



# Monthly Report

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### Abbreviations and symbols

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 Data unknown, not to be published or not meaningful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

Discrepancies in the totals are due to rounding.

## ■ Commentaries

### ■ Economic conditions

#### Recovery probably began in second quarter

*Slight recovery probably began in second quarter*

German economic output is likely to have gone up slightly in the second quarter of 2023. Private consumption, having previously dropped sharply, appears to have stabilised. This was partly due to the fact that the labour market remained in good shape, wages rose sharply and price inflation did not continue to accelerate. The services sectors are also likely to have benefited from this. Furthermore, supply bottlenecks continued to ease. Together with the large backlog of orders, they prevented worse outcomes in industry and construction. Neither of these sectors was able to expand their output compared with the previous quarter. Declining foreign demand curbed industrial activity. Moreover, higher funding costs constrained domestic investment. They also continue to weigh considerably on demand for construction work. According to survey data provided by the ifo Institute, sentiment among businesses grew significantly gloomier in June. Industry, in particular, showed a distinct increase in pessimism. The economic recovery over the remainder of the year could therefore end up being somewhat more tentative than expected in the June projection.<sup>1</sup>

#### Industry relying on large order backlog

*Declining foreign demand curbing industrial activity; production is relying on large order backlog*

Seasonally adjusted industrial output rose slightly in May compared with the previous month's performance, which had been revised upward a little.<sup>2</sup> Averaged over April and May, it was roughly at the same level as the previous quarter. Industry is drawing on its still full order books, which it can process more quickly due to diminishing supply bottlenecks. The latter is indicated by ifo Institute and S&P Global survey

results. The automotive industry, in particular, benefited from this; according to data provided by the German Association of the Automotive Industry (VDA), which are available up to June, it expanded its output sharply in the second quarter. However, the trend decline in demand for industrial goods was a drag on industrial activity. Although industrial new orders rose sharply on the month in May, averaged over April and May they were considerably below the previous quarter's level. Demand for intermediate goods fell off particularly significantly. This is also likely to be one reason why output in the energy-intensive sectors, which are often at the front of the value chain, fell sharply, even though energy prices continued to decline.<sup>3</sup> Orders from abroad fell; this was a key factor behind the drop in demand. By contrast, orders received from Germany went back up distinctly. The increase in orders can be attributed, however, to individual industries in the capital goods sector – such as other transport equipment and the electronics sector – which are bucking the trend of muted domestic investment activity overall. On average across April and May, capital goods producers' total domestic sales were down slightly from the previous quarter after price adjustment.

#### Private consumption stabilised; service providers seeing growth

Private consumption is likely to have stabilised in the second quarter. The consumer climate index compiled by the market research institu-

*Private consumption appears to have stabilised*

<sup>1</sup> See Deutsche Bundesbank (2023a).

<sup>2</sup> Seasonal adjustment here and in the remainder of this text also includes adjustment for calendar variations, provided they can be verified and quantified.

<sup>3</sup> Energy-intensive sectors include the manufacture of chemicals and chemical products, the manufacture of basic metals, the manufacture of coke and refined petroleum products, the manufacture of other non-metallic mineral products and the manufacture of paper and paperboard.

## Economic conditions in Germany\*

Seasonally and calendar adjusted

Period	Orders received (volume); 2015 = 100			
	Industry			Main construction
	Total	of which:		
		Domestic	Foreign	
2022 Q3	104.9	97.4	110.5	107.9
Q4	101.4	97.2	104.7	106.8
2023 Q1	101.5	95.0	106.4	102.6
Mar.	95.2	91.4	98.0	104.3
Apr.	95.4	93.1	97.2	102.9
May	101.5	98.9	103.4	...
Period	Output; 2015 = 100			
	Industry			Construction
	Total	of which:		
		Intermediate goods	Capital goods	
2022 Q3	96.5	99.3	92.9	111.5
Q4	96.6	95.5	96.2	109.2
2023 Q1	98.2	97.4	98.3	115.0
Mar.	97.5	96.5	97.3	113.3
Apr.	98.0	96.1	97.8	114.1
May	98.2	95.6	99.1	113.7
Period	Foreign trade; € billion			Memo item: Current account balance in € billion
	Exports	Imports	Balance	
2022 Q3	401.97	391.54	10.43	26.30
Q4	400.45	369.86	30.60	47.50
2023 Q1	398.17	352.22	45.95	58.48
Mar.	129.34	114.30	15.05	18.19
Apr.	130.67	114.16	16.51	23.99
May	131.09	116.52	14.57	22.63
Period	Labour market			
	Employment	Vacancies <sup>1</sup>	Unemployment	Unemployment rate %
	Number in thousands			
2022 Q4	45,717	816	2,520	5.5
2023 Q1	45,858	802	2,529	5.5
Q2	...	773	2,587	5.6
Apr.	45,930	784	2,570	5.6
May	45,929	772	2,582	5.6
June	...	762	2,610	5.7
Period	Prices; 2015 = 100			
	Import prices	Producer prices of industrial products	Construction prices <sup>2</sup>	Harmonised consumer prices
2022 Q4	141.1	160.9	155.4	123.1
2023 Q1	132.6	152.8	159.7	124.3
Q2	...	...	161.0	125.6
Apr.	128.2	151.0	.	125.6
May	126.4	148.7	.	125.3
June	...	...	.	125.9

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

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tion GfK improved on average for the quarter. Income expectations, in particular, rose significantly. In the retail sector, price-adjusted sales were higher once again in May and, on average across April and May, were up markedly on the quarter. Households also spent considerably more on travel again. By contrast, they probably purchased significantly fewer cars, with private motor vehicle registrations in the second quarter well below the previous quarter's level, according to data provided by the German Association of the Automotive Industry. Service providers are likely to have benefited from the uptick in consumer activity. Their output rose markedly in April – the latest month for which data are available – compared with the previous quarter. According to ifo Institute surveys, service providers' business situation improved significantly in the second quarter.

## Labour market remains robust

The labour market has remained stable despite weak economic activity. However, the remarkable increase in employment in the preceding months – after eliminating seasonal fluctuations – came to a halt in May. This also applies to employment subject to social security contributions, for which data are available up to April. In most sectors – including manufacturing – the number of positions filled stagnated. In particular, fewer persons held jobs subject to social security contributions in trade, which was suffering from the spending restraint, and temporary agency work. Only in the health and social services sector, where cyclical fluctuations are irrelevant, was there any meaningful increase. According to the initial projection by the Federal Employment Agency, in April the use of short-time work for economic reasons remained at the slightly elevated level of the previous months. However, the number of notifications of short-time work is not indicative of any further cyclical deterioration in the labour market. In June, the ifo employment barometer remained largely at the subdued level

*Employment did not rise further in May from elevated level*

of the previous month and still does not herald any increase in employment in the months to come. By contrast, the relevant leading indicator of the Institute for Employment Research (IAB) declined, though it remained in positive territory. The number of vacancies reported to the Federal Employment Agency also decreased, but is still quite high.

*Unemployment significantly higher*

After adjustment for seasonal variations, registered unemployment rose significantly by 28,000 persons to 2.61 million in June. The unemployment rate went up by 0.1 percentage point to 5.7%. The increase affected both the number of unemployed persons claiming insurance benefits, which predominantly reflects the weak economy, and the number of persons receiving the basic welfare allowance. At the same time, total underemployment as defined by the Federal Employment Agency increased only marginally. In addition to the unemployed, that figure also includes participants in labour market policy measures and integration courses. Therefore, part of the increase in registered unemployment is likely to be due to those measures coming to an end. For example, many Ukrainian refugees – who arrived in the previous year – are currently completing their language and integration courses. In the coming months, both the sluggish economic recovery and the completion of measures are likely to push unemployment up further. At all events, the IAB unemployment barometer indicates a further rise in unemployment in the coming months.

## Energy and commodity prices did not fall further

*Energy and commodity prices did not fall further recently*

After declining significantly in the first half of the year, energy and commodity prices did not fall further in recent weeks. The price effects of the subdued outlook for global demand and tighter supply broadly balanced each other out. Brent crude oil currently costs US\$80 per barrel and thus even somewhat more than in May and June. Forward prices suggest certain dis-

counts, however. That said, a supply shortage as a result of the decision by Saudi Arabia and Russia to cut their exports in July and August could also drive prices up further. By contrast, the risks to price developments from global demand are likely to be tilted to the downside. European wholesale prices for natural gas have barely fallen of late and are currently at €27 per megawatt hour. Temporary, maintenance-related production losses in Norway were one of the factors which propped up prices.

Prices at the upstream stages of the economy continued to decline in seasonally adjusted terms in May, the latest month for which data are available. This is true of both imports and industrial goods on the domestic market. Both energy and non-energy imports continued to become cheaper. Unlike in the previous months, the decline in domestic producer prices was no longer attributable solely to energy prices. Prices of other goods also fell visibly for the first time in around three years. This means that import prices overall are now significantly below their previous year's level. Industrial producer prices were barely up on the year.

*Decline in prices at upstream stages of the economy*

## Inflation rate increased in June due to base effect

In June, the Harmonised Index of Consumer Prices (HICP) rose by a seasonally adjusted 0.5% on the month. The increase was thus not much lower than that recorded in most previous months. Although energy prices remained virtually unchanged and food prices increased less strongly, as had been the case previously, the prices of non-energy industrial goods and of services continued to display above average growth. Services prices even rose very sharply as a result of package holidays. The annual HICP rate rose distinctly from 6.3% to 6.8%.<sup>4</sup> However, the increase is solely because the

*Inflation rate higher again due to one-off effects*

<sup>4</sup> The national consumer price index (CPI) likewise increased from 6.1% to 6.4%.

introduction of the temporary “fuel rebate” and “€9 ticket” in June 2022 pushed down the benchmark for the current general price level, thus raising the year-on-year rate. The rate excluding energy and food rose even more sharply, from 5.1% to 6.1%, as the base effect stemming from the introduction of the “€9 ticket” one year earlier is even more prominent here. Excluding this effect, the core rate would be around the same as in the previous month. It therefore remained at an exceptionally high level.

*Inflation rates will still be shaped by one-off effects in the coming months*

The rate of inflation in Germany is likely to come back down in the next few months. For one thing, the recent decline in prices at the upstream stages will probably gradually be passed through to consumers. For another, the rollback of the “fuel rebate” and the “€9 ticket” in September 2022 will have an arithmetically dampening effect on the HICP rate in September 2023. On the other hand, core inflation (excluding energy and food) is set to remain very high over the summer months. Although the prices covered by this measure of inflation are currently no longer rising as sharply as before, a year-on-year comparison shows, however, that package holidays following the lifting of COVID-19 restrictions once again had a much higher weight. This means that the usual peak in prices for package holidays in the summer will be reflected in inflation much more strongly this year than last year.<sup>5</sup>

## ■ Public finances<sup>6</sup>

### Local government finances

Local governments (core budgets and off-budget entities) closed the first quarter of 2023 with a deficit, as is usual for the time of year. At €7½ billion, the deficit was €2½ billion higher than in the same quarter of 2022. Local governments financed €2½ billion of the deficit by taking on new debt, meaning that they covered the larger part using reserves.

*Deficit up at start of year and largely covered by reserves*

Revenue increased substantially on the year, by 7% (just under +€5 billion). At 7½%, growth in tax receipts was similarly strong (+€1½ billion). After deducting shares accruing to other government levels, receipts from local business tax – a large revenue item – went up only a little (+1%), however. By contrast, local government shares in income tax rose steeply, by 73% (+€1½ billion). This was attributable to a small number of federal states, whose higher-than-projected revenue in the previous year still had to be brought to account. Transfers from state government also saw a robust increase (+7½%, or €2¼ billion), among them primarily the general purpose grants, which, in many cases, are based on the federal states’ tax revenue growth. Receipts from fees went up by 9%. This is probably due largely to the fact that local governments have adjusted their fees in line with the strong cost increases caused by inflation.

*Strong revenue growth, not least from income tax, ...*

Total expenditure grew strongly, by 10% (just over +€7 billion). Social spending (+14%, or +€2¼ billion) played a particularly significant role in this. It saw broad-based growth in the categories of accommodation costs for recipients of the basic allowance, social assistance, assistance for young people and benefits for asylum seekers. The fact that refugees from Ukraine have also been eligible for benefits since last June has had an impact on the growth in spending on accommodation costs. In addition, there was a sharp increase in other operating expenditure (+10%) and fixed asset formation (+13%). This is likely to have reflected, in particular, the far higher prices. Spending on personnel, a particularly large expenditure item, rose by just under 5%. However, this was not yet impacted by the latest

*... exceeded by the sharp rise in expenditure*

<sup>5</sup> For information on the impact of weight changes on the inflation rate, see Deutsche Bundesbank (2023b).

<sup>6</sup> 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.



wage settlement, which only affects the cash balance from the second quarter onwards.

*Local government set to post deficit for year as a whole*

From today's perspective, local government is set to post a deficit for the year as a whole (2022: surplus of €2½ billion). According to the current tax estimate, local government tax revenue is growing at a substantially slower pace than in previous years. Expenditure is likely to rise much more sharply than revenue. In addition to high inflation, another burden is the wage settlement agreed in the spring, which includes remuneration adjustments that are high by historical standards. For example, the inflation compensation bonuses to be paid out by local governments this year are likely to amount to around €3 billion.

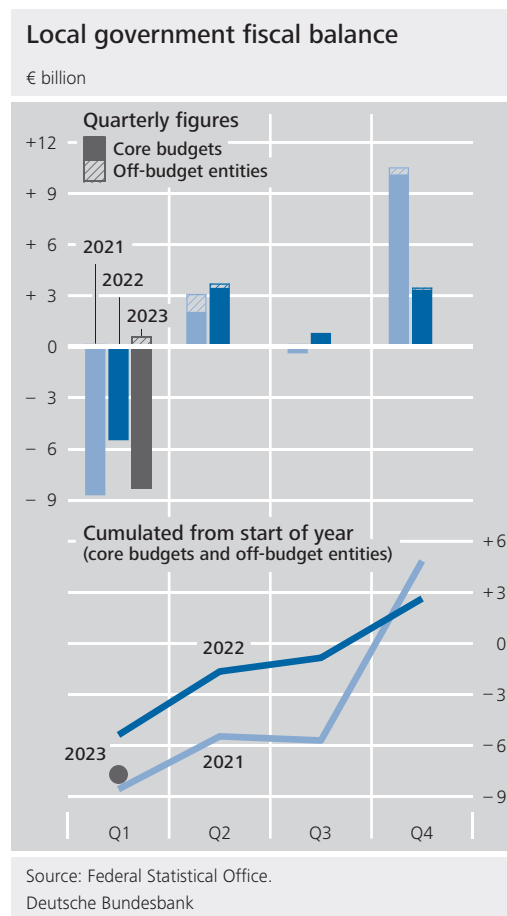
## Statutory health insurance scheme

*Higher deficit in Q1 2023 due to use of reserves prescribed by law*

The statutory health insurance (SHI) scheme (comprising the health insurance institutions and the health fund) recorded a deficit in the first quarter of 2023, as is usual for the time of year. At €4 billion, it was €1½ billion higher than at the start of 2022. Much like a year earlier, the deficit in the first quarter of 2023 was almost entirely attributable to the health fund. The main reason for this deterioration is that a larger deficit is planned for the health fund this year, involving the use of €6 billion from its reserves. By these means, Federal legislators wish to limit the increase in the average supplementary contribution rates. In addition, withdrawals from reserves are also planned at the level of the health insurance institutions: around €2½ billion are to be used to finance the expenditure of the SHI scheme.

*Central government grants for special burdens expiring, but robust growth in contribution receipts*

The revenue of the SHI scheme was down by 7% on the same quarter of the previous year, as central government payments to the health fund decreased. For example, central government reimbursed a substantially lower amount for coronavirus-related expenditure (-€8½ billion to €1 billion) and paid out less in the form



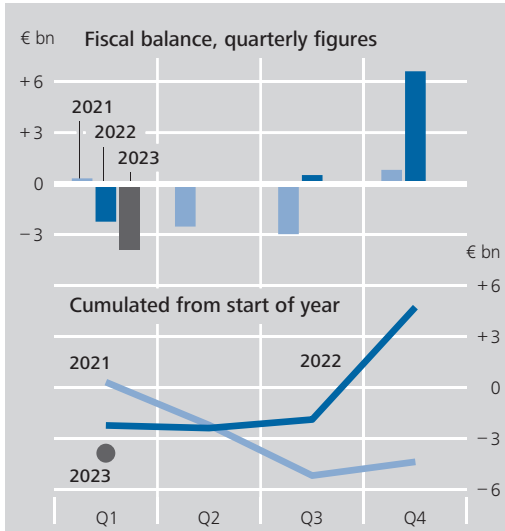
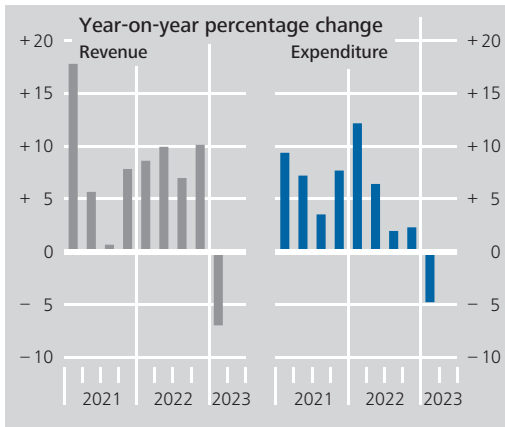
of specific funds to stabilise contributions (-€3 billion to €½ billion). By contrast, at €1½ billion, the special grant to offset higher energy costs paid by central government in the first quarter had less of an impact.<sup>7</sup> Contribution receipts continued to rise robustly (now by as much as 7%). After adjustment for the higher average supplementary contribution rate (+almost 0.2 percentage point to 1.5%), too, growth was strong (+6%). This was mainly due to increases in wages and salaries.

The expenditure of the SHI scheme fell by 5% compared with the start of 2022. The health fund spent €2½ billion on benefits relating to the pandemic and the energy crisis, which was €7 billion less than a year earlier. By contrast, the health insurance institutions' expenditure on benefits rose fairly robustly, at 5½%. Spend-

*Expenditure fell due to expiry of pandemic-related expenditure, while spending on benefits rose fairly robustly*

<sup>7</sup> For the year as a whole, central government will pay out €6 billion for this purpose, ultimately financed from the emergency borrowing of the Economic Stabilisation Fund for Energy Assistance (ESF-E).

### 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 quarterly figures as the latter are not revised.  
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ing on hospital treatment, a particularly large expenditure item, grew by 8%.<sup>8</sup> A major driving force behind this was the reimbursement of staff costs by the health insurance institutions. Spending on remedies and therapeutic appliances increased at a similarly strong rate to outlays on hospital treatment. At just under 3%, growth in expenditure on medical treatments and pharmaceuticals was far weaker. It seems that the increased discounts resulting from the Act on the Financial Stabilisation of the Statutory Health Insurance Scheme (*GKV-Finanzstabilisierungsgesetz*) had an impact on the latter. Administrative expenditure fell significantly, by just under €½ billion, as a health

insurance institution had formed large pension provisions a year earlier.

The SHI scheme was set to post an annual deficit of almost €10 billion. A total of €8½ billion of this amount is attributable to planned withdrawals from reserves by the health fund and the health insurance institutions. In addition, the health fund is to finance grants to the health insurance institutions of €1 billion using borrowed funds (from a central government loan). However, developments to date point to a much better result, especially for the health fund. As a positive base effect, the annual outturn for 2022 was significantly more favourable than expected in the planning for 2023. This was mainly thanks to contribution receipts being higher than projected. Their favourable development continued in the first quarter, and a sharper slowdown in growth does not appear likely at present. For the health insurance institutions, the trend is less clear. Their annual outturn for 2022 was also significantly better than expected. However, the health insurance institutions raised the supplementary contribution rates by less than had been assumed by the Federal Ministry of Health. In addition, expenditure on benefits grew somewhat more strongly at the beginning of the year than projected by the group of estimators.

*2023 as a whole: health fund deficit lower than planned*

### Public long-term care insurance scheme

The public long-term care insurance scheme posted a deficit of €½ billion in the first quarter of this year.<sup>9</sup> Compared with the first quarter of

<sup>8</sup> In the previous year, however, the health fund had paid out more extensive financial assistance to compensate for missed treatments due to the pandemic. Including these in the previous year and energy price subsidies in the current year, payments to hospitals were up by 1%.

<sup>9</sup> This refers to the core area, i.e. excluding the long-term care provident fund. Starting in 2015, this fund regularly received transfers from the core area corresponding to receipts of 0.1 percentage point of the contribution rate. Assets accumulated in this way are to be depleted in the 2030s to dampen the expected rise in the contribution rate.

*Deficit down at start of year: fewer pandemic burdens, higher central government grants and deferred payments to provident fund*

2022, it fell by €1½ billion. Relief came mainly from a decline in coronavirus-related expenditure and a rise in central government grants. In addition, the transfer to the long-term provident fund was deferred, which reduced the deficit in the core budget by €½ billion.

*High revenue growth from central government grants and contributions*

Revenue saw a very steep rise of almost 11%. This was due not least to the higher payments made by central government. At present, information is lacking on the extent to which this is due to advance payments for energy price subsidies from the ESF-E or to an early payment of the regular central government grant. Contribution receipts increased substantially, by 6%.

*Expenditure dampened by one-off effects, otherwise continued robust growth*

Expenditure fell slightly. In addition to the deferred transfers to the long-term care provident fund, the sharp decline in coronavirus-related spending had an easing effect. Regular expenditure on benefits saw continued robust growth of 8½%, which was significantly stronger than the rise in contributions. The fundamental financial position of the long-term care insurance scheme thus deteriorated further at the beginning of the year.

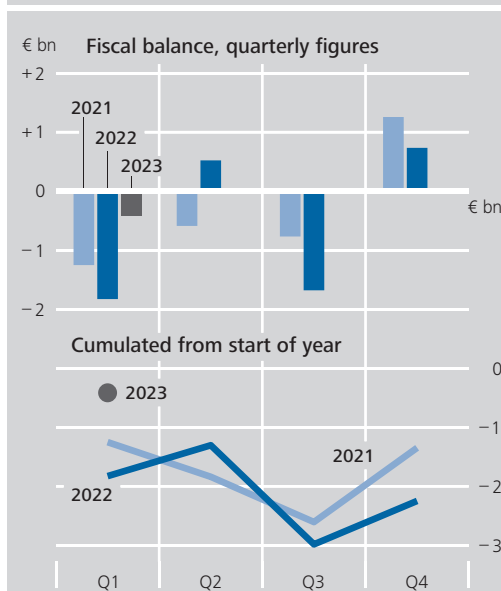
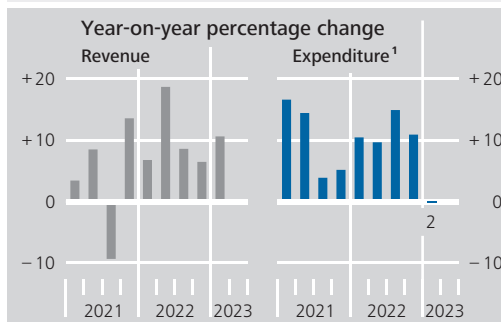
*Contribution rate rise in mid-2023 makes surplus likely for year as a whole*

The scheme's balance is likely to improve sharply for the year as a whole, with the deferral of payments to the long-term care provident fund until next year playing only a minor role in this. A more important factor is that legislators raised the contribution rate significantly on average at mid-year (staggered by the number of children). This step is set to generate additional revenue of €3 billion for the second half of the year alone.<sup>10</sup> The expiry of pandemic-related expenses will bring less relief, as central government had largely offset these burdens in the second half of 2022.

*New burdens from 2024 onwards, but surplus still possible initially*

The scheme's balance is likely to deteriorate again in the coming years. Key factors in this will be the benefit increases already approved, the continued transfers to fill up the long-term care provident fund, and demographic developments. Moreover, according to the draft central government budget for 2024, central

### 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 quarterly figures as the latter are not revised. <sup>1</sup> Including transfers to the long-term care provident fund. <sup>2</sup> The transfer to the long-term care provident fund (almost 3% of expenditure) has been deferred in 2023.  
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government is planning to eliminate the annual grant of €1 billion. On the other hand, central government intends to reduce payments to the long-term care provident fund in subsequent years. Even if these remain unchanged, however, a surplus still appears possible initially.

<sup>10</sup> The contribution rate has actually been lowered for insurees with a particularly large number of children. For more information on this subject and on other elements of the mid-year legislative amendment, see Deutsche Bundesbank (2023c), pp. 15 f.

## Sales and purchases of debt securities

€ billion

Item	2022	2023	
	May	Apr.	May
Sales of domestic debt securities <sup>1</sup>	23.9	- 4.4	34.0
of which:			
Bank debt securities	4.1	- 1.1	28.4
Public debt securities	14.9	- 0.1	2.4
Foreign debt securities <sup>2</sup>	- 1.8	12.5	15.7
Purchases			
Residents	24.1	12.3	12.7
Credit institutions <sup>3</sup>	5.5	- 0.7	1.2
Deutsche Bundesbank	14.4	- 13.3	- 1.7
Other sectors <sup>4</sup>	4.2	26.3	13.1
of which:			
Domestic debt securities	8.0	15.8	0.6
Non-residents <sup>2</sup>	- 2.0	- 4.2	37.0
Total sales/purchases	22.1	8.1	49.7

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.  
 Deutsche Bundesbank

debt securities and mortgage Pfandbriefe were also issued to a lesser extent (€4.9 billion and €2.2 billion, respectively).

In the reporting month, domestic enterprises increased their capital market debt by €3.2 billion net, following net redemptions in the same amount in April. On balance, issuance was almost exclusively attributable to other financial intermediaries (€2.9 billion).

*Net issuance by enterprises*

The public sector increased its bond market liabilities by €2.4 billion net in May, following weak net redemptions of €0.1 billion in the previous month. Central government predominantly issued two-year Federal Treasury notes (Schätze; €6.5 billion) and five-year Federal notes (Bobs; €4.8 billion). This contrasted with net redemptions of ten-year Federal securities (€10.3 billion) and Treasury discount paper (Bubills; €6.6 billion). On balance, state and local governments were only marginally active in the capital market.

*Public sector capital market debt up slightly*

Foreign investors were the strongest group of buyers in May, acquiring German debt securities totalling €37.0 billion net. Domestic non-banks expanded their bond portfolios by €13.1 billion net. The majority of these purchases involved foreign securities. Domestic credit institutions added bonds worth €1.2 billion net to their holdings, all of which were foreign assets, on balance. Holdings of bonds in the Bundesbank's portfolio decreased by €1.7 billion net. This was mainly because principal payments in May on securities purchased under the asset purchase programme (APP) were not fully reinvested – as has been the case since March 2023. At the end of June, the ECB Governing Council confirmed that it would not reinvest principal payments from the APP from July 2023 onwards. The relevant figures will first be published in the press release on the German capital market in July 2023.

*Purchases of debt securities*

## Securities markets

### Bond market

*High net issuance of debt securities in May 2023*

At €168.5 billion, gross issuance in the German bond market in May 2023 was up significantly on the previous month's figure (€127.9 billion). After deducting redemptions and taking account of changes in issuers' holdings of their own debt securities, the outstanding volume of domestic bonds increased by €34.0 billion. Foreign debt securities worth €15.7 billion net were placed in the German market. The outstanding volume of debt securities in Germany therefore rose by €49.7 billion on balance.

*Rise in credit institutions' capital market debt*

Credit institutions issued bonds totalling €28.4 billion net in May, following net redemptions of €1.1 billion in the previous month, with specialised credit institutions (including, for example, public promotional banks) leading the pack in issuing new bonds (€20.6 billion). Other bank

## Equity market

*Negligible net issuance of German equities*

In the month under review, new shares worth €0.6 billion were issued in the German equity market. The outstanding volume of foreign shares in the German market fell by €1.4 billion. On balance, domestic non-banks were the sole buyers of equities in May (€3.0 billion). Domestic credit institutions and foreign investors trimmed their share portfolios by €2.5 billion and €1.3 billion net, respectively.

## Mutual funds

*Low inflows to mutual funds*

Domestic mutual funds recorded net inflows of €6.3 billion in May (€1.1 billion in April). On balance, specialised funds reserved for institutional investors were the primary beneficiaries (€5.0 billion). Among the various asset classes, bond funds and mixed securities-based funds attracted the largest inflows (€2.9 billion and €1.9 billion, respectively), followed by equity funds (€0.9 billion) and open-end real estate funds (€0.6 billion). Foreign mutual funds active in the German market recorded inflows in the amount of €2.0 billion. Domestic non-banks proved to be the main buyers (€8.1 billion). Foreign investors acquired German mutual fund shares for €0.3 billion net, while domestic credit institutions were only marginally active in the market.

## German balance of payments in May 2023

*Very steep decline in current account surplus*

Germany's current account recorded a surplus of €8.9 billion in May 2023, down €13.4 billion on the previous month's level. This was because invisible current transactions, which comprise services as well as primary and secondary income, switched to a deficit. The surplus in the goods account remained virtually unchanged.

In the goods account, the surplus of €16.0 billion was nearly the same as the previous

## Major items of the balance of payments

€ billion

Item	2022		2023	
	May	Apr.	May	MayP
I. Current account	+ 3.6	+ 22.4	+ 8.9	
1. Goods	+ 11.1	+ 16.3	+ 16.0	
Receipts	134.0	120.5	128.8	
Expenditure	122.9	104.2	112.9	
Memo item:				
Foreign trade <sup>1</sup>	+ 4.9	+ 14.0	+ 13.4	
Exports	136.0	122.2	130.6	
Imports	131.1	108.2	117.2	
2. Services	- 2.0	- 3.3	- 5.7	
Receipts	32.7	30.4	30.1	
Expenditure	34.6	33.7	35.8	
3. Primary income	- 3.9	+ 14.5	- 1.3	
Receipts	25.1	29.8	30.2	
Expenditure	28.9	15.3	31.5	
4. Secondary income	- 1.6	- 5.1	- 0.1	
II. Capital account	- 2.7	- 0.6	- 2.0	
III. Financial account				
(increase: +)	+ 0.9	- 11.7	+ 10.8	
1. Direct investment	+ 16.6	+ 1.4	- 8.6	
Domestic investment				
abroad	+ 4.5	+ 8.6	- 7.0	
Foreign investment				
in the reporting country	- 12.1	+ 7.3	+ 1.6	
2. Portfolio investment	+ 6.1	+ 22.4	- 20.1	
Domestic investment				
in foreign securities	+ 3.8	+ 16.9	+ 15.7	
Shares <sup>2</sup>	+ 3.4	+ 2.2	- 2.0	
Investment fund shares <sup>3</sup>	+ 2.2	+ 2.2	+ 2.0	
Short-term debt securities <sup>4</sup>	- 1.0	+ 2.0	+ 0.6	
Long-term debt securities <sup>5</sup>	- 0.7	+ 10.5	+ 15.1	
Foreign investment				
in domestic securities	- 2.3	- 5.5	+ 35.8	
Shares <sup>2</sup>	- 0.7	- 1.3	- 1.4	
Investment fund shares	+ 0.4	+ 0.0	+ 0.3	
Short-term debt securities <sup>4</sup>	- 6.8	- 3.8	+ 13.9	
Long-term debt securities <sup>5</sup>	+ 4.8	- 0.4	+ 23.1	
3. Financial derivatives <sup>6</sup>	- 0.9	+ 5.3	+ 9.4	
4. Other investment <sup>7</sup>	- 21.1	- 40.8	+ 29.9	
Monetary financial institutions <sup>8</sup>	- 18.5	- 10.5	- 3.0	
of which:				
Short-term	- 11.2	- 7.7	+ 4.1	
Enterprises and households <sup>9</sup>	- 7.8	- 2.8	+ 9.6	
General government	- 4.0	- 3.3	- 2.2	
Bundesbank	+ 9.2	- 24.2	+ 25.5	
5. Reserve assets	+ 0.2	+ 0.1	+ 0.1	
IV. Errors and omissions <sup>10</sup>	- 0.0	- 33.4	+ 3.9	

<sup>1</sup> Special trade according to the official foreign trade statistics (source: Federal Statistical Office). <sup>2</sup> Including participation certificates. <sup>3</sup> Including reinvestment of earnings. <sup>4</sup> Short-term: original maturity of up to one year. <sup>5</sup> Long-term: original maturity of more than one year or unlimited. <sup>6</sup> Balance of transactions arising from options and financial futures contracts as well as employee stock options. <sup>7</sup> Includes, in particular, loans and trade credits as well as currency and deposits. <sup>8</sup> Excluding the Bundesbank. <sup>9</sup> Includes the following sectors: financial corporations (excluding monetary financial institutions) as well as non-financial corporations, households and non-profit institutions serving households. <sup>10</sup> 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

*Goods account surplus virtually unchanged*

month's figure of €16.3 billion because receipts expanded by almost as much as expenditure.

*Sharp decrease in invisible current transactions balance primarily due to dividend distributions*

Invisible current transactions saw the previous month's surplus of €6.1 billion switch to a deficit of €7.0 billion in May. This was due to the shift in primary income from net receipts of €14.5 billion to net expenditure of €1.3 billion, largely as a result of higher dividend payments to non-residents for portfolio investment. In addition, the deficit in the services account widened by €2.3 billion to €5.7 billion mainly because of the typical increase in travel expenditure at this time of year. The deficit in the secondary income account, meanwhile, narrowed from €5.1 billion to just €0.1 billion. This was due, in particular, to the increased general government tax revenue from non-residents owing to the higher dividend payments on their portfolio investment.

*Inflows in portfolio investment*

In May, a brighter economic outlook in the United States and persistently high inflation rates shaped conditions in financial markets. Germany's cross-border portfolio investment recorded net capital imports of €20.1 billion (April: net capital exports of €22.4 billion), with non-resident investors increased their holdings of German securities by €35.8 billion. They purchased bonds (€23.1 billion), money market paper (€13.9 billion) and a small amount of mutual fund shares (€0.3 billion), and offloaded shares worth €1.4 billion. German investors were active abroad, too, acquiring securities there to the tune of €15.7 billion. On balance, they added bonds (€15.1 billion), mutual fund shares (€2.0 billion) and money market paper (€0.6 billion) to their portfolios, but disposed of shares (€2.0 billion).

In May, transactions in financial derivatives resulted in outflows of €9.4 billion (April: outflows of €5.3 billion).

Direct investment in May generated net capital imports of €8.6 billion (April: net capital exports of €1.4 billion). German enterprises lowered their foreign direct investment by €7.0 billion, particularly reducing their intra-group lending (€12.4 billion). Loans declined much more sharply than trade credits. In addition, domestic enterprises provided additional equity capital for their foreign affiliates (€5.5 billion). Non-resident enterprises, meanwhile, added €1.6 billion to their direct investment in Germany, and increased their intra-group lending to German affiliates by €2.6 billion. They expanded their loans on balance but lowered the volume of trade credits granted. Moreover, non-resident group parents withdrew equity capital of €1.0 billion from domestic enterprises.

Other statistically recorded investment – which comprises loans and trade credits (where these do not constitute direct investment), bank deposits and other investments – registered net capital exports on balance amounting to €29.9 billion in May (April: net capital imports of €40.8 billion). Net external claims of monetary financial institutions excluding the Bundesbank declined by €3.0 billion while those of the Bundesbank rose by €25.5 billion; TARGET claims on the ECB remained virtually unchanged. At the same time, however, deposits with the Bundesbank, which are held mainly by non-euro area residents, fell significantly. Enterprises and households recorded net capital exports (€9.6 billion) and general government net capital imports (€2.2 billion).

The Bundesbank's reserve assets rose – at transaction values – by €0.1 billion in May.

*Direct investment generates net capital imports*

*Net capital exports in other investment*

*Reserve assets*

## ■ List of references

Deutsche Bundesbank (2023a), Arduous recovery amid high and only gradually easing inflation – outlook for the German economy up to 2025, Monthly Report, June 2023, pp. 13-37.

Deutsche Bundesbank (2023b), Impact of the new HICP/CPI weights on inflation developments in Germany, Monthly Report, March 2023, pp. 8-11.

Deutsche Bundesbank (2023c), Commentaries, Monthly Report, March 2023, pp. 5-20.





## Digital money: options for the financial industry

*Financial institutions and financial market infrastructures have to keep responding to new technological developments, new regulations and changing customer requirements. In recent years, innovations in transaction and settlement technology and new forms of money have been the main subject of discussion in this area. The following article explores the options available to the financial industry when it comes to using digital transaction technologies for payment settlement. The financial industry is anticipating significant efficiency gains from the interplay of distributed ledger technology (DLT) and the digital representation of assets it enables (referred to as tokenisation), as well as digital money. In particular, the use of a common database by all participants and the automated settlement of processes by means of smart contracts make DLT of interest with regard to its potential applications in the financial industry and in the real economy alike. These uses include, in particular, the automated transfer of assets (such as securities) against payment and the secure settlement of cross-currency payments. However, in order to benefit from the full potential offered by DLT, it must be possible to integrate cash leg settlement into the relevant processes.*

*With this in mind, central bank digital currency (CBDC), tokenised deposits and stablecoins are being considered as the primary options when it comes to financial market and large-value transactions. However, it is questionable whether stablecoins will meet with broad acceptance for transactions in the financial sector, partly because of their governance structures and the quality of the collateral used to back them. Some banks are working on tokenised deposits, which take today's commercial bank money a technological step further on the basis of DLT. However, a host of legal and practical issues concerning such deposits are still unresolved. For this reason, many central banks around the world have turned their attention to wholesale CBDC, which is digital central bank money used by a restricted user group within the financial sector to settle DLT-based transactions. Central bank money also logically lends itself to the settlement of large-value (wholesale) transactions, as it avoids the risk of default entailed by the use of commercial bank money. Moreover, it is the task of the central banks to promote the smooth operation of payment systems. Used in this context, wholesale CBDC would be a way of tokenising the cash leg of a transaction, facilitating direct use in DLT networks. However, this could have negative implications for the implementation of monetary policy or banks' liquidity management, for example. Alternatively, interoperability solutions would afford the opportunity to combine the advantages of DLT networks with settlement processes in existing payment systems. The benefits of digital money could be reaped with little risk and without an unreasonable amount of effort via interfaces with the settlement systems already available or by utilising trigger solutions.*

*In any case, close coordination and cooperation among market players, banks and central banks is indispensable for further developments in this area in order to prevent fragmentation and stand-alone solutions being developed in the future digital money ecosystem.*

## New settlement technologies in the financial sector

*New technologies like DLT spark debate about provision of digital money in the financial sector*

The current discussions about digital money are mainly focused on CBDC being offered as a complement to cash. Also referred to as retail CBDC, this central bank money, which can be used by the general public in retail payments at the point of sale or online, for instance, is currently being explored by the Eurosystem as part of its digital euro project. At the same time, there is an increasing interest in new settlement technologies, especially DLT. In the past, the Bundesbank has, on multiple occasions, reported on the possible design of a CBDC and its implications for payments and securities settlement.<sup>1</sup> In the meantime, various central banks and credit institutions have continued their deliberations on how, for example, tokenised assets<sup>2</sup> can be settled in cash. In addition, the regulatory environment has evolved – it has become possible to issue electronic securities in Germany, for example, and regulation of the crypto sector is being introduced in the European Union.

*Central banks promote development of efficient and market-oriented settlement infrastructures*

This article focuses on the use of digital money in the financial sector, particularly in the area of large-value payments (wholesale transactions). The financial industry is anticipating significant efficiency gains from the interplay of DLT, tokenised assets and digital money. Furthermore, it is the task of the central banks to promote the smooth operation of payment systems. However, owing to substantial scale and network effects, financial market infrastructures demonstrate a high degree of persistence, even when superior solutions have become available. Innovations may thus be delayed or prevented as high initial investment outlays, coupled with the fact that advantages can often be only vaguely quantified, impede switchover. It is therefore also the task of central banks to promote the further development of the infrastructures that they are usually responsible for operating or supervising. Moreover, unclear or unsuitable legal or regulatory frameworks may hinder the necessary innovations.<sup>3</sup>

## DLT use cases in the financial sector

DLT can be described as a settlement technology for transactions of digital assets. A distributed ledger is used to collect and store transaction data, allowing for the transfer of digital or digitally represented assets.<sup>4</sup> The innovative nature of the technology is essentially reflected by two characteristics. First, common decentralised databases reduce reconciliation problems between participants that would otherwise have to be solved using complicated reconciliation chains, sometimes with several intermediaries or systems being involved. Second, the use of smart contracts<sup>5</sup> enables the automated monitoring of contractually agreed terms and execution of such contracts. This could potentially simplify complex business cases. Traditionally, the settlement of a transaction comprises a sequence of steps, which also include, first, verifying mutual claims and liabilities (clearing), and, second, carrying out the actual transaction (settlement), particularly where multiple banks are involved. Such transactions require an appropriate settlement infrastructure, within which trusted intermediaries minimise the risks along the process chain and allow the transaction to be settled. By contrast, within a DLT network, clearing and settlement can take place on the same platform, in fully automated form, directly and without delay – without intermediaries, in other words. Smart contracts ensure that the transaction is only settled with final effect if – and only if – all contractual con-

*Automation and ease of reconciliation drive DLT's potential for financial industry use cases*

<sup>1</sup> For details on retail CBDC, see Deutsche Bundesbank (2021a). Finer aspects of the argumentation pertaining to the role of DLT in this article are discussed in Deutsche Bundesbank (2017). For details on tokenisation, see Deutsche Bundesbank (2019). For information on decentralised finance, see Deutsche Bundesbank (2021b).

<sup>2</sup> Tokens are digital units of value which can be transferred across a DLT environment and can perform various functions in a network, such as digitally representing a physical asset.

<sup>3</sup> See Droll and Minto (2022).

<sup>4</sup> See Deutsche Bundesbank (2017).

<sup>5</sup> Smart contracts are programmed algorithms that automate the performance of contractual rights by verifying and then autonomously executing actions in the DLT.

ditions are met. This principle of atomicity<sup>6</sup> guarantees security and efficiency in the settlement process and minimises risks simply by virtue of the technology.

*Potential for use, especially in the area of financial market infrastructures*

From a conceptual perspective, this feature makes DLT attractive with regard to implementation in many areas of the financial sector. DLT is generally suited to use cases in which assets are exchanged against each other and where counterparty risk exists between the contractual parties. It has particularly great potential for use in the area of financial market infrastructures, which include payment systems, securities settlement systems, trade repositories and securities depositories, as the basic principles of delivery-versus-payment and payment-versus-payment can be specified and carried out on the basis of DLT.<sup>7</sup> Delivery-versus-payment means that asset transfer occurs if – and only if – the transfer of the corresponding payment has been completed. In a DLT-based infrastructure, settlement processes could virtually be carried out in real time (T+0), as it would be possible to transfer and settle tokenised assets in real time. In addition, the upstream and downstream settlement processes would effectively be integrated into the transaction process. Overall, this would then reduce counterparty risks and operational complexity as well as facilitating liquidity management. In principle, the legal nature of the underlying assets is immaterial. This means that even non-financial assets such as real estate can be tokenised. In Germany, legislators have already laid the legal foundations for permitting the issuance of DLT-based securities in the form of the Act on Electronic Securities (*Gesetz über elektronische Wertpapiere*). The regulatory framework paves the way for post-trade and management processes throughout the life cycle of DLT-based securities.

*DLT could lead to improvements in cross-border payments*

In the case of cross-border and cross-currency payments, the payment-against-payment principle can be used to ensure that the final transfer of a payment amount denominated in a certain currency takes place if – and only if – a

simultaneous payment is made in the other currency. Applying this principle shortens intermediation chains, lowers costs and speeds up transaction processes. It is precisely these kinds of payments that show particular room for improvement in terms of efficiency and security: owing to outdated systems, limited opening hours and long transaction chains, international transactions are relatively slow, expensive and opaque.<sup>8</sup> In addition to the complexities involved in managing liquidity in foreign currencies, the lack of harmonisation and standardisation across different jurisdictions has so far proved a stumbling block for initiatives aimed at simplifying operations. Improving cross-border and cross-currency payments is a complex issue that requires comprehensive solutions. DLT could be part of one such solution.

One example of a purely private project conducted by a payment service provider is Visa's B2B Connect, which is testing a DLT-based payment system for cross-border interbank payments.<sup>9</sup> The platform is intended to connect banks worldwide, thus preventing the formation of long correspondent banking chains. In principle, such platforms could be used not only to transmit payment messages, but also to directly integrate digital forms of money. Another example is Ripple. A DLT-based network that connects payment service providers with each other forms the basis of this infrastructure. Alongside recourse to bilateral credit relationships, transactions in the Ripple network can also be processed using the network-internal Ripple crypto token (XRP). Nevertheless, the use of XRP as a transaction medium entails exchange rate and counterparty risks. There is also uncertainty about the legal nature

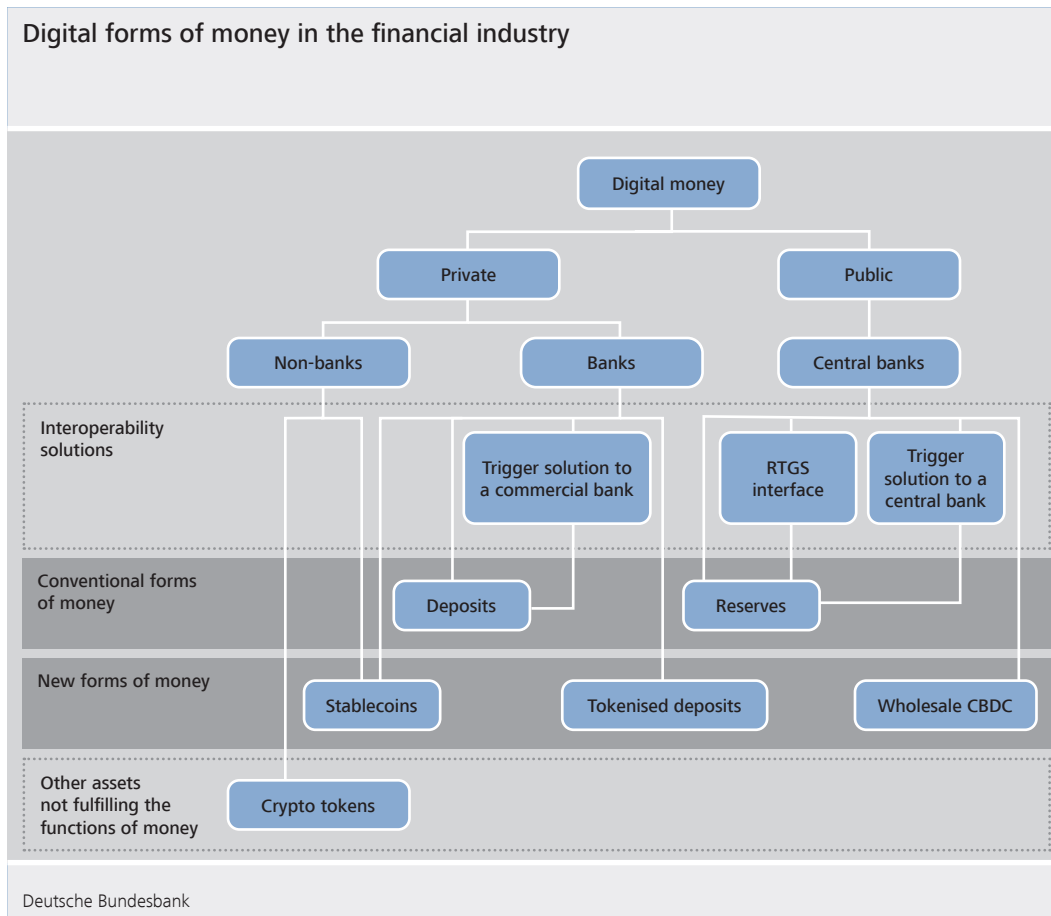
*Market participants are testing both DLT-based forms of money and DLT infrastructures*

<sup>6</sup> Atomicity is a principle in database systems which ensures that data-changing transactions, which mainly consist of a sequence of database operations, are either executed completely or are not executed at all.

<sup>7</sup> The work of the trade repositories, which also fall under the umbrella of financial market infrastructures, could be facilitated by the use of a single unrefuted database, too.

<sup>8</sup> See Deutsche Bundesbank (2022).

<sup>9</sup> See Visa (2019, 2023).



of XRP.<sup>10</sup> In addition to specific use cases, individual market participants are experimenting with setting up holistic DLT-based platforms that map out entire value chains. The viability of holistic platforms such as these depends on the private sector risk of the provider and requires high initial investment. Up to now, such platforms based purely on DLT have not been able to achieve a decisive breakthrough or demonstrate a definite advantage. This holds particularly true in terms of efficiency gains, cost savings and operational resilience.<sup>11</sup>

Overall, the adoption of DLT in the financial sector is coloured by the “chicken and egg” dilemma, which is unlikely to be resolved without cooperation and exchange. Current activities are chiefly focused solely on conceptual aspects, presumably because DLT technology can only be used once an efficient and market-ready solution for cash leg settlement is available. At the same time, credit institutions and central banks are likely to wait for real use

cases in the financial industry to emerge before developing appropriate payment and infrastructure solutions. In any case, an increasing prevalence of DLT applications with potentially high trading and transaction volumes requires appropriate cash leg settlement. The chart above categorises the various forms of digital money that could possibly be used for this purpose in the financial industry.

## Private sector settlement solutions

The current monetary and payments system is a two-tier arrangement in which central banks and commercial banks are responsible for pro-

<sup>10</sup> The US Securities and Exchange Commission (SEC), for example, has accused Ripple Labs of selling XRP in an unregistered securities offering. See US Securities and Exchange Commission (2020). This is currently the subject of an ongoing legal dispute.

<sup>11</sup> See Accenture (2022).

## The Regulated Liability Network

In essence, the Regulated Liability Network (RLN) is an interoperable network of commercial bank and central bank liabilities. The aim of the infrastructure is to improve national and international payments by using distributed ledger technology. The concept originates in the article entitled “The Regulated Internet of Value”, published by Citigroup in 2021.<sup>1</sup> Representatives from various industries came together in 2022 to publish a white paper fleshing out the idea of the RLN.<sup>2</sup>

In the RLN, the liabilities of central banks as well as regulated institutions, such as commercial banks and e-money institutions, are tokenised and stored in a common decentralised database. Using a harmonised technical platform aims to improve the efficiency of payments without jeopardising the two-tier banking system. With the RLN, central banks would be able to benefit from technological progress, but on the basis of a market-oriented approach.

The initiators of the RLN want to shift the focus of the debate on central bank digital currency (CBDC) to give commercial bank money and e-money a more prominent role. While discussions so far have often made a distinction between private and public forms of money, proponents of the RLN want to concentrate on distinguishing between regulated and unregulated forms of money. The main reasons for this change in tack are threefold: to avoid fragmentation in the monetary system resulting from the parallel development and use of CBDC, stablecoins and tokenised deposits; to preserve the two-tier banking system; and to distinguish unregulated forms of money, such as certain crypto tokens, from the regulated monetary system. At the same time, however, CBDC should not marginal-

ise the role of regulated commercial bank money.

The idea behind a RLN, i.e. an interplay of various tokenised forms of money on a common platform, has already been taken up on several occasions. The Bank for International Settlements (BIS) describes the idea of a common, programmable platform on which tokenised forms of money circulate as holding “great promise”. Instead of RLN, the BIS uses the term “unified ledger”<sup>3,4</sup> and stresses the importance of governance of a common platform, in which the central bank would have to play an important role. In a position paper, the German Banking Industry Committee advocates broadening the approach to the project to consider an ecosystem comprising retail CBDC, wholesale CBDC, trigger solutions and tokenised forms of commercial bank money.<sup>5</sup>

In November 2022, the Federal Reserve Bank of New York announced that it would conduct a 12-week research study on the feasibility of the RLN. One aim of this proof of concept, in cooperation with a number of major US banks as well as Mastercard and SWIFT, was to develop and test a RLN prototype. The project described the RLN as a “theoretical financial market infrastructure [that] provides a multi-asset, always-on, programmable infrastructure containing digital representations of central bank, commercial bank, and regulated non-bank issuer liabilities, denominated in US dollars”.<sup>6</sup> A final report on the feasibility study is still outstanding.

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<sup>1</sup> See Citigroup (2021).

<sup>2</sup> See The Regulated Liability Network (2022).

<sup>3</sup> See Carstens (2023) and Bank for International Settlements (2023).

<sup>4</sup> The XC platform proposed by the IMF is also based on similar considerations. See Adrian et al. (2022).

<sup>5</sup> See German Banking Industry Committee (2021).

<sup>6</sup> See Federal Reserve Bank of New York (2022).

*Private sector solutions enable cash leg settlement of DLT-based transactions*

viding central bank money and commercial bank money, respectively. This allocation of tasks helps to safeguard innovative drive in the private sector, amongst other things. This is reflected in, for example, the emergence of new private forms of money such as tokenised deposits and stablecoins, which generally enable cash leg settlement of DLT-based transactions. In principle, crypto tokens that are not deemed to be stablecoins could also be used for this purpose. However, owing to considerable fluctuations in value in the past, they do not satisfactorily perform the functions of money. Users also face uncertainties with regard to security and regulation. In this respect, it is rather unlikely that crypto tokens will be used for large-value payments.

*Tokenised deposits leave many questions unanswered*

Tokenised deposits<sup>12</sup> are an option that ties in closely with the existing delineation of roles in the current payments environment. Solutions developed by individual banks or groups of banks that could deliver efficiency gains in a specific set of applications are one possible innovation here. These could, for example, take the form of internal settlement systems or applications for certain customer segments. Tokenised deposits are often perceived by the banking industry as taking today's commercial bank money a technological step further on the basis of DLT. However, there are still many legal and practical issues to be addressed. Depending on the specific design of the tokens and the way in which they are transferred, they could be treated as 1) deposits, 2) e-money tokens within the meaning of the EU's Markets in Crypto-Assets Regulation (MiCA), or 3) tradable securities or another type of financial instrument as defined in Article 4(1) and Section C of Annex I to Directive 2014/65/EU (Markets in Financial Instruments Directive (MiFIDII)). Here, too, as is the case with traditional payment transactions, interbank clearing and settlement between the banks involved in the transaction is still necessary – using tokenised central bank money, for instance, as in the concept embodied by the Regulated Liability Network (see the box on p. 21). It is still un-

certain whether tokenised deposits would be covered by deposit insurance in the event that the issuing bank were to fail. It would also be necessary to ensure that the relevant anti-money laundering rules were implemented and that terrorist financing could be prevented.

Alternatively, DLT-based money can be issued in the form of stablecoins. Stablecoins can differ widely in terms of governance and the issuer's business model, as well as with regard to technical characteristics.<sup>13</sup> Unlike tokenised deposits, stablecoins do not necessarily have to be issued by banks and still represent a claim on the issuer when they are transferred from one user to another (bearer instrument) – at least under MiCA.<sup>14</sup> The respective holder's right to redemption is generally accompanied by the proviso that the stablecoin can, at least in principle, be purchased by anyone, regardless of whether they already have an existing business relationship with the issuer. For this purpose, stablecoins are usually backed by collateral.<sup>15</sup> This is intended to keep the value of the token stable against its reference value – a single currency, for example.<sup>16</sup> Funds received

*Stablecoins also beset by uncertainties although they are comprehensively regulated, at least within the EU*

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<sup>12</sup> In previous publications, the alternative term "tokenised commercial bank money" was used. The EU's Markets in Crypto-Assets Regulation (MiCA) explicitly excludes "deposits" within the meaning of Directive 2014/49/EU from its definition of crypto-assets. In the absence of a universally-applied term, then, "tokenised deposits" is a more appropriate descriptor. MiCA is – by international standards – a relatively comprehensive regulation governing crypto-assets, including stablecoins. The regulation contains, for example, requirements relating to the issuance of crypto-assets. It governs the authorisation requirement necessary for issuers, regulates the supervision of issuers and contains provisions on capital adequacy and proper business organisation, amongst other things.

<sup>13</sup> In the EU, MiCA restricts the issuance of stablecoins referencing a single currency (e-money tokens) to banks and e-money institutions. Barely any comparable regulations exist outside of the EU to date.

<sup>14</sup> See Bank for International Settlements (2023).

<sup>15</sup> Owing to the wide range of design options, it may be the case that the issuer limits the use of stablecoins to a certain group.

