3	0.0
July	0.8	0.0	0.4	1.2	0.7	1.0	0.4	0.1	0.1	0.1	0.4	4.8	2.9	0.1		0.0
Aug.	0.8	0.0	0.3	1.1	0.7	0.9	0.4	0.1	0.1	0.1	0.4	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.

IV. Banks

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

€ billion

Period	Number of: German banks (MFIs) with foreign branches and/or foreign subsidiaries	Number of: foreign branches [1] and/or foreign subsidiaries	Balance sheet total [7]	Lending to banks (MFIs): Total	Lending to banks (MFIs): Credit balances and loans: Total	Lending to banks (MFIs): Credit balances and loans: German banks	Lending to banks (MFIs): Credit balances and loans: Foreign banks	Lending to banks (MFIs): Money market paper, securities [2,3]	Lending to non-banks (non-MFIs): Total	Lending to non-banks (non-MFIs): Loans: Total	Lending to non-banks (non-MFIs): Loans: to German non-banks	Lending to non-banks (non-MFIs): Loans: to foreign non-banks	Lending to non-banks (non-MFIs): Money market paper, securities [2]	Other assets [7]: Total	Other assets [7]: of which: Derivative financial instruments in the trading portfolio
Foreign branches															**End of year or month ***
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
2020	50	206	1,552.2	376.7	364.0	213.2	150.8	12.7	504.8	409.6	14.3	395.3	95.2	670.7	523.6
2020 Sep.	51	206	1,672.4	407.7	393.3	242.2	151.1	14.4	544.2	447.5	18.9	428.7	96.7	720.5	543.7
Oct.	51	207	1,638.9	409.7	395.6	243.0	152.6	14.1	537.6	438.4	18.2	420.2	99.2	691.5	524.4
Nov.	51	208	1,622.5	411.6	398.0	236.5	161.4	13.6	523.7	427.3	14.5	412.8	96.5	687.2	519.5
Dec.	50	206	1,552.2	376.7	364.0	213.2	150.8	12.7	504.8	409.6	14.3	395.3	95.2	670.7	523.6
2021 Jan.	49	205	1,524.5	414.2	401.5	247.6	153.8	12.7	502.1	408.7	13.9	394.8	93.4	608.3	473.6
Feb.	49	203	1,487.0	429.1	416.7	258.4	158.3	12.4	492.2	402.6	13.6	389.1	89.6	565.6	431.8
Mar.	49	203	1,492.8	417.4	404.9	238.9	166.0	12.5	492.9	403.9	13.3	390.6	89.0	582.5	430.8
Apr.	49	202	1,478.2	432.8	420.7	266.5	154.2	12.1	488.7	401.7	13.3	388.3	87.0	556.7	413.3
May	49	203	1,476.1	430.6	417.9	257.9	160.0	12.6	493.8	405.2	13.1	392.2	88.6	551.7	415.5
June	49	203	1,475.7	421.2	407.8	242.9	164.9	13.4	492.9	407.5	13.0	394.5	85.5	561.6	417.1
															Changes *
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
2020	− 2	+ 9	+ 104.2	− 20.3	− 15.5	− 2.8	− 12.7	− 4.8	+ 0.2	− 1.0	− 5.4	+ 4.4	+ 1.2	+ 164.2	+ 179.6
2020 Oct.	−	+ 1	− 33.6	+ 1.7	+ 2.0	+ 0.8	+ 1.2	− 0.3	− 7.6	− 10.0	− 0.7	− 9.3	+ 2.4	− 29.1	− 19.6
Nov.	−	+ 1	− 15.3	+ 3.6	+ 4.1	− 6.4	+ 10.5	− 0.5	− 8.3	− 6.5	− 3.7	− 2.8	− 1.9	− 3.3	− 1.7
Dec.	− 1	− 2	− 69.3	− 33.0	− 32.2	− 23.4	− 8.9	− 0.8	− 13.2	− 12.9	− 0.2	− 12.7	− 0.3	− 15.6	+ 7.3
2021 Jan.	− 1	− 1	− 26.5	+ 37.7	+ 37.9	+ 35.7	+ 2.2	− 0.1	− 5.8	− 3.4	− 0.3	− 3.1	− 2.3	− 62.7	− 51.7
Feb.	−	− 2	− 37.6	+ 14.7	+ 15.0	+ 10.8	+ 4.2	− 0.3	− 10.7	− 6.8	− 0.4	− 6.4	− 3.9	− 42.7	− 42.1
Mar.	−	−	+ 4.5	− 14.7	− 14.6	− 19.5	+ 4.9	− 0.1	− 7.5	− 5.7	− 0.3	− 5.5	− 1.8	+ 15.6	− 4.7
Apr.	−	− 1	− 13.3	+ 18.2	+ 18.4	+ 27.6	− 9.2	− 0.2	+ 3.2	+ 4.0	+ 0.0	+ 4.0	− 0.9	− 24.5	− 14.4
May	−	+ 1	− 1.6	− 2.8	− 3.3	− 9.8	+ 6.5	+ 0.5	+ 7.0	+ 5.0	− 0.3	+ 5.3	+ 1.9	− 3.4	+ 3.1
June	−	−	− 1.6	− 11.5	− 12.2	− 15.0	+ 2.8	+ 0.7	− 7.0	− 2.9	− 0.1	− 2.8	− 4.1	+ 8.6	− 1.1
Foreign subsidiaries															**End of year or month ***
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	0.0
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	0.0
2020	12	36	229.5	44.8	39.9	17.4	22.5	4.9	139.7	114.4	13.1	101.4	25.3	44.9	0.0
2020 Sep.	12	36	237.1	49.5	44.2	18.8	25.4	5.3	142.6	117.2	14.2	103.0	25.4	45.1	0.0
Oct.	12	36	235.7	44.4	39.2	18.4	20.8	5.2	142.5	116.9	14.2	102.7	25.6	48.9	0.0
Nov.	12	36	234.8	43.2	38.2	17.0	21.1	5.1	142.2	116.4	13.9	102.5	25.8	49.3	0.0
Dec.	12	36	229.5	44.8	39.9	17.4	22.5	4.9	139.7	114.4	13.1	101.4	25.3	44.9	0.0
2021 Jan.	12	36	228.9	43.9	39.1	16.9	22.2	4.8	139.0	114.0	12.6	101.4	25.0	46.1	0.0
Feb.	12	36	231.6	42.2	37.2	19.0	18.3	5.0	137.9	113.4	12.7	100.7	24.5	51.5	0.0
Mar.	12	36	228.7	43.3	38.4	19.0	19.4	4.9	137.7	113.1	12.7	100.4	24.5	47.7	0.0
Apr.	12	36	230.8	42.7	37.4	19.0	18.4	5.3	136.5	112.7	12.6	100.1	23.8	51.6	0.0
May	12	36	230.8	41.9	37.0	18.5	18.5	4.9	136.8	112.7	12.3	100.4	24.2	52.2	0.0
June	12	36	235.5	43.6	38.9	19.9	19.0	4.7	136.8	112.5	12.0	100.4	24.3	55.1	0.0
															Changes *
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	± 0.0
2020	− 3	− 5	− 0.8	− 5.3	− 5.0	− 1.0	− 4.0	− 0.3	+ 3.3	+ 0.8	− 1.3	+ 2.1	+ 2.4	+ 1.2	± 0.0
2020 Oct.	−	−	− 1.6	− 5.2	− 5.0	− 0.4	− 4.7	− 0.1	− 0.2	− 0.4	+ 0.0	− 0.4	+ 0.1	+ 3.8	± 0.0
Nov.	−	−	+ 0.3	− 0.5	− 0.6	− 1.4	+ 0.8	+ 0.1	+ 0.4	+ 0.2	− 0.3	+ 0.5	+ 0.3	+ 0.4	± 0.0
Dec.	−	−	− 4.1	+ 2.2	+ 2.2	+ 0.4	+ 1.8	− 0.0	− 1.9	− 1.4	− 0.8	− 0.6	− 0.5	− 4.4	± 0.0
2021 Jan.	−	−	− 1.2	− 1.2	− 1.1	− 0.5	− 0.6	− 0.2	− 1.1	− 0.8	− 0.4	− 0.3	− 0.3	+ 1.1	± 0.0
Feb.	−	−	+ 2.7	− 1.6	− 1.8	+ 2.1	− 3.9	+ 0.2	− 1.1	− 0.6	+ 0.1	− 0.7	− 0.5	+ 5.4	± 0.0
Mar.	−	−	− 4.5	+ 0.3	+ 0.5	+ 0.0	+ 0.5	− 0.2	− 1.1	− 1.1	+ 0.0	− 1.1	+ 0.0	− 3.8	± 0.0
Apr.	−	−	+ 3.5	+ 0.0	− 0.5	− 0.0	− 0.5	+ 0.5	− 0.4	+ 0.3	− 0.1	+ 0.5	− 0.7	+ 3.9	± 0.0
May	−	−	+ 0.4	− 0.6	− 0.2	− 0.5	+ 0.3	− 0.4	+ 0.5	+ 0.1	− 0.3	+ 0.4	+ 0.4	+ 0.5	± 0.0
June	−	−	+ 3.5	+ 1.1	+ 1.4	+ 1.4	+ 0.1	− 0.3	− 0.6	− 0.8	− 0.3	− 0.5	+ 0.2	+ 2.9	± 0.0

***** 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

IV. Banks

Deposits									Money market paper and debt securities outstanding [5]	Working capital and own funds	Other liabilities [6,7]		
	of banks (MFIs)			of non-banks (non-MFIs)									
					German non-banks [4]								
Total	Total	German banks	Foreign banks	Total	Total	Shortterm	Medium and longterm	Foreign non-banks			Total	of which: Derivative financial instruments in the trading portfolio	Period
End of year or month *												**Foreign branches**	
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
872.2	588.5	431.8	156.7	283.7	11.7	10.2	1.5	272.0	61.5	49.9	568.6	523.1	2020
945.7	650.5	473.7	176.8	295.2	15.4	13.8	1.7	279.8	76.8	52.6	597.4	544.0	2020 Sep.
932.4	632.6	451.1	181.5	299.9	14.0	12.3	1.7	285.9	76.7	50.9	578.9	523.9	Oct.
926.8	625.3	444.3	181.0	301.5	12.3	10.9	1.5	289.1	74.8	50.5	570.4	518.9	Nov.
872.2	588.5	431.8	156.7	283.7	11.7	10.2	1.5	272.0	61.5	49.9	568.6	523.1	Dec.
898.0	596.5	421.1	175.5	301.5	10.4	8.9	1.5	291.1	71.0	50.2	505.3	472.3	2021 Jan.
906.9	600.1	421.4	178.6	306.8	9.9	8.4	1.5	296.9	68.0	50.1	462.1	430.8	Feb.
907.4	606.9	435.0	172.0	300.4	9.5	8.0	1.5	290.9	72.1	50.7	462.7	429.7	Mar.
911.4	612.3	438.3	174.0	299.1	9.0	7.5	1.5	290.1	73.1	50.3	443.4	412.2	Apr.
907.0	604.3	431.2	173.1	302.7	8.6	7.1	1.5	294.0	74.9	50.2	444.0	414.5	May
904.8	607.4	438.0	169.4	297.4	8.3	6.8	1.5	289.0	72.1	51.0	447.9	415.9	June
Changes *													
− 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
− 9.2	− 13.3	− 21.4	+ 8.1	+ 4.1	− 1.0	+ 0.3	− 1.4	+ 5.1	− 28.1	− 3.5	+ 157.6	+ 162.0	2020
− 13.6	− 18.3	− 22.6	+ 4.4	+ 4.6	− 1.4	− 1.5	+ 0.0	+ 6.1	− 0.2	− 1.7	− 18.5	− 20.1	2020 Oct.
− 3.2	− 4.9	− 6.7	+ 1.8	+ 1.7	− 1.7	− 1.4	− 0.2	+ 3.4	− 0.9	− 0.3	− 8.4	− 5.0	Nov.
− 52.1	− 34.5	− 12.5	− 21.9	− 17.6	− 0.6	− 0.7	+ 0.0	− 17.0	− 12.3	− 0.7	− 1.9	+ 4.1	Dec.
+ 26.1	+ 7.7	− 10.6	+ 18.3	+ 18.4	− 1.3	− 1.3	− 0.0	+ 19.7	+ 9.2	+ 0.3	− 63.3	− 50.8	2021 Jan.
+ 8.9	+ 3.6	+ 0.7	+ 2.9	+ 5.3	− 0.5	− 0.5	− 0.0	+ 5.8	− 3.1	− 0.1	− 43.5	− 41.5	Feb.
− 2.5	+ 4.2	+ 14.4	− 10.2	− 6.7	− 0.4	− 0.4	+ 0.0	− 6.3	+ 2.8	+ 0.6	− 0.3	− 1.1	Mar.
+ 6.2	+ 7.3	+ 2.2	+ 5.1	− 1.1	− 0.6	− 0.5	− 0.0	− 0.5	+ 2.3	− 0.4	− 18.1	− 17.5	Apr.
− 3.4	− 7.0	− 7.1	+ 0.1	+ 3.6	− 0.3	− 0.3	− 0.0	+ 4.0	+ 2.3	− 0.1	+ 0.5	+ 2.3	May
− 5.2	+ 0.3	+ 6.7	− 6.5	− 5.5	− 0.3	− 0.3	+ 0.0	− 5.2	− 4.1	+ 0.8	+ 3.9	+ 1.4	June
End of year or month *												**Foreign subsidiaries**	
171.5	71.6	36.1	35.5	100.0	9.1	6.4	2.7	90.8	14.3	22.4	29.0	0.0	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	0.0	2019
163.4	59.6	34.1	25.5	103.8	6.7	4.2	2.5	97.1	16.6	20.3	29.2	0.0	2020
170.3	66.5	37.1	29.4	103.7	6.7	4.2	2.5	97.0	16.8	20.5	29.5	0.0	2020 Sep.
167.9	63.5	35.3	28.3	104.4	7.4	4.9	2.5	96.9	17.7	20.5	29.6	0.0	Oct.
168.4	62.8	33.8	29.0	105.6	7.2	4.8	2.5	98.3	16.5	20.7	29.2	0.0	Nov.
163.4	59.6	34.1	25.5	103.8	6.7	4.2	2.5	97.1	16.6	20.3	29.2	0.0	Dec.
163.1	58.1	32.7	25.4	105.0	6.7	4.3	2.5	98.3	16.8	20.4	28.6	0.0	2021 Jan.
166.8	60.2	34.8	25.4	106.5	6.4	3.9	2.5	100.1	16.6	20.3	27.9	0.0	Feb.
164.5	59.2	34.3	25.0	105.2	6.4	4.0	2.5	98.8	16.9	20.4	27.0	0.0	Mar.
166.1	59.0	33.4	25.7	107.0	6.4	4.0	2.5	100.6	17.3	20.4	27.0	0.0	Apr.
165.8	57.0	32.1	24.9	108.9	6.5	4.0	2.4	102.4	17.3	20.4	27.3	0.0	May
167.8	58.5	32.2	26.3	109.3	6.6	4.2	2.4	102.7	17.6	20.5	29.6	0.0	June
Changes *													
− 6.7	− 3.2	+ 0.5	− 3.8	− 3.5	− 2.5	− 2.5	+ 0.0	− 1.0	+ 1.7	− 0.4	− 1.8	± 0.0	2019
+ 1.4	− 7.3	− 2.5	− 4.8	+ 8.7	+ 0.0	+ 0.3	− 0.3	+ 8.7	+ 0.6	− 1.8	− 1.0	± 0.0	2020
− 2.5	− 3.0	− 1.9	− 1.2	+ 0.6	+ 0.7	+ 0.7	− 0.0	− 0.1	+ 0.9	− 0.0	− 0.1	± 0.0	2020 Oct.
+ 1.4	− 0.4	− 1.5	+ 1.1	+ 1.7	− 0.2	− 0.2	− 0.0	+ 1.9	− 1.2	+ 0.2	− 0.0	± 0.0	Nov.
− 4.1	− 2.8	+ 0.3	− 3.1	− 1.3	− 0.5	− 0.5	− 0.0	− 0.7	+ 0.1	− 0.4	+ 0.3	± 0.0	Dec.
− 0.8	− 1.8	− 1.4	− 0.3	+ 1.0	+ 0.0	+ 0.0	+ 0.0	+ 0.9	+ 0.2	+ 0.1	− 0.7	± 0.0	2021 Jan.
+ 3.6	+ 2.1	+ 2.2	− 0.0	+ 1.5	− 0.3	− 0.3	− 0.0	+ 1.8	− 0.3	− 0.0	− 0.7	± 0.0	Feb.
− 3.5	− 1.5	− 0.6	− 1.0	− 1.9	+ 0.0	+ 0.0	− 0.0	− 2.0	+ 0.3	+ 0.0	− 1.4	± 0.0	Mar.
+ 2.6	+ 0.3	− 0.9	+ 1.2	+ 2.3	− 0.0	− 0.0	− 0.0	+ 2.3	+ 0.4	+ 0.0	+ 0.5	± 0.0	Apr.
+ 0.0	− 1.9	− 1.3	− 0.6	+ 2.0	+ 0.1	+ 0.1	− 0.0	+ 1.9	+ 0.0	+ 0.0	+ 0.4	± 0.0	May
+ 1.2	+ 1.2	+ 0.1	+ 1.0	− 0.0	+ 0.1	+ 0.1	− 0.0	− 0.1	+ 0.3	+ 0.1	+ 1.9	± 0.0	June

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

V. Minimum reserves

1. Reserve maintenance in the euro area

€ billion

Maintenance period beginning in [1]	Reserve base [2]	Required reserves before deduction of lump-sum allowance [3]	Required reserves after deduction of lump-sum allowance [4]	Current accounts [5]	Excess reserves [6]	Deficiencies [7]
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	14,590.4	145.9	145.5	3,029.4	2,883.9	0.0
2021 July	15,129.4	151.3	150.9	3,726.2	3,575.0	0.0
Aug.	.	.	.	.	.	.
Sep. p	...	...	...	...	...	...

2. Reserve maintenance in Germany

€ billion

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]
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	4,020,792	27.6	40,208	40,062	878,013	837,951	1
2021 July	4,171,984	27.6	41,720	41,576	1,045,276	1,003,700	0
Aug.	.	.	.	.	.	.	.
Sep. p	4,176,662	...	41,767	41,624	...	...	...

a) Required reserves of individual categories of banks

€ billion

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
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	8,151	6,371	3,019	12,912	7,547	111	2,028
2021 July	8,754	6,519	3,120	13,361	7,864	105	1,852
Aug.	.	.	.	.	.	.	.
Sep.	8,667	6,499	3,143	13,468	7,946	107	1,793

b) Reserve base by subcategories of liabilities

€ billion

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
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	2,923,462	1,607	436,696	560,770	105,880
2021 July	3,020,707	7,714	482,713	564,655	96,196
Aug.	.	.	.	.	.
Sep.	3,031,068	9,868	473,288	563,495	98,946

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 / basic rates of interest

% per annum

ECB interest rates										Basic rates of interest			
		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	Basic rate of interest as per Civil Code [1]	Applicable from	Basic rate of interest 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 *

			Fixed rate tenders	Variable rate tenders			
Date of Settlement	Bid amount	Allotment amount	Fixed rate	Minimum bid rate	Marginal rate [1]	Weighted average rate	Running for … days
	€ million		% per annum				
Main refinancing operations							
2021 Aug. 25	112	112	0.00	-	-	-	7
Sep. 1	16	16	0.00	-	-	-	7
Sep. 8	319	319	0.00	-	-	-	7
Sep. 15	344	344	0.00	-	-	-	7
Sep. 22	44	44	0.00	-	-	-	7
Long-term refinancing operations							
2021 June 24	520	520	[2] …	-	-	-	371
July 1	3	3	[2] …	-	-	-	91
July 29	25	25	[2] …	-	-	-	91
Aug. 26	48	48	[2] …	-	-	-	91

***** Source: ECB. **1** Lowest or highest interest rate at which funds were allotted or collected. **2** Interest payment on the maturity date; the rate will be fixed at: 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
2021 Feb.	– 0.564	– 0.48	– 0.57	– 0.55	– 0.54	– 0.52	– 0.50
Mar.	– 0.564	– 0.48	– 0.56	– 0.55	– 0.54	– 0.52	– 0.49
Apr.	– 0.566	– 0.48	– 0.56	– 0.56	– 0.54	– 0.52	– 0.48
May	– 0.565	– 0.48	– 0.57	– 0.56	– 0.54	– 0.51	– 0.48
June	– 0.565	– 0.48	– 0.57	– 0.55	– 0.54	– 0.51	– 0.48
July	– 0.566	– 0.48	– 0.57	– 0.56	– 0.54	– 0.52	– 0.49
Aug.	– 0.568	– 0.48	– 0.57	– 0.56	– 0.55	– 0.53	– 0.50

***** 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. Administrator for EONIA and EURIBOR: European Money Markets Institute (EMMI)

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
2020 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
Sep.	0.26	54,068	1.02	218,212	– 0.10	82,957	0.92	23,504
Oct.	0.26	53,982	1.01	218,002	– 0.11	84,498	0.89	22,350
Nov.	0.26	52,719	1.00	217,758	– 0.11	80,549	0.85	22,254
Dec.	0.25	53,079	1.00	219,376	– 0.17	79,340	0.84	22,256
2021 Jan.	0.25	51,896	0.99	220,299	– 0.16	74,531	0.85	21,979
Feb.	0.26	51,369	0.98	220,419	– 0.16	72,894	0.85	22,242
Mar.	0.25	51,417	0.98	220,406	– 0.18	77,326	0.83	21,860
Apr.	0.25	50,078	0.97	220,310	– 0.19	74,026	0.84	21,529
May	0.24	48,897	0.96	220,455	– 0.21	74,080	0.83	21,455
June	0.23	48,834	0.95	220,118	– 0.23	71,148	0.88	21,464
July	0.23	45,300	0.94	219,790	– 0.23	69,514	0.82	20,964

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
2020 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	86,216	3.53	321,757
Sep.	1.95	4,705	1.62	26,940	2.03	1,329,087	6.96	46,438	3.39	86,231	3.50	322,100
Oct.	1.92	4,792	1.62	26,962	2.00	1,337,259	6.86	45,325	3.38	85,849	3.48	323,886
Nov.	1.92	4,616	1.60	27,072	1.99	1,345,468	6.83	44,787	3.38	85,328	3.46	324,149
Dec.	1.92	4,557	1.60	27,024	1.97	1,353,793	6.80	45,013	3.37	85,416	3.45	323,181
2021 Jan.	1.90	4,663	1.59	26,903	1.95	1,357,733	6.90	43,164	3.36	84,363	3.42	323,164
Feb.	1.89	4,642	1.57	26,790	1.93	1,363,884	6.76	43,200	3.36	83,522	3.41	323,393
Mar.	1.89	4,545	1.56	26,788	1.91	1,373,003	6.72	44,263	3.34	83,114	3.40	322,618
Apr.	1.86	4,496	1.56	26,870	1.88	1,381,533	6.65	43,462	3.34	82,596	3.38	323,494
May	1.94	4,575	1.55	26,759	1.87	1,390,096	6.63	43,692	3.33	82,120	3.36	323,923
June	1.91	4,485	1.54	26,949	1.85	1,399,549	6.60	45,343	3.33	81,846	3.35	323,511
July	1.92	4,642	1.55	27,116	1.83	1,409,877	6.53	44,338	3.33	81,765	3.34	325,296

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
2020 July	1.96	169,944	1.66	186,433	1.80	769,953
Aug.	1.98	165,184	1.66	187,678	1.79	779,570
Sep.	2.07	160,014	1.68	186,700	1.77	774,045
Oct.	2.04	157,761	1.68	187,240	1.76	779,595
Nov.	2.06	154,555	1.69	187,341	1.75	784,308
Dec.	2.03	150,278	1.71	186,798	1.73	787,188
2021 Jan.	2.06	149,911	1.71	186,599	1.71	790,534
Feb.	2.02	152,425	1.71	189,130	1.70	793,839
Mar.	1.78	163,745	1.67	194,734	1.69	794,245
Apr.	1.96	151,270	1.67	195,027	1.68	798,088
May	1.93	153,129	1.65	194,737	1.68	802,212
June	2.01	149,474	1.65	193,910	1.67	801,420
July	1.94	149,054	1.64	194,300	1.65	808,728

***** 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
2020 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	1,650,273	0.16	2,643	0.59	563	0.64	555	0.10	531,277	0.18	28,764
Sep.	0.00	1,658,764	0.10	3,027	0.51	501	0.61	590	0.10	531,223	0.18	28,417
Oct.	0.00	1,680,565	0.10	3,014	0.44	509	0.60	805	0.10	531,245	0.18	28,001
Nov.	0.00	1,703,473	0.11	2,483	0.49	404	0.61	747	0.10	531,537	0.18	27,578
Dec.	0.00	1,715,292	– 0.01	3,214	0.40	394	0.59	794	0.10	532,793	0.18	27,312
2021 Jan.	0.00	1,732,961	0.03	3,036	0.38	357	0.55	734	0.10	534,458	0.17	26,749
Feb.	– 0.00	1,754,413	0.07	2,793	0.36	385	0.50	741	0.09	535,684	0.17	26,435
Mar.	– 0.00	1,750,971	0.06	3,073	0.32	342	0.41	834	0.09	535,778	0.17	26,115
Apr.	– 0.00	1,772,803	0.06	2,465	0.28	379	0.32	591	0.09	536,476	0.17	25,840
May	– 0.01	1,786,469	0.01	2,399	0.37	307	0.32	529	0.09	537,061	0.16	25,715
June	– 0.01	1,788,689	– 0.04	2,957	0.23	310	0.28	566	0.09	536,727	0.16	25,503
July	– 0.01	1,800,235	0.02	2,413	0.28	401	0.30	700	0.08	536,463	0.16	25,216

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
2020 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
Sep.	– 0.08	532,597	– 0.36	37,956	– 0.01	112	0.43	275
Oct.	– 0.09	548,227	– 0.36	38,781	0.10	237	0.33	548
Nov.	– 0.09	549,032	– 0.37	30,418	0.03	220	0.35	533
Dec.	– 0.09	546,575	– 0.42	34,321	– 0.12	556	0.26	970
2021 Jan.	– 0.10	545,028	– 0.23	35,220	– 0.05	126	0.19	129
Feb.	– 0.10	539,935	– 0.26	32,726	– 0.01	113	0.37	537
Mar.	– 0.11	571,025	– 0.12	54,987	0.07	363	0.24	919
Apr.	– 0.10	559,616	– 0.25	52,411	– 0.10	113	0.23	87
May	– 0.11	564,627	– 0.34	53,947	– 0.04	194	0.37	231
June	– 0.12	569,903	– 0.50	64,520	– 0.14	278	0.20	200
July	– 0.12	581,879	– 0.48	57,334	– 0.22	322	0.09	168

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
2020 July	5.74	5.63	9,986	6.52	2,114	8.75	439	4.26	3,744	6.29	5,804
Aug.	5.74	5.62	8,340	6.43	1,738	8.79	391	4.33	3,050	6.18	4,899
Sep.	5.56	5.52	8,638	6.42	1,726	8.53	417	4.12	3,286	6.19	4,936
Oct.	5.73	5.62	8,265	6.36	1,739	8.39	436	4.32	2,905	6.14	4,924
Nov.	5.71	5.62	7,778	6.24	1,560	8.90	566	4.26	2,797	6.06	4,416
Dec.	5.53	5.48	6,652	6.08	1,193	8.08	551	4.24	2,544	5.97	3,556
2021 Jan.	5.88	5.85	6,836	6.43	1,655	7.99	439	4.45	1,973	6.26	4,423
Feb.	5.65	5.65	7,077	6.34	1,630	7.76	379	4.33	2,194	6.11	4,503
Mar.	5.35	5.27	9,298	6.17	1,786	6.23	384	4.05	3,296	5.92	5,619
Apr.	5.51	5.38	7,926	6.17	1,482	6.76	325	4.25	2,731	5.92	4,871
May	5.49	5.37	7,573	6.21	1,400	7.01	301	4.24	2,605	5.90	4,667
June	5.52	5.40	8,979	6.25	1,741	7.20	359	4.23	3,090	5.94	5,530
July	5.55	5.47	9,292	6.30	1,924	6.99	397	4.26	3,014	5.98	5,881

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										
2020 July	1.78	5,293	1.61	1,536	1.84	2,241	2.32	774	1.53	2,278
Aug.	1.88	4,210	1.60	1,055	1.94	1,710	2.55	773	1.51	1,727
Sep.	1.83	4,517	1.60	1,170	1.98	1,997	2.37	612	1.51	1,908
Oct.	1.80	4,279	1.60	1,214	1.95	1,832	2.47	578	1.44	1,869
Nov.	1.84	4,026	1.61	930	1.96	1,731	2.44	585	1.51	1,710
Dec.	1.77	5,473	1.56	1,254	1.81	2,404	2.30	772	1.54	2,297
2021 Jan.	1.79	4,530	1.66	1,532	1.93	1,958	2.17	572	1.55	2,000
Feb.	1.71	4,265	1.69	1,000	1.74	1,680	2.08	578	1.58	2,007
Mar.	1.68	5,715	1.59	1,331	1.69	2,358	2.20	691	1.53	2,666
Apr.	1.65	4,662	1.52	1,263	1.58	1,956	2.08	724	1.55	1,982
May	1.74	3,877	1.51	909	1.79	1,589	2.32	550	1.51	1,738
June	1.63	5,170	1.53	1,119	1.55	2,198	2.26	702	1.51	2,270
July	1.68	4,939	1.50	1,428	1.71	1,909	2.09	732	1.52	2,298
of which: Loans to sole proprietors										
2020 July	1.81	3,472	.	.	1.87	1,355	2.30	600	1.57	1,517
Aug.	1.76	2,755	.	.	1.70	1,135	2.47	462	1.55	1,158
Sep.	1.85	3,019	.	.	1.89	1,357	2.53	431	1.55	1,231
Oct.	1.78	2,888	.	.	1.81	1,226	2.50	451	1.47	1,211
Nov.	1.83	2,743	.	.	1.85	1,118	2.53	438	1.55	1,187
Dec.	1.85	3,793	.	.	1.87	1,629	2.47	523	1.63	1,641
2021 Jan.	1.77	3,041	.	.	1.76	1,281	2.34	402	1.62	1,358
Feb.	1.86	2,843	.	.	1.89	1,058	2.40	390	1.70	1,395
Mar.	1.78	3,846	.	.	1.83	1,507	2.26	535	1.60	1,804
Apr.	1.73	3,212	.	.	1.65	1,316	2.17	555	1.62	1,341
May	1.85	2,624	.	.	1.93	1,052	2.29	451	1.59	1,121
June	1.70	3,581	.	.	1.64	1,516	2.38	508	1.52	1,557
July	1.71	3,503	.	.	1.75	1,328	2.10	587	1.53	1,588