<sup>16</sup> MiCA divides stablecoins into two categories according to the type of reference asset to which they refer. The first, e-money tokens, refers to crypto-assets that maintain a stable value by referring to the value of an official currency. Meanwhile, asset-referenced tokens are, according to MiCA, crypto-assets that are not e-money tokens and that maintain a stable value by referencing another value or right or a combination thereof, including one or more official currencies.



by customers in exchange for stablecoins are to be invested in safe and liquid assets and kept separate from other investments.<sup>17</sup>

Banks can issue e-money tokens – in other words, stablecoins, the value of which is pegged to a single government-issued currency – even without a reserve set up for this specific purpose. However, it is questionable whether an individual issuer’s token would be widely accepted and used. Alternatively, banks could come together to form a consortium and set up a special-purpose vehicle (SPV) that issues a token on their behalf (provided that this vehicle fulfils the relevant regulatory requirements). However, this would pose challenges with regard to how the SPV is governed, for example.<sup>18</sup> At the same time, the quality of collateral would play an important role, especially for use in large-value payments. Collateralising the issued tokens with central bank money could completely eliminate counterparty risk.<sup>19</sup> However, this scenario presupposes that the central bank is willing to set up appropriate trust accounts for this purpose – an option that the Eurosystem currently does not permit.<sup>20</sup> Under the DLT pilot regime (Regulation (EU) 2022/858), commercial bank money in tokenised form and stablecoins may be used in DLT settlement systems, where settlement in central bank money is not practical and available.

## Settlement in central bank money

Central bank money is the safest and most liquid form of money. Its importance is key in the monetary system in general and in payments in particular.<sup>21</sup> In countries that pursue a stability-oriented monetary policy, central bank money constitutes the sole and ultimate value basis for all relevant forms of money. Central bank money in the form of cash is used primarily as a means of payment and store of value in daily life. However, the importance of cashless payments in the retail segment is growing in

most developed countries.<sup>22</sup> Commercial bank money plays a dominant role in this context. This is a claim on a commercial bank, but is closely linked to central bank money. Commercial bank money is denominated at par with central bank money. A depositor can withdraw deposits in commercial bank money from a bank and receive central bank money in the form of cash in return.

Central bank money, which is primarily held by credit institutions (reserves), is used to settle large-value payments. Banks and other financial market players that hold an account with the central bank can settle critically important large-value interbank payments or capital market transactions in central bank money. In 2022, the Eurosystem’s large-value payment system, TARGET2, processed around 400,000 payments each business day with a total value of €2.2 trillion, resulting in an average transaction value of €5.5 million.<sup>23</sup> By comparison, the average transaction value of a payment settled via a retail payment system in the euro area is around €822.<sup>24</sup> The use of central bank money reduces risks in the financial system, promotes financial stability, facilitates monetary policy and ensures trust between market participants. As well as being entailed by central banks’ statutory mandate, the general requirement for settlement in central bank money is defined in particular in the Principles for Financial Market Infrastructures (PFMI).<sup>25</sup> These principles were drawn up by the Basel Committee on Payment

*Settlement of large-value payments in central bank money stabilises financial system*

*Central bank money is the value basis for all relevant forms of money*

<sup>17</sup> Examples of collateralised stablecoins issued by banks are Société Générale’s EUR CoinVertible (EURCV) and National Australia Bank’s AUDN, although they were both issued before MiCA came into force. See Société Générale (2023) and National Australia Bank (2023).

<sup>18</sup> See Swiss Bankers Association (2023).

<sup>19</sup> See Deutsche Bundesbank (2021a).

<sup>20</sup> See European Central Bank (2022a).

<sup>21</sup> See Diehl and Drott (2023).

<sup>22</sup> See Glowka et al. (2023).

<sup>23</sup> See European Central Bank (2023a).

<sup>24</sup> See European Central Bank (2022b).

<sup>25</sup> Principle 9 of the PFMI requires all systemically important financial market infrastructures (FMI) to conduct settlements in central bank money where practical and available. See Committee on Payment and Settlement Systems and International Organization of Securities Commissions (2012).

and Settlement Systems (CPSS) and the International Organization of Securities Commissions (IOSCO). The goal of these principles is to improve the stability and resilience of financial market infrastructures.

*Central banks keep settlement infrastructures fit for purpose*

New technological developments – such as the digitalisation of money we are currently witnessing – and the associated changes in user demands, mean that settlement in central bank money needs to be reviewed on a permanent basis to check that it is fit for purpose. Central banks are responsible for ensuring that central bank money is able to retain its stabilising function and that it is not replaced to a significant degree by private forms of money for large-value payments. If new technologies such as DLT become market-ready and achieve market penetration, it must be ensured that central bank money can also be used for these new types of settlement. Central banks are caught in a conflict between innovation and stability. The legal mandate necessitates a particularly high degree of care with regard to the stability and functioning of the financial system as a whole. Innovations or functional advancements in the settlement infrastructure should therefore certainly not be at the expense of the stability, security and universality of central bank money. At the same time, they may be necessary to prevent the significance of central bank money from being eroded – a risk posed by settlement structures no longer being in line with market requirements.

*“Vision 2020” projects strengthening Eurosystem’s market infrastructure*

The commitment to secure, stable and efficient settlement infrastructures for central bank money is reflected in ongoing modernisation measures. For instance, the Eurosystem has launched a number of projects under the “Vision 2020” initiative to improve the Eurosystem’s market infrastructure and further deepen integration of the European financial market. Alongside TARGET Instant Payment Settlement (TIPS) for the settlement of real-time retail payments and the shared Eurosystem Collateral Management System (ECMS) platform, one particular example is the TARGET2/T2S consoli-

ation project, which was implemented when TARGET and the new T2 large-value payment settlement service went live on 20 March 2023. This has modernised the Eurosystem’s range of services offered in the area of large-value payments and securities settlement and has expanded it to include a central liquidity management system. In addition, greater use of common components leverages synergies and improves the automation of processes.

## Expanding the existing payment functionality

DLT and the real-time gross settlement (RTGS) systems provided by central banks that are usually used for large-value payments at the moment are not readily compatible. Today’s RTGS systems are based on a sequential transfer mechanism. Payment messages are submitted electronically by the participating banks and then processed individually. Autonomous execution of messages is limited to recurring payment instructions such as standing orders or liquidity transfers. This means that there is no straightforward way for payment messages that are automatically generated by DLT or smart contracts to be processed by RTGS systems. To integrate DLT-based transactions into the existing settlement infrastructure, central banks must make technical adaptations to those systems. The aim here is, on the one hand, to synchronise the existing RTGS functionality with DLT-based settlement and, on the other, to maintain the tried-and-tested functioning, security and efficiency of the RTGS system.

One such synchronisation option is using trigger solutions, which form a technical bridge for the monetary settlement between an external DLT network and an existing RTGS system. Information from the DLT network can be translated into RTGS-compatible payment messages and sent to the payment system via a corresponding link. The respective payment is then automatically initiated (triggered) and executed. Confirmation of the successful settle-

*Synchronisation of RTGS systems with DLT networks, ...*

*... be it with the help of trigger solutions ...*



ment of the payment is automatically sent to the DLT network, where the original transaction is then settled with finality through the delivery of securities, for instance. This mechanism requires an infrastructure that can operate between the DLT set-up and the RTGS system, making them compatible.<sup>26</sup> At the same time, the intermediary infrastructure performs the function of a trustee, steering the transaction process and ensuring the simultaneous settlement (atomicity) of the flow of goods and money in the two systems using the delivery-versus-payment principle. Technically speaking, the trustee function could be fully automated through the use of smart contract functionalities. But trigger solutions not only provide interoperability between RTGS systems and DLT networks – a technology-agnostic design can also be used to connect different DLT protocols and networks in order to enable settlement across multiple DLT networks. In practice, trigger or bridge solutions have already been successfully tested by the Bank of England in Project Meridian, the Banca d'Italia and the Bundesbank.<sup>27</sup>

*... or RTGS  
interfaces, ...*

Besides establishing a trigger solution, existing interfaces could be used to connect DLT systems to the RTGS system. In this kind of model, the DLT system acts as an ancillary system to the RTGS system, which settles the cash leg of the payments transmitted by the ancillary system. The central bank just provides an adapted communication interface for this purpose. Some central banks, such as the Swiss National Bank and the central banks of the Eurosystem, provide ancillary systems with access to their RTGS system via a corresponding interface, through which payment messages can be exchanged. As part of its RTGS Renewal Programme, the Bank of England has conducted various proof-of-concept studies on how DLT-based settlement models could be connected to the system, for example by using a simple application programming interface (API). RTGS interfaces function in a similar way to trigger solutions, but allow only a lesser degree of complexity, as the smart contract functional-

ities are only found within one single DLT system connected as an ancillary system and the settlement options are therefore limited to this system. Trigger solutions, meanwhile, provide a multilateral interface which, from a technical point of view, enables the settlement of complex transactions across several connected systems.

The advantage of trigger solutions and RTGS interfaces is that they can unlock the opportunities afforded by DLT-based settlement solutions without the need to compromise on security, stability and risk profile. Central bank money settlement would continue to take place in the established systems, and access to central bank money would remain restricted to professional market participants. Minor technical adjustments would allow existing payment systems to be expanded to include programmable payments without involving a huge amount of technical effort. The only natural limitation would be in the (current) functional scope of the payment systems, in terms of operating hours, for example. No new form of money would be needed, though; a suitable access point to the RTGS system would be the only requirement. At the same time, there would be no need to make adjustments to regulatory requirements, account management or users' liquidity management. If access to central bank money remained unchanged, possible implications for the implementation of monetary policy and financial stability would likely be easy to control and manage overall.

In addition to providing a technical bridge solution, the settlement of DLT-based transactions could also be realised by providing wholesale CBDC. The term wholesale CBDC is employed with various meanings, but in widely used definitions it refers to the settlement of DLT-based transactions in tokenised central bank money.<sup>28</sup> A wholesale CBDC token would be classified as

*... promotes  
innovation in  
settlement of  
central bank  
money without  
jeopardising  
security and  
stability*

*Wholesale CBDC  
would be a way  
of tokenising the  
cash leg, facili-  
tating direct  
use in DLT  
networks, ...*

<sup>26</sup> See Diehl and Drott (2023).

<sup>27</sup> See BIS Innovation Hub and Bank of England (2023), Banca d'Italia (2022) and Deutsche Bundesbank (2021a).

<sup>28</sup> See Bank for International Settlements (2018) and Diehl and Drott (2023).

## The Eurosystem's exploratory work on wholesale CBDC

In accordance with its legal mandate, the Eurosystem enables the settlement of large-value payments (wholesale transactions) in central bank money using efficient and reliable settlement and payment systems. For this reason, the Eurosystem is continuously modernising its existing TARGET Services in order to improve settlement infrastructures.

At the same time, it is closely monitoring recent market developments relating to the use of innovative technologies in the field of market infrastructures and securities settlement, in particular initiatives to implement distributed ledger technology (DLT) in this area. Against this backdrop, the Eurosystem will work with financial market players to test various technical solutions allowing the cash leg of financial market transactions on DLT platforms to be settled in central bank money. This exploratory work aims, first, to combine and develop the existing work of individual national central banks within the Eurosystem. This includes, in particular, the experiments on tokenised central bank money that the Banque de France has been conducting since 2020 as well as experiments by the Banca d'Italia and the Bundesbank on bridge and trigger solutions. Second, the Eurosystem is looking into how various solutions could be used to allow interaction between TARGET Services and DLT networks and what interrelationships this would entail. It is also analysing potential implications, for example with regard to governance aspects, settlement efficiency and banks' liquidity management. The work is to cover both transactions in test environments and transactions settled in "real" central bank money in live operations.

The aim of the exploratory phase is to gain insights into how support of DLT-based forms of settlement from a payment perspective might work, and the opportunities and risks it presents. Ultimately, the Eurosystem aims to ensure that large-value payments in the Eurosystem will continue to be settled in secure central bank money going forward to ensure the stability, integration and efficiency of the European financial system and payments system.<sup>1</sup> The Eurosystem has, with TARGET2-Securities, already made a significant contribution to integrating settlement infrastructures in the individual European countries; the objective is to prevent this progress from being put at risk again by a refragmentation as a result of innovative developments. The exploration phase therefore does not anticipate a potential Eurosystem policy stance, for instance in favour of introducing wholesale CBDC. At the same time, the exploratory work is distinct from the digital euro project, which deals with the potential issuance of a digital form of central bank money to the general public for retail payments, for example in the retail sector. The Eurosystem's analysis of the possible advantages and disadvantages of using DLT to settle large-value payments is supported by a newly established market contact group, which aims to promote dialogue and the exchange of information between industry and the Eurosystem.

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<sup>1</sup> See European Central Bank (2023b).

a new form of central bank money. This could be provided by the central bank on its own DLT network or on one operated by a third party to allow market participants to settle DLT-based transactions automatically by using smart contracts. In the case of an independently operated DLT system, there would be two main implementation options: (1) integrating tokenised assets into the central bank's DLT network or (2) operating a pure money and central bank-based DLT network that interacts with market-operated DLT networks via a corresponding mechanism. The option of using wholesale CBDC to transfer tokenised assets in return for tokenised money on DLT infrastructures using the principle of atomicity corresponds with the original idea of DLT. Alongside settlement being available around the clock without interruption (24/7), the consistent use of DLT could result in efficiency gains in settlement.

*... but is associated with potentially greater implications*

Many central banks around the world are looking into options for applying and implementing wholesale CBDC. The analysis of potential implications and risks, in particular, requires a prudent approach. From a central bank perspective, it is essential to ensure that appropriate governance rules are in place to guarantee continued control over central bank money. For issuance of tokenised central bank money on DLT networks operated by third parties, which is also theoretically possible, the central bank would have to be provided with ultimate control rights concerning the governance and operation of the private DLT infrastructure in order to be able to fulfil the responsibility it has over central bank money. The use of public DLT networks by central banks is likely to be ruled out for this reason alone, just like the use of networks in which the finality of payment settlement cannot be guaranteed. Even if weighing up the arguments made outsourcing central bank money to networks operated by third parties seem possible, reputational risks would, in any case, remain for the central bank if problems occurred. Furthermore, a token that represents central bank money can only be transferred to a single DLT platform and first requires

liquidity to be provided from the balance on the central bank account (pre-funding). Tying up part of a balance at the central bank in wholesale CBDC tokens in this way could make liquidity management more difficult for credit institutions and requires further analysis given the implications for the implementation of monetary policy.

## ■ Challenges and outlook

DLT and tokenised settlement are relatively new market segments and it is virtually impossible to tell how they will develop going forward. A large proportion of financial industry players are focusing on DLT as a settlement technology and expect an increase in the number of potential uses. However, many initiatives have not yet progressed further than the prototype stage. Given the lack of market-readiness and dearth of experience, there is still a need for fundamental analyses relating to software architecture, robustness and security. At the same time, the legal framework for a future market structure would have to continue to be adjusted accordingly. Important factors for the general acceptance of the technology will probably be that actual problems in the market can be solved and that the technology offers specific added value in terms of cost savings, efficiency gains or simpler processes for businesses. DLT is therefore not likely to be the only method of choice – especially as centralised infrastructures prove to be superior for many applications.

*New technologies should solve specific problems and not be an end in themselves*

If DLT applications are accepted and proliferate in the market, a growing number of solutions are likely to be developed to settle the cash leg of the respective use cases. Greater demand from the financial industry is likely to accelerate the development and use of digital money. New requirements call for new features that money should fulfil and, as a result, allow new forms of digital money to emerge. Generally speaking, when it comes to payment transactions, all actors have an interest in settling them

*Coexistence of several forms of digital money expected in future*

## Global trends around wholesale CBDC

Work on central bank digital currency (CBDC) is stepping up around the world. In its 2022 survey on CBDC, the Bank for International Settlements (BIS) identified more than 80 central banks engaged in CBDC-related endeavours. Most of these central banks have moved on from observation and have now entered phases of analysis and experimentation. According to the survey, three-quarters of the respondent central banks are conducting analyses of retail CBDC as well as looking into wholesale CBDC. So far, however, more progress has been made on retail CBDC. Interestingly, efforts regarding both retail and wholesale CBDC are more pronounced amongst emerging market and developing economies than advanced economies.<sup>1</sup>

Through its network of Innovation Hub Centres, the BIS is playing a particular role in coordinating various projects involving wholesale CBDC, focusing predominantly on the cross-border settlement of payments and securities transactions.<sup>2</sup> The mBridge<sup>3</sup> and Dunbar<sup>4</sup> projects are two practical examples of conceptual studies on joint multi-currency distributed ledger technology (DLT) platforms. DLT-based settlement of cross-border and cross-currency transactions aims to reduce transaction costs, settlement times and operational complexity. To this end, corresponding national or regional platforms could also be linked together.

Singapore, which traditionally sees itself as the financial and technological centre of the ASEAN countries (Association of South-east Asian Nations), has been undertaking concerted and systematic efforts towards utilising DLT for a number of years now. Through its experimental work encompassed by the Ubin project, the Monetary Authority of Singapore (MAS) has been investigating how Singapore's economy and competitiveness could be strengthened by

the creation of a settlement system for a tokenised Singapore dollar. In addition, the MAS is testing the possibility of using wholesale CBDC to enhance cross-border payments. Its work in this area includes, for example, experimental projects in collaboration with the Bank of Canada (Jasper-Ubin) and the Federal Reserve Bank of New York (Cedar x Ubin+).<sup>5</sup>

In October 2022, the Reserve Bank of India launched a pilot project aimed at improving secondary market transactions in government securities. The project involves testing the issuance, maturity and trade of digital government bonds as well as the cash-leg settlement of these bonds using wholesale CBDC. Future pilot projects are set to address cross-border payments.<sup>6</sup>

In Europe, the Swiss National Bank (SNB) has been especially active in feasibility studies, conducting its Project Helvetia to examine near-live systems for settling tokenised assets in central bank money on DLT networks.<sup>7</sup> As part of its "Swiss payments vision", the SNB is investigating three different approaches to settling token transactions: synchronisation of the settlement of tokenised securities with the SIC payment system (RTGS link), issuance of a Swiss franc wholesale CBDC directly on a DLT network, and approval of a privately issued token backed by central bank money that would be protected even if the issuer were to default.<sup>8</sup>

<sup>1</sup> See Kosse and Mattei (2023).

<sup>2</sup> For an overview of the BIS Innovation Hub's projects, see <https://www.bis.org/about/bisih/projects.htm?m=3102>

<sup>3</sup> See Bank for International Settlements (2021).

<sup>4</sup> See Bank for International Settlements (2022).

<sup>5</sup> See Monetary Authority of Singapore (2017, 2023) and Accenture (2019).

<sup>6</sup> See Reserve Bank of India (2022).

<sup>7</sup> See Bank for International Settlements, SIX Group and Swiss National Bank (2022).

<sup>8</sup> See Maechler and Moser (2023).

in safe, stable and regulated forms of money. Against this backdrop, it is essential that market players, credit institutions and central banks coordinate and collaborate with one another. Moreover, interoperability is likely to be crucial for any potential ecosystem of digital money to prevent stand-alone solutions being developed and guard against fragmentation in the payments space. With efforts being made in Europe towards greater consolidation of financial markets in the context of the European capital markets union, this is also an important aspect for the EU in particular. In principle, various solutions regarding the application of DLT in the financial sector are conceivable and could co-exist in parallel owing to the diversity of the use cases.

Nevertheless, these solutions are more likely to be used in retail payments. Tokenised deposits and stablecoins could in principle also be used for larger value payments if they prove technically suitable. To ensure interoperability, however, innovative infrastructures are required for settlement in central bank money, potentially also in the form of wholesale CBDC. Central bank money would thus continue to serve as a monetary anchor in order to ensure the fungibility of various digital forms of money. In any case, central bank money remains the number one choice for large-value payments. However, digital central bank money does not necessarily need to be provided directly on the DLT network for this purpose. Technical bridge solutions can facilitate interaction between digital networks and existing infrastructures. At the same time, trigger solutions represent a low-effort way to assess the actual need for DLT-based forms of settlement in the short term and – if necessary – to work on a long-term solution in parallel.

*Digital central bank money can serve as an anchor in a future digital ecosystem*

The fact that central banks are examining the possibilities of settling cash legs using DLT-based transactions in the financial industry by no means rules out the use of retail CBDC or other forms of private or digital money, such as e-money, tokenised deposits and stablecoins.

## ■ List of references

Accenture (2022), ASX CHESS Replacement Application Delivery Review, November 2022.

Accenture (2019), Jasper Ubin Design Paper: Enabling Cross-Border High Value Transfer Using Distributed Ledger Technologies, available at <https://www.mas.gov.sg/-/media/Jasper-Ubin-Design-Paper.pdf>

Adrian, T., F. Grinberg, T. Mancini Griffoli, R. M. Townsend and N. Zhang (2022), A Multi-Currency Exchange and Contracting Platform, IMF Working Paper, No 2022/17, available at <https://www.imf.org/en/Publications/WP/Issues/2022/11/04/A-Multi-Currency-Exchange-and-Contracting-Platform-525445>

Auer, R., G. Cornelli and J. Frost (2020), Rise of the central bank digital currencies: drivers, approaches and technologies, BIS Working Papers, No 880, available at <https://www.bis.org/publ/work880.pdf>

Banca d'Italia (2022), Integrating DLTs with market infrastructures: analysis and proof-of-concept for secure DvP between TIPS and DLT platforms, Markets, Infrastructures, Payment Systems, No 26.

Bank for International Settlements (2023), Annual Economic Report, June 2023, available at <https://www.bis.org/publ/arpdf/ar2023e.pdf>

Bank for International Settlements (2022), Project Dunbar – International settlements using multi-CBDCs, available at <https://www.bis.org/publ/othp47.pdf>

Bank for International settlements, SIX Group and Swiss National Bank (2022), Project Helvetia Phase II – Settling tokenised assets in wholesale CBDC, available at [https://www.snb.ch/en/mmr/reference/project\\_helvetia\\_phase\\_II\\_report/source/project\\_helvetia\\_phase\\_II\\_report.en.pdf](https://www.snb.ch/en/mmr/reference/project_helvetia_phase_II_report/source/project_helvetia_phase_II_report.en.pdf)

Bank for International Settlements (2021), Inthanon-LionRock to mBridge – Building a multi CBDC platform for international payments, available at <https://www.bis.org/publ/othp40.pdf>

Bank for International Settlements (2018), Central bank digital currencies, CPMI Papers, No 174.

BIS Innovation Hub and Bank of England (2023), Project Meridian: Simplifying transactions through innovation, April 2023, available at <https://www.bis.org/publ/othp63.pdf>

Carstens, A. (2023), Innovation and the future of the monetary system, speech delivered on 22 February 2023, available at <https://www.bis.org/speeches/sp230222.htm>

Citigroup (2021), The Regulated Internet of Value, Treasury and Trade Solutions, available at <https://icg.citi.com/rcs/icgPublic/storage/public/2031240-Regulated-Internet-Value.pdf>

Committee on Payment and Settlement Systems and International Organization of Securities Commissions (2012), Principles for financial market infrastructures, available at <https://www.bis.org/cpmi/publ/d101a.pdf>

Deutsche Bundesbank (2022), Cross-border interoperability of central bank digital currency, Monthly Report, July 2022, pp. 59-76.

Deutsche Bundesbank (2021a), Digital money: options for payments, Monthly Report, April 2021, pp. 57-75.

Deutsche Bundesbank (2021b), Crypto tokens and decentralised financial applications, Monthly Report, July 2021, pp. 31-48.

Deutsche Bundesbank (2019), Crypto tokens in payments and securities settlement, Monthly Report, July 2019, pp. 39-59.

Deutsche Bundesbank (2017), Distributed ledger technologies in payments and securities settlement: potential and risks, Monthly Report, September 2017, pp. 35-49.

German Banking Industry Committee (2021), Europe needs new money – an ecosystem of CBDC, tokenised commercial bank money and trigger solutions, July, 2021, available at [https://die-dk.de/media/files/20210625\\_DK\\_Ergebnisdokument\\_EN.pdf](https://die-dk.de/media/files/20210625_DK_Ergebnisdokument_EN.pdf)

Diehl, M. und C. Drott (2023), Empowering central bank money for a digital future, SUERF Policy Note, No 312, June 2023, available at [https://www.suerf.org/docx/f\\_7cac42a554f584ec539cc3c48064dc96\\_67927\\_suerf.pdf](https://www.suerf.org/docx/f_7cac42a554f584ec539cc3c48064dc96_67927_suerf.pdf)



Droll, T. and A. Minto (2022), Hare or Hedgehog? The Role of Law in Shaping Current Technological Trends in the Securities Post-trading System, Accounting, Economics, and Law: A Convivium.

European Central Bank (2023a), TARGET Annual Report 2022, available at <https://www.ecb.europa.eu/pub/targetar/html/ecb.targetar2022.en.html>

European Central Bank (2023b), Eurosystem to explore new technologies for wholesale central bank money settlement, press release of 28 April 2023, available at <https://www.ecb.europa.eu/press/pr/date/2023/html/ecb.pr230428~6a59f44e41.en.html>

European Central Bank (2022a), Policy on the use of prefunding by ancillary systems, available at [https://www.ecb.europa.eu/paym/target/target2/shared/pdf/Policy\\_prefunding\\_ancillary\\_systems.pdf](https://www.ecb.europa.eu/paym/target/target2/shared/pdf/Policy_prefunding_ancillary_systems.pdf)

European Central Bank (2022b), Payments statistics 2021, press release of 22 July 2022.

Federal Reserve Bank of New York (2022), Facilitating Wholesale Digital Asset Settlement, press release of 15 November 2022, available at <https://www.newyorkfed.org/aboutthefed/nyic/facilitating-wholesale-digital-asset-settlement>

Gowka, M., A. Kosse and R. Szemere (2023), Digital payments make gains but cash remains, CPMI Brief, No 1, January 2023, available at [https://www.bis.org/statistics/payment\\_stats/commentary2301.pdf](https://www.bis.org/statistics/payment_stats/commentary2301.pdf)

Kosse, A. and I. Mattei (2023), Making headway – Results of the 2022 BIS survey on central bank digital currencies and crypto, BIS Papers, No 136, available at <https://www.bis.org/publ/bppdf/bispap136.pdf>

Maechler, A. M. and T. Moser (2023), Swiss payments vision – an ecosystem for future-proof payments, Swiss National Bank, speech delivered on 30 March 2023, available at [https://www.snb.ch/de/mmr/speeches/id/ref\\_20230330\\_amrtmo/source/ref\\_20230330\\_amrtmo.de.pdf](https://www.snb.ch/de/mmr/speeches/id/ref_20230330_amrtmo/source/ref_20230330_amrtmo.de.pdf)

Monetary Authority of Singapore (2023), New York Fed and Monetary Authority of Singapore Publish Results of Joint Wholesale Cross-Border Payments Research Study, press release of 19 May 2023.

Monetary Authority of Singapore (2017), The future is here – Project Ubin: SGD on Distributed Ledger.

National Australia Bank (2023), NAB completes world-first with cross-border stablecoin transaction, available at <https://news.nab.com.au/news/nab-completes-world-first-with-cross-border-stablecoin-transaction>

Reserve Bank of India (2022), Concept Note on Central Bank Digital Currency, available at <https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/CONCEPTNOTEACB531172E0B4DFC9A6E506C2C24FFB6.PDF>

US Securities and Exchange Commission (2020), SEC Charges Ripple and Two Executives with Conducting \$1.3 Billion Unregistered Securities Offering, press release of 22 December 2020, available at <https://www.sec.gov/news/press-release/2020-338>

Société Générale Group (2023), EUR CoinVertible (EURCV) Stablecoin White Paper, Version 1.0, April 2023, available at [https://www.sgforge.com/wp-content/uploads/2023/04/SGF\\_Coinvertible\\_White-Paper-v1.0.pdf](https://www.sgforge.com/wp-content/uploads/2023/04/SGF_Coinvertible_White-Paper-v1.0.pdf)

Swiss Bankers Association (2023), The Deposit Token, New money for digital Switzerland, March 2023, available at [https://www.swissbanking.ch/\\_Resources/Persistent/9/4/1/1/941178de59b98030206fc15ac8c99012f65df30b/SBA\\_The\\_Deposit\\_Token\\_EN\\_2023.pdf](https://www.swissbanking.ch/_Resources/Persistent/9/4/1/1/941178de59b98030206fc15ac8c99012f65df30b/SBA_The_Deposit_Token_EN_2023.pdf)

The Regulated Liability Network (2022), Digital Sovereign Currency, white paper, available at <https://regulatedliabilitynetwork.org/wp-content/uploads/2022/11/The-Regulated-Liability-Network-Whitepaper.pdf>

Visa (2023), Visa B2B Connect, available at <https://developer.visa.com/capabilities/vba>

Visa (2019), Visa B2B Connect – A Network Solution for Global Large-Value Payments, available at <https://usa.review.visa.com/dam/VCOM/global/partner-with-us/documents/visa-b2b-connect-white-paper.pdf>



## Cross-border liquidity flows – the role of the banking system in the German balance of payments

*Germany is a large open economy in which a great many economic transactions are conducted with non-resident counterparties every day. These transactions are recorded in the balance of payments (b.o.p.). The bulk of them involve cross-border payment flows that are settled through the banking system and see liquidity being transferred from one country to another. Within the banking system, commercial banks and the central bank perform different, mutually supportive tasks. Viewed individually, transactions recorded in the b.o.p. can be traced back to specific decisions by the counterparties involved and come about for all kinds of reasons. Analysed as an aggregate, it is possible to identify domestic and external factors and conduct a systematic investigation into the main determinants of the direction and composition of net liquidity flows.*

*One major source of impetus for payment flows into and out of Germany since the turn of the millennium has been domestic and external economic activity. Another key factor was confidence or uncertainty in financial markets. And monetary policy, too, has left a lasting impression on the German banking system's cross-border liquidity flows that varied largely according to whether monetary policy in the euro area was generally tighter or looser than in other major currency areas.*

*The past two decades have also seen a change in how commercial and central banks settle cross-border capital flows and in the way they interact within the banking system. Those changes were reflected by the extent to which cross-border payments on aggregate were transacted primarily in the form of commercial banks' book money or as central bank money. The monetary policy measures in particular not only left their mark on the German banking system's other investment as a whole, but brought about a structural change as well in the resulting liquidity flows of the commercial banking system and the Bundesbank.*

*That holds true for the current phase of monetary policy tightening as well. It would be welcome if this phase also saw structural excess liquidity being scaled back to a point where the private interbank market can regain importance in the field of European payment transactions, thus enabling commercial banks to focus more strongly on their traditional task once again.*

## ■ Introduction

Germany's high degree of interconnectedness with the global economy is reflected in a large number of cross-border transactions. These transactions come about whenever goods are imported or exported, with every trip abroad, or when non-resident securities are purchased. Being interconnected internationally has become second nature for people living, working and doing business in Germany and many other countries. How accustomed to this situation people have become is thrown into particularly sharp relief when disruptions hit cross-border production and trade relations, worldwide supply chains or global capital markets. The coronavirus pandemic and Russia's war of aggression against Ukraine are prime examples of this phenomenon. The global financial crisis and the sovereign debt crisis that followed in some euro area countries affected cross-border relationships between many countries worldwide in a different way altogether, yet with a similarly strong impact.

*How have domestic and external developments affected Germany's cross-border transactions over the past two decades?*

Crises like those mentioned above impact particularly strongly and visibly on cross-border economic activity. Yet even in the absence of extreme crisis-like episodes, there are a great many determinants and decisions by agents that drive activity. The b.o.p. systematically records all transactions between residents and non-residents over a specific period of time based on the double-entry accounting system.

*How has the banking system ensured the necessary payments and the associated inflows and outflows of liquidity?*

The banking system – in other words, domestic monetary financial institutions (MFIs) including the central bank – provides the necessary payment services for all cross-border transactions.<sup>1</sup> That is, it enables the corresponding inflows and outflows of liquidity associated with the cross-border transactions. A liquidity inflow into Germany comes about when transactions posted as counterpart entries under other investment cause an increase in the euro-denominated deposits of residents with the German banking system or in the euro currency held by residents. In a liquidity outflow, these

deposits decline or the euro currency holdings of residents decrease.<sup>2</sup>

This raises two questions. First, how have different domestic and external developments influenced Germany's cross-border transactions and thus the corresponding inflow and outflow of liquidity? And second, how has the banking system ensured the payments needed for this over the past two decades?

## ■ The role of MFIs in a balance sheet context

A glance at the individual accounts within the b.o.p. can give an impression of the sheer magnitude and variety of Germany's cross-border relationships.

Put simply, the current account shows transactions in the real economy, the financial account financial ones.<sup>3</sup> Germany's current account last recorded a deficit in 2001 and has been generating surpluses – often very large ones by international standards – ever since. The current account surplus expressed relative to gross domestic product (GDP) reached its highest level to date in 2016, at 8.6%. The year 2022 saw the German current account surplus contract significantly, dropping to €162.3 billion, or 4.2% of nominal GDP, mainly on the back of rising prices for imported commodities and the associated deterioration in the terms of trade.

*Germany's current account posted large surpluses ...*

<sup>1</sup> In principle, residents can also hold an account with a non-resident bank, in which case it is possible for the payments associated with transactions to be settled outside the German banking system.

<sup>2</sup> The term "liquidity" is therefore used here not in the sense of the different monetary aggregates, such as M0, M1, M2 or M3, but with regard to the structure of the b.o.p.

<sup>3</sup> The current account and the financial account are the two most important accounts within the b.o.p. in terms of magnitude. Another account is the capital account, the balance of which has varied between a surplus of €6 billion and a deficit of €19 billion over the past 20 years. And then there is the errors and omissions item, which is derived residually as the balance of transactions not included elsewhere.

The current account shows cross-border transactions in goods and services, amongst other items. It is also where cross-border primary and secondary income is recorded. Primary income includes compensation of employees or investment income, for example, and secondary income transfers between resident and non-resident households. Trade in goods and investment income stood out in recent years on account of their substantial contribution to the large surpluses recorded in the German current account.

*... and the financial account high net capital exports*

While there were surpluses in the current account, there were correspondingly high net capital exports in the financial account. This means that claims on non-residents rose more strongly than liabilities to non-residents. The surplus in the German financial account came to €227.7 billion in 2022. The financial account is divided into five subaccounts for each type of external claim or liability: direct investment, portfolio investment, financial derivatives, reserve assets, and other investment. The other investment account shows, in particular, changes in loans and trade credits (other than those included under direct investment) as well as in holdings of currency and deposits with banks. Hence, this account records the banking sector's cross-border payment services mentioned at the beginning of this article. In the b.o.p., all MFIs established in Germany belong to the banking sector, including the Bundesbank.<sup>4</sup>

*Balance of payments shows all transactions with non-residents using the double-entry accounting system*

MFIs play a special role on account of the payment services they provide. This role is visible in the b.o.p. because all transactions with non-residents are systematically recorded according to the double-entry accounting system. Each transaction is booked twice, no matter whether it is a transaction in the current account or a financial transaction in portfolio investment, say. An entry is made first for the original transaction (an export of goods by an enterprise, for example); then, a second entry – the counterpart entry to the export of the goods – documents the payment received for the delivered

### Major items of the balance of payments – balances

€ billion

Item	2020	2021	2022
I. Current account	+ 240.2	+ 278.7	+ 162.3
1. Goods	+ 191.0	+ 194.4	+ 111.9
2. Services	+ 7.4	+ 4.8	- 30.8
of which:			
Travel	- 14.7	- 24.3	- 55.0
3. Primary income	+ 96.0	+ 138.5	+ 150.0
of which:			
Investment income	+ 94.2	+ 137.9	+ 152.9
4. Secondary income	- 54.2	- 59.0	- 68.8
II. Capital account	- 9.1	- 1.2	- 18.6
III. Financial account <sup>1</sup>	+ 191.5	+ 248.6	+ 227.7
1. Direct investment	- 4.9	+ 100.4	+ 125.3
2. Portfolio investment	+ 16.4	+ 203.5	+ 24.3
3. Financial derivatives <sup>2</sup>	+ 94.6	+ 60.2	+ 42.7
4. Other investment <sup>3</sup>	+ 85.4	- 147.4	+ 31.0
of which:			
Monetary financial institutions <sup>4</sup>	+ 19.4	- 151.8	+ 11.4
5. Reserve assets	- 0.1	+ 31.9	+ 4.4
IV. Errors and omissions <sup>5</sup>	- 39.6	- 29.0	+ 84.1

<sup>1</sup> Increase in net external position: + / decrease in net external position: -. <sup>2</sup> Balance of transactions arising from options and financial futures contracts as well as employee stock options. <sup>3</sup> Includes, in particular, loans and trade credits as well as currency and deposits. <sup>4</sup> Including the Bundesbank. <sup>5</sup> 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

goods via the enterprise's account with a bank in Germany (see the box on pp. 36 f.). The banking system performs the payment services in this regard for all the remaining sectors, which include enterprises, households and government. Unlike private commercial banks, the Bundesbank – being a central bank with a statutory mandate – cannot normally be used directly by households and enterprises as a provider of cashless transaction services. Even so, their payment orders can also flow through the Bundesbank's accounts and end up producing balances there (see the box on pp. 48 ff.). Furthermore, the banking system engages in portfolio investment with non-resident counterparties for its own account or in direct investment in proprietary business, for which it performs the necessary payment services.

<sup>4</sup> The net claims of the Bundesbank and of the other MFIs usually represent the largest items in the other investment account, though certain transactions by government or by enterprises and households are shown there as well.

## How individual entries are recorded in the balance of payments and how balances come about in the banking system's other investment account

The balance of payments records all of a country's cross-border transactions in a specific period and is subdivided into the current account, the capital account, the financial account and a net errors and omissions item. Put simply, the current account records transactions that take place in the real economy. These include, for example, purchases of goods and services, but also investment income and wage payments. If someone living in Germany sells a product to someone resident abroad (export) or performs a service for a non-resident (income, e.g. for advisory services), this leads to an increase in the current account balance, all other things being equal. Conversely, the purchase of a good in another country (import) or the use of a service abroad (expenditure, say for accommodation abroad) would reduce the current account balance, all else being equal. For more than 20 years, Germany has consistently posted current account surpluses, mainly because of its export surplus in the goods trade.

The capital account shows free transfers of capital as well as trade in non-produced, non-financial assets, which include, amongst other things, carbon emissions allowances. In the past, the balances on the German capital account have mostly been comparatively low.

Financial transactions are recorded in the financial account. These include direct investment, which tends to have a more long-term focus and involves the investor acquiring a significant influence over management. Direct investment is distinct from portfolio investment. With portfolio investment, investors purchase foreign securities such as shares or debt securities, which they can usually sell again relatively quickly.<sup>1</sup>

The third item in the financial account is other investment. The term may suggest otherwise,

but this balance of payments sub-account is actually very important. Amongst other things, it records all cross-border liquidity flows. This includes all bank transfers that economic agents make in order to pay for an imported product or to purchase a foreign security, for example.

The balance of payments captures transactions and consequently flows.<sup>2</sup> Financial account transactions always result in a resident acquiring or parting with a foreign asset, or a non-resident (e.g. a person or an enterprise domiciled outside Germany) acquiring or parting with a German asset. Each individual transaction increases or reduces Germany's international investment position. Germany's international investment position shows holdings; changes to them are, put simply, the result of balance of payments transactions.<sup>3</sup> If the international investment position increases, there is a net capital export, which has a positive sign in the financial account. By

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<sup>1</sup> If an investor purchases a block of foreign shares, it is not necessarily clear whether they are pursuing a long-term interest and wish to exert influence over the company's management or whether they merely wish to generate an appropriate return in line with their risk appetite. In the balance of payments statistics, any equity investment where a stake of 10% or more is acquired is recorded in full as direct investment. Smaller equity holdings are considered portfolio investment.

<sup>2</sup> The balance of payments statistics for Germany are compiled and published by the Bundesbank. For information on balance of payments statistics, see <https://www.bundesbank.de/en/statistics/external-sector/balance-of-payments/balance-of-payments-776588>

<sup>3</sup> Moreover, the international investment position may vary due to valuation effects such as exchange rate or price movements. Data on German external assets are available in the international investment position, a statistic that is compiled and published by the Bundesbank. Information on the international investment position is available at <https://www.bundesbank.de/en/statistics/external-sector/international-investment-position-and-external-debt/international-investment-position-and-external-debt-865106>

contrast, a net capital import reduces the international investment position, all other things being equal, and is entered into the financial account with a negative sign.

Finally, the residual is a purely mathematical item that ensures that the balance of payments is always balanced. It captures the difference between the balance on the financial account and the balances on the current account and the capital account. It is also referred to as “net errors and omissions” and results from the fact that the balance of payments sub-accounts are compiled using different primary statistics, some of which employ different recording principles, and that some data are based on estimates (such as certain tourism services and cash transactions).

Direct barter transactions have virtually disappeared from the modern economy; instead money is used as the means of payment. As a consequence, almost every transaction with non-residents is reflected not only in the goods account, services account or in portfolio transactions, it is likewise recorded in the banking system’s other investment account.<sup>4</sup> At the end of a given month or year, the balance of the banking system’s other investment account represents the difference between all incoming and outgoing cross-border payments during the period in question.

This can be illustrated using a simple example involving two stylised transactions. On 5 January of a given year, Ms Simon, who lives in Germany, buys a drill for €200 from an online retailer, which she immediately pays for by transferring the money to the French seller’s bank account. She thereupon receives the product. Ten days later – on 15 January – Mr Bäcker, who also lives in Germany, sells his Federal bonds at their market value of €1,000 to pay for a holiday on the Baltic Sea. A student living in Switzerland purchases the bonds as part of her old-age provision; the transaction is settled that same day. She transfers the money from her Swiss account to Mr Bäcker’s German account. If these two transactions were the only ones conducted with non-

### Stylised balance of payments in January

€	
Balance of payments item	Entry
<b>Current account</b>	
Goods trade	
Import of a drill (5 January)	– 200
Current account balance	– 200
<b>Financial account</b>	
Portfolio investment	
Sale of Federal bonds (15 January)	– 1,000
Other investment	
Outgoing payment (5 January)	– 200
Incoming payment (15 January)	+ 1,000
Total January	+ 800
Financial account balance	– 200
Deutsche Bundesbank	

residents in January, Germany’s balance of payments for January would be as shown in the stylised account above.

In the example, the current account for January has a deficit of €200. The financial account has a deficit in the same amount. Within the financial account, there was also a shift between portfolio investment and other investment: in portfolio investment, external liabilities increased by €1,000 (as a Swiss student purchased German Federal bonds from a resident of Germany). However, in other investment, incoming payments exceeded outgoing payments and resulted in a liquidity inflow of €800, i.e. a net capital export. As a result, banks’ net external position in other investment increased. Payments are generally made via accounts held with commercial banks.

<sup>4</sup> In the balance of payments, the banking system is referred to as monetary financial institutions, one of which is the Bundesbank.

*MFIs enable cross-border payments with corresponding liquidity inflows and outflows*

MFIs including the Bundesbank, then, settle the payments associated with cross-border transactions and record the corresponding inflows and outflows of liquidity. If, for example, goods or services are exported (imported), there is a cross-border inflow (outflow) of liquidity via the banking system's accounts. A liquidity inflow is also generated when capital is imported, which happens when domestic shares or bonds are sold to non-residents, for example. The opposite, an outflow of liquidity, happens when resident investors purchase securities from abroad, say. Inflows and outflows of liquidity drive changes in the net external position of MFIs including the Bundesbank in the other investment account. Viewed from a German perspective, these changes reflect all the cross-border transactions that are paid for using commercial banks' book money or central bank money.

## Developments in b.o.p. transactions and cross-border liquidity flows

Cross-border liquidity flows can be investigated in greater detail by presenting the b.o.p. differently.<sup>5</sup> Viewing the b.o.p. from a different perspective can contribute to better understanding the transmission of external and internal events to the German economy as well as the role played by the banking system in cross-border payments. That includes the transmission channels of European monetary policy as well.

*b.o.p. balances can be presented in a way that shows direction of liquidity flows*

The b.o.p. balances are presented in a way that visualises the direction of the liquidity flow associated with them (see the chart on p. 39).<sup>6</sup> Current account surpluses<sup>7</sup> and net capital imports (other than the banking sector's other investment) are shown as areas stacked upwards. All other things being equal, these are associated with flows of liquidity into the German banking system – for example, resulting from an export surplus in goods trading, the net sale of German debt securities to non-residents (in-

crease in external liabilities) or the cross-border sale of previously acquired non-resident securities (decline in external claims). By contrast, net capital exports (other than the banking system's other investment) resulting, for example, from a net acquisition of non-resident mutual fund shares (increase in external claims) or a repurchase of non-resident-owned Federal bonds (decline in external liabilities) lead to flows of liquidity out of the German banking system. These are therefore presented as areas stacked downwards.<sup>8</sup> The balance of all these transactions is plotted as a line and corresponds – depending on the sign – to the banking system's net capital exports or imports in the other investment account.<sup>9</sup>

The past two decades have seen the b.o.p. balances go through different phases. Some spells were characterised by stronger liquidity inflows, others by increased liquidity outflows via the accounts of MFIs including the Bundesbank.

*Phases of liquidity inflows and outflows via the banking system*

Portfolio investment, which responds particularly quickly to changes in the financial environment, played a particularly important role in each of these swings. The balances of other accounts, such as the German current account or direct investment, were less volatile.

*Portfolio investment responds to changes relatively quickly*

The global financial crisis and the sovereign debt crisis in some euro area countries impacted significantly on the German banking system's other investment, with each triggering swings in liquidity flows.

<sup>5</sup> See Picón Aguilar et al. (2020) and Duc et al. (2008).

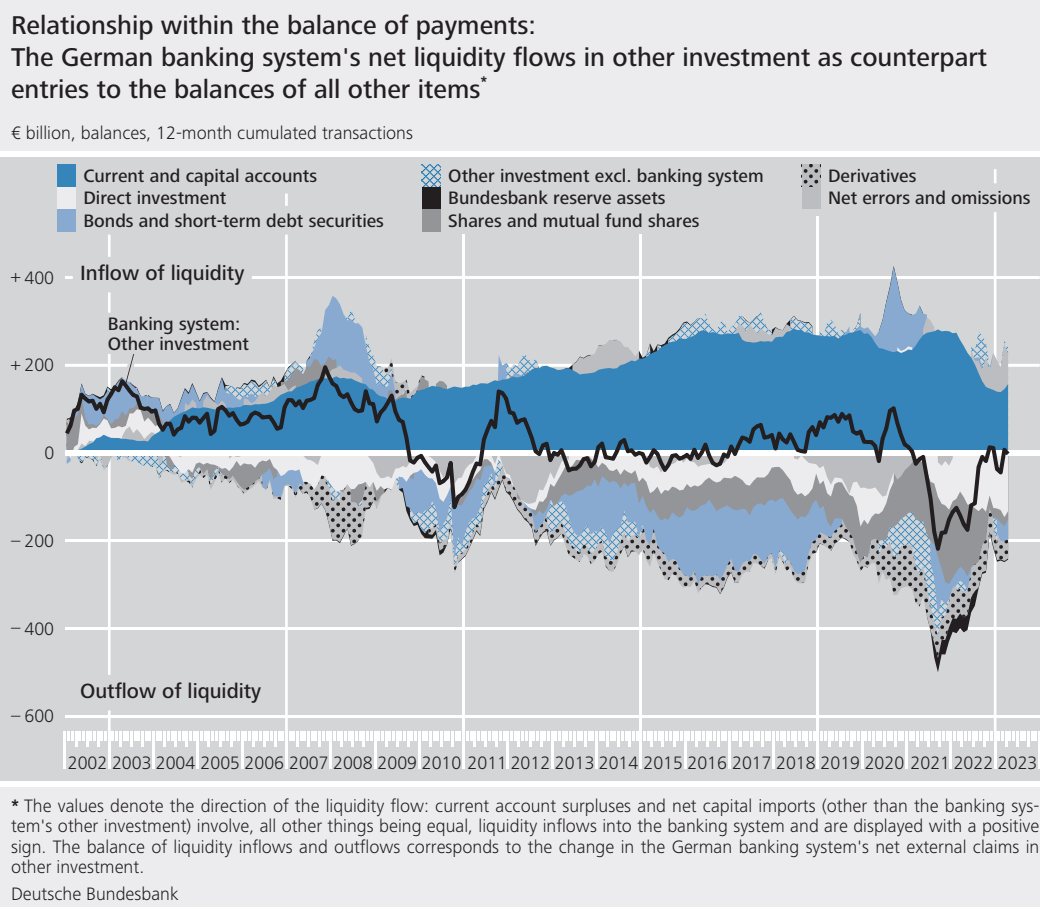
<sup>6</sup> The balance of payments data are displayed as 12-month cumulated transactions, which makes it possible to smooth the otherwise very volatile capital flows for the reader and illustrate developments with greater clarity. This approach is quite common when presenting capital flows. See, for example, Deutsche Bundesbank (2020). The European Central Bank (ECB) also uses this presentation method for its press releases on the euro area balance of payments.

<sup>7</sup> Balances in the capital account are included here.

<sup>8</sup> A current account deficit, too, would be presented as an area stacked downwards because it represents an outflow of liquidity.

<sup>9</sup> Transaction-related changes in reserve assets and the residual net errors and omissions item likewise belong to the counterpart entries of the banking system's transactions in the other investment account.





*Global financial crisis and sovereign debt crisis led to swings in liquidity flows in some euro area countries*

With the onset of the financial crisis, liquidity inflows shrank noticeably to begin with, before giving way to strong liquidity outflows, leaving the banking system's other investment account recording net capital imports. This mainly came about due to significant changes in portfolio investment – up until the onset of the global financial crisis, German securities had been highly sought after by non-residents. The global financial crisis then saw Germany's cross-border portfolio investment flows go into reverse. Above all, non-resident investors invested less in Germany or scaled back their exposure to it, resulting in net capital exports in portfolio investment.

In some euro area countries, the economic crisis sparked by the financial crisis gave way to a sovereign debt crisis, which saw capital flows change direction yet again. From the beginning of 2011, the German banking system once again registered net inflows of liquidity because German securities, especially public bonds,

were in demand as safe haven assets. In the second half of 2012, financial markets regained confidence that the worst of the crisis was over. The German banking system's liquidity inflows and outflows began to balance out again in the subsequent period.

The ECB Governing Council decided in January 2015 to implement the expanded asset purchase programme (APP) as a way of supporting inflation dynamics and responding to heightened risks of a too prolonged period of low inflation. The chief component was the programme dedicated to purchases of bonds issued by euro area central governments, agencies and European institutions (public sector purchase programme (PSPP)).<sup>10</sup> Being part of the Eurosystem, the Bundesbank began pur-

*Impact of Eurosystem purchase programmes evident as of 2015*

<sup>10</sup> See European Central Bank (2015). Under the APP, the Eurosystem continued to implement the covered bond purchase programme (CBPP3) and the asset-backed securities purchase programme (ABSPP) adopted in September 2014, subject to the same conditions.

chasing bonds issued by eligible German issuers, such as Federal bonds, in the secondary market as of March 2015. A very large proportion of these assets were in non-resident ownership. As a result of the repurchase of German securities from non-residents (net capital exports in portfolio investment), liquidity flowed out of Germany, all other things being equal, and the banking system recorded the corresponding net capital imports in the other investment account. These liquidity outflows subsided for a time in 2019 after net asset purchases under the APP were discontinued for a few months at the end of 2018.

*Significant outflows between autumn 2020 and summer 2022*

Marked outflows of liquidity then took place through the banking system's accounts between autumn 2020 and summer 2022. Unlike at the onset of the financial crisis, the liquidity outflows this time were not associated primarily with net capital exports related to bonds, but also to shares and mutual fund shares in particular. Liquidity inflows via the banking system then began to pick up again from the summer of 2022 against the backdrop of the ECB Governing Council's decision to tighten monetary policy.

## The impact of economic activity, uncertainty and monetary policy on German transactions with non-residents

*Three key factors driving cross-border transactions examined in greater detail:*

The net liquidity inflows into and net liquidity outflows out of Germany via the banking system, as described above, are the net outcome of the many and varied cross-border transactions recorded in the b.o.p. as a whole. Because the types of transactions vary widely, they also end up being influenced by a great many factors, though certain systematic determinants can nonetheless be identified. Three key determinants and their impact on cross-border transactions are investigated in greater detail in the following (see the box on pp. 43 ff.).

One important driver of cross-border economic activity is economic developments – specifically, how those abroad compare with those in Germany. If, for example, the economy is running better abroad than it is in Germany, demand for German products is likely to rise. Goods exports abroad would increase at a brisker pace than goods imports, making it more likely that current account surpluses will be recorded. All other things being equal, these would involve liquidity inflows via the German banking system.

*Economic activity: impact of economic developments abroad compared with those in Germany*

Another factor that has a bearing on cross-border investment decisions is sentiment in financial markets. Cross-border investors consider not just the prospect of generating returns, but also the risk inherent in their investments in their decision-making processes. When markets are calm, investors are generally more willing to tolerate higher risks because it means they stand to achieve a higher return. In times of heightened uncertainty, however, investors often seek out safe havens in order to hedge against abrupt asset losses.<sup>11</sup> At the global level, the sheer size of the US economy and the special role the US dollar plays as a key global reserve currency make the United States the most important safe haven for capital in times of crisis.<sup>12</sup> At the regional level, Germany, being the euro area's largest Member State, has a similar status, especially within the monetary union. Depending on where and with what magnitude potential disruptions play out, crisis episodes are therefore likely to be characterised by safe haven flows into the United States or into Germany as well. If a global crisis sees demand focus mainly on US securities, liquidity will flow out of the German banking

*Uncertainty: impact of sentiment in financial markets*

<sup>11</sup> Such episodes will impact on the b.o.p. over the span of several months. The capital flows recorded here respond over a longer horizon. In capital markets, by contrast, safe haven events are often identified on the basis of short-term price movements, which can build up and decline again within the space of days.

<sup>12</sup> In a situation when uncertainty surges, like it did during the global financial crisis, responses in the opposite direction are possible as well: investors are forced to offload their comparatively safe investments despite the increased uncertainty because they need to generate liquidity.



system. Where investors wishing to hold euro-denominated instruments are aiming first and foremost to shield their assets from critical developments elsewhere in the euro area, they focus their interest primarily on German government debt securities denominated in euro – which means that liquidity flows into the German banking system. If the situation eases again later, those movements will begin to go into reverse.<sup>13</sup>

*Monetary policy: impact on demand for securities and other channels*

Monetary policy is another determinant of cross-border transactions. If, for instance, monetary policy is tighter in the euro area than in other parts of the world, this will generally lead to changes in interest rates that give euro-denominated paper an edge over securities denominated in different currencies.<sup>14</sup> The likely outcome of this is brisker demand for debt securities from Germany and other euro area countries. In that kind of situation, the German banking system would generally see inflows of liquidity from (non-euro) non-residents, and hence, all other things being equal, an increase in its net external claims. Monetary policy can impact on cross-border transactions through other channels as well, like via their effects on the exchange rate, asset prices or cross-border lending.<sup>15</sup>

*Systematic analysis of different developments within and outside Germany*

The three factors mentioned above – economic activity, uncertainty and monetary policy – set important framework conditions for agents operating internationally. In terms of their effect on cross-border transactions, it is always important to look at how these factors develop within Germany compared with outside Germany. But what systematic impact have changes in these determinants had on transactions in the German b.o.p. over the past two decades? And how did they ultimately affect the cross-border liquidity flows of the German banking system? These questions are systematically explored using Bundesbank estimations based on a Bayesian vector autoregressive (BVAR) model.

The analysis examines how exogenous changes in the aforementioned factors – economic activity, uncertainty and monetary policy – affected the cross-border net liquidity flows of the German banking system. The BVAR model allows us to quantify what shares of the fluctuations in liquidity flows can be attributed to these three stimuli.

*Economic activity, uncertainty and monetary policy provide different stimuli*

The BVAR model estimations underscore how important the impact of economic activity in Germany relative to other countries is for Germany's cross-border transactions. The historical decomposition indicates that foreign demand for German goods and services still tended to support German banks' net claims and send liquidity flows their way at the start of the global financial crisis. During the sovereign debt crisis in some euro area countries, however, economic activity went into steep decline, especially in the key European partner countries. During this period, economic activity thus also contributed to the considerable liquidity outflows from the German banking system.

*Historical decomposition shows effect on cross-border net liquidity flows of German banking system ...*

*... of economic developments ...*

Starting in February 2022, Russia's war of aggression against Ukraine placed a considerable strain on economic activity in Germany. At the same time, Germany's terms of trade deteriorated significantly owing to surging commodity prices. Together, these two factors led to a drastic reduction in Germany's current account surplus and thus – taken in isolation – to corresponding lower liquidity inflows.

Changes in uncertainty likewise explain a large share of the variation in liquidity flows. In the model, the "safety" motive for investment is characterised by international investors' willingness to accept yield discounts when buying assets. In the early 2000s, German bonds, es-

*... of uncertainty and safe haven flows ...*

<sup>13</sup> See Deutsche Bundesbank (2020).

<sup>14</sup> While it is true that an unexpected tightening of monetary policy will also involve price losses, these will only impact directly on existing stocks of securities. Later transactions will be traded at the then-prevailing level of interest rates.