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													
2020 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	21,280	1.41	3,135	1.80	2,209	1.44	1,500	1.07	7,032	1.20	10,539
Sep.	1.26	1.21	21,782	1.35	3,121	1.77	2,213	1.35	1,542	1.07	6,957	1.17	11,070
Oct.	1.24	1.19	23,217	1.24	3,834	1.75	2,362	1.32	1,554	1.03	7,579	1.17	11,722
Nov.	1.22	1.17	23,185	1.28	3,113	1.72	2,372	1.28	1,708	1.03	7,413	1.14	11,692
Dec.	1.21	1.16	22,148	1.29	3,033	1.75	2,195	1.31	1,698	1.02	7,733	1.11	10,522
2021 Jan.	1.23	1.19	21,721	1.32	3,866	1.79	2,124	1.34	1,615	1.03	7,316	1.15	10,666
Feb.	1.22	1.17	22,145	1.30	3,246	1.73	2,098	1.28	1,563	1.04	7,547	1.14	10,938
Mar.	1.22	1.18	28,589	1.26	4,248	1.75	2,684	1.25	1,958	1.02	10,006	1.17	13,941
Apr.	1.27	1.23	24,541	1.30	3,804	1.79	2,343	1.28	1,725	1.06	8,741	1.23	11,732
May	1.31	1.27	22,786	1.35	3,379	1.83	2,064	1.30	1,568	1.09	8,416	1.29	10,738
June	1.34	1.29	25,161	1.34	3,327	1.74	2,374	1.33	1,775	1.12	9,196	1.33	11,815
July	1.36	1.31	25,121	1.36	3,808	1.76	2,686	1.32	1,649	1.14	9,216	1.34	11,571
of which: Collateralised loans [11]													
2020 July	.	1.22	10,687	.	.	1.76	951	1.23	876	1.05	3,621	1.23	5,239
Aug.	.	1.16	9,074	.	.	1.77	748	1.17	673	0.98	3,137	1.17	4,516
Sep.	.	1.14	9,865	.	.	1.75	795	1.14	753	1.00	3,201	1.14	5,116
Oct.	.	1.14	10,142	.	.	1.73	806	1.12	748	1.00	3,239	1.14	5,349
Nov.	.	1.10	10,137	.	.	1.61	819	1.10	823	0.96	3,182	1.11	5,313
Dec.	.	1.08	9,592	.	.	1.63	796	1.12	781	0.95	3,355	1.07	4,660
2021 Jan.	.	1.13	9,731	.	.	1.71	814	1.11	780	0.97	3,226	1.14	4,911
Feb.	.	1.11	9,659	.	.	1.60	752	1.08	773	0.96	3,228	1.14	4,906
Mar.	.	1.11	12,754	.	.	1.69	929	1.08	884	0.95	4,589	1.14	6,352
Apr.	.	1.15	10,483	.	.	1.71	801	1.10	822	1.00	3,834	1.18	5,026
May	.	1.19	9,797	.	.	1.74	747	1.09	725	1.01	3,738	1.25	4,587
June	.	1.23	10,630	.	.	1.69	836	1.14	793	1.06	4,071	1.29	4,930
July	.	1.25	10,467	.	.	1.66	934	1.15	749	1.08	3,906	1.33	4,878

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
2020 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	76,935	2.78	76,674
Sep.	7.51	37,568	7.33	30,004	15.04	4,147	2.84	76,376	2.85	76,092
Oct.	7.42	36,256	7.19	28,750	15.03	4,144	2.75	76,056	2.76	75,773
Nov.	7.41	35,700	7.17	28,273	15.06	4,108	2.74	75,596	2.75	75,326
Dec.	7.32	36,062	7.11	28,411	15.15	4,101	2.70	73,441	2.71	73,178
2021 Jan.	7.51	34,191	7.08	27,635	15.28	4,011	2.77	71,756	2.78	71,526
Feb.	7.40	34,121	7.03	27,298	15.38	3,944	2.76	73,589	2.77	73,354
Mar.	7.41	34,973	7.11	27,993	15.45	3,910	2.77	72,139	2.78	71,866
Apr.	7.37	34,035	7.02	27,152	15.48	3,899	2.84	70,358	2.85	70,106
May	7.28	34,454	7.01	27,148	15.51	3,905	2.79	72,023	2.80	71,766
June	7.23	35,815	7.05	28,056	15.55	3,938	2.86	72,488	2.87	72,184
July	7.11	35,046	6.90	27,102	15.54	3,987	2.75	73,098	2.76	72,788

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																
2020 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.	1.52	55,855	1.36	16,568	1.78	8,324	2.39	1,235	1.51	2,209	1.46	35,797	1.62	3,186	1.22	5,659
Sep.	1.37	71,553	1.49	21,841	2.00	10,506	2.42	1,308	1.55	2,213	1.22	45,047	1.42	3,107	1.18	10,041
Oct.	1.37	66,721	1.36	20,690	1.99	10,358	2.38	1,354	1.49	2,362	1.17	42,053	1.73	4,238	1.18	7,163
Nov.	1.39	62,811	1.39	18,016	1.96	9,897	2.25	1,343	1.53	2,372	1.25	37,080	1.47	4,017	1.13	8,827
Dec.	1.33	87,725	1.37	26,272	2.01	9,615	2.31	1,615	1.56	2,195	1.23	56,078	1.36	4,945	1.11	13,362
2021 Jan.	1.36	55,365	1.52	17,883	1.99	8,828	2.30	1,183	1.56	2,124	1.22	35,711	1.45	2,185	1.03	5,906
Feb.	1.37	54,516	1.55	14,708	2.00	8,851	2.23	1,084	1.57	2,098	1.22	32,922	1.37	2,679	1.09	7,447
Mar.	1.09	93,353	1.59	21,948	1.90	10,691	2.16	1,432	1.54	2,684	0.89	62,746	1.17	6,173	1.20	10,469
Apr.	1.52	56,777	1.55	18,920	1.90	9,318	2.23	1,385	1.55	2,343	1.46	35,109	1.43	3,022	1.15	6,390
May	1.32	58,626	1.53	16,038	1.89	8,462	2.33	1,179	1.56	2,064	1.20	36,993	1.42	2,491	1.06	7,923
June	1.28	83,129	1.29	27,883	1.93	9,481	2.37	1,409	1.54	2,374	1.19	52,578	0.78	6,948	1.28	10,979
July	1.35	70,207	1.43	20,901	1.84	9,614	2.26	1,404	1.52	2,686	1.30	41,884	1.29	3,935	1.00	11,616
of which: Collateralised loans [11]																
2020 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	7,045	.	.	1.85	362	2.14	123	1.26	369	1.52	4,544	1.79	458	1.05	1,189
Sep.	1.37	11,059	.	.	1.72	508	2.08	105	1.22	353	1.41	7,417	1.85	535	1.03	2,141
Oct.	1.23	8,346	.	.	1.73	480	1.74	111	1.14	374	1.26	4,696	1.11	672	1.08	2,013
Nov.	1.54	9,630	.	.	1.86	375	1.67	98	1.20	367	1.64	5,414	2.01	807	1.18	2,569
Dec.	1.33	15,369	.	.	1.68	494	1.68	134	1.16	452	1.41	8,979	1.39	1,222	1.11	4,088
2021 Jan.	1.25	7,702	.	.	1.73	430	1.65	99	1.32	374	1.26	4,614	1.69	574	0.88	1,611
Feb.	1.42	6,642	.	.	1.83	339	1.67	89	1.07	331	1.61	3,930	1.31	383	0.96	1,570
Mar.	1.19	13,787	.	.	1.64	481	1.81	106	1.17	399	1.12	8,540	1.33	825	1.23	3,436
Apr.	1.44	7,883	.	.	1.79	377	1.68	117	1.15	359	1.55	4,450	1.51	967	1.07	1,613
May	1.46	7,097	.	.	1.76	340	1.73	75	1.21	404	1.68	3,830	1.15	439	1.11	2,009
June	1.36	13,761	.	.	1.79	410	1.84	109	1.20	444	1.35	8,365	1.38	1,110	1.35	3,323
July	1.41	10,864	.	.	1.68	445	1.57	117	1.24	404	1.56	6,546	1.30	933	1.02	2,419

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	Technical reserves [3]	Non-financial assets	Remaining assets
Insurance corporations [4]										
2018 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	2,343.3	332.1	431.8	329.8	380.9	708.9	2.6	58.7	37.1	61.4
Q2	2,407.6	336.8	449.0	339.3	387.9	735.8	3.6	57.9	37.1	60.3
Q3	2,492.5	333.0	468.5	357.2	398.2	768.3	4.6	58.8	38.0	66.0
Q4	2,473.9	317.6	448.2	355.5	407.3	778.3	3.6	64.9	39.8	58.8
2020 Q1	2,426.9	318.3	452.1	364.0	383.0	738.4	4.5	68.5	38.6	59.6
Q2	2,517.7	317.1	460.6	371.9	409.2	789.0	4.3	68.5	38.7	58.5
Q3	2,547.5	311.1	472.9	373.9	411.0	809.9	4.4	67.1	39.0	58.1
Q4	2,587.9	301.8	479.0	370.6	425.0	841.7	4.7	68.2	38.2	58.7
2021 Q1	2,574.8	292.8	466.8	361.9	437.0	845.0	3.9	71.9	38.4	57.0
Life insurance										
2018 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	214.2	55.4	538.9	2.4	10.0	20.3	17.4
Q3	1,350.1	205.3	242.5	225.2	57.9	563.6	3.1	10.4	20.9	21.0
Q4	1,325.2	194.9	227.6	217.6	61.1	570.4	2.4	13.7	21.1	16.5
2020 Q1	1,295.8	191.5	231.0	220.6	61.9	538.2	2.2	13.9	20.3	16.3
Q2	1,347.1	192.4	234.4	223.6	64.1	577.3	2.8	13.7	20.3	18.5
Q3	1,369.2	188.4	241.6	225.7	65.7	593.0	3.0	13.6	20.6	17.6
Q4	1,395.9	183.6	242.8	229.9	69.7	617.1	3.3	14.3	20.8	14.5
2021 Q1	1,361.7	170.7	231.7	219.7	74.2	614.8	2.1	14.3	21.0	13.1
Non-life insurance										
2018 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	655.2	119.1	127.5	74.4	76.2	177.1	0.3	38.2	11.0	31.4
Q2	665.6	119.8	131.1	76.1	78.2	182.4	0.4	37.7	11.0	29.1
Q3	682.6	116.9	135.3	79.9	80.6	189.4	0.4	38.8	11.3	30.0
Q4	673.5	111.3	130.4	79.6	83.6	193.3	0.4	36.2	12.2	26.7
2020 Q1	669.4	111.1	131.3	79.8	80.0	186.9	0.3	38.7	12.0	29.3
Q2	685.6	111.9	134.4	82.4	81.1	197.1	0.4	39.5	12.1	26.7
Q3	693.3	109.3	137.6	83.3	82.7	203.2	0.4	38.5	12.1	26.3
Q4	703.5	105.9	139.5	84.5	85.2	210.3	0.5	37.6	12.7	27.3
2021 Q1	715.8	108.2	139.3	83.7	88.1	214.8	0.4	39.9	12.8	28.6
Reinsurance [5]										
2018 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	448.4	10.1	90.6	49.3	251.9	14.0	0.7	10.2	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	58.3	262.6	14.5	0.8	15.1	6.6	15.6
2020 Q1	461.7	15.7	89.8	63.7	241.0	13.3	1.9	15.9	6.3	14.1
Q2	485.0	12.9	91.7	65.9	264.0	14.6	1.1	15.2	6.3	13.3
Q3	485.0	13.5	93.7	64.9	262.6	13.7	1.0	15.0	6.3	14.2
Q4	488.5	12.3	96.7	56.3	270.2	14.3	1.0	16.3	4.7	16.9
2021 Q1	497.3	13.9	95.8	58.5	274.7	15.4	1.4	17.7	4.7	15.3
Pension funds [6]										
2018 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 [7]	599.1	92.2	57.0	48.5	9.3	361.3	0.1	10.4	17.5	2.7
Q2	623.3	92.2	58.8	49.1	9.7	382.1	0.1	10.4	18.1	2.8
Q3	635.9	90.8	59.6	50.2	10.1	392.8	0.2	11.6	18.2	2.5
Q4	647.7	85.8	59.7	47.4	10.1	412.2	0.2	11.9	17.3	3.2
2021 Q1	646.0	83.0	58.9	46.4	10.6	415.5	0.1	12.4	16.6	2.3

Sources: The calculations for the insurance sectors are based on supervisory data according to Solvency I and II and for pension funds on IORP supervisory data and own data collections as of 2020 Q1. Until 2019 Q4 these are compiled using Solvency I supervisory data, supplemented by voluntary reports and own calculations. **1** Accounts receivable to monetary financial institutions, including registered bonds, borrowers' note loans and registered Pfandbriefe. For pension funds as of 2020 Q1 fair values, previously book values. **2** Including deposits retained on assumed reinsurance as well as registered bonds, borrowers' note loans and registered Pfandbriefe. For pension funds as of 2020 Q1 fair values, previously book values. **3** Including reinsurance recoverables and claims of pension funds on pension managers. **4** Valuation of listed securities at the corresponding consistent price from the ESCB's securities database. **5** Not including the reinsurance business conducted by primary insurers, which is included there. **6** 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. **7** Change in data sources.

VII. Insurance corporations and pension funds

2. Liabilities

€ billion

End of year/quarter	Total	Debt securities issued	Loans [1]	Shares and other equity	Technical reserves			Financial derivatives	Remaining liabilities	Net worth [4]
					Total [2]	Life/ pension entitlements [3]	Non-life			
Insurance corporations										
2018 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	2,343.3	31.6	68.2	487.9	1,624.8	1,403.6	221.2	1.5	129.2	–
Q2	2,407.6	31.9	69.4	489.7	1,687.4	1,466.0	221.4	1.8	127.5	–
Q3	2,492.5	31.7	69.3	488.5	1,769.4	1,543.0	226.4	2.2	131.5	–
Q4	2,473.9	31.7	75.8	515.3	1,714.9	1,499.6	215.3	1.9	134.3	–
2020 Q1	2,426.9	31.8	82.4	464.3	1,721.9	1,483.2	238.7	2.4	124.1	–
Q2	2,517.7	33.1	82.2	505.4	1,767.7	1,527.7	240.0	1.9	127.4	–
Q3	2,547.5	34.3	80.0	515.9	1,785.7	1,549.2	236.5	1.7	129.9	–
Q4	2,587.9	36.6	79.7	540.5	1,799.2	1,579.3	219.9	1.6	130.3	–
2021 Q1	2,574.8	34.8	81.4	550.5	1,778.0	1,541.0	237.0	2.5	127.7	–
Life insurance										
2018 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	1,350.1	3.7	15.6	116.0	1,171.9	1,171.9	–	0.6	42.4	–
Q4	1,325.2	3.6	19.1	127.6	1,129.6	1,129.6	–	0.5	44.7	–
2020 Q1	1,295.8	3.6	19.3	114.3	1,117.8	1,117.8	–	0.6	40.3	–
Q2	1,347.1	3.8	19.2	129.8	1,150.3	1,150.3	–	0.5	43.4	–
Q3	1,369.2	3.9	19.5	136.8	1,164.8	1,164.8	–	0.5	43.7	–
Q4	1,395.9	3.9	20.7	142.9	1,185.7	1,185.7	–	0.5	42.3	–
2021 Q1	1,361.7	3.3	19.9	143.2	1,154.2	1,154.2	–	1.0	40.1	–
Non-life insurance										
2018 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	655.2	1.1	9.3	144.1	448.5	328.9	119.6	0.0	52.2	–
Q2	665.6	1.1	8.8	147.0	459.4	341.5	117.8	0.1	49.3	–
Q3	682.6	1.2	9.1	149.7	471.9	354.8	117.1	0.1	50.6	–
Q4	673.5	1.2	9.3	153.7	457.2	349.4	107.8	0.1	52.0	–
2020 Q1	669.4	1.3	9.8	142.0	468.2	344.4	123.8	0.1	48.0	–
Q2	685.6	1.3	9.5	149.4	478.2	355.6	122.6	0.1	47.1	–
Q3	693.3	1.2	9.6	152.0	482.3	362.4	119.9	0.1	48.1	–
Q4	703.5	1.3	9.7	158.1	483.1	368.7	114.4	0.0	51.3	–
2021 Q1	715.8	1.2	10.6	161.8	491.4	362.5	128.9	0.1	50.6	–
Reinsurance [5]										
2018 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	448.4	26.5	44.5	222.9	117.4	15.8	101.6	1.1	36.0	–
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	461.7	26.9	53.3	208.1	135.9	21.0	114.9	1.7	35.8	–
Q2	485.0	28.1	53.5	226.2	139.1	21.8	117.4	1.3	36.8	–
Q3	485.0	29.2	50.9	227.0	138.7	22.1	116.6	1.0	38.1	–
Q4	488.5	31.4	49.3	239.6	130.4	24.8	105.6	1.0	36.7	–
2021 Q1	497.3	30.2	50.9	245.5	132.4	24.2	108.1	1.4	37.0	–
Pension funds [6]										
2018 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 [7]	599.1	–	1.6	19.4	497.3	496.7	–	0.3	8.1	72.4
Q2	623.3	–	1.6	21.6	506.4	505.8	–	0.3	8.3	85.0
Q3	635.9	–	1.6	22.4	510.0	509.3	–	0.3	8.7	92.9
Q4	647.7	–	1.6	21.8	516.3	515.6	–	0.3	8.9	98.8
2021 Q1	646.0	–	1.6	22.6	510.0	509.4	–	0.4	8.6	102.8

Sources: The calculations for the insurance sectors are based on supervisory data according to Solvency I and II and for pension funds on IORP supervisory data and own data collections as of 2020 Q1. Until 2019 Q4 these 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** Including claims of pension funds on pension managers and entitlements to non-pension benefits. **3** Technical reserves "life" taking account of transitional measures. Health insurance is also included in the "non-life insurance" sector. **4** Own funds correspond to the sum of "Net worth" and "Shares and other equity". **5** Not including the reinsurance business conducted by primary insurers, which is included there. **6** Valuation at book values. 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. **7** Change in data sources.

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]	
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	54,840	11,563	1,096	7,112	3,356	43,277	137,907	– 71,454	161,012	48,349	– 83,067	
2018	61,661	16,630	33,251	12,433	– 29,055	45,031	95,902	– 24,417	67,328	52,991	– 34,241	
2019	137,356	68,536	29,254	32,505	6,778	68,820	62,915	8,059	2,408	52,448	74,441	
2020	438,208	382,059	14,257	89,473	278,328	56,150	278,521	18,955	226,887	32,679	159,688	
2020 Sep.	74,880	71,710	23,528	27,822	20,360	3,170	24,683	1,689	22,121	873	50,197	
Oct.	– 18,992	– 37,538	– 16,298	– 18,370	– 2,870	18,545	28,449	9,298	24,556	– 5,405	– 47,441	
Nov.	20,565	26,226	– 1,008	184	27,050	– 5,661	26,631	1,513	27,659	– 2,541	– 6,066	
Dec.	– 36,340	– 38,083	– 11,407	– 11,953	– 14,723	1,742	15,822	– 25,221	18,290	22,753	– 52,162	
2021 Jan.	56,876	27,740	3,995	3,797	19,948	29,136	43,949	8,455	13,518	21,976	12,927	
Feb.	42,555	19,574	3,411	– 2,569	18,732	22,980	43,479	– 3,738	20,397	26,821	– 925	
Mar.	39,153	39,488	21,772	551	17,165	– 334	24,601	6,152	20,708	– 2,259	14,553	
Apr.	17,262	12,392	– 2,704	6,063	9,032	4,870	25,929	– 17,641	24,095	19,475	– 8,668	
May	37,055	32,136	– 3,450	7,311	28,274	4,919	32,266	– 2,194	25,538	8,922	4,789	
June	29,666	15,241	1,998	– 288	13,531	14,426	31,901	– 583	22,605	9,879	– 2,235	
July	11,416	6,260	– 9,191	3,821	11,631	5,156	29,022	– 5,500	25,087	9,435	– 17,606	

€ 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]
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	51,571	15,570	36,001	49,913	7,031	42,882	1,658
2018	55,729	16,188	39,541	83,036	– 11,184	94,220	– 27,307
2019	47,115	9,076	38,039	33,573	– 1,119	34,692	13,542
2020	84,953	17,771	67,182	116,813	27	116,786	– 31,860
2020 Sep.	11,221	4,487	6,734	10,593	161	10,432	628
Oct.	5,092	1,057	4,036	5,325	342	4,983	– 233
Nov.	9,988	220	9,769	10,221	1,919	8,302	– 233
Dec.	14,530	2,898	11,633	14,692	2,970	11,722	– 161
2021 Jan.	– 7,264	1,441	– 8,705	– 10,433	863	– 11,296	3,169
Feb.	9,412	2,729	6,683	11,010	1,501	9,509	– 1,598
Mar.	20,639	8,964	11,676	17,986	1,285	16,701	2,653
Apr.	17,279	882	16,397	15,913	1,816	14,097	1,366
May	4,781	1,170	3,612	3,907	– 387	4,294	875
June	12,085	5,166	6,919	14,962	36	14,926	– 2,878
July	5,918	825	5,093	3,731	– 74	3,805	2,186

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								
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
2020 6	1,739,485	776,970	38,948	17,527	643,340	77,155	184,986	777,529
2020 Nov.	119,060	61,556	648	300	53,206	7,403	10,625	46,879
Dec.	83,280	49,474	389	250	46,506	2,329	8,119	25,687
2021 Jan.	158,237	75,929	3,011	590	67,215	5,113	12,102	70,206
Feb.	129,424	67,263	3,158	504	52,753	10,847	9,658	52,503
Mar.	181,139	105,661	11,531	9,511	75,893	8,725	11,202	64,277
Apr.	145,418	62,631	4,441	1,000	50,889	6,301	11,673	71,113
May	138,917	58,587	2,131	250	50,439	5,766	15,601	64,729
June	148,673	68,494	1,236	700	57,098	9,460	13,550	66,630
July	144,451	62,560	1,211	250	54,159	6,939	8,874	73,018
of which: Debt securities with maturities of more than four years 4								
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
2020 6	536,359	165,146	28,500	7,427	90,889	38,329	78,356	292,857
2020 Nov.	34,117	10,673	548	50	4,688	5,388	5,877	17,567
Dec.	11,021	4,765	389	–	3,187	1,188	2,213	4,043
2021 Jan.	52,120	21,576	2,250	40	16,265	3,021	6,119	24,425
Feb.	41,268	18,138	2,658	4	7,789	7,686	3,654	19,477
Mar.	59,203	27,756	6,371	3,161	13,666	4,558	5,800	25,647
Apr.	48,999	12,414	3,051	250	7,001	2,111	7,640	28,945
May	45,302	11,672	2,131	250	6,132	3,159	6,058	27,572
June	47,884	11,296	908	700	5,981	3,707	6,767	29,821
July	37,977	8,800	800	250	5,424	2,326	3,204	25,973
Net sales 5								
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
2020 6	343,046	26,505	7,861	8,016	22,026	– 11,399	50,316	266,225
2020 Nov.	13,935	185	– 1,049	– 907	– 910	3,050	– 234	13,984
Dec.	– 36,243	– 13,029	– 1,598	– 1,303	– 6,176	– 3,953	– 2,526	– 20,688
2021 Jan.	25,773	2,547	1,094	– 922	3,737	– 1,362	4,667	18,559
Feb.	19,957	3,080	– 478	– 190	– 712	4,460	782	16,094
Mar.	61,040	37,126	10,737	8,754	15,784	1,850	2,689	21,225
Apr.	9,029	– 2,148	1,114	968	– 4,362	132	4,506	6,671
May	31,324	– 4,344	1,076	– 907	– 3,822	– 691	7,307	28,362
June	16,508	3,561	821	616	– 588	2,712	1,974	10,973
July	6,145	– 5,738	– 41	– 327	– 5,125	– 245	2,089	9,795

***** 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 year 2020 have been revised. 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		
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
2020 [4]	[2] 3,411,642	[2] 1,173,329	183,261	55,192	687,670	[2] 247,206	[2] 378,864	1,859,449
2020 Nov.	3,456,214	1,191,646	184,910	56,543	698,675	251,517	384,346	1,880,222
Dec.	[2] 3,411,642	1,173,329	183,261	55,192	687,670	247,206	[2] 378,864	1,859,449
2021 Jan.	3,438,239	1,179,112	184,416	54,254	694,250	246,193	383,812	1,875,315
Feb.	3,459,727	1,183,313	183,909	54,073	694,692	250,639	384,738	1,891,675
Mar.	3,534,797	1,230,263	194,832	62,865	719,370	253,196	388,060	1,916,474
Apr.	3,533,432	1,219,467	195,766	63,790	707,428	252,482	392,063	1,921,902
May	3,562,200	1,212,645	196,850	62,878	701,731	251,186	399,222	1,950,333
June	3,587,728	1,222,221	197,721	63,515	706,439	254,546	401,612	1,963,895
July	3,586,021	1,216,320	197,729	63,186	700,935	254,470	400,691	1,969,010
Breakdown by remaining period to maturity [3]								**Position at end-July 2021**
bis unter 2	1 157 755	426 913	57 428	23 699	275 961	69 824	71 644	659 198
2 bis unter 4	660 877	301 137	51 511	16 509	178 758	54 359	71 423	288 317
4 bis unter 6	501 225	183 759	34 480	10 297	88 207	50 775	60 921	256 545
6 bis unter 8	378 827	133 896	28 427	5 512	70 484	29 473	44 977	199 955
8 bis unter 10	301 738	77 879	13 907	3 797	40 549	19 626	27 781	196 078
10 bis unter 15	183 209	49 700	8 097	2 394	26 947	12 262	33 641	99 869
15 bis unter 20	115 632	16 976	2 961	815	11 280	1 920	13 713	84 943
20 und darüber	286 757	26 060	916	163	8 751	16 231	76 590	184 106

***** Including debt securities temporarily held in the issuers' portfolios. **1** Sectoral reclassification of debt securities. **2** Adjustments 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 year 2020 have been revised. 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	
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
2020 [4]	181,881	– 2,871	1,877	219	178	– 2,051	– 460	– 2,634	1,963,588
2020 Nov.	181,879	– 340	47	–	1	– 219	– 11	– 158	1,884,308
Dec.	181,881	2	181	–	90	– 87	– 64	– 118	1,963,588
2021 Jan.	181,437	– 445	102	260	4	– 74	– 300	– 437	1,961,051
Feb.	182,149	705	331	–	0	– 9	– 443	– 59	1,994,901
Mar.	182,362	213	411	–	0	– 1	– 34	– 164	2,174,997
Apr.	182,665	106	116	73	1	– 0	– 1	– 84	2,194,286
May	182,152	– 514	205	26	–	– 0	– 92	– 653	2,228,053
June	182,226	75	275	73	–	– 87	– 70	– 116	2,262,394
July	181,614	– 65	74	31	2	– 1	– 2	– 169	2,266,494

***** 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
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	1.3	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	– 0.2	– 0.4	– 0.5	– 0.5	– 0.0	0.1	1.7	146.15	113.14	586.72	13,718.78
2021 Mar.	– 0.1	– 0.3	– 0.4	– 0.4	– 0.1	0.1	0.9	144.70	109.88	633.92	15,008.34
Apr.	– 0.1	– 0.2	– 0.3	– 0.3	– 0.1	0.2	0.9	144.29	109.11	638.17	15,135.91
May	– 0.0	– 0.2	– 0.2	– 0.2	– 0.0	0.3	0.9	144.19	108.88	642.41	15,421.13
June	– 0.0	– 0.2	– 0.3	– 0.3	– 0.0	0.2	1.0	144.74	109.42	648.99	15,531.04
July	– 0.2	– 0.3	– 0.4	– 0.5	– 0.1	0.1	0.9	146.34	111.03	650.36	15,544.39
Aug.	– 0.3	– 0.4	– 0.5	– 0.5	– 0.2	– 0.0	0.7	145.90	110.25	662.93	15,835.09

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]
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	153,756	94,921	29,560	– 235	21,970	4,406	65,361	58,834	156,282	4,938	1,048	151,344	57,786	– 2,526
2018	132,060	103,694	15,279	377	4,166	6,168	88,415	28,366	138,424	2,979	– 2,306	135,445	30,672	– 6,364
2019	176,465	122,546	17,032	– 447	5,097	10,580	105,514	53,919	181,388	2,719	– 812	178,669	54,731	– 4,923
2020	180,462	116,028	19,193	– 42	11,343	8,795	96,835	64,435	179,529	336	– 1,656	179,193	66,091	933
2021 Jan.	19,672	12,231	1,832	– 46	1,159	776	10,399	7,441	19,706	615	257	19,091	7,184	– 34
Feb.	14,398	7,295	2,852	– 27	1,926	946	4,443	7,102	15,065	1,442	395	13,623	6,707	– 667
Mar.	15,995	13,745	4,699	631	3,335	827	9,046	2,250	15,184	552	– 526	14,632	2,776	811
Apr.	20,214	10,938	3,205	– 55	2,782	383	7,733	9,276	18,680	1,314	468	17,366	8,808	1,534
May	12,788	7,912	3,416	– 19	2,585	679	4,496	4,875	12,496	1,460	5	11,036	4,870	292
June	23,101	12,411	3,231	78	2,252	757	9,181	10,690	23,929	733	446	23,196	10,244	– 827
July	17,025	11,842	4,098	– 82	3,506	503	7,744	5,183	17,814	1,051	– 477	16,763	5,660	– 789

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	2018	2019	2020	2019	2020				2021
				Q4	Q1	Q2	Q3	Q4	Q1
Acquisition of financial assets									
Currency and deposits	25.63	18.26	100.01	12.06	0.73	46.79	45.71	6.78	19.79
Debt securities	5.24	− 2.23	3.01	− 0.94	0.15	2.47	0.57	− 0.19	− 1.53
Short-term debt securities	1.42	− 1.31	1.27	− 0.31	− 0.32	0.53	1.25	− 0.18	0.12
Long-term debt securities	3.82	− 0.91	1.74	− 0.63	0.47	1.94	− 0.68	− 0.01	− 1.65
Memo item:									
Debt securities of domestic sectors	0.65	− 0.47	1.38	− 0.31	− 0.04	1.80	− 0.48	0.10	− 0.64
Non-financial corporations	0.59	0.51	− 0.17	− 0.25	− 0.02	0.20	0.13	− 0.48	0.10
Financial corporations	1.40	− 0.56	0.12	0.18	− 0.16	0.60	− 0.41	0.09	− 0.55
General government	− 1.34	− 0.41	1.44	− 0.24	0.14	1.00	− 0.20	0.49	− 0.20
Debt securities of the rest of the world	4.60	− 1.76	1.62	− 0.63	0.19	0.67	1.05	− 0.29	− 0.89
Loans	− 0.87	− 2.77	− 19.33	22.98	− 8.06	− 3.19	− 7.81	− 0.28	3.96
Short-term loans	24.05	12.37	− 8.52	26.90	− 9.40	− 2.83	0.49	3.22	− 0.20
Long-term loans	− 24.92	− 15.14	− 10.81	− 3.92	1.33	− 0.35	− 8.30	− 3.50	4.16
Memo item:									
Loans to domestic sectors	6.25	− 25.01	0.28	10.77	− 7.83	6.99	− 3.13	4.24	− 5.83
Non-financial corporations	4.52	− 28.14	− 12.27	12.60	− 9.25	5.75	− 3.86	− 4.90	− 1.66
Financial corporations	1.36	2.90	11.99	− 1.89	1.29	1.11	0.59	9.00	− 4.17
General government	0.36	0.22	0.56	0.06	0.14	0.14	0.14	0.14	0.00
Loans to the rest of the world	− 7.12	22.24	− 19.61	12.21	− 0.24	− 10.18	− 4.68	− 4.52	9.79
Equity and investment fund shares	130.07	91.38	74.98	21.32	57.08	− 15.94	20.83	13.02	19.59
Equity	128.06	82.38	62.19	19.78	56.22	− 17.09	15.96	7.10	15.77
Listed shares of domestic sectors	18.82	6.18	− 77.97	− 7.49	− 1.51	− 18.72	10.02	− 67.75	12.08
Non-financial corporations	18.27	4.62	− 78.06	− 9.14	− 1.32	− 18.55	10.15	− 68.34	12.08
Financial corporations	0.55	1.55	0.09	1.65	− 0.19	− 0.18	− 0.14	0.60	0.01
Listed shares of the rest of the world	− 3.84	5.55	6.54	0.56	0.73	− 1.42	3.43	3.79	0.71
Other equity [1]	113.08	70.65	133.62	26.72	57.00	3.05	2.51	71.06	2.98
Investment fund shares	2.01	9.00	12.79	1.54	0.85	1.15	4.87	5.92	3.82
Money market fund shares	− 0.53	1.78	3.79	1.61	− 1.80	0.98	3.27	1.34	− 0.47
Non-MMF investment fund shares	2.54	7.22	9.00	− 0.08	2.65	0.17	1.60	4.58	4.30
Insurance technical reserves	0.39	1.68	2.08	0.33	0.56	0.54	0.50	0.48	0.48
Financial derivatives	2.15	0.54	− 25.09	11.22	− 0.93	− 10.35	− 3.49	− 10.33	21.57
Other accounts receivable	41.43	− 67.06	54.23	− 63.19	10.11	− 54.12	47.51	50.73	21.91
Total	204.03	39.79	189.87	3.78	59.63	− 33.79	103.82	60.22	85.78
External financing									
Debt securities	0.47	20.52	36.25	0.72	6.69	23.36	10.22	− 4.03	2.67
Short-term securities	3.38	4.88	− 4.40	− 3.52	2.17	2.76	− 3.91	− 5.42	− 1.19
Long-term securities	− 2.91	15.64	40.65	4.24	4.53	20.60	14.13	1.39	3.86
Memo item:									
Debt securities of domestic sectors	3.48	6.62	18.12	0.63	1.55	11.47	5.05	0.06	1.94
Non-financial corporations	0.59	0.51	− 0.17	− 0.25	− 0.02	0.20	0.13	− 0.48	0.10
Financial corporations	2.89	5.31	19.86	0.46	2.05	11.20	5.44	1.18	1.96
General government	0.01	0.47	− 0.22	0.42	− 0.10	− 0.19	0.05	0.01	0.14
Households	− 0.01	0.34	− 1.35	− 0.01	− 0.39	0.26	− 0.57	− 0.65	− 0.26
Debt securities of the rest of the world	− 3.01	13.90	18.13	0.09	5.15	11.89	5.17	− 4.08	0.73
Loans	157.71	77.15	68.70	16.41	33.60	28.80	1.05	5.25	19.52
Short-term loans	72.92	23.58	− 20.17	9.68	14.36	− 26.96	− 0.18	− 7.39	24.71
Long-term loans	84.78	53.57	88.88	6.73	19.24	55.76	1.23	12.65	− 5.18
Memo item:									
Loans from domestic sectors	86.80	33.41	30.73	26.24	9.98	23.80	− 3.15	0.11	26.47
Non-financial corporations	4.52	− 28.14	− 12.27	12.60	− 9.25	5.75	− 3.86	− 4.90	− 1.66
Financial corporations	80.88	60.35	9.46	9.57	23.59	2.07	− 9.65	− 6.55	27.18
General government	1.40	1.20	33.54	4.07	− 4.36	15.99	10.36	11.56	0.94
Loans from the rest of the world	70.91	43.74	37.97	− 9.84	23.62	5.00	4.20	5.14	− 6.94
Equity	16.08	17.96	56.49	5.18	6.07	9.74	21.58	19.10	14.52
Listed shares of domestic sectors	73.22	− 24.49	− 62.04	− 9.38	7.20	− 13.53	10.80	− 66.51	14.77
Non-financial corporations	18.27	4.62	− 78.06	− 9.14	− 1.32	− 18.55	10.15	− 68.34	12.08
Financial corporations	46.75	− 33.13	3.68	0.61	1.65	1.44	− 1.00	1.59	− 0.49
General government	0.53	− 0.01	0.26	− 0.05	0.20	0.09	− 0.01	− 0.01	− 0.07
Households	7.67	4.03	12.08	− 0.80	6.66	3.50	1.67	0.25	3.25
Listed shares of the rest of the world	− 31.95	− 1.59	12.49	14.28	− 5.95	18.40	− 1.32	1.37	− 4.52
Other equity [1]	− 25.20	44.04	106.03	0.28	4.82	4.87	12.10	84.24	4.27
Insurance technical reserves	6.08	2.81	2.81	0.70	0.70	0.70	0.70	0.70	0.70
Financial derivatives and employee stock options	− 0.49	− 1.38	0.54	− 3.21	1.49	− 2.26	0.06	1.26	− 0.94
Other accounts payable	54.18	5.79	13.65	− 21.04	− 2.69	− 45.17	39.43	22.08	53.58
Total	234.01	122.85	178.44	− 1.24	45.87	15.18	73.04	44.36	90.05

1 Including unlisted shares.

IX. Financial accounts

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

End of year/quarter; € billion

Item	2018	2019	2020	2019 Q4	2020 Q4	2020 Q1	2020 Q2	2020 Q3	2021 Q4
Financial assets									
Currency and deposits	583.6	578.4	720.7	578.4	599.9	631.3	703.4	720.7	714.6
Debt securities	50.8	49.6	51.5	49.6	48.2	51.5	51.5	51.5	49.9
Short-term debt securities	4.9	3.7	4.8	3.7	3.4	3.8	5.1	4.8	5.0
Long-term debt securities	45.9	45.9	46.7	45.9	44.9	47.7	46.3	46.7	44.9
Memo item:									
Debt securities of domestic sectors	21.3	21.1	22.1	21.1	20.3	22.3	21.9	22.1	21.4
Non-financial corporations	4.5	5.0	4.7	5.0	4.7	5.0	5.1	4.7	4.7
Financial corporations	13.8	13.6	13.4	13.6	12.9	13.6	13.2	13.4	12.9
General government	3.0	2.6	4.0	2.6	2.7	3.7	3.5	4.0	3.8
Debt securities of the rest of the world	29.5	28.4	29.4	28.4	28.0	29.2	29.6	29.4	28.5
Loans	733.8	733.4	717.0	733.4	724.2	728.7	718.4	717.0	722.4
Short-term loans	555.6	569.4	565.8	569.4	559.1	564.4	563.2	565.8	565.9
Long-term loans	178.2	164.0	151.2	164.0	165.1	164.3	155.2	151.2	156.4
Memo item:									
Loans to domestic sectors	440.2	415.2	415.5	415.2	407.4	414.4	411.3	415.5	409.7
Non-financial corporations	368.0	339.9	327.6	339.9	330.6	336.4	332.5	327.6	325.9
Financial corporations	65.2	68.1	80.1	68.1	69.4	70.5	71.1	80.1	75.9
General government	7.1	7.3	7.9	7.3	7.4	7.6	7.7	7.9	7.9
Loans to the rest of the world	293.6	318.1	301.5	318.1	316.8	314.3	307.2	301.5	312.7
Equity and investment fund shares	2,164.5	2,425.8	2,495.2	2,425.8	2,218.7	2,380.0	2,413.5	2,495.2	2,653.1
Equity	1,998.1	2,235.8	2,290.4	2,235.8	2,042.9	2,193.4	2,220.0	2,290.4	2,440.7
Listed shares of domestic sectors	302.6	342.0	307.0	342.0	288.4	337.2	352.5	307.0	359.4
Non-financial corporations	296.0	332.9	298.9	332.9	281.4	329.6	346.0	298.9	350.9
Financial corporations	6.6	9.0	8.1	9.0	7.0	7.6	6.5	8.1	8.5
Listed shares of the rest of the world	40.2	50.7	66.6	50.7	45.3	47.4	55.3	66.6	71.0
Other equity [1]	1,655.4	1,843.1	1,916.9	1,843.1	1,709.2	1,808.8	1,812.3	1,916.9	2,010.4
Investment fund shares	166.4	190.0	204.7	190.0	175.8	186.6	193.5	204.7	212.4
Money market fund shares	1.0	3.2	7.0	3.2	1.4	2.4	5.7	7.0	6.5
Non-MMF investment fund shares	165.4	186.8	197.8	186.8	174.4	184.2	187.8	197.8	205.9
Insurance technical reserves	56.3	59.1	62.2	59.1	59.9	60.6	61.4	62.2	62.9
Financial derivatives	33.3	31.6	31.1	31.6	44.6	34.8	29.7	31.1	31.0
Other accounts receivable	1,171.0	1,244.8	1,225.6	1,244.8	1,210.8	1,123.1	1,183.3	1,225.6	1,331.0
Total	4,793.4	5,122.6	5,303.2	5,122.6	4,906.3	5,010.1	5,161.2	5,303.2	5,564.9
Liabilities									
Debt securities	181.3	204.7	249.2	204.7	202.9	238.6	251.4	249.2	251.1
Short-term securities	6.8	11.9	7.1	11.9	13.9	16.6	12.6	7.1	5.9
Long-term securities	174.5	192.9	242.1	192.9	189.0	222.0	238.9	242.1	245.1
Memo item:									
Debt securities of domestic sectors	70.1	77.7	96.0	77.7	74.3	88.8	94.9	96.0	95.6
Non-financial corporations	4.5	5.0	4.7	5.0	4.7	5.0	5.1	4.7	4.7
Financial corporations	51.5	57.8	78.1	57.8	56.4	69.7	76.1	78.1	78.0
General government	0.1	0.6	0.4	0.6	0.5	0.3	0.4	0.4	0.5
Households	14.0	14.4	12.8	14.4	12.8	13.8	13.3	12.8	12.5
Debt securities of the rest of the world	111.1	127.0	153.2	127.0	128.5	149.9	156.6	153.2	155.5
Loans	2,049.5	2,127.5	2,187.5	2,127.5	2,161.0	2,190.8	2,186.0	2,187.5	2,208.1
Short-term loans	793.5	820.3	794.4	820.3	834.9	806.2	803.5	794.4	821.6
Long-term loans	1,256.0	1,307.2	1,393.2	1,307.2	1,326.1	1,384.6	1,382.5	1,393.2	1,386.5
Memo item:									
Loans from domestic sectors	1,325.2	1,358.6	1,388.7	1,358.6	1,368.6	1,394.4	1,389.4	1,388.7	1,417.1
Non-financial corporations	368.0	339.9	327.6	339.9	330.6	336.4	332.5	327.6	325.9
Financial corporations	906.8	966.8	974.3	966.8	989.8	993.5	981.9	974.3	1,003.9
General government	50.5	51.9	86.7	51.9	48.1	64.5	75.0	86.7	87.2
Loans from the rest of the world	724.3	768.9	798.9	768.9	792.4	796.5	796.6	798.9	791.0
Equity	2,701.1	3,102.2	3,259.8	3,102.2	2,572.7	2,950.1	3,092.2	3,259.8	3,516.9
Listed shares of domestic sectors	659.1	733.2	739.2	733.2	594.9	710.7	746.7	739.2	847.5
Non-financial corporations	296.0	332.9	298.9	332.9	281.4	329.6	346.0	298.9	350.9
Financial corporations	161.7	157.2	171.2	157.2	126.0	149.8	155.4	171.2	191.7
General government	41.6	51.8	56.3	51.8	41.8	50.5	53.3	56.3	67.3
Households	159.8	191.3	212.8	191.3	145.7	180.8	192.0	212.8	237.6
Listed shares of the rest of the world	765.0	959.4	996.3	959.4	689.5	856.5	924.2	996.3	1,082.8
Other equity [1]	1,277.0	1,409.6	1,524.3	1,409.6	1,288.3	1,382.9	1,421.3	1,524.3	1,586.6
Insurance technical reserves	269.8	272.6	275.4	272.6	273.3	274.0	274.7	275.4	276.1
Financial derivatives and employee stock options	65.4	67.0	88.1	67.0	87.4	90.4	84.5	88.1	73.0
Other accounts payable	1,188.7	1,317.0	1,305.3	1,317.0	1,276.1	1,240.8	1,289.3	1,305.3	1,409.1
Total	6,455.7	7,091.0	7,365.3	7,091.0	6,573.3	6,984.7	7,178.1	7,365.3	7,734.2

1 Including unlisted shares.

IX. Financial accounts

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

€ billion

Item	2018	2019	2020	2019	2020				2021
				Q4	Q4	Q1	Q2	Q3	Q4
Acquisition of financial assets									
Currency and deposits	137.95	142.38	209.95	51.88	20.98	73.07	41.48	74.43	48.74
Currency	29.92	35.37	61.57	12.99	16.38	16.97	11.95	16.27	12.96
Deposits	108.03	107.01	148.38	38.90	4.60	56.10	29.53	58.15	35.78
Transferable deposits	109.88	111.01	165.34	42.16	18.74	58.64	31.76	56.20	34.31
Time deposits	6.78	1.47	– 1.70	0.71	– 3.11	– 0.85	0.41	1.85	– 0.01
Savings deposits (including savings certificates)	– 8.63	– 5.47	– 15.26	– 3.97	– 11.04	– 1.70	– 2.63	0.10	1.48
Debt securities	1.62	– 1.85	– 5.94	– 1.61	– 1.47	0.38	– 1.67	– 3.18	– 2.66
Short-term debt securities	– 0.13	– 0.53	0.08	0.02	– 0.03	0.16	0.10	– 0.16	0.16
Long-term debt securities	1.74	– 1.32	– 6.02	– 1.63	– 1.44	0.22	– 1.77	– 3.03	– 2.82
Memo item:									
Debt securities of domestic sectors	2.24	– 2.93	– 2.56	– 2.38	– 0.14	0.55	– 1.17	– 1.79	– 1.07
Non-financial corporations	– 0.10	0.21	– 1.32	– 0.04	– 0.32	0.19	– 0.56	– 0.62	– 0.28
Financial corporations	2.81	– 2.22	– 1.26	– 1.75	– 0.35	0.47	– 0.36	– 1.02	– 0.67
General government	– 0.46	– 0.92	0.02	– 0.58	0.53	– 0.11	– 0.24	– 0.15	– 0.12
Debt securities of the rest of the world	– 0.62	1.08	– 3.38	0.77	– 1.32	– 0.17	– 0.50	– 1.39	– 1.59
Equity and investment fund shares	38.44	49.78	90.16	16.20	19.39	28.96	20.35	21.46	28.06
Equity	18.84	18.94	48.52	3.43	13.62	15.57	11.60	7.72	2.57
Listed shares of domestic sectors	9.44	6.61	16.06	– 0.24	8.07	6.35	1.98	– 0.35	3.39
Non-financial corporations	6.28	3.52	11.92	– 1.19	6.47	3.41	1.71	0.33	3.12
Financial corporations	3.16	3.09	4.14	0.95	1.61	2.94	0.27	– 0.68	0.27
Listed shares of the rest of the world	4.37	7.46	23.27	2.58	3.02	6.40	7.43	6.43	– 1.74
Other equity [1]	5.03	4.86	9.18	1.08	2.53	2.82	2.20	1.64	0.92
Investment fund shares	19.60	30.84	41.64	12.78	5.76	13.39	8.75	13.74	25.50
Money market fund shares	– 0.22	– 0.32	0.09	– 0.37	0.38	– 0.10	0.10	– 0.29	0.09
Non-MMF investment fund shares	19.81	31.16	41.55	13.14	5.38	13.49	8.65	14.03	25.41
Non-life insurance technical reserves and provision for calls under standardised guarantees	15.80	17.93	20.04	6.57	5.28	5.63	5.55	3.58	5.43
Life insurance and annuity entitlements	28.22	34.85	25.89	8.66	10.64	3.79	6.19	5.27	11.65
Pension entitlement, claims of pension funds on pension managers, entitlements to non-pension benefits	37.28	27.51	38.49	4.75	11.53	7.55	7.04	12.36	9.49
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]	– 9.28	– 2.74	7.67	– 27.13	24.04	– 9.72	7.23	– 13.88	28.05
Total	250.02	267.85	386.26	59.33	90.39	109.67	86.18	100.03	128.76
External financing									
Loans	68.41	81.16	82.39	16.59	13.13	17.63	27.53	24.10	16.55
Short-term loans	2.44	0.92	– 5.51	0.20	– 1.58	– 2.29	– 0.52	– 1.12	0.48
Long-term loans	65.97	80.23	87.89	16.39	14.71	19.91	28.05	25.22	16.08
Memo item:									
Mortgage loans	57.42	67.17	84.16	19.79	15.69	18.47	25.54	24.47	18.52
Consumer loans	11.14	14.42	– 4.29	– 1.96	– 2.67	– 2.05	1.08	– 0.66	– 1.14
Entrepreneurial loans	– 0.14	– 0.43	2.51	– 1.25	0.10	1.21	0.91	0.29	– 0.82
Memo item:									
Loans from monetary financial institutions	61.72	73.41	83.17	18.60	15.52	17.96	27.32	22.37	14.85
Loans from other financial institutions	6.69	7.74	– 0.78	– 2.01	– 2.39	– 0.34	0.21	1.73	1.71
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	0.80	0.31	0.40	– 0.50	– 0.17	0.25	0.31	0.01	0.01
Total	69.21	81.46	82.79	16.09	12.96	17.88	27.84	24.11	16.56

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	2018	2019	2020	2019	2020				2021
				Q4	Q4	Q1	Q2	Q3	Q4
Financial assets									
Currency and deposits	2,457.4	2,599.8	2,809.4	2,599.8	2,620.8	2,693.9	2,735.0	2,809.4	2,858.1
Currency	227.3	262.7	324.3	262.7	279.1	296.0	308.0	324.3	337.2
Deposits	2,230.1	2,337.1	2,485.2	2,337.1	2,341.7	2,397.8	2,427.0	2,485.2	2,520.9
Transferable deposits	1,398.0	1,509.1	1,674.1	1,509.1	1,527.8	1,586.4	1,617.9	1,674.1	1,708.3
Time deposits	252.4	253.9	252.1	253.9	250.8	249.9	250.3	252.1	252.2
Savings deposits (including savings certificates)	579.7	574.2	558.9	574.2	563.2	561.5	558.8	558.9	560.4
Debt securities	117.5	121.4	113.7	121.4	108.9	114.5	113.7	113.7	112.8
Short-term debt securities	2.1	1.6	1.6	1.6	1.5	1.7	1.8	1.6	1.7
Long-term debt securities	115.4	119.7	112.0	119.7	107.4	112.7	111.9	112.0	111.0
Memo item:									
Debt securities of domestic sectors	80.2	81.4	76.7	81.4	72.3	76.7	76.1	76.7	77.3
Non-financial corporations	12.1	12.4	10.9	12.4	11.0	11.8	11.3	10.9	10.5
Financial corporations	64.6	66.6	63.3	66.6	58.2	62.0	62.1	63.3	64.4
General government	3.4	2.5	2.6	2.5	3.1	3.0	2.7	2.6	2.4
Debt securities of the rest of the world	37.4	39.9	36.9	39.9	36.6	37.8	37.6	36.9	35.4
Equity and investment fund shares	1,162.2	1,386.4	1,539.0	1,386.4	1,220.7	1,374.3	1,423.6	1,539.0	1,656.8
Equity	588.8	706.1	804.5	706.1	618.9	708.4	735.9	804.5	866.1
Listed shares of domestic sectors	184.1	223.9	243.3	223.9	171.7	209.2	217.3	243.3	271.7
Non-financial corporations	151.9	182.3	204.0	182.3	138.7	172.3	183.6	204.0	228.2
Financial corporations	32.2	41.6	39.2	41.6	33.0	36.9	33.7	39.2	43.4
Listed shares of the rest of the world	100.2	136.3	180.5	136.3	116.9	144.7	156.1	180.5	199.5
Other equity [1]	304.5	345.9	380.7	345.9	330.3	354.5	362.5	380.7	395.0
Investment fund shares	573.4	680.2	734.5	680.2	601.9	665.9	687.7	734.5	790.7
Money market fund shares	2.4	2.3	2.3	2.3	2.7	2.7	2.7	2.3	2.4
Non-MMF investment fund shares	571.1	678.0	732.2	678.0	599.2	663.2	684.9	732.2	788.3
Non-life insurance technical reserves and provision for calls under standardised guarantees	375.9	393.8	413.9	393.8	399.1	404.7	410.3	413.9	419.3
Life insurance and annuity entitlements	1,011.1	1,069.1	1,094.3	1,069.1	1,079.6	1,083.2	1,089.2	1,094.3	1,106.0
Pension entitlement, claims of pension funds on pension managers, entitlements to non-pension benefits	883.8	911.4	949.8	911.4	922.9	930.4	937.5	949.8	959.3
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]	29.6	29.6	30.4	29.6	29.0	29.6	30.0	30.4	30.3
Total	6,037.6	6,511.5	6,950.5	6,511.5	6,381.0	6,630.5	6,739.2	6,950.5	7,142.5
Liabilities									
Loans	1,775.6	1,857.8	1,940.1	1,857.8	1,871.0	1,886.6	1,915.3	1,940.1	1,957.0
Short-term loans	58.1	58.8	53.1	58.8	57.2	54.9	54.2	53.1	53.5
Long-term loans	1,717.5	1,799.0	1,887.0	1,799.0	1,813.8	1,831.7	1,861.1	1,887.0	1,903.5
Memo item:									
Mortgage loans	1,307.9	1,378.6	1,463.7	1,378.6	1,394.4	1,412.5	1,438.8	1,463.7	1,482.2
Consumer loans	218.1	231.4	226.1	231.4	228.8	226.0	227.0	226.1	224.6
Entrepreneurial loans	249.7	247.7	250.2	247.7	247.8	248.1	249.5	250.2	250.2
Memo item:									
Loans from monetary financial institutions	1,667.2	1,741.6	1,824.6	1,741.6	1,757.2	1,773.2	1,801.6	1,824.6	1,839.8
Loans from other financial institutions	108.5	116.2	115.4	116.2	113.8	113.5	113.7	115.4	117.1
Loans from general government and rest of the world	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial derivatives	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other accounts payable	18.3	19.2	19.3	19.2	20.7	21.0	20.6	19.3	21.0
Total	1,793.9	1,877.0	1,959.4	1,877.0	1,891.7	1,907.7	1,935.9	1,959.4	1,977.9

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]									
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	+ 43.7	+ 7.9	+ 13.9	+ 10.7	+ 11.1	+ 1.3	+ 0.2	+ 0.4	+ 0.3	+ 0.3
2018 p	+ 64.4	+ 21.1	+ 11.7	+ 15.6	+ 16.0	+ 1.9	+ 0.6	+ 0.3	+ 0.5	+ 0.5
2019 p	+ 51.1	+ 22.0	+ 13.8	+ 6.1	+ 9.1	+ 1.5	+ 0.6	+ 0.4	+ 0.2	+ 0.3
2020 p	– 145.2	– 86.4	– 30.1	+ 6.3	– 35.0	– 4.3	– 2.6	– 0.9	+ 0.2	– 1.0
2019 H1 p	+ 47.0	+ 18.9	+ 12.8	+ 6.8	+ 8.4	+ 2.8	+ 1.1	+ 0.8	+ 0.4	+ 0.5
H2 p	+ 4.1	+ 3.1	+ 1.0	– 0.7	+ 0.7	+ 0.2	+ 0.2	+ 0.1	– 0.0	+ 0.0
2020 H1 p	– 47.8	– 26.9	– 9.2	+ 0.8	– 12.5	– 2.9	– 1.6	– 0.6	+ 0.0	– 0.8
H2 p	– 97.4	– 59.5	– 20.9	+ 5.5	– 22.5	– 5.6	– 3.4	– 1.2	+ 0.3	– 1.3
2021 H1 pe	– 80.9	– 67.0	– 3.1	– 0.6	– 10.2	– 4.7	– 3.9	– 0.2	– 0.0	– 0.6
	Debt level[2]									End of year or quarter
2015	2,189.1	1,372.3	658.2	176.3	1.5	72.3	45.3	21.8	5.8	0.0
2016	2,172.3	1,365.9	640.9	178.0	1.2	69.3	43.6	20.4	5.7	0.0
2017	2,122.9	1,350.3	613.6	175.2	0.8	65.0	41.3	18.8	5.4	0.0
2018 p	2,074.1	1,323.1	599.8	167.4	0.7	61.6	39.3	17.8	5.0	0.0
2019 p	2,057.6	1,299.8	609.4	165.1	0.7	59.2	37.4	17.5	4.8	0.0
2020 p	2,325.5	1,513.2	662.5	163.6	7.4	69.1	44.9	19.7	4.9	0.2
2019 Q1 p	2,084.4	1,324.5	611.7	165.7	0.7	61.4	39.0	18.0	4.9	0.0
Q2 p	2,074.8	1,320.4	609.9	164.3	0.7	60.8	38.7	17.9	4.8	0.0
Q3 p	2,091.7	1,328.1	619.9	163.7	0.6	60.7	38.5	18.0	4.7	0.0
Q4 p	2,057.6	1,299.8	609.4	165.1	0.7	59.2	37.4	17.5	4.8	0.0
2020 Q1 p	2,103.2	1,327.7	624.4	165.1	0.8	60.4	38.1	17.9	4.7	0.0
Q2 p	2,272.3	1,473.9	645.9	165.3	1.0	66.8	43.3	19.0	4.9	0.0
Q3 p	2,344.8	1,536.9	655.5	166.5	4.6	69.4	45.5	19.4	4.9	0.1
Q4 p	2,325.5	1,513.2	662.5	163.6	7.4	69.1	44.9	19.7	4.9	0.2
2021 Q1 p	2,366.7	1,538.8	673.9	167.9	16.2	70.5	45.9	20.1	5.0	0.5

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

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

Period	Revenue				Expenditure							Deficit/surplus	Memo item: Total tax burden 1
	Total	of which: Taxes	Social contributions	Other	Total	of which: Social benefits	Compensation of employees	Intermediate consumption	Gross capital formation	Interest	Other		
	€ billion												
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	1,486.9	773.3	549.5	164.2	1,443.3	784.8	250.6	169.5	71.6	33.8	132.9	+ 43.7	1,329.5
2018 p	1,557.3	808.2	572.6	176.5	1,492.8	805.6	260.3	176.2	78.4	31.1	141.3	+ 64.4	1,387.8
2019 p	1,613.8	834.4	598.2	181.2	1,562.7	846.6	272.7	184.2	83.7	27.3	148.3	+ 51.1	1,439.7
2020 p	1,566.9	782.1	607.9	176.9	1,712.1	905.2	284.1	209.8	90.9	21.0	201.2	– 145.2	1,397.0
	As a percentage of GDP												
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	45.5	23.7	16.8	5.0	44.2	24.0	7.7	5.2	2.2	1.0	4.1	+ 1.3	40.7
2018 p	46.2	24.0	17.0	5.2	44.3	23.9	7.7	5.2	2.3	0.9	4.2	+ 1.9	41.2
2019 p	46.5	24.0	17.2	5.2	45.0	24.4	7.9	5.3	2.4	0.8	4.3	+ 1.5	41.5
2020 p	46.5	23.2	18.1	5.3	50.8	26.9	8.4	6.2	2.7	0.6	6.0	– 4.3	41.5
	Percentage growth rates												
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	+ 4.2	+ 4.6	+ 4.8	+ 0.5	+ 3.8	+ 4.0	+ 4.1	+ 4.3	+ 5.1	– 9.3	+ 4.5	.	+ 4.7
2018 p	+ 4.7	+ 4.5	+ 4.2	+ 7.5	+ 3.4	+ 2.7	+ 3.9	+ 3.9	+ 9.5	– 8.0	+ 6.3	.	+ 4.4
2019 p	+ 3.6	+ 3.2	+ 4.5	+ 2.7	+ 4.7	+ 5.1	+ 4.8	+ 4.5	+ 6.8	– 12.2	+ 5.0	.	+ 3.7
2020 p	– 2.9	– 6.3	+ 1.6	– 2.4	+ 9.6	+ 6.9	+ 4.2	+ 13.9	+ 8.7	– 23.4	+ 35.7	.	– 3.0

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
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**	1,010.3	799.4	11.2	975.5	285.9	349.7	33.6	62.9	16.8	+ 34.8	684.7	676.7	+ 8.0	1,573.5	1,530.7	+ 42.8
2020 **p**	947.0	739.9	13.9	1,111.9	299.5	422.2	25.9	69.2	60.1	– 164.9	719.1	746.3	– 27.2	1,518.5	1,710.7	– 192.1
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	227.7	68.3	88.5	11.5	10.2	3.3	+ 13.2	163.3	166.4	– 3.1	374.3	364.1	+ 10.2
Q2 **p**	256.3	201.7	2.0	236.1	70.1	87.0	12.2	13.0	2.6	+ 20.1	169.9	168.4	+ 1.5	396.1	374.5	+ 21.6
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**	269.1	210.6	3.2	272.2	76.1	87.5	5.1	22.5	7.7	– 3.1	181.9	172.6	+ 9.3	420.7	414.5	+ 6.2
2020 Q1 **p**	244.8	197.4	2.5	236.4	72.9	90.5	11.9	12.0	2.6	+ 8.4	168.3	175.7	– 7.4	380.0	379.1	+ 0.9
Q2 **p**	211.9	158.1	2.7	271.8	72.2	119.1	8.6	15.4	3.4	– 59.8	175.9	187.0	– 11.1	354.5	425.4	– 70.9
Q3 **p**	227.8	181.4	4.0	282.3	72.4	102.0	1.4	18.3	34.3	– 54.5	181.1	195.0	– 13.9	370.1	438.5	– 68.4
Q4 **p**	259.3	201.9	4.5	315.4	81.4	109.1	5.9	22.8	19.6	– 56.1	186.0	189.5	– 3.5	408.2	467.9	– 59.6
2021 Q1 **p**	240.7	185.2	4.3	300.6	75.5	134.4	7.3	11.1	14.6	– 59.9	182.4	196.3	– 13.9	385.2	459.0	– 73.8

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
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	437.2	419.6	+ 17.6	284.2	278.1	+ 6.1
2020 **p**	341.4	472.1	– 130.7	456.4	489.4	– 33.0	297.0	294.6	+ 2.4
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	96.7	+ 8.9	58.2	63.2	– 4.9
Q2 **p**	97.7	90.3	+ 7.4	106.0	100.2	+ 5.8	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	115.5	118.4	– 2.9	84.5	78.4	+ 6.0
2020 Q1 **p**	92.3	90.4	+ 1.9	105.6	99.7	+ 5.9	57.9	67.7	– 9.8
Q2 **p**	70.8	114.8	– 44.0	108.2	128.0	– 19.8	69.4	69.4	+ 0.1
Q3 **p**	83.7	105.4	– 21.7	112.9	113.7	– 0.8	67.5	72.6	– 5.1
Q4 **p**	94.5	161.5	– 67.0	127.4	146.3	– 18.9	100.3	83.5	+ 16.8
2021 Q1 **p**	75.0	127.5	– 52.5	113.7	120.7	– 7.1	61.1	69.7	– 8.6

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.