<sup>15</sup> See also Deutsche Bundesbank (2022a) and European Central Bank (2021a).

pecially, benefited from their status as comparatively safe assets. This changed during the course of 2008, when the financial crisis which had originally been confined to the United States spread to other countries and hit the advanced economies in particular. The global nature of these distortions increasingly steered global capital flows into the United States, which was still regarded as a particularly safe haven, even though the crisis had originated there. The German banking system's net claims in the other investment account subsequently declined and, ultimately, liquidity outflows in fact predominated.

At the height of the sovereign debt crisis in some euro area countries (2011 to mid-2012), another influx of safe haven flows into the German banking system was observed, mainly from other euro area countries. These receded as confidence in the cohesion of European monetary union grew again in the second half of 2012.

The outbreak of the coronavirus pandemic in early 2020 posed a new global challenge for the world economy. The pandemic not only led to a historic slump in economic activity, but also sent uncertainty about future economic developments skyrocketing. Once again, the United States emerged as the key haven for international capital flows in times of crisis. In Germany, this was initially accompanied by stress-induced liquidity outflows. As financial market tensions subsequently eased, this effect was reversed and Germany saw net capital imports in portfolio investment. Conversely, these led to higher net capital exports in other investment in the German banking sector.<sup>16</sup>

The Russian war of aggression launched against Ukraine in February 2022 marks a particular turning point in Germany's external relations and likewise sparked a rapid rise in uncertainty. This led to increased demand for US securities around the world. These safe haven flows can be identified in the model, as was the case during the global financial crisis and at the start of

the coronavirus pandemic, by risk-induced outflows of liquidity from the German banking system.

Monetary policy in the euro area and other parts of the world had strongly varying effects on transactions in the German b.o.p. over the period under analysis. At the beginning of monetary union and also during the global financial crisis up until the sovereign debt crisis in some euro area countries in 2010, the model classifies the monetary policy of the Eurosystem as fairly restrictive compared with monetary policy in other countries. From the start of 2010 to early 2011, the model then identifies a significantly expansionary impulse in the Eurosystem's monetary policy compared with that of other countries, combined with large net outflows of liquidity from Germany.

After that, up to the end of 2020, European monetary policy had sometimes contractionary and sometimes expansionary effects on the cross-border liquidity flows of the German banking system. The Eurosystem's asset purchase programmes played an important role in euro area monetary policy from the end of 2014 to mid-2022. However, given that the major world economies had similar monetary policy measures in place during this period, in the model they displayed no pronounced monetary policy impact on the net capital exports of the German banking system in other investment overall in many years.<sup>17</sup> That said, they most likely had a significant impact within the banking system, which can be seen in the cross-border transactions of commercial banks on the one hand and of the Bundesbank on the other (see the box on pp. 48 ff.).

In 2020, too, during the coronavirus pandemic, the Eurosystem's expansionary monetary policy

*... and of monetary policy in the euro area and other parts of the world*

<sup>16</sup> The outbreak of the coronavirus pandemic in March and April 2020 sent stock markets around the world into a brief slump, but sentiment in financial markets quickly recovered, and at the end of 2020 global stock market prices were already higher than in the previous year in some cases.

<sup>17</sup> See also Deutsche Bundesbank (2017a).

## The determinants of cross-border liquidity flows through the banking system

This box takes a closer look at the cross-border transactions of the monetary financial institutions established in Germany, including the Bundesbank, recorded as other investment in the balance of payments (b.o.p.). The changes in their net external claims in the other investment account reflect all cross-border transactions that are paid for using commercial banks' book money or central bank money. They correspond to the cross-border liquidity flows of the banking system. Within the b.o.p., the German banking system's liquidity flows in the other investment account are counterpart entries to the transactions made by enterprises, households and government, but also to the transactions made by the banking system for its own account in portfolio investment and direct investment.<sup>1</sup> The banking system is responsible for the associated payments and records the corresponding inflows and outflows of liquidity when, for example, goods and services are exported or imported or capital is imported or exported. These relationships are registered in the b.o.p. using the double-entry accounting system. In net terms, changes in the banking system's net claims in the other investment account constitute the balance sheet counterpart entries to all other transactions.<sup>2</sup> Net capital exports (net capital imports) in the banking system's other investment account are accompanied by liquidity inflows (liquidity outflows).

The transactions of all economic agents – and thus also those of the banking system – are influenced by factors such as economic activity, uncertainty in financial markets, and monetary policy. In terms of cross-border transactions, it is always important to look at how these factors develop within Germany compared with abroad. A model is used to estimate the impact of domestic

and external economic developments, uncertainty in global financial markets, and monetary policy in major currency areas on German cross-border payments over the past two decades.

### Model specification, data and identifying shocks<sup>3</sup>

The impact of the above-mentioned determinants on changes in the banking system's net claims in the other investment account is estimated using a Bayesian vector autoregressive (BVAR) model. All data are incorporated as month-on-month changes for  $n=4$  variables:

1. The net claims of the banking system in the other investment account, as they appear in the b.o.p. statistics (*bank\_oth*, in € billion).
2. The yield spread between international and German government bonds (*yield\_spread\_wd*, in percentage points).<sup>4</sup>
3. The non-dimensional index of business confidence provided by the OECD as a measure of cyclical factors.<sup>5</sup> The variable

<sup>1</sup> Transaction-related changes in reserve assets and the residual net errors and omissions item likewise belong to these counterpart entries.

<sup>2</sup> At the euro area level, these relationships are reflected in the monetary presentation of the b.o.p. See Picón Aguilar et al. (2020) and Duc et al. (2008).

<sup>3</sup> Econometricians generally refer to shocks rather than impulses. In contrast to the main article, the technical specifications presented in this box therefore use the term "shock".

<sup>4</sup> Yields are derived from the corresponding Bloomberg indices for global and German government bonds across all maturities (Bloomberg Global Aggregate – Government EUR and Bloomberg Euro Aggregate: Germany – Government EUR). Since the index values reflect the price developments of the underlying securities, the BVAR model uses logarithms of the original values with the sign reversed.

<sup>5</sup> OECD business confidence index.

### Sign restrictions for the assumed impact of shocks on the variables observed<sup>o</sup>

Variable	Shock		
	Economic activity (better abroad)	Uncertainty (stronger increase abroad)	Monetary policy (more accommodative abroad)
Changes in the banking sector's net claims in other investment ( <i>bank_oth</i> )	+	+	+
Change in the yield spread between international and German government bonds ( <i>yield_spread_wd</i> )	+	+	-
Change in the OECD's business confidence index (difference between OECD countries as a whole and Germany) ( <i>cycle_spread_wd</i> )	+	-	+
Change in a (hypothetical) nominal effective exchange rate for Germany vis-à-vis 60 countries ( <i>newk</i> )	*	+	+

<sup>o</sup> A +/- denotes a restriction that triggers a positive/negative response by the variables to the respective shock. An \* indicates that no restriction was imposed on the variables' response to the respective shock.

Deutsche Bundesbank

corresponds to the difference between the OECD-wide aggregate, supplemented by six non-OECD members, and the values for Germany; the index is entered in logarithms (*cycle\_spread\_wd*).

- The index of a hypothetical nominal effective exchange rate for Germany vis-à-vis 60 countries (*newk*), expressed in logarithms.<sup>6</sup>

All variables are adjusted for their long-term sample mean. The estimation period runs from January 2001 to April 2023, with the inclusion of time lags shortening the effective estimation period.<sup>7</sup> In total, 12 lags and thus a whole year of back data are included.<sup>8</sup> The estimated reduced form model is represented as:

$$y_t = \sum_{i=1}^{12} A_i y_{t-i} + \epsilon_t$$

Here,  $y_t = (y_{1,t}, y_{2,t}, \dots, y_{n,t})$  denotes an  $n \times 1$  vector of the observations described above at time  $t$ ,  $A_i$  the  $n \times n$  coefficient matrices of the observations (months) lagged by  $i$  units, and  $\epsilon_t$  an  $n \times 1$  vector of residuals that follows a multivariate normal distribution ( $\epsilon_t \sim N(0, \Sigma)$ ).<sup>9</sup>

In the reduced form of a VAR model presented above, information about the structural relationships between the variables is lost. The aim of the analysis is to disclose how disturbances in the equilibrium, or shocks, affect individual variables in the system. To this end, shocks that can be interpreted economically need to be identified. In the model presented here, these shocks

<sup>6</sup> Geometrically weighted hypothetical index of bilateral nominal external values, calculated from the monthly exchange rate averages vis-à-vis 60 countries. The euro area countries are also included in the weighting. The index thus takes account of the fact that there are no exchange rate movements vis-à-vis some of the partner countries that are important for Germany's b.o.p. transactions. The weighting scheme and country group correspond to those used for the corresponding indicator of price competitiveness based on consumer price indices. See Deutsche Bundesbank, Statistical Series – Exchange rate statistics, Explanatory notes ([www.bundesbank.de](http://www.bundesbank.de)).

<sup>7</sup> The data used cover the period from December 2000 to April 2023.

<sup>8</sup> The ECB's BEAR toolbox version 5.0 with a Minnesota prior is used for the estimation. The Minnesota prior makes assumptions for the statistical properties of the variables and in this way reduces the number of parameters to be estimated. The estimate is based on the recommended standard specification: autoregressive coefficient: 0.8; overall tightness: 0.1; cross-variable weighting: 0.5; lag decay: 1; total number of iterations: 2,000, burn-in iterations: 1,000. The time series of all variables are adjusted for the long-term sample mean, which is why estimations are made without a constant.

<sup>9</sup>  $\Sigma = E(\epsilon_t, \epsilon_t')$  denotes the positively defined variance-covariance matrix of the residuals.

are identified using sign restrictions. The sign restrictions correspond to prior ideas from economic theory. They specify the qualitative impact of certain shocks on the individual system variables without defining their quantitative significance. The sign restrictions are imposed here in such a way that they only have to be satisfied at the same time for the corresponding variables when the economically predefined shock occurs. Each shock has an individual prior pattern. Shocks can therefore be clearly distinguished from each other. They are identified. What all shocks have in common is that they lead to an increase in the banking system's net external claims. The respective restrictions for the individual economically interpretable shocks are shown in the table on p. 44. The assumed shocks are defined below.

#### **A closer look at each of the shocks**

**Economic activity:** If the economy is running better abroad than it is in Germany, this tends to increase the German current account surplus owing to demand. All other things being equal, the transactions result in higher net external claims for banks established in Germany. If the economy is running better abroad relative to Germany, yields abroad rise more strongly than those in Germany. The same is true of the business confidence measured by the OECD. No assumptions are made regarding the exchange rate.

**Uncertainty:** If there is a stronger increase in uncertainty abroad than in Germany, foreign investors' demand for Bunds grows.<sup>10</sup> If these securities were previously held by residents, this results in liquidity inflows and thus net capital exports in banks' other investment. In particular, higher uncertainty regarding developments in other European countries can lead to higher demand for German government debt securities. According to theory, the assumed greater un-

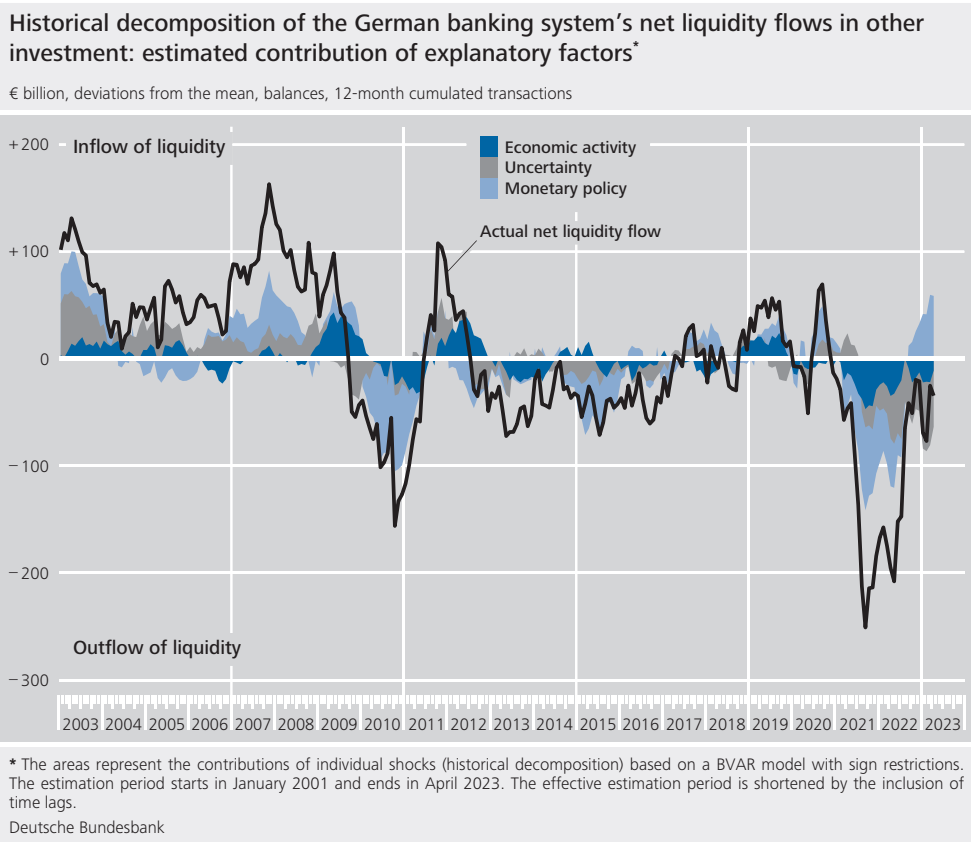
certainty in markets outside Germany and the liquidity inflows to Germany lead to an increase in the yield spread between foreign and German bonds. In view of the heightened uncertainty felt abroad, theory predicts that business confidence should decline relative to Germany. From a German perspective, the nominal effective exchange rate should tend to rise as a result of an uncertainty shock. By contrast, in the event of global disruptions, international capital flows – including those out of Germany – go mainly into the United States. In this case, the other model variables are also likely to respond in the opposite way to what can be expected for safe haven flows that go primarily into Germany.

**Monetary policy:** A relatively contractionary monetary policy in the euro area, relative to monetary policy in countries outside the euro area, leads to above average interest rate hikes in the euro area and to stronger demand for debt securities from Germany and other euro area countries. The German banking system therefore sees liquidity inflows from abroad, which, all else being equal, increase its net external claims. Viewed in isolation, tighter monetary policy in the Eurosystem would probably tend to dampen the real economic outlook. By contrast, the euro would be more likely to appreciate.

The impulse-response functions of all variables capture the time response of the variables to the above-mentioned structural shocks identified by their sign. Empirical evidence shows that the variables quickly return to their starting point, meaning that the shocks only have a short-term impact. This is ultimately due to the fact that

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<sup>10</sup> In acute crisis situations, however, the opposite can actually occur, with investors having to liquidate comparatively safe investments.



changes in all variables are incorporated into the model from month to month.<sup>11</sup>

The BVAR estimation permits the time series of all the variables involved to be decomposed into the contributions made by each identified shock. The results of the historical decomposition for the change in the German banking system's net external claims in the other investment account are presented as 12-month cumulated transactions. The smoothing effect thus achieved allows for a clearer depiction of the otherwise very volatile cross-border capital flows. The chart above shows the significance of the different shocks for the changes in the German banking system's net claims in the other investment account, and thus for cross-border liquidity flows, over the past two decades. The difference between the explained contributions (areas marked in colour) and the actual net liquidity flows of the banking system (black line) is due to unexplained influences (residuals).

The results underscore how important the impact of economic activity in Germany and abroad is for Germany's cross-border transactions. They also demonstrate the importance of changing uncertainty in financial markets for German capital flows. The influence of monetary policy during the period under analysis was mixed and varied largely according to whether monetary policy in the euro area was generally tighter or looser than in other major currency areas. A more detailed interpretation of the results can be found on pp. 41-47.

<sup>11</sup> The significance of structural differences was additionally tested using an alternative model. To this end, yield spreads and differences in business confidence were factored into the model as levels (instead of changes). The alternative model produced very similar results to the original model.



measures did not cause any liquidity outflows from the German banking system. On the contrary, the global provision of central bank liquidity actually tended to support the German banking system's net capital exports in other investment, on balance, given that all major economies of the world had similar monetary policy responses.

However, the model suggests that the Eurosystem's comparatively loose monetary policy in 2021 was a driving factor behind the liquidity outflows from the German banking system to other countries observed at that time. This reflects the fact that the US Federal Reserve Bank (Fed) initiated monetary policy tightening earlier than the Eurosystem. In December 2021, the Governing Council of the ECB announced that it would reduce the pace of net asset purchases under the PEPP and the APP in the following year, thereby paving the way for tighter monetary policy in the euro area as well.<sup>18</sup> Monetary policy-induced outflows of liquidity declined and, over the course of 2022, euro area monetary policy had an increasingly restrictive effect, also compared with monetary policy in other countries, given the interest rate hikes starting in the middle of the year. This effect continued at the beginning of 2023.

## Different functions of commercial banks and the Bundesbank in cross-border payments

*Different tasks of Bundesbank and commercial banks in cross-border payments ...*

This article has so far considered the German banking system as a whole. This makes sense in view of its function as the payment service provider for the economy and allows an overall analysis of the factors influencing cross-border liquidity flows. However, a country's banking system is not a single unit, but consists – with the exception of a handful of countries with no currency of their own – at least of a central bank and the other monetary financial institutions, primarily commercial banks. National central banks have a public mandate and gen-

erally do not aim to generate a profit. The Bundesbank is part of the Eurosystem and has a statutory commitment to price stability in the euro area. In addition, the Bundesbank performs other key tasks at both the national and international level. Among these are, first and foremost, involvement in the national supervision of credit institutions, including a role in the EU's Single Supervisory Mechanism, as well as the areas of cash management, cashless payment systems and financial stability.<sup>19</sup> Commercial banks, on the other hand, are commercial undertakings and serve the objectives of their shareholders.<sup>20</sup>

The different tasks of the Bundesbank and commercial banks are also reflected in the way in which they perform their function as payment service providers. One way that these are evident is in their respective contributions to Germany's cross-border liquidity flows over the past two decades (see the box on pp. 48 ff.).

In a market economy, private transactions are generally conducted without the active involvement of the government. The role of payment service provider is thus ultimately assumed by commercial banks – using book money.<sup>21</sup> At the beginning of the 2000s, up until 2008, the vast majority of cross-border net liquidity flows in other investment were therefore also attributable to other monetary financial institutions excluding the Bundesbank.

*... reflected in cross-border liquidity flows over the past two decades*

*Until the financial crisis, transfers of book money dominated the German banking system's cross-border liquidity flows*

<sup>18</sup> See European Central Bank (2021b).

<sup>19</sup> See Section 3 of the Bundesbank Act (*Gesetz über die Deutsche Bundesbank*).

<sup>20</sup> Maximising profits does not necessarily have to be the prime focus. Cooperative banks or savings banks can also pursue other objectives, for example. However, in Germany they are all subject to German and EU banking regulation and therefore cannot completely ignore profit objectives. Much the same applies to promotional banks such as the Kreditanstalt für Wiederaufbau. While these are not subject to the Banking Act (*Kreditwesengesetz*), they operate in accordance with banking principles and are subject to certain rules set by banking supervisors.

<sup>21</sup> Nevertheless, the bulk of the individual transactions within the euro area were settled via the Eurosystem's payment system. On balance, however, the incoming and outgoing payments largely balanced out for the national central banks involved, since the commercial banks provided each other with sufficient funds.



## The distribution of roles within the German banking system as reflected by cross-border liquidity flows

A country's banking system can be roughly divided into its national central bank and other monetary financial institutions (mainly commercial banks).<sup>1</sup>

The assets side of the commercial banks' other investment account is affected by changes in the financial loans they grant to enterprises, households or the general government sector abroad, as well as changes in deposits they hold with financial institutions abroad. The changes in their liabilities in other investment mainly reflect the increase or decrease in deposits in the accounts that foreign investors, including other financial institutions, hold with them. For many years, the Bundesbank's net capital exports have been closely linked to developments in its TARGET balances with the ECB.<sup>2</sup> These form the largest item out of its external claims under other investment and shape how they develop. Changes in the Bundesbank's external liabilities in other investment are mainly due to the allocation of euro banknotes within the Eurosystem, and to deposits from non-euro area residents.<sup>3</sup> The net positions of the commercial banks and the Bundesbank have often not developed independently of one another, especially since the outbreak of the financial crisis. A build-up of net claims by the Bundesbank was frequently accompanied by a corresponding reduction in the net claims of the German commercial banking system, and vice versa. The changes in these positions can therefore also provide an indication of the roles that the Bundesbank and the commercial banks each played in other investment.

Overall, developments in the banking system's cross-border transactions in other in-

vestment over the past two decades can be divided into five phases. They show the impact of the international financial crisis and the sovereign debt crisis in some euro area countries, as well as the impact of the Eurosystem's non-standard monetary policy measures – especially its asset purchase programmes.

In the first phase – the years leading up to the start of the international financial crisis – changes in the German banking system's net claims in other investment were mainly driven by the activities of commercial banks. There was no systematic build-up of positions by the Bundesbank during this period. The Bundesbank's other investment account balances were comparatively low. As the current account surpluses and frequent net capital imports in portfolio investment meant that incoming payments regularly outweighed outgoing payments, commercial banks' accounts registered net capital exports in most years. The counterparts to cross-border transactions were usually to be found in counterbalancing trans-

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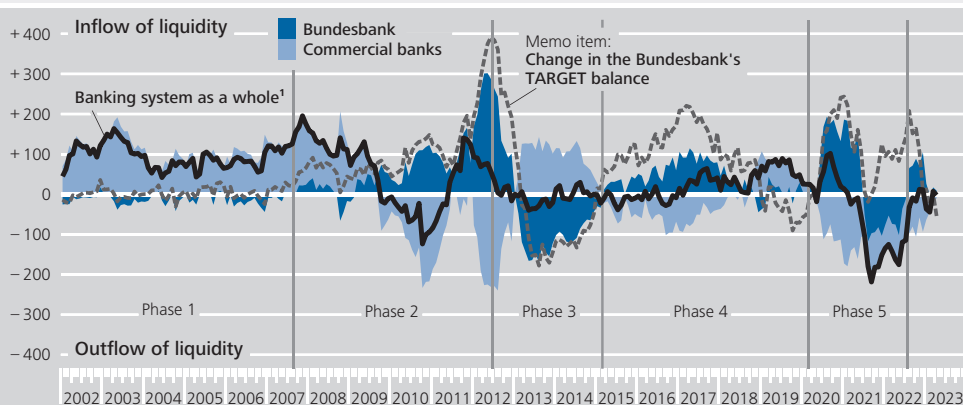
<sup>1</sup> For the sake of simplicity, all monetary financial institutions excluding the Bundesbank are referred to as "commercial banks" in this box. While promotional banks with public mandates are not (profit-driven) commercial banks, they are nevertheless also part of the banking system.

<sup>2</sup> TARGET balances are the aggregate balances from TARGET services (Trans-European Automated Real-time Gross Settlement Express Transfer), which form the Eurosystem's market infrastructure. This includes T2, in particular, which replaced the previous TARGET2 system on 20 March 2023. The use of TARGET services by commercial banks to settle cross-border transactions may result in claims on, or liabilities towards, the ECB. If the resulting claims and liabilities between central banks do not balance out over the course of a day, they are netted out at the end of the business day to form a single (net) claim on, or liability towards, the ECB. See Deutsche Bundesbank (2017b).

<sup>3</sup> See Deutsche Bundesbank (2023).

### The banking system's other investment

€ billion, balances, 12-month cumulated transactions



<sup>1</sup> The balance for the banking system as a whole is the sum total of the balances of the Bundesbank and the commercial banks.  
 Deutsche Bundesbank

actions in the private interbank market.<sup>4</sup> Commercial banks provided each other with sufficient liquidity in the form of book money in the interbank market, irrespective of the country in which they were based. As a result, the Bundesbank's TARGET transactions largely balanced each other out at this time.

The outbreak of the global financial crisis, which originated from the sub-prime mortgage crisis in the United States, marks the start of the second phase. The international financial crisis, starting in the summer of 2007 and spreading around the world from the autumn of 2008, impeded the functioning of the market for cross-border lending between commercial banks as they became increasingly mistrustful of one another given concerns that partner banks might face payment difficulties. Creditor banks called in maturing loans and several debtor banks were no longer able to obtain sufficient funding in the private market.

The Governing Council of the ECB responded by adopting a number of non-standard monetary policy measures,<sup>5</sup> thus ensuring that commercial banks continued to receive sufficient liquidity. As consumer

prices came under pressure, the ECB Governing Council also made monetary policy more expansionary through interest rate cuts.

In the second half of 2007, the Bundesbank's TARGET claims rose significantly. However, its net external claims declined again the very next year. In connection with the fact that commercial banks continued to register net capital exports, this shows that German banks weathered the global financial crisis relatively well overall and continued to play a major role in international payments.

From the spring of 2010 onwards, the sovereign debt crisis in some euro area countries shaped events in the financial markets. It caused prices to fall sharply in the bond

<sup>4</sup> Here, the interbank market also includes transactions between institutions within a group.

<sup>5</sup> These included longer-term refinancing operations with a maturity of up to six months (see European Central Bank (2008a)), as well as the transition to the full allotment of central bank liquidity via fixed-rate tenders (see European Central Bank (2008b)). In addition, the Eurosystem expanded the collateral framework for monetary policy operations (see European Central Bank (2008c)), and also secured the supply of foreign currency through swap lines with major central banks outside the euro area (see European Central Bank (2008d)).

markets of highly indebted partner countries, which also put the banking systems in question under severe pressure owing to large price losses and liquidity outflows. As a result, the ECB Governing Council decided to adopt another set of non-standard measures to compensate for the limited functioning of the interbank market.<sup>6</sup> The funds provided by the central banks were utilised asymmetrically by the commercial banks of the Member States. Some of the liquidity allocated was used to settle cross-border payment obligations. This was accompanied by a further rise in TARGET balances in the euro area, particularly that of the Bundesbank.<sup>7</sup> All in all, the events therefore also had a visible impact on other investment.

The Bundesbank's net external claims in other investment rose significantly up to mid-2012. This was mainly due to TARGET claims, which had climbed to almost €730 billion by the end of June 2012. By contrast, the net external claims of commercial banks established in Germany fell perceptibly. For the first time, a clear pattern of the mirror-image developments in the positions of the Bundesbank and the commercial banks in the other investment account could now be observed. This mirror-image pattern is an expression of the changing roles of the Bundesbank and the commercial banks during the crisis.<sup>8</sup> During this phase, the German banking system as a whole initially recorded marked net capital imports in other investment up to the autumn of 2010. After this, mainly owing to developments in the Bundesbank's position, there was a sharp rise in net capital exports, coupled with significant liquidity inflows.

On balance, both net liquidity inflows via the Bundesbank's accounts and net liquidity outflows via the German commercial banks' accounts continued until the summer of

2012. This development subsequently tailed off, and even reversed from 2013 onwards (phase 3). The reason for this was easing tensions in the financial markets, which helped encourage banks to lend to each other again.<sup>9</sup> This was reflected in Germany's other investment in the form of declining net capital exports in the banking system. The Bundesbank's TARGET claims declined markedly during this phase. By contrast, commercial banks' net external claims rose again.

The asset purchase programme (APP) saw the Eurosystem central banks (including the ECB) enter the market starting in October 2014 as purchasers of securities issued in the euro area. From March 2015, euro area central banks purchased large volumes of public sector securities in the secondary market, mainly under the public sector purchase programme (PSPP), with each national central bank buying bonds from its own jurisdiction.<sup>10</sup> This marks the start of the fourth phase, bringing with it a fresh increase in national TARGET balances. This time, however, the increase was not related to growing unease in the international financial markets. Instead, it was due to the APP and Europe's financial architecture,

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<sup>6</sup> These included purchases of Greek government bonds under the Securities Markets Programme (SMP) and a new set of longer-term refinancing operations. See European Central Bank (2010).

<sup>7</sup> See Deutsche Bundesbank (2020).

<sup>8</sup> Commercial banks based in Germany reduced their claims on commercial banks abroad. The foreign commercial banking systems obtained the liquidity required for cross-border credit transfers through tender operations with their respective national central banks. Within the euro area, these credit transfers were processed via TARGET.

<sup>9</sup> This was connected to a speech by Mario Draghi, President of the ECB at the time, in which he stated that the ECB was ready to do "whatever it takes" to preserve the euro; see European Central Bank (2012a). In addition, the Eurosystem adopted a programme of outright monetary transactions (OMT); see European Central Bank (2012b, 2012c). To date, the OMT programme has not been used.

<sup>10</sup> See European Central Bank (2015).

with Frankfurt as a major European financial hub.<sup>11</sup> This can be seen clearly in the German banking system's other investment. When the PSPP was launched in March 2015, the mirror-image balances of the commercial banks and the Bundesbank in the other investment account reversed again. The Bundesbank's accounts now recorded net liquidity inflows, while the accounts of the commercial banks registered liquidity outflows. In terms of the balance of the banking system as a whole, these positions largely offset each other in most years.

The Eurosystem central banks did not make any net purchases under the APP from the end of 2018 up to and including October 2019. There were no mirror-image developments in the balances of the Bundesbank and the commercial banks during this period, either. Net capital exports in portfolio investment were significantly lower owing to the lack of net purchases by the Bundesbank, and the banking system's net capital exports in other investment rose perceptibly during this period. These mainly took place via the commercial banks' accounts, while the Bundesbank's TARGET claims declined during this time.

Around the turn of 2019-20, the Eurosystem resumed net purchases under the APP. In March 2020, the pandemic emergency purchase programme (PEPP) was additionally adopted to address the risks to the monetary policy transmission mechanism posed by the rapid spread of the coronavirus (phase 5). The Bundesbank's TARGET balances subsequently rose again, as they had during net purchases under the APP, with the Bundesbank's TARGET claims reaching a temporary peak of €1,269 billion at the end of 2022.

Overall, however, the cross-border transactions of non-banks (including banks' proprietary business in direct investment and portfolio investment) led to significant liquidity outflows out of the German banking system from the autumn of 2020 to the summer of 2022. For example, foreign investors' deposits on accounts with commercial banks increased markedly. The Bundesbank's holdings of foreign deposits, mainly from non-euro area residents, also rose. Data cumulated over 12 months therefore also showed liquidity outflows via the Bundesbank's accounts, despite rising TARGET claims in some cases.<sup>12</sup>

The fifth phase ended in July 2022, when net asset purchases under the APP were discontinued, thus bringing net purchases as a whole to an end.<sup>13</sup> In addition, the ECB Governing Council raised key interest rates by a total of 400 basis points in several steps up to June 2023.<sup>14</sup> In the second half of 2022, transactions in the German balance of payments were again increasingly accompanied by liquidity inflows via the banking system's accounts. In the first six months of 2023, the Bundesbank's TARGET balance fell markedly.

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<sup>11</sup> See Deutsche Bundesbank (2017a, 2017b).

<sup>12</sup> In addition, the Bundesbank recorded rising liabilities from the allocation of euro banknotes within the Eurosystem, and as a one-off effect, a larger counterpart entry for the new special drawing rights allocated by the IMF. See Deutsche Bundesbank (2022b).

<sup>13</sup> See European Central Bank (2022a). Net purchases under the PEPP had already been discontinued at the end of March 2022. See European Central Bank (2021b).

<sup>14</sup> See European Central Bank (2022b, 2022c, 2022d, 2022e; 2023a, 2023b, 2023c, 2023d).

*Global financial crisis impaired private interbank market; importance of central bank liquidity in cross-border payments increased*

This changed fundamentally with the onset of the global financial crisis, as commercial banks were no longer willing to lend money to one another – a key prerequisite for cross-border transactions in the interbank market – on account of the high level of uncertainty overall and, in particular, the perceived high level of counterparty credit risk.<sup>22</sup> The Eurosystem intervened in the situation and provided commercial banks with central bank liquidity, mainly through longer-term refinancing operations. As a result, credit institutions increasingly borrowed the necessary funds from the domestic central bank. Cross-border provision of funds was now taking place within the Eurosystem through the transfer of central bank money. In addition, a newly established network of swap lines with the Fed and other central banks secured the provision of foreign currency and thus also ensured payments could be made with non-euro area partners.<sup>23</sup>

*Since 2015, distribution of roles between commercial banks and central bank in cross-border payments shaped by APP*

Expansionary monetary policy can, however, also influence the distribution of roles within the banking system even when there is no serious disruption in the interbank market. This is evident in the cross-border liquidity effects of the Eurosystem's asset purchases. When the APP was launched, the Bundesbank's net external position in the other investment account started to grow in early 2015. This was because of an increase in its TARGET claims<sup>24</sup> on the ECB, which reflected persistent inflows of central bank liquidity via the Eurosystem. The reason for these payment flows lay in the financial architecture of the euro area.<sup>25</sup> If the original holders of the securities were resident outside the euro area, the purchases of the national central banks were largely settled through the subsidiaries of foreign commercial banks domiciled in Germany. This meant that central bank liquidity from abroad flowed into the German banking system, while book money flowed to other countries via Germany's commercial banking system. The two effects largely cancelled each other out with respect to the German banking system's payment transactions with non-residents overall. This mechanism ex-

plains why the APP mostly had no noticeable autonomous impact on other investment flows in the German banking system on aggregate between 2015 and 2018.

Cross-border payments were also very heavily affected by the coronavirus pandemic. From the end of February 2020, financial market developments were dominated by the assessment of the economic and financial implications of the pandemic. In March 2020, the Governing Council of the ECB announced that it would add a temporary envelope to the existing APP, which had already been resumed in November 2019.<sup>26</sup> It also decided to launch an additional purchase programme, the PEPP.<sup>27</sup> In conjunction with the increased global risks, the expansion of the purchase programmes led to massive liquidity outflows at commercial banks. Between autumn 2020 and summer 2022, the banking system as a whole also saw significant net capital imports in other investment.

Over the course of 2022, the Eurosystem distinctly tightened the monetary policy reins in view of the medium-term inflation outlook, which saw inflation remaining above the 2% target for an extended period of time. In mid-2022, net asset purchases under the APP were ended.<sup>28</sup> In the second half of 2022, the Governing Council of the ECB raised key interest

*More restrictive monetary policy in Eurosystem since 2022 ...*

<sup>22</sup> Here, the interbank market also includes transactions between institutions within a group.

<sup>23</sup> The participants in the swap agreement – which is still in force – are the ECB, the Fed, the central banks of Canada, England and Japan, and the Swiss National Bank. See European Central Bank (2014).

<sup>24</sup> TARGET balances are the aggregate balances from the TARGET services (Trans-European Automated Real-time Gross Settlement Express Transfer), which form the Eurosystem's market infrastructure. This includes T2, in particular, which replaced the previous TARGET2 system on 20 March 2023. It is used, amongst other things, for the settlement of cross-border interbank payments in the euro area.

<sup>25</sup> See Deutsche Bundesbank (2017b).

<sup>26</sup> See European Central Bank (2020a).

<sup>27</sup> See European Central Bank (2020b).

<sup>28</sup> See European Central Bank (2022a). Net asset purchases under the PEPP had already been discontinued at the end of March 2022. See European Central Bank (2021b).

rates by a total of 250 basis points in multiple increments.<sup>29</sup>

Four further interest rate rises totalling 150 basis points followed in the first half of 2023.<sup>30</sup> The Governing Council also gave detailed parameters for reducing APP holdings. From March 2023, these declined at a measured pace, as the Eurosystem no longer reinvested all of the principal payments from maturing securities. The decline amounted to €15 billion per month on average until the end of June.<sup>31</sup> As of 1 July 2023, maturing securities in the APP portfolio are no longer being replaced.<sup>32</sup> First steps towards normalising Eurosystem portfolios of securities held for monetary policy purposes have thus been taken.

*... could also influence interplay between Bundesbank and commercial banks in other investment*

The tightening of European monetary policy since the middle of last year and the reduction of the monetary policy portfolio this year had an impact on the level and composition of German liquidity flows with other countries. The monetary policy measures are not only leaving their mark on the aggregate banking system's other investment account, but bringing about a structural change as well in the liquidity flows of the commercial banking system and the Bundesbank. If Eurosystem central banks were to trim their balance sheets, this is likely to result in the Bundesbank's TARGET balances shrinking and its net asset position diminishing.

## ■ Conclusion and outlook

Liquidity flows into and out of Germany via the accounts of monetary financial institutions – including the Bundesbank. These payment flows stem from cross-border transactions in all sec-

tors. The net flows can be gauged from the banking system's other investment balances in the balance of payments. Over the past two decades, changes in macroeconomic conditions have left a significant mark on the cross-border liquidity flows of the German banking system. This is also true of the distribution of roles within the banking system – that is, between commercial banks and the Bundesbank – for cross-border transactions in other investment.

In the years leading up to the financial crisis, in a regime of structurally scarce liquidity provision by central banks, it was overwhelmingly commercial banks which performed the task of providing cross-border funds, in the form of book money. Since the financial crisis and the sovereign debt crisis in some euro area countries, transfers of central bank money, including across borders, have played a greater role with the transition to a regime of structurally ample liquidity provision by central banks. The private interbank market became less important.

As the Eurosystem scales back its monetary policy portfolios in the coming years and reduces existing excess liquidity, it would once again increasingly fall to commercial banks to lend funds at market conditions, and allocate scarce resources in this way. This has always been one of their core tasks. A step in this direction would be welcome, not least for this reason.

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<sup>29</sup> See European Central Bank (2022b, 2022c, 2022d, 2022e).

<sup>30</sup> See European Central Bank (2023a, 2023b, 2023c, 2023d).

<sup>31</sup> See European Central Bank (2022e).

<sup>32</sup> See European Central Bank (2023c).

## ■ List of references

Deutsche Bundesbank (2023), Annual accounts of the Deutsche Bundesbank for 2022, Annual Report 2022, pp. 33-65.



Deutsche Bundesbank (2022a), Factors influencing international portfolio flows, Monthly Report, July 2022, pp. 39-58.

Deutsche Bundesbank (2022b), Annual accounts of the Deutsche Bundesbank for 2021, Annual Report 2021, pp. 45-78.

Deutsche Bundesbank (2020), What drives Germany's TARGET balances? A BVAR analysis for distinguishing global and European causes, Monthly Report, March 2020, pp. 30-33.

Deutsche Bundesbank (2017a), The increase in Germany's TARGET2 claims, Monthly Report, March 2017, pp. 30-31.

Deutsche Bundesbank (2017b), TARGET2 balances – mirroring developments in financial markets, Monthly Report, December 2017, pp. 75-76.

Duc, L. B., F. Mayerlen and P. Sola (2008), The monetary presentation of the euro area balance of payments, European Central Bank, Occasional Paper Series, No 96, September 2008.

European Central Bank (2023a), Monetary policy decisions, press release of 2 February 2023.

European Central Bank (2023b), Monetary policy decisions, press release of 16 March 2023.

European Central Bank (2023c), Monetary policy decisions, press release of 4 May 2023.

European Central Bank (2023d), Monetary policy decisions, press release of 15 June 2023.

European Central Bank (2022a), Monetary policy decisions, press release of 9 June 2022.

European Central Bank (2022b), Monetary policy decisions, press release of 21 July 2022.

European Central Bank (2022c), Monetary policy decisions, press release of 8 September 2022.

European Central Bank (2022d), Monetary policy decisions, press release of 27 October 2022.

European Central Bank (2022e), Monetary policy decisions, press release of 15 December 2022.

European Central Bank (2021a), ECB Strategy Review – the implications of globalisation for the ECB monetary policy strategy, Occasional Paper Series, No 263, September 2021.

European Central Bank (2021b), Monetary policy decisions, press release of 16 December 2021.

European Central Bank (2020a), Monetary policy decisions, press release of 12 March 2020.

European Central Bank (2020b), ECB announces €750 billion pandemic emergency purchase programme (PEPP), press release of 18 March 2020.

European Central Bank (2015), ECB announces expanded asset purchase programme, press release of 22 January 2015.



European Central Bank (2014), Experience with foreign currency liquidity-providing central bank swaps, Monthly Bulletin, August 2014, pp. 65-82.

European Central Bank (2012a), Verbatim of the remarks made by Mario Draghi: Speech by Mario Draghi, President of the European Central Bank, at the Global Investment Conference in London on 26 July 2012.

European Central Bank (2012b), Monetary policy decisions – introductory statement, press conference of 2 August 2012.

European Central Bank (2012c), Technical features of Outright Monetary Transactions, press release of 6 September 2012.

European Central Bank (2010), ECB decides on measures to address severe tensions in financial markets, press release of 10 May 2010.

European Central Bank (2008a), Supplementary six-month longer-term refinancing operations and continuation of the supplementary three-month longer-term refinancing operations, press release of 28 March 2008.

European Central Bank (2008b), Changes in tender procedure and in the standing facilities corridor, press release of 8 October 2008.

European Central Bank (2008c), Measures to further expand the collateral framework and enhance the provision of liquidity, press release of 15 October 2008.

European Central Bank (2008d), Measures designed to address elevated pressures in the short-term US dollar funding markets, press release of 18 September 2008.

Picón Aguilar, C., R. Oliveira Soares and R. Adalid (2020), Revisiting the monetary presentation of the euro area balance of payments, European Central Bank, Occasional Paper Series, No 238, February 2020.



## Economic developments in emerging market economies: old problems and new challenges

*Economic growth has weakened significantly in many emerging market economies (EMEs) in recent years. Their economic catching-up process has stalled. Incomes in some regions, such as Latin America, have even fallen further behind those of the advanced economies.*

*The reasons for this growth slowdown in EMEs are manifold. The end of the boom in China played an important role, after its export-oriented growth model had increasingly begun to come up against limits. As a result, Chinese demand for raw materials weakened, which had a negative impact on commodity-exporting economies. In addition, efforts in many EMEs to improve domestic growth fundamentals through structural reforms have been flagging.*

*EMEs are facing a number of new challenges of late. There are increasing political efforts in many countries to reassess international trade relations and to promote domestic production instead. This could have a lasting adverse impact on the globalisation process, which had opened up new opportunities for many EMEs. Moreover, the recent sharp, worldwide rise in interest rates is potentially problematic, as it poses macroeconomic risks, especially for less developed economies. Finally, EMEs are also being called upon to contribute to fighting climate change and thus accordingly restructure their economies over the medium and long term.*

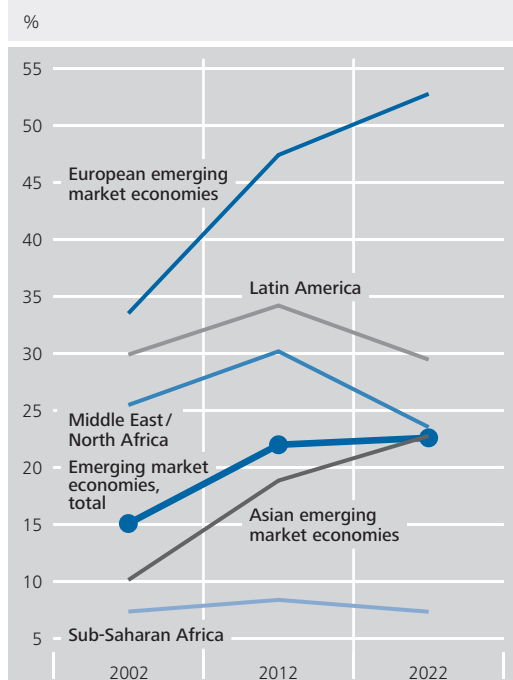
*All in all, EMEs will probably have to adapt to a difficult macroeconomic environment. It would thus be all the more important to give fresh impetus to the economic catching-up process through broad-based reforms.*

## Slowing economic growth in emerging market economies

*Significant, regionally broad-based slowdown in growth over the past ten years*

Emerging market economies (EMEs)<sup>1</sup> have been major drivers of the global economy, especially in the 2000s. Since then, however, their economic momentum has declined markedly. Looking at the entire group of countries, economic growth has fallen to an average of 4% per year over the past ten years (2013-2022), compared with 6½% in the preceding decade.<sup>2</sup> This slowdown has been broadly based across regions. Asian EMEs, which had grown particularly rapidly between 2003 and 2012 at an average of 8½% per year, only reached a rate of 5¾% from that point onward. In Latin America, economic growth fell to just 1% per year. On a per capita basis, i.e. taking population growth into account,<sup>3</sup> real gross domestic product (GDP) actually stagnated there. Many countries in the Middle East and in Sub-Saharan Africa have also recently seen only very modest growth in economic output per capita.

**Per capita incomes in emerging market economies relative to advanced economies\***



Sources: IMF World Economic Outlook (April 2023) and Bundesbank calculations. \*Based on purchasing power parities.

Deutsche Bundesbank

By contrast, in the advanced economies, GDP growth remained at an average of 1¾% per year, as in the preceding ten-year period. Owing to the reduced growth lead of EMEs, their progress towards convergence slowed considerably. Over the past ten years, the average (nominal) per capita income in EMEs has risen only slightly in relation to advanced economies, from 22% in 2012 to 22.6% last year.<sup>4</sup> The incomes of some commodity-exporting countries fell markedly further behind those of the advanced countries. This was mainly due to the generally rather weak price trend for raw materials in recent years.

*Progress towards convergence slowed down*

## Reasons for EMEs' weaker growth

### The end of China's boom and sluggish commodities markets

In the 1990s, many EMEs, particularly in Asia and Eastern Europe, had initiated market reforms and opened up to global markets. These steps put them on course for integration into the international division of labour, which was a major factor driving their economic ascent. The establishment of multinational enterprises was also a factor here, as the associated transfer of foreign technology and know-how sustainably increased productivity in many EMEs. Advanced economies, in turn, gained access to low-cost imports and new, rapidly growing sales markets. The German economy also benefited strongly from this (see the box on p. 60).

*Export-oriented growth as the foundation for rapid economic growth*

**1** EMEs are all those countries that are not classified as advanced economies. This is based on the International Monetary Fund's (IMF) classifications in its World Economic Outlook.

**2** The coronavirus pandemic played only a minor role in moderating growth. Average growth had already fallen to 4.5% per year in the period 2013-2019.

**3** The total population in EMEs has grown by an average of 1.2% per year over the past decade, compared with 1.3% in the preceding decade.

**4** The conversion of per capita income is based on purchasing power parity exchange rates. These take into account the fact that the price level in EMEs tends to be lower.

*China's steep rise flattened out; structural problems became apparent*

In the 2010s, however, China, in particular, reached the limits of its export-oriented growth model.<sup>5</sup> One important reason was the country's reduced cost advantage. Wage growth accelerated considerably in view of the increasing utilisation of rural labour force potential and demographic changes. China had also increasingly exploited its sales potential on the world markets for certain products. In the meantime, Chinese authorities tried to alleviate their supply-side problems through a highly expansionary economic policy. This, however, led to considerable overinvestment in areas including real estate.

*Rebalancing Chinese economy proving difficult*

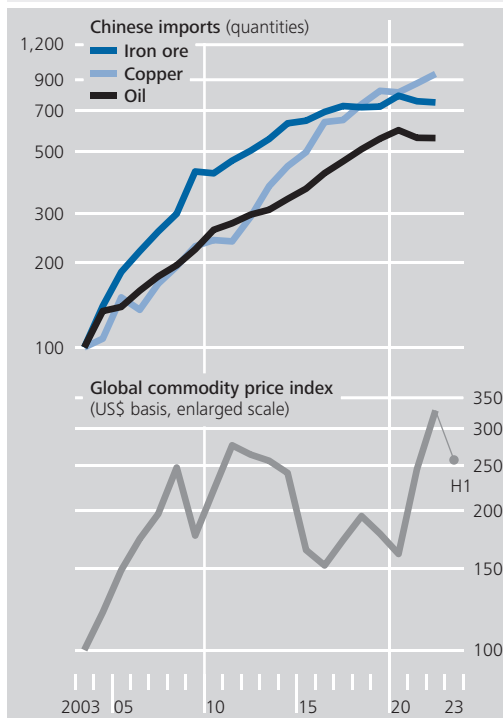
More recently, the Chinese government finally started to rebalance its economy. It first sought to drive the technological catching-up process forward. As it was beginning to reach the limits of existing technology, it encouraged more home-grown innovations. Despite high government investment in research and development, however, the results have so far been mixed.<sup>6</sup> In addition, Chinese authorities tried to curb unprofitable investment and, in turn, boost consumption. The latter actually saw some success – at least until the outbreak of the coronavirus pandemic – but did not fully offset the slowdown in investment momentum. Overall, economic growth in China has continued to slow down in recent years.

*The end of the Chinese boom hit commodity-exporting EMEs in particular*

The economic slowdown in China led to a faltering of growth models in some countries which had previously benefited strongly from China's rise. This was particularly true of commodity-exporting EMEs.<sup>7</sup> China's commodities imports had grown rapidly in the 2000s. The country actually became the most important global buyer of certain industrial metals. Over the past decade, however, growth in Chinese demand for commodities has flattened considerably. In addition, the global commodity supply increased significantly due to factors such as the shale oil revolution in North America. The years-long boom in the international commodity markets subsequently ended abruptly. Many commodity prices tended to

### Chinese commodity imports and global commodity prices

2003=100, log scale



Sources: China Customs, IMF and Bundesbank calculations. Deutsche Bundesbank

barely rise or even fell in the 2010s. Without the tailwind provided by the boom, economic growth in commodity-exporting countries declined sharply.<sup>8</sup>

### Structural deficits and a lack of willingness to reform

Only a few EMEs have seen the deterioration in the external environment in recent years as a reason to improve their domestic growth bases. On the contrary, in many, willingness to reform actually seemed to ebb.

<sup>5</sup> See Deutsche Bundesbank (2018).

<sup>6</sup> See, for example, Tran (2022).

<sup>7</sup> See Deutsche Bundesbank (2015).

<sup>8</sup> Commodity price fluctuations not only trigger short-term (cyclical) effects in commodity-exporting countries, but can also influence potential output and the medium-term growth trend. In particular, the investment response is crucial. See International Monetary Fund (2015).

## The impact of slower growth in emerging market economies on the world economy and on Germany

The subdued growth in emerging market economies (EMEs) has put the brakes on the world economy in recent years. Global GDP growth slowed to an average of 3.1% per year in the period from 2013 to 2022, compared with 4.2% in the preceding ten-year period. Arithmetically, this loss of pace was attributable almost entirely to EMEs.<sup>1</sup> Nonetheless, their weight in the world economy continued to increase owing to their remaining growth lead. According to recent figures, EMEs contributed almost 60% to global economic output based on purchasing power parities.<sup>2</sup>

The economic slowdown in EMEs was accompanied by a dampening of import demand. Averaged over the period from 2013 to 2022, their imports of goods and services increased by only 2.8% per year after price adjustment, following an annual increase of almost 10% previously. This sharp deceleration was the

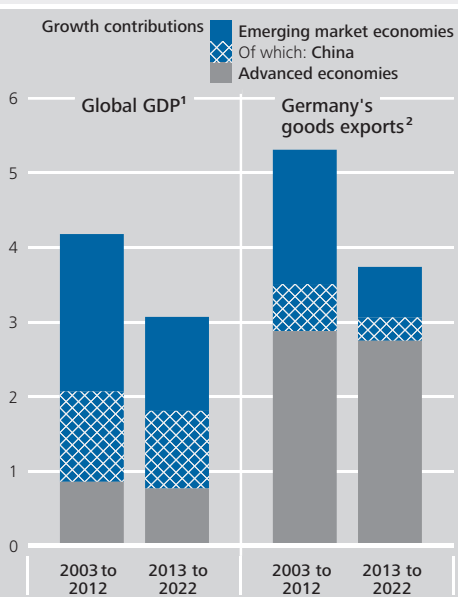
main cause of the weakness in world trade growth in recent times. At an average of 3.2% per year, advanced economies' imports have even risen somewhat faster than those of EMEs over the past decade. At the same time, EMEs' exports have also lost momentum. On balance, the share of EMEs in global goods trade, having increased substantially up to 2012, has stagnated at around 40% based on market exchange rates.

The German export sector benefited strongly from the rapid growth in EMEs in the 2000s. This was aided by Germany's range of exports, with its focus on capital and transport goods, which fitted well with the import needs of many EMEs.<sup>3</sup> In line with EMEs' weak import dynamics in recent times, German goods exports to these countries then lost a considerable amount of steam. This significantly dampened Germany's overall export growth.

German exports to China, too, have increased only moderately over the past ten years, having previously expanded extremely sharply. This was due not only to weaker economic growth in China, but also to the reorientation of China's investment and export-driven growth model towards private consumption (rebalancing). As the import content of private consumption is smaller than that of investment and exports, this has been accompanied by a dampening of China's imports.<sup>4</sup> In addition, China has succeeded in replacing imports with domestic production in certain product groups, e.g. in the automotive sector.

### Influence of emerging market economies on the world economy and on German exports

Average growth per year (%)



Sources: IMF, Federal Statistical Office and Bundesbank calculations. <sup>1</sup> Price-adjusted, aggregation based on purchasing power parities. <sup>2</sup> Nominal (euro basis).  
 Deutsche Bundesbank

<sup>1</sup> It should be borne in mind that global economic growth would even have increased markedly in recent years if EMEs had maintained their previous pace of expansion. This is due to the growing weight of EMEs in global GDP.

<sup>2</sup> At market exchange rates, EMEs accounted for 43%.

<sup>3</sup> See Deutsche Bundesbank (2011, 2013) for more information on the sector-specific characteristics of German exports to China.

<sup>4</sup> See Deutsche Bundesbank (2018).

*Some steps back in institutional framework conditions ...*

Institutional frameworks such as political stability, the rule of law and the extent of corruption are important determinants of long-term growth outlook prospects.<sup>9</sup> Many EMEs have always shown marked deficits in this respect when compared to advanced economies. According to the World Bank Worldwide Governance Indicators,<sup>10</sup> some major commodity exporters, including Brazil, Mexico and South Africa, have recently fallen further behind advanced economies.<sup>11</sup> Among the other EMEs, developments were mixed. According to this assessment, China, India and Indonesia have significantly improved their institutional framework in recent years. By contrast, Türkiye and some eastern European countries have dropped behind.<sup>12</sup>

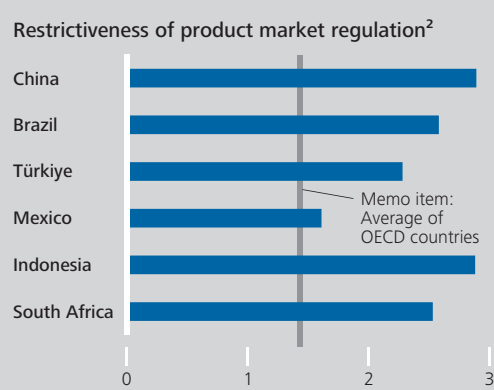
*... and a high degree of regulation remains*

In addition to institutional quality, regulatory frameworks are an important factor. According to the OECD indicators on product market regulation,<sup>13</sup> said regulation was still considerably more restrictive in major EMEs than in advanced economies. One important problem area is that of government-owned corporate holdings, which the OECD considers a form of product market regulation. In China, Indonesia and Russia, in particular, there are many state-owned enterprises, often with low productivity. In other countries such as Brazil and South Africa, excessive bureaucracy is a major weakness.

*Pandemic amplifies human capital deficits*

A further structural impediment to faster economic convergence, particularly in less developed EMEs, is likely to be a lack of human capital. Progress has been made in the length and quality of schooling in most regions in recent years. However, school closures during the coronavirus pandemic are likely to have led to particularly high learning losses in EMEs (see the box on pp. 63 f.).

### Political and regulatory frameworks in selected emerging market economies



Sources: World Bank, OECD and Bundesbank calculations.  
**1** According to the Worldwide Governance Indicators published by the World Bank (averages of six sub-indicators). Higher values indicate higher institutional quality. **2** According to OECD indicators of economy-wide product market regulation; on a scale from zero (least restrictive) to six (most restrictive). Data for Indonesia and China refer to 2019 and 2020 respectively; otherwise, data refer to 2018. Data for India are not available.  
 Deutsche Bundesbank

<sup>9</sup> See, inter alia, Acemoglu et al. (2005).

<sup>10</sup> For more information on the methodology, see Kaufmann et al. (2010).

<sup>11</sup> Results are currently available up to 2021. For Russia, therefore, political developments in connection with the war in Ukraine are not yet shown.

<sup>12</sup> The setbacks could be related to the emergence of populist governments. According to an analysis by Funke et al. (2022), the share of countries with populist governments worldwide reached an all-time high in 2018. Many of these were EMEs. According to the study, institutional quality suffers under a populist government and the economy tends to grow much less strongly.

<sup>13</sup> For more information on the methodology, see Vitale et al. (2020).



## More recent challenges for EMEs

### Deglobalisation trends

*Increasing competition from EMEs led to protectionist tendencies in advanced economies*

The close integration of EMEs into the international division of labour in the 1990s and 2000s intensified global competition. In the advanced economies, this triggered considerable adjustment processes and accelerated macroeconomic structural change. Many sectors and regions benefited from this, but there were also losers. In recent years, protectionist tendencies have grown significantly in many advanced economies, reflecting an increasingly uneven distribution of wealth gains from globalisation.

*Protectionist measures to avert unfair trade practices by China*

China's dealings, in particular, have spurred several advanced economies into action. Many trading partners have accused the country of violating the rules of the world trade order by undertaking unfair trade practices such as price dumping or infringement of intellectual property rights. Hopes that China would reduce its government influence on economic activity upon joining the World Trade Organization in 2001 have been largely dashed. In addition, China has now become an assertive global power. The above factors have seen political tensions intensify, especially between China and the United States and specifically in the area of trade policy.<sup>14</sup>

*Efforts to diversify critical inputs*

Heightened geopolitical risks are one factor driving many countries' efforts to geographically diversify their imports of commodities and critical intermediate input goods or to promote domestic production. Trade and industrial policy initiatives to this effect have already been put forward in the EU.<sup>15</sup> Experience of the disruption of international supply chains during the pandemic and the European energy dependencies exposed by the Ukraine war played a key role here.

Political efforts to further unravel the fabric of economic relationships with certain countries

– also known as geoeconomic fragmentation – could alter the structure of the global economy over the coming years. At least in the case of strategically important goods, production and associated supply chains could be increasingly reshored domestically or in geographically closer or allied countries. Foreign direct investment already provides initial evidence of such movements.<sup>16</sup>

*Geoeconomic fragmentation could alter structure of global economy*

If the trend toward deglobalisation prevails, this will likely lead to considerable losses in global prosperity. EMEs could be among the biggest losers. Many of them, including China, have adapted their economic structure to the international division of labour and are strongly geared toward foreign trade with advanced economies. In a more fragmented global economy, it may become more difficult for other EMEs, especially those with very low per capita incomes, to use an export-based approach to rapidly catch up.<sup>17</sup>

*Deglobalisation would hit EMEs particularly hard*

Under such a changed framework, EMEs would have to make even more active efforts in future to exploit the benefits of international trade. One way to do this would be to further reduce trading costs. In EMEs, the cost of cross-border trade in goods remains, on average, more than one-and-a-half times that in advanced economies.<sup>18</sup> This cost disadvantage is attributable not only to higher transport and logistics costs but also to less favourable trade policy framework conditions on the part of the EMEs. Incentives to reduce trade policy barriers could also be provided by regional free trade agreements.<sup>19</sup> A number of EMEs have stepped up their participation in these in recent years.

*EMEs should make best use of the benefits of international trade*

<sup>14</sup> See Deutsche Bundesbank (2020).

<sup>15</sup> In 2021 the EU formulated a trade strategy of open strategic autonomy. While it continues to advocate global cooperation, it also emphasises the need to reduce external dependencies. See European Central Bank (2023).

<sup>16</sup> See International Monetary Fund (2023), pp. 91-114. Up to now, the foreign trade data have provided only weak indications of such shifts. See European Central Bank (2023), pp. 26 ff. and Jakubik and Ruta (2023).

<sup>17</sup> See Aiyar et al. (2023).

<sup>18</sup> See World Bank (2023a).

<sup>19</sup> These include, for example, the RCEP in the Asia-Pacific region or the African Continental Free Trade Area.

## The role of human capital in emerging market economies' catching-up process

There is a considerable global disparity between individual nations' per capita incomes. In 2022, the GDP per capita in purchasing power parities (PPP) of the ten poorest countries in the world was not even US\$1,800. India and China, the two most populous countries on the planet, had figures of around US\$8,300 and US\$21,400, respectively, whereas per capita income in Germany stood at US\$63,800. There are many different factors driving these disparities, including fixed capital supply and the availability of technology, but human capital also plays a role. The term human capital covers the abilities and skills of the population needed for employment and thus the quality of the workforce.

Human capital is created through upbringing, primary, secondary and tertiary education, vocational training, and professional development.<sup>1</sup> The average number of years of schooling is a very simple metric for measuring a country's human capital. The World Bank's Learning Adjusted Years of Schooling (LAYS) index also incorporates learning outcomes.<sup>2</sup> Whereas in emerging market economies (EMEs) the pure number of years of schooling is often only slightly lower than in advanced economies, the gap is far greater when applying the World Bank's quality-adjusted indicator.<sup>3</sup> That holds particularly true for African countries.

<sup>1</sup> In addition, a certain survival rate and sufficient healthcare are fundamental preconditions to the accumulation of human capital.

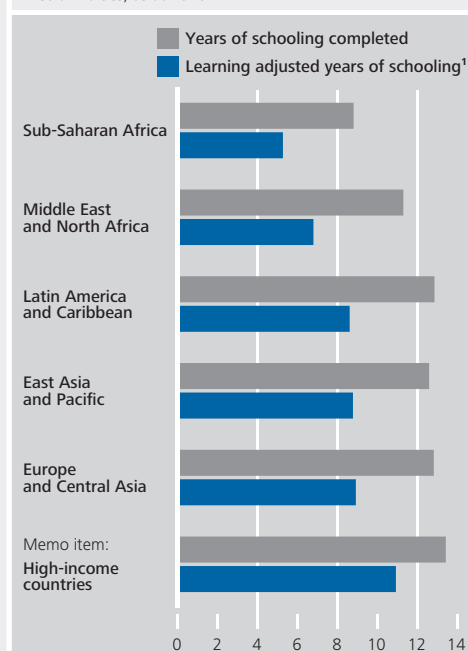
<sup>2</sup> The indicator weights the number of years of school completed by relative performance on harmonised tests. See World Bank (2018).

<sup>3</sup> Here and below, including 51 countries below the "high-income" group for which the necessary World Bank indicator values are available.

There is a rather close correlation between a country's human capital as measured by the World Bank indicator and its per capita GDP. A higher level of education among the population is generally associated with higher incomes. However, this is not yet proof of causality, as higher incomes in turn also enable higher investment in education. Widespread "brain drain" is likely to be a factor behind the extremely low per capita incomes of some African countries. In addition, in many of the region's countries, considerable segments of the workforce are tied up in agriculture, often leaving them unable to make full use of their acquired human capital. Therefore, human capital gains often lead to significant increases in prosperity only if workers migrate to more productive sectors.

### School education and learning outcomes in emerging market economies, by region

Median values, as at 2020

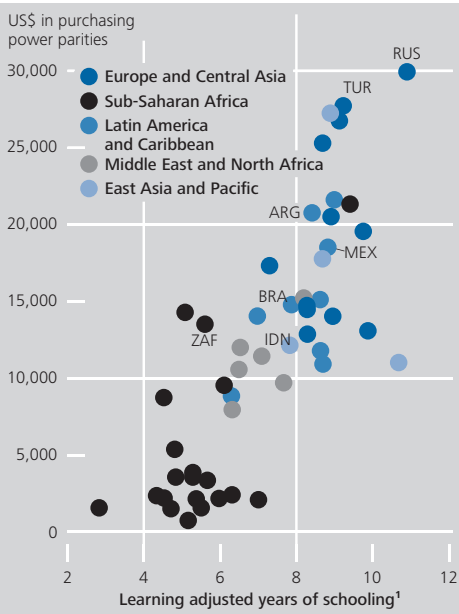


Sources: World Bank and Bundesbank calculations. <sup>1</sup> As defined in World Bank (2018).

Deutsche Bundesbank

### Per capita GDP and learning adjusted years of schooling in emerging market economies

As at 2020



Sources: World Bank and Bundesbank calculations. <sup>1</sup> As defined in World Bank (2018).  
 Deutsche Bundesbank

In addition, initial levels of education and subsequent per capita GDP growth are positively correlated. Those countries with an above-average number of learning adjusted years of schooling in 2010 grew more strongly on average in the following decade. The striking regional differences suggest, however, that additional factors were important drivers of growth. Some Middle Eastern countries, in particular, posted quite small per capita growth despite having a high number of learning adjusted years of schooling.

Against this background, measures to enhance human capital are of great importance in EMEs' economic catching-up process. However, this is a long and drawn-out process. Over the past few decades, many EMEs have seen enormous progress in educational participation. Most recently, the length of schooling has increased in most regions; however, this was not always asso-

ciated with equivalent gains in learning adjusted years of schooling. North Africa and the Middle East have even experienced setbacks. In the 2010 to 2020 period, the average number of years of schooling increased by just over half a year, but that figure decreased when measured in terms of learning outcomes.

The coronavirus pandemic represented a particular challenge to educational institutions in EMEs, where school closures tended to last longer than in advanced economies and online learning opportunities were few and far between. The dropout rate rose. Studies indicate that learning losses averaged three-quarters of a school year. Losses were mostly smaller in advanced economies.<sup>4</sup> As EMEs' economic catching-up process moves forward, one of their key challenges will be avoiding falling further behind advanced economies with regard to educational opportunities.

<sup>4</sup> See Patrinos et al. (2022).

## Increased macrofinancial risks

*EMEs vulnerable to crises when international financing conditions tighten*

The global surge in inflation over the past two years, driven in part by the impact of the pandemic and the Russian war of aggression against Ukraine, led to a steep rise in interest rates in many countries. This poses particular risks for EMEs. In the past, periods of tighter international financing conditions have often led to monetary and financial crises in these countries, in some cases setting the affected economies back by years.<sup>20</sup>

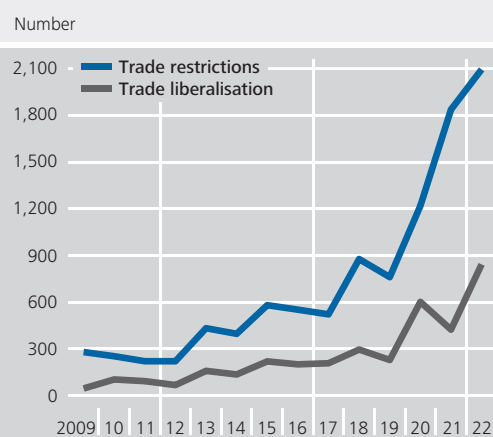
*Although the macroeconomic framework has improved significantly, ...*

However, the financial and monetary systems of EMEs proved comparatively robust during the global financial crisis of 2008-09.<sup>21</sup> The improvement of the monetary policy framework in the preceding years, such as the strengthening of central bank independence and the introduction of binding inflation targets, is likely to have played an important role in this. As a result, many countries have managed to sustainably curb the previously high inflation rates. This, in turn, has been a key prerequisite for deepening domestic capital markets. As a result, some EMEs have increasingly been able to borrow in local currency – even abroad in many cases – which made it considerably easier to service such debt.<sup>22</sup> The massive build-up of foreign reserves in some countries and the introduction of flexible exchange rates are also likely to have played a key role in strengthening resilience.

*... there has been a sharp increase in government debt ...*

Nevertheless, a number of factors indicate that stability risks in EMEs have risen again of late. First, government debt grew sharply in many countries as a result of the economic strains caused by the pandemic. Even after the pandemic, fiscal deficits often remained high, partly to cushion the impact of sharp increases in energy and food prices. According to the IMF, EMEs' general government debt increased from 55% of GDP in 2019 to 65% in 2022.<sup>23</sup> In connection with the significant rise in interest rates, many EMEs are therefore likely to face considerable additional medium-term fiscal burdens from servicing their debt.

New trade policy measures\* worldwide



Source: Global Trade Alert database. \* Affecting trade in goods. Data excluding late reports for the respective reporting year (the cut-off date being 31 December of that year).

Deutsche Bundesbank

Furthermore, some EMEs had already seen a significant rise in external debt, including private debt, in the years prior to the pandemic. This was the case in sub-Saharan Africa in particular.<sup>24</sup> Such liabilities are very often denominated in foreign currency. As a result, many financially weaker debtor countries have been particularly hard hit by the recent sharp depreciations of their currencies against the US dollar.<sup>25</sup>

*... and external debt*

Against the backdrop of these developments, the financial situation in a number of EMEs has become much tighter in recent months. External financing via bonds has become increasingly difficult, especially for poorer countries. According to the IMF, more than half of all EMEs with a low per capita income have re-

*Considerable financial tensions already evident in many countries*

<sup>20</sup> Examples include the debt crises in Latin America, especially in the 1980s, and the severe financial market turmoil at the end of the 1990s which spilled over from South-East Asia to other EMEs.

<sup>21</sup> It is also noteworthy that all major commodity exporters were able to cope with the sharp fall in commodity prices between 2014 and 2016 without external assistance.

<sup>22</sup> See Rogoff (2022).

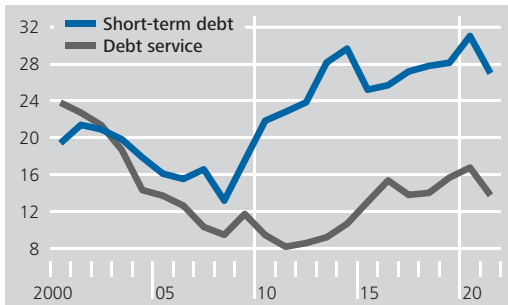
<sup>23</sup> In advanced economies, government debt rose from 104% of GDP in 2019 to 112% in 2022.

<sup>24</sup> China has increasingly emerged as a creditor of African countries, also in order to strengthen its trade relations with these countries and gain geopolitical influence.

<sup>25</sup> See World Bank (2023b).

### Short-term external debt and debt service in emerging market economies\*

As a percentage of primary income and export revenues



Source: World Bank World Development Indicators. \* Ratio of short-term external debt or interest and redemption payments for all external debt to primary income and exports of goods and services. Weighted average of all low-income and middle-income countries according to the World Bank's country classification.

Deutsche Bundesbank

cently defaulted or been close to doing so – far more than in the 2009-2019 period (37%).<sup>26</sup>

*Debt sustainability may have deteriorated*

In the near term, the financing conditions for EMEs are set to remain challenging. This will be compounded by the persistently weak growth outlook in many countries. Overall, debt sustainability appears to have deteriorated significantly in many EMEs. Governments, but also private actors, are therefore likely to come under increasing deleveraging pressure. This, in turn, could further dampen the economic outlook in these countries.

## Need for action to strengthen climate protection

*EMEs strongly affected by climate change*

Climate change represents a double challenge for EMEs.<sup>27</sup> First, it poses considerable physical risks to many of these countries. This is particularly true for regions close to the equator, where the prevailing temperatures are already very high. Furthermore, their lower incomes make it more difficult for EMEs to cushion the impact of climate change and climate policy on their people and the economy.

*High CO<sub>2</sub> emissions in EMEs*

Over the past few years, there has been growing international recognition that climate protection needs to be given a higher priority.

EMEs have an important role to play in reducing global CO<sub>2</sub> emissions. In 2022, EMEs accounted for two-thirds of global CO<sub>2</sub> emissions, almost half of which were attributable to China alone.<sup>28</sup> Although per capita emissions are rather low in many EMEs, these countries' emissions are comparatively high in relation to GDP and GDP growth. For example, the CO<sub>2</sub> intensity – defined here as the amount of CO<sub>2</sub> emissions in relation to GDP at purchasing power parities – in EMEs has been just over one-and-a-half times higher than in advanced economies of late.<sup>29</sup> This is due, in particular, to the large share of coal in energy production.<sup>30</sup>

In the coming years, EMEs' CO<sub>2</sub> emissions are likely to continue to rise. At present, there is still a close link between economic growth and the increase in CO<sub>2</sub> emissions in these countries. By contrast, in many advanced economies decoupling has now progressed to such an extent that CO<sub>2</sub> emissions are declining despite positive economic growth.

*Further increase in emissions expected*

It is important that EMEs also step up their efforts to decarbonise their economies. However, meaningful CO<sub>2</sub> pricing has only been applied in a few EMEs to date.<sup>31</sup> In addition, renewable energy would have to be used to a much greater extent. Many EMEs generally have

*EMEs should push ahead with decarbonising their economies*

<sup>26</sup> See International Monetary Fund (2023), pp. 15-16.

<sup>27</sup> Indicators pointing to the particularly high risk in many EMEs include the indices of the Notre Dame Global Adaptation Initiative (ND-GAIN), which systematically capture climate risks for individual countries. See Notre Dame Global Adaptation Initiative (2021) and German Council of Economic Experts (2021).

<sup>28</sup> It should be borne in mind that some of the EMEs' emissions are generated by the production of goods that are exported to advanced economies and could therefore be attributed to the latter. See United Nations (2022).

<sup>29</sup> Based on GDP at market exchange rates, the CO<sub>2</sub> intensity in EMEs is actually three times as high as in advanced economies. As a measure of the efficiency of economic output, however, an assessment using purchasing power parities appears more appropriate, as it factors out prevailing international price differences.

<sup>30</sup> Coal is by far the most polluting fossil fuel. The burning of coal accounts for just over one-third of primary energy consumption in EMEs; in China, India and South Africa it even accounts for more than half. One factor here is that these countries have considerable domestic coal reserves.

<sup>31</sup> China introduced an emissions trading scheme in 2021, but its current design is not very effective. See, inter alia, World Bank (2022).

good conditions for the production of renewable energy, and China is pushing ahead with this at full speed.<sup>32</sup> Elsewhere, however, such projects often fail because of a lack of financing or due to political reasons.<sup>33</sup>

*Exporters of fossil fuels have particularly high adjustment needs*

A number of EMEs, including Russia and countries in the Middle East, have specialised in exporting fossil fuels. They face the particularly great challenge of weaning their economies from these exports in the long term.<sup>34</sup> In recent years, some of them have expressed their intention to diversify their economies. So far, however, these efforts have mostly been half-hearted, partly because business with oil and gas is still very profitable.

## ■ Outlook

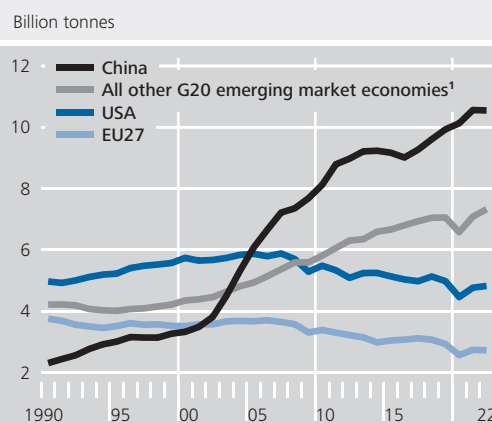
*Structural slowdown in China's growth likely to continue*

The pace of economic growth in EMEs has declined significantly in recent years. Many of the relevant drags on growth are likely to remain in place in the coming years. This is particularly true of the structural slowdown in growth in China, not only due to the growing demographic problems, but also because the potential for achieving productivity gains due to technology adaptation has diminished. A key factor here is therefore likely to be the extent to which the country can transform itself into an innovation-driven economy. Given the powerful governmental influence on the economic and social system, the country's success in this endeavour remains to be seen. Much will also depend on whether China continues to have access to the most advanced technologies in global markets.

*Open world trade order a prerequisite for export-oriented growth*

Globalisation, which has long been an important catalyst for the development of many EMEs, could weaken considerably. In the near term, it will be important to keep the world trade order open. A lot here will rest on China, in particular. At the same time, the absence of a level playing field in the Chinese domestic market is also an important reason why, for some time now, many foreign firms have been

### CO<sub>2</sub> emissions of selected countries and groups of countries



Source: Energy Institute. <sup>1</sup> Argentina, Brazil, India, Indonesia, Mexico, Russia, Saudi Arabia, South Africa and Türkiye.  
 Deutsche Bundesbank

pulling out of the country to a degree. Other EMEs are now filling this gap. India, in particular, has gained a foothold regarding the global production of electronic goods. For the world's most populous country, this raises hopes of a faster process of industrialisation and convergence. India could thus form a certain counterweight to China in the coming years.

EMEs specialised in the export of commodities would benefit from greater diversification in their economies. Given the volatility of international commodity markets, this could help to achieve more sustainable – and more broadly distributed – prosperity gains. In view of the increasing global climate effort, exporters of fossil fuels will probably be compelled to realign their economies anyway. The production and export of hydrogen could offer alternative development opportunities for some of these countries.<sup>35</sup>

*Commodity-exporting EMEs should make their economies more broadly based*

<sup>32</sup> China is the global leader in energy production from renewable sources. In the next few years, output from solar and wind power is set to increase significantly. See Hove (2023).

<sup>33</sup> See, inter alia, International Energy Agency (2023).

<sup>34</sup> In order to achieve the objective of climate neutrality at the global level by 2050, global fossil fuel production would need to decline by around 80% from 2021 levels. See International Energy Agency (2022).

<sup>35</sup> See Ansari (2022).



In an overall challenging environment, opportunities for EMEs will therefore also emerge in the coming years. The fact that EMEs' incomes and productivity are still trailing far behind advanced economies would suggest that, in principle, they still have abundant growth potential. However, an economic policy course needs

to be set in order to harness this potential. It is through appropriate institutional, regulatory and educational reforms that EMEs are most likely to succeed in strengthening the forces of productivity and thus in giving new impetus to the economic catching-up process.

## ■ List of references

Acemoglu, D., S. Johnson and J. A. Robinson (2005), Institutions as a Fundamental Cause of Long-Run Growth, *Handbook of Economic Growth*, Vol. 1 (A), pp. 385-472.

Aiyar, S., A. Ilyina et al. (2023), *Geoeconomic Fragmentation and the Future of Multilateralism*, IMF Staff Discussion Note, No 2023/001.

Ansari, D. (2022), *The Hydrogen Ambitions of the Gulf States*, Stiftung Wissenschaft und Politik, SWP Comment 2022/C 44.

Deutsche Bundesbank (2020), Consequences of increasing protectionism, *Monthly Report*, January 2020, pp. 45-66.

Deutsche Bundesbank (2018), The realignment of the Chinese economy and its global implications, *Monthly Report*, July 2018, pp. 39-56.

Deutsche Bundesbank (2015), Slowdown in growth in the emerging market economies, *Monthly Report*, July 2015, pp. 15-31.

Deutsche Bundesbank (2013), Reasons for the recent slump in German goods exports to China, *Monthly Report*, November 2013, pp. 47-49.

Deutsche Bundesbank (2011), Goods exports of the four large euro area countries to China, *Monthly Report*, July 2011, pp. 20-21.

European Central Bank (2023), The EU's Open Strategic Autonomy from a central banking perspective: Challenges to the monetary policy landscape from a changing geopolitical environment, *Occasional Paper*, No 311.

Funke, M., M. Schularick and C. Trebesch (2022), *Populist Leaders and the Economy*, Centre for Economic Policy Research, Discussion Paper, No 15405.

German Council of Economic Experts (2021), *Global Climate Protection: Policy framework and potential courses of action*, *Annual Report 2021/22*, pp. 376-458.

Hove, A. (2023), *Assessing China's power sector low-carbon transition: a framing paper*, The Oxford Institute for Energy Studies, OIES Paper CE 4.



International Energy Agency (2023), *Scaling up Private Finance for Clean Energy in Emerging and Developing Economies*.

International Energy Agency (2022), *World Energy Outlook 2022*.

International Monetary Fund (2023), *World Economic Outlook: A Rocky Recovery*, April 2023.

International Monetary Fund (2015), *Where Are Commodity Exporters Headed? Output Growth in the Aftermath of the Commodity Boom*, *World Economic Outlook: Adjusting to Lower Commodity Prices*, October 2015, pp. 65-104.

Jakubik, A. and M. Ruta (2023), *Trading with Friends in Uncertain Times*, IMF Working Paper, No 23/124.

Kaufmann, D., A. Kraay and M. Mastruzzi (2010), *The Worldwide Governance Indicators: Methodology and Analytical Issues*, World Bank Policy Research Working Paper, No 5430.

Notre Dame Global Adaptation Initiative (2021), *ND-GAIN Country Index: Country Rankings*, <http://gain.nd.edu/our-work/country-index/rankings/>

Patrinos, H. A., E. Vegas and R. Carter-Rau (2022), *An Analysis of COVID-19 Student Learning Loss*, World Bank Policy Research Working Paper, No 10033.

Rogoff, K. (2022), *Emerging Market Sovereign Debt in the Aftermath of the Pandemic*, *Journal of Economic Perspectives*, Vol. 36 (4), pp. 147-166.

Tran, H. (2022), *Can China transform its economy to be innovation-led?*, Atlantic Council Issue Brief.

United Nations (2022), *Emissions Gap Report 2022: The Closing Window – Climate crisis calls for rapid transformation of societies*, UN Environment Programme.

Vitale, C., R. Bitetti, I. Wanner, E. Danitz and C. Moiso (2020), *The 2018 edition of the OECD PMR indicators and database: Methodological improvements and policy insights*, OECD Economics Department Working Paper, No 1604.

World Bank (2023a), *Falling Long-Term Growth Prospects: Trends, Expectations, and Policies*.

World Bank (2023b), *Global Economic Prospects*, June 2023.

World Bank (2022), *China Country Climate and Development Report*.

World Bank (2018), *The Human Capital Project*.



# Statistical Section

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## I. Key economic data for the euro area

### 1. Monetary developments and interest rates

Period	Money stock in various definitions 1,2				Determinants of the money stock 1			Interest rates			
	M1	M2	M3 3		MFI lending, total	MFI lending to enterprises and households	Monetary capital formation 4	€STR 5,6	Yield on European government bonds outstanding 7		
				3-month moving average (centred)							
	Annual percentage change							% p.a. as a monthly average			
2021 Oct.	10.7	7.5	7.7	7.6	5.6	3.6	-0.3	-0.57	0.2		
Nov.	10.1	7.1	7.4	7.3	5.8	3.7	-0.5	-0.57	0.2		
Dec.	9.8	6.9	6.9	6.9	6.1	3.9	-0.5	-0.58	0.1		
2022 Jan.	9.2	6.8	6.6	6.6	6.2	4.4	-0.3	-0.58	0.4		
Feb.	9.2	6.8	6.5	6.4	6.3	4.4	-0.6	-0.58	0.8		
Mar.	8.8	6.6	6.3	6.3	6.1	4.4	-0.8	-0.58	0.9		
Apr.	8.3	6.3	6.1	6.1	6.4	5.0	-0.2	-0.58	1.4		
May	8.0	6.1	5.8	5.9	6.2	5.1	-0.1	-0.59	1.7		
June	7.3	6.0	5.8	5.8	6.3	5.4	-0.2	-0.58	2.2		
July	6.8	5.9	5.7	5.9	5.9	5.4	-0.2	-0.51	1.9		
Aug.	6.8	6.3	6.2	6.0	5.7	5.7	-0.4	-0.09	1.8		
Sep.	5.7	6.2	6.3	5.8	5.5	5.7	-0.4	0.36	2.6		
Oct.	3.8	5.2	5.1	5.4	5.1	5.3	-0.7	0.66	3.0		
Nov.	2.4	4.7	4.8	4.7	4.8	5.2	-0.1	1.37	2.7		
Dec.	0.6	3.8	4.1	4.1	3.9	4.4	0.5	1.57	2.8		
2023 Jan.	-0.8	2.9	3.4	3.5	3.0	3.7	1.2	1.90	2.9		
Feb.	-2.7	2.0	2.9	2.9	2.5	3.3	1.8	2.28	3.0		
Mar.	-4.2	1.4	2.5	2.4	2.0	2.9	2.3	2.57	3.1		
Apr.	-5.2	0.9	1.9	1.9	1.4	2.4	2.4	2.90	3.0		
May	-6.4	0.3	1.4	...	0.9	2.3	3.1	3.08	3.0		
June	...	...	...	...	...	...	...	3.24	3.0		

1 Source: ECB. 2 Seasonally adjusted. 3 Excluding money market fund shares/units, money market paper and debt securities with a maturity of up to two years held by non-euro area residents. 4 Longer-term liabilities to euro area non-MFIs. 5 Euro

Short-Term Rate. 6 See also footnotes to Table VI.3, p. 43\*. 7 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 \*

Period	Selected items of the euro area balance of payments r								Euro exchange rates 1		
	Current account		Financial account						Reference rate vis-à-vis the US dollar	Effective exchange rate 3	
	Balance	of which: Goods	Balance	Direct investment	Portfolio investment	Financial derivatives 2	Other investment	Reserve assets		Nominal	Real 4
	€ million								EUR 1 = USD ...	Q1 1999 = 100	
2021 Oct.	+ 11,767	+ 12,011	+ 26,991	+ 43,590	+ 15,039	+ 11,384	- 46,194	+ 3,172	1.1601	98.5	92.4
Nov.	+ 19,661	+ 13,529	- 9,494	+ 7,106	+ 55,232	+ 25,547	- 97,921	+ 542	1.1414	97.6	91.8
Dec.	+ 32,673	+ 9,198	+ 29,655	+ 14,131	+ 24,902	+ 115	- 8,674	- 820	1.1304	97.1	91.2
2022 Jan.	- 6,164	- 11,333	- 9,364	- 289	+ 51,258	+ 3,062	- 61,075	- 2,321	1.1314	96.6	91.1
Feb.	+ 7,045	+ 7,880	+ 44,277	+ 43,551	- 6,431	- 3,857	+ 9,488	+ 1,526	1.1342	96.9	91.6
Mar.	+ 5,369	+ 1,384	- 19,759	+ 23,697	- 136,572	+ 2,624	+ 90,586	- 95	1.1019	95.9	91.4
Apr.	- 14,980	- 13,116	- 28,199	+ 17,249	+ 33,628	+ 21,864	- 100,232	- 708	1.0819	95.2	90.0
May	- 28,980	- 7,752	+ 61,702	+ 120,438	+ 23,540	+ 1,396	- 84,882	+ 1,210	1.0579	95.6	90.4
June	- 4,363	- 7,997	+ 14,518	+ 8,784	- 86,875	+ 3,074	+ 87,721	+ 1,814	1.0566	95.9	90.6
July	- 15,845	- 12,961	+ 16,882	- 7,759	+ 48,281	+ 10,520	- 35,796	+ 1,636	1.0179	94.1	89.1
Aug.	- 29,623	- 30,402	- 5,830	- 28,702	+ 59,182	+ 12,420	+ 67,471	+ 2,163	1.0128	93.6	88.8
Sep.	- 21,601	- 12,400	- 47,235	+ 69,983	- 166,756	+ 15,515	+ 30,551	+ 3,472	0.9904	94.2	p 89.8
Oct.	- 16,676	- 8,515	+ 22,133	- 315	- 21,109	+ 2,237	+ 37,390	+ 3,931	0.9826	94.8	p 91.1
Nov.	+ 5,763	+ 7,390	- 5,984	- 18,557	- 26,773	+ 1,364	+ 37,469	+ 513	1.0201	96.0	p 92.0
Dec.	+ 19,429	+ 8,558	+ 42,466	+ 4,113	+ 56,720	- 7,707	- 15,482	+ 4,823	1.0589	97.0	p 92.3
2023 Jan.	- 12,657	- 14,379	+ 20,784	+ 5,700	+ 32,042	- 568	- 7,665	- 8,725	1.0769	97.3	p 92.5
Feb.	+ 10,520	+ 21,029	+ 507	+ 53,020	- 28,109	+ 10,410	- 23,433	- 11,381	1.0715	97.3	p 92.6
Mar.	+ 34,357	+ 43,607	+ 26,319	- 4,081	- 100,376	+ 5,676	+ 123,453	+ 1,647	1.0706	97.5	p 92.8
Apr.	+ 4,232	+ 14,739	- 24,006	+ 9,803	+ 33,330	+ 921	- 66,210	- 1,849	1.0968	98.6	p 93.6
May	...	...	...	...	...	...	...	...	1.0868	98.1	p 93.0
June	...	...	...	...	...	...	...	...	1.0840	98.3	p 93.1

\* 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. 9 and 11, pp. 82\*/ 83\*. 2 Including employee stock options. 3 Bundesbank cal-

culaton. Vis-à-vis the currencies of the extended EER group of trading partners (fixed composition). 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	Croatia	Latvia										
<b>Real gross domestic product <sup>1</sup></b>																					
Annual percentage change																					
2020	- 6.1	- 5.4	- 3.7	- 0.6	- 2.4	- 7.5	- 9.0	6.2	- 9.0	- 8.5	- 2.3										
2021	5.3	6.3	2.6	8.0	3.2	6.4	8.4	13.6	7.0	13.1	4.3										
2022	3.5	3.2	1.8	- 1.3	1.6	2.5	5.9	12.0	3.7	6.2	2.8										
2021 Q4	4.8	6.3	1.2	7.4	3.3	4.2	8.2	13.8	6.3	12.3	4.5										
2022 Q1	5.5	5.3	4.1	- 2.9	3.5	4.5	8.5	11.7	6.5	7.8	6.6										
Q2	4.4	4.1	1.7	- 0.3	2.7	4.2	7.4	12.6	5.0	8.7	3.5										
Q3	2.5	2.1	1.3	- 2.9	1.2	1.0	3.9	11.6	2.4	5.3	0.6										
Q4	1.8	1.6	0.2	- 4.1	- 0.7	0.2	4.5	12.0	1.1	3.5	1.2										
2023 Q1	1.0	1.4	- 0.2	- 3.2	0.4	1.1	2.3	- 0.2	2.0	2.8	0.8										
<b>Industrial production <sup>2</sup></b>																					
Annual percentage change																					
2020	- 7.7	- 3.8	- 9.6	- 2.8	- 3.2	- 10.9	- 2.1	14.5	- 11.5	- 3.4	- 1.8										
2021	8.9	16.8	4.6	12.8	4.2	5.9	10.4	28.3	12.2	6.4	6.5										
2022	2.3	- 0.7	- 0.3	- 2.3	4.0	- 0.2	2.4	18.9	0.4	1.6	0.8										
2021 Q4	2.5	11.2	- 1.2	11.8	7.5	- 0.5	11.9	7.4	4.6	3.9	3.5										
2022 Q1	1.6	6.4	- 1.3	4.3	5.7	- 0.3	4.9	7.6	1.5	2.9	4.0										
Q2	2.0	- 5.1	- 1.3	2.5	8.0	- 0.2	3.1	14.9	2.1	2.5	3.6										
Q3	3.4	- 3.6	1.9	- 5.0	3.5	0.1	3.6	21.0	0.0	2.4	- 2.7										
Q4	2.2	- 0.2	- 0.6	- 10.4	- 0.6	- 0.3	- 1.8	29.8	- 2.2	- 1.4	- 1.1										
2023 Q1	0.5	- 2.9	p	1.2	- 9.5	1.0	- 0.4	2.0	7.8	- 1.5	- 5.9										
<b>Capacity utilisation in industry <sup>3</sup></b>																					
As a percentage of full capacity																					
2020	74.5	75.6	77.3	67.7	76.9	73.8	71.0	69.1	53.4	67.8	72.1										
2021	81.4	80.1	84.9	78.1	81.2	81.1	75.6	78.0	76.5	75.0	75.3										
2022	82.2	79.1	85.2	71.7	81.0	81.8	75.9	79.8	78.4	77.0	75.0										
2022 Q1	82.4	80.1	86.0	71.6	81.9	82.7	76.8	79.1	78.6	77.9	75.5										
Q2	82.5	80.1	84.9	69.8	80.4	82.2	76.8	81.2	78.5	79.9	75.6										
Q3	82.3	78.9	85.0	73.8	80.8	81.7	74.6	79.2	78.5	75.9	75.7										
Q4	81.4	77.2	84.9	71.5	80.8	80.6	75.5	79.8	77.8	74.3	73.3										
2023 Q1	81.0	76.8	84.6	71.4	79.0	81.0	74.8	79.2	77.7	77.6	72.7										
Q2	81.2	77.4	84.2	70.7	76.3	81.9	73.7	...	77.2	78.2	73.8										
<b>Standardised unemployment rate <sup>4</sup></b>																					
As a percentage of civilian labour force																					
2020	7.9	e	5.6	3.6	e	7.0	e	7.8	e	16.3	e	5.6	e	9.2	e	7.6	e	8.1			
2021	7.7	e	6.3	3.6	e	6.2	e	7.7	e	7.9	e	14.8	e	6.3	e	9.5	e	7.7	e	7.6	
2022	6.7	e	5.5	p	3.1	e	5.6	e	6.8	e	7.3	e	12.5	e	4.5	e	8.1	e	6.8	e	6.9
2023 Jan.	6.7		5.7	3.0		5.2		7.1		11.1		4.3		8.0		6.8		6.4			
Feb.	6.6		5.6	3.0		5.3		6.6		11.5		4.2		7.9		6.7		6.1			
Mar.	6.6		5.6	3.0		5.9		6.6		11.2		4.0		7.8		6.5		5.9			
Apr.	6.5		5.6	2.9		6.2		7.0		11.3		3.9		7.8		6.5		5.7			
May	6.5		5.7	2.9		6.2		7.0		10.8		3.8		7.6		6.5		5.7			
June	...		...	...		...		...		...		3.8		...		...		...			
<b>Harmonised Index of Consumer Prices</b>																					
Annual percentage change																					
2020	0.3	0.4	<sup>5</sup> 0.4	- 0.6	0.4	0.5	- 1.3	- 0.5	- 0.1	0.0	0.1										
2021	2.6	3.2	<sup>5</sup> 3.2	4.5	2.1	2.1	0.6	2.4	1.9	2.7	3.2										
2022	8.4	10.3	8.7	19.4	7.2	5.9	9.3	8.1	8.7	10.7	17.2										
2023 Jan.	<sup>6</sup> 8.6	7.4	9.2	18.6	7.9	7.0	7.3	7.5	10.7	12.5	21.4										
Feb.	8.5	5.4	9.3	17.8	8.0	7.3	6.5	8.1	9.8	11.7	20.1										
Mar.	6.9	4.9	7.8	15.6	6.7	6.7	5.4	7.0	8.1	10.5	17.2										
Apr.	7.0	3.3	7.6	13.2	6.3	6.9	4.5	6.3	8.6	8.9	15.0										
May	6.1	2.7	6.3	11.2	5.0	6.0	4.1	5.4	8.0	8.3	12.3										
June	e	5.5	e	1.6	6.8	e	9.0	e	4.1	e	5.3	e	2.8	e	4.8	e	6.7	e	8.3	e	8.1
<b>General government financial balance <sup>7</sup></b>																					
As a percentage of GDP																					
2020	- 7.1	- 9.0	- 4.3	- 5.5	- 5.6	- 9.0	- 9.7	- 5.0	- 9.7	- 7.3	- 4.4										
2021	- 5.3	- 5.5	- 3.7	- 2.4	- 2.8	- 6.5	- 7.1	- 1.6	- 9.0	- 2.5	- 7.1										
2022	- 3.6	- 3.9	- 2.7	- 0.9	- 0.9	- 4.7	- 2.3	1.6	- 8.0	0.4	- 4.4										
<b>General government debt <sup>7</sup></b>																					
As a percentage of GDP																					
2020	97.2	112.0	68.7	18.5	74.7	114.6	206.3	58.4	154.9	87.0	42.0										
2021	95.4	109.1	69.3	17.6	72.6	112.9	194.6	55.4	149.9	78.4	43.7										
2022	91.5	105.1	66.2	18.4	73.0	111.6	171.3	44.7	144.4	68.4	40.8										

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 and calendar adjusted. **2** Manufacturing, mining and energy: adjusted for working-day variations. **3** Manufacturing:

I. Key economic data for the euro area

Lithuania	Luxembourg	Malta	Netherlands	Austria	Portugal	Slovakia	Slovenia	Spain	Cyprus	Period
<b>Real gross domestic product 1</b>										
Annual percentage change										
- 0.0	- 0.8	- 8.6	- 3.9	- 6.5	- 8.3	- 3.3	- 4.3	- 11.3	- 4.4	2020
6.0	5.1	11.7	6.2	4.6	5.5	4.9	8.2	5.5	6.6	2021
1.9	1.5	7.1	4.3	4.9	6.7	1.7	5.4	5.5	5.6	2022
6.5	4.5	13.2	7.4	6.0	6.7	3.1	10.5	6.6	6.9	2021 Q4
4.8	2.6	8.3	6.4	9.3	11.4	3.0	10.2	6.8	6.7	2022 Q1
1.7	2.3	9.6	5.2	6.5	8.0	1.3	8.6	6.9	5.9	Q2
1.8	3.8	5.6	3.0	2.1	5.0	1.3	3.3	5.1	5.5	Q3
- 0.3	- 2.2	5.2	2.9	2.4	2.8	1.2	0.2	3.3	4.6	Q4
- 2.4	- 0.3	3.1	1.9	1.9	2.8	1.0	0.7	4.5	3.4	2023 Q1
<b>Industrial production 2</b>										
Annual percentage change										
- 1.9	- 10.8	- 0.3	- 3.9	- 5.9	- 7.3	- 8.1	- 5.2	- 9.8	- 7.3	2020
20.2	8.4	0.1	5.0	11.2	3.5	10.3	10.2	7.5	6.4	2021
9.4	- 1.2	2.0	2.6	7.7	- 0.0	- 3.6	1.2	3.0	1.1	2022
24.2	2.9	- 4.7	4.4	10.3	- 1.7	3.4	7.9	1.8	1.3	2021 Q4
23.5	0.0	- 2.1	2.1	11.2	- 2.9	- 2.6	6.3	1.7	3.0	2022 Q1
9.2	- 1.6	- 6.8	4.7	10.0	2.0	- 3.0	2.7	5.0	3.0	Q2
10.0	- 0.1	7.7	2.4	6.6	1.3	- 1.7	2.0	4.5	- 1.0	Q3
- 2.5	- 3.3	10.0	1.3	3.3	- 0.3	- 7.0	- 5.8	0.8	- 0.4	Q4
- 11.7	- 3.3	13.8	- 3.6	1.4	1.3	- 3.5	- 4.2	1.6	- 1.2	2023 Q1
<b>Capacity utilisation in industry 3</b>										
As a percentage of full capacity										
73.0	72.5	70.7	78.3	79.5	74.9	79.5	78.4	74.4	51.5	2020
76.7	82.0	76.8	82.4	87.1	79.2	82.2	84.5	77.8	51.2	2021
77.3	80.8	64.7	83.7	87.7	81.9	83.3	84.9	78.7	58.2	2022
78.3	81.9	62.9	84.0	88.4	81.9	82.8	86.5	78.8	55.4	2022 Q1
78.2	79.9	64.6	84.3	88.9	82.5	83.9	85.1	80.0	58.6	Q2
76.7	81.4	67.6	83.9	87.9	81.6	83.5	84.0	78.9	58.5	Q3
76.1	79.8	63.6	82.6	85.6	81.6	83.0	84.0	77.2	60.4	Q4
69.9	74.3	65.7	83.0	87.1	81.6	80.2	83.1	77.1	59.8	2023 Q1
70.6	75.5	53.3	82.6	86.4	83.6	84.0	83.9	76.3	60.7	Q2
<b>Standardised unemployment rate 4</b>										
As a percentage of civilian labour force										
e 8.6	e 6.8	e 4.4	e 3.9	e 5.4	e 6.9	e 6.7	e 5.0	e 15.5	e 7.6	2020
e 7.1	e 5.4	e 3.4	e 4.2	e 6.2	e 6.6	e 6.9	e 4.8	e 14.8	e 7.5	2021
e 5.9	e 4.6	e 2.9	e 3.6	e 4.8	e 6.1	e 6.2	e 4.0	e 13.0	e 6.8	2022
6.8	4.9	2.9	3.6	5.1	7.0	6.1	3.5	12.9	6.7	2023 Jan.
7.3	4.9	2.9	3.5	4.9	6.9	6.1	3.6	12.9	6.3	Feb.
7.6	4.9	2.9	3.5	4.4	6.8	6.1	3.6	12.8	5.7	Mar.
7.5	4.9	2.9	3.4	5.1	6.5	6.1	3.6	12.6	5.1	Apr.
7.2	4.9	2.8	3.5	4.6	6.4	6.0	3.6	12.7	4.9	May
...	...	...	...	...	...	...	...	...	...	June
<b>Harmonised Index of Consumer Prices</b>										
Annual percentage change										
1.1	0.0	0.8	1.1	1.4	- 0.1	2.0	- 0.3	- 0.3	- 1.1	2020
4.6	3.5	0.7	2.8	2.8	0.9	2.8	2.0	3.0	2.3	2021
18.9	8.2	6.1	11.6	8.6	8.1	12.1	9.3	8.3	8.1	2022
18.5	5.8	6.8	8.4	11.6	8.6	15.1	9.9	5.9	6.8	2023 Jan.
17.2	4.8	7.0	8.9	11.0	8.6	15.4	9.4	6.0	6.7	Feb.
15.2	2.9	7.1	4.5	9.2	8.0	14.8	10.4	3.1	6.1	Mar.
13.3	2.7	6.4	5.8	9.4	6.9	14.0	9.2	3.8	3.9	Apr.
10.7	2.0	6.3	6.8	8.8	5.4	12.3	8.1	2.9	3.6	May
8.2	1.0	e 6.1	e 6.4	e 7.8	e 4.7	11.3	6.6	1.6	e 2.7	June
<b>General government financial balance 7</b>										
As a percentage of GDP										
- 6.5	- 3.4	- 9.7	- 3.7	- 8.0	- 5.8	- 5.4	- 7.7	- 10.1	- 5.8	2020
- 1.2	0.7	- 7.8	- 2.4	- 5.8	- 2.9	- 5.4	- 4.6	- 6.9	- 2.0	2021
- 0.6	0.2	- 5.8	0.0	- 3.2	- 0.4	- 2.0	- 3.0	- 4.8	2.1	2022
<b>General government debt 7</b>										
As a percentage of GDP										
46.3	24.5	52.9	54.7	82.9	134.9	58.9	79.6	120.4	113.8	2020
43.7	24.5	55.1	52.5	82.3	125.4	61.0	74.5	118.3	101.2	2021
38.4	24.6	53.4	51.0	78.4	113.9	57.8	69.9	113.2	86.5	2022

quarterly data 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 Including Croatia from 2023 onwards.  
7 According to Maastricht Treaty definition.

## II. Overall monetary survey in the euro area

### 1. The money stock and its counterparts \*

#### a) Euro area <sup>1</sup>

€ 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				
	Total	Enterprises and households		General government		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) <sup>2</sup>	Capital and reserves <sup>3</sup>
		Total	of which: Securities	Total	of which: Securities								
2021 Oct.	81.0	68.7	21.3	12.3	18.4	- 5.1	195.0	200.1	11.5	- 10.7	- 0.7	16.8	6.0
Nov.	156.4	89.5	- 3.5	66.9	67.5	- 30.4	15.1	45.5	- 7.0	- 10.6	- 0.7	1.8	2.5
Dec.	52.7	27.6	20.1	25.1	22.6	- 56.9	- 205.6	- 148.7	4.3	18.0	- 0.8	- 25.1	12.1
2022 Jan.	173.3	98.0	- 10.2	75.3	64.8	- 1.0	141.4	142.3	- 19.9	- 14.8	- 0.1	9.3	- 14.3
Feb.	110.9	44.4	2.0	66.5	73.8	- 13.7	82.3	95.9	- 24.6	- 12.6	- 0.4	- 3.5	- 8.1
Mar.	149.8	104.5	26.4	45.3	36.0	3.0	- 23.7	- 26.7	- 2.2	2.8	- 0.7	- 21.8	17.5
Apr.	112.0	96.8	20.2	15.2	5.2	- 99.3	- 79.2	20.1	5.5	- 10.5	- 0.2	1.5	14.7
May	107.2	65.1	- 18.8	42.1	49.5	- 58.2	40.4	98.6	- 17.8	3.1	- 3.2	- 21.2	3.6
June	116.2	83.6	- 8.8	32.6	33.5	102.6	- 25.9	- 128.5	20.3	- 4.8	- 0.4	1.0	24.4
July	29.8	58.6	- 3.0	- 28.8	- 28.8	- 11.6	63.7	75.4	4.6	- 11.7	- 0.4	- 3.6	20.3
Aug.	- 10.7	26.1	- 18.8	- 36.8	- 31.2	46.9	69.4	22.5	- 15.8	- 22.1	0.8	1.9	3.6
Sep.	86.6	83.1	- 0.1	3.4	2.2	- 53.1	- 199.8	- 146.7	12.9	- 16.4	- 0.4	3.6	26.1
Oct.	- 12.5	0.1	- 6.1	- 12.6	- 9.7	- 0.8	169.5	170.3	- 11.3	- 14.7	0.0	11.5	- 8.1
Nov.	93.0	83.9	31.0	9.0	14.3	14.6	- 40.6	- 55.2	35.8	1.7	- 0.1	34.6	- 0.4
Dec.	- 122.3	- 89.1	- 1.0	- 33.2	- 41.2	- 0.0	- 257.1	- 257.1	43.9	10.0	- 0.1	1.1	32.8
2023 Jan.	- 10.1	- 0.7	- 14.3	- 9.5	- 4.2	11.7	126.6	114.9	31.4	- 6.2	1.8	57.5	- 21.8
Feb.	7.6	- 13.3	3.2	20.9	29.8	8.3	0.5	- 7.8	12.7	- 1.3	1.3	10.0	2.8
Mar.	33.8	41.0	11.7	- 7.2	- 9.7	74.9	112.0	37.1	30.2	10.8	1.0	5.9	12.5
Apr.	- 9.4	24.0	30.8	- 33.4	- 29.1	- 25.5	- 36.2	- 10.7	10.5	9.3	1.0	4.0	- 3.8
May	3.6	49.0	33.8	- 45.4	- 49.6	18.9	44.9	25.9	35.5	- 0.6	2.1	26.7	7.4

#### 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				
	Total	Enterprises and households		General government		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) <sup>2</sup>	Capital and reserves <sup>3</sup>
		Total	of which: Securities	Total	of which: Securities								
2021 Oct.	37.8	34.7	7.2	3.0	- 0.6	47.0	47.6	0.7	18.6	1.4	- 0.2	15.6	1.8
Nov.	54.0	28.5	3.4	25.4	28.0	- 59.0	- 4.2	54.8	5.0	- 0.6	- 0.2	4.7	1.1
Dec.	12.8	10.9	6.8	2.0	4.7	- 122.9	- 47.1	75.8	- 2.3	9.1	- 0.2	- 13.2	2.0
2022 Jan.	40.4	31.0	1.4	9.4	7.5	111.9	72.2	- 39.7	- 4.0	- 1.1	- 0.8	12.6	- 14.8
Feb.	32.7	27.6	3.4	5.2	7.2	16.0	21.9	5.9	5.1	- 1.3	- 0.2	7.0	- 0.4
Mar.	37.0	23.3	4.1	13.7	12.9	- 44.2	- 22.2	22.0	6.1	- 2.0	- 0.2	4.1	4.2
Apr.	19.0	18.9	2.7	0.1	- 4.5	19.1	- 13.0	- 32.1	4.4	- 2.7	- 0.2	3.2	4.1
May	39.1	28.5	3.5	10.6	13.5	- 29.8	- 0.9	28.9	2.0	- 2.4	- 0.1	2.0	2.5
June	32.6	25.5	- 4.1	7.1	4.8	- 22.4	- 9.4	13.0	3.8	- 3.1	- 0.2	- 3.8	10.8
July	18.2	30.6	10.6	- 12.4	- 13.4	42.7	4.3	- 38.5	9.3	- 2.0	- 0.2	8.5	3.0
Aug.	26.0	39.4	- 0.2	- 13.4	- 11.4	- 50.3	6.7	57.1	3.0	- 0.0	- 0.1	0.8	2.3
Sep.	21.5	23.1	0.1	- 1.7	- 4.5	- 27.4	1.6	29.0	4.1	- 0.3	- 0.0	- 0.6	5.0
Oct.	12.8	10.5	- 0.2	2.3	1.9	45.1	20.4	- 24.7	- 7.6	- 1.2	0.2	3.2	- 9.8
Nov.	25.4	26.2	1.4	- 0.9	0.8	38.0	8.9	- 29.1	9.8	1.9	0.2	7.1	0.6
Dec.	- 28.8	- 19.6	- 2.4	- 9.3	- 8.2	- 37.1	- 71.9	- 34.8	- 0.5	- 3.7	0.4	- 1.9	4.8
2023 Jan.	27.5	16.9	- 0.2	10.7	8.9	63.0	29.8	- 33.3	- 14.3	2.7	1.0	3.1	- 21.0
Feb.	9.2	8.3	- 0.2	0.9	1.8	58.4	- 2.0	- 60.3	3.3	0.6	1.2	- 2.1	3.5
Mar.	4.8	8.1	6.4	- 3.4	- 3.7	- 12.4	10.5	23.0	15.5	6.0	1.6	4.4	3.5
Apr.	- 3.7	13.0	1.2	- 16.7	- 20.2	62.7	- 15.2	- 77.9	5.0	2.0	1.5	- 3.0	4.5
May	5.0	11.3	- 1.3	- 6.3	- 4.7	9.6	16.5	6.9	16.9	2.7	2.2	6.1	5.8

\* 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). <sup>1</sup> Source: ECB. <sup>2</sup> Excluding MFIs' portfolios. <sup>3</sup> After

deduction of inter-MFI participations. <sup>4</sup> Including the counterparts of monetary liabilities of central governments. <sup>5</sup> Including the monetary liabilities of central governments (Post Office, Treasury). <sup>6</sup> In Germany, only savings deposits. <sup>7</sup> Paper held by residents outside the euro area has been eliminated. <sup>8</sup> Less German MFIs' holdings

## II. Overall monetary survey in the euro area

### a) Euro area <sup>1</sup>

IV. De- posits of central gov- ernments	V. Other factors			VI. Money stock M3 (balance I plus II less III less IV less V)										Period
	Total 4	of which: Intra- Eurosysteem liability/ claim related to banknote issue	Total	Money stock M2							Repo transac- tions	Money market fund shares (net) 2,7,8	Debt secur- ities with maturities of up to 2 years (incl. money market paper) (net) 2,7	
				Total	Money stock M1			Deposits with an agreed maturity of up to 2 years 5	Deposits at agreed notice of up to 3 months 5,6					
					Total	Currency in cir- culation	Overnight deposits 5							
- 2.4	- 72.0	0.0	139.4	86.4	73.0	6.8	66.2	18.3	- 5.0	11.5	33.3	7.4	2021 Oct.	
- 48.5	84.7	0.0	92.9	84.3	102.0	6.0	95.9	- 18.3	0.7	- 5.0	24.5	- 6.9	Nov.	
- 44.5	- 22.0	0.0	75.5	106.0	104.7	20.6	84.1	- 2.3	3.6	- 33.4	- 7.4	- 7.1	Dec.	
68.1	89.9	0.0	- 7.2	- 7.2	- 43.1	1.0	- 44.0	23.3	12.6	57.2	- 26.2	- 9.1	2022 Jan.	
44.6	35.4	0.0	41.3	70.0	75.8	9.1	66.6	- 13.8	8.0	9.4	- 37.1	- 0.4	Feb.	
13.7	54.2	0.0	90.6	101.8	81.6	22.5	59.1	16.3	4.0	- 17.6	- 0.2	- 2.2	Mar.	
- 22.1	- 93.0	0.0	99.7	61.8	60.6	11.2	49.5	- 1.1	2.3	25.1	20.2	16.5	Apr.	
- 28.9	50.0	0.0	52.6	62.4	66.3	7.8	58.6	- 15.9	11.9	4.7	- 10.1	- 5.2	May	
69.6	75.1	0.0	69.1	75.4	48.2	6.6	41.6	24.1	3.1	- 32.5	- 1.0	11.1	June	
- 31.2	-117.1	0.0	155.1	122.2	70.4	8.6	61.8	46.7	5.1	23.7	- 2.0	18.0	July	
- 80.3	61.7	0.0	86.3	78.8	27.5	- 4.6	32.1	41.3	10.0	- 22.6	6.8	7.4	Aug.	
7.3	- 36.7	0.0	59.6	56.4	- 42.8	- 1.4	- 41.3	99.8	- 0.6	- 19.5	- 8.4	21.6	Sep.	
- 5.4	64.8	0.0	- 57.8	- 77.1	- 157.4	- 0.4	- 157.1	85.4	- 5.0	4.4	36.7	- 25.4	Oct.	
- 10.5	- 5.6	0.0	71.6	22.1	- 28.8	- 3.5	- 25.2	59.2	- 8.3	27.4	22.3	16.6	Nov.	
- 84.5	- 61.4	0.0	3.3	13.1	- 61.5	11.6	- 73.1	59.8	14.8	- 46.5	2.8	10.5	Dec.	
- 38.7	121.6	0.0	- 130.6	- 146.9	- 229.1	- 13.2	- 215.8	76.0	6.2	35.1	6.6	- 7.8	2023 Jan.	
20.3	25.1	0.0	- 42.1	- 63.1	- 135.2	- 3.5	- 131.7	72.1	0.0	- 2.2	- 6.4	29.4	Feb.	
30.5	33.8	0.0	16.7	9.7	- 104.1	3.9	- 108.0	119.3	- 5.5	- 25.7	20.6	9.6	Mar.	
- 26.5	- 29.0	0.0	- 9.1	- 18.2	- 52.5	4.1	- 56.6	45.7	- 11.4	6.7	21.6	0.2	Apr.	
- 104.5	102.8	0.0	- 30.4	- 38.9	- 87.9	1.7	- 89.7	52.5	- 3.5	29.6	- 5.4	4.0	May	