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			
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
2020	739,880	632,237	313,381	286,065	32,791	107,916	– 274	30,266
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
Q3	182,202	156,397	78,502	72,613	5,282	25,234	+ 571	9,705
Q4	201,167	172,557	83,140	78,475	10,942	38,700	– 10,090	6,709
2021 Q1	189,223	159,178	72,814	73,137	13,227	19,882	+ 10,163	6,887
Q2	...	163,158	81,129	74,024	8,005	...	...	7,438
2020 July	.	49,759	24,835	23,238	1,686	.	.	3,113
2021 July	.	56,166	28,274	25,940	1,952	.	.	3,141

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 9	State government taxes 9	EU customs duties	Memo item: Local government share in joint taxes
		Income taxes 2					Value added taxes (VAT) 7			Local business tax transfers 8				
		Total	Wage tax 3	Assessed income tax 4	Corporation tax 5	Investment income tax 6	Total	Domestic VAT	Import VAT					
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
2020	682,345	320,798	209,286	58,982	24,268	28,261	219,484	168,700	50,784	3,954	105,632	27,775	4,703	50,107
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
Q3	168,308	73,766	47,470	13,492	5,411	7,392	59,819	47,933	11,886	796	25,930	6,784	1,212	11,910
Q4	186,327	89,094	57,667	16,146	8,014	7,268	55,343	43,105	12,238	1,744	31,660	7,259	1,227	13,770
2021 Q1	171,881	86,381	50,854	17,826	10,203	7,498	54,795	45,403	9,392	252	21,712	7,757	983	12,703
Q2	175,242	84,505	50,783	14,347	8,860	10,515	57,634	43,399	14,235	1,215	23,210	7,398	1,281	12,085
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
2021 July	60,023	24,906	19,450	495	656	4,306	23,919	15,231	8,689	977	7,054	2,747	420	3,858

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 benefits and subsidies for supplementary private pension plans. **4** After deducting employee refunds and research grants. **5** After deducting research grants. **6** Final withholding tax on interest income and capital gains, non-assessed taxes on earnings. **7** 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 2020: 43.0:52.9:4.1. The EU share is deducted from central government's share. **8** Respective percentage share of central and state government for 2020: 39.8:60.2. **9** For the breakdown, see Table X. 7.

X. Public finances in Germany

7. Central, state and local government: individual taxes

€ million

Period	Central government taxes [1]								State government taxes [1]				Local government taxes		
	Energy tax	Solidarity surcharge	Tobacco tax	Insurance tax	Motor vehicle tax	Electricity tax	Alcohol tax	Other	Tax on the acquisition of land and buildings	Inheritance tax	Betting and lottery tax	Other	Total	of which: Local business tax [2]	of which: Real property taxes
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
2020	37,635	18,676	14,651	14,553	9,526	6,561	2,238	1,792	16,055	8,600	2,044	1,076	61,489	45,471	14,676
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
Q3	9,985	4,365	3,978	2,817	2,366	1,499	506	414	3,730	2,262	509	283	14,690	10,242	4,095
Q4	14,566	5,145	4,487	2,365	2,101	1,768	715	513	4,234	2,203	567	254	16,584	12,997	3,283
2021 Q1	4,126	3,171	2,585	6,776	2,567	1,692	395	400	4,716	2,110	578	353	17,594	13,798	3,503
Q2	8,717	2,546	4,053	2,843	2,469	1,640	528	413	4,231	2,374	538	255	...	...	...
2020 July	3,141	1,200	1,681	747	849	484	154	122	1,274	734	182	79	.	.	.
2021 July	2,870	463	1,247	774	881	517	152	150	1,554	962	142	89	.	.	.

Sources: Federal Ministry of Finance, Federal Statistical Office and Bundesbank calculations. **1** For the sum total, see Table X. 6. **2** Including revenue from offshore wind farms.

8. German statutory pension insurance scheme: budgetary development and assets*

€ million

Period	Revenue [1,2]			Expenditure [1,2]			Deficit/ surplus	Assets [1,4]					Memo item: Administrative assets
	Total	of which: Contributions [3]	of which: Payments from central government	Total	of which: Pension payments	of which: Pensioners' health insurance		Total	Deposits [5]	Securities	Equity interests, mortgages and other loans [6]	Real estate	
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
2020	335,185	235,988	98,447	339,072	289,284	21,865	– 3,887	39,880	38,196	1,286	344	55	3,901
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
Q3	82,689	58,109	24,418	86,497	74,054	5,591	– 3,808	36,898	35,197	1,333	313	55	3,925
Q4	88,978	64,375	24,412	86,605	73,879	5,576	+ 2,373	39,847	38,186	1,286	321	55	3,916
2021 Q1	83,066	57,351	25,542	86,048	73,799	5,600	– 2,982	36,888	35,326	1,166	342	54	3,887
Q2	86,386	60,666	25,545	86,486	73,905	5,679	– 100	36,941	35,554	988	345	53	3,871

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
		of which:				of which:							
	Total 1	Contributions	Insolvency compensation levy	Government funds	Total	Unemployment benefit 2	Short-time working benefits 3	Job promotion 4	Re-integration payment	Insolvency benefit payment	Administrative expenditure 5		
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	–
2020	33,678	28,236	630	–	61,013	20,617	22,719	7,384	.	1,214	6,076	– 27,335	–
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	–
Q3	8,350	6,934	153	–	18,619	5,737	8,637	1,701	.	472	1,414	– 10,269	–
Q4	9,299	7,760	174	–	16,088	5,543	5,712	1,957	.	251	1,785	– 6,789	–
2021 Q1	8,228	6,747	289	–	18,260	5,956	8,006	1,935	.	184	1,391	– 10,033	–
Q2	8,830	7,301	324	–	16,720	5,029	7,495	1,912	.	108	1,452	– 7,890	–

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 contributions. **4** Vocational training, measures to encourage job take-up, rehabilitation, compensation top-up payments and promotion of business start-ups. **5** Including collection charges to other social security funds , excluding administrative expenditure within the framework of the basic allowance for job seekers.

10. Statutory health insurance scheme: budgetary development

€ million

Period	Revenue 1			Expenditure 1								Deficit/ surplus
		of which:			of which:							
	Total	Contributions 2	Central government funds 3	Total	Hospital treatment	Pharmaceuticals	Medical treatment	Dental treatment 4	Remedies and therapeutic appliances	Sickness benefits	Administrative expenditure 5	
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
2020	269,158	237,588	27,940	275,268	78,531	42,906	44,131	14,967	18,133	15,956	11,864	– 6,110
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
Q3	70,130	59,403	10,151	71,063	20,913	10,567	11,642	3,774	4,852	3,829	2,970	– 934
Q4	68,645	62,672	4,805	67,987	19,887	10,729	11,019	3,891	4,725	3,920	3,039	+ 658
2021 Q1	72,970	59,338	13,303	72,660	19,631	11,175	11,564	4,069	4,564	4,287	2,967	+ 310
Q2	71,964	61,819	9,965	74,492	20,287	11,275	11,536	4,219	5,085	4,120	2,850	– 2,529

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		Expenditure 1						Deficit/ surplus	
				of which:						
	Total	of which: Contributions 2	Total	Non-cash care benefits 3	Inpatient care total 4	Nursing benefit	Contributions to pension insurance scheme 5	Administrative expenditure		
2014	25,974	25,893	25,457	4,260	11,892	5,893	946	1,216	+	517
2015	30,825	30,751	29,101	4,626	13,003	6,410	960	1,273	+	1,723
2016	32,171	32,100	30,936	4,904	13,539	6,673	983	1,422	+	1,235
2017	36,305	36,248	38,862	6,923	16,034	10,010	1,611	1,606	–	2,557
2018	37,949	37,886	41,265	7,703	16,216	10,809	2,093	1,586	–	3,315
2019	47,228	46,508	44,008	8,257	16,717	11,689	2,392	1,781	+	3,220
2020	50,622	48,003	49,284	8,794	16,459	12,786	2,714	1,946	+	1,338
2018 Q1	8,961	8,948	10,146	1,907	4,025	2,603	496	424	–	1,185
Q2	9,338	9,322	10,118	1,854	4,016	2,658	509	389	–	780
Q3	9,349	9,334	10,428	1,928	4,073	2,781	515	397	–	1,079
Q4	10,071	10,050	10,581	1,972	4,091	2,835	561	384	–	510
2019 Q1	11,123	10,938	10,728	2,060	4,082	2,833	547	437	+	396
Q2	11,795	11,620	10,812	2,012	4,132	2,868	588	449	+	983
Q3	11,734	11,557	11,159	2,098	4,234	2,972	598	450	+	576
Q4	12,592	12,413	11,252	2,062	4,243	3,064	626	433	+	1,339
2020 Q1	11,693	11,473	11,444	2,186	4,214	3,067	633	489	+	249
Q2	11,921	11,732	11,816	2,051	4,015	3,173	664	468	+	105
Q3	13,924	11,938	12,890	2,263	4,087	3,249	682	500	+	1,033
Q4	13,079	12,746	12,927	2,306	4,177	3,403	716	481	+	152
2021 Q1	12,093	11,831	13,344	2,355	3,971	3,387	725	512	–	1,251
Q2	12,933	12,329	13,521	2,287	4,030	3,421	745	510	–	587

Source: Federal Ministry of Health. * The final annual figures generally differ from the total of the reported provisional quarterly figures as the latter are not revised subsequently. 1 Including transfers to the long-term care provident fund. 2 Since 2005, including special contributions for childless persons (0.25% of income subject to insurance contributions). 3 Data revision in 2014. 4 From 2014, also including benefits for short-term care and daytime/night-time nursing care, inter alia. 5 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		
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
2020	+ 456,828	+ 217,904	+ 24,181	– 3,399
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
Q3	+ 159,067	+ 80,783	– 6,080	+ 588
Q4	+ 46,545	– 20,760	– 10,187	+ 1,629
2021 Q1	+ 109,953	+ 42,045	– 11,737	– 4,708

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	
2014	2,216,204	12,774	635,562	190,130	44,640	1,333,098
2015	2,189,119	85,952	622,130	186,661	48,583	1,245,794
2016	2,172,331	205,391	599,211	179,755	45,046	1,142,929
2017	2,122,863	319,159	553,119	175,617	42,121	1,032,847
2018	2,074,126	364,731	509,310	181,077	42,009	976,999
2019 p	2,057,627	366,562	476,418	177,601	49,707	987,340
2020 p	2,325,463	522,392	509,440	184,701	52,392	1,056,539
2018 Q1	2,100,909	329,387	530,483	176,495	42,221	1,022,323
Q2	2,086,389	344,279	514,817	179,856	41,938	1,005,498
Q3	2,086,851	356,899	503,066	180,464	42,726	1,003,696
Q4	2,074,126	364,731	509,310	181,077	42,009	976,999
2019 Q1 p	2,084,397	359,884	499,217	179,512	42,186	1,003,596
Q2 p	2,074,778	361,032	492,533	179,168	41,438	1,000,607
Q3 p	2,091,734	358,813	490,314	179,228	47,831	1,015,548
Q4 p	2,057,627	366,562	476,418	177,601	49,707	987,340
2020 Q1 p	2,103,218	371,076	497,181	180,477	48,790	1,005,694
Q2 p	2,272,296	424,141	562,304	181,288	48,488	1,056,075
Q3 p	2,344,818	468,723	533,949	184,051	49,675	1,108,421
Q4 p	2,325,463	522,392	509,440	184,701	52,392	1,056,539
2021 Q1 p	2,366,746	561,443	490,853	182,756	61,467	1,070,227

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

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14. Maastricht debt by instrument

€ million

Period (end of year or quarter)	Total	Currency and deposits [1]	Debt securities by original maturity: Short-term debt securities (up to one year)	Debt securities by original maturity: Long-term debt securities (more than one year)	Loans by original maturity: Short-term loans (up to one year)	Loans by original maturity: Long-term loans (more than one year)	Memo item: [2] Debt vis-à-vis other government subsectors	Memo item: [2] Claims vis-à-vis other government subsectors
General government								
2014	2,216,204	12,150	72,618	1,501,494	95,896	534,046	.	.
2015	2,189,119	14,303	65,676	1,499,010	89,074	521,055	.	.
2016	2,172,331	15,845	69,715	1,483,871	94,976	507,924	.	.
2017	2,122,863	14,651	48,789	1,484,462	86,513	488,448	.	.
2018 Q1	2,100,909	12,472	48,431	1,479,513	76,260	484,233	.	.
Q2	2,086,389	12,636	54,933	1,465,727	73,256	479,837	.	.
Q3	2,086,851	15,607	59,989	1,465,852	68,923	476,479	.	.
Q4	2,074,126	14,833	52,572	1,456,543	75,999	474,180	.	.
2019 Q1 p	2,084,397	15,663	64,218	1,460,634	71,234	472,647	.	.
Q2 p	2,074,778	12,868	56,256	1,463,027	74,511	468,115	.	.
Q3 p	2,091,734	17,586	62,602	1,465,529	79,144	466,873	.	.
Q4 p	2,057,627	14,595	49,180	1,459,128	68,519	466,204	.	.
2020 Q1 p	2,103,218	11,590	70,930	1,472,976	84,528	463,195	.	.
Q2 p	2,272,296	13,333	122,238	1,534,559	142,298	459,867	.	.
Q3 p	2,344,818	12,134	180,449	1,582,940	110,399	458,896	.	.
Q4 p	2,325,463	14,768	163,408	1,593,572	95,780	457,934	.	.
2021 Q1 p	2,366,746	12,482	180,796	1,638,203	80,743	454,523	.	.
Central government								
2014	1,398,475	12,150	64,230	1,141,973	54,388	125,735	1,202	12,926
2015	1,372,287	14,303	49,512	1,138,951	45,256	124,265	1,062	13,667
2016	1,365,933	15,845	55,208	1,123,853	50,004	121,022	556	8,567
2017	1,350,298	14,651	36,297	1,131,896	47,761	119,693	1,131	10,618
2018 Q1	1,337,700	12,472	35,923	1,132,746	37,211	119,348	1,065	9,902
Q2	1,329,290	12,636	42,888	1,119,893	35,048	118,825	1,036	10,708
Q3	1,335,530	15,607	46,614	1,118,470	36,633	118,207	817	10,275
Q4	1,323,058	14,833	42,246	1,107,140	42,057	116,782	933	9,975
2019 Q1 p	1,324,528	15,663	50,032	1,102,604	39,185	117,044	809	11,583
Q2 p	1,320,389	12,868	42,752	1,109,057	38,950	116,761	835	13,862
Q3 p	1,328,106	17,586	48,934	1,105,439	39,067	117,080	704	13,849
Q4 p	1,299,848	14,595	38,480	1,101,866	28,592	116,315	605	10,302
2020 Q1 p	1,327,699	11,590	56,680	1,103,935	38,708	116,785	546	8,245
Q2 p	1,473,910	13,333	109,221	1,139,513	95,511	116,332	510	7,278
Q3 p	1,536,930	12,134	166,564	1,178,717	62,993	116,522	555	12,092
Q4 p	1,513,212	14,768	154,505	1,180,714	46,895	116,330	545	15,021
2021 Q1 p	1,538,824	12,482	167,492	1,212,526	29,945	116,379	598	23,438
State government								
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	217,525	15,229	2,004
Q2 p	609,889	–	13,508	357,571	24,068	214,743	17,631	1,887
Q3 p	619,883	–	13,671	363,723	29,048	213,440	17,755	1,957
Q4 p	609,428	–	10,703	361,084	25,049	212,593	14,934	1,831
2020 Q1 p	624,364	–	14,252	372,596	29,567	207,949	12,233	1,815
Q2 p	645,947	–	13,020	398,890	29,269	204,767	11,073	2,183
Q3 p	655,524	–	13,888	408,581	30,216	202,839	11,940	2,263
Q4 p	662,523	–	8,905	417,432	33,717	202,469	12,226	1,553
2021 Q1 p	673,903	–	13,306	430,276	32,683	197,638	11,303	2,276
Local government								
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	165,068	–	–	3,128	18,125	143,816	1,893	528
Q2 p	165,279	–	–	3,094	18,306	143,879	2,221	367
Q3 p	166,525	–	–	2,961	18,913	144,651	2,312	398
Q4 p	163,614	–	–	3,101	16,186	144,327	1,595	317
2021 Q1 p	167,876	–	–	3,121	19,076	145,679	2,293	340

For footnotes see end of table.

X. Public finances in Germany

14. Maastricht debt by instrument (cont'd)

€ million

Period (end of year or quarter)	Total	Currency and deposits [1]	Debt securities by original maturity: Short-term debt securities (up to one year)	Debt securities by original maturity: Long-term debt securities (more than one year)	Loans by original maturity: Short-term loans (up to one year)	Loans by original maturity: Long-term loans (more than one year)	Memo item: [2] Debt vis-à-vis other government subsectors	Memo item: [2] Claims vis-à-vis other government subsectors
Social security funds								
2014	1,524	–	–	–	481	1,043	94	2,122
2015	1,502	–	–	–	537	965	91	2,685
2016	1,232	–	–	–	562	670	89	3,044
2017	807	–	–	–	262	545	15	3,934
2018 Q1	990	–	–	–	439	551	15	3,610
Q2	898	–	–	–	398	500	15	3,721
Q3	805	–	–	–	415	390	15	3,841
Q4	690	–	–	–	388	302	16	4,506
2019 Q1 **p**	723	–	–	–	453	270	16	4,110
Q2 **p**	742	–	–	–	557	185	16	4,224
Q3 **p**	594	–	–	–	391	203	16	4,179
Q4 **p**	712	–	–	–	376	336	16	4,753
2020 Q1 **p**	775	–	–	–	287	488	16	4,100
Q2 **p**	980	–	–	–	581	399	16	3,993
Q3 **p**	4,602	–	–	–	4,210	392	3,956	4,011
Q4 **p**	7,409	–	–	–	7,098	311	6,929	4,404
2021 Q1 **p**	16,191	–	–	–	15,997	194	15,853	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]: Total [1]	Currency and deposits [2]: of which: [3] Federal day bond	Debt securities: Total [1]	Debt securities: of which: [3] Federal bonds (Bunds)	Federal notes (Bobls)	Inflation-linked Federal bonds (Bunds) [4]	Inflation-linked Federal notes (Bobls) [4]	Capital indexation of inflation-linked securities	Federal Treasury notes (Schätze) [5]	Treasury discount paper (Bubills) [6]	Federal savings notes	Loans [1]
2007	987,909	6,675	.	917,584	564,137	173,949	10,019	3,444	506	102,083	37,385	10,287	63,650
2008	1,019,905	12,466	3,174	928,754	571,913	164,514	12,017	7,522	1,336	105,684	40,795	9,649	78,685
2009	1,086,173	9,981	2,495	1,013,072	577,798	166,471	16,982	7,748	1,369	113,637	104,409	9,471	63,121
2010	1,337,160	10,890	1,975	1,084,019	602,624	185,586	25,958	9,948	2,396	126,220	85,867	8,704	242,251
2011	1,346,869	10,429	2,154	1,121,331	615,200	199,284	29,313	14,927	3,961	130,648	58,297	8,208	215,109
2012	1,390,377	9,742	1,725	1,177,168	631,425	217,586	35,350	16,769	5,374	117,719	56,222	6,818	203,467
2013	1,392,745	10,592	1,397	1,192,025	643,200	234,759	41,105	10,613	4,730	110,029	50,004	4,488	190,127
2014	1,398,475	12,150	1,187	1,206,203	653,823	244,633	48,692	14,553	5,368	103,445	27,951	2,375	180,123
2015	1,372,287	14,303	1,070	1,188,463	663,296	232,387	59,942	14,553	5,607	96,389	18,536	1,305	169,521
2016	1,365,933	15,845	1,010	1,179,062	670,245	221,551	51,879	14,585	3,602	95,727	23,609	737	171,026
2017	1,350,298	14,651	966	1,168,193	693,687	203,899	58,365	14,490	4,720	91,013	10,037	289	167,455
2018	1,323,058	14,833	921	1,149,386	710,513	182,847	64,647	–	5,139	86,009	12,949	48	158,839
2019 **p**	1,299,848	14,595	–	1,140,346	719,747	174,719	69,805	–	6,021	89,230	13,487	.	144,906
2020 **p**	1,513,212	14,768	.	1,335,219	808,300	183,046	58,279	–	3,692	98,543	113,141	.	163,225
2018 Q1	1,337,700	12,472	951	1,168,669	699,638	193,811	60,778	14,455	4,421	94,282	9,031	219	156,559
Q2	1,329,290	12,636	941	1,162,780	710,784	185,042	62,863	–	4,276	92,639	15,049	141	153,873
Q3	1,335,530	15,607	932	1,165,084	703,682	194,356	64,304	–	4,548	90,575	17,340	75	154,840
Q4	1,323,058	14,833	921	1,149,386	710,513	182,847	64,647	–	5,139	86,009	12,949	48	158,839
2019 Q1 **p**	1,324,528	15,663	902	1,152,636	709,008	178,900	66,531	–	4,191	89,782	18,288	31	156,229
Q2 **p**	1,320,389	12,868	852	1,151,809	720,904	173,313	68,110	–	5,691	91,024	15,042	19	155,711
Q3 **p**	1,328,106	17,586	822	1,154,373	711,482	183,268	69,088	–	5,639	90,416	18,100	–	156,147
Q4 **p**	1,299,848	14,595	–	1,140,346	719,747	174,719	69,805	–	6,021	89,230	13,487	.	144,906
2020 Q1 **p**	1,327,699	11,590	.	1,160,616	721,343	182,095	71,028	–	5,310	91,084	23,572	.	155,493
Q2 **p**	1,473,910	13,333	.	1,248,734	774,587	178,329	56,061	–	3,752	95,622	79,987	.	211,843
Q3 **p**	1,536,930	12,134	.	1,345,281	796,338	191,388	57,144	–	3,737	99,276	127,478	.	179,515
Q4 **p**	1,513,212	14,768	.	1,335,219	808,300	183,046	58,279	–	3,692	98,543	113,141	.	163,225
2021 Q1 **p**	1,538,824	12,482	.	1,380,018	821,254	194,571	60,687	–	3,857	103,910	134,800	.	146,324

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	2018	2019	2020	2018	2019	2020	2019 Q4	2020 Q1	2020 Q2	2020 Q3	2020 Q4	2021 Q1	2021 Q2
	Index 2015=100			Annual percentage change									
At constant prices, chained													
I. Origin of domestic product													
Production sector (excluding construction)	109.7	108.8	98.7	1.0	− 0.8	− 9.3	− 1.6	− 5.1	−21.3	− 9.5	− 1.3	− 1.9	19.8
Construction	103.8	103.9	107.8	1.9	0.1	3.8	− 1.7	6.1	1.9	− 1.8	9.0	− 5.0	0.5
Wholesale/retail trade, transport and storage, hotel and restaurant services	105.6	108.7	103.1	1.5	3.0	− 5.2	1.9	0.3	−14.9	− 2.7	− 2.9	− 7.8	11.0
Information and communication	116.4	120.4	119.1	7.5	3.4	− 1.0	2.6	0.7	− 4.4	− 1.1	0.5	0.7	7.9
Financial and insurance activities	94.1	95.3	95.8	− 6.9	1.3	0.5	2.1	0.4	0.8	1.3	− 0.4	− 0.8	− 0.2
Real estate activities	101.8	102.4	101.9	0.7	0.6	− 0.4	1.0	0.0	− 1.6	0.2	− 0.4	− 0.3	1.6
Business services [1]	110.6	110.3	102.2	3.2	− 0.2	− 7.4	− 0.0	− 1.4	−13.4	− 8.2	− 6.9	− 6.1	9.6
Public services, education and health	105.1	106.9	103.4	0.6	1.7	− 3.2	1.8	− 0.5	− 8.9	0.0	− 3.8	− 3.1	10.2
Other services	101.4	103.1	92.3	1.6	1.7	−10.5	1.6	− 2.7	−19.7	− 3.9	−16.0	−10.5	8.1
Gross value added	106.3	107.3	102.1	1.1	1.0	− 4.9	0.6	− 1.3	−11.9	− 3.9	− 2.4	− 3.7	10.0
Gross domestic product [2]	106.1	107.2	102.3	1.1	1.1	− 4.6	0.7	− 1.5	−11.3	− 3.6	− 1.9	− 3.3	9.8
II. Use of domestic product													
Private consumption [3]	105.4	107.0	100.8	1.4	1.6	− 5.9	1.1	− 1.1	−13.2	− 3.4	− 5.7	− 9.1	6.0
Government consumption	106.8	110.0	113.9	1.0	3.0	3.5	3.6	2.5	3.5	4.0	4.2	2.5	3.7
Machinery and equipment	112.0	113.1	100.5	4.4	1.0	−11.2	− 2.4	− 9.4	−23.6	− 9.5	− 2.9	0.5	20.4
Premises	107.6	108.7	111.4	2.6	1.1	2.5	− 0.4	5.4	0.7	− 0.6	5.1	− 2.1	2.9
Other investment [4]	113.7	119.9	121.1	3.8	5.5	1.0	5.4	3.8	− 1.3	0.3	1.3	− 2.2	2.6
Changes in inventories [5,6]	.	.	.	− 0.1	− 0.1	− 0.9	− 0.3	− 0.3	− 0.2	− 1.9	− 1.3	0.1	0.8
Domestic demand	107.6	109.5	105.2	1.7	1.8	− 4.0	1.1	− 0.3	− 8.5	− 3.7	− 3.3	− 4.5	6.7
Net exports [6]	.	.	.	− 0.5	− 0.7	− 0.8	− 0.3	− 1.2	− 3.3	− 0.1	1.2	0.9	3.3
Exports	110.0	111.2	100.8	2.3	1.1	− 9.3	0.9	− 3.1	−22.1	− 9.1	− 3.1	− 0.5	26.5
Imports	114.2	117.5	107.4	3.9	2.9	− 8.6	1.7	− 0.6	−17.3	−10.1	− 6.4	− 2.8	20.1
Gross domestic product [2]	106.1	107.2	102.3	1.1	1.1	− 4.6	0.7	− 1.5	−11.3	− 3.6	− 1.9	− 3.3	9.8
At current prices (€ billion)													
III. Use of domestic product													
Private consumption [3]	1,752.1	1,802.9	1,708.0	2.9	2.9	− 5.3	2.4	0.5	−12.1	− 3.7	− 5.6	− 7.4	8.0
Government consumption	670.4	705.2	754.6	3.4	5.2	7.0	5.5	5.4	7.6	7.3	7.7	6.7	4.4
Machinery and equipment	235.5	241.1	216.9	4.9	2.4	−10.0	− 0.8	− 8.0	−22.5	− 8.3	− 1.9	1.9	22.3
Premises	345.5	364.1	380.1	7.4	5.4	4.4	3.2	9.0	3.7	0.0	5.7	− 0.3	7.9
Other investment [4]	128.2	137.0	138.9	6.2	6.9	1.4	6.8	4.3	− 1.0	0.6	1.7	− 1.0	3.8
Changes in inventories [5]	28.5	26.8	−23.7	.	.	.	.	.	.	.	.	.	.
Domestic use	3,160.1	3,277.1	3,174.8	4.1	3.7	− 3.1	2.8	1.6	− 7.7	− 3.4	− 3.0	− 2.8	9.1
Net exports	207.7	196.2	192.8	.	.	.	.	.	.	.	.	.	.
Exports	1,593.0	1,619.4	1,462.1	3.4	1.7	− 9.7	1.0	− 2.8	−22.5	− 9.9	− 3.8	0.6	31.7
Imports	1,385.3	1,423.2	1,269.3	5.8	2.7	−10.8	0.5	− 1.6	−21.0	−12.5	− 8.1	− 2.2	29.1
Gross domestic product [2]	3,367.9	3,473.4	3,367.6	3.1	3.1	− 3.0	2.9	0.8	− 9.2	− 2.7	− 1.3	− 1.5	11.0
IV. Prices (2015=100)													
Private consumption	103.7	105.1	105.8	1.5	1.3	0.6	1.3	1.6	1.3	− 0.3	0.1	1.8	1.8
Gross domestic product	104.9	107.0	108.8	2.0	2.1	1.6	2.1	2.4	2.4	1.0	0.6	1.9	1.1
Terms of trade	100.1	100.8	102.9	− 0.8	0.7	2.0	1.3	1.3	4.2	1.8	1.2	0.5	− 3.2
V. Distribution of national income													
Compensation of employees	1,773.7	1,855.5	1,852.1	4.6	4.6	− 0.2	3.9	2.9	− 3.2	− 0.7	0.4	− 0.4	4.9
Entrepreneurial and property income	763.8	752.7	676.1	2.1	− 1.5	−10.2	− 4.0	− 5.6	−27.2	− 7.4	− 2.2	2.0	40.6
National income	2,537.5	2,608.2	2,528.2	3.8	2.8	− 3.1	1.7	0.1	− 9.8	− 2.8	− 0.3	0.3	12.8
Memo item: Gross national income	3,476.2	3,586.0	3,461.3	3.9	3.2	− 3.5	2.3	0.3	− 9.2	− 3.4	− 1.7	− 1.3	10.9