### b) German contribution

IV. De- posits of central gov- ernments	V. Other factors			VI. Money stock M3 (balance I plus II less III less IV less V) <sup>10</sup>										Period
	Total	of which: Intra- Eurosysteem liability/ claim related to banknote issue 9,11	Currency in cir- culation	Components of the money stock										
				Total	Overnight deposits	Deposits with an agreed maturity of up to 2 years	Deposits at agreed notice of up to 3 months 6	Repo transac- tions	Money market fund shares (net) 7,8	maturities with maturities of up to 2 years (incl. money market paper)(net) 7				
- 3.9	53.7	3.3	1.6	16.4	3.9	13.0	- 0.4	- 0.4	- 0.1	0.4	0.4	2021 Oct.		
7.2	- 42.3	3.7	1.2	25.0	40.9	- 12.3	- 0.1	- 4.7	- 0.3	- 0.3	1.4	Nov.		
27.8	- 135.3	5.3	4.5	- 0.4	- 12.8	9.1	1.6	- 0.3	0.3	0.3	1.7	Dec.		
- 38.1	166.0	1.3	0.8	28.4	22.4	9.3	0.3	- 1.2	0.0	- 2.4	- 2.4	2022 Jan.		
2.5	14.4	3.0	2.2	26.8	23.3	1.1	0.3	1.1	0.1	0.8	0.8	Feb.		
- 0.1	- 13.2	5.8	4.2	- 0.1	- 7.4	8.4	- 1.6	0.5	0.2	- 0.1	0.1	Mar.		
- 3.0	32.9	3.4	2.3	3.7	- 3.4	10.4	- 0.4	- 2.0	- 0.2	- 0.6	- 0.6	Apr.		
22.5	- 30.3	3.4	2.7	15.1	22.5	- 7.4	- 1.2	0.4	0.2	0.7	0.7	May		
14.9	- 37.5	3.7	0.5	29.0	19.6	7.5	- 1.6	0.6	- 0.0	2.9	2.9	June		
- 38.2	55.3	- 5.3	9.1	34.6	5.7	23.6	- 1.7	4.3	0.1	2.6	2.6	July		
- 24.1	- 71.1	- 11.7	12.5	67.9	56.8	13.9	- 2.4	- 1.8	- 0.1	1.4	1.4	Aug.		
4.7	- 1.1	3.3	0.3	- 13.6	- 56.8	45.1	- 5.3	- 2.6	0.1	6.0	6.0	Sep.		
5.1	65.9	0.1	0.1	- 5.4	- 32.1	36.8	- 3.3	- 0.2	0.1	- 6.7	- 6.7	Oct.		
22.6	13.6	- 0.0	0.3	17.3	12.6	4.3	- 5.5	3.2	0.0	2.7	2.7	Nov.		
- 16.3	- 24.6	2.1	2.4	- 24.6	- 37.6	19.0	- 4.1	- 2.0	0.1	0.0	0.0	Dec.		
- 42.9	147.9	2.3	- 5.1	- 0.2	- 37.1	38.4	- 6.5	- 0.1	- 0.2	5.4	5.4	2023 Jan.		
12.9	50.9	1.1	- 0.7	0.4	- 33.2	32.6	- 8.0	1.3	- 0.1	7.8	7.8	Feb.		
27.1	- 34.8	2.3	0.9	- 15.5	- 45.7	31.8	- 10.4	- 0.2	0.3	8.7	8.7	Mar.		
- 39.0	86.7	1.9	0.7	6.3	- 11.7	25.3	- 10.2	0.7	0.2	1.9	1.9	Apr.		
- 11.8	2.8	2.6	0.9	6.7	- 6.2	18.4	- 10.3	- 0.2	- 0.1	5.1	5.1	May		

of paper issued by euro area MFIs. <sup>9</sup> Including national banknotes still in circulation. <sup>10</sup> 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. <sup>11</sup> 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	Assets											
	Lending to non-banks (non-MFIs) in the euro area										Claims on non-euro area residents	Other assets
	Total assets or liabilities	Total	Enterprises and households				General government					
Total			Loans	Debt securities 2	Shares and other equities	Total	Loans	Debt securities 3				
<b>Euro area (€ billion) <sup>1</sup></b>												
2021 Apr.	30,750.3	20,667.4	14,566.8	12,169.2	1,509.9	887.7	6,100.6	1,007.2	5,093.4	6,393.5	3,689.5	
May	30,888.3	20,788.3	14,612.9	12,198.6	1,521.7	892.6	6,175.5	1,006.2	5,169.2	6,432.0	3,668.1	
June	30,989.4	20,890.5	14,652.6	12,234.6	1,529.8	888.3	6,237.8	1,004.8	5,233.1	6,398.7	3,700.3	
July	31,313.9	21,028.4	14,708.1	12,278.0	1,543.4	886.7	6,320.4	1,011.3	5,309.1	6,504.5	3,781.0	
Aug.	31,438.2	21,047.9	14,684.9	12,261.1	1,533.4	890.4	6,363.1	1,002.3	5,360.8	6,653.6	3,736.6	
Sep.	31,472.9	21,133.7	14,757.3	12,330.9	1,535.1	891.4	6,376.4	993.6	5,382.8	6,619.9	3,719.3	
Oct.	31,778.8	21,201.7	14,817.8	12,379.4	1,548.1	890.3	6,384.0	987.7	5,396.3	6,825.2	3,751.9	
Nov.	32,193.4	21,381.5	14,911.5	12,478.0	1,542.5	891.0	6,470.1	985.8	5,484.2	6,917.4	3,894.5	
Dec.	31,777.4	21,384.4	14,917.2	12,462.9	1,567.3	887.0	6,467.2	988.5	5,478.8	6,738.7	3,654.2	
2022 Jan.	32,417.1	21,571.9	15,046.9	12,609.0	1,553.3	884.6	6,525.0	999.2	5,525.8	6,914.5	3,930.7	
Feb.	32,601.8	21,629.0	15,075.7	12,645.3	1,553.8	876.6	6,553.3	991.8	5,561.5	7,011.4	3,961.5	
Mar.	32,937.3	21,737.1	15,176.1	12,722.0	1,587.5	866.7	6,561.0	1,001.4	5,559.6	6,996.1	4,204.1	
Apr.	33,570.1	21,764.2	15,254.1	12,805.3	1,597.7	851.1	6,510.1	1,011.3	5,498.8	7,063.0	4,742.9	
May	33,482.5	21,816.2	15,304.5	12,878.2	1,568.2	858.1	6,511.7	1,003.9	5,507.7	7,013.2	4,653.1	
June	33,886.1	21,886.0	15,373.6	12,973.4	1,569.1	831.1	6,512.4	1,003.0	5,509.4	7,064.5	4,935.5	
July	33,877.7	21,984.6	15,451.6	13,043.7	1,578.6	829.2	6,533.1	1,003.0	5,530.1	7,216.9	4,676.2	
Aug.	34,342.9	21,872.4	15,459.5	13,080.1	1,553.8	825.7	6,412.9	996.9	5,416.1	7,301.6	5,168.9	
Sep.	34,619.1	21,901.4	15,558.1	13,191.3	1,545.0	821.7	6,343.3	998.1	5,345.2	7,241.7	5,476.0	
Oct.	34,551.1	21,891.6	15,553.1	13,190.6	1,533.0	829.6	6,338.5	995.2	5,343.3	7,336.9	5,322.6	
Nov.	34,226.4	22,012.4	15,628.2	13,228.7	1,559.1	840.4	6,384.2	990.2	5,394.0	7,207.7	5,006.2	
Dec.	33,866.7	21,792.9	15,515.8	13,124.7	1,555.4	835.7	6,277.1	998.9	5,278.2	6,873.2	5,200.6	
2023 Jan.	33,828.5	21,883.6	15,553.3	13,171.9	1,545.6	835.8	6,330.3	1,000.3	5,330.0	6,982.8	4,962.1	
Feb.	34,114.8	21,860.4	15,543.2	13,157.8	1,540.9	844.6	6,317.2	991.3	5,325.9	7,003.0	5,251.4	
Mar.	33,955.0	21,921.1	15,575.4	13,175.7	1,552.2	847.4	6,345.7	995.3	5,350.4	7,101.3	4,932.7	
Apr.	33,927.4	21,905.4	15,597.8	13,165.3	1,566.3	866.2	6,307.6	991.1	5,316.5	7,025.7	4,996.4	
May	34,141.1	21,918.8	15,650.2	13,184.8	1,596.0	869.3	6,268.6	995.4	5,273.2	7,160.2	5,062.1	
<b>German contribution (€ billion)</b>												
2021 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	7,362.7	5,062.4	3,808.5	3,310.2	221.9	276.4	1,253.9	284.4	969.5	1,317.4	982.9	
Aug.	7,395.2	5,087.3	3,824.6	3,325.1	221.4	278.1	1,262.8	280.8	982.0	1,336.0	971.9	
Sep.	7,398.6	5,110.8	3,840.8	3,336.4	224.7	279.7	1,270.1	280.7	989.4	1,335.1	952.6	
Oct.	7,461.0	5,147.0	3,874.5	3,363.5	228.6	282.4	1,272.5	284.4	988.0	1,385.2	928.8	
Nov.	7,575.0	5,210.7	3,904.2	3,389.9	229.0	285.3	1,306.4	280.7	1,025.7	1,396.4	967.9	
Dec.	7,475.8	5,212.1	3,914.7	3,393.2	237.0	284.5	1,297.4	278.0	1,019.5	1,355.9	907.8	
2022 Jan.	7,787.0	5,243.9	3,944.7	3,422.9	235.8	286.0	1,299.2	279.9	1,019.3	1,433.6	1,109.5	
Feb.	7,871.3	5,262.9	3,968.5	3,445.2	238.0	285.3	1,294.3	277.8	1,016.5	1,464.4	1,144.0	
Mar.	7,997.7	5,280.7	3,990.2	3,464.4	240.6	285.2	1,290.6	278.6	1,012.0	1,447.5	1,269.5	
Apr.	8,259.4	5,278.9	4,008.0	3,481.9	240.1	286.1	1,270.9	283.2	987.7	1,464.0	1,516.5	
May	8,228.4	5,304.5	4,034.5	3,506.0	240.8	287.7	1,270.0	280.3	989.7	1,445.0	1,479.0	
June	8,413.5	5,322.6	4,058.9	3,537.6	237.8	283.5	1,263.7	282.5	981.2	1,466.1	1,624.8	
July	8,287.9	5,375.0	4,096.1	3,560.3	252.7	283.2	1,278.8	283.6	995.2	1,481.5	1,431.4	
Aug.	8,546.0	5,364.5	4,132.0	3,600.0	249.1	282.9	1,232.5	281.5	951.0	1,492.4	1,689.0	
Sep.	8,857.6	5,356.3	4,153.9	3,624.8	246.1	283.0	1,202.4	284.3	918.1	1,502.4	1,998.8	
Oct.	8,826.7	5,366.0	4,163.6	3,634.6	245.9	283.1	1,202.4	284.8	917.5	1,509.0	1,951.8	
Nov.	8,653.9	5,402.0	4,189.2	3,656.3	249.8	283.1	1,212.8	283.4	929.4	1,502.4	1,749.6	
Dec.	8,626.1	5,345.2	4,165.8	3,636.7	245.9	283.2	1,179.4	283.2	896.1	1,417.3	1,863.7	
2023 Jan.	8,561.4	5,377.1	4,178.3	3,652.7	245.9	279.7	1,198.8	285.0	913.9	1,443.8	1,740.5	
Feb.	8,712.0	5,371.7	4,186.6	3,662.2	243.6	280.9	1,185.1	284.0	901.1	1,443.9	1,896.4	
Mar.	8,573.5	5,388.1	4,193.6	3,661.9	252.1	279.6	1,194.5	284.2	910.3	1,457.2	1,728.2	
Apr.	8,559.3	5,383.7	4,206.2	3,672.7	252.4	281.1	1,177.5	287.7	889.8	1,435.7	1,739.8	
May	8,614.3	5,389.9	4,217.4	3,685.4	252.1	279.9	1,172.6	286.1	886.4	1,468.3	1,756.1	

\* 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). <sup>1</sup> Source: ECB. <sup>2</sup> Including money market paper of

enterprises. <sup>3</sup> Including Treasury bills and other money market paper issued by general government. <sup>4</sup> 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													
Currency in circulation <sup>4</sup>	Deposits of non-banks (non-MFIs) in the euro area												
	Total	of which: in euro <sup>5</sup>	Enterprises and households					At agreed notice of <sup>6</sup>					End of month
			Total	Overnight	With agreed maturities of			up to 3 months	over 3 months				
					up to 1 year	over 1 year and up to 2 years	over 2 years			up to 3 months	over 3 months		
<b>Euro area (€ billion) <sup>1</sup></b>													
1,399.6	15,059.6	13,774.0	13,934.7	8,726.8	730.6	159.5	1,827.5	2,453.0	37.3	2021 Apr.			
1,412.8	15,146.7	13,870.1	14,017.4	8,810.9	724.0	155.5	1,826.2	2,463.6	37.1	May			
1,423.2	15,232.5	13,934.1	14,082.0	8,909.3	697.4	150.4	1,822.0	2,466.2	36.8	June			
1,437.6	15,334.8	14,016.7	14,185.1	9,006.8	705.3	153.6	1,817.0	2,466.2	36.3	July			
1,439.2	15,385.0	14,038.0	14,195.4	9,029.8	706.2	151.2	1,809.9	2,462.4	35.9	Aug.			
1,444.5	15,439.0	14,071.8	14,236.3	9,090.4	700.2	140.0	1,806.7	2,463.3	35.6	Sep.			
1,450.3	15,502.7	14,137.6	14,310.5	9,166.1	707.1	148.0	1,795.5	2,458.8	34.9	Oct.			
1,456.3	15,517.2	14,187.3	14,344.1	9,223.4	697.0	143.3	1,786.3	2,459.8	34.3	Nov.			
1,477.0	15,569.9	14,300.4	14,454.8	9,316.4	704.9	131.3	1,805.2	2,463.5	33.6	Dec.			
1,477.9	15,643.3	14,276.5	14,476.1	9,302.9	706.6	135.3	1,820.2	2,479.3	31.8	2022 Jan.			
1,487.0	15,738.3	14,324.2	14,512.8	9,363.6	688.4	134.3	1,807.7	2,487.3	31.6	Feb.			
1,509.6	15,835.8	14,410.3	14,595.2	9,435.1	703.7	123.5	1,809.6	2,492.1	31.2	Mar.			
1,520.7	15,875.5	14,463.0	14,653.3	9,497.0	705.4	123.5	1,802.0	2,494.3	31.0	Apr.			
1,528.5	15,890.6	14,508.9	14,681.0	9,538.2	684.9	120.2	1,803.2	2,506.6	27.9	May			
1,535.1	16,036.6	14,569.2	14,746.5	9,580.0	704.8	123.4	1,800.3	2,510.4	27.5	June			
1,543.7	16,115.9	14,670.0	14,869.0	9,667.1	741.0	127.1	1,791.0	2,515.8	27.1	July			
1,539.1	16,100.9	14,732.1	14,924.4	9,693.1	781.5	125.9	1,770.0	2,526.0	28.0	Aug.			
1,537.7	16,196.6	14,782.4	15,033.5	9,685.1	913.3	125.5	1,756.3	2,525.7	27.6	Sep.			
1,537.2	16,092.6	14,705.0	14,933.6	9,518.6	993.0	130.3	1,741.7	2,522.3	27.6	Oct.			
1,533.7	16,083.0	14,720.8	14,915.7	9,455.0	1,042.9	134.6	1,741.1	2,514.5	27.6	Nov.			
1,545.3	15,995.0	14,763.8	14,927.6	9,387.1	1,099.5	133.9	1,749.5	2,530.0	27.6	Dec.			
1,533.4	15,876.9	14,667.4	14,845.0	9,228.1	1,163.7	146.1	1,746.4	2,532.0	28.7	2023 Jan.			
1,529.9	15,843.6	14,625.0	14,773.2	9,083.9	1,223.7	157.3	1,746.5	2,531.8	30.0	Feb.			
1,533.8	15,891.7	14,649.1	14,788.4	8,989.9	1,311.7	174.0	1,756.9	2,524.7	31.1	Mar.			
1,537.9	15,848.6	14,649.0	14,784.4	8,939.1	1,345.9	187.8	1,765.7	2,513.9	32.2	Apr.			
1,539.7	15,719.4	14,618.2	14,757.9	8,859.3	1,386.7	199.8	1,766.9	2,510.9	34.3	May			
<b>German contribution (€ billion)</b>													
319.9	4,262.2	4,013.0	3,874.5	2,594.4	143.0	31.9	542.5	536.8	25.8	2021 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	4,313.9	4,047.3	3,911.3	2,645.8	136.0	31.4	536.0	536.7	25.2	July			
329.0	4,333.1	4,065.2	3,923.1	2,659.1	135.6	31.3	535.7	536.4	25.0	Aug.			
329.8	4,340.5	4,064.1	3,919.8	2,662.1	132.2	31.2	533.6	535.8	24.8	Sep.			
331.4	4,354.3	4,080.9	3,950.3	2,681.4	143.0	31.1	534.8	535.5	24.6	Oct.			
332.6	4,390.5	4,107.1	3,968.0	2,710.9	132.5	30.3	534.6	535.5	24.3	Nov.			
337.1	4,425.2	4,113.0	3,968.5	2,691.5	141.2	30.1	544.6	537.0	24.1	Dec.			
337.9	4,418.1	4,139.2	4,006.8	2,737.3	135.4	29.7	543.6	537.4	23.4	2022 Jan.			
340.1	4,444.1	4,161.0	4,017.1	2,752.3	132.4	29.4	542.3	537.7	23.1	Feb.			
344.3	4,441.6	4,159.0	4,014.6	2,755.3	130.7	29.3	540.4	536.0	22.9	Mar.			
346.7	4,445.6	4,158.1	4,019.8	2,754.8	140.0	29.4	537.7	535.1	22.7	Apr.			
349.4	4,478.3	4,170.7	4,016.7	2,769.9	125.8	29.7	534.8	533.9	22.6	May			
349.9	4,517.1	4,194.6	4,031.6	2,787.1	127.8	30.1	531.9	532.3	22.4	June			
359.0	4,507.6	4,222.4	4,070.3	2,813.6	142.1	31.0	530.6	530.6	22.3	July			
371.5	4,552.6	4,289.4	4,135.2	2,870.1	153.3	30.6	530.7	528.3	22.2	Aug.			
371.8	4,541.5	4,267.4	4,135.1	2,834.9	193.7	30.9	530.3	523.0	22.2	Sep.			
371.8	4,546.8	4,270.2	4,140.4	2,804.0	233.2	31.6	529.3	519.8	22.4	Oct.			
371.5	4,578.7	4,283.7	4,146.3	2,806.0	240.1	32.1	531.0	514.4	22.6	Nov.			
374.0	4,534.2	4,260.8	4,119.2	2,764.3	260.2	34.1	527.1	510.4	23.0	Dec.			
368.9	4,489.3	4,257.7	4,126.0	2,749.9	286.6	36.9	529.6	499.1	24.0	2023 Jan.			
368.1	4,496.6	4,250.9	4,106.5	2,706.5	314.2	39.1	530.3	491.2	25.2	Feb.			
369.0	4,505.7	4,236.8	4,090.4	2,667.4	336.4	42.4	536.3	481.0	26.8	Mar.			
369.8	4,473.0	4,248.0	4,104.2	2,660.3	360.2	46.1	538.3	471.0	28.3	Apr.			
370.7	4,469.7	4,256.0	4,103.8	2,647.5	373.8	50.3	540.9	460.8	30.5	May			

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"). <sup>5</sup> Excluding central governments' deposits. <sup>6</sup> In Germany, only savings deposits.

## II. Overall monetary survey in the euro area

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

Liabilities (cont'd)													
Deposits of non-banks (non-MFIs) in the euro area (cont'd)													
End of month	General government								Repo transactions with non-banks in the euro area		Money market fund shares (net) <sup>3</sup>	Debt securities	
	Other general government								Total	of which: Enterprises and households		Total	of which: Denominated in euro
	Central government	Total	Overnight	With agreed maturities of			At agreed notice of 2						
				up to 1 year	over 1 year and up to 2 years	over 2 years	up to 3 months	over 3 months					
<b>Euro area (€ billion) <sup>1</sup></b>													
2021 Apr.	700.9	424.0	293.9	48.5	16.2	42.9	18.9	3.6	252.5	252.4	618.2	1,989.0	1,350.5
May	692.4	436.9	308.3	47.7	15.9	42.4	19.1	3.5	247.4	247.4	608.6	1,978.6	1,339.4
June	709.3	441.2	314.0	46.6	16.3	42.0	18.8	3.5	245.8	245.8	600.5	1,982.6	1,333.7
July	709.6	440.1	313.9	45.6	16.6	42.0	18.6	3.5	254.6	254.5	622.6	1,999.4	1,334.0
Aug.	736.1	453.5	329.1	43.9	17.0	42.0	18.0	3.4	243.0	243.0	628.1	1,988.5	1,334.0
Sep.	742.6	460.1	334.6	46.3	16.6	41.3	18.1	3.3	260.8	260.7	597.0	2,013.4	1,344.0
Oct.	740.3	451.9	323.3	48.1	18.0	41.6	17.7	3.3	272.2	272.2	630.3	2,040.1	1,356.4
Nov.	691.5	481.6	349.8	50.3	19.1	41.7	17.5	3.3	267.7	267.6	654.8	2,046.7	1,355.2
Dec.	646.7	468.4	337.4	49.7	19.4	41.1	17.6	3.2	234.3	233.1	647.5	2,019.7	1,346.8
2022 Jan.	711.0	456.2	306.6	67.4	19.6	41.2	17.6	3.8	291.8	291.6	621.2	2,049.2	1,351.4
Feb.	755.6	469.9	314.1	73.5	19.8	41.3	17.6	3.7	301.3	301.1	584.0	2,044.8	1,358.7
Mar.	769.7	470.9	304.7	82.5	20.5	42.4	17.3	3.4	283.8	283.6	583.8	2,026.7	1,358.6
Apr.	747.7	474.5	306.7	83.4	21.2	42.6	17.2	3.4	310.1	309.9	604.0	2,073.8	1,362.8
May	718.8	490.8	316.7	88.4	22.3	43.3	16.8	3.3	313.0	312.9	593.9	2,038.0	1,337.7
June	788.4	501.8	325.2	90.9	22.9	43.3	16.2	3.2	281.2	281.1	592.9	2,069.3	1,361.0
July	757.2	489.8	302.8	100.4	24.2	42.9	16.2	3.3	306.0	305.9	590.8	2,090.9	1,361.1
Aug.	676.9	499.6	309.1	104.6	24.0	42.5	16.1	3.2	283.8	283.7	597.5	2,113.5	1,375.1
Sep.	684.3	478.8	281.7	111.2	24.5	42.3	16.0	3.2	264.8	264.7	589.1	2,153.5	1,415.1
Oct.	678.9	480.2	287.2	109.2	24.3	41.5	14.7	3.2	268.8	268.8	625.8	2,130.5	1,416.5
Nov.	668.8	498.6	306.2	109.2	25.1	40.8	14.2	3.2	295.4	295.4	648.0	2,159.0	1,441.3
Dec.	584.0	483.5	296.0	103.6	27.2	40.2	13.5	3.0	248.3	248.3	650.9	2,166.2	1,474.6
2023 Jan.	551.2	480.7	283.1	113.0	27.5	40.6	12.8	3.7	284.0	284.0	657.6	2,205.1	1,510.3
Feb.	572.0	498.4	297.4	115.1	28.7	40.3	13.2	3.7	281.6	281.5	651.2	2,259.1	1,531.4
Mar.	602.7	500.6	288.6	125.7	28.4	39.6	14.7	3.6	255.3	255.2	671.9	2,257.1	1,551.2
Apr.	576.2	488.0	277.8	123.3	29.7	39.4	14.2	3.6	261.7	261.3	693.5	2,253.0	1,560.9
May	471.6	489.9	277.1	126.8	29.2	39.4	13.8	3.5	291.9	287.8	688.0	2,298.5	1,590.5
<b>German contribution (€ billion)</b>													
2021 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	518.3	295.1
Aug.	168.1	241.8	155.7	37.3	13.9	32.4	2.4	0.2	9.7	9.7	2.2	522.4	303.1
Sep.	175.2	245.6	158.2	39.8	13.4	31.7	2.3	0.2	11.2	11.2	2.2	530.1	305.5
Oct.	171.3	232.7	142.7	40.9	14.8	31.8	2.3	0.2	10.8	10.8	2.1	547.9	316.4
Nov.	178.4	244.1	155.2	38.8	16.1	31.6	2.2	0.2	6.1	6.1	1.8	556.5	324.8
Dec.	206.2	250.5	161.9	39.1	16.4	30.7	2.3	0.2	5.8	4.8	2.1	547.6	316.3
2022 Jan.	168.1	243.3	139.1	54.6	16.5	30.7	2.2	0.2	4.7	4.7	2.2	562.8	325.1
Feb.	170.6	256.3	147.8	59.2	16.3	30.6	2.2	0.2	5.8	5.8	2.3	572.5	338.8
Mar.	170.6	256.4	137.6	68.8	17.0	30.7	2.2	0.1	6.3	6.3	2.4	581.5	354.8
Apr.	167.6	258.2	137.6	70.0	17.6	30.6	2.2	0.2	4.4	4.4	2.2	596.5	357.3
May	190.1	271.4	144.2	75.3	18.5	31.1	2.2	0.2	4.8	4.8	2.4	596.8	359.0
June	205.0	280.5	147.7	80.5	19.0	31.0	2.2	0.1	5.4	5.4	2.3	604.2	362.6
July	166.8	270.4	128.3	89.0	20.2	30.6	2.2	0.1	9.8	9.8	2.4	613.8	369.1
Aug.	142.7	274.6	129.4	92.2	20.4	30.4	2.2	0.1	8.0	8.0	2.3	625.7	384.5
Sep.	147.4	259.1	109.0	96.6	20.8	30.3	2.2	0.1	5.4	5.4	2.4	640.0	395.3
Oct.	152.5	253.9	108.1	93.1	20.5	30.1	2.1	0.1	5.2	5.2	2.5	633.9	398.1
Nov.	175.5	256.9	114.7	88.9	21.5	29.8	1.9	0.1	8.3	8.3	2.5	634.2	402.6
Dec.	159.2	255.8	117.3	83.2	23.9	29.6	1.8	0.1	6.3	6.3	2.6	631.2	409.3
2023 Jan.	116.4	246.9	99.4	92.2	23.8	29.8	1.6	0.1	6.1	6.1	2.4	639.6	417.9
Feb.	129.3	260.8	110.3	94.6	24.6	29.7	1.5	0.1	7.5	7.5	2.3	651.5	427.1
Mar.	156.4	258.8	102.2	101.4	24.1	29.6	1.4	0.1	7.2	7.2	2.6	658.0	440.3
Apr.	117.4	251.4	97.3	97.8	25.4	29.5	1.3	0.1	7.9	7.9	2.7	654.9	446.8
May	105.6	260.2	104.8	99.5	25.0	29.7	1.2	0.1	7.7	7.7	2.6	670.6	458.1

\* Monetary financial institutions (MFIs) comprise banks (including building and loan associations), money market funds, and the European Central Bank and national central banks (the Eurosystem). **1** Source: ECB. **2** In Germany, only savings deposits. **3** Excluding holdings of MFIs; for the German contribution, excluding German MFIs' portfolios of securities issued by MFIs in the euro area. **4** In Germany, bank debt securities with maturities of up to one year are classed as money market paper.

**5** Excluding liabilities arising from securities issued. **6** After deduction of inter-MFI participations. **7** The German contributions to the Eurosystem's monetary aggregates should on no account be interpreted as national monetary aggregates and are therefore not comparable with the erstwhile German money stocks M1, M2 or M3. **8** Including DEM banknotes still in circulation (see also footnote 4 on p. 10\*). **9** For the German contribution, the difference between the volume of euro banknotes



## II. Overall monetary survey in the euro area

issued (net) <sup>3</sup>							Memo item:					Monetary liabilities of central governments (Post Office, Treasury) <sup>14</sup>	End of month
With maturities of			Liabilities to non-euro area residents <sup>5</sup>	Capital and reserves <sup>6</sup>	Excess of inter-MFI liabilities	Other liability items		Monetary aggregates <sup>7</sup> (from 2002 German contribution excludes currency in circulation)					
up to 1 year <sup>4</sup>	over 1 year and up to 2 years	over 2 years				Total <sup>8</sup>	of which: Intra-Eurosystem-liability/claim related to banknote issue <sup>9</sup>	M1 <sup>10</sup>	M2 <sup>11</sup>	M3 <sup>12</sup>	Monetary capital formation <sup>13</sup>		
<b>Euro area (€ billion) <sup>1</sup></b>													
4.9	16.6	1,967.5	4,989.0	2,948.0	10.5	3,484.0	0.0	10,569.8	14,020.5	14,778.4	6,826.9	173.5	2021 Apr.
13.2	15.9	1,949.5	4,995.8	2,968.5	53.4	3,476.5	0.0	10,684.1	14,133.9	14,884.9	6,827.3	176.1	May
8.1	16.1	1,958.5	4,963.9	2,979.9	57.4	3,503.6	0.0	10,802.7	14,222.4	14,959.9	6,842.7	180.3	June
17.0	17.1	1,965.3	5,051.0	3,024.8	38.9	3,550.3	0.0	10,915.0	14,344.9	15,122.1	6,888.8	180.9	July
12.0	16.3	1,960.3	5,201.0	3,024.5	29.9	3,499.0	0.0	10,956.4	14,379.2	15,151.9	6,876.0	182.3	Aug.
15.9	17.7	1,979.7	5,224.6	2,997.6	15.2	3,480.9	0.0	11,032.9	14,441.4	15,190.2	6,864.2	187.4	Sep.
23.0	17.6	1,999.5	5,422.6	2,999.7	– 22.8	3,483.7	0.0	11,103.9	14,525.7	15,327.0	6,874.5	188.2	Oct.
19.3	17.8	2,009.6	5,510.6	3,037.4	21.5	3,681.3	0.0	11,195.2	14,606.3	15,420.1	6,912.5	189.7	Nov.
12.3	18.0	1,989.3	5,376.2	3,026.8	54.3	3,371.8	0.0	11,299.6	14,712.2	15,495.8	6,899.2	195.0	Dec.
22.0	18.5	2,008.7	5,556.3	3,001.7	59.2	3,716.5	0.0	11,259.9	14,709.2	15,494.2	6,907.4	196.0	2022 Jan.
33.4	5.7	2,005.7	5,643.1	2,994.0	52.1	3,757.2	0.0	11,337.9	14,780.5	15,535.6	6,883.9	195.0	Feb.
30.7	6.2	1,989.8	5,625.1	3,003.0	78.5	3,991.1	0.0	11,420.9	14,884.1	15,628.0	6,879.4	195.1	Mar.
39.0	16.2	2,018.6	5,760.4	2,979.2	43.4	4,402.9	0.0	11,497.8	14,966.8	15,751.5	6,876.8	197.2	Apr.
34.0	15.6	1,988.4	5,814.3	2,915.9	56.3	4,332.0	0.0	11,558.5	15,021.7	15,795.7	6,872.0	199.0	May
47.8	14.4	2,007.0	5,735.2	2,905.2	73.8	4,656.7	0.0	11,615.3	15,108.4	15,878.2	6,886.6	199.4	June
15.1	16.4	2,059.5	5,862.8	2,970.9	75.9	4,320.6	0.0	11,693.5	15,242.2	15,997.1	6,894.6	203.9	July
16.7	19.0	2,077.8	5,914.8	2,890.5	94.9	4,808.0	0.0	11,714.4	15,316.1	16,075.7	6,812.0	196.7	Aug.
34.9	19.5	2,099.1	5,898.7	2,845.0	19.0	5,114.8	0.0	11,678.2	15,416.4	16,176.7	6,773.5	195.9	Sep.
3.8	24.0	2,102.8	6,038.5	2,819.3	42.1	4,996.2	0.0	11,516.3	15,332.9	16,110.8	6,736.2	196.0	Oct.
23.7	22.8	2,112.5	5,881.3	2,857.3	68.8	4,700.0	0.0	11,472.6	15,335.1	16,163.8	6,782.4	199.7	Nov.
31.7	23.2	2,111.2	5,553.4	2,817.9	59.6	4,830.2	0.0	11,394.6	15,328.2	16,144.6	6,749.5	192.2	Dec.
17.8	27.9	2,159.4	5,636.4	2,861.7	85.2	4,688.3	0.0	11,214.6	15,230.8	16,062.6	6,840.5	191.1	2023 Jan.
46.9	30.4	2,181.8	5,670.9	2,810.9	81.4	4,983.3	0.0	11,082.0	15,172.8	16,028.2	6,813.2	191.8	Feb.
54.0	30.4	2,172.6	5,657.4	2,893.1	89.6	4,705.3	0.0	10,971.3	15,173.5	16,033.0	6,897.0	182.0	Mar.
50.2	32.9	2,169.9	5,623.3	2,885.4	99.1	4,724.9	0.0	10,914.3	15,151.9	16,036.8	6,896.2	182.4	Apr.
55.9	32.6	2,210.0	5,719.5	2,908.2	169.0	4,806.9	0.0	10,833.9	15,124.1	16,019.7	6,962.4	180.8	May
<b>German contribution (€ billion)</b>													
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	2021 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	7.0	501.5	1,031.5	795.8	– 1,075.6	1,767.0	490.0	2,793.9	3,552.6	3,581.2	1,891.2	0.0	July
12.7	6.5	503.2	1,068.1	793.5	– 1,088.4	1,754.6	492.9	2,814.8	3,571.7	3,602.8	1,889.9	0.0	Aug.
13.1	7.0	510.1	1,165.5	781.6	– 1,156.2	1,723.6	497.5	2,820.3	3,575.1	3,608.5	1,881.9	0.0	Sep.
13.3	7.2	527.5	1,165.8	783.9	– 1,110.5	1,706.6	500.8	2,824.1	3,591.6	3,625.0	1,902.8	0.0	Oct.
14.5	7.4	534.6	1,227.7	803.0	– 1,154.8	1,744.2	504.5	2,866.1	3,621.4	3,651.2	1,928.3	0.0	Nov.
16.1	7.5	524.0	1,305.6	796.1	– 1,297.0	1,690.3	509.8	2,853.4	3,619.4	3,651.0	1,919.7	0.0	Dec.
13.6	7.7	541.5	1,271.1	778.4	– 1,169.6	1,919.3	511.1	2,876.4	3,652.3	3,680.4	1,917.7	0.0	2022 Jan.
14.7	7.5	550.4	1,275.8	774.8	– 1,172.9	1,969.0	514.2	2,900.0	3,677.2	3,707.4	1,921.4	0.0	Feb.
14.8	7.3	559.5	1,299.3	781.2	– 1,190.8	2,076.2	520.0	2,892.9	3,677.0	3,707.8	1,934.7	0.0	Mar.
14.6	7.1	574.8	1,284.0	769.2	– 1,168.1	2,325.6	523.3	2,892.4	3,686.8	3,715.1	1,935.2	0.0	Apr.
14.9	7.3	574.6	1,307.0	748.6	– 1,199.2	2,289.8	526.8	2,914.0	3,699.5	3,728.9	1,911.8	0.0	May
18.7	6.6	578.9	1,317.0	743.1	– 1,255.4	2,479.8	530.5	2,934.8	3,726.6	3,759.7	1,907.5	0.0	June
21.2	6.8	585.8	1,287.5	779.7	– 1,189.6	2,276.7	525.2	2,941.9	3,757.1	3,797.3	1,949.2	0.0	July
21.8	7.6	596.2	1,349.3	739.6	– 1,271.6	2,540.1	513.5	2,999.5	3,826.5	3,866.3	1,919.1	0.0	Aug.
27.5	8.1	604.3	1,385.2	711.9	– 1,287.1	2,858.3	516.8	2,944.0	3,811.2	3,854.6	1,899.2	0.0	Sep.
19.1	9.7	605.0	1,355.1	693.8	– 1,215.2	2,804.7	516.8	2,912.1	3,812.3	3,848.8	1,880.8	0.0	Oct.
20.8	11.2	602.2	1,310.2	714.6	– 1,191.2	2,596.7	516.8	2,920.8	3,819.7	3,862.5	1,900.3	0.0	Nov.
20.2	11.7	599.3	1,265.7	690.1	– 1,230.4	2,726.5	518.9	2,881.6	3,795.1	3,835.9	1,869.2	0.0	Dec.
24.0	13.1	602.4	1,226.5	689.1	– 1,117.5	2,625.9	521.2	2,849.3	3,789.5	3,835.2	1,874.9	0.0	2023 Jan.
29.3	15.8	606.4	1,171.8	668.4	– 1,073.2	2,787.2	522.2	2,816.8	3,782.0	3,836.8	1,860.1	0.0	Feb.
36.2	17.5	604.3	1,188.0	700.6	– 1,129.7	2,641.2	524.5	2,769.6	3,756.4	3,819.8	1,897.7	0.0	Mar.
37.0	18.5	599.4	1,107.1	704.2	– 1,028.5	2,637.8	524.6	2,757.6	3,759.4	3,825.5	1,899.8	0.0	Apr.
41.2	19.5	609.9	1,122.5	715.6	– 1,036.9	2,662.4	529.0	2,752.3	3,762.8	3,833.9	1,926.7	0.0	May

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 <sup>1</sup>	Liquidity-providing factors					Liquidity-absorbing factors					Credit institutions' current account balances (including minimum reserves) <sup>7</sup>	Base money <sup>8</sup>
	Net assets in gold and foreign currency	Monetary policy operations of the Eurosystem				Deposit facility	Other liquidity-absorbing operations <sup>4</sup>	Banknotes in circulation <sup>5</sup>	Central government deposits	Other factors (net) <sup>6</sup>		
		Main refinancing operations	Longer-term refinancing operations	Marginal lending facility	Other liquidity-providing operations <sup>3</sup>							
<b>Eurosystem <sup>2</sup></b>												
2021 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.	826.7	0.2	2,213.2	0.0	4,378.9	766.6	0.0	1,499.9	635.7	790.4	3,726.2	5,992.8
Sep.	.	.	.	.	.	.	.	.	.	.	.	.
Oct.	.	.	.	.	.	.	.	.	.	.	.	.
Nov.	835.1	0.2	2,209.9	0.0	4,512.3	738.5	0.0	1,507.4	671.3	833.7	3,806.5	6,052.4
Dec.	839.2	0.2	2,208.8	0.0	4,655.6	745.0	0.0	1,521.4	628.3	965.7	3,843.3	6,109.7
2022 Jan.	.	.	.	.	.	.	.	.	.	.	.	.
Feb.	877.7	0.3	2,201.5	0.0	4,750.2	734.2	0.0	1,540.6	582.0	1,160.5	3,812.3	6,087.1
Mar.	887.2	0.3	2,201.3	0.0	4,842.0	746.0	0.0	1,550.6	642.6	1,091.1	3,900.8	6,197.3
Apr.	913.2	0.4	2,199.8	0.0	4,889.2	714.9	0.0	1,575.9	667.8	1,116.7	3,927.3	6,218.1
May	.	.	.	.	.	.	.	.	.	.	.	.
June	934.2	0.5	2,198.8	0.0	4,939.1	681.3	0.0	1,591.5	624.1	1,129.1	4,046.1	6,319.0
July	943.7	1.0	2,149.4	0.0	4,958.8	678.7	0.0	1,604.0	667.6	1,158.0	3,943.3	6,226.0
Aug.	.	.	.	.	.	.	.	.	.	.	.	.
Sep.	950.1	1.7	2,124.9	0.0	4,954.8	707.0	0.0	1,585.3	553.9	1,249.2	3,936.1	6,228.5
Oct.	.	.	.	.	.	.	.	.	.	.	.	.
Nov.	955.8	4.0	2,118.8	0.0	4,948.3	4,490.0	0.0	1,563.7	536.7	1,104.4	332.0	6,385.7
Dec.	960.4	1.9	1,947.1	0.0	4,946.1	4,521.5	0.0	1,560.8	492.5	1,066.9	213.8	6,296.2
2023 Jan.	.	.	.	.	.	.	.	.	.	.	.	.
Feb.	940.4	1.2	1,303.3	0.1	4,942.1	4,051.6	0.0	1,565.6	372.8	1,001.6	195.6	5,812.7
Mar.	916.8	0.9	1,233.3	0.0	4,939.0	4,103.0	0.0	1,553.9	380.2	861.8	191.1	5,848.0
Apr.	.	.	.	.	.	.	.	.	.	.	.	.
May	945.0	1.4	1,117.7	0.1	4,905.6	3,996.1	0.0	1,559.8	360.6	870.5	182.7	5,738.6
June	948.2	1.6	1,100.5	0.1	4,884.1	4,126.4	0.0	1,563.7	256.4	806.6	181.6	5,871.7
<b>Deutsche Bundesbank</b>												
2021 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.	.	.	.	.	.	.	.	.	.	.	.	.
Sep.	199.0	0.1	436.7	0.0	950.8	210.7	0.0	365.0	204.3	-240.8	1,045.3	1,621.0
Oct.	.	.	.	.	.	.	.	.	.	.	.	.
Nov.	200.3	0.1	439.1	0.0	978.5	204.4	0.0	367.4	217.7	-235.2	1,061.6	1,633.3
Dec.	201.3	0.0	440.3	0.0	1,015.8	206.4	0.0	370.9	220.4	-219.4	1,077.1	1,654.4
2022 Jan.	.	.	.	.	.	.	.	.	.	.	.	.
Feb.	212.4	0.3	421.7	0.0	1,034.0	204.5	0.0	374.6	205.6	-165.1	1,048.8	1,627.9
Mar.	215.6	0.1	421.7	0.0	1,057.9	211.8	0.0	378.1	191.1	-193.7	1,108.0	1,698.0
Apr.	223.9	0.1	420.8	0.0	1,068.7	197.7	0.0	384.9	196.7	-189.1	1,123.3	1,705.9
May	.	.	.	.	.	.	.	.	.	.	.	.
June	230.4	0.1	420.2	0.0	1,087.4	189.9	0.0	388.0	196.9	-183.1	1,147.4	1,725.3
July	231.7	0.3	409.1	0.0	1,084.3	185.8	0.0	390.3	214.9	-175.4	1,109.7	1,685.8
Aug.	.	.	.	.	.	.	.	.	.	.	.	.
Sep.	232.1	0.3	403.6	0.0	1,076.8	228.5	0.0	379.5	157.9	-161.8	1,108.8	1,716.8
Oct.	.	.	.	.	.	.	.	.	.	.	.	.
Nov.	231.7	0.8	400.5	0.0	1,071.5	1,304.0	0.0	379.0	127.2	-231.4	125.9	1,808.8
Dec.	232.4	0.5	352.5	0.0	1,079.2	1,346.6	0.0	378.8	121.0	-242.4	60.5	1,785.9
2023 Jan.	.	.	.	.	.	.	.	.	.	.	.	.
Feb.	229.8	0.4	231.9	0.1	1,076.8	1,234.6	0.0	377.2	77.8	-205.4	54.8	1,666.7
Mar.	228.9	0.4	212.8	0.0	1,077.0	1,263.7	0.0	374.5	69.2	-242.5	54.2	1,692.4
Apr.	.	.	.	.	.	.	.	.	.	.	.	.
May	239.2	0.7	200.2	0.1	1,066.1	1,228.0	0.0	375.7	73.4	-221.1	50.1	1,653.9
June	241.7	0.7	198.9	0.1	1,056.8	1,256.3	0.0	377.2	54.7	-241.8	52.0	1,685.4

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. <sup>1</sup> 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. <sup>2</sup> Source: ECB. <sup>3</sup> Includes liquidity provided under the Eurosystem's asset purchase programmes. <sup>4</sup> From August 2009 includes liquidity absorbed as a result of the Eurosystem's foreign exchange swap operations. <sup>5</sup> From 2002 euro banknotes and other banknotes which have been issued by the national central banks of the Eurosystem and which are still in circulation. In accordance with the accounting procedure chosen by the Eurosystem for the issue of euro banknotes, a share of 8% of the total value of the euro banknotes in circulation is

## II. Overall monetary survey in the euro area

### Flows

Liquidity-providing factors					Liquidity-absorbing factors					Credit institutions' current account balances (including minimum reserves) <sup>7</sup>	Base money <sup>8</sup>	Reserve maintenance period ending in <sup>1</sup>
Net assets in gold and foreign currency	Monetary policy operations of the Eurosystem				Deposit facility	Other liquidity-absorbing operations <sup>4</sup>	Banknotes in circulation <sup>5</sup>	Central government deposits	Other factors (net) <sup>6</sup>			
	Main refinancing operations	Longer-term refinancing operations	Marginal lending facility	Other liquidity-providing operations <sup>3</sup>								
<b>Eurosystem <sup>2</sup></b>												
- 6.9	- 0.1	+ 52.4	± 0.0	+ 141.3	+ 30.1	± 0.0	+ 18.1	- 57.8	+ 25.7	+ 170.6	+ 218.7	2021 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
+ 5.0	+ 0.1	+ 17.2	± 0.0	+ 134.4	+ 30.0	± 0.0	+ 14.1	- 16.6	+ 55.9	+ 73.1	+ 117.3	Aug. Sep.
+ 8.4	± 0.0	- 3.3	± 0.0	+ 133.4	- 28.1	± 0.0	+ 7.5	+ 35.6	+ 43.3	+ 80.3	+ 59.6	Oct. Nov.
+ 4.1	± 0.0	- 1.1	± 0.0	+ 143.3	+ 6.5	± 0.0	+ 14.0	- 43.0	+ 132.0	+ 36.8	+ 57.3	Dec.
+ 38.5	+ 0.1	- 7.3	± 0.0	+ 94.6	- 10.8	± 0.0	+ 19.2	- 46.3	+ 194.8	- 31.0	- 22.6	2022 Jan. Feb.
+ 9.5	± 0.0	- 0.2	± 0.0	+ 91.8	+ 11.8	± 0.0	+ 10.0	+ 60.6	- 69.4	+ 88.5	+ 110.2	Mar.
+ 26.0	+ 0.1	- 1.5	± 0.0	+ 47.2	- 31.1	± 0.0	+ 25.3	+ 25.2	+ 25.6	+ 26.5	+ 20.8	Apr. May
+ 21.0	+ 0.1	- 1.0	± 0.0	+ 49.9	- 33.6	± 0.0	+ 15.6	- 43.7	+ 12.4	+ 118.8	+ 100.9	June
+ 9.5	+ 0.5	- 49.4	± 0.0	+ 19.7	- 2.6	± 0.0	+ 12.5	+ 43.5	+ 28.9	- 102.8	- 93.0	July Aug.
+ 6.4	+ 0.7	- 24.5	± 0.0	- 4.0	+ 28.3	± 0.0	- 18.7	-113.7	+ 91.2	- 7.2	+ 2.5	Sep.
+ 5.7	+ 2.3	- 6.1	± 0.0	- 6.5	+3,783.0	± 0.0	- 21.6	- 17.2	- 144.8	-3,604.1	+ 157.2	Oct. Nov.
+ 4.6	- 2.1	- 171.7	± 0.0	- 2.2	+ 31.5	± 0.0	- 2.9	- 44.2	- 37.5	- 118.2	- 89.5	Dec.
- 20.0	- 0.7	- 643.8	+ 0.1	- 4.0	- 469.9	± 0.0	+ 4.8	-119.7	- 65.3	- 18.2	- 483.5	2023 Jan. Feb.
- 23.6	- 0.3	- 70.0	- 0.1	- 3.1	+ 51.4	± 0.0	- 11.7	+ 7.4	- 139.8	- 4.5	+ 35.3	Mar.
+ 28.2	+ 0.5	- 115.6	+ 0.1	- 33.4	- 106.9	± 0.0	+ 5.9	- 19.6	+ 8.7	- 8.4	- 109.4	Apr. May
+ 3.2	+ 0.2	- 17.2	± 0.0	- 21.5	+ 130.3	± 0.0	+ 3.9	-104.2	- 63.9	- 1.1	+ 133.1	June
<b>Deutsche Bundesbank</b>												
- 3.7	+ 0.0	+ 13.2	+ 0.0	+ 38.6	+ 5.5	± 0.0	+ 5.1	- 0.1	- 1.5	+ 37.9	+ 48.5	2021 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
+ 1.6	+ 0.1	+ 2.4	+ 0.0	+ 32.3	+ 6.5	± 0.0	+ 3.0	- 2.5	+ 29.9	- 0.9	+ 8.6	Aug. Sep.
+ 1.3	+ 0.0	+ 2.4	- 0.0	+ 27.8	- 6.4	± 0.0	+ 2.4	+ 13.4	+ 5.7	+ 16.3	+ 12.3	Oct. Nov.
+ 1.0	- 0.1	+ 1.2	- 0.0	+ 37.3	+ 2.1	± 0.0	+ 3.5	+ 2.7	+ 15.7	+ 15.6	+ 21.1	Dec.
+ 11.1	+ 0.2	- 18.6	+ 0.0	+ 18.2	- 2.0	± 0.0	+ 3.7	- 14.7	+ 54.3	- 28.3	- 26.6	2022 Jan. Feb.
+ 3.2	- 0.1	- 0.0	+ 0.0	+ 23.9	+ 7.4	± 0.0	+ 3.5	- 14.5	- 28.6	+ 59.2	+ 70.1	Mar.
+ 8.2	- 0.0	- 0.9	- 0.0	+ 10.8	- 14.2	± 0.0	+ 6.8	+ 5.6	+ 4.6	+ 15.2	+ 7.9	Apr. May
+ 6.6	+ 0.1	- 0.6	- 0.0	+ 18.7	- 7.7	± 0.0	+ 3.0	+ 0.2	+ 6.0	+ 24.1	+ 19.4	June
+ 1.3	+ 0.2	- 11.1	- 0.0	- 3.1	- 4.1	± 0.0	+ 2.4	+ 18.0	+ 7.7	- 37.7	- 39.5	July Aug.
+ 0.4	+ 0.0	- 5.5	- 0.0	- 7.5	+ 42.7	± 0.0	- 10.8	- 57.1	+ 13.5	- 0.9	+ 31.0	Sep.
- 0.5	+ 0.5	- 3.1	+ 0.0	- 5.3	+1,075.5	± 0.0	- 0.6	- 30.7	- 69.6	- 982.9	+ 92.0	Oct. Nov.
+ 0.7	- 0.4	- 48.0	+ 0.0	+ 7.7	+ 42.7	± 0.0	- 0.1	- 6.2	- 11.0	- 65.4	- 22.9	Dec.
- 2.5	- 0.1	- 120.6	+ 0.1	- 2.4	- 112.0	± 0.0	- 1.6	- 43.2	+ 37.0	- 5.6	- 119.3	2023 Jan. Feb.
- 1.0	+ 0.0	- 19.1	- 0.0	+ 0.2	+ 29.1	± 0.0	- 2.7	- 8.6	- 37.1	- 0.7	+ 25.7	Mar.
+ 10.3	+ 0.2	- 12.7	+ 0.0	- 11.0	- 35.7	± 0.0	+ 1.2	+ 4.1	+ 21.4	- 4.1	- 38.5	Apr. May
+ 2.6	+ 0.1	- 1.3	+ 0.0	- 9.3	+ 28.3	± 0.0	+ 1.4	- 18.7	- 20.7	+ 1.9	+ 31.5	June

allocated to the ECB on a monthly basis. The counterpart of this adjustment is shown under "Other factors". The remaining 92% of the value of the euro banknotes in circulation is allocated, likewise on a monthly basis, to the NCBs, with each NCB showing in its balance sheet the share of the euro banknotes issued corresponding to its paid-up share in the ECB's capital. The difference between the value of the euro banknotes allocated to an NCB and the value of the euro banknotes which that NCB has put into circulation is likewise shown under "Other factors". From 2003 euro

banknotes only. **6** Remaining items in the consolidated financial statement of the Eurosystem and the financial statement of the Bundesbank. **7** Equal to the difference between the sum of liquidity-providing factors and the sum of liquidity-absorbing factors. **8** Calculated as the sum of the "Deposit facility", "Banknotes in circulation" and "Credit institutions' current account balances".