Source: Federal Statistical Office; figures computed in August 2021. **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 soft ware 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												
2017	104.9	108.7	98.9	104.7	104.9	105.0	106.9	103.0	106.2	107.0	104.1	105.3
2018 **2**	105.9	109.1	97.4	106.0	105.5	106.0	106.2	106.9	107.3	108.9	106.5	103.5
2019	102.5	112.8	90.4	101.6	101.8	101.4	106.2	101.0	102.8	106.5	103.4	92.0
2020	94.1	116.1	84.4	91.0	94.9	85.7	97.6	97.2	90.5	98.5	89.5	69.4
2020 Q2	84.3	115.8	72.8	79.6	85.6	70.9	84.3	92.0	78.8	88.3	81.3	44.1
Q3	93.7	118.5	78.8	90.5	94.4	84.8	97.9	98.0	89.7	97.1	86.6	71.7
Q4	101.8	130.7	91.8	97.5	98.3	95.9	106.5	99.0	95.4	105.3	98.5	81.4
2021 Q1	95.0	94.8	92.0	95.2	103.6	88.1	100.7	96.1	99.4	107.0	91.3	75.4
Q2 **x**	97.6	118.0	81.4	95.2	104.4	86.8	102.7	97.7	100.1	108.3	94.7	66.7
2020 July	93.7	119.9	75.7	90.5	93.3	86.0	92.7	97.5	86.5	94.4	86.4	76.1
Aug.	88.0	113.7	80.7	84.1	91.1	75.3	91.6	93.6	85.7	93.7	78.8	57.2
Sep.	99.4	121.8	79.9	97.0	98.8	93.0	109.5	102.8	96.9	103.1	94.6	81.9
Oct.	101.7	124.7	91.3	98.5	102.7	93.3	108.7	102.8	99.0	104.5	90.3	85.6
Nov.	106.0	130.4	91.8	102.8	104.2	101.4	114.4	101.6	103.1	111.1	98.8	92.5
Dec.	97.6	137.1	92.2	91.1	87.9	92.9	96.5	92.5	84.2	100.3	106.5	66.1
2021 Jan.	88.6	76.3	97.5	90.0	100.2	80.9	95.6	92.4	94.1	100.4	82.1	70.8
Feb.	90.9	88.9	86.5	91.6	99.3	85.6	99.2	89.8	96.6	104.2	88.2	74.1
Mar.	105.4	119.2	92.1	104.1	111.2	97.7	107.3	106.2	107.6	116.5	103.6	81.2
Apr. **x**	97.5	117.0	86.4	94.9	103.8	87.8	101.6	93.4	99.8	107.0	93.9	71.3
May **x**	96.3	116.4	81.1	94.0	104.4	84.3	100.1	97.6	98.7	106.5	92.3	64.1
June **x**	98.9	120.6	76.7	96.8	104.9	88.2	106.4	102.0	101.7	111.3	97.8	64.8
July **3,x,p**	99.0	124.2	77.2	96.3	105.0	86.8	102.7	103.7	100.0	110.8	96.4	64.7
	Annual percentage change											
2017	+ 3.3	+ 3.3	+ 0.4	+ 3.6	+ 4.1	+ 3.7	+ 4.2	+ 2.1	+ 4.5	+ 5.9	+ 4.5	+ 3.2
2018 **2**	+ 1.0	+ 0.4	− 1.5	+ 1.2	+ 0.6	+ 1.0	− 0.7	+ 3.8	+ 1.0	+ 1.8	+ 2.3	− 1.7
2019	− 3.2	+ 3.4	− 7.2	− 4.2	− 3.5	− 4.3	± 0.0	− 5.5	− 4.2	− 2.2	− 2.9	− 11.1
2020	− 8.2	+ 2.9	− 6.6	− 10.4	− 6.8	− 15.5	− 8.1	− 3.8	− 12.0	− 7.5	− 13.4	− 24.6
2020 Q2	− 18.0	+ 1.8	− 12.9	− 22.2	− 17.2	− 30.6	− 18.2	− 7.7	− 24.9	− 15.8	− 20.8	− 53.8
Q3	− 8.4	− 0.5	− 2.9	− 10.4	− 7.5	− 15.3	− 6.1	− 3.1	− 12.7	− 9.7	− 15.1	− 19.5
Q4	− 1.7	+ 5.0	− 2.7	− 3.0	+ 1.1	− 6.0	− 2.5	− 3.7	− 1.9	− 0.6	− 9.2	− 4.2
2021 Q1	− 1.7	− 4.6	− 2.3	− 1.1	+ 2.3	− 3.3	− 0.9	− 3.8	+ 1.3	+ 3.5	− 0.1	− 5.9
Q2 **x**	+ 15.8	+ 1.9	+ 11.8	+ 19.6	+ 21.9	+ 22.4	+ 21.8	+ 6.2	+ 26.9	+ 22.6	+ 16.4	+ 51.2
2020 July	− 9.5	− 1.6	− 7.0	− 11.3	− 10.0	− 14.9	− 7.0	− 3.9	− 17.1	− 10.5	− 16.0	− 16.4
Aug.	− 9.0	− 0.1	+ 0.5	− 11.5	− 7.4	− 17.4	− 4.4	− 5.1	− 11.8	− 9.1	− 16.2	− 25.5
Sep.	− 6.9	+ 0.3	− 2.2	− 8.7	− 4.9	− 14.0	− 6.6	− 0.3	− 9.0	− 9.5	− 13.2	− 17.8
Oct.	− 3.1	+ 2.4	− 0.7	− 4.4	− 2.1	− 6.3	− 4.6	− 4.0	− 5.2	− 3.9	− 10.1	− 4.8
Nov.	− 2.5	+ 3.1	− 3.6	− 3.6	+ 0.9	− 6.5	− 1.6	− 5.4	− 1.9	+ 0.1	− 9.0	− 5.5
Dec.	+ 0.8	+ 9.4	− 3.8	− 0.8	+ 5.5	− 4.9	− 0.9	− 1.3	+ 2.3	+ 2.1	− 8.5	− 1.5
2021 Jan.	− 3.7	− 9.9	− 2.6	− 2.9	+ 1.6	− 6.0	− 3.4	− 5.7	− 1.1	+ 0.8	− 0.6	− 12.6
Feb.	− 6.6	− 7.6	− 5.7	− 6.5	− 1.7	− 10.2	− 4.3	− 8.1	− 2.1	+ 1.5	− 3.3	− 19.6
Mar.	+ 4.9	+ 1.7	+ 1.3	+ 5.9	+ 6.9	+ 6.3	+ 5.1	+ 2.1	+ 6.7	+ 8.1	+ 3.2	+ 20.8
Apr. **x**	+ 27.6	+ 4.0	+ 18.7	+ 35.0	+ 25.2	+ 61.1	+ 44.1	+ 4.2	+ 36.3	+ 27.7	+ 34.1	+ 385.0
May **x**	+ 16.6	+ 2.8	+ 13.1	+ 20.4	+ 24.3	+ 21.1	+ 17.4	+ 9.1	+ 27.7	+ 23.0	+ 19.1	+ 40.6
June **x**	+ 5.4	− 0.9	+ 3.6	+ 7.0	+ 16.7	− 0.5	+ 9.5	+ 5.4	+ 18.3	+ 17.8	+ 1.3	− 10.1
July **3,x,p**	+ 5.7	+ 3.6	+ 2.0	+ 6.4	+ 12.5	+ 0.9	+ 10.8	+ 6.4	+ 15.6	+ 17.4	+ 11.6	− 15.0

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												
2017	108.6	+ 7.8	109.4	+ 10.6	108.5	+ 6.5	105.7	+ 5.1	116.5	+ 10.6	102.2	+ 3.2
2018	110.5	+ 1.7	111.5	+ 1.9	109.9	+ 1.3	110.0	+ 4.1	118.9	+ 2.1	107.1	+ 4.8
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
2020	97.2	− 7.3	97.9	− 5.4	95.6	− 9.3	105.8	− 1.1	124.4	+ 0.9	99.6	− 2.0
2020 July	96.4	− 6.8	94.4	− 8.2	96.4	− 6.3	105.5	− 4.6	120.3	− 1.2	100.6	− 5.9
Aug.	91.2	− 2.0	89.8	− 6.5	90.4	+ 0.6	104.3	+ 0.6	124.2	+ 2.6	97.8	− 0.3
Sep.	104.2	− 1.2	101.7	+ 1.6	104.8	− 3.3	111.6	+ 3.0	146.4	+ 4.7	100.1	+ 2.1
Oct.	109.2	+ 2.9	108.3	+ 4.1	109.4	+ 2.4	111.4	− 0.1	145.0	+ 13.2	100.3	− 5.4
Nov.	113.7	+ 7.1	114.0	+ 10.4	113.9	+ 6.2	110.2	− 1.3	138.2	+ 0.1	101.0	− 1.8
Dec.	108.6	+ 6.3	101.6	+ 9.7	113.7	+ 4.2	102.7	+ 9.6	131.3	+ 9.0	93.2	+ 9.9
2021 Jan.	110.2	+ 1.7	119.7	+ 7.7	104.2	− 2.2	111.1	+ 1.0	140.1	+ 8.4	101.5	− 2.0
Feb.	111.4	+ 6.6	116.8	+ 10.4	108.0	+ 5.6	111.2	− 2.8	128.5	+ 6.1	105.4	− 6.1
Mar.	129.0	+ 31.0	133.3	+ 23.1	127.0	+ 40.2	123.9	+ 8.9	146.8	+ 19.4	116.3	+ 5.1
Apr.	118.2	+ 84.4	126.2	+ 64.3	114.1	+ 116.5	111.4	+ 21.9	161.7	+ 84.4	94.8	+ 2.5
May	114.3	+ 60.3	123.0	+ 60.4	109.0	+ 68.0	113.5	+ 19.3	157.0	+ 41.4	99.1	+ 10.2
June	125.7	+ 30.8	127.7	+ 48.5	126.0	+ 23.5	114.1	+ 15.4	151.2	+ 31.5	101.8	+ 8.8
July p	126.1	+ 30.8	128.1	+ 35.7	124.5	+ 29.1	128.3	+ 21.6	151.1	+ 25.6	120.7	+ 20.0
From the domestic market												
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	96.1	− 2.8
2020	94.9	− 6.2	94.1	− 5.0	95.1	− 7.6	98.0	− 3.2	105.5	− 9.2	95.4	− 0.7
2020 July	95.2	− 6.9	93.5	− 7.1	96.0	− 7.2	99.1	− 4.5	104.5	− 8.8	97.3	− 2.9
Aug.	88.5	− 2.7	88.3	− 3.1	87.0	− 3.3	100.0	+ 2.5	111.3	+ 3.0	96.2	+ 2.2
Sep.	99.5	− 0.9	95.3	± 0.0	102.7	− 1.4	101.7	− 1.8	125.4	− 4.6	93.7	− 0.4
Oct.	104.5	+ 5.6	106.8	+ 8.5	102.6	+ 4.3	104.4	− 2.3	119.6	− 9.3	99.3	+ 0.8
Nov.	109.2	+ 6.2	113.3	+ 12.4	106.3	+ 2.7	104.6	− 4.6	124.3	− 8.4	97.9	− 2.9
Dec.	98.2	+ 4.8	94.9	+ 12.7	102.1	− 0.3	91.0	+ 1.9	104.1	− 3.0	86.5	+ 4.0
2021 Jan.	103.0	+ 1.6	112.7	+ 6.9	95.4	− 2.7	98.1	− 3.1	111.0	+ 6.3	93.7	− 6.4
Feb.	107.8	+ 6.2	111.9	+ 12.1	105.3	+ 2.9	101.2	− 3.9	108.4	+ 5.7	98.7	− 7.1
Mar.	125.6	+ 30.2	128.8	+ 25.7	125.2	+ 39.7	109.8	+ 0.9	130.5	+ 25.8	102.8	− 7.0
Apr.	110.9	+ 69.1	117.1	+ 59.3	107.0	+ 88.7	101.7	+ 26.8	126.9	+ 93.4	93.2	+ 9.5
May	112.5	+ 50.6	118.5	+ 58.4	109.1	+ 50.3	100.9	+ 14.5	122.0	+ 22.2	93.8	+ 11.4
June	126.3	+ 21.1	125.5	+ 54.4	130.6	+ 3.7	102.0	+ 11.8	118.5	+ 18.0	96.4	+ 9.4
July p	125.9	+ 32.2	125.7	+ 34.4	126.5	+ 31.8	122.7	+ 23.8	117.1	+ 12.1	124.6	+ 28.1
From abroad												
2017	109.8	+ 8.2	111.9	+ 11.5	108.9	+ 6.9	108.9	+ 6.1	122.8	+ 14.7	104.5	+ 3.4
2018	113.0	+ 2.9	114.6	+ 2.4	112.0	+ 2.8	115.5	+ 6.1	122.2	− 0.5	113.4	+ 8.5
2019	107.7	− 4.7	108.3	− 5.5	106.9	− 4.6	111.5	− 3.5	129.1	+ 5.6	105.9	− 6.6
2020	98.9	− 8.2	101.9	− 5.9	95.9	− 10.3	111.8	+ 0.3	139.6	+ 8.1	102.9	− 2.8
2020 July	97.3	− 6.7	95.4	− 9.2	96.7	− 5.8	110.4	− 4.7	133.0	+ 4.2	103.1	− 8.0
Aug.	93.3	− 1.5	91.5	− 9.6	92.5	+ 2.9	107.7	− 0.7	134.5	+ 2.2	99.1	− 2.0
Sep.	107.8	− 1.4	108.6	+ 3.1	106.1	− 4.3	119.2	+ 6.3	163.3	+ 11.5	105.0	+ 4.0
Oct.	112.7	+ 1.1	110.0	± 0.0	113.5	+ 1.5	116.8	+ 1.6	165.4	+ 32.2	101.1	− 9.6
Nov.	117.1	+ 7.6	114.8	+ 8.4	118.5	+ 8.1	114.5	+ 1.1	149.4	+ 6.6	103.3	− 1.1
Dec.	116.5	+ 7.3	108.9	+ 7.1	120.7	+ 6.6	111.8	+ 15.1	153.2	+ 16.9	98.4	+ 14.3
2021 Jan.	115.7	+ 1.8	127.2	+ 8.5	109.5	− 1.9	121.1	+ 3.7	163.5	+ 9.6	107.5	+ 1.1
Feb.	114.1	+ 6.9	122.1	+ 8.7	109.7	+ 7.2	118.9	− 2.1	144.7	+ 6.5	110.6	− 5.3
Mar.	131.6	+ 31.5	138.2	+ 20.7	128.1	+ 40.5	134.8	+ 14.6	160.0	+ 15.6	126.6	+ 14.2
Apr.	123.7	+ 96.7	136.1	+ 69.5	118.4	+ 135.4	118.9	+ 18.9	189.7	+ 79.8	96.1	− 2.1
May	115.6	+ 68.0	127.9	+ 62.5	109.0	+ 80.8	123.2	+ 22.5	185.2	+ 54.2	103.2	+ 9.4
June	125.3	+ 39.5	130.0	+ 42.9	123.3	+ 40.8	123.5	+ 17.8	177.6	+ 40.2	106.0	+ 8.4
July p	126.2	+ 29.7	130.6	+ 36.9	123.3	+ 27.5	132.6	+ 20.1	178.5	+ 34.2	117.8	+ 14.3

Source of the unadjusted figures: Federal Statistical Office. * At current prices; for explanatory notes, see Statistical Series - Seasonally adjusted business statistics, Tables III.2.a to III.2.c. **o** Using JDemetra+ 2.2.2 (X13).

XI. Economic conditions in Germany

4. Orders received by construction *

Adjusted for working-day variations **o**

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
2017	122.4	+ 7.0	123.1	+ 7.0	123.1	+ 5.3	123.4	+ 7.4	121.9	+ 12.0	121.6	+ 6.9	119.8	+ 7.3	125.0	+ 7.8
2018	134.7	+ 10.0	131.1	+ 6.5	136.6	+ 11.0	127.9	+ 3.6	125.2	+ 2.7	138.8	+ 14.1	135.6	+ 13.2	132.4	+ 5.9
2019	146.0	+ 8.4	145.0	+ 10.6	150.1	+ 9.9	142.2	+ 11.2	138.9	+ 10.9	147.1	+ 6.0	147.9	+ 9.1	141.2	+ 6.6
2020	145.7	− 0.2	144.3	− 0.5	160.9	+ 7.2	130.5	− 8.2	141.5	+ 1.9	147.3	+ 0.1	139.7	− 5.5	143.4	+ 1.6
2020 June	167.7	+ 3.7	153.1	− 5.0	165.0	+ 4.2	139.5	− 14.2	164.8	+ 0.4	184.6	+ 13.7	144.3	− 12.4	196.1	+ 22.4
July	149.1	− 3.2	151.8	+ 2.6	157.9	+ 2.1	137.2	− 3.6	185.9	+ 25.7	145.9	− 9.3	136.8	− 10.4	157.7	+ 1.7
Aug.	136.7	+ 1.6	135.4	− 0.1	159.6	+ 14.6	114.0	− 13.1	135.5	− 2.7	138.3	+ 3.5	130.1	− 5.1	130.5	+ 1.2
Sep.	151.5	+ 2.5	157.0	+ 7.2	173.4	+ 10.5	141.1	+ 8.3	162.1	− 6.4	145.2	− 2.7	146.2	+ 2.0	144.4	− 2.1
Oct.	142.4	+ 4.0	150.8	+ 9.7	181.5	+ 17.2	127.1	+ 2.2	137.8	+ 6.3	132.6	− 2.6	141.5	+ 4.6	119.6	− 6.5
Nov.	139.6	− 3.9	146.9	− 5.0	167.7	+ 12.0	132.2	− 20.6	133.4	+ 4.9	131.0	− 2.5	143.8	− 14.2	117.6	+ 0.4
Dec.	150.5	+ 1.6	147.8	− 0.8	191.9	+ 7.7	117.9	− 10.1	113.7	− 4.6	153.7	+ 4.4	136.6	− 11.4	141.3	+ 15.0
2021 Jan.	134.0	+ 3.6	140.5	+ 4.8	147.3	+ 7.2	146.0	+ 8.7	97.7	− 20.4	126.5	+ 2.0	150.7	+ 6.8	106.8	− 4.0
Feb.	143.2	+ 6.5	148.8	+ 4.1	161.1	+ 8.6	147.2	+ 4.5	114.1	− 14.3	136.7	+ 9.8	143.4	+ 3.0	132.1	+ 9.5
Mar.	157.5	− 0.8	156.3	+ 1.5	173.8	+ 2.5	141.4	+ 0.1	154.3	+ 2.5	159.0	− 3.3	150.9	− 2.8	155.2	− 0.8
Apr.	160.1	+ 7.0	158.3	+ 18.0	185.1	+ 40.7	139.5	+ 1.6	139.8	+ 7.5	162.3	− 3.2	148.1	+ 5.5	158.8	− 7.2
May	159.2	+ 14.7	163.5	+ 31.9	185.1	+ 26.2	146.8	+ 42.7	154.3	+ 20.5	154.2	− 1.2	150.8	+ 24.3	153.0	− 0.7
June	164.3	− 2.0	164.6	+ 7.5	176.5	+ 7.0	160.3	+ 14.9	141.8	− 14.0	164.0	− 11.2	166.7	+ 15.5	154.3	− 21.3

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
2017	107.6	+ 5.0	105.8	+ 3.6	105.9	+ 4.1	108.2	+ 7.2	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	− 2.4	107.2	+ 0.9	103.1	+ 0.1	112.5	+ 4.5	127.7	+ 6.0
2019	114.9	+ 3.8	111.0	+ 3.3	112.1	+ 2.3	106.7	+ 1.0	108.9	+ 1.6	107.1	+ 3.9	118.7	+ 5.5	138.4	+ 8.4
2020 3	121.1	+ 5.4	115.6	+ 4.1	120.9	+ 7.9	81.6	− 23.5	106.3	− 2.4	116.8	+ 9.1	124.4	+ 4.8	168.5	+ 21.7
2020 July	122.8	+ 6.2	117.4	+ 4.9	119.1	+ 4.5	98.0	− 5.8	108.5	+ 14.2	125.4	+ 15.7	123.0	+ 1.9	156.4	+ 14.0
Aug.	120.4	+ 8.4	115.0	+ 6.9	120.7	+ 8.8	91.3	− 7.5	103.9	+ 1.6	117.0	+ 15.7	119.1	+ 3.7	155.2	+ 24.8
Sep.	119.2	+ 6.3	113.5	+ 5.1	113.7	+ 6.8	100.5	− 8.7	103.8	− 6.2	117.7	+ 13.7	122.2	+ 3.6	160.6	+ 15.4
Oct.	129.1	+ 10.2	122.7	+ 9.0	122.3	+ 8.4	109.1	− 6.4	120.5	+ 9.0	129.8	+ 16.9	129.0	+ 5.7	182.4	+ 28.8
Nov.	136.4	+ 10.4	130.2	+ 9.7	123.4	+ 7.4	90.2	− 22.2	154.1	+ 15.8	140.4	+ 21.0	133.3	+ 7.2	226.6	+ 37.6
Dec.	137.4	+ 3.2	131.0	+ 2.1	137.8	+ 7.7	69.3	− 41.8	134.4	− 15.5	119.4	+ 5.3	142.1	+ 6.5	217.9	+ 26.8
2021 Jan.	103.7	− 3.8	98.6	− 5.2	116.1	+ 12.2	19.3	− 78.2	62.3	− 45.7	59.4	− 38.5	126.6	+ 3.4	186.2	+ 34.5
Feb.	104.9	− 0.7	99.0	− 2.2	114.4	+ 5.7	22.3	− 72.2	62.7	− 36.0	70.2	− 27.8	127.4	+ 9.1	178.2	+ 40.6
Mar.	129.5	+ 9.2	122.3	+ 7.9	132.5	+ 1.5	58.6	+ 17.9	87.6	+ 4.2	119.9	+ 11.4	135.2	− 1.9	206.1	+ 33.9
Apr.	121.1	+ 9.0	113.6	+ 7.6	124.8	− 0.1	39.1	+ 32.5	69.0	+ 25.9	106.5	+ 5.7	130.7	+ 14.7	193.1	+ 11.6
May	125.7	+ 1.9	117.6	± 0.0	127.7	+ 0.2	62.0	− 20.7	73.5	− 23.3	112.6	− 11.9	128.5	+ 13.4	200.2	+ 18.7
June	130.0	+ 7.4	122.0	+ 5.4	122.5	+ 2.9	112.6	+ 18.2	96.8	− 5.5	124.5	+ 2.1	131.4	+ 9.9	184.9	+ 13.9
July	125.8	+ 2.4	117.8	+ 0.3	121.1	+ 1.7	102.8	+ 4.9	100.6	− 7.3	120.4	− 4.0	133.1	+ 8.2	162.8	+ 4.1

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 2020 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 in % [4,5]	Vacancies, thousands [4,6]
			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									
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	44,251	+ 1.4	32,234	+ 2.3	9,146	21,980	868	4,742	114	24	2,533	[7] 855	5.7	731
2018	44,858	+ 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
2020	44,898	− 0.8	33,579	+ 0.2	9,395	23,277	660	4,290	2,939	2,847	2,695	1,137	5.9	613
2018 Q2	44,781	+ 1.4	32,802	+ 2.3	9,296	22,414	843	4,701	23	14	2,325	760	5.1	794
Q3	45,019	+ 1.3	33,040	+ 2.2	9,387	22,546	855	4,694	35	27	2,311	784	5.1	828
Q4	45,245	+ 1.2	33,452	+ 2.1	9,498	22,890	819	4,627	88	35	2,200	755	4.9	804
2019 Q1	44,906	+ 1.2	33,214	+ 2.0	9,419	22,803	761	4,581	303	34	2,360	892	5.2	780
Q2	45,230	+ 1.0	33,388	+ 1.8	9,455	22,932	750	4,615	51	43	[8] 2,227	778	[8] 4.9	795
Q3	45,378	+ 0.8	33,548	+ 1.5	9,491	23,049	753	4,598	66	58	2,276	827	5.0	794
Q4	45,559	+ 0.7	33,924	+ 1.4	9,551	23,388	738	4,522	161	105	2,204	811	4.8	729
2020 Q1	45,122	+ 0.5	33,642	+ 1.3	9,439	23,284	686	4,458	1,219	949	2,385	960	5.2	683
Q2	44,712	− 1.1	33,415	+ 0.1	9,387	23,137	640	4,235	5,399	5,388	2,770	1,154	6.0	593
Q3	44,794	− 1.3	33,424	− 0.4	9,359	23,171	640	4,273	2,705	2,691	2,904	1,266	6.3	583
Q4	44,965	− 1.3	33,836	− 0.3	9,395	23,518	676	4,194	2,433	2,361	2,722	1,167	5.9	595
2021 Q1	44,448	− 1.5	[9] 33,566	[9] − 0.2	[9] 9,293	[9] 23,374	[9] 664	[9] 4,050	...	[9] 3,155	2,878	1,248	6.3	586
Q2	[10] 44,716	[10] + 0.0	[9] 33,705	[9] + 0.9	[9] 9,319	[9] 23,438	[9] 695	[9] 4,058	...	[9] 2,129	2,691	1,024	[11] 5.9	658
2018 Apr.	44,638	+ 1.4	32,782	+ 2.4	9,291	22,404	840	4,686	23	13	2,384	796	5.3	784
May	44,817	+ 1.5	32,857	+ 2.3	9,310	22,450	845	4,718	21	12	2,315	751	5.1	793
June	44,889	+ 1.3	32,870	+ 2.2	9,325	22,439	853	4,742	25	16	2,276	735	5.0	805
July	44,922	+ 1.3	32,844	+ 2.2	9,339	22,396	860	4,736	22	14	2,325	788	5.1	823
Aug.	44,972	+ 1.3	33,131	+ 2.3	9,412	22,609	856	4,664	41	33	2,351	804	5.2	828
Sep.	45,164	+ 1.2	33,422	+ 2.1	9,496	22,827	842	4,619	42	34	2,256	759	5.0	834
Oct.	45,251	+ 1.3	33,488	+ 2.2	9,515	22,895	827	4,616	46	37	2,204	742	4.9	824
Nov.	45,314	+ 1.3	33,513	+ 2.1	9,513	22,934	822	4,638	51	43	2,186	745	4.8	807
Dec.	45,171	+ 1.2	33,286	+ 2.1	9,434	22,854	773	4,637	166	26	2,210	777	4.9	781
2019 Jan.	44,852	+ 1.2	33,156	+ 2.0	9,405	22,762	763	4,574	354	42	2,406	919	5.3	758
Feb.	44,894	+ 1.2	33,199	+ 2.0	9,416	22,794	758	4,564	310	29	2,373	908	5.3	784
Mar.	44,971	+ 1.1	33,286	+ 1.9	9,442	22,855	749	4,574	246	32	2,301	850	5.1	797
Apr.	45,134	+ 1.1	33,383	+ 1.8	9,457	22,925	753	4,607	49	40	2,229	795	4.9	796
May	45,259	+ 1.0	33,433	+ 1.8	9,462	22,968	749	4,627	53	45	[8] 2,236	772	[8] 4.9	792
June	45,297	+ 0.9	33,407	+ 1.6	9,455	22,948	750	4,646	51	43	2,216	766	4.9	798
July	45,312	+ 0.9	33,360	+ 1.6	9,450	22,901	757	4,644	55	47	2,275	825	5.0	799
Aug.	45,307	+ 0.7	33,610	+ 1.4	9,505	23,101	750	4,568	60	51	2,319	848	5.1	795
Sep.	45,516	+ 0.8	33,938	+ 1.5	9,583	23,341	754	4,517	84	75	2,234	808	4.9	787
Oct.	45,592	+ 0.8	33,966	+ 1.4	9,567	23,398	748	4,510	111	102	2,204	795	4.8	764
Nov.	45,622	+ 0.7	33,968	+ 1.4	9,559	23,423	742	4,532	124	115	2,180	800	4.8	736
Dec.	45,463	+ 0.6	33,740	+ 1.4	9,474	23,344	694	4,531	247	97	2,227	838	4.9	687
2020 Jan.	45,140	+ 0.6	33,608	+ 1.4	9,432	23,255	689	4,471	382	133	2,426	985	5.3	668
Feb.	45,160	+ 0.6	33,624	+ 1.3	9,427	23,278	683	4,461	439	134	2,396	971	5.3	690
Mar.	45,066	+ 0.2	33,648	+ 1.1	9,440	23,290	675	4,350	2,834	2,580	2,335	925	5.1	691
Apr.	44,798	− 0.7	33,430	+ 0.1	9,396	23,141	643	4,194	6,007	5,995	2,644	1,093	5.8	626
May	44,662	− 1.3	33,328	− 0.3	9,367	23,083	624	4,206	5,726	5,715	2,813	1,172	6.1	584
June	44,676	− 1.4	33,323	− 0.3	9,355	23,084	629	4,260	4,464	4,452	2,853	1,197	6.2	570
July	44,687	− 1.4	33,233	− 0.4	9,322	23,024	635	4,302	3,319	3,306	2,910	1,258	6.3	573
Aug.	44,722	− 1.3	33,482	− 0.4	9,367	23,218	642	4,266	2,551	2,537	2,955	1,302	6.4	584
Sep.	44,972	− 1.2	33,792	− 0.4	9,421	23,454	656	4,240	2,244	2,229	2,847	1,238	6.2	591
Oct.	45,054	− 1.2	33,862	− 0.3	9,410	23,530	671	4,229	2,037	2,021	2,760	1,183	6.0	602
Nov.	45,002	− 1.4	33,899	− 0.2	9,400	23,559	696	4,166	2,405	2,386	2,699	1,152	5.9	601
Dec.	44,838	− 1.4	33,700	− 0.1	9,327	23,478	666	4,134	2,856	2,676	2,707	1,166	5.9	581
2021 Jan.	44,429	− 1.6	33,515	− 0.3	9,282	23,347	657	4,045	3,638	3,294	2,901	1,298	6.3	566
Feb.	44,425	− 1.6	33,521	− 0.3	9,281	23,343	662	4,026	3,766	3,358	2,904	1,270	6.3	583
Mar.	44,490	− 1.3	[9] 33,622	[9] − 0.1	[9] 9,306	[9] 23,390	[9] 683	[9] 4,028	...	[9] 2,814	2,827	1,177	6.2	609
Apr.	44,597	− 0.4	[9] 33,675	[9] + 0.7	[9] 9,321	[9] 23,419	[9] 685	[9] 4,030	...	[9] 2,537	2,771	1,091	6.0	629
May	44,713	+ 0.1	[9] 33,735	[9] + 1.2	[9] 9,323	[9] 23,454	[9] 701	[9] 4,062	...	[9] 2,265	2,687	1,020	[11] 5.9	654
June	[10] 44,838	[10] + 0.4	[9] 33,786	[9] + 1.4	[9] 9,321	[9] 23,493	[9] 715	[9] 4,134	...	[9] 1,586	2,614	961	5.7	693
July	[10] 44,967	[10] + 0.6	...	...	...	...	...	...	...	...	2,590	956	5.6	744
Aug.	...	...	...	...	...	...	...	...	...	...	2,578	940	5.6	779

Sources: Federal Statistical Office; Federal Employment Agency. * Annual and quarterly figures: averages; calculated by the Bundesbank; deviations from the official figures are due to rounding. **1** Workplace concept; averages. **2** Monthly figures: end of month. **3** Number within a given month. **4** Mid-month level. **5** Relative to the total civilian labour force. **6** Excluding government-assisted forms of employment and seasonal jobs, including jobs located abroad. **7** From January 2017 persons receiving additional income assistance (unemployment benefit and unemployment benefit II at the same time) shall be assigned to the legal category of the Third Book of the Social Security Code (SGB III). **8** Statistical break due to late recording of unemployed persons in the legal category of the Second Book of the Social Security Code (SGB II). **9** Unadjusted figures estimated by the Federal Employment Agency. In 2019 and 2020, 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 0.9% for persons solely in jobs exempt from social contributions, and by a maximum of 55.3% for cyclically induced short-time work. **10** Initial preliminary estimate by the Federal Statistical Office. **11** From May 2021, calculated on the basis of new labour force figures.