### III. Consolidated financial statement of the Eurosystem

#### 1. Assets \*

€ billion

As at reporting date	Total assets	Gold and gold receivables	Claims on non-euro area residents denominated in foreign currency			Claims on euro area residents denominated in foreign currency	Claims on non-euro area residents denominated in euro			
			Total	Receivables from the IMF	Balances with banks, security investments, external loans and other external assets		Total	Balances with banks, security investments and loans	Claims arising from the credit facility under ERM II	
<b>Eurosystem <sup>1</sup></b>										
2022 Dec. 9	8,480.2	592.9	552.1	238.5	313.6	23.4	11.2	11.2	–	
16	8,477.2	592.9	551.5	238.3	313.2	23.3	11.1	11.1	–	
23	7,985.5	592.9	552.2	239.2	313.0	23.8	14.1	14.1	–	
30	7,955.8	592.9	523.2	228.5	294.7	20.4	14.1	14.1	–	
2023 Jan. 6	7,968.0	593.0	526.0	229.7	296.3	20.6	11.9	11.9	–	
13	7,972.1	593.0	525.6	229.7	295.9	20.9	12.5	12.5	–	
20	7,959.2	593.0	523.3	230.0	293.3	19.4	12.4	12.4	–	
27	7,894.0	593.0	519.5	229.9	289.6	18.5	12.1	12.1	–	
Feb. 3	7,875.4	593.0	511.1	230.0	281.1	16.9	12.0	12.0	–	
10	7,872.2	593.0	503.7	230.2	273.5	17.1	12.3	12.3	–	
17	7,873.6	593.0	505.3	230.2	275.0	16.6	12.3	12.3	–	
24	7,839.4	593.0	507.8	230.5	277.3	15.6	12.4	12.4	–	
Mar. 3	7,830.8	593.0	507.6	230.5	277.1	15.1	12.1	12.1	–	
10	7,829.4	593.0	506.6	230.5	276.1	15.4	12.5	12.5	–	
17	7,831.9	593.0	507.7	230.5	277.2	14.8	13.0	13.0	–	
24	7,835.9	593.0	508.7	230.5	278.2	14.0	14.0	14.0	–	
31	7,729.6	632.9	501.7	229.1	272.6	15.2	13.6	13.6	–	
Apr. 7	7,729.3	632.9	501.5	229.1	272.4	14.4	12.7	12.7	–	
14	7,730.9	632.9	501.8	229.1	272.7	13.9	12.6	12.6	–	
21	7,714.2	632.9	498.8	229.1	269.6	15.7	12.6	12.6	–	
28	7,719.8	632.9	499.0	229.4	269.6	14.2	12.9	12.9	–	
May 5	7,716.9	632.9	500.7	230.3	270.5	13.2	12.8	12.8	–	
12	7,728.5	632.9	499.0	230.4	268.7	14.5	12.9	12.9	–	
19	7,730.1	632.9	500.6	230.4	270.2	13.7	12.9	12.9	–	
26	7,713.7	632.8	500.2	230.4	269.9	13.9	13.8	13.8	–	
June 2	7,712.7	632.8	500.8	230.5	270.3	13.9	13.4	13.4	–	
9	7,714.4	632.8	500.5	231.0	269.6	14.1	13.4	13.4	–	
16	7,709.7	632.8	502.4	231.0	271.4	13.1	13.7	13.7	–	
23	7,710.6	632.8	500.3	231.1	269.2	14.8	13.8	13.8	–	
30	7,219.7	609.3	497.5	229.1	268.5	13.3	15.8	15.8	–	
<b>Deutsche Bundesbank</b>										
2022 Dec. 9	2,968.1	184.0	98.3	60.5	37.8	0.0	–	–	–	
16	2,971.8	184.0	98.2	60.5	37.7	0.0	–	–	–	
23	2,875.6	184.0	98.1	60.8	37.3	0.0	2.9	2.9	–	
30	2,905.7	184.0	92.5	58.0	34.4	0.0	3.4	3.4	–	
2023 Jan. 6	2,836.4	184.0	92.2	58.0	34.2	0.0	–	–	–	
13	2,817.4	184.0	92.2	58.1	34.2	0.0	0.1	0.1	–	
20	2,787.2	184.0	92.4	58.1	34.4	0.0	–	–	–	
27	2,765.8	184.0	92.2	58.0	34.2	0.0	0.1	0.1	–	
Feb. 3	2,791.4	184.0	92.0	58.1	34.0	0.0	–	–	–	
10	2,772.5	184.0	92.1	58.1	34.0	0.0	–	–	–	
17	2,760.1	184.0	91.8	58.1	33.7	0.0	–	–	–	
24	2,709.2	184.0	92.9	58.1	34.9	0.0	–	–	–	
Mar. 3	2,736.1	184.0	92.3	58.1	34.2	0.0	–	–	–	
10	2,725.7	184.0	92.0	58.1	33.9	0.0	–	–	–	
17	2,738.8	184.0	92.3	58.1	34.3	0.0	–	–	–	
24	2,713.8	184.0	92.5	58.1	34.4	0.0	0.3	0.3	–	
31	2,775.1	196.4	91.7	57.4	34.3	0.0	0.3	0.3	–	
Apr. 7	2,723.0	196.4	91.6	57.4	34.2	0.0	0.0	0.0	–	
14	2,718.4	196.4	91.6	57.4	34.2	0.0	–	–	–	
21	2,673.2	196.4	91.8	57.4	34.3	0.0	–	–	–	
28	2,675.9	196.4	91.8	57.4	34.4	0.0	–	–	–	
May 5	2,683.5	196.4	91.9	57.8	34.1	0.0	–	–	–	
12	2,699.7	196.4	91.9	57.8	34.1	0.0	0.1	0.1	–	
19	2,675.2	196.4	91.9	57.8	34.1	0.0	0.1	0.1	–	
26	2,689.2	196.3	91.9	57.8	34.1	0.0	0.1	0.1	–	
June 2	2,675.0	196.3	91.9	57.8	34.1	0.0	–	–	–	
9	2,664.6	196.3	92.3	58.2	34.1	0.0	–	–	–	
16	2,671.3	196.3	92.3	58.2	34.1	0.0	–	–	–	
23	2,646.6	196.3	92.4	58.2	34.2	0.0	–	–	–	
30	2,590.6	189.0	91.8	57.9	33.9	0.0	1.9	1.9	–	

\* The consolidated financial statement of the Eurosystem comprises the financial statement of the European Central Bank (ECB) and the financial statements of the national central banks of the euro area Member States (NCBs). The balance sheet items

for foreign currency, securities, gold and financial instruments are valued at the end of the quarter. <sup>1</sup> 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 denomi- nated in euro	Securities of euro area residents in euro			General government debt deno- minated in euro	Other assets	As at reporting date	
Total	Main re- financing opera- tions	Longer- term re- financing opera- tions	Fine- tuning reverse opera- tions	Structural reverse opera- tions	Marginal lending facility	Credits related to margin calls		Total	Securities held for monetary policy purposes	Other securities				
<b>Eurosystem <sup>1</sup></b>														
1,821.6	1.4	1,820.2	–	–	–	–	18.8	5,118.2	4,952.3	165.9	21.7	320.3	2022 Dec.	9
1,821.7	1.5	1,820.2	–	–	–	–	29.1	5,106.2	4,940.8	165.4	21.7	319.8		16
1,322.9	1.3	1,321.4	–	–	0.2	–	26.6	5,109.3	4,944.1	165.3	21.7	322.1		23
1,324.3	2.4	1,321.4	–	–	0.5	–	31.1	5,102.2	4,937.2	165.0	21.6	325.9		30
1,322.5	1.1	1,321.4	–	–	–	–	31.8	5,123.7	4,942.3	181.5	21.6	316.8	2023 Jan.	6
1,322.4	1.0	1,321.4	–	–	–	–	24.8	5,129.3	4,949.7	179.6	21.6	322.0		13
1,322.3	0.8	1,321.4	–	–	–	–	28.8	5,116.8	4,938.4	178.5	21.6	321.6		20
1,259.2	1.2	1,258.0	–	–	0.0	–	28.6	5,123.4	4,945.1	178.3	21.6	318.1		27
1,258.8	0.8	1,258.0	–	–	0.0	–	25.8	5,116.6	4,940.6	176.0	21.5	319.6	Feb.	3
1,259.0	1.0	1,258.0	–	–	0.1	–	27.6	5,121.5	4,945.2	176.3	21.5	316.5		10
1,258.8	0.8	1,258.0	–	–	0.0	–	35.4	5,119.0	4,942.6	176.5	21.5	311.6		17
1,222.2	1.2	1,220.9	–	–	0.0	–	36.2	5,121.0	4,942.9	178.2	21.5	309.7		24
1,221.8	0.8	1,220.9	–	–	0.0	–	29.5	5,116.0	4,937.6	178.3	21.5	314.1	Mar.	3
1,221.8	0.9	1,220.9	–	–	–	–	25.8	5,115.3	4,936.4	178.9	21.5	317.4		10
1,221.9	1.0	1,220.9	–	–	0.0	–	40.2	5,108.7	4,930.1	178.5	21.5	311.1		17
1,222.0	1.0	1,220.9	–	–	0.1	–	45.3	5,106.3	4,928.2	178.2	21.5	311.1		24
1,102.4	1.7	1,100.5	–	–	0.2	–	41.1	5,087.5	4,909.7	177.9	21.5	313.8		31
1,101.7	1.2	1,100.5	–	–	0.0	–	36.9	5,093.2	4,914.8	178.4	21.5	314.5	Apr.	7
1,102.1	1.6	1,100.5	–	–	–	–	35.7	5,083.8	4,905.1	178.7	21.5	326.6		14
1,102.0	1.5	1,100.5	–	–	0.0	–	37.1	5,076.0	4,895.0	181.0	21.5	317.6		21
1,102.6	1.9	1,100.4	–	–	0.2	–	33.1	5,078.5	4,895.7	182.8	21.5	325.2		28
1,101.6	1.2	1,100.4	–	–	0.0	–	37.1	5,072.9	4,892.5	180.4	21.5	324.3	May	5
1,101.8	1.3	1,100.4	–	–	–	–	37.2	5,081.4	4,900.1	181.2	21.5	327.5		12
1,101.9	1.4	1,100.4	–	–	–	–	38.2	5,076.8	4,895.2	181.6	21.5	331.7		19
1,102.6	2.0	1,100.4	–	–	0.1	–	37.7	5,064.0	4,879.3	184.7	21.5	327.3		26
1,103.2	2.5	1,100.7	–	–	–	–	37.7	5,067.3	4,881.1	186.2	21.5	322.2	June	2
1,102.1	1.3	1,100.7	–	–	0.1	–	36.4	5,066.9	4,880.2	186.7	21.5	326.8		9
1,101.9	1.2	1,100.7	–	–	0.1	–	42.1	5,054.0	4,867.8	186.2	21.5	328.3		16
1,102.0	1.2	1,100.7	–	–	0.1	–	43.1	5,052.9	4,866.2	186.7	21.5	329.4		23
616.7	18.6	598.0	–	–	0.2	–	42.6	5,045.1	4,858.9	186.2	21.0	358.4		30
<b>Deutsche Bundesbank</b>														
317.6	0.2	317.4	–	–	0.0	–	3.1	1,082.8	1,082.8	–	4.4	1,277.7	2022 Dec.	9
317.6	0.1	317.4	–	–	0.0	–	3.7	1,072.9	1,072.9	–	4.4	1,290.8		16
236.4	0.4	235.9	–	–	0.2	–	4.9	1,073.8	1,073.8	–	4.4	1,270.9		23
237.5	1.1	235.9	–	–	0.5	–	8.3	1,073.0	1,073.0	–	4.4	1,302.6		30
236.1	0.2	235.9	–	–	0.0	–	4.5	1,074.5	1,074.5	–	4.4	1,240.6	2023 Jan.	6
236.0	0.2	235.9	–	–	0.0	–	3.7	1,077.5	1,077.5	–	4.4	1,219.4		13
236.0	0.2	235.9	–	–	0.0	–	4.4	1,077.1	1,077.1	–	4.4	1,188.8		20
222.6	0.5	222.1	–	–	0.0	–	5.2	1,080.2	1,080.2	–	4.4	1,177.1		27
222.3	0.2	222.1	–	–	0.0	–	4.9	1,081.5	1,081.5	–	4.4	1,202.1	Feb.	3
222.5	0.4	222.1	–	–	0.1	–	7.7	1,084.1	1,084.1	–	4.4	1,177.6		10
222.4	0.3	222.1	–	–	0.0	–	7.8	1,078.1	1,078.1	–	4.4	1,171.5		17
208.9	0.7	208.2	–	–	0.0	–	7.8	1,075.4	1,075.4	–	4.4	1,135.7		24
208.6	0.4	208.2	–	–	0.0	–	9.2	1,077.8	1,077.8	–	4.4	1,159.8	Mar.	3
208.6	0.4	208.2	–	–	0.0	–	7.3	1,072.3	1,072.3	–	4.4	1,157.0		10
208.6	0.4	208.2	–	–	0.0	–	7.4	1,072.3	1,072.3	–	4.4	1,169.7		17
208.7	0.6	208.2	–	–	–	–	8.5	1,071.0	1,071.0	–	4.4	1,144.2		24
199.6	0.8	198.8	–	–	0.1	–	7.1	1,072.4	1,072.4	–	4.4	1,203.2		31
199.2	0.4	198.8	–	–	0.0	–	8.3	1,074.3	1,074.3	–	4.4	1,148.8	Apr.	7
199.2	0.5	198.8	–	–	0.0	–	8.4	1,066.2	1,066.2	–	4.4	1,152.0		14
199.3	0.5	198.8	–	–	0.0	–	7.8	1,057.6	1,057.6	–	4.4	1,115.9		21
200.2	1.1	198.9	–	–	0.2	–	9.0	1,059.2	1,059.2	–	4.4	1,114.8		28
199.7	0.8	198.9	–	–	0.0	–	8.2	1,061.6	1,061.6	–	4.4	1,121.4	May	5
199.7	0.8	198.9	–	–	–	–	5.7	1,064.2	1,064.2	–	4.4	1,137.4		12
199.6	0.7	198.9	–	–	–	–	8.4	1,055.8	1,055.8	–	4.4	1,118.6		19
199.7	0.8	198.9	–	–	0.1	–	8.8	1,057.1	1,057.1	–	4.4	1,130.9		26
199.9	1.0	198.9	–	–	–	–	7.6	1,058.4	1,058.4	–	4.4	1,116.5	June	2
199.5	0.5	198.9	–	–	0.1	–	9.1	1,057.0	1,057.0	–	4.4	1,105.9		9
199.5	0.5	198.9	–	–	0.1	–	11.3	1,050.0	1,050.0	–	4.4	1,117.5		16
199.5	0.5	198.9	–	–	0.1	–	10.3	1,050.5	1,050.5	–	4.4	1,093.3		23
134.0	2.8	131.1	–	–	0.2	–	10.3	1,048.1	1,048.1	–	4.4	1,111.0		30

### III. Consolidated financial statement of the Eurosystem

#### 2. Liabilities \*

€ billion

As at reporting date	Total liabilities	Banknotes in circulation <sup>1</sup>	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
<b>Eurosystem <sup>3</sup></b>													
2022 Dec. 9	8,480.2	1,563.4	4,675.6	197.9	4,476.1	–	–	1.6	48.9	–	558.4	431.2	127.2
16	8,477.2	1,564.9	4,647.4	203.8	4,441.9	–	–	1.6	47.5	–	547.5	427.8	119.7
23	7,985.5	1,571.6	4,198.7	193.1	4,004.4	–	–	1.2	58.4	–	484.4	371.4	113.0
30	7,955.8	1,572.0	3,998.9	218.9	3,778.8	–	–	1.2	78.3	–	564.6	436.8	127.8
2023 Jan. 6	7,968.0	1,572.5	4,288.8	202.3	4,085.3	–	–	1.2	53.7	–	433.6	327.0	106.6
13	7,972.1	1,566.2	4,300.0	172.5	4,126.2	–	–	1.2	57.5	–	472.5	369.3	103.2
20	7,959.2	1,561.5	4,337.7	175.1	4,161.3	–	–	1.3	45.1	–	471.7	367.7	104.0
27	7,894.0	1,559.0	4,268.9	176.0	4,091.7	–	–	1.3	39.0	–	497.7	398.1	99.6
Feb. 3	7,875.4	1,557.6	4,282.8	202.2	4,079.3	–	–	1.3	39.2	–	454.3	353.4	100.8
10	7,872.2	1,555.7	4,320.4	180.6	4,138.6	–	–	1.3	34.4	–	452.5	356.1	96.4
17	7,873.6	1,554.2	4,333.7	165.0	4,167.4	–	–	1.3	32.6	–	466.6	372.5	94.1
24	7,839.4	1,553.8	4,285.3	172.0	4,112.0	–	–	1.3	29.5	–	496.1	402.5	93.6
Mar. 3	7,830.8	1,554.0	4,310.5	170.7	4,138.5	–	–	1.3	37.1	–	455.8	361.6	94.2
10	7,829.4	1,553.4	4,336.5	176.9	4,158.3	–	–	1.3	29.7	–	444.8	354.8	90.0
17	7,831.9	1,554.5	4,175.9	234.9	3,939.8	–	–	1.3	33.6	–	570.5	425.4	145.1
24	7,835.9	1,553.3	4,223.7	174.9	4,047.5	–	–	1.3	37.0	–	510.0	418.0	92.1
31	7,729.6	1,556.6	4,034.3	197.4	3,836.6	–	–	0.4	61.1	–	497.4	400.9	96.5
Apr. 7	7,729.3	1,563.7	4,167.8	158.7	4,008.7	–	–	0.4	36.0	–	442.4	350.8	91.6
14	7,730.9	1,561.1	4,172.9	155.7	4,016.8	–	–	0.4	35.4	–	446.7	356.9	89.8
21	7,714.2	1,558.8	4,181.6	164.9	4,016.3	–	–	0.4	31.9	–	442.2	354.7	87.5
28	7,719.8	1,563.6	4,163.5	181.2	3,981.9	–	–	0.4	35.3	–	471.3	381.1	90.2
May 5	7,716.9	1,563.6	4,271.2	204.8	4,066.1	–	–	0.3	37.0	–	362.4	275.9	86.5
12	7,728.5	1,562.2	4,302.7	171.2	4,131.2	–	–	0.3	39.5	–	352.4	265.1	87.3
19	7,730.1	1,562.2	4,280.8	156.3	4,124.2	–	–	0.3	40.8	–	375.4	289.9	85.4
26	7,713.7	1,563.6	4,290.6	155.7	4,134.6	–	–	0.3	39.5	–	349.4	261.5	87.9
June 2	7,712.7	1,565.5	4,321.5	157.5	4,163.7	–	–	0.3	40.7	–	327.4	233.4	94.1
9	7,714.4	1,565.5	4,343.6	162.5	4,180.7	–	–	0.3	37.4	–	318.3	228.0	90.3
16	7,709.7	1,564.4	4,309.6	193.6	4,115.6	–	–	0.3	37.2	–	337.6	239.8	97.8
23	7,710.6	1,563.8	4,289.7	185.2	4,104.4	–	–	0.1	41.0	–	351.1	255.9	95.2
30	7,219.7	1,566.1	3,751.3	174.5	3,576.8	–	–	0.0	51.9	–	353.0	258.1	94.9
<b>Deutsche Bundesbank</b>													
2022 Dec. 9	2,968.1	380.1	1,403.8	59.2	1,343.1	–	–	1.6	17.8	–	143.9	91.3	52.6
16	2,971.8	381.6	1,359.1	59.3	1,298.2	–	–	1.6	13.9	–	161.1	111.3	49.9
23	2,875.6	383.9	1,283.1	53.2	1,228.8	–	–	1.1	12.8	–	138.9	94.5	44.4
30	2,905.7	381.3	1,200.1	66.6	1,132.3	–	–	1.2	21.3	–	177.6	132.5	45.1
2023 Jan. 6	2,836.4	377.2	1,287.0	64.7	1,221.1	–	–	1.2	14.3	–	102.6	66.8	35.8
13	2,817.4	375.9	1,292.0	45.3	1,245.4	–	–	1.2	21.0	–	114.3	81.8	32.5
20	2,787.2	374.7	1,312.9	45.4	1,266.3	–	–	1.2	13.9	–	85.0	53.8	31.3
27	2,765.8	374.3	1,289.8	44.4	1,244.2	–	–	1.2	12.7	–	101.0	72.4	28.6
Feb. 3	2,791.4	374.9	1,322.2	64.9	1,256.0	–	–	1.3	13.6	–	91.1	61.0	30.2
10	2,772.5	375.0	1,340.8	52.9	1,286.6	–	–	1.3	9.2	–	79.0	52.2	26.8
17	2,760.1	374.8	1,325.5	44.6	1,279.6	–	–	1.3	9.5	–	98.9	72.2	26.6
24	2,709.2	374.7	1,301.2	45.3	1,254.6	–	–	1.3	8.6	–	92.0	66.5	25.5
Mar. 3	2,736.1	374.2	1,318.6	45.9	1,271.5	–	–	1.3	13.2	–	94.8	70.6	24.2
10	2,725.7	374.4	1,333.4	50.2	1,281.9	–	–	1.3	8.2	–	78.7	55.5	23.2
17	2,738.8	374.9	1,275.0	62.5	1,211.3	–	–	1.2	10.5	–	127.7	103.7	24.0
24	2,713.8	374.7	1,276.1	48.7	1,226.2	–	–	1.2	9.1	–	104.1	80.2	24.0
31	2,775.1	374.3	1,256.6	53.3	1,203.0	–	–	0.3	18.4	–	125.6	100.9	24.7
Apr. 7	2,723.0	377.3	1,283.3	38.8	1,244.1	–	–	0.3	10.7	–	102.0	77.7	24.3
14	2,718.4	376.1	1,289.6	37.7	1,251.5	–	–	0.3	12.3	–	96.4	73.8	22.7
21	2,673.2	375.4	1,265.2	42.6	1,222.3	–	–	0.3	10.4	–	80.4	60.3	20.1
28	2,675.9	376.0	1,262.9	50.9	1,211.7	–	–	0.3	12.4	–	91.7	68.5	23.2
May 5	2,683.5	375.9	1,298.9	66.2	1,232.5	–	–	0.3	13.0	–	70.5	50.6	19.9
12	2,699.7	376.3	1,317.2	46.8	1,270.1	–	–	0.3	11.8	–	74.1	53.8	20.3
19	2,675.2	377.2	1,300.0	39.7	1,260.0	–	–	0.3	11.7	–	78.3	58.6	19.7
26	2,689.2	378.4	1,302.1	38.7	1,263.1	–	–	0.3	11.3	–	91.3	71.1	20.2
June 2	2,675.0	376.6	1,314.2	38.7	1,275.3	–	–	0.3	11.7	–	69.5	48.2	21.2
9	2,664.6	377.3	1,306.8	45.3	1,261.2	–	–	0.3	11.5	–	71.6	49.8	21.8
16	2,671.3	377.7	1,312.0	58.1	1,253.6	–	–	0.3	9.1	–	72.2	47.7	24.6
23	2,646.6	377.3	1,285.3	52.8	1,232.4	–	–	0.0	10.6	–	73.5	51.0	22.5
30	2,590.6	376.6	1,202.5	49.1	1,153.3	–	–	0.0	14.4	–	71.8	48.1	23.7

\* The consolidated financial statement of the Eurosystem comprises the financial statement of the European Central Bank (ECB) and the financial statements of the national central banks of the euro area Member States (NCBs). The balance sheet items for foreign currency, securities, gold and financial instruments are valued at market

rates at the end of the quarter. <sup>1</sup> In accordance with the accounting procedure chosen by the Eurosystem for the issue of euro banknotes, a share of 8% of the total value of the euro banknotes in circulation is allocated to the ECB on a monthly basis. The counterpart of this adjustment is disclosed as an "Intra-Eurosystem liability related to

### 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 <sup>2</sup>	Intra-Eurosystem liability related to euro banknote issue <sup>1</sup>	Revaluation accounts	Capital and reserves	As at reporting date
		Total	Deposits, balances and other liabilities	Liabilities arising from the credit facility under ERM II						
<b>Eurosystem <sup>3</sup></b>										
379.9	12.2	5.9	5.9	–	189.9	319.7	–	611.7	114.6	2022 Dec. 9
413.6	12.6	5.3	5.3	–	189.9	322.2	–	611.7	114.6	16
430.2	12.5	5.1	5.1	–	189.9	308.5	–	611.7	114.6	23
540.7	11.7	4.7	4.7	–	181.1	302.7	–	586.4	114.6	30
424.8	11.0	4.8	4.8	–	182.4	292.5	–	588.7	115.3	2023 Jan. 6
378.3	11.0	4.8	4.8	–	182.4	295.0	–	588.7	115.8	13
342.6	11.4	4.6	4.6	–	182.4	297.8	–	588.7	115.8	20
328.3	11.3	5.0	5.0	–	182.4	297.4	–	588.7	116.4	27
339.0	11.0	4.8	4.8	–	182.4	298.7	–	589.1	116.4	Feb. 3
311.5	10.9	5.1	5.1	–	182.4	293.7	–	589.1	116.4	10
289.6	10.9	5.0	5.0	–	182.4	293.0	–	589.1	116.4	17
278.8	10.8	6.1	6.1	–	182.4	290.9	–	589.1	116.4	24
280.7	10.3	5.6	5.6	–	182.4	284.6	–	589.1	120.7	Mar. 3
275.2	10.3	5.3	5.3	–	182.4	282.0	–	589.1	120.7	10
305.0	10.4	5.4	5.4	–	182.4	284.3	–	589.1	120.7	17
316.5	10.9	5.3	5.3	–	182.4	286.9	–	589.1	120.8	24
357.4	11.1	5.3	5.3	–	180.3	283.8	–	622.2	120.2	31
305.8	11.2	5.3	5.3	–	180.3	274.6	–	622.2	120.2	Apr. 7
298.1	11.6	5.1	5.1	–	180.3	277.4	–	622.2	120.2	14
287.2	11.6	5.1	5.1	–	180.3	273.2	–	622.2	120.2	21
271.6	11.0	5.5	5.5	–	180.3	275.5	–	622.2	120.2	28
265.4	11.0	5.2	5.2	–	180.3	278.5	–	622.2	120.2	May 5
255.7	11.3	5.1	5.1	–	180.3	277.0	–	622.2	120.2	12
252.4	11.4	7.0	7.0	–	180.3	277.6	–	622.2	120.2	19
253.1	11.4	7.6	7.6	–	180.3	275.7	–	622.2	120.2	26
245.4	11.7	7.5	7.5	–	180.3	270.3	–	622.2	120.2	June 2
237.8	12.2	7.1	7.1	–	180.3	269.8	–	622.2	120.2	9
248.5	12.5	7.1	7.1	–	180.3	270.3	–	622.2	120.2	16
252.0	13.0	6.7	6.7	–	180.3	270.6	–	622.2	120.2	23
300.3	13.4	6.6	6.6	–	178.4	281.5	–	597.0	120.2	30
<b>Deutsche Bundesbank</b>										
223.4	0.6	–0.0	–0.0	–	49.3	41.0	516.8	185.6	5.7	2022 Dec. 9
257.2	0.6	–0.0	–0.0	–	49.3	40.9	516.8	185.6	5.7	16
260.4	0.1	–0.0	–0.0	–	49.3	39.0	516.8	185.6	5.7	23
333.6	0.1	–	–	–	47.0	38.5	518.9	181.7	5.7	30
261.3	0.1	0.0	0.0	–	47.0	37.8	521.6	181.7	5.7	2023 Jan. 6
220.7	0.1	0.0	0.0	–	47.0	37.3	521.6	181.7	5.7	13
207.3	0.3	0.0	0.0	–	47.0	37.0	521.6	181.7	5.7	20
195.1	0.3	0.1	0.1	–	47.0	34.1	523.8	181.7	5.7	27
198.2	0.3	0.0	0.0	–	47.0	35.5	521.2	181.7	5.7	Feb. 3
177.2	0.2	0.1	0.1	–	47.0	35.3	521.2	181.7	5.7	10
160.3	0.2	–0.0	–0.0	–	47.0	35.3	521.2	181.7	5.7	17
141.3	0.2	0.9	0.9	–	47.0	34.7	521.2	181.7	5.7	24
141.9	0.0	0.5	0.5	–	47.0	36.4	522.2	181.7	5.5	Mar. 3
138.4	0.0	–0.0	–0.0	–	47.0	35.9	522.2	181.7	5.5	10
158.7	0.0	–0.0	–0.0	–	47.0	35.4	522.2	181.7	5.5	17
158.4	0.0	–0.0	–0.0	–	47.0	34.8	522.2	181.7	5.5	24
196.8	0.2	0.0	0.0	–	46.5	33.4	524.5	193.2	5.5	31
147.6	0.2	0.0	0.0	–	46.5	32.1	524.5	193.2	5.5	Apr. 7
142.6	0.2	0.0	0.0	–	46.5	31.4	524.5	193.2	5.5	14
141.7	0.2	0.2	0.2	–	46.5	30.0	524.5	193.2	5.5	21
131.2	0.1	0.3	0.3	–	46.5	29.6	526.4	193.2	5.5	28
122.1	0.1	0.0	0.0	–	46.5	31.3	526.4	193.2	5.5	May 5
114.2	0.1	0.0	0.0	–	46.5	34.4	526.4	193.2	5.5	12
101.3	0.1	0.0	0.0	–	46.5	35.0	526.4	193.2	5.5	19
99.2	0.1	0.0	0.0	–	46.5	35.2	526.4	193.2	5.5	26
94.2	0.1	0.0	0.0	–	46.5	34.5	529.0	193.2	5.5	June 2
88.4	0.1	0.0	0.0	–	46.5	34.6	529.0	193.2	5.5	9
91.4	0.1	0.0	0.0	–	46.5	34.7	529.0	193.2	5.5	16
90.7	0.1	0.1	0.1	–	46.5	34.8	529.0	193.2	5.5	23
122.0	0.2	–	–	–	46.0	35.4	530.7	185.5	5.5	30

euro banknote issue". 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 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". <sup>2</sup> For the Deutsche Bundesbank: including DEM banknotes still in circulation. <sup>3</sup> 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				
			Total	Total	Loans	Securities issued by banks	Total	Loans	Securities issued by banks	Total	Total	Enterprises and households	
												Total	Loans
<b>End of year or month</b>													
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
2021	9,172.2	49.7	2,789.6	2,333.0	2,069.6	263.4	456.6	324.4	132.2	4,350.4	3,860.4	3,468.8	3,147.6
2022	10,517.9	20.0	2,935.2	2,432.2	2,169.2	263.0	502.9	359.6	143.3	4,584.6	4,079.3	3,702.9	3,365.4
2021 Aug.	9,319.3	46.9	2,950.1	2,457.4	2,188.5	268.8	492.8	359.5	133.3	4,283.3	3,799.4	3,400.4	3,085.0
2021 Sep.	9,325.3	47.4	2,952.3	2,472.9	2,203.6	269.3	479.4	344.9	134.5	4,303.0	3,812.2	3,409.8	3,093.8
2021 Oct.	9,395.0	47.8	2,979.8	2,490.1	2,221.1	269.0	489.7	356.2	133.5	4,322.0	3,832.5	3,437.3	3,117.5
2021 Nov.	9,495.5	48.1	3,008.0	2,519.5	2,253.4	266.1	488.5	355.4	133.1	4,352.1	3,856.4	3,459.8	3,138.9
2021 Dec.	9,172.2	49.7	2,789.6	2,333.0	2,069.6	263.4	456.6	324.4	132.2	4,350.4	3,860.4	3,468.8	3,147.6
2022 Jan.	9,717.0	47.7	3,029.2	2,522.4	2,258.2	264.2	506.8	375.0	131.8	4,378.1	3,875.3	3,484.8	3,162.4
2022 Feb.	9,842.7	47.7	3,082.6	2,564.8	2,299.1	265.8	517.8	383.9	133.9	4,396.3	3,889.1	3,504.4	3,181.6
2022 Mar.	9,962.9	50.0	3,066.9	2,546.2	2,281.9	264.3	520.7	387.1	133.7	4,426.8	3,916.4	3,526.5	3,204.1
2022 Apr.	10,268.8	51.0	3,112.2	2,578.0	2,313.7	264.2	534.2	400.5	133.8	4,434.6	3,929.2	3,546.3	3,223.8
2022 May	10,258.0	50.0	3,122.7	2,592.6	2,326.2	266.4	530.1	397.8	132.3	4,460.3	3,949.5	3,567.4	3,244.7
2022 June	10,428.9	51.8	3,096.5	2,570.9	2,306.2	264.7	525.6	394.1	131.5	4,494.4	3,969.5	3,589.6	3,268.8
2022 July	10,267.9	42.3	3,086.0	2,557.4	2,291.5	266.0	528.6	396.8	131.8	4,528.3	4,008.2	3,627.9	3,293.6
2022 Aug.	10,627.2	23.6	3,166.4	2,625.3	2,359.2	266.1	541.1	409.1	132.0	4,555.4	4,039.2	3,664.4	3,331.1
2022 Sep.	11,063.0	20.7	3,268.0	2,714.2	2,442.2	272.0	553.7	419.7	134.0	4,579.6	4,057.2	3,685.0	3,351.1
2022 Oct.	11,036.0	20.0	3,259.8	2,696.8	2,424.2	272.6	563.0	416.3	146.7	4,591.1	4,077.8	3,699.7	3,365.9
2022 Nov.	10,762.4	19.1	3,180.1	2,630.6	2,360.1	270.5	549.5	403.2	146.2	4,610.5	4,089.4	3,715.1	3,379.3
2022 Dec.	10,517.9	20.0	2,935.2	2,432.2	2,169.2	263.0	502.9	359.6	143.3	4,584.6	4,079.3	3,702.9	3,365.4
2023 Jan.	10,585.0	18.2	3,085.7	2,550.5	2,288.2	262.3	535.1	383.8	151.4	4,600.1	4,080.1	3,706.1	3,372.3
2023 Feb.	10,760.9	18.0	3,085.7	2,541.4	2,274.9	266.5	544.3	390.6	153.8	4,614.2	4,094.2	3,714.7	3,381.3
2023 Mar.	10,553.8	17.9	3,041.3	2,497.8	2,229.3	268.4	543.5	391.2	152.3	4,620.6	4,094.7	3,718.2	3,386.0
2023 Apr.	10,564.3	18.9	3,047.7	2,507.0	2,237.3	269.7	540.7	384.5	156.2	4,630.5	4,096.8	3,721.7	3,390.4
2023 May	10,654.6	18.2	3,090.1	2,549.1	2,278.5	270.6	541.0	383.4	157.5	4,641.2	4,102.5	3,732.1	3,400.0
<b>Changes 3</b>													
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
2021	207.2	2.2	161.3	155.6	156.4	- 0.8	5.7	11.7	- 5.9	175.7	154.6	173.7	155.9
2022	1,170.5	- 29.7	149.5	103.7	100.5	3.2	45.8	33.1	12.7	242.4	223.1	237.5	220.6
2021 Sep.	3.0	0.4	0.1	14.4	13.9	0.5	- 14.4	- 15.6	1.3	19.8	13.0	9.4	8.8
2021 Oct.	70.4	0.5	27.7	17.3	17.6	- 0.3	10.5	11.4	- 1.0	19.2	20.6	28.0	24.1
2021 Nov.	95.5	0.3	26.6	29.2	32.2	- 3.0	- 2.5	- 2.1	- 0.5	30.6	25.2	22.1	21.0
2021 Dec.	- 326.2	1.6	- 218.7	- 186.4	- 183.6	- 2.8	- 32.2	- 31.2	- 1.0	- 0.9	4.7	9.4	9.1
2022 Jan.	340.3	- 1.9	238.6	189.0	186.9	2.1	49.6	49.7	- 0.1	28.1	15.4	16.2	14.9
2022 Feb.	128.5	- 0.0	52.7	41.4	39.7	1.7	11.3	9.1	2.2	20.4	15.8	21.3	20.9
2022 Mar.	119.7	2.2	- 15.5	- 18.4	- 17.2	- 1.2	2.9	3.0	- 0.1	31.4	27.6	22.2	22.6
2022 Apr.	283.1	1.0	41.6	30.8	30.8	0.0	10.8	10.6	0.2	7.5	12.8	19.7	19.4
2022 May	1.1	- 1.0	12.4	15.3	12.8	2.5	- 2.9	- 1.5	- 1.3	27.4	21.2	21.6	21.3
2022 June	178.6	1.7	- 28.2	- 22.2	- 20.6	- 1.6	- 6.0	- 5.3	- 0.6	32.9	19.9	22.0	23.7
2022 July	- 177.9	- 9.5	- 12.8	- 14.2	- 15.0	0.8	1.4	1.4	0.0	29.7	36.0	36.0	22.6
2022 Aug.	359.0	- 18.7	83.5	71.7	70.7	1.0	11.8	11.3	0.4	28.1	31.4	36.5	37.5
2022 Sep.	428.4	- 2.9	99.8	88.6	82.4	6.2	11.3	9.0	2.3	27.0	17.2	19.5	18.7
2022 Oct.	- 19.3	- 0.7	- 6.7	- 17.0	- 17.7	0.6	10.3	- 2.4	12.7	12.4	21.1	15.3	15.5
2022 Nov.	- 245.9	- 0.9	- 75.9	- 65.0	- 63.0	- 2.0	- 10.9	- 10.5	- 0.5	21.4	13.0	17.1	15.1
2022 Dec.	- 225.1	0.9	- 240.0	- 196.2	- 189.2	- 7.1	- 43.8	- 41.2	- 2.6	- 24.0	- 8.4	- 9.9	- 11.6
2023 Jan.	87.5	- 1.8	155.0	122.2	119.3	2.8	32.8	24.0	8.9	22.8	6.5	8.1	8.0
2023 Feb.	167.0	- 0.2	- 0.8	- 9.1	- 13.4	4.3	8.3	5.8	2.5	13.4	13.6	7.9	8.3
2023 Mar.	- 195.2	- 0.1	- 42.8	- 43.2	- 45.0	1.8	0.4	1.9	- 1.5	8.2	2.0	5.0	6.2
2023 Apr.	16.7	1.0	7.7	9.8	8.1	1.7	- 2.1	- 6.0	3.9	11.0	3.0	4.2	5.1
2023 May	91.9	- 0.7	41.9	42.2	41.3	0.9	- 0.2	- 1.6	1.3	12.3	6.8	11.5	10.6

\* 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										Claims on non-euro area residents			Period
to non-banks in other Member States										Total	of which: Loans	Other assets <sup>1</sup>	
General government				Total	Enterprises and households		General government						
Securities	Total	Loans	Securities <sup>2</sup>		Total	Total	of which: Loans	Total	Loans	Securities	Total	of which: Loans	Other assets <sup>1</sup>
<b>End of year or month</b>													
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
321.2	391.6	245.1	146.5	490.1	362.7	244.0	127.4	28.4	99.0	1,094.2	853.3	888.3	2021
337.5	376.4	248.0	128.4	505.3	384.9	270.2	120.4	30.8	89.6	1,137.2	882.9	1,841.0	2022
315.4	398.9	248.0	150.9	484.0	346.1	238.8	137.9	28.3	109.6	1,084.8	839.7	954.2	2021 Aug.
316.0	402.4	248.3	154.1	490.7	352.5	241.7	138.2	27.9	110.3	1,087.9	840.8	934.8	2021 Sep.
319.9	395.1	249.7	145.4	489.5	356.0	244.3	133.4	30.3	103.2	1,134.6	889.6	910.9	2021 Oct.
320.9	396.5	247.8	148.8	495.7	361.6	249.6	134.1	28.5	105.6	1,137.3	892.4	950.0	2021 Nov.
321.2	391.6	245.1	146.5	490.1	362.7	244.0	127.4	28.4	99.0	1,094.2	853.3	888.3	2021 Dec.
322.4	390.6	246.9	143.6	502.7	377.7	260.4	125.0	28.5	96.5	1,171.3	925.2	1,090.8	2022 Jan.
322.8	384.8	244.7	140.0	507.2	381.4	262.7	125.8	28.6	97.2	1,190.1	939.6	1,125.9	2022 Feb.
322.3	390.0	245.2	144.8	510.4	379.5	259.4	130.9	29.0	101.9	1,169.2	921.9	1,249.9	2022 Mar.
322.5	382.9	246.5	136.4	505.4	378.8	257.8	126.7	32.2	94.4	1,174.5	926.0	1,496.5	2022 Apr.
322.7	382.1	244.5	137.7	510.9	383.7	260.7	127.1	31.4	95.7	1,166.1	917.3	1,458.8	2022 May
320.9	379.9	244.9	135.0	524.9	388.1	268.4	136.8	33.2	103.6	1,182.4	925.1	1,603.8	2022 June
334.3	380.3	245.8	134.5	520.2	383.8	266.0	136.4	33.4	103.0	1,199.9	941.5	1,411.5	2022 July
333.3	374.8	243.4	131.4	516.2	387.1	268.6	129.1	33.7	95.4	1,211.7	952.6	1,670.0	2022 Aug.
333.9	372.2	244.5	127.7	522.4	390.5	273.1	132.0	35.4	96.6	1,220.9	961.0	1,973.8	2022 Sep.
333.8	378.1	246.0	132.1	513.3	385.7	268.4	127.6	34.4	93.2	1,234.2	975.7	1,930.8	2022 Oct.
335.9	374.2	246.3	127.9	521.1	394.0	276.5	127.1	32.7	94.4	1,224.6	963.4	1,728.1	2022 Nov.
337.5	376.4	248.0	128.4	505.3	384.9	270.2	120.4	30.8	89.6	1,137.2	882.9	1,841.0	2022 Dec.
333.8	374.0	250.3	123.7	520.1	393.5	280.2	126.6	30.2	96.4	1,161.9	904.0	1,719.2	2023 Jan.
333.5	379.5	248.2	131.3	520.0	393.3	279.2	126.8	31.3	95.4	1,167.6	904.4	1,875.3	2023 Feb.
332.2	376.5	248.9	127.6	526.0	397.5	275.7	128.4	30.9	97.5	1,168.5	902.6	1,705.4	2023 Mar.
331.2	375.1	250.9	124.2	533.7	405.8	280.9	128.0	32.3	95.7	1,149.9	883.9	1,717.3	2023 Apr.
332.1	370.5	249.8	120.7	538.7	407.7	284.6	131.0	31.9	99.1	1,177.7	912.0	1,727.4	2023 May
<b>Changes <sup>3</sup></b>													
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
17.8	- 19.1	- 6.1	- 13.1	21.1	35.5	22.6	- 14.3	- 1.1	- 13.2	71.7	84.9	- 203.7	2021
16.9	- 14.4	1.9	- 16.3	19.3	20.7	24.4	- 1.4	2.6	- 3.9	15.0	- 0.8	793.3	2022
0.6	3.6	0.3	3.2	6.8	6.3	2.9	0.5	- 0.4	0.9	0.1	- 1.5	- 17.4	2021 Sep.
3.9	- 7.4	1.2	- 8.7	- 1.4	3.5	2.6	- 4.8	2.3	- 7.2	47.6	49.5	- 24.6	2021 Oct.
1.1	3.0	- 0.9	4.0	5.5	4.8	4.4	0.6	- 1.6	2.2	- 4.5	- 3.6	42.4	2021 Nov.
0.3	- 4.7	- 2.6	- 2.2	- 5.6	0.9	- 5.3	- 6.5	- 0.1	- 6.3	- 45.9	- 41.0	- 62.3	2021 Dec.
1.3	- 0.8	1.8	- 2.6	12.7	14.8	16.0	- 2.1	0.2	- 2.2	72.3	66.7	3.3	2022 Jan.
0.5	- 5.5	- 2.1	- 3.4	4.6	3.7	2.5	0.9	0.1	0.8	20.6	15.8	34.9	2022 Feb.
- 0.4	5.5	0.5	5.0	3.8	- 1.7	- 3.3	5.5	0.4	5.1	- 22.2	- 19.2	123.7	2022 Mar.
0.2	- 6.8	1.4	- 8.2	- 5.3	- 1.6	- 2.7	- 3.7	3.2	- 6.9	- 13.8	- 14.2	246.6	2022 Apr.
0.3	- 0.4	- 2.0	1.6	6.2	5.4	3.3	0.8	- 0.8	1.7	- 1.0	- 2.0	- 36.6	2022 May
- 1.7	- 2.1	0.4	- 2.5	13.0	3.0	6.1	10.0	1.9	8.1	- 10.0	- 18.2	182.3	2022 June
13.4	0.0	0.9	- 0.8	- 6.3	- 5.2	- 2.9	- 1.1	0.1	- 1.3	7.8	8.0	- 193.2	2022 July
- 1.0	- 5.1	- 2.3	- 2.8	- 3.3	3.4	2.5	- 6.7	0.4	- 7.0	7.2	6.5	258.9	2022 Aug.
0.8	- 2.4	1.1	- 3.5	9.9	3.3	4.0	6.6	1.7	4.8	0.7	0.1	303.7	2022 Sep.
- 0.3	5.9	1.4	- 4.4	- 8.7	- 4.4	- 4.6	- 4.3	- 1.0	- 3.3	19.7	20.4	- 44.0	2022 Oct.
2.0	- 4.1	0.0	- 4.1	8.4	9.2	9.6	- 0.8	- 1.7	- 0.9	8.8	4.8	- 199.3	2022 Nov.
1.8	1.5	0.9	0.6	- 15.6	- 9.3	- 6.2	- 6.4	- 1.9	- 4.5	- 75.0	- 69.5	112.9	2022 Dec.
0.1	- 1.6	2.3	- 3.9	16.3	9.4	10.0	6.9	- 0.6	7.5	33.4	27.8	- 121.8	2023 Jan.
- 0.4	5.6	- 2.0	- 7.7	- 0.2	- 0.7	- 1.4	0.5	1.1	- 0.7	- 1.7	- 6.6	156.4	2023 Feb.
- 1.2	- 3.0	0.8	- 3.7	6.1	4.6	- 3.0	1.5	- 0.4	1.9	9.6	6.5	- 170.1	2023 Mar.
- 1.0	- 1.2	2.1	- 3.3	8.0	8.5	5.4	- 0.5	1.4	- 1.9	- 14.9	- 15.4	11.9	2023 Apr.
0.9	- 4.7	- 1.2	- 3.5	5.4	2.1	3.9	3.4	- 0.4	3.7	28.3	28.1	10.1	2023 May

of equalisation claims. <sup>3</sup> 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	Deposits of banks (MFIs) in the euro area				Deposits of non-banks (non-MFIs) in the euro area								
	Balance sheet total 1	of banks			Total	Deposits of non-banks in the home country					Deposits of non-banks		
		Total	in the home country	in other Member States		Total	Overnight	With agreed maturities		At agreed notice		Total	Overnight
								Total	of which: up to 2 years	Total	of which: up to 3 months		
End of year or month													
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
2021	9,172.2	1,628.6	1,338.6	289.9	4,129.9	3,931.8	2,649.3	721.3	203.9	561.2	537.1	153.8	70.7
2022	10,517.9	1,618.6	1,231.6	387.0	4,343.5	4,093.8	2,712.1	848.6	353.7	533.2	510.2	180.5	84.1
2021 Aug.	9,319.3	1,686.5	1,365.8	320.7	4,119.2	3,925.6	2,648.6	715.5	194.1	561.5	536.6	147.8	74.7
Sep.	9,325.3	1,667.9	1,354.2	313.6	4,108.9	3,913.6	2,640.2	712.7	194.3	560.7	535.9	148.8	77.1
Oct.	9,395.0	1,690.9	1,364.7	326.2	4,140.0	3,942.6	2,657.0	725.5	206.4	560.1	535.6	151.4	78.1
Nov.	9,495.5	1,718.6	1,374.9	343.8	4,154.1	3,956.1	2,678.9	717.4	200.2	559.8	535.5	151.4	82.5
Dec.	9,172.2	1,628.6	1,338.6	289.9	4,129.9	3,931.8	2,649.3	721.3	203.9	561.2	537.1	153.8	70.7
2022 Jan.	9,717.0	1,725.2	1,363.7	361.5	4,195.2	3,979.5	2,686.4	732.3	215.9	560.7	537.4	166.7	86.2
Feb.	9,842.7	1,743.7	1,369.7	374.0	4,209.7	3,993.9	2,699.7	733.4	217.5	560.8	537.7	169.3	90.1
Mar.	9,962.9	1,737.5	1,367.8	369.8	4,212.3	3,990.1	2,690.3	740.9	226.7	559.0	536.1	177.7	99.4
Apr.	10,268.8	1,766.8	1,384.4	382.3	4,223.7	4,003.6	2,700.1	745.6	234.6	557.9	535.2	175.5	93.4
May	10,258.0	1,765.9	1,393.7	372.2	4,236.1	4,013.3	2,718.3	738.4	229.4	556.5	534.0	176.2	97.1
June	10,428.9	1,744.4	1,384.7	359.7	4,235.0	4,008.2	2,708.8	744.7	238.3	554.7	532.4	180.5	102.7
July	10,267.9	1,772.1	1,383.3	388.9	4,267.6	4,041.3	2,722.8	765.6	259.2	552.9	530.7	179.5	99.0
Aug.	10,627.2	1,785.7	1,403.5	382.2	4,322.0	4,089.0	2,760.7	777.8	272.2	550.5	528.3	185.0	103.0
Sep.	11,063.0	1,814.5	1,415.7	398.8	4,342.6	4,105.7	2,748.5	812.0	306.6	545.2	523.1	191.1	102.4
Oct.	11,036.0	1,837.4	1,419.0	418.4	4,359.6	4,122.0	2,741.6	838.3	334.6	542.1	519.8	190.0	92.4
Nov.	10,762.4	1,773.7	1,345.0	428.7	4,401.0	4,132.6	2,752.4	843.3	344.7	536.8	514.3	193.1	97.3
Dec.	10,517.9	1,618.6	1,231.6	387.0	4,343.5	4,093.8	2,712.1	848.6	353.7	533.2	510.2	180.5	84.1
2023 Jan.	10,585.0	1,642.4	1,231.2	411.2	4,392.0	4,124.2	2,706.4	895.1	397.6	522.7	498.8	188.7	94.3
Feb.	10,760.9	1,633.5	1,226.0	407.5	4,391.4	4,113.2	2,670.6	926.7	428.4	515.9	490.8	191.2	97.2
Mar.	10,553.8	1,618.0	1,210.4	407.6	4,368.3	4,092.1	2,625.3	959.7	462.3	507.2	480.5	197.9	98.8
Apr.	10,564.3	1,632.8	1,227.7	405.1	4,370.1	4,099.8	2,620.9	980.3	482.3	498.6	470.4	199.5	93.6
May	10,654.6	1,622.7	1,229.8	392.9	4,383.2	4,108.2	2,613.0	1,004.7	504.1	490.6	460.2	200.6	97.9
Changes 4													
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	114.2	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
2021	207.2	133.4	103.4	30.0	107.3	96.2	141.4	- 45.8	- 23.3	0.6	3.9	16.6	13.6
2022	1,170.5	- 15.6	- 105.9	90.3	208.9	165.9	60.6	132.8	148.1	- 27.5	- 26.3	18.4	12.8
2021 Sep.	3.0	- 19.5	- 11.7	- 7.8	- 7.3	- 8.9	- 6.5	- 1.6	0.4	- 0.8	- 0.6	0.7	2.7
Oct.	70.4	24.1	11.2	12.9	31.1	29.1	16.8	- 12.9	12.1	- 0.6	- 0.4	2.5	1.1
Nov.	95.5	26.4	9.6	16.7	12.9	12.5	21.1	- 8.4	- 6.2	- 0.3	- 0.1	- 0.3	4.2
Dec.	- 326.2	- 90.4	- 36.3	- 54.1	- 24.3	- 24.3	- 29.6	3.9	3.7	1.4	1.6	2.4	- 11.9
2022 Jan.	340.3	93.8	23.2	70.6	64.3	47.0	36.5	10.9	11.9	- 0.4	0.3	12.6	15.3
Feb.	128.5	19.3	6.1	13.2	14.2	14.6	13.4	1.1	1.6	0.1	0.3	2.2	3.5
Mar.	119.7	- 6.6	- 2.1	- 4.5	2.2	- 4.2	- 9.7	7.3	9.2	- 1.8	- 1.6	8.3	9.3
Apr.	283.1	25.1	15.6	9.5	8.0	11.0	7.5	4.1	7.2	- 0.6	- 0.4	- 3.1	- 6.6
May	1.1	0.7	9.8	- 9.1	13.6	10.6	18.9	- 6.9	- 5.0	- 1.3	- 1.2	1.0	3.9
June	178.6	- 24.2	- 9.7	- 14.5	- 2.8	- 6.6	- 10.7	5.9	8.5	- 1.8	- 1.6	4.1	5.6
July	- 177.9	24.6	- 1.6	26.2	29.3	30.8	13.0	19.6	19.9	- 1.8	- 1.7	- 2.0	- 3.9
Aug.	359.0	15.5	23.0	- 7.5	53.6	47.1	37.2	12.4	12.9	- 2.4	- 2.4	5.3	3.8
Sep.	428.4	25.2	11.7	13.5	19.0	15.4	- 13.3	34.0	34.1	- 5.3	- 5.3	5.6	- 0.9
Oct.	- 19.3	24.2	3.8	20.3	17.2	16.2	- 7.3	26.6	28.2	- 3.1	- 3.3	- 0.7	- 9.7
Nov.	- 245.9	- 60.3	- 73.0	12.7	45.6	21.3	14.3	12.2	10.1	- 5.3	- 5.4	- 3.2	5.4
Dec.	- 225.1	- 152.7	- 112.7	- 40.0	- 55.4	- 37.3	- 39.2	5.6	9.4	- 3.7	- 4.1	- 11.9	- 12.8
2023 Jan.	87.5	23.3	0.0	23.3	49.1	30.9	- 10.4	46.7	44.0	- 5.5	- 6.4	8.2	10.1
Feb.	167.0	- 10.3	- 5.6	- 4.7	- 1.8	- 11.8	- 36.4	31.3	30.7	- 6.7	- 7.9	2.1	2.7
Mar.	- 195.2	- 13.4	- 14.7	1.3	- 21.7	- 20.0	- 44.1	32.8	33.5	- 8.7	- 10.3	7.1	1.8
Apr.	16.7	15.5	17.5	- 1.9	2.4	8.1	- 4.1	20.8	20.2	- 8.6	- 10.1	1.8	- 5.1
May	91.9	- 10.1	2.1	- 12.1	13.1	8.4	- 7.9	24.3	21.7	- 8.0	- 10.2	1.1	4.2

\* This table serves to supplement the "Overall monetary survey" in Section II. Unlike the other tables in Section IV, this table includes - in addition to the figures reported by

banks (including building and loan associations) - data from money market funds.  
1 See footnote 1 in Table IV.2. 2 Excluding deposits of central governments.

IV. Banks

in other Member States <sup>2</sup>				Deposits of central governments		Liabilities arising from repos with non-banks in the euro area	Money market fund shares issued <sup>3</sup>	Debt securities issued <sup>3</sup>		Liabilities to non-euro area residents	Capital and reserves	Other Liabilities <sup>1</sup>	Period
With agreed maturities		At agreed notice		Total	of which: domestic central governments			Total	of which: with maturities of up to 2 years <sup>3</sup>				
Total	of which: up to 2 years	Total	of which: up to 3 months										
<b>End of year or month</b>													
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
80.7	22.8	2.4	2.2	44.2	43.5	2.2	2.3	1,110.8	27.5	757.2	732.3	809.0	2021
94.3	32.4	2.2	2.0	69.2	66.8	3.4	2.7	1,185.1	40.8	800.4	747.2	1,817.1	2022
70.7	24.0	2.5	2.3	45.8	44.0	7.4	2.3	1,089.9	25.5	790.7	725.0	898.4	2021 Aug.
69.2	22.4	2.5	2.2	46.6	45.2	7.3	2.2	1,100.5	25.1	840.1	735.9	862.6	Sep.
70.9	23.4	2.4	2.2	46.1	45.2	7.4	2.2	1,118.0	24.6	866.7	729.5	840.3	Oct.
66.4	17.4	2.4	2.2	46.6	45.5	4.2	2.1	1,123.9	26.0	883.1	736.5	872.8	Nov.
80.7	22.8	2.4	2.2	44.2	43.5	2.2	2.3	1,110.8	27.5	757.2	732.3	809.0	Dec.
78.1	20.3	2.4	2.2	48.9	45.5	3.0	2.3	1,126.9	25.3	907.4	721.2	1,036.0	2022 Jan.
76.8	19.8	2.4	2.2	46.4	42.8	2.4	2.4	1,141.1	26.2	945.9	717.7	1,080.0	Feb.
75.9	19.0	2.4	2.2	44.5	42.1	2.8	2.5	1,148.9	25.9	926.4	736.8	1,195.6	Mar.
79.8	22.5	2.4	2.2	44.6	42.2	2.3	2.3	1,161.1	26.3	939.2	734.6	1,438.9	Apr.
76.8	19.9	2.3	2.1	46.6	42.8	1.9	2.5	1,164.1	27.7	958.5	732.3	1,396.8	May
75.5	19.1	2.3	2.1	46.2	43.0	2.0	2.5	1,164.7	32.2	945.7	752.0	1,582.6	June
78.1	23.2	2.3	2.1	46.8	44.0	4.2	2.5	1,177.1	35.9	926.6	743.6	1,374.2	July
79.7	24.3	2.3	2.1	47.9	44.0	4.8	2.4	1,183.7	38.6	950.2	741.8	1,636.6	Aug.
86.4	31.2	2.3	2.1	45.9	43.3	3.2	2.5	1,203.3	45.8	987.2	758.0	1,951.6	Sep.
95.4	39.7	2.2	2.1	47.6	44.9	4.0	2.6	1,202.6	39.4	980.8	751.8	1,897.2	Oct.
93.5	31.3	2.2	2.0	75.4	71.1	4.7	2.6	1,202.3	42.2	939.7	747.3	1,691.1	Nov.
94.3	32.4	2.2	2.0	69.2	66.8	3.4	2.7	1,185.1	40.8	800.4	747.2	1,817.1	Dec.
92.3	30.4	2.2	2.0	79.1	73.8	3.9	2.5	1,205.2	47.4	890.6	728.9	1,719.6	2023 Jan.
91.8	30.0	2.2	1.9	87.0	82.5	5.0	2.4	1,221.5	55.6	901.8	724.9	1,880.4	Feb.
97.0	28.5	2.1	1.9	78.2	73.3	4.7	2.6	1,231.2	64.6	863.1	734.8	1,731.0	Mar.
103.7	33.9	2.1	1.9	70.8	65.9	5.4	2.8	1,235.3	67.3	856.2	735.7	1,726.0	Apr.
100.7	30.7	2.1	1.8	74.4	62.4	6.0	2.6	1,257.3	72.3	888.3	747.0	1,747.4	May
<b>Changes <sup>4</sup></b>													
- 2.3	-	1.2	- 0.2	- 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
3.1	- 8.0	- 0.2	- 0.1	- 5.5	- 5.0	- 7.9	0.3	40.6	6.9	124.9	16.6	- 207.9	2021
5.8	8.5	- 0.3	- 0.2	24.6	23.0	1.2	0.4	67.2	12.6	45.6	5.0	857.7	2022
- 1.9	- 1.6	- 0.0	- 0.0	0.8	1.2	- 0.1	- 0.0	7.0	- 0.5	45.5	10.0	- 32.4	2021 Sep.
1.5	0.9	- 0.0	- 0.0	- 0.5	0.0	0.1	- 0.1	17.3	- 0.5	27.1	- 6.4	- 22.8	Oct.
- 4.5	- 6.1	- 0.0	- 0.0	0.7	0.4	- 3.2	- 0.1	1.7	1.4	11.7	5.9	40.3	Nov.
14.3	5.4	0.0	0.0	- 2.4	- 2.0	- 2.0	0.2	- 14.2	1.4	- 127.3	- 4.6	- 63.4	Dec.
- 2.7	- 2.6	- 0.0	- 0.0	4.7	2.0	0.7	- 0.0	13.4	- 2.3	146.6	- 18.3	39.8	2022 Jan.
- 1.3	- 0.5	- 0.0	- 0.0	- 2.5	- 2.7	- 0.5	0.1	15.0	1.0	39.4	- 3.2	44.2	Feb.
- 1.0	- 0.8	- 0.0	- 0.0	- 2.0	- 0.6	0.3	0.2	6.9	- 0.3	- 20.7	19.0	118.4	Mar.
3.6	3.2	- 0.0	- 0.0	0.1	0.0	- 0.5	- 0.3	3.4	0.2	0.4	- 5.8	252.8	Apr.
- 2.9	- 2.5	- 0.0	- 0.0	2.0	0.6	- 0.4	0.2	6.4	1.4	23.9	- 1.0	- 42.4	May
- 1.5	- 1.0	- 0.0	- 0.0	- 0.4	0.2	0.1	- 0.0	- 4.8	4.3	- 6.3	17.6	199.0	June
1.9	3.7	- 0.0	- 0.0	0.5	1.1	2.1	0.1	9.1	3.5	- 24.8	- 10.5	- 207.8	July
1.6	1.0	- 0.0	- 0.0	1.1	0.0	0.6	- 0.1	4.1	2.7	20.1	- 3.1	268.3	Aug.
6.5	6.7	- 0.0	- 0.0	- 2.0	- 0.7	- 1.6	0.1	15.8	7.0	31.8	14.9	323.1	Sep.
9.1	8.7	- 0.0	- 0.0	1.7	1.6	0.8	0.1	1.8	- 6.3	- 2.8	- 5.3	- 55.3	Oct.
- 8.6	- 8.3	- 0.0	- 0.0	27.5	25.8	0.8	0.0	7.4	2.4	- 29.9	- 1.1	- 208.4	Nov.
1.0	0.9	- 0.0	- 0.0	- 6.3	- 4.3	- 1.3	0.1	- 11.5	- 1.2	- 132.1	1.9	125.9	Dec.
- 1.9	- 1.8	- 0.0	- 0.0	9.9	6.9	0.5	- 0.2	22.4	6.6	95.0	- 17.6	- 85.0	2023 Jan.
- 0.6	- 0.6	- 0.0	- 0.0	7.9	8.7	1.2	- 0.1	13.0	8.1	6.9	- 5.0	163.2	Feb.
5.3	- 1.4	- 0.0	- 0.0	- 8.8	- 9.2	- 0.3	0.3	13.6	9.2	- 33.8	11.2	- 151.2	Mar.
6.9	5.5	- 0.0	- 0.0	- 7.4	- 7.4	0.7	0.1	5.7	2.7	- 4.9	1.8	- 4.7	Apr.
- 3.1	- 3.3	- 0.0	- 0.0	3.6	- 3.5	0.6	- 0.1	23.4	6.5	32.0	9.4	23.5	May

<sup>3</sup> 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. <sup>4</sup> 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 <sup>1</sup>	Cash in hand and credit balances with central banks	Lending to banks (MFIs)			Lending to non-banks (non-MFIs)					Participating interests	Other assets <sup>1</sup>
				Total	of which:		Total	of which:			Securities issued by non-banks		
					Balances and loans	Securities issued by banks		Loans	Bills				
							for up to and including 1 year	for more than 1 year					
<b>All categories of banks</b>													
2022 Dec.	1,386	10,581.5	88.0	3,498.3	3,028.0	467.6	4,929.3	466.5	3,762.8	0.2	682.2	96.2	1,969.7
2023 Jan.	1,384	10,650.7	109.2	3,638.9	3,161.2	474.0	4,957.2	489.6	3,766.4	0.2	676.6	95.7	1,849.6
Feb.	1,385	10,825.7	74.4	3,673.4	3,187.8	481.7	4,976.6	485.3	3,779.4	0.2	693.0	96.1	2,005.1
Mar.	1,385	10,617.5	72.8	3,630.6	3,143.2	483.4	4,983.5	488.3	3,777.1	0.2	701.1	96.4	1,834.2
Apr.	1,384	10,627.8	74.6	3,618.8	3,128.7	485.3	4,991.8	492.5	3,782.2	0.2	699.8	96.9	1,845.7
May	1,383	10,716.7	68.0	3,694.9	3,203.2	487.4	5,004.1	490.7	3,797.9	0.2	698.6	97.4	1,852.4
<b>Commercial banks <sup>6</sup></b>													
2023 Apr.	243	4,853.2	28.6	1,675.9	1,587.1	87.9	1,617.0	327.7	1,031.5	0.1	249.4	31.6	1,500.1
May	242	4,899.5	25.3	1,718.8	1,630.4	88.0	1,622.4	329.5	1,037.5	0.1	247.6	31.8	1,501.2
<b>Big banks <sup>7</sup></b>													
2023 Apr.	3	2,438.6	13.5	675.2	641.8	33.4	739.3	154.1	456.3	0.1	123.9	26.0	984.6
May	3	2,452.2	12.1	691.7	659.3	32.4	736.5	156.2	456.9	0.0	118.4	26.1	985.7
<b>Regional banks and other commercial banks</b>													
2023 Apr.	132	1,940.8	11.4	685.9	632.0	53.0	736.0	125.8	488.6	0.1	119.2	4.2	503.4
May	132	1,967.5	10.6	704.1	649.6	54.0	745.2	128.9	491.3	0.1	122.8	4.3	503.4
<b>Branches of foreign banks</b>													
2023 Apr.	108	473.7	3.8	314.8	313.2	1.5	141.7	47.9	86.7	–	6.3	1.4	12.1
May	107	479.8	2.5	323.0	321.5	1.5	140.8	44.3	89.3	–	6.3	1.4	12.1
<b>Landesbanken</b>													
2023 Apr.	6	963.6	4.8	384.9	331.6	52.8	436.1	48.5	347.7	0.0	34.8	9.5	128.2
May	6	969.7	5.7	390.2	336.1	53.4	435.0	45.9	349.4	0.0	34.7	9.6	129.2
<b>Savings banks</b>													
2023 Apr.	358	1,558.9	21.6	281.1	161.5	119.4	1,214.3	54.1	992.1	–	167.7	16.2	25.6
May	358	1,564.4	18.9	286.9	167.2	119.7	1,216.2	53.7	994.3	–	167.6	16.3	26.2
<b>Credit cooperatives</b>													
2023 Apr.	733	1,160.2	13.0	215.6	104.2	110.8	882.3	33.9	727.5	0.0	120.8	19.8	29.5
May	733	1,162.7	13.3	216.1	104.5	110.8	884.2	34.1	730.0	0.0	120.1	19.9	29.3
<b>Mortgage banks</b>													
2023 Apr.	8	227.3	0.1	22.2	15.7	6.5	199.3	3.6	181.5	–	14.2	0.1	5.5
May	8	228.4	0.1	22.3	15.6	6.7	200.3	3.6	182.4	–	14.4	0.1	5.6
<b>Building and loan associations</b>													
2023 Apr.	18	260.4	0.2	45.7	30.1	15.6	210.5	1.3	186.5	.	22.8	0.3	3.7
May	18	260.2	0.5	45.0	29.2	15.7	210.8	1.3	187.0	.	22.5	0.3	3.7
<b>Banks with special, development and other central support tasks</b>													
2023 Apr.	18	1,604.2	6.2	993.3	898.5	92.3	432.3	23.5	315.4	–	90.2	19.4	153.1
May	18	1,631.7	4.2	1,015.7	920.1	93.1	435.3	22.7	317.3	0.0	91.8	19.5	157.1
<b>Memo item: Foreign banks <sup>8</sup></b>													
2023 Apr.	140	2,445.2	12.6	911.1	873.7	36.6	700.9	161.4	409.6	0.1	124.7	4.0	816.6
May	139	2,463.5	10.6	929.0	891.8	36.8	708.9	161.8	414.0	0.1	128.7	4.3	810.8
<b>of which: Banks majority-owned by foreign banks <sup>9</sup></b>													
2023 Apr.	32	1,971.5	8.8	596.3	560.5	35.1	559.2	113.6	323.0	0.1	118.4	2.6	804.5
May	32	1,983.7	8.1	606.0	570.3	35.3	568.1	117.5	324.8	0.1	122.3	2.9	798.6

\* 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 the Statistical Series Banking statistics, in Tables I.1 to I.3. **2** For building and loan associations: including deposits under savings

IV. Banks

Deposits of banks (MFIs)			Deposits of non-banks (non-MFIs)						Bearer debt securities outstanding <sup>5</sup>	Bank savings bonds	Capital including published reserves, participation rights capital, funds for general banking risks	Other liabilities <sup>1</sup>	End of month	
Total	of which:		Total	of which:			Memo item: Liabilities arising from repos <sup>3</sup>	Savings deposits <sup>4</sup>						
	Sight deposits	Time deposits		Sight deposits	Time deposits <sup>2</sup>			Total						of which: At 3 months' notice
				for up to and including 1 year	for more than 1 year <sup>2</sup>									
<b>All categories of banks</b>														
2,230.1	616.9	1,613.1	4,532.2	2,916.6	394.4	647.9	48.6	538.5	515.1	34.9	1,269.4	591.1	1,958.7	2022 Dec.
2,320.7	743.7	1,576.9	4,604.7	2,936.3	448.4	651.3	71.7	527.9	503.5	40.9	1,287.5	592.6	1,845.1	2023 Jan.
2,312.9	740.8	1,572.0	4,615.5	2,906.1	486.7	655.8	78.5	521.1	495.5	45.8	1,296.2	592.4	2,008.6	Feb.
2,270.4	713.0	1,557.4	4,579.8	2,856.6	496.6	662.4	76.8	512.3	485.1	52.1	1,312.4	596.4	1,858.4	Mar.
2,270.3	681.4	1,588.9	4,590.6	2,840.7	520.8	666.9	82.4	503.5	474.9	58.7	1,308.3	598.5	1,860.2	Apr.
2,288.9	734.0	1,554.9	4,608.9	2,843.2	531.5	672.8	86.6	495.5	464.5	65.9	1,342.1	603.8	1,873.2	May
<b>Commercial banks <sup>6</sup></b>														
1,182.8	523.5	659.2	1,824.3	1,205.3	273.3	243.3	80.4	85.0	78.6	17.4	200.4	206.8	1,439.0	2023 Apr.
1,194.9	562.0	632.9	1,847.5	1,211.4	284.8	247.8	84.5	84.5	76.5	18.9	201.7	210.2	1,445.3	May
<b>Big banks <sup>7</sup></b>														
432.4	176.6	255.8	854.5	539.6	163.8	77.1	44.0	73.1	67.3	1.1	150.8	74.6	926.3	2023 Apr.
433.8	180.2	253.6	855.1	536.7	167.0	77.2	43.9	73.1	65.8	1.1	150.5	77.2	935.6	May
<b>Regional banks and other commercial banks</b>														
487.3	202.0	285.3	788.7	541.1	75.7	143.9	36.4	11.7	11.0	16.2	49.5	115.5	499.9	2023 Apr.
492.5	228.6	263.9	812.0	548.6	84.8	149.7	40.7	11.1	10.4	17.8	50.9	116.0	496.1	May
<b>Branches of foreign banks</b>														
263.1	144.9	118.2	181.0	124.5	33.8	22.4	–	0.3	0.3	0.1	0.2	16.7	12.7	2023 Apr.
268.5	153.1	115.4	180.4	126.1	33.0	20.9	–	0.3	0.3	0.1	0.3	16.9	13.6	May
<b>Landesbanken</b>														
271.1	39.8	231.3	306.3	141.0	87.5	72.3	1.9	5.0	5.0	0.5	201.9	43.2	141.1	2023 Apr.
276.4	54.9	221.5	300.3	146.9	76.3	71.7	1.5	4.9	4.9	0.5	205.4	43.2	144.4	May
<b>Savings banks</b>														
182.6	3.6	178.9	1,166.9	823.9	47.2	14.9	–	250.8	234.5	30.1	18.3	137.6	53.6	2023 Apr.
183.6	3.9	179.7	1,168.3	819.7	52.4	15.1	–	246.6	230.1	34.5	19.7	138.4	54.5	May
<b>Credit cooperatives</b>														
167.9	3.4	164.4	846.7	591.1	59.6	23.5	–	162.3	156.4	10.2	8.1	102.1	35.4	2023 Apr.
169.0	3.5	165.6	847.5	584.6	67.3	25.1	–	159.0	152.7	11.5	8.1	103.1	35.1	May
<b>Mortgage banks</b>														
49.3	3.6	45.7	56.2	3.4	6.4	46.5	0.2	–	–	–	105.7	8.9	7.2	2023 Apr.
49.0	3.6	45.4	56.7	3.3	6.8	46.6	0.5	–	–	–	106.8	8.9	7.0	May
<b>Building and loan associations</b>														
37.6	3.3	34.3	195.2	4.0	2.0	188.6	–	0.4	0.4	0.2	6.1	12.9	8.7	2023 Apr.
37.3	3.6	33.7	195.2	4.1	2.0	188.5	–	0.4	0.4	0.2	6.1	13.0	8.6	May
<b>Banks with special, development and other central support tasks</b>														
379.2	104.2	275.0	195.0	72.1	44.7	77.8	0.0	–	–	–	767.6	87.0	175.4	2023 Apr.
378.6	102.4	276.2	193.4	73.3	41.8	78.0	0.0	–	–	–	794.2	87.1	178.3	May
<b>Memo item: Foreign banks <sup>8</sup></b>														
719.3	347.6	371.7	759.8	524.4	113.6	100.9	41.2	12.4	12.1	8.4	49.6	100.7	815.8	2023 Apr.
729.2	382.5	346.7	776.1	528.2	123.5	103.5	46.8	11.9	11.5	9.0	49.9	100.9	807.4	May
<b>of which: Banks majority-owned by foreign banks <sup>9</sup></b>														
456.2	202.6	253.6	578.8	399.9	79.8	78.5	41.2	12.2	11.8	8.3	49.5	84.0	803.0	2023 Apr.
460.7	229.4	231.3	595.7	402.1	90.5	82.6	46.8	11.6	11.2	8.9	49.6	83.9	793.7	May

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 Series 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
<b>End of year or month *</b>													
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
2021	49.4	905.0	1,409.6	1,163.7	–	0.5	245.3	10.3	3,798.1	3,392.4	0.3	2.6	402.8
2022	19.8	67.3	2,347.0	2,101.4	–	1.0	244.6	12.1	4,015.6	3,613.1	0.2	2.7	399.6
2021 Dec.	49.4	905.0	1,409.6	1,163.7	–	0.5	245.3	10.3	3,798.1	3,392.4	0.3	2.6	402.8
2022 Jan.	47.4	1,066.0	1,439.2	1,191.8	–	0.7	246.7	10.1	3,812.8	3,409.0	0.2	3.1	400.5
Feb.	47.2	1,094.0	1,453.6	1,204.6	–	0.3	248.7	10.0	3,826.5	3,426.0	0.2	5.0	395.3
Mar.	49.5	1,086.3	1,442.6	1,195.1	–	0.3	247.3	10.0	3,853.8	3,449.0	0.2	3.3	401.3
Apr.	50.4	1,200.5	1,360.3	1,112.8	–	0.6	246.9	9.9	3,866.6	3,470.0	0.2	3.5	392.9
May	49.4	1,122.8	1,452.7	1,202.9	–	0.7	249.1	9.9	3,886.7	3,488.9	0.2	3.2	394.4
June	51.1	1,090.9	1,462.8	1,214.8	–	0.8	247.2	9.8	3,906.6	3,513.4	0.2	3.7	389.3
July	41.6	1,084.2	1,454.9	1,206.8	–	0.8	247.2	9.8	3,945.0	3,539.1	0.2	3.6	402.2
Aug.	23.1	1,126.7	1,480.7	1,232.0	–	1.3	247.5	9.9	3,976.0	3,574.3	0.1	3.9	397.7
Sep.	20.4	122.4	2,573.9	2,319.2	–	1.4	253.2	9.8	3,993.6	3,595.3	0.2	3.6	394.5
Oct.	19.7	86.6	2,592.3	2,337.0	–	1.5	253.7	10.0	4,014.1	3,611.6	0.2	4.3	398.0
Nov.	18.8	88.4	2,524.4	2,271.2	–	1.5	251.7	11.1	4,025.7	3,625.3	0.2	3.6	396.7
Dec.	19.8	67.3	2,347.0	2,101.4	–	1.0	244.6	12.1	4,015.6	3,613.1	0.2	2.7	399.6
2023 Jan.	18.0	89.5	2,443.6	2,198.1	–	1.0	244.5	12.7	4,016.2	3,622.4	0.1	4.3	389.4
Feb.	17.8	52.2	2,471.9	2,222.2	–	1.0	248.8	12.8	4,030.2	3,629.4	0.1	2.9	397.9
Mar.	17.7	53.5	2,426.8	2,175.1	–	1.0	250.7	12.6	4,030.5	3,634.7	0.1	4.3	391.4
Apr.	18.7	54.2	2,434.7	2,182.3	–	1.1	251.3	12.7	4,032.5	3,641.2	0.1	3.2	388.1
May	18.1	48.7	2,483.6	2,230.4	–	0.8	252.4	12.7	4,039.0	3,650.5	0.1	2.2	386.2
<b>Changes *</b>													
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	– 0.0	– 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	– 1.0
2021	+ 2.2	+ 111.8	+ 44.1	+ 46.3	– 0.0	– 0.2	– 2.0	+ 1.5	+ 152.2	+ 147.8	+ 0.0	+ 2.2	+ 6.6
2022	– 29.6	– 836.6	+ 938.0	+ 938.1	–	+ 0.2	– 0.3	+ 1.7	+ 216.7	+ 220.1	– 0.1	+ 0.1	– 3.3
2021 Dec.	+ 1.6	– 163.6	– 22.4	– 19.6	–	– 0.1	– 2.7	+ 0.3	+ 4.3	+ 6.2	+ 0.1	– 3.0	+ 0.9
2022 Jan.	– 2.0	+ 161.0	+ 27.8	+ 26.3	–	+ 0.1	+ 1.4	– 0.3	+ 14.7	+ 16.6	– 0.1	+ 0.5	– 2.3
Feb.	– 0.2	+ 28.0	+ 13.1	+ 11.5	–	– 0.4	+ 2.0	– 0.1	+ 15.1	+ 18.4	+ 0.0	+ 1.9	– 5.2
Mar.	+ 2.3	– 7.8	– 10.9	– 9.5	–	– 0.0	– 1.4	– 0.0	+ 27.3	+ 23.0	– 0.0	– 1.7	+ 6.0
Apr.	+ 0.9	+ 114.2	– 82.3	– 82.3	–	+ 0.3	– 0.4	– 0.0	+ 13.1	+ 21.3	+ 0.0	+ 0.2	– 8.4
May	– 1.0	– 77.7	+ 92.4	+ 90.0	–	+ 0.1	+ 2.3	– 0.0	+ 20.1	+ 18.9	– 0.1	– 0.3	+ 1.5
June	+ 1.7	– 31.9	+ 10.1	+ 11.9	–	+ 0.1	– 1.9	– 0.1	+ 19.9	+ 24.5	– 0.0	+ 0.5	– 5.1
July	– 9.5	– 6.8	– 7.5	– 7.6	–	+ 0.1	– 0.0	– 0.1	+ 36.1	+ 23.5	+ 0.0	– 0.1	+ 12.7
Aug.	– 18.5	+ 42.5	+ 29.0	+ 28.3	–	+ 0.2	+ 0.5	+ 0.1	+ 30.9	+ 35.1	– 0.0	+ 0.3	– 4.5
Sep.	– 2.7	– 1,004.3	+ 1,092.9	+ 1,087.0	–	+ 0.2	+ 5.7	– 0.0	+ 16.5	+ 19.9	+ 0.1	– 0.3	– 3.2
Oct.	– 0.7	– 35.8	+ 18.5	+ 17.8	–	+ 0.1	+ 0.6	+ 0.2	+ 20.7	+ 16.6	– 0.0	+ 0.7	+ 3.5
Nov.	– 0.8	+ 1.8	– 67.6	– 65.5	–	– 0.0	– 2.1	+ 1.1	+ 12.0	+ 13.9	– 0.0	– 0.7	– 1.3
Dec.	+ 1.0	– 19.9	– 177.4	– 169.9	–	– 0.5	– 7.0	+ 1.0	– 9.6	– 11.7	+ 0.0	– 0.9	+ 2.9
2023 Jan.	– 1.8	+ 22.2	+ 96.7	+ 96.7	–	+ 0.0	– 0.1	+ 0.6	+ 0.6	+ 9.2	– 0.1	+ 1.6	– 10.3
Feb.	– 0.2	– 37.4	+ 28.6	+ 24.3	–	+ 0.0	+ 4.3	+ 0.2	+ 13.3	+ 6.3	– 0.0	+ 1.5	+ 8.5
Mar.	– 0.1	+ 1.3	– 45.1	– 47.0	–	+ 0.0	+ 1.9	– 0.1	+ 0.9	+ 6.0	+ 0.0	+ 1.4	– 6.5
Apr.	+ 1.0	+ 0.7	+ 7.8	+ 7.2	–	+ 0.1	+ 0.6	+ 0.1	+ 2.1	+ 6.5	+ 0.0	– 1.2	– 3.2
May	– 0.7	– 5.5	+ 48.9	+ 48.2	–	– 0.3	+ 1.1	– 0.0	+ 6.6	+ 9.4	+ 0.0	+ 1.0	– 1.9

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

equalisation claims (see also footnote 2). 2 Including debt securities arising from the exchange of equalisation claims. 3 Including liabilities arising from registered debt securities, registered money market paper and non-negotiable bearer debt securities;



IV. Banks

Equalisation claims 2	Memo item: Fiduciary loans	Participating interests in domestic banks and enterprises	Deposits of domestic banks (MFIs) 3					Deposits of domestic non-banks (non-MFIs)					Period	
			Total	Sight deposits 4	Time deposits 4	Redis-counted bills 5	Memo item: Fiduciary loans	Total	Sight deposits 6	Time deposits 6	Savings deposits 7	Bank savings bonds 8		Memo item: Fiduciary loans
<b>End of year or month *</b>														
-	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
-	25.7	79.2	1,338.4	117.2	1,221.3	0.0	16.4	3,976.3	2,654.6	736.0	561.2	24.5	34.2	2021
-	25.6	80.3	1,231.6	136.9	1,094.7	0.0	15.7	4,162.0	2,720.6	873.5	533.2	34.6	35.9	2022
-	25.7	79.2	1,338.4	117.2	1,221.3	0.0	16.4	3,976.3	2,654.6	736.0	561.2	24.5	34.2	2021 Dec.
-	25.7	78.6	1,363.7	137.2	1,226.5	0.0	16.4	4,025.9	2,690.9	750.0	560.8	24.2	33.9	2022 Jan.
-	25.7	78.7	1,369.7	140.5	1,229.2	0.0	16.6	4,037.8	2,704.5	748.5	560.9	23.9	33.8	Feb.
-	25.8	78.7	1,367.7	137.7	1,230.1	0.0	16.5	4,033.7	2,695.6	755.2	559.0	23.9	33.8	Mar.
-	25.9	78.7	1,384.4	140.6	1,243.8	0.0	16.7	4,046.7	2,705.6	759.4	557.9	23.8	33.8	Apr.
-	26.2	78.6	1,393.7	142.7	1,251.0	0.0	17.1	4,056.8	2,724.3	752.1	556.6	23.8	33.6	May
-	26.1	78.8	1,384.7	147.1	1,237.6	0.0	16.9	4,051.8	2,714.4	758.8	554.8	23.8	33.4	June
-	25.9	80.3	1,383.3	134.3	1,249.0	0.0	16.6	4,086.4	2,729.0	780.4	553.0	24.1	33.0	July
-	25.9	79.8	1,403.5	136.0	1,267.5	-	16.5	4,134.3	2,766.8	792.0	550.6	25.0	33.0	Aug.
-	25.8	80.2	1,415.7	149.2	1,266.5	0.0	16.7	4,149.9	2,755.6	823.1	545.2	25.9	33.2	Sep.
-	25.8	80.4	1,419.0	138.1	1,280.9	0.0	16.1	4,168.4	2,748.7	849.3	542.2	28.1	33.6	Oct.
-	25.9	80.2	1,345.0	135.4	1,209.6	0.0	16.1	4,205.6	2,767.9	869.3	536.9	31.5	34.8	Nov.
-	25.6	80.3	1,231.6	136.9	1,094.7	0.0	15.7	4,162.0	2,720.6	873.5	533.2	34.6	35.9	Dec.
-	25.6	80.0	1,231.2	142.6	1,088.7	0.0	15.6	4,199.7	2,722.8	913.5	522.7	40.6	36.9	2023 Jan.
-	25.6	80.2	1,226.0	140.7	1,085.3	0.0	15.6	4,197.7	2,687.7	947.9	516.0	45.5	37.2	Feb.
-	24.6	80.3	1,210.4	137.0	1,073.4	0.0	15.2	4,167.4	2,639.8	968.6	507.2	51.7	36.4	Mar.
-	24.7	80.9	1,227.7	140.8	1,086.9	0.0	15.2	4,167.3	2,632.0	978.5	498.6	58.3	36.5	Apr.
-	24.7	81.1	1,229.8	137.8	1,091.9	0.0	15.1	4,172.9	2,623.9	993.0	490.6	65.4	36.6	May
<b>Changes *</b>														
-	- 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	- 3.4	- 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
-	+ 2.3	+ 1.0	+ 105.2	- 7.4	+ 112.6	+ 0.0	+ 3.3	+ 95.3	+ 144.3	- 46.2	+ 0.7	- 3.5	- 0.2	2021
-	- 0.1	+ 1.7	- 104.6	+ 8.8	- 113.4	- 0.0	- 0.6	+ 191.8	+ 65.8	+ 143.4	- 27.5	+ 10.1	+ 1.7	2022
-	+ 0.5	+ 0.1	- 35.4	- 18.0	- 17.4	- 0.0	+ 0.0	- 25.9	- 31.2	+ 4.1	+ 1.4	- 0.2	+ 0.6	2021 Dec.
-	- 0.0	- 0.6	+ 23.5	+ 18.3	+ 5.2	- 0.0	+ 0.0	+ 49.6	+ 36.3	+ 14.1	- 0.4	- 0.4	- 0.3	2022 Jan.
-	+ 0.0	+ 0.1	+ 6.0	+ 3.3	+ 2.7	- 0.0	+ 0.2	+ 11.9	+ 13.6	- 1.6	+ 0.1	- 0.2	- 0.2	Feb.
-	+ 0.1	+ 0.0	- 1.9	- 2.8	+ 0.8	-	- 0.0	- 4.1	- 9.0	+ 6.6	- 1.8	+ 0.0	-	Mar.
-	+ 0.2	- 0.0	+ 16.7	+ 3.0	+ 13.7	-	+ 0.2	+ 13.0	+ 9.5	+ 4.2	- 0.6	- 0.1	+ 0.0	Apr.
-	+ 0.3	- 0.1	+ 9.4	+ 2.2	+ 7.2	- 0.0	+ 0.3	+ 10.1	+ 18.8	- 7.3	- 1.3	+ 0.0	- 0.2	May
-	- 0.1	+ 0.2	- 9.0	+ 4.4	- 13.4	- 0.0	- 0.2	- 5.0	- 9.9	+ 6.7	- 1.8	- 0.0	- 0.1	June
-	- 0.2	+ 1.5	- 1.1	- 12.4	+ 11.2	-	- 0.3	+ 33.5	+ 14.3	+ 20.7	- 1.8	+ 0.3	- 0.5	July
-	- 0.0	+ 0.1	+ 23.3	+ 1.8	+ 21.6	- 0.0	- 0.1	+ 48.1	+ 37.8	+ 11.8	- 2.4	+ 0.9	+ 0.0	Aug.
-	- 0.0	+ 0.4	+ 12.2	+ 13.2	- 0.9	+ 0.0	+ 0.1	+ 15.6	- 11.4	+ 31.3	- 5.3	+ 0.9	+ 0.2	Sep.
-	- 0.0	+ 0.1	+ 3.5	- 10.9	+ 14.4	+ 0.0	- 0.5	+ 17.4	- 8.0	+ 26.2	- 3.1	+ 2.2	+ 0.4	Oct.
-	+ 0.1	- 0.1	- 73.9	- 2.6	- 71.3	- 0.0	- 0.1	+ 45.3	+ 20.9	+ 26.3	- 5.3	+ 3.4	+ 1.3	Nov.
-	- 0.3	+ 0.1	- 113.2	- 8.5	- 104.7	- 0.0	- 0.4	- 43.4	- 47.1	+ 4.2	- 3.7	+ 3.2	+ 1.1	Dec.
-	- 0.0	- 0.4	- 0.3	+ 5.8	- 6.1	+ 0.0	- 0.1	+ 37.6	- 2.9	+ 40.0	- 5.5	+ 6.0	+ 1.0	2023 Jan.
-	- 0.0	+ 0.2	- 5.2	- 1.9	- 3.4	-	- 0.0	- 2.5	- 35.0	+ 34.4	- 6.7	+ 4.8	+ 0.4	Feb.
-	- 0.3	+ 0.1	- 15.2	- 3.7	- 11.5	-	- 0.4	- 29.6	- 47.3	+ 20.2	- 8.7	+ 6.2	- 0.1	Mar.
-	+ 0.0	+ 1.1	+ 17.3	+ 3.8	+ 13.5	- 0.0	- 0.0	- 0.1	- 7.9	+ 9.8	- 8.6	+ 6.6	+ 0.0	Apr.
-	+ 0.0	+ 0.2	+ 2.1	- 2.9	+ 5.0	- 0.0	- 0.1	+ 5.6	- 7.9	+ 14.5	- 8.0	+ 7.1	+ 0.1	May

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		
<b>End of year or month *</b>														
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
2021	0.3	1,100.7	877.5	614.7	262.7	0.4	222.8	3.5	871.2	572.2	151.5	420.7	8.0	290.9
2022	0.2	1,151.3	926.6	656.2	270.4	1.7	223.0	3.7	913.7	616.2	173.0	443.2	14.9	282.6
2021 Dec.	0.3	1,100.7	877.5	614.7	262.7	0.4	222.8	3.5	871.2	572.2	151.5	420.7	8.0	290.9
2022 Jan.	0.3	1,200.2	977.7	714.1	263.6	1.2	221.3	3.5	911.6	610.7	187.0	423.7	10.3	290.7
Feb.	0.5	1,222.3	998.7	734.3	264.4	1.6	222.0	3.6	923.5	615.2	191.4	423.7	9.4	298.9
Mar.	0.5	1,224.2	999.2	729.8	269.4	1.0	224.1	3.6	906.5	597.4	171.8	425.6	10.3	298.9
Apr.	0.6	1,229.5	1,003.6	734.1	269.6	1.6	224.3	3.6	914.4	612.0	180.9	431.1	13.1	289.2
May	0.6	1,222.8	996.5	730.7	265.8	1.7	224.7	3.6	914.3	609.9	182.1	427.9	13.5	290.9
June	0.6	1,232.7	1,007.2	742.2	265.0	2.2	223.3	3.6	929.1	612.4	181.1	431.2	13.7	303.0
July	0.6	1,248.0	1,021.1	748.0	273.1	2.7	224.2	3.5	929.4	615.7	177.0	438.7	12.7	301.0
Aug.	0.5	1,266.1	1,038.5	756.2	282.4	3.4	224.2	3.4	931.5	624.9	183.9	441.0	13.4	293.2
Sep.	0.3	1,287.8	1,057.9	771.9	286.0	4.2	225.8	3.8	935.5	629.4	185.2	444.2	12.4	293.7
Oct.	0.3	1,296.6	1,065.2	787.3	277.9	3.1	228.3	3.4	931.2	629.3	182.0	447.3	12.5	289.5
Nov.	0.2	1,273.7	1,043.2	766.3	276.9	2.9	227.6	3.5	938.8	631.7	187.5	444.2	12.5	294.6
Dec.	0.2	1,151.3	926.6	656.2	270.4	1.7	223.0	3.7	913.7	616.2	173.0	443.2	14.9	282.6
2023 Jan.	0.2	1,195.3	963.1	700.1	263.0	2.7	229.5	4.0	941.0	633.6	190.9	442.7	20.1	287.3
Feb.	0.2	1,201.5	965.7	701.9	263.8	2.9	232.9	4.2	946.4	635.5	190.5	444.9	15.8	295.1
Mar.	0.2	1,203.8	968.2	704.1	264.0	2.9	232.7	4.3	953.0	630.8	187.8	443.0	12.5	309.8
Apr.	0.2	1,184.1	946.5	681.7	264.8	3.6	234.0	4.2	959.3	633.6	191.7	441.9	13.9	311.8
May	0.2	1,211.3	972.8	706.0	266.8	3.4	235.1	4.2	965.1	638.1	193.4	444.7	14.6	312.4
<b>Changes *</b>														
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
2021	+ 0.0	+ 52.8	+ 71.1	+ 68.9	+ 2.2	- 2.5	- 15.8	- 0.5	+ 37.8	+ 39.7	+ 29.8	+ 9.9	- 3.2	+ 1.4
2022	- 0.1	+ 21.7	+ 20.4	+ 17.9	+ 2.6	+ 1.3	- 0.0	+ 0.2	+ 37.0	+ 37.0	+ 16.8	+ 20.2	+ 6.7	- 6.7
2021 Dec.	- 0.0	- 65.7	- 64.3	- 60.9	- 3.5	- 0.5	- 0.9	+ 0.0	- 17.8	- 14.0	- 12.7	- 1.4	- 6.3	+ 2.5
2022 Jan.	+ 0.1	+ 95.8	+ 96.6	+ 97.4	- 0.8	+ 0.8	- 1.7	+ 0.1	+ 37.7	+ 36.2	+ 34.8	+ 1.4	+ 2.3	- 0.7
Feb.	+ 0.2	+ 23.2	+ 22.1	+ 20.8	+ 1.2	+ 0.4	+ 0.7	+ 0.0	+ 12.7	+ 5.2	+ 4.6	+ 0.5	- 0.8	+ 8.4
Mar.	- 0.0	- 0.0	- 1.5	- 5.8	+ 4.3	- 0.6	+ 2.1	+ 0.0	- 18.3	- 18.9	- 20.1	+ 1.2	+ 0.8	- 0.2
Apr.	+ 0.1	- 9.7	- 10.2	- 4.6	- 5.6	+ 0.6	- 0.1	+ 0.0	- 1.7	+ 6.8	+ 6.8	+ 0.0	+ 2.8	- 11.3
May	+ 0.0	- 1.1	- 1.8	- 0.1	- 1.7	+ 0.1	+ 0.5	+ 0.0	+ 3.7	+ 1.1	+ 2.2	- 1.1	+ 0.4	+ 2.2
June	+ 0.0	- 15.4	- 14.4	- 10.3	- 4.1	+ 0.5	- 1.6	+ 0.0	+ 9.7	- 1.7	- 2.3	+ 0.6	+ 0.2	+ 11.2
July	- 0.0	+ 8.4	+ 7.3	+ 1.7	+ 5.6	+ 0.5	+ 0.7	- 0.1	- 4.7	- 0.7	- 5.3	+ 4.6	- 1.1	- 2.9
Aug.	- 0.1	+ 13.9	+ 13.2	+ 6.0	+ 7.2	+ 0.7	- 0.0	- 0.2	+ 0.1	+ 7.7	+ 6.3	+ 1.4	+ 0.7	- 8.4
Sep.	- 0.2	+ 15.0	+ 12.6	+ 11.8	+ 0.8	+ 0.8	+ 1.6	+ 0.4	+ 3.2	+ 1.4	- 0.2	+ 1.6	- 1.0	+ 2.9
Oct.	+ 0.0	+ 13.4	+ 11.9	+ 18.2	- 6.3	- 1.0	+ 2.5	- 0.3	- 2.2	+ 1.4	- 2.9	+ 4.3	+ 0.0	- 3.6
Nov.	- 0.1	- 9.4	- 8.7	- 13.4	+ 4.7	- 0.2	- 0.4	+ 0.1	+ 16.5	+ 9.7	+ 5.5	+ 4.2	- 0.0	+ 6.8
Dec.	- 0.0	- 112.4	- 106.8	- 104.0	- 2.8	- 1.2	- 4.4	+ 0.2	- 19.9	- 11.2	- 12.7	+ 1.5	+ 2.4	- 11.1
2023 Jan.	- 0.0	+ 48.2	+ 40.6	+ 46.3	- 5.7	+ 1.1	+ 6.5	+ 0.3	+ 30.0	+ 19.5	+ 18.6	+ 0.9	+ 5.3	+ 5.2
Feb.	+ 0.0	+ 0.6	- 2.8	- 1.2	- 1.6	+ 0.1	+ 3.3	+ 0.2	+ 1.6	- 1.2	- 1.3	+ 0.1	- 4.4	+ 7.2
Mar.	- 0.0	+ 9.2	+ 9.2	+ 6.2	+ 3.0	- 0.0	- 0.1	+ 0.1	+ 11.2	- 1.1	- 1.5	+ 0.4	- 3.3	+ 15.5
Apr.	+ 0.0	- 17.0	- 19.0	- 20.9	+ 1.9	+ 0.7	+ 1.3	- 0.1	+ 8.2	+ 4.4	+ 4.5	- 0.1	+ 1.5	+ 2.4
May	+ 0.0	+ 16.9	+ 16.2	+ 18.0	- 1.8	- 0.2	+ 0.9	- 0.0	+ 1.5	+ 1.4	+ 1.3	+ 0.1	+ 0.6	- 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.

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)						Memo item: Fiduciary loans	Period
		Total	Sight deposits	Time deposits (including bank savings bonds)			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				
<b>End of year or month *</b>															
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	
11.1	16.6	914.6	456.0	458.6	301.5	157.2	0.0	288.2	141.9	146.2	68.7	77.6	0.1	2021	
10.4	15.7	998.4	480.0	518.4	376.4	141.9	–	370.3	196.0	174.3	84.4	89.8	0.1	2022	
11.1	16.6	914.6	456.0	458.6	301.5	157.2	0.0	288.2	141.9	146.2	68.7	77.6	0.1	2021 Dec.	
11.1	16.1	1,098.5	635.9	462.7	321.8	140.8	0.0	339.9	177.2	162.7	82.1	80.5	0.1	2022 Jan.	
11.1	16.0	1,130.4	640.4	490.0	349.8	140.2	0.0	361.2	194.5	166.7	87.0	79.7	0.1	Feb.	
11.1	15.7	1,113.8	632.7	481.1	349.8	131.3	0.0	361.6	200.0	161.6	82.0	79.6	0.1	Mar.	
11.1	15.7	1,113.7	600.6	513.2	381.7	131.4	0.0	384.6	201.5	183.2	102.6	80.6	0.1	Apr.	
11.1	15.7	1,127.5	640.4	487.1	351.4	135.7	0.0	382.0	217.1	164.9	85.0	79.9	0.2	May	
11.0	15.9	1,100.2	625.5	474.7	340.6	134.1	0.0	387.6	222.7	164.9	82.5	82.4	0.3	June	
10.6	15.8	1,107.4	608.8	498.6	359.0	139.6	0.0	390.2	221.6	168.6	87.5	81.1	0.3	July	
10.6	15.8	1,120.4	610.9	509.5	360.5	149.0	0.0	400.4	231.3	169.2	87.4	81.8	0.2	Aug.	
10.6	15.9	1,169.6	639.0	530.6	373.0	157.6	0.0	409.1	231.4	177.7	95.7	82.0	0.2	Sep.	
10.6	15.9	1,188.9	657.6	531.3	372.1	159.2	0.0	401.8	220.0	181.8	100.0	81.8	0.2	Oct.	
10.6	15.8	1,150.7	612.1	538.7	385.9	152.7	–	414.1	235.1	179.0	91.2	87.7	0.1	Nov.	
10.4	15.7	998.4	480.0	518.4	376.4	141.9	–	370.3	196.0	174.3	84.4	89.8	0.1	Dec.	
10.4	15.6	1,089.4	601.2	488.3	344.5	143.8	–	405.1	213.5	191.5	101.9	89.6	0.2	2023 Jan.	
10.4	15.8	1,086.8	600.1	486.7	345.1	141.6	–	418.4	218.4	200.0	109.9	90.1	0.2	Feb.	
10.4	15.9	1,060.0	576.0	484.0	329.3	154.7	–	412.5	216.8	195.7	98.9	96.9	0.3	Mar.	
10.4	15.9	1,042.6	540.6	502.0	343.8	158.2	–	423.3	208.8	214.6	116.6	97.9	0.3	Apr.	
10.4	16.1	1,059.1	596.1	462.9	299.9	163.0	0.0	436.0	219.3	216.7	116.7	100.0	0.3	May	
<b>Changes *</b>															
+ 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	+ 25.2	– 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	
– 0.2	– 0.8	+ 136.6	+ 19.8	+ 116.8	+ 89.2	+ 27.6	+ 0.0	+ 22.7	+ 6.4	+ 16.3	+ 0.0	+ 16.3	+ 0.0	2021	
– 0.7	– 1.0	+ 85.8	+ 29.1	+ 56.7	+ 69.6	– 13.0	– 0.0	+ 68.2	+ 49.0	+ 19.2	+ 13.9	+ 5.3	+ 0.0	2022	
– 0.1	+ 0.2	– 155.0	– 110.1	– 44.9	– 34.0	– 10.9	–	– 27.7	– 29.6	+ 1.9	– 7.0	+ 8.9	+ 0.0	2021 Dec.	
– 0.0	– 0.6	+ 180.8	+ 178.4	+ 2.4	+ 19.3	– 16.9	–	+ 50.8	+ 34.9	+ 16.0	+ 13.1	+ 2.9	–	2022 Jan.	
+ 0.0	– 0.0	+ 33.4	+ 5.7	+ 27.8	+ 28.3	– 0.5	–	+ 21.2	+ 17.0	+ 4.2	+ 5.0	– 0.8	–	Feb.	
– 0.1	– 0.3	– 18.3	– 8.5	– 9.8	– 0.7	– 9.1	–	– 0.1	+ 5.3	– 5.4	– 5.3	– 0.1	– 0.0	Mar.	
+ 0.0	– 0.1	– 13.2	– 39.6	+ 26.4	+ 27.6	– 1.1	–	+ 19.2	– 0.6	+ 19.8	+ 19.1	+ 0.6	–	Apr.	
– 0.0	+ 0.0	+ 18.7	+ 42.5	– 23.8	– 28.6	+ 4.8	–	– 1.1	+ 16.4	– 17.5	– 16.9	– 0.5	+ 0.1	May	
– 0.1	+ 0.1	– 21.2	– 5.8	– 15.4	– 13.0	– 2.4	–	+ 3.5	+ 4.7	– 1.2	– 3.4	+ 2.2	+ 0.0	June	
+ 0.5	– 0.1	– 0.3	– 20.0	+ 19.7	+ 16.2	+ 3.5	+ 0.0	+ 0.1	– 2.2	+ 2.3	+ 4.0	– 1.8	– 0.0	July	
+ 0.1	+ 0.0	+ 9.7	+ 0.3	+ 9.4	+ 0.3	+ 9.2	– 0.0	+ 8.9	+ 9.1	– 0.2	– 0.7	+ 0.5	– 0.0	Aug.	
+ 0.0	+ 0.0	+ 42.5	+ 25.4	+ 17.2	+ 9.4	+ 7.7	–	+ 6.9	– 0.7	+ 7.5	+ 7.5	– 0.0	+ 0.0	Sep.	
–	+ 0.0	+ 22.6	+ 20.5	+ 2.2	+ 0.2	+ 1.9	–	– 5.9	– 10.8	+ 5.0	+ 4.9	+ 0.1	– 0.1	Oct.	
– 0.0	– 0.0	– 24.1	– 41.3	+ 17.2	+ 17.4	– 0.2	– 0.0	+ 5.3	+ 13.1	– 7.9	– 7.4	– 0.5	– 0.0	Nov.	
– 0.2	– 0.0	– 145.0	– 128.3	– 16.7	– 6.9	– 9.8	–	– 40.7	– 37.2	– 3.5	– 6.2	+ 2.7	– 0.0	Dec.	
– 0.0	– 0.1	+ 93.8	+ 122.3	– 28.4	– 30.8	+ 2.4	–	+ 35.9	+ 18.1	+ 17.8	+ 17.9	– 0.1	+ 0.0	2023 Jan.	
+ 0.0	+ 0.2	– 7.0	– 3.5	– 3.5	– 0.9	– 2.6	–	+ 11.6	+ 4.1	+ 7.5	+ 7.2	+ 0.3	+ 0.1	Feb.	
+ 0.0	+ 0.2	– 21.8	– 21.5	– 0.3	– 13.9	+ 13.6	–	– 3.9	– 0.8	– 3.1	– 10.0	+ 7.0	+ 0.1	Mar.	
+ 0.0	+ 0.0	– 15.3	– 34.3	+ 19.0	+ 15.2	+ 3.8	–	+ 11.7	– 7.7	+ 19.3	+ 18.1	+ 1.2	– 0.0	Apr.	
+ 0.0	+ 0.2	+ 10.1	+ 52.5	– 42.5	– 46.3	+ 3.8	+ 0.0	+ 10.1	+ 9.5	+ 0.6	– 1.2	+ 1.8	– 0.0	May	

#### IV. Banks

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

€ billion

Period	Lending to domestic non-banks, total		Short-term lending						Medium- and long-term			
	including negotiable money market paper, securities, equalisation claims	excluding negotiable money market paper, securities, equalisation claims	Total	to enterprises and households			to general government			Total	to enter-	
				Total	Loans and bills	Negotiable money market paper	Total	Loans	Treasury bills			Total
<b>End of year or month *</b>												
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	
2021	3,798.1	3,392.7	249.7	232.2	231.9	0.3	17.5	15.2	2.3	3,548.4	3,174.6	
2022	4,015.6	3,613.3	296.4	279.8	279.4	0.4	16.7	14.3	2.3	3,719.2	3,359.9	
2021 Dec.	3,798.1	3,392.7	249.7	232.2	231.9	0.3	17.5	15.2	2.3	3,548.4	3,174.6	
2022 Jan.	3,812.8	3,409.2	262.6	242.3	241.7	0.6	20.3	17.8	2.5	3,550.2	3,180.4	
Feb.	3,826.5	3,426.2	267.4	246.9	246.1	0.8	20.5	16.3	4.2	3,559.1	3,195.3	
Mar.	3,853.8	3,449.2	273.6	254.8	254.0	0.8	18.9	16.3	2.5	3,580.1	3,209.5	
Apr.	3,866.6	3,470.2	277.5	257.9	257.0	0.9	19.6	17.1	2.5	3,589.1	3,226.2	
May	3,886.7	3,489.1	280.1	262.5	261.5	1.0	17.6	15.4	2.2	3,606.6	3,242.6	
June	3,906.6	3,513.5	290.8	271.4	270.5	0.9	19.5	16.6	2.8	3,615.7	3,255.8	
July	3,945.0	3,539.3	291.4	271.8	270.9	0.8	19.6	16.8	2.8	3,653.7	3,293.5	
Aug.	3,976.0	3,574.4	305.0	287.3	286.4	0.8	17.7	14.7	3.1	3,671.0	3,314.3	
Sep.	3,993.6	3,595.5	311.0	292.8	292.2	0.6	18.2	15.2	3.0	3,682.6	3,329.1	
Oct.	4,014.1	3,611.8	308.7	288.9	288.4	0.5	19.9	16.1	3.8	3,705.3	3,347.5	
Nov.	4,025.7	3,625.4	310.7	292.9	292.6	0.4	17.7	14.5	3.2	3,715.0	3,359.0	
Dec.	4,015.6	3,613.3	296.4	279.8	279.4	0.4	16.7	14.3	2.3	3,719.2	3,359.9	
2023 Jan.	4,016.2	3,622.5	303.2	282.5	281.9	0.5	20.7	17.0	3.8	3,713.1	3,360.2	
Feb.	4,030.2	3,629.5	297.8	279.9	279.2	0.7	18.0	15.8	2.2	3,732.4	3,371.2	
Mar.	4,030.5	3,634.8	305.0	285.1	284.4	0.7	19.9	16.3	3.6	3,725.5	3,369.3	
Apr.	4,032.5	3,641.3	304.1	283.3	282.8	0.6	20.8	18.2	2.6	3,728.4	3,374.4	
May	4,039.0	3,650.6	299.7	281.0	280.2	0.8	18.7	17.4	1.3	3,739.3	3,388.0	
<b>Changes *</b>												
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	+ 1.1	- 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	
2021	+ 152.2	+ 147.8	+ 8.8	+ 13.8	+ 13.8	- 0.1	- 4.9	- 2.8	- 2.1	+ 143.4	+ 157.9	
2022	+ 216.7	+ 220.0	+ 47.6	+ 48.5	+ 48.5	+ 0.0	- 0.9	- 0.9	+ 0.0	+ 169.1	+ 184.8	
2021 Dec.	+ 4.3	+ 6.3	- 5.8	- 0.6	- 0.3	- 0.3	- 5.2	- 2.5	- 2.7	+ 10.1	+ 9.8	
2022 Jan.	+ 14.7	+ 16.5	+ 12.9	+ 10.1	+ 9.8	+ 0.3	+ 2.8	+ 2.6	+ 0.2	+ 1.8	+ 5.8	
Feb.	+ 15.1	+ 18.4	+ 6.2	+ 6.0	+ 5.8	+ 0.2	+ 0.2	- 1.5	+ 1.7	+ 9.0	+ 14.9	
Mar.	+ 27.3	+ 23.0	+ 6.2	+ 7.9	+ 7.9	- 0.0	- 1.6	+ 0.1	- 1.7	+ 21.0	+ 14.2	
Apr.	+ 13.1	+ 21.4	+ 3.9	+ 3.1	+ 3.0	+ 0.1	+ 0.7	+ 0.7	+ 0.0	+ 9.3	+ 17.0	
May	+ 20.1	+ 18.8	+ 2.6	+ 4.6	+ 4.5	+ 0.0	- 2.0	- 1.7	- 0.3	+ 17.5	+ 16.4	
June	+ 19.9	+ 24.5	+ 10.8	+ 8.9	+ 9.0	- 0.1	+ 1.9	+ 1.3	+ 0.6	+ 9.1	+ 13.2	
July	+ 36.1	+ 23.5	+ 0.2	+ 0.1	+ 0.1	- 0.0	+ 0.1	+ 0.2	- 0.1	+ 35.8	+ 35.6	
Aug.	+ 30.9	+ 35.1	+ 13.7	+ 15.5	+ 15.5	+ 0.0	- 1.9	- 2.1	+ 0.3	+ 17.2	+ 20.8	
Sep.	+ 16.5	+ 20.0	+ 4.8	+ 4.4	+ 4.6	- 0.2	+ 0.5	+ 0.6	- 0.1	+ 11.7	+ 14.8	
Oct.	+ 20.7	+ 16.6	- 2.0	- 3.6	- 3.5	- 0.1	+ 1.6	+ 0.8	+ 0.8	+ 22.7	+ 18.5	
Nov.	+ 12.0	+ 13.9	+ 2.2	+ 4.4	+ 4.5	- 0.1	- 2.1	- 1.5	- 0.6	+ 9.7	+ 11.8	
Dec.	- 9.6	- 11.7	- 13.9	- 12.8	- 12.7	- 0.0	- 1.1	- 0.2	- 0.9	+ 4.2	+ 1.8	
2023 Jan.	+ 0.6	+ 9.2	+ 6.7	+ 2.6	+ 2.4	+ 0.2	+ 4.1	+ 2.6	+ 1.4	- 6.1	+ 0.3	
Feb.	+ 13.3	+ 6.3	- 6.0	- 3.2	- 3.3	+ 0.1	- 2.8	- 1.2	- 1.6	+ 19.3	+ 11.0	
Mar.	+ 0.9	+ 6.0	+ 7.6	+ 5.7	+ 5.7	- 0.0	+ 1.9	+ 0.5	+ 1.4	- 6.7	- 1.8	
Apr.	+ 2.1	+ 6.5	- 0.9	- 1.7	- 1.7	- 0.1	+ 0.9	+ 1.9	- 1.1	+ 3.0	+ 5.1	
May	+ 6.6	+ 9.4	- 4.4	- 2.3	- 2.6	+ 0.3	- 2.1	- 0.8	- 1.2	+ 11.0	+ 13.6	

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

1 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													Period
prises and households					to general government								
Loans			Securities	Memo item: Fiduciary loans	Loans			Securities 1	Equalisation claims 2	Memo item: Fiduciary loans			
Total	Medium-term	Long-term			Total	Medium-term	Long-term						
<b>End of year or month *</b>													
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	
2,915.7	314.5	2,601.2	258.9	24.7	373.8	229.9	14.3	215.6	143.9	–	1.0	2021	
3,085.9	348.7	2,737.1	274.0	24.6	359.3	233.7	14.1	219.6	125.6	–	1.0	2022	
2,915.7	314.5	2,601.2	258.9	24.7	373.8	229.9	14.3	215.6	143.9	–	1.0	2021 Dec.	
2,920.6	312.8	2,607.8	259.8	24.7	369.8	229.1	13.9	215.2	140.7	–	1.0	2022 Jan.	
2,935.4	313.8	2,621.6	259.9	24.6	363.8	228.5	13.9	214.5	135.4	–	1.1	Feb.	
2,950.1	316.1	2,633.9	259.4	24.7	370.7	228.8	13.7	215.1	141.8	–	1.1	Mar.	
2,966.8	317.3	2,649.5	259.4	24.9	362.9	229.5	13.7	215.8	133.5	–	1.0	Apr.	
2,983.1	319.7	2,663.4	259.5	25.1	364.0	229.1	13.7	215.4	134.9	–	1.0	May	
2,998.2	322.2	2,675.9	257.6	25.0	360.0	228.2	13.6	214.6	131.7	–	1.0	June	
3,022.5	327.7	2,694.9	271.0	24.9	360.2	229.0	13.5	215.5	131.2	–	1.0	July	
3,044.6	335.4	2,709.1	269.8	24.9	356.6	228.7	13.5	215.2	127.9	–	1.0	Aug.	
3,058.8	339.5	2,719.3	270.2	24.8	353.5	229.3	13.8	215.4	124.3	–	1.0	Sep.	
3,077.4	344.8	2,732.7	270.1	24.8	357.8	229.9	13.8	216.1	127.9	–	1.0	Oct.	
3,086.6	344.9	2,741.7	272.4	24.8	356.0	231.7	13.9	217.8	124.3	–	1.0	Nov.	
3,085.9	348.7	2,737.1	274.0	24.6	359.3	233.7	14.1	219.6	125.6	–	1.0	Dec.	
3,090.3	349.9	2,740.4	269.9	24.6	352.9	233.4	13.8	219.5	119.5	–	1.0	2023 Jan.	
3,102.0	355.3	2,746.7	269.2	24.5	361.2	232.5	13.7	218.8	128.7	–	1.1	Feb.	
3,101.5	354.8	2,746.7	267.8	23.6	356.2	232.6	13.6	219.0	123.6	–	1.0	Mar.	
3,107.6	355.6	2,752.0	266.8	23.6	354.0	232.7	13.9	218.8	121.2	–	1.0	Apr.	
3,120.7	360.8	2,760.0	267.2	23.7	351.4	232.4	13.6	218.8	119.0	–	1.0	May	
<b>Changes *</b>													
+ 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	
+ 140.1	+ 5.6	+ 134.5	+ 17.8	+ 2.3	– 14.6	– 3.3	– 1.3	– 2.0	– 11.3	–	– 0.0	2021	
+ 169.9	+ 33.5	+ 136.4	+ 14.9	– 0.1	– 15.7	+ 2.5	– 0.7	+ 3.3	– 18.2	–	– 0.0	2022	
+ 9.3	– 1.1	+ 10.4	+ 0.5	+ 0.5	+ 0.2	– 0.1	– 0.1	+ 0.0	+ 0.4	–	+ 0.0	2021 Dec.	
+ 4.9	– 1.7	+ 6.6	+ 0.8	– 0.0	– 4.0	– 0.8	– 0.4	– 0.4	– 3.2	–	– 0.0	2022 Jan.	
+ 14.8	+ 1.0	+ 13.8	+ 0.1	+ 0.0	– 6.0	– 0.7	– 0.0	– 0.6	– 5.3	–	– 0.0	Feb.	
+ 14.7	+ 2.3	+ 12.4	– 0.5	+ 0.1	+ 6.8	+ 0.4	– 0.2	+ 0.6	+ 6.5	–	– 0.0	Mar.	
+ 17.0	+ 1.5	+ 15.6	– 0.0	+ 0.2	– 7.7	+ 0.6	+ 0.0	+ 0.6	– 8.4	–	– 0.0	Apr.	
+ 16.4	+ 2.5	+ 13.9	+ 0.1	+ 0.3	+ 1.1	– 0.4	– 0.0	– 0.3	+ 1.4	–	– 0.0	May	
+ 15.1	+ 2.5	+ 12.6	– 1.9	– 0.1	– 4.1	– 0.9	– 0.0	– 0.8	– 3.2	–	– 0.0	June	
+ 22.5	+ 4.4	+ 18.1	+ 13.1	– 0.2	+ 0.2	+ 0.7	– 0.1	+ 0.8	– 0.5	–	– 0.0	July	
+ 22.0	+ 7.7	+ 14.3	– 1.2	– 0.0	– 3.6	– 0.2	– 0.0	– 0.2	– 3.3	–	+ 0.0	Aug.	
+ 14.3	+ 4.0	+ 10.4	+ 0.5	– 0.1	– 3.1	+ 0.5	– 0.2	+ 0.7	– 3.6	–	+ 0.0	Sep.	
+ 18.6	+ 5.3	+ 13.4	– 0.2	– 0.0	+ 4.2	+ 0.6	– 0.0	+ 0.6	+ 3.6	–	– 0.0	Oct.	
+ 9.4	+ 0.1	+ 9.3	+ 2.4	+ 0.0	– 2.1	+ 1.6	+ 0.1	+ 1.4	– 3.6	–	+ 0.0	Nov.	
+ 0.3	+ 4.0	– 3.7	+ 1.6	– 0.3	+ 2.4	+ 1.0	+ 0.2	+ 0.9	+ 1.4	–	– 0.0	Dec.	
+ 4.4	+ 1.2	+ 3.3	– 4.2	+ 0.0	– 6.4	– 0.3	– 0.3	– 0.0	– 6.1	–	– 0.0	2023 Jan.	
+ 11.7	+ 5.4	+ 6.4	– 0.7	– 0.1	+ 8.3	– 0.9	– 0.1	– 0.7	+ 9.2	–	+ 0.1	Feb.	
– 0.4	– 0.5	+ 0.0	– 1.4	– 0.3	– 4.8	+ 0.3	– 0.0	+ 0.3	– 5.1	–	– 0.0	Mar.	
+ 6.1	+ 0.8	+ 5.3	– 1.0	+ 0.0	– 2.1	+ 0.1	+ 0.3	– 0.2	– 2.3	–	+ 0.0	Apr.	
+ 13.2	+ 5.2	+ 8.0	+ 0.4	+ 0.1	– 2.7	– 0.4	– 0.3	– 0.0	– 2.3	–	– 0.0	May	