XI. Economic conditions in Germany

7. Prices

Period	Harmonised Index of Consumer Prices						Memo item: Consumer price index (national concept)	Construction price index	Index of producer prices of industrial products sold on the domestic market [6]	Index of producer prices of agricultural products [6]	Indices of foreign trade prices		HWWI Index of World Market Prices of Raw Materials [7]	
		of which: [1]				of which:								
	Total [2]	Food [3]	Non-energy industrial goods [4]	Energy [4,5]	Services [2,4]	Actual rents for housing					Exports	Imports	Energy [8]	Other raw materials [9]
	2015 = 100													
Index level														
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
2020	[10] 105.8	[10] 110.9	[10] 104.1	[10] 99.0	[10] 106.9	107.6	[10] 105.8	[10] 117.0	103.8	[11] 107.8	101.7	97.3	73.4	111.6
2019 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	112.0	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	114.4	102.5	101.7	112.5	110.4
2020 Jan.	105.1	110.1	104.0	104.9	104.3	107.0	105.2		105.3	113.2	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	113.7	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	112.7	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	110.0	101.3	96.1	65.2	105.1
July	[10] 106.4	[10] 110.2	[10] 102.5	[10] 98.0	[10] 109.4	107.7	[10] 106.1		103.2	107.5	101.3	96.4	68.3	107.5
Aug.	[10] 106.2	[10] 110.1	[10] 102.6	[10] 97.6	[10] 109.0	107.8	[10] 106.0	[10] 115.7	103.2	104.8	101.2	96.5	71.2	111.7
Sep.	[10] 105.8	[10] 109.9	[10] 103.6	[10] 96.9	[10] 108.0	107.8	[10] 105.8		103.6	[11] 103.3	101.3	96.8	70.4	117.9
Oct.	[10] 105.8	[10] 110.2	[10] 103.9	[10] 97.0	[10] 107.6	108.0	[10] 105.9		103.7	103.7	101.4	97.1	73.4	118.9
Nov.	[10] 104.7	[10] 110.3	[10] 104.0	[10] 96.0	[10] 105.5	108.1	[10] 105.0	[10] 116.0	103.9	103.8	101.8	97.6	77.8	120.4
Dec.	[10] 105.3	[10] 109.9	[10] 103.4	[10] 97.4	[10] 106.9	108.2	[10] 105.5		104.7	104.0	101.9	98.2	86.6	128.9
2021 Jan.	106.8	112.3	105.1	102.6	106.9	108.4	106.3		106.2	106.6	102.8	100.1	99.1	140.0
Feb.	107.4	113.0	105.5	104.1	107.3	108.5	107.0	121.2	106.9	108.8	103.3	101.8	104.7	143.4
Mar.	107.9	113.1	105.7	106.2	107.6	108.6	107.5		107.9	113.8	104.1	103.6	109.1	150.1
Apr.	108.4	114.5	105.8	106.1	108.3	108.7	108.2		108.8	115.7	104.9	105.0	110.8	154.5
May	108.7	114.2	106.3	106.7	108.7	108.9	108.7	125.1	110.4	118.3	105.6	106.8	118.9	169.0
June	109.1	114.1	106.5	107.6	109.1	108.9	109.1		111.8	117.5	106.4	108.5	129.4	166.3
July	[10] 109.7	[10] 114.4	[10] 106.4	[10] 109.0	[10] 110.2	109.1	[10] 110.1		113.9	117.2	107.7	110.9	141.9	165.9
Aug.	[10] 109.8	[10] 114.4	[10] 106.5	[10] 109.4	[10] 110.3	109.2	[10] 110.1	...	115.6	...	...	...	147.1	156.7
Annual percentage change														
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	+ 4.7	+ 1.1	+ 2.3	+ 0.5	− 1.0	− 11.7	+ 1.8
2020	[10] + 0.4	[10] + 2.3	[10] − 0.1	[10] − 4.5	[10] + 1.2	+ 1.4	[10] + 0.5	[10] + 1.4	− 1.0	[11] − 3.3	− 0.7	− 4.3	− 33.3	+ 3.2
2019 Oct.	+ 0.9	+ 1.4	+ 0.9	− 2.2	+ 1.3	+ 1.5	+ 1.1		− 0.6	− 0.9	− 0.2	− 3.5	− 27.0	+ 1.5
Nov.	+ 1.2	+ 1.9	+ 1.1	− 4.0	+ 2.4	+ 1.5	+ 1.1	+ 3.9	− 0.7	+ 0.4	− 0.1	− 2.1	− 10.7	+ 1.6
Dec.	+ 1.5	+ 2.1	+ 1.3	+ 0.1	+ 2.0	+ 1.5	+ 1.5		− 0.2	+ 2.6	+ 0.4	− 0.7	+ 1.0	+ 7.0
2020 Jan.	+ 1.6	+ 2.5	+ 1.1	+ 3.3	+ 1.4	+ 1.5	+ 1.7		+ 0.2	+ 1.6	+ 0.5	− 0.9	− 4.4	+ 7.5
Feb.	+ 1.7	+ 3.1	+ 0.9	+ 2.2	+ 1.5	+ 1.4	+ 1.7	+ 3.3	− 0.1	+ 2.0	+ 0.3	− 2.0	− 17.5	− 0.6
Mar.	+ 1.3	+ 3.1	+ 1.3	− 0.8	+ 1.3	+ 1.5	+ 1.4		− 0.8	+ 0.4	− 0.5	− 5.5	− 46.8	− 3.1
Apr.	+ 0.8	+ 4.0	+ 0.8	− 5.6	+ 1.3	+ 1.5	+ 0.9		− 1.9	− 2.5	− 1.1	− 7.4	− 58.3	− 7.2
May	+ 0.5	+ 3.9	+ 0.8	− 8.2	+ 1.3	+ 1.5	+ 0.6	+ 2.9	− 2.2	− 5.6	− 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	− 4.4	− 1.0	− 5.1	− 36.6	− 3.2
July	[10] ± 0.0	[10] + 1.4	[10] − 0.8	[10] − 6.4	[10] + 1.4	+ 1.4	[10] − 0.1		− 1.7	− 5.9	− 1.1	− 4.6	− 35.4	− 4.9
Aug.	[10] − 0.1	[10] + 1.2	[10] − 0.8	[10] − 6.0	[10] + 1.1	+ 1.4	[10] ± 0.0	[10] − 0.1	− 1.2	− 6.8	− 1.1	− 4.0	− 28.9	+ 5.4
Sep.	[10] − 0.4	[10] + 1.0	[10] − 1.1	[10] − 6.6	[10] + 1.0	+ 1.3	[10] − 0.2		− 1.0	[11] − 6.0	− 1.1	− 4.3	− 33.5	+ 9.7
Oct.	[10] − 0.5	[10] + 1.5	[10] − 1.0	[10] − 6.6	[10] + 0.7	+ 1.3	[10] − 0.2		− 0.7	− 6.0	− 1.0	− 3.9	− 30.6	+ 11.0
Nov.	[10] − 0.7	[10] + 1.2	[10] − 1.1	[10] − 7.4	[10] + 0.6	+ 1.3	[10] − 0.3	[10] − 0.3	− 0.5	− 7.3	− 0.6	− 3.8	− 29.6	+ 12.6
Dec.	[10] − 0.7	[10] + 0.6	[10] − 1.6	[10] − 6.0	[10] + 0.8	+ 1.3	[10] − 0.3		+ 0.2	− 9.1	− 0.6	− 3.4	− 23.0	+ 16.8
2021 Jan.	+ 1.6	+ 2.0	+ 1.1	− 2.2	+ 2.5	+ 1.3	+ 1.0		+ 0.9	− 5.8	+ 0.1	− 1.2	− 7.7	+ 24.8
Feb.	+ 1.6	+ 1.6	+ 1.2	+ 0.2	+ 2.0	+ 1.3	+ 1.3	+ 2.9	+ 1.9	− 4.7	+ 0.7	+ 1.4	+ 11.0	+ 31.9
Mar.	+ 2.0	+ 1.9	+ 0.5	+ 4.5	+ 2.0	+ 1.2	+ 1.7		+ 3.7	+ 0.1	+ 2.2	+ 6.9	+ 78.0	+ 43.1
Apr.	+ 2.1	+ 2.0	+ 0.4	+ 7.6	+ 1.5	+ 1.2	+ 2.0		+ 5.2	+ 2.7	+ 3.3	+ 10.3	+ 122.9	+ 53.0
May	+ 2.4	+ 1.5	+ 0.9	+ 9.5	+ 1.9	+ 1.3	+ 2.5	+ 5.7	+ 7.2	+ 8.3	+ 4.2	+ 11.8	+ 114.2	+ 65.5
June	+ 2.1	+ 1.2	+ 1.6	+ 9.0	+ 0.9	+ 1.2	+ 2.3		+ 8.5	+ 6.8	+ 5.0	+ 12.9	+ 98.5	+ 58.2
July	[10] + 3.1	[10] + 3.8	[10] + 3.8	[10] +11.2	[10] + 0.7	+ 1.3	[10] + 3.8		+ 10.4	+ 9.0	+ 6.3	+ 15.0	+ 107.8	+ 54.3
Aug.	[10] + 3.4	[10] + 3.9	[10] + 3.8	[10] +12.1	[10] + 1.2	+ 1.3	[10] + 3.9	...	+ 12.0	...	...	...	+ 106.6	+ 40.3

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** Influenced by a temporary reduction of value added tax between July and December 2020. **11** From September 2020 onwards provisional figures.

XI. Economic conditions in Germany

8. Households' income *

Period	Gross wages and salaries [1]		Net wages and salaries [2]		Monetary social benefits received [3]		Mass income [4]		Disposable income [5]		Saving [6]		Saving ratio [7]
	€ billion	Annual percentage change	€ billion	Annual percentage change	€ billion	Annual percentage change	€ billion	Annual percentage change	€ billion	Annual percentage change	€ billion	Annual percentage change	As percentage
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	1,395.4	4.3	932.5	4.0	441.8	3.6	1,374.3	3.9	1,905.2	3.5	202.8	8.0	10.6
2018	1,462.6	4.8	976.3	4.7	454.3	2.8	1,430.6	4.1	1,975.8	3.7	223.7	10.3	11.3
2019	1,524.1	4.2	1,022.0	4.7	474.4	4.4	1,496.4	4.6	2,021.6	2.3	218.7	– 2.2	10.8
2020	1,514.1	– 0.7	1,021.3	– 0.1	518.8	9.4	1,540.1	2.9	2,035.1	0.7	327.1	49.6	16.1
2020 Q1	366.2	2.9	246.4	2.9	125.0	5.5	371.4	3.8	520.4	2.7	84.2	15.7	16.2
Q2	355.9	– 4.4	234.8	– 3.8	130.4	11.3	365.2	1.1	491.7	– 1.5	97.4	92.3	19.8
Q3	374.1	– 1.2	258.1	– 0.6	132.0	10.2	390.1	2.8	508.1	0.7	66.5	44.4	13.1
Q4	417.9	0.1	282.1	1.1	131.3	10.4	413.3	3.9	514.9	0.7	78.9	60.6	15.3
2021 Q1	362.0	– 1.1	245.1	– 0.5	136.7	9.4	381.8	2.8	517.5	– 0.6	113.7	35.1	22.0
Q2	375.2	5.4	250.0	6.5	135.2	3.6	385.1	5.5	508.3	3.4	82.6	– 15.2	16.3

Source: Federal Statistical Office; figures computed in August 2021. * 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
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	2.6
2018	107.1	2.8	107.1	2.8	107.0	2.6	107.3	2.7	108.5	3.2
2019	110.2	2.9	110.2	2.9	109.7	2.5	110.0	2.5	111.7	3.0
2020	112.6	2.2	112.6	2.2	111.9	2.0	112.2	2.0	111.5	– 0.1
2020 Q1	104.2	2.4	104.2	2.4	104.2	2.4	111.6	2.4	107.3	2.1
Q2	105.0	2.0	105.0	1.9	105.1	2.2	112.1	2.1	105.4	– 3.5
Q3	116.2	1.8	116.2	1.8	114.4	1.8	112.5	1.8	110.7	– 0.2
Q4	125.0	2.7	125.0	2.7	124.0	1.8	112.6	1.8	122.8	1.2
2021 Q1	105.8	1.5	105.7	1.5	105.8	1.5	113.3	1.5	107.5	0.1
Q2	107.4	2.3	107.3	2.3	106.5	1.4	113.8	1.5	110.8	5.2
2021 Jan.	105.7	1.5	105.7	1.5	105.8	1.6	113.3	1.6	.	.
Feb.	105.7	1.4	105.7	1.4	105.8	1.5	113.3	1.5	.	.
Mar.	105.8	1.4	105.8	1.4	105.9	1.4	113.4	1.4	.	.
Apr.	106.8	1.8	106.8	1.8	106.8	1.6	113.8	1.6	.	.
May	106.4	1.1	106.4	1.1	106.5	1.1	113.8	1.5	.	.
June	108.9	4.0	108.9	4.0	106.3	1.4	113.8	1.4	.	.
July	138.3	– 0.2	138.3	– 0.2	134.8	1.1	113.9	1.3	.	.

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 2021.

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)															
2017	2,396.2	1,488.2	498.6	602.8	295.9	908.0	230.6	225.1	156.2	757.1	1,639.1	866.4	495.7	772.7	236.1	195.6
2018 3	2,589.6	1,537.1	540.8	611.1	288.5	1,052.5	249.5	234.9	172.6	790.2	1,799.3	925.8	558.7	873.5	257.5	205.1
2019	2,801.2	1,770.0	586.3	737.5	333.4	1,031.2	257.6	237.8	168.5	821.5	1,979.8	1,091.3	676.3	888.5	289.8	207.7
2020 p	2,850.7	1,797.6	607.6	733.4	335.1	1,053.1	243.7	226.2	240.5	812.1	2,038.7	1,181.5	746.4	857.1	304.4	196.2
2019 H1	2,702.6	1,657.9	549.7	682.9	314.5	1,044.6	269.2	240.5	140.5	777.5	1,925.1	1,024.3	613.9	900.8	301.7	210.8
H2	2,801.2	1,770.0	586.3	737.5	333.4	1,031.2	257.6	237.8	168.5	821.5	1,979.8	1,091.3	676.3	888.5	289.8	207.7
2020 H1	2,892.1	1,801.3	625.0	734.3	319.7	1,090.9	257.6	216.6	220.8	794.2	2,097.9	1,183.9	754.2	914.0	335.5	179.7
H2 p	2,850.7	1,797.6	607.6	733.4	335.1	1,053.1	243.7	226.2	240.5	812.1	2,038.7	1,181.5	746.4	857.1	304.4	196.2
	As a percentage of total assets															
2017	100.0	62.1	20.8	25.2	12.4	37.9	9.6	9.4	6.5	31.6	68.4	36.2	20.7	32.3	9.9	8.2
2018 3	100.0	59.4	20.9	23.6	11.1	40.6	9.6	9.1	6.7	30.5	69.5	35.8	21.6	33.7	9.9	7.9
2019	100.0	63.2	20.9	26.3	11.9	36.8	9.2	8.5	6.0	29.3	70.7	39.0	24.1	31.7	10.3	7.4
2020 p	100.0	63.1	21.3	25.7	11.8	36.9	8.6	7.9	8.4	28.5	71.5	41.5	26.2	30.1	10.7	6.9
2019 H1	100.0	61.4	20.3	25.3	11.6	38.7	10.0	8.9	5.2	28.8	71.2	37.9	22.7	33.3	11.2	7.8
H2	100.0	63.2	20.9	26.3	11.9	36.8	9.2	8.5	6.0	29.3	70.7	39.0	24.1	31.7	10.3	7.4
2020 H1	100.0	62.3	21.6	25.4	11.1	37.7	8.9	7.5	7.6	27.5	72.5	40.9	26.1	31.6	11.6	6.2
H2 p	100.0	63.1	21.3	25.7	11.8	36.9	8.6	7.9	8.4	28.5	71.5	41.5	26.2	30.1	10.7	6.9
	Groups with a focus on the production sector (€ billion) 2															
2017	1,989.3	1,190.8	351.5	484.0	281.8	798.5	215.8	181.4	128.5	609.9	1,379.4	719.1	397.8	660.3	218.4	150.1
2018 3	2,149.9	1,215.7	388.2	473.3	277.5	934.1	234.6	188.7	139.2	637.2	1,512.7	760.3	442.4	752.4	236.2	152.6
2019	2,303.5	1,396.8	419.6	565.7	319.7	906.8	243.8	188.7	136.9	662.7	1,640.9	887.5	523.8	753.4	257.5	158.1
2020 p	2,265.7	1,355.2	399.1	543.9	320.0	910.5	228.8	179.8	188.0	636.8	1,628.9	904.8	537.0	724.1	267.3	149.9
2019 H1	2,229.6	1,297.6	388.9	517.9	302.7	932.0	255.6	194.2	115.8	629.6	1,600.0	831.4	473.9	768.6	265.8	164.3
H2	2,303.5	1,396.8	419.6	565.7	319.7	906.8	243.8	188.7	136.9	662.7	1,640.9	887.5	523.8	753.4	257.5	158.1
2020 H1	2,305.5	1,352.3	406.4	547.5	303.4	953.2	244.0	171.8	171.4	615.1	1,690.4	912.2	548.5	778.1	294.6	137.1
H2 p	2,265.7	1,355.2	399.1	543.9	320.0	910.5	228.8	179.8	188.0	636.8	1,628.9	904.8	537.0	724.1	267.3	149.9
	As a percentage of total assets															
2017	100.0	59.9	17.7	24.3	14.2	40.1	10.9	9.1	6.5	30.7	69.3	36.2	20.0	33.2	11.0	7.6
2018 3	100.0	56.6	18.1	22.0	12.9	43.5	10.9	8.8	6.5	29.6	70.4	35.4	20.6	35.0	11.0	7.1
2019	100.0	60.6	18.2	24.6	13.9	39.4	10.6	8.2	5.9	28.8	71.2	38.5	22.7	32.7	11.2	6.9
2020 p	100.0	59.8	17.6	24.0	14.1	40.2	10.1	7.9	8.3	28.1	71.9	39.9	23.7	32.0	11.8	6.6
2019 H1	100.0	58.2	17.4	23.2	13.6	41.8	11.5	8.7	5.2	28.2	71.8	37.3	21.3	34.5	11.9	7.4
H2	100.0	60.6	18.2	24.6	13.9	39.4	10.6	8.2	5.9	28.8	71.2	38.5	22.7	32.7	11.2	6.9
2020 H1	100.0	58.7	17.6	23.8	13.2	41.4	10.6	7.5	7.4	26.7	73.3	39.6	23.8	33.8	12.8	6.0
H2 p	100.0	59.8	17.6	24.0	14.1	40.2	10.1	7.9	8.3	28.1	71.9	39.9	23.7	32.0	11.8	6.6
	Groups with a focus on the services sector (€ billion)															
2017	406.9	297.4	147.1	118.8	14.1	109.5	14.8	43.6	27.6	147.2	259.6	147.3	97.9	112.4	17.6	45.5
2018 3	439.7	321.3	152.7	137.9	11.0	118.3	14.9	46.1	33.3	153.1	286.6	165.5	116.3	121.1	21.3	52.5
2019	497.7	373.3	166.7	171.8	13.7	124.4	13.7	49.1	31.6	158.8	338.9	203.8	152.6	135.1	32.3	49.6
2020 p	585.0	442.4	208.5	189.6	15.1	142.6	14.9	46.4	52.6	175.3	409.7	276.7	209.4	133.0	37.1	46.3
2019 H1	472.9	360.3	160.8	165.1	11.8	112.6	13.7	46.3	24.7	147.9	325.0	192.8	140.0	132.2	35.9	46.5
H2	497.7	373.3	166.7	171.8	13.7	124.4	13.7	49.1	31.6	158.8	338.9	203.8	152.6	135.1	32.3	49.6
2020 H1	586.6	449.0	218.7	186.8	16.3	137.6	13.7	44.9	49.4	179.1	407.6	271.7	205.7	135.9	40.9	42.6
H2 p	585.0	442.4	208.5	189.6	15.1	142.6	14.9	46.4	52.6	175.3	409.7	276.7	209.4	133.0	37.1	46.3
	As a percentage of total assets															
2017	100.0	73.1	36.2	29.2	3.5	26.9	3.7	10.7	6.8	36.2	63.8	36.2	24.1	27.6	4.3	11.2
2018 3	100.0	73.1	34.7	31.4	2.5	26.9	3.4	10.5	7.6	34.8	65.2	37.6	26.5	27.6	4.8	11.9
2019	100.0	75.0	33.5	34.5	2.8	25.0	2.8	9.9	6.4	31.9	68.1	41.0	30.7	27.2	6.5	10.0
2020 p	100.0	75.6	35.6	32.4	2.6	24.4	2.6	7.9	9.0	30.0	70.0	47.3	35.8	22.7	6.3	7.9
2019 H1	100.0	76.2	34.0	34.9	2.5	23.8	2.9	9.8	5.2	31.3	68.7	40.8	29.6	28.0	7.6	9.8
H2	100.0	75.0	33.5	34.5	2.8	25.0	2.8	9.9	6.4	31.9	68.1	41.0	30.7	27.2	6.5	10.0
2020 H1	100.0	76.5	37.3	31.9	2.8	23.5	2.3	7.7	8.4	30.5	69.5	46.3	35.1	23.2	7.0	7.3
H2 p	100.0	75.6	35.6	32.4	2.6	24.4	2.6	7.9	9.0	30.0	70.0	47.3	35.8	22.7	6.3	7.9

***** 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 H1 2018 or 2018 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																
2013	1,540.6	– 0.6	187.0	– 2.8	12.1	– 0.3	5.2	10.3	18.4	99.4	5.5	6.5	0.4	1.9	5.9	11.0
2014	1,565.1	1.0	198.7	4.9	12.7	0.5	5.9	10.3	17.4	109.2	8.5	7.0	0.5	1.9	6.1	11.1
2015	1,634.6	6.9	196.0	– 1.1	12.0	– 1.0	6.1	10.6	17.8	91.5	– 16.4	5.6	– 1.5	1.7	6.6	11.3
2016	1,625.0	– 0.4	214.5	7.9	13.2	1.0	6.7	11.4	17.9	111.8	9.1	6.9	0.5	2.6	6.7	12.0
2017	1,720.2	5.1	243.5	14.6	14.2	1.2	7.1	11.0	18.0	142.0	33.3	8.3	1.8	2.5	6.9	12.0
2018 6	1,707.6	0.7	232.8	– 0.9	13.6	– 0.2	6.2	10.6	17.7	129.2	– 6.3	7.6	– 0.6	2.2	6.5	11.9
2019	1,765.5	2.6	233.7	0.4	13.2	– 0.3	6.9	12.2	19.1	105.5	– 17.9	6.0	– 1.5	1.7	5.8	11.7
2020 p	1,633.6	– 8.8	213.8	– 7.7	13.1	0.2	6.5	11.5	18.0	52.3	– 40.9	3.2	– 2.1	– 0.8	5.0	10.7
2016 H1	782.3	– 1.9	111.6	6.2	14.3	1.1	5.9	10.4	17.7	65.5	2.7	8.4	0.3	1.6	6.4	11.3
H2	842.8	1.1	102.9	9.8	12.2	1.0	6.9	11.9	19.0	46.3	20.9	5.5	0.8	3.0	7.5	12.5
2017 H1	844.4	6.8	125.7	14.6	14.9	1.0	5.7	10.1	17.2	78.5	29.6	9.3	1.6	1.8	5.8	11.6
H2	879.0	3.5	117.5	14.6	13.4	1.3	6.9	12.0	19.1	63.0	38.2	7.2	1.8	3.3	7.5	12.4
2018 H1 6	848.6	– 0.1	120.8	– 2.2	14.2	– 0.3	5.1	10.6	18.1	72.7	– 5.3	8.6	– 0.5	1.8	6.4	12.4
H2	869.8	1.4	114.5	0.5	13.2	– 0.1	6.4	11.2	17.8	58.0	– 7.7	6.7	– 0.6	2.1	6.7	12.3
2019 H1	861.7	2.7	112.4	– 4.0	13.0	– 0.9	6.6	11.7	18.6	53.4	– 23.3	6.2	– 2.1	1.5	5.7	11.7
H2	904.2	2.4	121.3	4.8	13.4	0.3	6.8	11.9	19.9	52.1	– 11.3	5.8	– 0.9	0.9	6.1	12.4
2020 H1	744.9	– 14.4	78.3	– 34.0	10.5	– 3.0	4.8	9.9	16.7	7.9	– 88.0	1.1	– 5.3	– 2.1	3.5	9.0
H2 p	888.8	– 3.3	135.5	17.2	15.3	2.8	7.7	13.2	19.8	44.3	8.8	5.0	0.7	1.7	6.5	11.7
Groups with a focus on the production sector 5																
2013	1,199.6	– 0.8	142.6	– 2.6	11.9	– 0.2	5.1	10.3	16.0	77.5	– 5.8	6.5	– 0.3	1.6	5.9	10.5
2014	1,220.9	1.0	152.2	5.9	12.5	0.6	5.7	10.0	15.5	85.2	9.7	7.0	0.6	1.6	6.0	10.5
2015	1,310.5	7.0	149.1	– 2.6	11.4	– 1.1	6.3	10.5	16.3	69.1	– 19.7	5.3	– 1.7	2.1	6.6	10.4
2016	1,296.6	– 0.8	162.1	6.4	12.5	0.8	6.6	10.7	16.2	84.9	4.3	6.6	0.3	2.9	6.4	10.7
2017	1,396.8	5.5	187.6	16.6	13.4	1.3	7.1	11.0	15.8	112.6	40.5	8.1	2.0	3.2	6.8	10.5
2018 6	1,368.5	1.0	175.8	– 1.6	12.8	– 0.3	6.9	10.7	15.8	100.7	– 7.1	7.4	– 0.6	2.9	6.8	11.3
2019	1,411.8	2.0	168.3	– 4.4	11.9	– 0.8	6.9	11.4	16.6	76.3	– 23.7	5.4	– 1.8	1.4	5.8	10.1
2020 p	1,286.0	– 9.4	143.8	– 8.6	11.2	0.1	6.4	10.6	16.5	29.3	– 47.9	2.3	– 2.3	– 0.7	4.4	9.8
2016 H1	625.5	– 2.3	86.6	1.8	13.8	0.5	6.7	10.6	15.9	52.7	– 6.4	8.4	– 0.3	2.9	6.4	10.1
H2	671.2	0.7	75.5	12.0	11.3	1.1	6.2	11.3	16.6	32.2	34.3	4.8	0.9	2.6	6.6	10.7
2017 H1	695.6	7.3	101.6	18.7	14.6	1.4	6.1	10.2	16.1	66.4	37.3	9.5	2.1	2.4	5.9	11.0
H2	701.8	3.7	86.0	14.2	12.3	1.1	7.0	11.8	16.9	46.2	45.5	6.6	1.9	3.6	7.3	10.8
2018 H1 6	682.3	– 0.1	95.0	– 3.4	13.9	– 0.5	7.0	10.9	16.7	60.0	– 6.0	8.8	– 0.6	2.9	6.7	11.5
H2	695.8	2.0	83.2	0.6	12.0	– 0.2	6.3	11.1	16.1	42.1	– 8.8	6.1	– 0.7	2.0	6.4	11.2
2019 H1	690.3	2.4	83.4	– 8.8	12.1	– 1.5	7.1	10.8	16.1	41.9	– 26.8	6.1	– 2.4	1.8	5.9	9.5
H2	721.5	1.7	84.9	0.4	11.8	– 0.2	6.1	10.9	16.9	34.4	– 19.6	4.8	– 1.3	0.6	5.3	11.2
2020 H1	581.0	– 15.9	49.1	– 42.3	8.4	– 3.8	4.4	8.8	15.1	0.2	– 101.6	0.0	– 6.2	– 2.1	3.2	8.0
H2 p	705.0	– 3.0	94.7	25.4	13.4	3.4	7.3	12.3	18.6	29.0	19.8	4.1	1.1	1.1	6.1	10.7
Groups with a focus on the services sector																
2013	341.0	– 0.1	44.4	– 3.5	13.0	– 0.5	5.2	9.3	20.7	21.9	82.2	6.4	2.9	2.4	5.9	11.8
2014	344.2	0.8	46.5	1.8	13.5	0.1	6.0	12.3	22.6	24.1	4.3	7.0	0.2	2.6	6.3	13.7
2015	324.1	6.1	46.9	4.0	14.5	– 0.3	5.9	11.1	22.1	22.3	– 3.8	6.9	– 0.7	1.3	6.7	13.9
2016	328.4	1.3	52.5	12.8	16.0	1.6	6.8	13.4	25.1	26.9	24.4	8.2	1.5	2.3	8.2	15.3
2017	323.4	3.5	55.9	8.3	17.3	0.8	6.8	11.5	23.0	29.4	11.4	9.1	0.6	2.1	7.2	15.1
2018 6	339.2	– 0.6	57.1	1.3	16.8	0.3	5.5	10.5	24.7	28.5	– 3.5	8.4	– 0.3	1.4	5.8	16.6
2019	353.7	4.8	65.4	15.2	18.5	1.7	6.9	13.7	24.5	29.2	2.8	8.3	– 0.2	2.4	6.2	16.2
2020 p	347.6	– 6.1	70.0	– 5.4	20.1	0.1	6.9	13.2	22.1	23.0	– 22.1	6.6	– 1.4	– 1.2	6.4	12.2
2016 H1	156.8	– 0.4	25.0	24.0	16.0	3.1	5.1	10.2	23.4	12.8	61.2	8.2	3.1	1.0	6.2	14.6
H2	171.6	2.9	27.4	4.2	16.0	0.2	7.4	13.3	24.3	14.1	3.0	8.2	0.0	4.0	8.9	17.1
2017 H1	148.8	4.6	24.2	0.4	16.2	– 0.6	5.2	9.8	21.0	12.1	0.3	8.2	– 0.3	1.2	5.6	14.5
H2	177.1	2.5	31.5	15.6	17.8	2.0	6.6	12.5	24.6	16.8	21.6	9.5	1.5	2.9	7.8	17.9
2018 H1 6	166.3	0.2	25.9	2.8	15.6	0.4	3.8	9.5	22.7	12.6	– 1.9	7.6	– 0.2	– 0.9	4.7	15.3
H2	174.0	– 1.3	31.3	– 0.0	18.0	0.2	6.7	11.3	25.6	15.9	– 4.6	9.1	– 0.3	2.2	7.0	17.8
2019 H1	171.4	4.0	29.0	13.1	16.9	1.4	5.7	12.3	24.4	11.6	– 7.5	6.7	– 0.9	0.0	4.9	14.5
H2	182.7	5.5	36.5	16.9	20.0	1.9	7.1	15.1	24.4	17.7	10.9	9.7	0.5	1.8	8.2	16.3
2020 H1	163.9	– 8.1	29.2	– 9.4	17.8	– 0.3	5.6	10.8	21.2	7.7	– 36.4	4.7	– 2.1	– 2.2	4.3	10.9
H2 p	183.8	– 4.2	40.8	– 2.2	22.2	0.4	8.9	14.7	23.3	15.3	– 12.8	8.3	– 0.9	2.6	7.2	13.3

* 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	2018	2019	2020	2020 Q4	2021 Q1	2021 Q2 p	2021 Apr.	2021 May	2021 June p
I. Current Account	+ 346,207	+ 282,215	+ 247,657	+ 98,175	+ 72,593	+ 61,609	+ 31,105	+ 6,540	+ 23,964
1. Goods									
Receipts	2,333,597	2,397,441	2,190,887	601,457	592,794	617,892	203,950	197,958	215,984
Expenditure	2,045,057	2,082,702	1,850,089	488,318	499,896	543,857	179,155	176,472	188,230
Balance	+ 288,541	+ 314,738	+ 340,801	+ 113,139	+ 92,898	+ 74,035	+ 24,795	+ 21,486	+ 27,754
2. Services									
Receipts	946,766	1,003,052	847,982	228,769	206,132	223,815	71,848	71,737	80,230
Expenditure	828,987	939,122	811,361	213,669	190,057	194,330	60,681	64,264	69,385
Balance	+ 117,778	+ 63,930	+ 36,618	+ 15,100	+ 16,075	+ 29,485	+ 11,166	+ 7,473	+ 10,846
3. Primary income									
Receipts	853,727	858,902	749,639	184,241	185,879	187,031	61,091	60,194	65,746
Expenditure	761,362	802,408	716,955	165,763	165,098	196,059	54,593	72,126	69,340
Balance	+ 92,367	+ 56,494	+ 32,684	+ 18,477	+ 20,780	− 9,029	+ 6,497	− 11,932	− 3,594
4. Secondary income									
Receipts	110,262	113,869	115,999	30,577	28,126	32,099	9,992	11,216	10,891
Expenditure	262,742	266,817	278,444	79,118	85,287	64,982	21,347	21,703	21,932
Balance	− 152,478	− 152,946	− 162,448	− 48,542	− 57,160	− 32,882	− 11,354	− 10,487	− 11,041
II. Capital account	− 37,290	− 26,213	− 3,267	− 904	+ 3,447	+ 4,871	+ 1,026	+ 2,133	+ 1,712
III. Financial account 1	+ 303,530	+ 200,276	+ 256,681	+ 125,845	+ 84,836	+ 95,943	+ 785	+ 36,733	+ 58,425
1. Direct investment	+ 137,128	− 95,424	− 181,564	− 111,378	+ 62,834	− 39,419	+ 24,902	+ 6,612	− 70,933
By resident units abroad the euro area	− 257,807	+ 9,077	− 62,195	− 97,901	+ 70,565	− 1,377	+ 38,769	+ 19,058	− 59,204
By non-resident units of the euro area	− 394,935	+ 104,503	+ 119,369	+ 13,477	+ 7,731	+ 38,044	+ 13,868	+ 12,446	+ 11,730
2. Portfolio investment	+ 206,809	− 41,724	+ 604,855	+ 594,904	+ 94,303	+ 192,120	+ 16,135	+ 71,708	+ 104,277
By resident units abroad the euro area	+ 190,785	+ 433,966	+ 699,768	+ 354,957	+ 259,711	+ 241,719	+ 62,183	+ 64,867	+ 114,669
Equity and investment fund shares	+ 33,921	+ 70,792	+ 307,687	+ 183,913	+ 157,494	+ 124,808	+ 45,967	+ 15,998	+ 62,843
Short-term debt securities	− 52,159	+ 4,757	+ 130,434	+ 41,489	+ 24,043	+ 22,995	− 12,628	− 2,171	+ 37,794
Long-term debt securities	+ 209,024	+ 358,417	+ 261,646	+ 129,555	+ 78,174	+ 93,916	+ 28,844	+ 51,040	+ 14,032
By non-resident units of the euro area	− 16,022	+ 475,688	+ 94,914	− 239,946	+ 165,407	+ 49,598	+ 46,048	− 6,842	+ 10,392
Equity and investment fund shares	+ 103,841	+ 240,139	+ 91,364	+ 22,713	+ 87,467	+ 115,106	+ 41,709	+ 30,459	+ 42,938
Short-term debt securities	− 60,005	− 6,481	+ 141,365	− 68,042	+ 86,672	+ 16,966	+ 7,160	+ 2,040	+ 7,766
Long-term debt securities	− 59,855	+ 242,035	− 137,816	− 194,617	− 8,732	− 82,472	− 2,821	− 39,340	− 40,311
3. Financial derivatives and employee stock options	+ 39,860	+ 1,071	+ 523	− 19,570	+ 7,161	+ 12,526	+ 4,644	− 2,305	+ 10,187
4. Other investment	− 105,349	+ 333,124	− 180,361	− 340,178	− 76,479	− 76,765	− 45,645	− 40,729	+ 9,609
Eurosystem	− 134,123	+ 142,624	− 203,671	− 196,362	+ 146,780	− 63,983	+ 42,567	− 13,894	− 92,656
General government	− 4,857	+ 120	− 19,485	− 33,841	− 21,287	− 10,350	+ 3,490	− 14,133	+ 293
MFIs 2	+ 102,018	+ 185,876	+ 13,037	− 34,707	− 274,462	+ 24,231	− 91,124	− 20,297	+ 135,652
Enterprises and households	− 68,384	+ 4,504	+ 29,755	− 75,267	+ 72,490	− 26,664	− 578	+ 7,594	− 33,680
5. Reserve assets	+ 25,080	+ 3,230	+ 13,231	+ 2,069	− 2,982	+ 7,480	+ 748	+ 1,447	+ 5,285
IV. Net errors and omissions	− 5,387	− 55,724	+ 12,295	+ 28,575	+ 8,798	+ 29,462	− 31,346	+ 28,059	+ 32,749

***** Source: ECB, according to the international standards of the International Monetary Fund's Balance of Payments Manual (sixth edition). **1** increase: + / decrease: -. **2** Excluding the Eurosystem.

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 [2]	Financial account [3]		Errors and omissions [4]
	Total	Goods		Services	Primary income	Secondary income		Total	of which: Reserve assets	
		Total	of which: Supplementary trade items [1]							
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	+ 254,936	+ 255,077	− 13,613	− 23,994	+ 74,629	− 50,776	− 2,936	+ 276,709	− 1,269	+ 24,710
2018	+ 264,156	+ 224,584	− 22,682	− 17,410	+ 105,694	− 48,713	+ 676	+ 246,544	+ 392	− 18,288
2019	+ 258,627	+ 216,523	− 31,760	− 20,653	+ 111,191	− 48,434	− 526	+ 203,799	− 544	− 54,302
2020	+ 233,918	+ 189,532	− 8,907	+ 3,471	+ 92,497	− 51,582	− 4,771	+ 231,103	− 51	+ 1,956
2018 Q3	+ 56,223	+ 50,524	− 5,011	− 12,014	+ 29,919	− 12,206	− 1,587	+ 42,895	− 493	− 11,741
Q4	+ 65,027	+ 44,532	− 12,500	− 871	+ 38,033	− 16,667	− 609	+ 61,806	+ 560	− 2,612
2019 Q1	+ 70,210	+ 56,391	− 4,760	− 1,290	+ 31,863	− 16,753	+ 900	+ 44,999	− 63	− 26,111
Q2	+ 57,800	+ 52,295	− 7,867	− 2,849	+ 14,629	− 6,274	− 374	+ 47,570	+ 444	− 9,856
Q3	+ 62,831	+ 57,801	− 7,757	− 12,518	+ 29,954	− 12,405	+ 265	+ 18,301	− 349	− 44,796
Q4	+ 67,786	+ 50,037	− 11,376	− 3,995	+ 34,746	− 13,003	− 1,317	+ 92,930	− 576	+ 26,460
2020 Q1	+ 62,196	+ 52,500	− 2,696	− 2,773	+ 26,874	− 14,404	− 348	+ 37,818	+ 133	− 24,030
Q2	+ 37,318	+ 27,533	− 1,960	+ 5,647	+ 13,060	− 8,922	+ 188	+ 28,568	+ 243	− 8,938
Q3	+ 62,013	+ 55,641	− 1,106	− 5,402	+ 22,142	− 10,369	− 1,206	+ 68,302	− 1,276	+ 7,495
Q4	+ 72,391	+ 53,857	− 3,145	+ 5,999	+ 30,421	− 17,886	− 3,405	+ 96,416	+ 848	+ 27,430
2021 Q1 r	+ 66,650	+ 55,972	− 1,223	+ 3,603	+ 27,693	− 20,618	− 215	+ 123,063	+ 385	+ 56,627
Q2 r	+ 56,744	+ 45,821	− 2,141	+ 4,894	+ 14,602	− 8,572	− 1,887	+ 67,793	+ 58	+ 12,936
2019 Feb.	+ 17,750	+ 17,446	− 1,727	− 154	+ 8,499	− 8,041	+ 166	+ 16,326	+ 112	− 1,590
Mar.	+ 32,389	+ 24,345	− 837	− 140	+ 11,830	− 3,646	− 1,399	+ 8,909	− 333	− 22,080
Apr.	+ 22,256	+ 17,081	− 2,686	− 312	+ 9,185	− 3,697	− 47	+ 23,703	+ 547	+ 1,494
May	+ 15,432	+ 19,137	− 3,090	+ 131	− 4,604	+ 767	− 52	+ 6,277	+ 182	− 9,103
June	+ 20,112	+ 16,077	− 2,092	− 2,668	+ 10,048	− 3,344	− 276	+ 17,589	− 285	− 2,247
July	+ 20,611	+ 20,555	− 3,036	− 4,819	+ 9,538	− 4,664	+ 171	+ 11,234	+ 348	− 9,548
Aug.	+ 17,334	+ 16,559	− 1,639	− 5,218	+ 10,219	− 4,226	+ 788	− 1,942	+ 755	− 20,065
Sep.	+ 24,886	+ 20,687	− 3,083	− 2,482	+ 10,197	− 3,516	− 694	+ 9,009	− 1,452	− 15,183
Oct.	+ 19,690	+ 20,550	− 3,285	− 5,948	+ 9,775	− 4,687	− 823	+ 44,140	− 107	+ 25,273
Nov.	+ 23,695	+ 17,228	− 3,055	+ 392	+ 9,744	− 3,669	− 491	+ 20,116	− 356	− 3,088
Dec.	+ 24,401	+ 12,259	− 5,035	+ 1,562	+ 15,227	− 4,647	− 3	+ 28,674	− 113	+ 4,275
2020 Jan.	+ 15,860	+ 14,116	− 769	− 1,090	+ 10,156	− 7,321	+ 267	+ 3,235	+ 898	− 12,892
Feb.	+ 21,578	+ 20,218	− 1,768	− 1,359	+ 7,014	− 4,294	+ 48	+ 17,898	+ 750	− 3,728
Mar.	+ 24,758	+ 18,167	− 159	− 324	+ 9,704	− 2,789	− 663	+ 16,684	− 1,514	− 7,411
Apr.	+ 9,965	+ 3,711	− 617	+ 1,710	+ 8,859	− 4,315	+ 88	+ 10,215	+ 950	+ 161
May	+ 7,079	+ 8,995	+ 768	+ 1,553	− 14	− 3,454	+ 8	+ 115	+ 33	− 6,972
June	+ 20,273	+ 14,827	− 2,111	+ 2,384	+ 4,215	− 1,154	+ 91	+ 18,238	− 740	− 2,127
July	+ 20,204	+ 19,766	− 430	− 2,646	+ 6,782	− 3,698	− 928	+ 18,341	− 611	− 935
Aug.	+ 16,668	+ 13,915	− 226	− 2,308	+ 8,416	− 3,355	+ 486	+ 32,997	− 611	+ 15,843
Sep.	+ 25,142	+ 21,961	− 450	− 448	+ 6,944	− 3,315	− 764	+ 16,964	− 53	− 7,413
Oct.	+ 24,370	+ 20,733	− 513	+ 843	+ 7,236	− 4,442	− 1,320	+ 27,100	+ 140	+ 4,050
Nov.	+ 21,562	+ 18,376	+ 122	+ 2,239	+ 8,537	− 7,589	− 2,090	+ 14,685	+ 89	− 4,788
Dec.	+ 26,459	+ 14,748	− 2,754	+ 2,917	+ 14,648	− 5,855	+ 5	+ 54,631	+ 618	+ 28,167
2021 Jan. r	+ 17,931	+ 14,532	− 440	+ 943	+ 9,795	− 7,340	− 395	+ 27,039	+ 743	+ 9,503
Feb. r	+ 18,326	+ 18,088	− 728	+ 1,335	+ 7,636	− 8,733	− 1,448	+ 52,214	+ 102	+ 35,336
Mar. r	+ 30,393	+ 23,352	− 56	+ 1,324	+ 10,262	− 4,545	+ 1,628	+ 43,810	− 460	+ 11,788
Apr. r	+ 21,035	+ 15,539	− 662	+ 2,809	+ 6,508	− 3,822	− 984	+ 24,124	− 251	+ 4,074
May r	+ 13,111	+ 13,924	− 778	+ 1,665	− 642	− 1,837	− 271	+ 14,423	+ 211	+ 1,583
June r	+ 22,599	+ 16,357	− 701	+ 419	+ 8,735	− 2,913	− 632	+ 29,246	+ 98	+ 7,279
July p	+ 17,614	+ 17,478	− 1,530	− 2,403	+ 8,228	− 5,689	− 1,284	− 6,984	+ 102	− 23,314

1 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. **2** Including net acquisition/disposal of non-produced non-financial assets. **3** Net lending: +/net borrowing: -. **4** 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		2018	2019	2020	2021 Feb.	Mar.	Apr.	May	June	July
All countries [1]	Exports	1,317,440	1,328,152	1,205,281	107,756	126,910	111,889	109,544	118,663	115,076
	Imports	1,088,720	1,104,141	1,025,344	89,869	106,341	96,575	97,051	102,502	97,172
	Balance	+ 228,720	+ 224,010	+ 179,937	+ 17,887	+ 20,569	+ 15,314	+ 12,493	+ 16,161	+ 17,904
I. European countries	Exports	900,141	902,831	823,346	74,048	86,524	77,138	76,243	81,399	78,589
	Imports	744,575	747,692	682,626	61,777	72,260	64,344	65,709	68,244	65,904
	Balance	+ 155,566	+ 155,140	+ 140,721	+ 12,271	+ 14,264	+ 12,794	+ 10,533	+ 13,154	+ 12,685
1. EU Member States (27)	Exports	696,480	698,257	634,728	58,360	67,652	60,628	60,779	64,690	61,648
	Imports	586,433	593,251	547,205	49,704	58,056	51,033	52,867	54,980	52,899
	Balance	+ 110,047	+ 105,006	+ 87,523	+ 8,656	+ 9,597	+ 9,596	+ 7,912	+ 9,711	+ 8,749
Euro area (19) countries	Exports	492,469	492,308	440,913	40,356	47,143	42,268	42,031	45,153	43,308
	Imports	405,810	409,863	372,089	33,566	39,641	34,755	36,412	37,991	36,794
	Balance	+ 86,659	+ 82,445	+ 68,824	+ 6,791	+ 7,501	+ 7,512	+ 5,619	+ 7,162	+ 6,514
of which:										
Austria	Exports	65,027	66,076	60,071	5,520	6,506	5,912	5,791	6,150	6,065
	Imports	42,994	44,059	40,415	3,687	4,292	3,767	3,853	4,195	4,126
	Balance	+ 22,033	+ 22,017	+ 19,656	+ 1,833	+ 2,214	+ 2,145	+ 1,938	+ 1,955	+ 1,939
Belgium and Luxembourg	Exports	50,389	52,006	48,798	4,414	5,021	4,801	4,627	4,918	4,495
	Imports	49,315	46,322	39,744	3,546	4,541	4,731	4,575	5,336	4,756
	Balance	+ 1,074	+ 5,683	+ 9,053	+ 868	+ 480	+ 70	+ 52	− 418	− 262
France	Exports	105,359	106,564	90,794	8,132	9,497	8,418	8,350	9,196	8,457
	Imports	65,024	66,199	56,498	4,939	5,820	4,947	4,777	5,493	5,257
	Balance	+ 40,335	+ 40,364	+ 34,296	+ 3,193	+ 3,677	+ 3,471	+ 3,573	+ 3,704	+ 3,200
Italy	Exports	69,813	67,887	60,368	5,898	6,846	6,093	6,134	6,535	6,630
	Imports	60,223	57,100	54,005	5,252	5,940	5,281	5,571	5,572	5,687
	Balance	+ 9,591	+ 10,786	+ 6,363	+ 646	+ 906	+ 811	+ 562	+ 964	+ 943
Netherlands	Exports	91,061	91,528	84,473	7,726	9,046	7,716	7,956	8,438	8,250
	Imports	97,709	97,816	87,638	7,844	9,050	7,991	8,449	8,558	8,722
	Balance	− 6,649	− 6,288	− 3,165	− 118	− 4	− 275	− 494	− 120	− 473
Spain	Exports	44,184	44,218	37,464	3,443	3,953	3,728	3,712	3,895	3,658
	Imports	32,399	33,126	31,312	2,649	3,341	2,893	2,947	2,816	2,800
	Balance	+ 11,785	+ 11,092	+ 6,153	+ 794	+ 612	+ 835	+ 765	+ 1,079	+ 858
Other EU Member States	Exports	204,011	205,949	193,815	18,004	20,510	18,361	18,749	19,538	18,340
	Imports	180,623	183,387	175,116	16,138	18,414	16,277	16,455	16,989	16,105
	Balance	+ 23,388	+ 22,561	+ 18,699	+ 1,866	+ 2,095	+ 2,083	+ 2,293	+ 2,549	+ 2,235
2. Other European countries	Exports	203,661	204,575	188,618	15,688	18,872	16,509	15,464	16,708	16,942
	Imports	158,142	154,441	135,420	12,073	14,205	13,311	12,842	13,265	13,006
	Balance	+ 45,519	+ 50,134	+ 53,198	+ 3,615	+ 4,667	+ 3,198	+ 2,622	+ 3,444	+ 3,936
of which:										
Switzerland	Exports	54,021	56,345	56,287	4,703	5,435	4,967	4,670	4,983	4,832
	Imports	45,913	45,824	45,476	3,879	4,482	4,062	4,344	4,170	3,882
	Balance	+ 8,108	+ 10,521	+ 10,811	+ 824	+ 953	+ 906	+ 326	+ 813	+ 949
United Kingdom	Exports	82,164	79,166	66,814	5,419	6,525	5,335	5,006	5,536	5,922
	Imports	37,025	38,397	34,823	2,738	3,187	3,064	2,703	2,706	2,836
	Balance	+ 45,139	+ 40,770	+ 31,991	+ 2,681	+ 3,339	+ 2,271	+ 2,304	+ 2,830	+ 3,086
II. Non-European countries	Exports	413,483	421,728	380,214	33,590	40,232	34,610	33,151	37,092	36,281
	Imports	342,980	355,390	341,774	28,007	34,002	32,140	31,234	34,119	31,135
	Balance	+ 70,503	+ 66,338	+ 38,440	+ 5,583	+ 6,230	+ 2,470	+ 1,918	+ 2,973	+ 5,146
1. Africa	Exports	22,524	23,627	20,037	1,749	2,252	1,768	1,723	1,908	2,295
	Imports	22,542	24,475	18,711	1,820	2,239	1,993	2,160	2,419	2,068
	Balance	− 18	− 848	+ 1,327	− 71	+ 13	− 225	− 437	− 512	+ 226
2. America	Exports	158,952	165,602	141,740	13,147	15,325	13,760	12,597	14,592	14,794
	Imports	92,444	100,007	93,946	7,242	9,116	8,684	8,088	9,700	7,734
	Balance	+ 66,508	+ 65,595	+ 47,794	+ 5,904	+ 6,209	+ 5,076	+ 4,509	+ 4,892	+ 7,061
of which:										
United States	Exports	113,341	118,680	103,821	9,488	11,149	10,061	9,095	10,247	10,832
	Imports	64,493	71,334	67,688	5,125	6,700	6,161	5,882	6,934	5,434
	Balance	+ 48,847	+ 47,346	+ 36,133	+ 4,364	+ 4,449	+ 3,900	+ 3,213	+ 3,313	+ 5,398
3. Asia	Exports	219,716	221,278	207,780	17,808	21,554	18,206	17,906	19,587	18,120
	Imports	224,355	227,036	225,245	18,674	22,304	21,214	20,604	21,571	20,980
	Balance	− 4,639	− 5,759	− 17,465	− 866	− 750	− 3,007	− 2,699	− 1,984	− 2,860
of which:										
Middle East	Exports	29,144	28,663	25,445	1,982	2,308	2,032	2,222	2,326	2,014
	Imports	8,156	7,460	5,921	422	511	589	664	901	669
	Balance	+ 20,989	+ 21,202	+ 19,523	+ 1,559	+ 1,796	+ 1,442	+ 1,558	+ 1,425	+ 1,345
Japan	Exports	20,436	20,662	17,382	1,437	1,674	1,551	1,308	1,393	1,442
	Imports	23,710	23,904	21,305	1,682	1,886	2,080	1,951	2,035	1,948
	Balance	− 3,275	− 3,243	− 3,923	− 245	− 212	− 529	− 644	− 642	− 507
People's Republic of China [2]	Exports	93,004	95,984	95,860	8,326	10,320	8,379	8,405	9,530	8,357
	Imports	106,065	110,054	116,989	9,880	11,893	10,743	10,334	10,915	10,773
	Balance	− 13,061	− 14,070	− 21,129	− 1,554	− 1,573	− 2,364	− 1,930	− 1,385	− 2,417
New industrial countries and emerging markets of Asia [3]	Exports	54,995	54,164	50,585	4,258	5,142	4,510	4,522	4,501	4,634
	Imports	52,945	51,748	48,228	3,817	4,731	4,542	4,556	4,718	4,289
	Balance	+ 2,050	+ 2,416	+ 2,357	+ 442	+ 411	− 32	− 34	− 217	+ 345
4. Oceania and polar regions	Exports	12,291	11,221	10,657	886	1,101	875	926	1,005	1,072
	Imports	3,639	3,872	3,872	270	343	249	381	429	353
	Balance	+ 8,652	+ 7,349	+ 6,785	+ 616	+ 758	+ 626	+ 545	+ 577	+ 719

***** 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 excl. 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									Primary income		
	Total	of which: Transport	Travel [1]	Financial services	Charges for the use of intellectual property	Telecommunications-, computer and information services	Other business services	Gouvernment goods and services [2]		Compensation of employees	Investment income	Other primary income [3]
2016	− 20,987	− 5,950	− 38,247	+ 8,612	+ 15,790	− 7,156	− 1,520	+ 3,092		+ 474	+ 76,800	− 1,076
2017	− 23,994	− 3,679	− 43,558	+ 9,613	+ 14,903	− 8,188	− 1,065	+ 2,177		− 637	+ 76,669	− 1,403
2018	− 17,410	− 2,003	− 44,543	+ 9,535	+ 17,398	− 7,206	+ 580	+ 3,325		− 1,208	+ 107,902	− 1,001
2019	− 20,653	+ 2	− 45,947	+ 10,392	+ 17,728	− 9,561	− 2,933	+ 3,493		+ 373	+ 111,763	− 945
2020	+ 3,471	− 6,095	− 14,698	+ 9,461	+ 17,392	− 6,822	− 4,775	+ 3,347		+ 2,307	+ 91,586	− 1,396
2019 Q4	− 3,995	+ 68	− 10,513	+ 2,839	+ 5,362	− 3,165	− 805	+ 725		+ 459	+ 30,866	+ 3,421
2020 Q1	− 2,773	− 1,220	− 7,497	+ 2,464	+ 4,344	− 2,164	− 963	+ 881		+ 917	+ 26,953	− 996
Q2	+ 5,647	− 1,534	+ 259	+ 2,332	+ 4,794	− 1,524	− 1,125	+ 879		+ 384	+ 15,200	− 2,524
Q3	− 5,402	− 1,863	− 7,428	+ 2,206	+ 3,353	− 1,993	− 1,645	+ 892		+ 97	+ 23,168	− 1,123
Q4	+ 5,999	− 1,478	− 32	+ 2,458	+ 4,902	− 1,140	− 1,042	+ 695		+ 909	+ 26,265	+ 3,247
2021 Q1	+ 3,603	− 1,036	− 378	+ 2,614	+ 4,422	− 2,501	− 1,418	+ 785		+ 999	+ 27,710	− 1,016
Q2	+ 4,894	− 223	− 1,723	+ 2,522	+ 4,779	− 1,254	− 1,241	+ 824		+ 464	+ 17,003	− 2,865
2020 Sep.	− 448	− 769	− 2,144	+ 716	+ 1,395	− 283	− 296	+ 369		+ 51	+ 7,255	− 362
Oct.	+ 843	− 620	− 728	+ 961	+ 1,341	− 700	− 93	+ 259		+ 257	+ 7,413	− 434
Nov.	+ 2,239	− 457	+ 358	+ 497	+ 1,712	− 611	− 82	+ 192		+ 266	+ 8,741	− 470
Dec.	+ 2,917	− 401	+ 338	+ 1,001	+ 1,849	+ 170	− 867	+ 244		+ 386	+ 10,111	+ 4,151
2021 Jan.	+ 943	− 460	− 133	+ 1,013	+ 1,086	− 869	− 347	+ 256		+ 343	+ 9,806	− 354
Feb.	+ 1,335	− 356	− 62	+ 797	+ 1,467	− 733	− 260	+ 262		+ 359	+ 7,576	− 299
Mar.	+ 1,324	− 220	− 183	+ 803	+ 1,868	− 900	− 811	+ 267		+ 297	+ 10,328	− 363
Apr.	+ 2,809	+ 192	− 155	+ 1,204	+ 1,859	− 673	− 153	+ 265		+ 138	+ 6,694	− 323
May	+ 1,665	− 190	− 144	+ 847	+ 1,355	− 477	− 495	+ 289		+ 171	+ 1,278	− 2,091
June	+ 419	− 224	− 1,425	+ 472	+ 1,564	− 104	− 592	+ 271		+ 155	+ 9,031	− 451
July p	− 2,403	− 330	− 3,328	+ 743	+ 1,141	− 1,117	− 27	+ 294		+ 26	+ 8,618	− 417

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

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

€ million

Period	Secondary income							Capital account		
		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	Total	Non-produced non-financial assets	Capital transfers
2016	− 40,931	− 25,417	− 11,516	+ 10,739	− 15,514	+ 4,214	+ 4,196	+ 2,142	+ 3,219	− 1,077
2017	− 50,776	− 23,191	− 9,851	+ 9,665	− 27,584	+ 4,632	+ 4,613	− 2,936	+ 926	− 3,863
2018	− 48,713	− 28,645	− 10,186	+ 10,237	− 20,067	+ 5,152	+ 5,142	+ 676	+ 3,444	− 2,768
2019	− 48,434	− 28,956	− 10,728	+ 11,745	− 19,479	+ 5,445	+ 5,431	− 526	+ 2,754	− 3,280
2020	− 51,582	− 34,268	− 12,211	+ 10,877	− 17,313	+ 5,925	+ 5,908	− 4,771	+ 469	− 5,240
2019 Q4	− 13,003	− 8,266	− 4,687	+ 1,342	− 4,737	+ 1,363	+ 1,358	− 1,317	+ 854	− 2,171
2020 Q1	− 14,404	− 9,565	− 2,315	+ 2,514	− 4,839	+ 1,482	+ 1,477	− 348	− 444	+ 95
Q2	− 8,922	− 4,819	− 2,270	+ 4,506	− 4,104	+ 1,480	+ 1,477	+ 188	+ 504	− 316
Q3	− 10,369	− 6,422	− 3,249	+ 2,144	− 3,947	+ 1,481	+ 1,477	− 1,206	− 54	− 1,151
Q4	− 17,886	− 13,463	− 4,378	+ 1,713	− 4,423	+ 1,482	+ 1,477	− 3,405	+ 464	− 3,869
2021 Q1	− 20,618	− 14,676	− 3,294	+ 2,276	− 5,942	+ 1,547	+ 1,543	− 215	− 25	− 190
Q2	− 8,572	− 4,303	− 1,584	+ 5,280	− 4,269	+ 1,547	+ 1,543	− 1,887	− 1,702	− 184
2020 Sep.	− 3,315	− 1,993	− 1,015	+ 1,215	− 1,322	+ 493	+ 492	− 764	− 300	− 465
Oct.	− 4,442	− 2,998	− 962	+ 525	− 1,444	+ 494	+ 492	− 1,320	− 782	− 538
Nov.	− 7,589	− 5,989	− 1,390	+ 256	− 1,601	+ 494	+ 492	− 2,090	− 393	− 1,697
Dec.	− 5,855	− 4,476	− 2,026	+ 931	− 1,379	+ 493	+ 492	+ 5	+ 1,639	− 1,634
2021 Jan.	− 7,340	− 5,854	− 1,803	+ 399	− 1,486	+ 516	+ 514	− 395	− 373	− 22
Feb.	− 8,733	− 6,458	− 661	+ 923	− 2,275	+ 515	+ 514	− 1,448	− 1,236	− 212
Mar.	− 4,545	− 2,364	− 830	+ 955	− 2,181	+ 516	+ 514	+ 1,628	+ 1,584	+ 44
Apr.	− 3,822	− 2,165	− 641	+ 1,332	− 1,658	+ 516	+ 514	− 984	− 857	− 127
May	− 1,837	− 734	− 409	+ 2,799	− 1,103	+ 516	+ 514	− 271	− 250	− 21
June	− 2,913	− 1,405	− 535	+ 1,149	− 1,508	+ 515	+ 514	− 632	− 596	− 36
July p	− 5,689	− 3,915	− 2,685	+ 686	− 1,774	+ 517	+ 514	− 1,284	− 964	− 319

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.

XII. External sector

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

€ million

Item	2018	2019	2020	2020 Q4	2021 Q1 r	2021 Q2 r	2021 May r	2021 June r	2021 July p
I. Net domestic investment abroad (increase: +)	+ 398,714	+ 247,406	+ 707,119	+ 77,200	+ 287,271	+ 122,108	+ 31,477	+ 69,912	− 60,455
1. Direct investment	+ 156,050	+ 136,291	+ 96,602	+ 43,818	+ 45,517	+ 17,302	− 21,922	+ 20,978	+ 4,886
Equity	+ 154,766	+ 116,375	+ 79,229	+ 13,948	+ 12,105	+ 31,115	+ 5,326	+ 7,235	+ 7,076
of which:									
Reinvestment of earnings [1]	+ 37,276	+ 37,654	+ 16,648	− 3,967	+ 14,233	+ 7,491	+ 1,433	+ 2,965	+ 3,254
Debt instruments	+ 1,285	+ 19,916	+ 17,373	+ 29,871	+ 33,412	− 13,813	− 27,249	+ 13,743	− 2,190
2. Portfolio investment	+ 82,648	+ 136,850	+ 186,532	+ 67,717	+ 77,652	+ 59,175	+ 11,355	+ 31,706	+ 14,775
Shares [2]	+ 9,251	+ 14,111	+ 65,947	+ 22,891	+ 9,077	+ 10,119	+ 1,561	+ 6,591	+ 4,437
Investment fund shares [3]	+ 28,366	+ 53,919	+ 64,435	+ 30,200	+ 16,793	+ 24,841	+ 4,875	+ 10,690	+ 5,183
Short-term [4]									
debt securities	+ 1,973	+ 8,599	+ 2,019	− 1,898	+ 3,628	− 5,848	− 3,291	− 2,643	+ 1,942
Long-term [5]									
debt securities	+ 43,058	+ 60,221	+ 54,131	+ 16,524	+ 48,154	+ 30,063	+ 8,211	+ 17,069	+ 3,214
3. Financial derivatives and employee stock options [6]	+ 22,539	+ 24,532	+ 99,097	+ 9,121	+ 22,346	+ 13,451	+ 3,621	+ 5,131	+ 1,974
4. Other investment [7]	+ 137,085	− 49,723	+ 324,940	− 44,304	+ 141,371	+ 32,121	+ 38,212	+ 11,998	− 82,192
MFIs [8]	+ 49,862	+ 9,276	− 4,494	− 49,332	+ 142,555	+ 17,351	− 18,744	− 5,191	− 7,410
Short-term	+ 45,400	− 8,901	+ 3,526	− 50,666	+ 135,399	+ 13,907	− 15,839	− 7,593	− 4,102
Long-term	+ 4,462	+ 18,177	− 8,020	+ 1,333	+ 7,157	+ 3,444	− 2,905	+ 2,401	− 3,307
Enterprises and households [9]	+ 39,124	+ 16,241	+ 85,204	− 10,143	+ 57,978	− 1,468	+ 4,475	− 4,640	− 1,432
Short-term	+ 20,489	+ 4,510	+ 43,928	+ 4,426	+ 55,568	− 4,798	+ 3,151	− 6,148	− 3,496
Long-term	+ 18,635	+ 11,730	+ 41,276	− 14,568	+ 2,410	+ 3,330	+ 1,325	+ 1,507	+ 2,065
General government	− 8,696	− 4,325	+ 1,118	− 5,900	− 4,891	− 723	+ 231	+ 104	+ 81
Short-term	− 7,706	− 1,139	+ 2,399	− 5,513	− 4,591	− 695	+ 280	+ 164	+ 194
Long-term	− 990	− 3,186	− 1,281	− 387	− 300	− 28	− 49	− 60	− 113
Bundesbank	+ 56,795	− 70,915	+ 243,112	+ 21,071	− 54,271	+ 16,961	+ 52,249	+ 21,726	− 73,432
5. Reserve assets	+ 392	− 544	− 51	+ 848	+ 385	+ 58	+ 211	+ 98	+ 102
II. Net foreign investment in the reporting country (increase: +)	+ 152,171	+ 43,607	+ 476,016	− 19,215	+ 164,208	+ 54,315	+ 17,055	+ 40,665	− 53,472
1. Direct investment	+ 135,583	+ 60,170	+ 97,216	+ 40,655	+ 14,345	+ 13,647	− 21,850	+ 17,110	− 1,640
Equity	+ 48,790	+ 30,250	+ 31,079	+ 15,740	+ 5,664	+ 8,759	+ 100	+ 3,235	+ 1,895
of which:									
Reinvestment of earnings [1]	+ 4,331	+ 1,031	+ 2,152	− 1,337	+ 1,039	− 1,921	− 619	− 1,965	+ 955
Debt instruments	+ 86,793	+ 29,920	+ 66,136	+ 24,915	+ 8,681	+ 4,888	− 21,949	+ 13,876	− 3,535
2. Portfolio investment	− 70,988	+ 63,443	+ 143,783	− 104,819	+ 30,853	− 10,289	+ 5,902	− 6,372	− 16,215
Shares [2]	− 30,383	− 6,075	− 16,838	− 985	+ 4,188	− 5,174	+ 821	− 3,309	+ 2,180
Investment fund shares [3]	− 6,364	− 4,923	+ 933	+ 1,835	+ 110	+ 999	+ 292	− 827	− 789
Short-term [4]									
debt securities	+ 5,128	+ 15,902	+ 80,193	− 33,494	+ 19,476	+ 216	+ 2,977	+ 611	− 3,490
Long-term [5]									
debt securities	− 39,370	+ 58,539	+ 79,494	− 72,175	+ 7,079	− 6,330	+ 1,812	− 2,846	− 14,116
3. Other investment [7]	+ 87,576	− 80,006	+ 235,017	+ 44,949	+ 119,010	+ 50,957	+ 33,002	+ 29,926	− 35,617
MFIs [8]	− 35,902	− 10,214	+ 108,397	− 73,056	+ 248,352	+ 28,522	+ 13,364	− 15,815	− 33,996
Short-term	− 27,469	− 20,978	+ 74,805	− 83,596	+ 218,851	+ 43,378	+ 14,094	− 12,412	− 43,178
Long-term	− 8,433	+ 10,764	+ 33,591	+ 10,539	+ 29,501	− 14,856	− 730	− 3,403	+ 9,182
Enterprises and households [9]	+ 18,949	+ 29,501	+ 26,267	− 8,854	+ 8,474	− 4,287	+ 752	− 3,042	+ 10,933
Short-term	+ 7,132	+ 9,988	+ 18,062	− 6,779	+ 11,480	− 781	+ 1,427	− 2,061	+ 10,180
Long-term	+ 11,816	+ 19,513	+ 8,206	− 2,075	− 3,006	− 3,505	− 675	− 981	+ 753
General government	+ 2,906	+ 262	− 10,521	− 4,993	− 3,760	+ 3,635	+ 1,901	+ 164	+ 191
Short-term	+ 2,230	+ 124	− 10,306	− 4,456	− 1,044	+ 3,624	+ 1,896	+ 164	+ 208
Long-term	+ 677	+ 138	− 216	− 537	− 2,716	+ 10	+ 5	+ 1	− 17
Bundesbank	+ 101,623	− 99,554	+ 110,874	+ 131,853	− 134,057	+ 23,087	+ 16,985	+ 48,619	− 12,746
III. Net financial account (net lending: +/net borrowing: -)	+ 246,544	+ 203,799	+ 231,103	+ 96,416	+ 123,063	+ 67,793	+ 14,423	+ 29,246	− 6,984

1 Estimated on the basis of the figures on the level of direct investment stocks abroad and in the Federal Republic of Germany (see 'Statistical series Direct investment statistics'). **2** Including participation certificates. **3** Including reinvestment of earnings. **4** Short-term: original maturity up to one year. **5** Up to and including 2012 without accrued interest. 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, 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

7. External position of the Bundesbank *

€ million

End of reporting period	External assets									External liabilities 3, 4	Net external position 5
		Reserve assets					Other investment				
	Total	Total	Gold and gold receivables	Special drawing rights	Reserve position in the IMF	Currency, deposits and securities	Total	of which: Clearing accounts within the ESCB 1	Portfolio investment 2		
1999 Jan. 6	95,316	93,940	29,312	1,598	6,863	56,167	1,376	–	–	9,628	85,688
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	668,527	474,318
2018	1,209,982	173,138	121,445	14,378	5,518	31,796	980,560	966,190	56,284	770,519	439,462
2019	1,160,971	199,295	146,562	14,642	6,051	32,039	909,645	895,219	52,031	671,202	489,769
2020	1,429,236	219,127	166,904	14,014	8,143	30,066	1,152,757	1,136,002	57,353	781,339	647,898
2019 Mar.	1,190,416	178,088	125,302	14,629	5,561	32,596	958,243	941,310	54,086	655,445	534,971
Apr.	1,167,188	177,378	124,046	14,622	6,228	32,482	935,563	919,696	54,247	627,089	540,098
May	1,186,394	180,073	126,092	14,637	6,150	33,193	952,038	934,640	54,283	618,639	567,754
June	1,201,041	187,401	134,470	14,473	6,081	32,377	960,158	942,319	53,482	649,792	551,249
July	1,134,349	193,244	139,163	14,613	6,391	33,077	888,584	870,903	52,521	621,971	512,378
Aug.	1,173,640	205,331	149,696	14,703	6,379	34,553	915,546	897,901	52,763	638,733	534,907
Sep.	1,185,142	202,285	147,611	14,831	6,396	33,447	930,892	915,342	51,965	626,236	558,906
Oct.	1,103,094	199,858	146,284	14,663	6,287	32,624	852,754	837,377	50,482	596,696	506,398
Nov.	1,134,129	197,047	143,253	14,799	6,116	32,879	885,524	870,520	51,558	590,333	543,797
Dec.	1,160,971	199,295	146,562	14,642	6,051	32,039	909,645	895,219	52,031	671,202	489,769
2020 Jan.	1,090,725	209,432	154,867	14,785	6,110	33,671	828,120	811,435	53,173	580,910	509,814
Feb.	1,106,033	215,748	159,889	14,857	5,989	35,014	836,782	821,562	53,503	577,033	529,000
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
Oct.	1,346,367	227,767	174,433	14,346	7,656	31,332	1,061,498	1,047,327	57,102	619,445	726,922
Nov.	1,347,202	212,286	159,737	14,193	7,535	30,820	1,078,270	1,060,263	56,647	625,921	721,282
Dec.	1,429,236	219,127	166,904	14,014	8,143	30,066	1,152,757	1,136,002	57,353	781,339	647,898
2021 Jan.	1,348,921	219,860	166,494	14,115	8,061	31,190	1,072,140	1,054,994	56,921	638,042	710,879
Feb.	1,328,303	210,619	157,313	14,119	8,047	31,140	1,060,378	1,043,746	57,306	616,473	711,830
Mar.	1,364,046	209,400	155,323	14,367	7,966	31,744	1,098,486	1,081,989	56,160	647,647	716,400
Apr.	1,307,161	210,799	158,143	14,085	7,836	30,735	1,041,472	1,024,734	54,890	604,863	702,299
May	1,370,231	221,201	168,678	14,037	7,809	30,677	1,093,721	1,076,918	55,309	621,827	748,404
June	1,384,834	213,600	159,995	14,326	8,094	31,184	1,115,447	1,101,897	55,787	670,632	714,202
July	1,319,694	219,775	165,984	14,345	8,104	31,343	1,042,015	1,024,970	57,903	657,905	661,789
Aug.	1,360,722	250,742	165,757	45,091	8,174	31,720	1,053,653	1,037,259	56,327	699,773	660,949

* 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 (acc. 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** Difference between External assets and External liabilities. **6** Euro opening balance sheet of the Bundesbank as at 1 January 1999.

XII. External sector

8. 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														
2017	901,267	218,110	683,156	457,369	225,788	211,769	14,018	1,115,680	143,928	971,752	770,140	201,612	131,034	70,579
2018	934,837	234,595	700,241	468,418	231,823	217,561	14,262	1,225,989	146,105	1,079,884	873,977	205,907	134,897	71,010
2019	959,708	226,949	732,759	499,322	233,437	217,768	15,669	1,281,332	165,199	1,116,133	908,374	207,759	133,704	74,055
2020	1,007,574	250,320	757,254	529,154	228,099	211,800	16,300	1,360,348	167,766	1,192,582	984,663	207,919	129,171	78,748
2021 Feb.	1,058,227	258,375	799,851	572,749	227,102	210,489	16,614	1,390,051	165,241	1,224,810	1,015,649	209,161	127,888	81,273
Mar.	1,095,969	272,111	823,858	580,283	243,575	226,725	16,850	1,392,419	165,522	1,226,897	1,006,373	220,524	138,236	82,288
Apr.	1,086,960	269,905	817,055	577,596	239,459	222,468	16,991	1,409,569	170,664	1,238,906	1,023,103	215,803	133,961	81,842
May	1,057,714	270,395	787,319	553,608	233,711	216,984	16,727	1,389,444	171,979	1,217,465	1,006,408	211,056	129,367	81,689
June	1,064,620	249,361	815,259	569,374	245,885	228,928	16,957	1,405,317	164,780	1,240,537	1,016,612	223,925	140,022	83,903
July	1,066,061	253,858	812,203	569,648	242,555	225,626	16,929	1,413,240	176,470	1,236,770	1,016,796	219,974	135,525	84,449
EU Member States (27 excl. GB)														
2017	522,279	166,645	355,634	263,631	92,003	83,509	8,494	720,770	93,932	626,838	544,462	82,376	62,137	20,239
2018	545,146	176,529	368,617	276,091	92,525	84,214	8,312	796,793	87,930	708,863	626,713	82,150	61,561	20,589
2019	569,888	176,258	393,630	302,654	90,976	82,454	8,522	824,390	89,604	734,787	650,172	84,615	62,534	22,081
2020	599,741	188,300	411,440	322,386	89,054	80,200	8,854	866,365	92,592	773,773	687,613	86,160	62,357	23,803
2021 Feb.	634,002	201,694	432,308	339,621	92,687	83,659	9,028	878,026	88,866	789,159	698,276	90,883	65,255	25,629
Mar.	679,382	210,531	468,851	371,295	97,555	88,533	9,023	890,190	91,447	798,743	705,125	93,618	67,927	25,692
Apr.	676,258	211,565	464,692	368,731	95,961	86,771	9,190	912,592	90,962	821,630	730,073	91,557	65,794	25,763
May	640,806	211,913	428,894	335,464	93,430	84,441	8,990	890,189	96,512	793,677	704,853	88,824	63,274	25,550
June	634,306	195,636	438,670	342,302	96,368	87,237	9,130	895,230	93,766	801,465	708,232	93,233	67,553	25,680
July	634,283	198,429	435,854	341,200	94,654	85,575	9,080	895,006	93,056	801,950	711,356	90,594	65,089	25,504
Extra-EU Member States (27 incl. GB)														
2017	378,987	51,465	327,522	193,738	133,784	128,260	5,524	394,910	49,996	344,914	225,677	119,236	68,897	50,340
2018	389,691	58,066	331,625	192,327	139,298	133,347	5,950	429,197	58,175	371,021	247,265	123,757	73,335	50,422
2019	389,820	50,692	339,129	196,668	142,461	135,314	7,146	456,942	75,595	381,347	258,203	123,144	71,171	51,974
2020	407,833	62,020	345,814	206,768	139,046	131,600	7,445	493,983	75,175	418,809	297,050	121,758	66,813	54,945
2021 Feb.	424,225	56,681	367,544	233,128	134,415	126,829	7,586	512,025	76,375	435,650	317,373	118,278	62,634	55,644
Mar.	416,587	61,579	355,007	208,987	146,020	138,193	7,827	502,229	74,075	428,154	301,249	126,906	70,309	56,596
Apr.	410,703	58,340	352,363	208,865	143,498	135,697	7,801	496,977	79,702	417,275	293,030	124,246	68,167	56,078
May	416,908	58,483	358,425	218,144	140,280	132,543	7,737	499,255	75,467	423,788	301,555	122,232	66,093	56,140
June	430,314	53,725	376,590	227,072	149,517	141,691	7,826	510,087	71,014	439,073	308,380	130,692	72,470	58,222
July	431,778	55,429	376,349	228,448	147,901	140,051	7,850	518,234	83,414	434,820	305,440	129,380	70,435	58,945
Euro area (19)														
2017	454,033	149,685	304,348	232,178	72,170	64,683	7,487	654,278	75,669	578,609	512,786	65,823	50,442	15,381
2018	468,699	156,351	312,348	240,676	71,672	64,427	7,245	730,553	68,747	661,806	596,496	65,310	49,555	15,755
2019	492,090	157,829	334,261	263,830	70,431	62,939	7,492	751,076	69,464	681,612	615,369	66,243	49,609	16,634
2020	515,425	167,497	347,928	279,213	68,715	61,150	7,565	783,041	71,423	711,617	645,409	66,208	48,316	17,891
2021 Feb.	545,961	183,136	362,825	291,685	71,141	63,485	7,656	791,694	69,618	722,076	652,594	69,482	50,143	19,339
Mar.	581,812	188,072	393,740	319,435	74,305	66,689	7,616	805,118	71,996	733,122	662,265	70,858	51,489	19,369
Apr.	574,874	188,396	386,478	313,279	73,199	65,469	7,730	823,642	71,163	752,479	682,989	69,490	50,038	19,452
May	549,188	192,018	357,170	286,041	71,129	63,482	7,647	809,765	76,299	733,466	664,788	68,679	48,960	19,718
June	536,631	171,581	365,050	291,933	73,117	65,369	7,749	814,593	74,426	740,167	668,245	71,922	52,035	19,887
July	541,088	180,988	360,100	287,573	72,527	64,704	7,823	814,711	74,021	740,690	670,503	70,187	50,460	19,727
Extra-Euro area (19)														
2017	447,234	68,425	378,809	225,191	153,618	147,087	6,531	461,402	68,259	393,143	257,354	135,789	80,592	55,197
2018	466,138	78,244	387,894	227,743	160,151	153,134	7,017	495,436	77,358	418,078	277,482	140,597	85,342	55,255
2019	467,618	69,120	398,498	235,492	163,006	154,829	8,176	530,256	95,735	434,521	293,005	141,516	84,095	57,421
2020	492,149	82,823	409,326	249,941	159,385	150,650	8,735	577,307	96,343	480,965	339,254	141,711	80,854	60,856
2021 Feb.	512,266	75,240	437,026	281,064	155,962	147,004	8,958	598,357	95,623	502,733	363,054	139,679	77,745	61,934
Mar.	514,157	84,039	430,118	260,848	169,270	160,036	9,234	587,301	93,526	493,775	344,109	149,666	86,747	62,919
Apr.	512,086	81,509	430,577	264,317	166,260	156,999	9,261	585,927	99,501	486,426	340,113	146,313	83,923	62,390
May	508,526	78,377	430,148	267,567	162,582	153,502	9,080	579,679	95,680	483,998	341,621	142,378	80,407	61,971
June	527,989	77,780	450,209	277,442	172,768	163,560	9,208	590,724	90,354	500,370	348,367	152,003	87,987	64,016
July	524,973	72,870	452,103	282,075	170,028	160,922	9,106	598,529	102,449	496,080	346,293	149,787	85,065	64,722

* 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

9. 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
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
2020	1.6549	1.5300	7.8747	7.4542	121.85	10.7228	10.4848	1.0705	0.88970	1.1422
2020 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
Oct.	1.6521	1.5559	7.9225	7.4424	123.89	10.9220	10.3967	1.0739	0.90741	1.1775
Nov.	1.6266	1.5472	7.8152	7.4459	123.61	10.7453	10.2311	1.0785	0.89605	1.1838
Dec.	1.6166	1.5595	7.9602	7.4412	126.28	10.6008	10.1736	1.0814	0.90624	1.2170
2021 Jan.	1.5764	1.5494	7.8730	7.4387	126.31	10.3661	10.0952	1.0794	0.89267	1.2171
Feb.	1.5605	1.5354	7.8136	7.4367	127.49	10.2791	10.0887	1.0858	0.87268	1.2098
Mar.	1.5444	1.4970	7.7465	7.4363	129.38	10.1469	10.1692	1.1065	0.85873	1.1899
Apr.	1.5544	1.4975	7.8051	7.4367	130.49	10.0376	10.1620	1.1031	0.86527	1.1979
May	1.5653	1.4732	7.8109	7.4362	132.57	10.0931	10.1471	1.0968	0.86258	1.2146
June	1.5761	1.4713	7.7391	7.4364	132.63	10.1444	10.1172	1.0940	0.85872	1.2047
July	1.5926	1.4806	7.6536	7.4373	130.35	10.3767	10.1979	1.0856	0.85613	1.1822
Aug.	1.6118	1.4827	7.6237	7.4369	129.28	10.4195	10.2157	1.0762	0.85287	1.1772

* 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.

10. 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

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

Q1 1999 = 100

Period	Effective exchange rates 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	96.2	96.2	96.1	96.1	96.6	96.0	97.9	99.6	95.9	97.7	98.3	98.1	97.8
2000	87.1	86.8	86.1	85.5	88.1	86.1	91.9	97.4	85.5	91.1	93.1	92.3	91.2
2001	87.6	87.1	86.8	84.5	90.2	86.9	91.7	96.5	86.1	90.5	93.0	91.7	91.1
2002	89.8	90.2	89.9	88.0	94.5	90.5	92.4	95.6	88.5	91.1	93.5	92.2	91.9
2003	100.4	101.3	101.1	99.1	106.4	101.5	95.9	94.7	97.7	95.3	97.0	96.7	96.9
2004	104.2	105.2	104.1	102.3	110.9	105.3	96.2	93.5	100.1	95.6	98.5	98.2	98.5
2005	102.8	103.8	102.1	100.6	109.0	102.9	94.8	92.0	98.9	93.3	98.4	97.1	96.8
2006	102.8	103.8	101.5	99.5	109.1	102.2	93.6	90.3	98.3	91.6	98.6	96.7	96.1
2007	106.3	106.8	103.7	101.1	112.7	104.4	94.5	89.6	102.1	92.0	100.9	98.3	97.4
2008	110.1	109.7	105.9	104.9	117.4	106.9	94.9	88.3	105.2	91.3	102.4	98.4	97.6
2009	111.6	110.5	107.0	108.6	120.5	107.9	95.2	89.1	104.7	92.0	101.9	98.6	98.0
2010	104.4	102.8	98.8	100.9	111.9	99.0	92.6	88.7	98.3	88.2	98.8	94.3	92.6
2011	104.2	101.9	97.0	99.2	112.7	98.5	92.1	88.5	97.6	87.4	98.2	93.5	92.0
2012	98.5	96.7	91.4	93.5	107.5	93.7	90.1	88.4	92.5	84.8	95.9	90.5	89.0
2013	102.0	99.7	94.5	96.5	112.2	96.7	92.4	88.8	97.5	86.7	98.1	92.3	91.0
2014	102.3	99.1	94.4	96.5	114.5	97.1	92.9	89.6	97.7	87.4	98.2	92.5	91.6
2015	92.5	89.4	85.8	85.9	106.1	88.6	89.8	90.3	88.9	83.6	94.4	87.8	87.0
2016	95.2	91.4	88.1	p 87.1	110.1	90.6	90.7	90.7	90.4	85.0	95.0	88.8	88.2
2017	97.4	93.3	89.2	p 87.7	112.4	91.8	91.9	90.9	93.3	85.7	96.3	89.9	89.0
2018	99.9	95.5	90.6	p 89.2	117.3	94.9	93.1	91.0	96.2	86.7	97.7	91.2	90.9
2019	98.1	93.1	88.8	p 86.6	115.4	92.3	92.1	91.1	93.3	85.7	96.4	89.9	89.5
2020	99.6	93.4	p 89.2	p 87.5	119.4	93.8	92.1	91.3	93.1	86.2	96.4	90.1	90.3
2018 Sep.	100.2	95.8			119.1	96.2					97.7	91.5	91.8
Oct.	99.6	95.3			117.8	95.1					97.3	91.2	91.2
Nov.	99.1	94.7	90.0	p 88.4	116.8	94.3	92.8	91.2	95.0	86.5	97.3	91.1	90.9
Dec.	99.2	94.6			116.9	94.2					97.2	90.8	90.6
2019 Jan.	98.7	94.1			116.3	93.6					96.8	90.4	90.1
Feb.	98.3	93.6	89.0	p 87.1	115.6	92.9	92.1	90.8	94.0	85.7	96.5	90.0	89.5
Mar.	97.7	93.0			115.2	92.4					96.2	89.6	89.2
Apr.	97.6	92.8			115.0	92.2					96.5	89.8	89.4
May	98.1	93.2	88.7	p 86.7	115.7	92.6	92.2	91.1	93.7	85.7	96.7	90.2	89.8
June	98.7	93.7			116.2	93.0					96.8	90.3	89.9
July	98.3	93.2			115.3	92.2					96.7	90.1	89.5
Aug.	98.8	93.7	89.2	p 87.0	116.2	92.8	92.1	91.2	93.3	85.9	96.5	90.3	89.8
Sep.	98.1	92.9			115.3	92.0					96.2	90.0	89.4
Oct.	98.0	92.6			115.2	91.7					96.2	89.8	89.2
Nov.	97.4	92.0	88.5	p 85.8	114.6	91.1	91.8	91.3	92.4	85.6	95.9	89.4	88.8
Dec.	97.3	91.9			114.6	91.0					95.9	89.5	88.9
2020 Jan.	96.9	91.2			114.1	90.3					95.9	89.1	88.4
Feb.	96.2	90.5	88.0	p 86.7	113.5	89.7	91.7	91.5	91.8	85.5	95.5	88.7	88.1
Mar.	98.8	92.9			117.8	93.0					96.4	90.0	90.1
Apr.	98.1	92.5			117.5	93.0					96.2	90.1	90.3
May	98.3	92.5	88.6	p 87.5	117.5	92.8	91.4	91.3	91.4	85.9	96.3	90.2	90.3
June	99.7	93.8			119.1	93.9					97.0	90.8	90.9
July	100.4	94.4			120.3	94.8					96.0	90.0	90.3
Aug.	101.5	94.9	90.0	p 87.9	122.4	95.8	92.5	91.3	94.2	86.8	97.0	90.8	91.4
Sep.	101.5	94.8			122.4	95.7					96.9	90.7	91.2
Oct.	101.3	94.6			122.4	95.6					96.6	90.5	91.1
Nov.	100.6	94.1	p 90.2	p 87.8	121.6	95.0	92.6	91.0	94.9	86.5	96.5	90.1	90.6
Dec.	101.8	95.1			122.9	95.9					97.0	90.6	91.0
2021 Jan.	101.3	95.3			122.4	96.0					97.9	91.4	91.8
Feb.	100.6	94.5	p 89.8	p 87.5	121.5	95.2	93.3	91.8	95.4	87.0	97.9	91.2	91.5
Mar.	100.3	94.1			121.2	p 94.8					97.7	91.1	p 91.4
Apr.	100.6	94.2			121.9	p 95.1					98.0	91.3	p 91.8
May	100.8	94.3	...	...	122.3	p 95.2	p 93.0	p 91.4	95.4	p 86.5	98.1	91.4	p 91.9
June	100.2	93.7			121.5	p 94.5					97.9	91.1	p 91.5
July	99.7	p 93.5			120.8	p 94.2					p 97.7	p 91.0	p 91.4
Aug.	99.3	p 93.2	...	...	120.4	p 93.9	...	...	...	...	p 97.6	p 90.9	p 91.2

* 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 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 services. For more detailed information on methodology and weighting scale, see the website of the Deutsche Bundesbank (https://www.bundesbank.de/content/796162). **1** The 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 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

A list of the articles published in the period from 2010 to 2020 is available on the Bundesbank's website.

Monthly Report articles

November 2020
- The current economic situation in Germany

December 2020
- Outlook for the German economy for 2021 to 2023
- The informative value of national fiscal indicators in respect of debt at the European level
- Risk Reduction Act – the national implementation of the European banking package
- German enterprises' profitability and financing in 2019

January 2021
- The slowdown in euro area productivity growth
- Methodology and analytical options for the expanded statistics on banking groups' securities holdings
- The two-tier system for reserve remuneration and its impact on banks and financial markets

February 2021
- The current economic situation in Germany

March 2021
- German balance of payments in 2020
- A new European prudential framework for investment firms

April 2021
- The impact of monetary policy depending on the debt situation in the non-financial private sector: Evidence for the euro area
- Assessments and expectations of firms in the pandemic: findings from the Bundesbank Online Panel Firms
- Digital money: options for payments

May 2021
- The current economic situation in Germany

June 2021
- Outlook for the German economy for 2021 to 2023
- Government finances: Central bank bond purchases increase sensitivity to interest rate changes
- Federal debt: allocate premia on accruals basis in budgetary interest expenditure
- Local government finances: how cash advances can be limited and budget imbalances avoided

July 2021
- Cross-border corporate takeovers: the impact of internationalisation on enterprises in Germany
- Crypto tokens and decentralised financial applications
- Digital risks in the banking sector
- Macroprudential policy and growth-at-risk

August 2021
- The current economic situation in Germany

September 2021
- The Eurosystem's monetary policy strategy
- The impact of the Eurosystem's monetary policy on Bitcoin and other crypto tokens
- The performance of German credit institutions in 2020

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 2021[2]

2 Banking statistics, customer classification, January 2021[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°

15/2021
Contagious zombies

16/2021
Banks fearing the drought? Liquidity hoarding as a response to idiosyncratic interbank funding dry-ups

17/2021
Covid-19 and capital flows: The responses of investors to the responses of governments

18/2021
The effect of unemployment insurance benefits on (self-)employment: Two sides of the same coin?

19/2021
System-wide and banks' internal stress tests: Regulatory requirements and literature review

20/2021
The impact of borrower-based instruments on household vulnerability in Germany

21/2021
Lighting up the dark: Liquidity in the German corporate bond market

22/2021
Labor adjustment and productivity in the OECD

23/2021
German banks' behavior in the low interest rate environment

24/2021
Reversal interest rate and macroprudential policy

25/2021
Equity premium predictability over the business cycle

26/2021
The case for a positive euro area inflation target: Evidence from France, Germany and Italy

For footnotes, see p. 88•.

27/2021
Decomposing the yield curve with linear regressions and survey information

28/2021
Return differences between DAX ETFs and the benchmark DAX

29/2021
On the importance of fiscal space: Evidence from short sellers during the COVID-19 pandemic

30/2021
Better be careful: The replenishment of ABS backed by SME loans

31/2021
The leverage effect of bank disclosures

32/2021
Macroprudential policy and the sovereign-bank nexus in the euro area

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]

***** 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.