#### IV. Banks

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

billion €

Lending to domestic enterprises and households (excluding holdings of negotiable money market paper and excluding securities portfolios) <sup>1</sup>														
Period	of which:													
	Total	Mortgage loans, total	Housing loans			Lending to enterprises and self-employed persons								
			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 motor-cycles	Agriculture, forestry, fishing and aquaculture	Transportation and storage; post and telecommunications	Financial intermediation (excluding MFIs) and insurance companies
<b>Lending, total</b>														
<b>End of year or quarter *</b>														
2021	3,147.5	1,591.4	1,678.2	1,373.0	305.2	1,701.5	477.2	146.1	128.3	98.0	140.4	55.9	55.6	186.3
2022 Q1	3,204.0	1,613.7	1,701.0	1,391.9	309.0	1,742.4	485.1	150.9	134.3	101.3	145.3	56.3	54.9	193.2
Q2	3,268.7	1,636.4	1,731.4	1,412.8	318.5	1,784.8	494.5	160.2	132.6	104.4	153.4	57.0	56.4	200.2
Q3	3,351.0	1,659.4	1,758.3	1,433.0	325.2	1,845.3	503.1	163.6	147.5	107.3	163.3	56.9	64.9	202.3
Q4	3,365.3	1,676.5	1,773.9	1,448.0	325.8	1,852.2	509.1	160.0	137.7	108.8	155.1	56.3	65.2	211.9
2023 Q1	3,385.9	1,687.3	1,779.0	1,457.3	321.7	1,872.4	512.9	162.8	138.1	110.9	157.5	56.1	63.1	222.8
<b>Short-term lending</b>														
2021	231.8	-	6.9	-	6.9	202.7	4.4	31.6	9.1	18.0	36.4	3.3	3.9	35.0
2022 Q1	254.0	-	7.0	-	7.0	224.1	4.5	36.5	14.0	19.5	39.3	3.6	4.1	38.0
Q2	270.5	-	7.0	-	7.0	239.5	4.6	44.7	11.6	20.1	42.2	3.9	4.3	42.2
Q3	292.2	-	7.4	-	7.4	260.7	4.9	46.2	24.4	21.1	45.3	3.6	4.2	42.2
Q4	279.4	-	7.4	-	7.4	248.9	5.0	41.6	12.1	20.8	44.7	3.3	3.8	49.8
2023 Q1	284.4	-	7.6	-	7.6	253.6	5.3	43.4	8.1	21.9	46.5	3.4	3.7	54.0
<b>Medium-term lending</b>														
2021	314.5	-	40.5	-	40.5	239.5	20.6	28.3	5.4	19.3	20.8	4.3	12.3	52.0
2022 Q1	316.1	-	40.8	-	40.8	242.2	21.0	28.9	5.6	20.0	22.0	4.2	11.7	53.1
Q2	322.2	-	42.0	-	42.0	249.2	22.2	29.1	5.8	21.0	22.3	4.3	13.3	53.7
Q3	339.5	-	43.2	-	43.2	265.9	23.1	30.5	6.0	21.6	23.4	4.3	22.2	54.4
Q4	348.7	-	43.4	-	43.4	275.8	23.5	31.2	6.5	22.2	24.3	4.1	23.0	56.2
2023 Q1	354.8	-	42.8	-	42.8	283.5	23.7	32.5	9.2	22.4	24.8	4.1	21.0	59.3
<b>Long-term lending</b>														
2021	2,601.2	1,591.4	1,630.9	1,373.0	257.8	1,259.3	452.2	86.2	113.8	60.8	83.2	48.3	39.4	99.3
2022 Q1	2,633.9	1,613.7	1,653.1	1,391.9	261.2	1,276.0	459.6	85.5	114.8	61.8	84.0	48.4	39.2	102.1
Q2	2,675.9	1,636.4	1,682.3	1,412.8	269.5	1,296.0	467.7	86.5	115.2	63.4	88.9	48.8	38.8	104.4
Q3	2,719.3	1,659.4	1,707.6	1,433.0	274.6	1,318.6	475.1	86.8	117.1	64.7	94.6	49.0	38.6	105.6
Q4	2,737.1	1,676.5	1,723.1	1,448.0	275.1	1,327.5	480.6	87.2	119.0	65.8	86.1	48.9	38.4	105.9
2023 Q1	2,746.7	1,687.3	1,728.6	1,457.3	271.3	1,335.3	483.9	86.9	120.8	66.6	86.1	48.6	38.4	109.5
<b>Lending, total</b>														
<b>Change during quarter *</b>														
2022 Q1	+ 57.9	+ 17.9	+ 22.0	+ 16.6	+ 5.3	+ 42.0	+ 7.0	+ 4.8	+ 6.3	+ 3.2	+ 4.7	+ 0.4	- 1.1	+ 8.9
Q2	+ 65.0	+ 22.2	+ 29.9	+ 20.5	+ 9.4	+ 42.7	+ 9.1	+ 9.4	- 1.7	+ 3.2	+ 8.2	+ 0.7	+ 1.5	+ 7.1
Q3	+ 79.0	+ 23.4	+ 26.9	+ 20.5	+ 6.4	+ 58.5	+ 8.6	+ 2.5	+ 14.9	+ 2.7	+ 9.6	- 0.1	+ 8.5	+ 2.0
Q4	+ 16.5	+ 17.2	+ 15.4	+ 14.8	+ 0.6	+ 8.9	+ 5.9	- 3.2	- 9.9	+ 1.4	- 2.7	- 0.6	+ 0.3	+ 10.2
2023 Q1	+ 20.4	+ 11.3	+ 4.8	+ 8.6	- 3.8	+ 19.9	+ 3.5	+ 2.8	+ 0.4	+ 2.1	+ 2.1	- 0.2	- 2.1	+ 10.6
<b>Short-term lending</b>														
2022 Q1	+ 23.5	-	+ 0.1	-	+ 0.1	+ 22.7	+ 0.1	+ 4.9	+ 4.9	+ 1.6	+ 2.9	+ 0.3	+ 0.2	+ 4.4
Q2	+ 16.6	-	+ 0.0	-	+ 0.0	+ 15.4	+ 0.1	+ 8.2	- 2.4	+ 0.6	+ 2.9	+ 0.3	+ 0.2	+ 4.2
Q3	+ 20.2	-	+ 0.3	-	+ 0.3	+ 19.8	+ 0.3	+ 0.7	+ 12.8	+ 0.9	+ 2.8	- 0.3	- 0.2	+ 0.1
Q4	- 11.8	-	+ 0.0	-	- 0.0	- 10.8	+ 0.1	- 4.3	- 12.3	- 0.3	- 0.5	- 0.3	- 0.3	+ 7.8
2023 Q1	+ 4.7	-	+ 0.2	-	+ 0.2	+ 4.7	+ 0.3	+ 1.8	- 4.0	+ 1.1	+ 1.9	+ 0.2	- 0.1	+ 3.9
<b>Medium-term lending</b>														
2022 Q1	+ 1.7	-	+ 0.3	-	+ 0.3	+ 2.7	+ 0.4	+ 0.5	+ 0.3	+ 0.7	+ 1.2	- 0.0	- 0.7	+ 1.2
Q2	+ 6.4	-	+ 1.2	-	+ 1.2	+ 7.3	+ 1.2	+ 0.2	+ 0.2	+ 1.0	+ 0.3	+ 0.1	+ 1.6	+ 0.9
Q3	+ 16.1	-	+ 0.9	-	+ 0.9	+ 16.1	+ 0.9	+ 1.5	+ 0.2	+ 0.5	+ 1.1	- 0.0	+ 8.9	+ 0.8
Q4	+ 9.3	-	+ 0.1	-	+ 0.1	+ 10.0	+ 0.5	+ 0.7	+ 0.5	+ 0.7	+ 0.9	- 0.1	+ 0.8	+ 1.9
2023 Q1	+ 6.1	-	- 0.5	-	- 0.5	+ 7.6	+ 0.3	+ 1.2	+ 2.7	+ 0.2	+ 0.5	- 0.1	- 2.0	+ 3.0
<b>Long-term lending</b>														
2022 Q1	+ 32.7	+ 17.9	+ 21.5	+ 16.6	+ 4.9	+ 16.5	+ 6.5	- 0.7	+ 1.1	+ 0.9	+ 0.7	+ 0.1	- 0.6	+ 3.4
Q2	+ 42.0	+ 22.2	+ 28.7	+ 20.5	+ 8.1	+ 19.9	+ 7.9	+ 1.0	+ 0.4	+ 1.5	+ 4.9	+ 0.3	- 0.3	+ 2.1
Q3	+ 42.7	+ 23.4	+ 25.7	+ 20.5	+ 5.2	+ 22.6	+ 7.4	+ 0.3	+ 1.9	+ 1.3	+ 5.7	+ 0.3	- 0.2	+ 1.2
Q4	+ 19.0	+ 17.2	+ 15.3	+ 14.8	+ 0.5	+ 9.7	+ 5.3	+ 0.3	+ 1.9	+ 1.1	- 3.1	- 0.1	- 0.2	+ 0.5
2023 Q1	+ 9.6	+ 11.3	+ 5.1	+ 8.6	- 3.5	+ 7.6	+ 2.9	- 0.3	+ 1.7	+ 0.8	- 0.2	- 0.3	- 0.0	+ 3.7

\* 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,

IV. Banks

						Lending to employees and other individuals					Lending to non-profit institutions				
Services sector (including the professions)				Memo items:		Other lending									
Total	of which:			Lending to self-employed persons <sup>2</sup>	Lending to craft enterprises	Total	Housing loans	Total	of which:		Total	of which: Housing loans	Period		
	Housing enterprises	Holding companies	Other real estate activities						Instalment loans <sup>3</sup>	Debit balances on wage, salary and pension accounts					
<b>End of year or quarter *</b>													<b>Lending, total</b>		
890.8	308.6	63.8	207.9	483.8	48.3	1,429.3	1,196.6	232.7	184.1	6.9	16.7	4.4	2021		
906.2	315.6	66.2	209.8	489.1	49.1	1,444.9	1,211.4	233.5	184.4	7.1	16.8	4.4	2022 Q1		
920.4	322.8	68.0	211.5	494.9	49.4	1,467.0	1,232.4	234.6	184.6	7.3	16.9	4.5	Q2		
939.6	329.1	71.2	215.5	500.0	54.1	1,488.6	1,250.6	238.0	187.3	7.5	17.1	4.6	Q3		
957.4	334.0	79.9	218.2	501.7	54.1	1,495.8	1,260.1	235.7	185.9	7.1	17.3	4.6	Q4		
961.2	336.3	78.6	220.4	503.4	54.2	1,496.2	1,261.4	234.7	185.5	7.3	17.4	4.7	2023 Q1		
													<b>Short-term lending</b>		
65.5	14.5	13.0	10.0	19.7	3.8	28.6	2.5	26.1	1.4	6.9	0.5	0.0	2021		
69.2	15.3	14.0	10.5	20.3	4.4	29.2	2.5	26.7	1.6	7.1	0.7	0.0	2022 Q1		
70.5	15.9	13.7	11.1	20.8	4.5	30.3	2.5	27.9	1.7	7.3	0.7	0.0	Q2		
73.8	15.8	14.9	11.2	20.9	5.3	30.8	2.5	28.3	1.7	7.5	0.6	0.0	Q3		
73.0	16.1	15.6	10.8	20.4	5.0	29.9	2.4	27.5	1.7	7.1	0.6	-	Q4		
72.5	16.5	14.9	11.6	21.0	5.3	30.2	2.3	27.9	2.1	7.3	0.6	-	2023 Q1		
													<b>Medium-term lending</b>		
97.0	23.1	15.2	27.1	30.0	3.3	74.4	19.8	54.6	50.6	-	0.6	0.1	2021		
96.8	22.8	15.5	27.2	30.0	3.2	73.4	19.7	53.7	49.6	-	0.5	0.1	2022 Q1		
99.8	24.1	17.1	26.6	29.9	3.2	72.5	19.8	52.7	48.6	-	0.5	0.1	Q2		
103.6	25.2	17.7	27.5	30.4	6.4	73.0	20.1	52.9	48.7	-	0.5	0.1	Q3		
108.2	25.4	20.1	28.4	30.1	6.5	72.3	19.8	52.5	48.0	-	0.6	0.1	Q4		
110.3	25.3	21.4	29.0	30.3	6.4	70.8	19.0	51.8	47.3	-	0.5	0.1	2023 Q1		
													<b>Long-term lending</b>		
728.4	271.1	35.6	170.8	434.1	41.3	1,326.3	1,174.3	152.0	132.1	-	15.6	4.3	2021		
740.2	277.5	36.8	172.1	438.8	41.4	1,342.3	1,189.2	153.1	133.2	-	15.6	4.4	2022 Q1		
750.0	282.8	37.3	173.8	444.2	41.7	1,364.2	1,210.1	154.1	134.4	-	15.7	4.4	Q2		
762.2	288.0	38.5	176.7	448.7	42.5	1,384.8	1,228.0	156.7	137.0	-	15.9	4.5	Q3		
776.2	292.6	44.2	179.0	451.1	42.6	1,393.5	1,237.9	155.6	136.2	-	16.1	4.6	Q4		
778.4	294.6	42.4	179.7	452.1	42.5	1,395.1	1,240.1	155.1	136.1	-	16.3	4.6	2023 Q1		
<b>Change during quarter *</b>													<b>Lending, total</b>		
+ 14.9	+ 6.7	+ 2.4	+ 1.7	+ 5.0	+ 0.7	+ 15.8	+ 14.9	+ 0.9	+ 0.5	+ 0.2	+ 0.1	+ 0.0	2022 Q1		
+ 14.4	+ 7.4	+ 1.6	+ 1.8	+ 5.8	+ 0.4	+ 22.2	+ 20.8	+ 1.4	+ 0.4	+ 0.3	+ 0.1	+ 0.0	Q2		
+ 18.3	+ 6.2	+ 3.1	+ 3.9	+ 4.3	+ 0.2	+ 20.4	+ 18.2	+ 2.1	+ 1.5	+ 0.1	+ 0.2	+ 0.1	Q3		
+ 13.3	+ 4.9	+ 3.5	+ 2.4	+ 2.1	- 0.1	+ 7.5	+ 9.5	- 2.0	- 1.3	- 0.4	+ 0.2	+ 0.0	Q4		
+ 4.1	+ 2.5	- 1.4	+ 2.2	+ 1.5	+ 0.2	+ 0.4	+ 1.3	- 0.8	- 0.8	+ 0.3	+ 0.1	+ 0.1	2023 Q1		
													<b>Short-term lending</b>		
+ 3.6	+ 0.8	+ 0.9	+ 0.5	+ 0.6	+ 0.7	+ 0.6	+ 0.0	+ 0.6	+ 0.2	+ 0.2	+ 0.1	+ 0.0	2022 Q1		
+ 1.4	+ 0.6	- 0.3	+ 0.6	+ 0.4	+ 0.1	+ 1.1	- 0.1	+ 1.2	+ 0.1	+ 0.3	+ 0.0	- 0.0	Q2		
+ 3.1	- 0.0	+ 1.3	+ 0.1	- 0.1	- 0.1	+ 0.5	+ 0.0	+ 0.4	+ 0.0	+ 0.1	- 0.1	-	Q3		
- 0.6	+ 0.2	+ 0.7	- 0.3	- 0.1	- 0.2	- 0.9	- 0.1	- 0.8	- 0.0	- 0.4	- 0.1	- 0.0	Q4		
- 0.1	+ 0.4	- 0.7	+ 0.7	+ 0.5	+ 0.3	+ 0.1	- 0.0	+ 0.1	+ 0.0	+ 0.3	-	-	2023 Q1		
													<b>Medium-term lending</b>		
- 0.3	- 0.3	+ 0.2	+ 0.1	- 0.1	- 0.1	- 1.0	- 0.1	- 0.9	- 0.9	-	- 0.1	- 0.0	2022 Q1		
+ 3.0	+ 1.3	+ 1.6	- 0.6	- 0.1	- 0.0	- 0.9	+ 0.1	- 1.0	- 1.1	-	+ 0.0	- 0.0	Q2		
+ 3.2	+ 1.0	+ 0.6	+ 0.9	+ 0.1	+ 0.0	- 0.1	- 0.0	- 0.1	- 0.2	-	+ 0.0	+ 0.0	Q3		
+ 4.6	+ 0.1	+ 2.4	+ 0.8	+ 0.1	+ 0.1	- 0.7	- 0.3	- 0.4	- 0.6	-	+ 0.0	- 0.0	Q4		
+ 2.1	- 0.1	+ 1.3	+ 0.7	+ 0.2	- 0.1	- 1.6	- 0.8	- 0.7	- 0.7	-	- 0.0	-	2023 Q1		
													<b>Long-term lending</b>		
+ 11.5	+ 6.3	+ 1.2	+ 1.1	+ 4.5	+ 0.1	+ 16.2	+ 15.0	+ 1.2	+ 1.3	-	+ 0.0	+ 0.0	2022 Q1		
+ 10.0	+ 5.5	+ 0.3	+ 1.8	+ 5.4	+ 0.3	+ 22.0	+ 20.8	+ 1.3	+ 1.4	-	+ 0.1	+ 0.1	Q2		
+ 12.0	+ 5.2	+ 1.2	+ 2.9	+ 4.3	+ 0.3	+ 20.0	+ 18.2	+ 1.7	+ 1.7	-	+ 0.2	+ 0.1	Q3		
+ 9.3	+ 4.6	+ 0.5	+ 1.9	+ 2.1	+ 0.1	+ 9.1	+ 9.9	- 0.9	- 0.7	-	+ 0.2	+ 0.1	Q4		
+ 2.1	+ 2.2	- 2.0	+ 0.8	+ 0.9	- 0.1	+ 1.9	+ 2.1	- 0.2	- 0.1	-	+ 0.1	+ 0.1	2023 Q1		

are 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
<b>Domestic non-banks, total</b>											<b>End of year or month *</b>	
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
2021	3,976.3	2,654.6	736.0	161.0	574.9	49.7	525.2	561.2	24.5	34.2	17.1	1.3
2022	4,162.0	2,720.6	873.5	314.8	558.7	50.5	508.2	533.2	34.6	35.9	18.5	3.9
2022 June	4,051.8	2,714.4	758.8	194.7	564.1	49.0	515.1	554.8	23.8	33.4	17.2	0.7
July	4,086.4	2,729.0	780.4	213.7	566.7	50.9	515.8	553.0	24.1	33.0	17.3	1.2
Aug.	4,134.3	2,766.8	792.0	226.8	565.1	50.4	514.7	550.6	25.0	33.0	17.5	1.4
Sep.	4,149.9	2,755.6	823.1	263.8	559.3	45.5	513.8	545.2	25.9	33.2	18.3	1.0
Oct.	4,168.4	2,748.7	849.3	290.1	559.3	45.6	513.7	542.2	28.1	33.6	18.3	1.6
Nov.	4,205.6	2,767.9	869.3	309.6	559.7	46.8	512.9	536.9	31.5	34.8	18.4	4.4
Dec.	4,162.0	2,720.6	873.5	314.8	558.7	50.5	508.2	533.2	34.6	35.9	18.5	3.9
2023 Jan.	4,199.7	2,722.8	913.5	351.2	562.3	52.1	510.2	522.7	40.6	36.9	18.6	2.1
Feb.	4,197.1	2,687.7	947.9	381.5	566.4	54.2	512.3	516.0	45.5	37.2	18.7	2.9
Mar.	4,167.4	2,639.8	968.6	402.4	566.3	55.7	510.6	507.2	51.7	36.4	18.7	3.3
Apr.	4,167.3	2,632.0	978.5	408.7	569.7	59.4	510.3	498.6	58.3	36.5	18.9	3.0
May	4,172.9	2,623.9	993.0	419.3	573.6	61.7	511.9	490.6	65.4	36.6	20.4	4.1
											<b>Changes *</b>	
2021	+ 95.3	+ 144.3	- 46.2	- 27.3	- 18.9	+ 1.5	- 20.5	+ 0.7	- 3.5	- 0.2	+ 2.7	+ 1.2
2022	+ 191.8	+ 65.8	+ 143.4	+ 152.5	- 9.1	+ 0.6	- 9.7	- 27.5	+ 10.1	+ 1.7	+ 1.2	+ 2.6
2022 June	- 5.0	- 9.9	+ 6.7	+ 11.3	- 4.6	- 2.2	- 2.5	- 1.8	- 0.0	- 0.1	+ 0.1	- 0.1
July	+ 33.5	+ 14.3	+ 20.7	+ 18.5	+ 2.2	+ 1.6	+ 0.6	- 1.8	+ 0.3	- 0.5	+ 0.1	+ 0.5
Aug.	+ 48.1	+ 37.8	+ 11.8	+ 13.1	- 1.3	- 0.4	- 0.9	- 2.4	+ 0.9	+ 0.0	+ 0.2	+ 0.2
Sep.	+ 15.6	- 11.4	+ 31.3	+ 37.0	- 5.7	- 4.9	- 0.8	- 5.3	+ 0.9	+ 0.2	+ 0.8	- 0.4
Oct.	+ 17.4	- 8.0	+ 26.2	+ 26.3	- 0.1	+ 0.0	- 0.1	- 3.1	+ 2.2	+ 0.4	+ 0.0	+ 0.5
Nov.	+ 45.3	+ 20.9	+ 26.3	+ 18.7	+ 7.7	+ 1.3	+ 6.4	- 5.3	+ 3.4	+ 1.3	+ 0.1	+ 2.9
Dec.	- 43.4	- 47.1	+ 4.2	+ 5.2	- 1.0	+ 3.7	- 4.7	- 3.7	+ 3.2	+ 1.1	+ 0.0	- 0.6
2023 Jan.	+ 37.6	- 2.9	+ 40.0	+ 36.4	+ 3.6	+ 1.6	+ 2.0	- 5.5	+ 6.0	+ 1.0	+ 0.1	- 1.8
Feb.	- 2.5	- 35.0	+ 34.4	+ 30.3	+ 4.1	+ 2.1	+ 2.0	- 6.7	+ 4.8	+ 0.4	+ 0.1	+ 0.8
Mar.	- 29.6	- 47.3	+ 20.2	+ 20.3	- 0.1	+ 1.5	- 1.6	- 8.7	+ 6.2	- 0.1	- 0.0	+ 0.3
Apr.	- 0.1	- 7.9	+ 9.8	+ 6.4	+ 3.4	+ 3.7	- 0.3	- 8.6	+ 6.6	+ 0.0	+ 0.1	- 0.2
May	+ 5.6	- 7.9	+ 14.5	+ 10.5	+ 3.9	+ 2.3	+ 1.6	- 8.0	+ 7.1	+ 0.1	+ 1.6	+ 1.1
<b>Domestic government</b>											<b>End of year or month *</b>	
2020	229.5	80.1	143.0	59.6	83.5	20.9	62.6	2.7	3.7	25.4	2.1	-
2021	210.1	82.4	121.9	42.0	79.9	23.8	56.1	2.5	3.3	25.8	2.0	1.0
2022	279.8	82.5	191.6	106.8	84.9	23.1	61.7	2.0	3.7	27.3	1.9	2.4
2022 June	254.9	84.8	164.2	84.6	79.7	23.3	56.3	2.4	3.5	25.4	2.0	-
July	258.3	78.0	174.5	93.0	81.5	24.6	57.0	2.4	3.4	25.4	1.9	-
Aug.	272.6	89.1	177.8	96.2	81.5	24.8	56.7	2.4	3.4	25.5	1.9	-
Sep.	273.0	86.6	180.6	104.6	76.0	20.0	56.1	2.3	3.5	25.7	1.9	-
Oct.	271.2	86.8	178.6	101.2	77.4	19.6	57.8	2.3	3.5	25.7	1.9	-
Nov.	304.5	106.0	192.8	109.6	83.2	20.8	62.4	2.1	3.7	26.6	1.9	2.4
Dec.	279.8	82.5	191.6	106.8	84.9	23.1	61.7	2.0	3.7	27.3	1.9	2.4
2023 Jan.	299.4	94.5	199.3	114.4	84.9	23.1	61.8	1.8	3.8	27.5	1.9	0.3
Feb.	317.8	101.4	211.0	123.3	87.6	23.9	63.8	1.7	3.8	27.5	1.9	1.3
Mar.	308.9	92.6	211.0	123.9	87.1	23.4	63.7	1.6	3.8	26.8	1.9	1.1
Apr.	295.1	85.4	204.4	116.3	88.1	24.7	63.4	1.5	3.8	26.8	1.9	1.4
May	300.1	92.2	202.7	115.0	87.7	24.3	63.4	1.3	3.9	26.8	1.9	1.7
											<b>Changes *</b>	
2021	- 17.9	+ 3.4	- 20.8	- 17.7	- 3.0	+ 2.9	- 6.0	- 0.2	- 0.4	+ 0.4	- 0.0	+ 1.0
2022	+ 69.1	+ 0.2	+ 69.2	+ 64.7	+ 4.5	- 0.9	+ 5.4	- 0.6	+ 0.3	+ 1.5	- 0.1	+ 1.4
2022 June	- 0.7	- 6.6	+ 5.9	+ 8.5	- 2.6	- 2.6	- 0.0	- 0.0	+ 0.0	- 0.2	- 0.0	-
July	+ 3.5	- 6.7	+ 10.3	+ 8.4	+ 1.9	+ 1.2	+ 0.6	- 0.0	- 0.1	- 0.0	- 0.1	-
Aug.	+ 14.3	+ 11.1	+ 3.2	+ 3.2	- 0.0	+ 0.2	- 0.3	- 0.0	+ 0.0	+ 0.1	+ 0.0	-
Sep.	+ 0.4	- 2.4	+ 2.8	+ 8.3	- 5.5	- 4.9	- 0.6	- 0.0	+ 0.1	+ 0.2	- 0.0	-
Oct.	- 1.9	+ 0.2	- 2.1	- 3.4	+ 1.3	- 0.4	+ 1.7	- 0.1	+ 0.1	+ 0.0	+ 0.0	-
Nov.	+ 33.0	+ 19.2	+ 13.9	+ 8.3	+ 5.6	+ 1.0	+ 4.6	- 0.2	+ 0.1	+ 0.8	- 0.0	+ 2.4
Dec.	- 24.7	- 23.5	- 1.1	- 2.8	+ 1.7	+ 2.4	- 0.7	- 1.1	- 0.0	+ 0.7	- 0.0	-
2023 Jan.	+ 19.7	+ 11.9	+ 7.7	+ 7.6	+ 0.1	- 0.1	+ 0.1	- 0.1	+ 0.2	+ 0.2	- 0.0	- 2.1
Feb.	+ 18.3	+ 6.8	+ 11.6	+ 8.9	+ 2.7	+ 0.8	+ 1.9	- 0.1	- 0.1	+ 0.0	- 0.0	+ 1.1
Mar.	- 8.9	- 8.8	- 0.1	+ 0.6	- 0.6	- 0.5	- 0.2	- 0.1	+ 0.0	- 0.0	- 0.0	- 0.2
Apr.	- 14.1	- 7.1	- 6.9	- 7.9	+ 1.0	+ 1.3	- 0.3	- 0.1	- 0.0	+ 0.0	- 0.0	+ 0.2
May	+ 5.0	+ 6.6	- 1.6	- 1.3	- 0.4	- 0.4	+ 0.0	- 0.1	+ 0.1	+ 0.0	- 0.0	+ 0.4

\* 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 Including subordinated liabilities and liabilities arising from 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).

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							
<b>Domestic enterprises and households</b>													<b>End of year or month *</b>	
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		
2021	3,766.2	2,572.2	614.1	119.0	495.0	25.9	469.2	558.7	21.2	8.4	15.1	0.3		
2022	3,882.2	2,638.1	681.9	208.0	473.9	27.4	446.5	531.2	31.0	8.6	16.6	1.5		
2022 June	3,796.9	2,629.7	594.5	110.1	484.4	25.6	458.8	552.4	20.3	8.0	15.2	0.7		
July	3,828.1	2,650.9	605.9	120.7	485.2	26.3	458.9	550.6	20.7	7.6	15.4	1.2		
Aug.	3,861.7	2,677.7	614.2	130.6	483.6	25.6	458.0	548.2	21.6	7.5	15.6	1.4		
Sep.	3,876.9	2,669.0	642.5	159.2	483.3	25.5	457.7	542.9	22.5	7.5	16.3	1.0		
Oct.	3,897.2	2,661.9	670.8	188.9	481.9	25.9	455.9	539.9	24.6	7.9	16.4	1.6		
Nov.	3,901.1	2,661.9	676.5	200.0	476.5	26.0	450.5	534.8	27.8	8.3	16.4	2.1		
Dec.	3,882.2	2,638.1	681.9	208.0	473.9	27.4	446.5	531.2	31.0	8.6	16.6	1.5		
2023 Jan.	3,900.2	2,628.3	714.2	236.8	477.4	29.0	448.4	520.9	36.8	9.4	16.7	1.9		
Feb.	3,879.3	2,586.4	737.0	258.2	478.8	30.3	448.5	514.3	41.7	9.7	16.8	1.6		
Mar.	3,858.5	2,547.3	757.6	278.4	479.2	32.3	446.9	505.7	47.9	9.7	16.9	2.2		
Apr.	3,872.2	2,546.5	774.1	292.5	481.6	34.7	446.9	497.1	54.5	9.7	17.0	1.7		
May	3,872.8	2,531.8	790.2	304.3	485.9	37.4	448.5	489.2	61.5	9.8	18.5	2.4		
<b>Changes *</b>														
2021	+ 113.2	+ 140.9	- 25.5	- 9.6	- 15.9	- 1.4	- 14.5	+ 0.9	- 3.1	- 0.6	+ 2.8	+ 0.2		
2022	+ 122.7	+ 65.6	+ 74.2	+ 87.8	- 13.6	+ 1.4	- 15.1	- 27.0	+ 9.8	+ 0.2	+ 1.3	+ 1.3		
2022 June	- 4.2	- 3.2	+ 0.8	+ 2.9	- 2.1	+ 0.4	- 2.4	- 1.8	- 0.0	+ 0.0	+ 0.1	- 0.1		
July	+ 30.0	+ 21.0	+ 10.4	+ 10.1	+ 0.3	+ 0.4	- 0.1	- 1.8	+ 0.4	- 0.5	+ 0.2	+ 0.5		
Aug.	+ 33.8	+ 26.7	+ 8.6	+ 9.8	- 1.2	- 0.6	- 0.6	- 2.4	+ 0.9	- 0.1	+ 0.2	+ 0.2		
Sep.	+ 15.1	- 8.9	+ 28.5	+ 28.7	- 0.2	- 0.0	- 0.2	- 5.3	+ 0.9	+ 0.0	+ 0.8	- 0.4		
Oct.	+ 19.2	- 8.2	+ 28.3	+ 29.7	- 1.4	+ 0.4	- 1.8	- 3.0	+ 2.1	+ 0.4	+ 0.0	+ 0.5		
Nov.	+ 12.2	+ 1.7	+ 12.4	+ 10.3	+ 2.1	+ 0.3	+ 1.8	- 5.1	+ 3.3	+ 0.4	+ 0.1	+ 0.5		
Dec.	- 18.7	- 23.7	+ 5.4	+ 8.0	- 2.7	+ 1.4	- 4.0	- 3.6	+ 3.2	+ 0.3	+ 0.0	- 0.6		
2023 Jan.	+ 17.9	- 14.9	+ 32.3	+ 28.7	+ 3.6	+ 1.7	+ 1.9	- 5.3	+ 5.8	+ 0.8	+ 0.1	+ 0.3		
Feb.	- 20.8	- 41.9	+ 22.8	+ 21.4	+ 1.4	+ 1.3	+ 0.1	- 6.6	+ 4.9	+ 0.3	+ 0.2	- 0.3		
Mar.	- 20.7	- 38.5	+ 20.3	+ 19.7	+ 0.6	+ 2.0	- 1.4	- 8.6	+ 6.2	- 0.1	+ 0.0	+ 0.5		
Apr.	+ 14.0	- 0.7	+ 16.7	+ 14.3	+ 2.4	+ 2.4	- 0.0	- 8.5	+ 6.6	+ 0.0	+ 0.1	- 0.5		
May	+ 0.6	- 14.6	+ 16.1	+ 11.8	+ 4.3	+ 2.7	+ 1.6	- 7.9	+ 7.1	+ 0.0	+ 1.6	+ 0.7		
<b>of which: Domestic enterprises</b>													<b>End of year or month *</b>	
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		
2021	1,142.7	765.1	364.3	87.4	276.9	15.8	261.1	5.3	8.0	2.3	12.2	0.3		
2022	1,193.5	783.4	397.1	140.8	256.3	16.8	239.5	4.4	8.6	1.9	13.5	1.5		
2022 June	1,158.9	798.2	347.9	78.6	269.3	16.9	252.3	5.1	7.7	2.3	12.4	0.7		
July	1,168.8	797.0	358.8	88.5	270.3	17.5	252.8	5.1	7.9	1.9	12.5	1.2		
Aug.	1,205.4	826.9	365.4	96.1	269.3	16.8	252.4	5.1	8.0	1.9	12.6	1.4		
Sep.	1,215.7	815.8	386.8	117.9	268.9	16.6	252.3	5.0	8.1	1.9	13.4	1.0		
Oct.	1,232.8	809.3	410.4	143.0	267.4	16.7	250.7	4.9	8.2	1.9	13.3	1.6		
Nov.	1,223.9	805.3	405.5	144.1	261.4	16.2	245.1	4.7	8.4	1.9	13.3	2.1		
Dec.	1,193.5	783.4	397.1	140.8	256.3	16.8	239.5	4.4	8.6	1.9	13.5	1.5		
2023 Jan.	1,220.2	792.5	414.7	156.8	257.9	17.1	240.8	4.3	8.7	2.0	13.5	1.9		
Feb.	1,199.2	761.5	424.4	166.8	257.6	17.0	240.6	4.3	9.1	2.0	13.6	1.6		
Mar.	1,192.4	749.3	429.7	174.1	255.5	16.8	238.8	4.1	9.3	1.9	13.6	2.2		
Apr.	1,190.6	743.1	433.9	178.0	255.9	17.4	238.6	4.0	9.6	2.0	13.7	1.7		
May	1,189.3	742.5	433.2	175.7	257.5	17.9	239.6	3.9	9.7	2.0	15.2	2.4		
<b>Changes *</b>														
2021	+ 28.5	+ 47.1	- 16.8	- 1.2	- 15.7	+ 0.5	- 16.2	- 0.5	- 1.3	+ 0.0	+ 2.6	+ 0.2		
2022	+ 56.2	+ 17.7	+ 38.8	+ 52.1	- 13.3	+ 1.0	- 14.3	- 0.9	+ 0.6	- 0.5	+ 1.0	+ 1.3		
2022 June	- 6.7	- 7.8	+ 1.2	+ 2.2	- 1.1	+ 0.6	- 1.7	- 0.0	- 0.0	+ 0.1	+ 0.1	- 0.1		
July	+ 8.8	- 1.4	+ 10.0	+ 9.3	+ 0.7	+ 0.4	+ 0.3	+ 0.0	+ 0.2	- 0.4	+ 0.2	+ 0.5		
Aug.	+ 36.6	+ 29.9	+ 6.6	+ 7.6	- 1.0	- 0.7	- 0.4	- 0.0	+ 0.2	- 0.0	+ 0.1	+ 0.2		
Sep.	+ 10.2	- 11.4	+ 21.6	+ 21.8	- 0.2	- 0.2	- 0.0	- 0.1	+ 0.1	- 0.0	+ 0.7	- 0.4		
Oct.	+ 16.0	- 7.6	+ 23.6	+ 25.1	- 1.5	+ 0.1	- 1.5	- 0.1	+ 0.1	+ 0.0	- 0.0	+ 0.5		
Nov.	- 0.5	- 2.3	+ 1.7	+ 0.3	+ 1.4	- 0.3	+ 1.7	- 0.1	+ 0.2	+ 0.0	- 0.0	+ 0.5		
Dec.	- 30.3	- 21.7	- 8.5	- 3.3	- 5.2	+ 0.6	- 5.7	- 0.3	+ 0.2	- 0.1	- 0.0	- 0.6		
2023 Jan.	+ 26.5	+ 9.0	+ 17.4	+ 15.9	+ 1.5	+ 0.3	+ 1.3	- 0.1	+ 0.1	+ 0.1	+ 0.0	+ 0.3		
Feb.	- 21.0	- 31.0	+ 9.7	+ 10.0	- 0.4	- 0.1	- 0.3	- 0.0	+ 0.4	- 0.0	+ 0.1	- 0.3		
Mar.	- 6.6	- 11.8	+ 5.1	+ 6.9	- 1.8	- 0.2	- 1.6	- 0.1	+ 0.2	- 0.0	- 0.0	+ 0.5		
Apr.	- 1.6	- 6.2	+ 4.5	+ 4.1	+ 0.4	+ 0.6	- 0.2	- 0.1	+ 0.3	+ 0.0	+ 0.1	- 0.5		
May	- 1.2	- 0.5	- 0.7	- 2.3	+ 1.6	+ 0.5	+ 1.1	- 0.1	+ 0.1	+ 0.1	+ 1.5	+ 0.7		

4 Including liabilities arising from non-negotiable bearer debt securities.



IV. Banks

					Savings deposits <sup>3</sup>			Memo item:					Period
by maturity					Total	Domestic households	Domestic non-profit institutions	Bank savings bonds <sup>4</sup>	Fiduciary loans	Subordinated liabilities (excluding negotiable debt securities) <sup>5</sup>	Liabilities arising from repos		
Domestic non-profit institutions	up to and including 1 year	more than 1 year <sup>2</sup>											
		Total	of which:										
		up to and including 2 years	more than 2 years										
<b>End of year or month *</b>													
13.5	40.1	218.5	12.0	206.5	552.0	545.7	6.3	15.1	6.7	2.7	-	2020	
12.0	31.7	218.1	10.1	208.0	553.4	547.2	6.2	13.2	6.1	2.8	-	2021	
16.0	67.2	217.5	10.6	206.9	526.8	521.8	5.1	22.4	6.8	3.1	-	2022	
16.0	67.2	217.5	10.6	206.9	526.8	521.8	5.1	22.4	6.8	3.1	-	2022 Dec.	
16.6	80.0	219.5	12.0	207.5	516.6	511.7	4.9	28.1	7.4	3.2	-	2023 Jan.	
17.2	91.4	221.3	13.3	207.9	510.0	505.2	4.8	32.6	7.8	3.2	-	Feb.	
18.3	104.3	223.7	15.5	208.2	501.5	496.9	4.6	38.6	7.8	3.3	-	Mar.	
18.6	114.5	225.7	17.3	208.4	493.1	488.6	4.5	44.9	7.7	3.3	-	Apr.	
19.9	128.7	228.4	19.5	208.8	485.3	481.0	4.4	51.8	7.7	3.3	-	May	
<b>Changes *</b>													
- 1.4	- 8.4	- 0.2	- 1.9	+ 1.6	+ 1.4	+ 1.5	- 0.1	- 1.9	- 0.6	+ 0.2	-	2021	
+ 4.0	+ 35.7	- 0.3	+ 0.5	- 0.8	- 26.1	- 25.0	- 1.1	+ 9.2	+ 0.7	+ 0.3	-	2022	
+ 1.9	+ 11.3	+ 2.5	+ 0.8	+ 1.7	- 3.2	- 3.1	- 0.2	+ 3.0	+ 0.4	+ 0.0	-	2022 Dec.	
+ 0.7	+ 12.8	+ 2.1	+ 1.4	+ 0.6	- 5.3	- 5.0	- 0.2	+ 5.7	+ 0.7	+ 0.1	-	2023 Jan.	
+ 0.6	+ 11.3	+ 1.8	+ 1.4	+ 0.4	- 6.6	- 6.5	- 0.1	+ 4.5	+ 0.3	+ 0.0	-	Feb.	
+ 1.1	+ 12.8	+ 2.4	+ 2.2	+ 0.2	- 8.5	- 8.3	- 0.2	+ 5.9	- 0.0	+ 0.0	-	Mar.	
+ 0.3	+ 10.2	+ 2.0	+ 1.8	+ 0.2	- 8.4	- 8.3	- 0.1	+ 6.3	- 0.0	+ 0.0	-	Apr.	
+ 1.3	+ 14.1	+ 2.7	+ 2.2	+ 0.5	- 7.8	- 7.6	- 0.2	+ 7.0	- 0.0	+ 0.0	-	May	

registered debt securities. <sup>2</sup> Including deposits under savings and loan contracts (see Table IV.12). <sup>3</sup> Excluding deposits under savings and loan contracts (see also

footnote 2). <sup>4</sup> Including liabilities arising from non-negotiable bearer debt securities. <sup>5</sup> Included in time deposits.

Local government and local government associations (including municipal special-purpose associations)						Social security funds						Period
Total	Sight deposits	Time deposits <sup>3</sup>		Savings deposits and bank savings bonds <sup>2,4</sup>	Memo item: Fiduciary loans	Total	Sight deposits	Time deposits		Savings deposits and bank savings bonds <sup>2</sup>	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			
<b>End of year or month *</b>												
68.5	43.2	8.0	12.4	4.9	0.0	66.0	10.9	32.9	21.4	0.8	-	2020
70.9	48.5	6.0	12.0	4.4	0.0	48.3	8.0	19.0	20.5	0.8	-	2021
80.0	49.2	12.5	13.8	4.4	0.0	79.2	8.3	44.9	25.5	0.6	-	2022
80.0	49.2	12.5	13.8	4.4	0.0	79.2	8.3	44.9	25.5	0.6	-	2022 Dec.
71.4	39.5	13.6	13.9	4.4	0.0	88.8	17.3	45.9	24.8	0.7	-	2023 Jan.
76.6	42.9	15.4	14.0	4.3	0.0	88.5	17.9	44.3	25.7	0.7	-	Feb.
73.9	39.1	16.6	14.0	4.2	0.0	94.0	17.4	50.5	25.4	0.7	-	Mar.
73.6	38.7	16.8	14.1	4.0	0.0	94.0	18.4	48.2	26.7	0.7	-	Apr.
80.2	43.7	18.2	14.3	4.0	0.0	98.1	20.1	50.8	26.4	0.8	-	May
<b>Changes *</b>												
+ 2.8	+ 5.6	- 2.0	- 0.2	- 0.5	-	- 16.8	- 2.2	- 13.9	- 0.6	+ 0.1	-	2021
+ 10.2	+ 0.9	+ 7.9	+ 1.3	+ 0.1	-	+ 29.6	+ 0.3	+ 24.5	+ 4.9	- 0.2	-	2022
+ 4.5	+ 3.1	+ 1.3	+ 0.2	- 0.1	-	- 15.4	- 13.1	- 3.7	+ 1.5	- 0.0	-	2022 Dec.
- 8.7	- 9.7	+ 1.1	+ 0.0	- 0.0	-	+ 9.5	+ 9.1	+ 1.1	- 0.6	+ 0.0	-	2023 Jan.
+ 5.2	+ 3.4	+ 1.8	+ 0.1	- 0.1	-	- 0.3	+ 0.5	- 1.6	+ 0.8	- 0.0	-	Feb.
- 2.6	- 3.8	+ 1.2	+ 0.1	- 0.1	-	+ 5.4	- 0.5	+ 6.2	- 0.3	+ 0.0	-	Mar.
- 0.3	- 0.4	+ 0.2	+ 0.1	- 0.2	-	- 0.1	+ 1.0	- 2.3	+ 1.3	- 0.0	-	Apr.
+ 6.5	+ 5.0	+ 1.4	+ 0.2	- 0.1	-	+ 4.1	+ 1.7	+ 2.6	- 0.3	+ 0.0	-	May

the following Monthly Report, are not specially marked. <sup>1</sup> Federal Railways Fund, Indemnification Fund, Redemption Fund for Inherited Liabilities, ERP Special Fund, German Unity Fund, Equalisation of Burdens Fund. <sup>2</sup> Including liabilities arising from

non-negotiable bearer debt securities. <sup>3</sup> Including deposits under savings and loan contracts. <sup>4</sup> Excluding deposits under savings and loan contracts (see also footnote 3).

#### IV. Banks

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

€ billion

Period	Savings deposits <sup>1</sup>								Memo item: Interest credited on savings deposits	Bank savings bonds, <sup>3</sup> sold to			
	of residents				of non-residents					non-banks, total	domestic non-banks		foreign non-banks
	Total	Total	at 3 months' notice		at more than 3 months' notice		Total	of which: At 3 months' notice			Total	of which: With maturities of more than 2 years	
			Total	of which: Special savings facilities <sup>2</sup>	Total	of which: Special savings facilities <sup>2</sup>							
<b>End of year or month *</b>													
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	567.1	561.2	537.1	269.0	24.1	14.8	5.9	5.4	1.5	24.7	24.5	19.5	0.2
2022	538.5	533.2	510.3	254.2	22.9	14.2	5.3	4.8	1.4	34.9	34.6	20.8	0.2
2023 Jan.	527.9	522.7	498.8	237.1	23.9	15.5	5.2	4.7	0.1	40.9	40.6	21.5	0.3
Feb.	521.1	516.0	490.9	233.4	25.1	16.7	5.1	4.6	0.1	45.8	45.5	22.1	0.3
Mar.	512.3	507.2	480.6	229.4	26.7	18.4	5.0	4.5	0.1	52.1	51.7	22.9	0.4
Apr.	503.5	498.6	470.4	214.3	28.2	20.1	4.9	4.4	0.1	58.7	58.3	23.7	0.4
May	495.5	490.6	460.2	210.0	30.4	22.3	4.9	4.3	0.1	65.9	65.4	24.5	0.5
<b>Changes *</b>													
2021	+ 0.3	+ 0.7	+ 3.9	- 18.5	- 3.2	- 3.2	- 0.4	- 0.3	.	- 5.2	- 3.5	- 2.3	- 1.7
2022	- 28.1	- 27.5	- 26.4	- 14.6	- 1.2	- 0.6	- 0.6	- 0.6	.	+ 10.2	+ 10.1	+ 1.3	+ 0.1
2023 Jan.	- 5.6	- 5.5	- 6.5	- 12.6	+ 1.0	+ 1.2	- 0.1	- 0.1	.	+ 6.0	+ 6.0	+ 0.7	+ 0.0
Feb.	- 6.8	- 6.7	- 7.9	- 3.8	+ 1.2	+ 1.3	- 0.1	- 0.1	.	+ 4.9	+ 4.8	+ 0.6	+ 0.0
Mar.	- 8.8	- 8.7	- 10.3	- 3.9	+ 1.6	+ 1.7	- 0.1	- 0.1	.	+ 6.3	+ 6.2	+ 0.8	+ 0.0
Apr.	- 8.7	- 8.6	- 10.1	- 4.7	+ 1.5	+ 1.6	- 0.1	- 0.1	.	+ 6.6	+ 6.6	+ 0.8	+ 0.0
May	- 8.1	- 8.0	- 10.2	- 4.2	+ 2.2	+ 2.2	- 0.1	- 0.1	.	+ 7.2	+ 7.1	+ 0.9	+ 0.1

\* See Table IV.2, footnote \*; statistical breaks have been eliminated from the changes. The figures for the latest date are always to be regarded as provisional. Subsequent revisions, which appear in the following Monthly Report, are not specially marked.  
<sup>1</sup> Excluding deposits under savings and loan contracts, which are classified as time

deposits. <sup>2</sup> Savings deposits bearing interest at a rate which exceeds the minimum or basic rate of interest. <sup>3</sup> 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 <sup>6</sup>		Subordinated	
	Total	of which:				with maturities of				Total	of which: with maturities of more than 2 years	negotiable debt securities	non-negotiable debt securities	
		Floating rate bonds <sup>1</sup>	Zero coupon bonds <sup>1,2</sup>	Foreign currency bonds <sup>3,4</sup>	Certificates of deposit	up to and including 1 year		more than 1 year up to and including 2 years						more than 2 years
						Total	of which: without a nominal guarantee <sup>5</sup>	Total	of which: without a nominal guarantee <sup>5</sup>					
<b>End of year or month *</b>														
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	1,173.6	106.8	13.5	331.4	98.7	106.8	1.9	18.0	4.5	1,048.8	0.9	0.7	34.6	0.1
2022	1,231.5	92.8	15.0	307.8	88.6	98.6	1.4	26.6	3.4	1,106.4	0.8	0.7	37.8	0.1
2023 Jan.	1,249.7	91.3	15.6	305.4	89.9	101.3	1.3	28.4	3.5	1,120.0	0.9	0.8	37.8	0.1
Feb.	1,258.2	94.2	14.2	300.3	84.7	98.4	1.4	31.9	3.6	1,127.9	0.9	0.8	38.0	0.1
Mar.	1,274.7	86.0	14.3	300.0	95.3	111.6	1.4	34.2	3.6	1,128.9	0.8	0.8	37.7	0.1
Apr.	1,270.7	85.9	13.6	282.8	91.5	107.1	1.4	33.1	3.7	1,130.4	0.8	0.8	37.6	0.1
May	1,305.4	85.9	13.4	299.8	104.6	121.4	1.5	35.8	3.8	1,148.3	0.8	0.8	36.7	0.1
<b>Changes *</b>														
2021	+ 54.0	- 10.3	+ 0.8	+ 17.6	+ 9.4	+ 12.6	+ 0.4	- 5.9	+ 1.3	+ 47.3	+ 0.4	+ 0.3	- 0.2	- 0.3
2022	+ 59.1	- 12.7	+ 1.1	- 23.6	- 9.9	- 8.3	- 0.5	+ 8.5	- 1.1	+ 58.9	- 0.1	+ 0.1	+ 3.5	-
2023 Jan.	+ 18.2	- 1.6	+ 0.6	- 2.4	+ 1.3	+ 2.8	- 0.1	+ 1.9	+ 0.1	+ 13.6	+ 0.0	+ 0.1	- 0.0	-
Feb.	+ 8.5	+ 3.0	- 0.2	- 5.1	- 6.5	- 2.9	+ 0.0	+ 3.4	+ 0.1	+ 7.9	+ 0.0	+ 0.0	+ 0.3	-
Mar.	+ 16.5	- 8.2	+ 0.1	- 0.3	+ 10.6	+ 13.2	+ 0.0	+ 2.3	+ 0.0	+ 1.0	- 0.0	+ 0.0	- 0.3	-
Apr.	- 4.1	- 0.1	- 0.7	- 17.2	- 3.8	- 4.6	+ 0.0	- 1.1	+ 0.1	+ 1.6	- 0.0	- 0.0	- 0.1	-
May	+ 34.7	+ 0.1	- 0.2	+ 17.0	+ 13.1	+ 14.3	+ 0.1	+ 2.6	+ 0.1	+ 17.8	+ 0.0	+ 0.0	- 0.9	-

\* See Table IV.2, footnote \*; statistical breaks have been eliminated from the changes. The figures for the latest date are always to be regarded as provisional. Subsequent revisions, which appear in the following Monthly Report, are not specially marked.  
<sup>1</sup> Including debt securities denominated in foreign currencies. <sup>2</sup> Issue value when floated. <sup>3</sup> Including floating rate notes and zero coupon bonds denominated in foreign

currencies. <sup>4</sup> Bonds denominated in non-euro area currencies. <sup>5</sup> Negotiable bearer debt securities and money market paper with a nominal guarantee of less than 100%. <sup>6</sup> Non-negotiable bearer debt securities are classified among bank savings bonds (see also Table IV.10, footnote 2).

#### IV. Banks

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

€ billion

End of year/month	Number of associations	Balance sheet total <sup>1</sup>	Lending to banks (MFIs)			Lending to non-banks (non-MFIs)				Deposits of banks (MFIs) <sup>6</sup>		Deposits of non-banks (non-MFIs)		Bearer debt securities outstanding	Capital (including published reserves) <sup>8</sup>	Memo item: New contracts entered into in year or month <sup>9</sup>
			Credit balances and loans (excluding building loans) <sup>2</sup>	Building loans <sup>3</sup>	Bank debt securities <sup>4</sup>	Building loans			Securities (including Treasury bills and Treasury discount paper) <sup>5</sup>	Deposits under savings and loan contracts	Sight and time deposits	Deposits under savings and loan contracts	Sight and time deposits <sup>7</sup>			
						Loans under savings and loan contracts	Interim and bridging loans	Other building loans								
<b>All building and loan associations</b>																
2022	18	259.7	30.6	0.0	15.4	11.1	135.0	40.5	22.9	2.5	36.1	185.3	9.3	5.2	12.3	91.3
2023 Mar.	18	260.6	30.8	0.0	15.5	12.0	135.1	40.4	22.8	2.0	35.5	185.4	10.1	6.1	12.6	9.5
Apr.	18	260.4	30.3	0.0	15.6	12.4	134.8	40.5	22.8	1.9	35.7	184.9	10.3	6.1	12.9	8.2
May	18	260.2	29.7	0.0	15.7	12.7	134.8	40.7	22.5	1.8	35.5	184.9	10.4	6.1	13.0	8.4
<b>Private building and loan associations</b>																
2023 Mar.	10	183.8	16.3	0.0	7.9	8.5	105.0	34.4	9.2	1.1	32.8	119.6	9.8	6.1	8.7	6.4
Apr.	10	183.7	15.9	0.0	8.0	8.7	104.7	34.5	9.2	1.0	33.0	119.1	10.0	6.1	8.9	5.5
May	10	183.6	15.4	0.0	8.3	8.9	104.7	34.7	9.0	0.9	33.0	119.2	10.1	6.1	8.9	5.7
<b>Public building and loan associations</b>																
2023 Mar.	8	76.7	14.5	0.0	7.6	3.5	30.1	6.1	13.6	1.0	2.6	65.8	0.3	-	3.9	3.1
Apr.	8	76.8	14.5	0.0	7.6	3.6	30.1	6.0	13.6	0.9	2.7	65.8	0.3	-	4.0	2.7
May	8	76.5	14.3	0.0	7.5	3.8	30.1	6.0	13.5	0.9	2.5	65.7	0.3	-	4.1	2.8

#### Trends in building and loan association business

€ billion

Period	Changes in deposits under savings and loan contracts			Capital promised		Capital disbursed					Disbursement commitments outstanding at end of period		Interest and repayments received on building loans <sup>11</sup>		Memo item: Housing bonuses received <sup>13</sup>	
	Amounts paid into savings and loan accounts <sup>10</sup>	Interest credited on deposits under savings and loan contracts	Repayments of deposits under cancelled savings and loan contracts	Total	of which: Net allocations <sup>12</sup>	Total	Allocations			Newly granted interim and bridging loans and other building loans	Total	of which: Under allocated contracts	Total	of which: Repayments during quarter		
							Deposits under savings and loan contracts		Loans under savings and loan contracts <sup>10</sup>							
							Total	of which: Applied to settlement of interim and bridging loans	Total							of which: Applied to settlement of interim and bridging loans
<b>All building and loan associations</b>																
2022	27.5	2.0	8.7	51.5	30.7	48.5	20.2	4.1	5.3	3.8	23.0	16.4	6.7	5.4	4.1	0.2
2023 Mar.	2.3	0.1	0.6	4.6	3.4	4.5	2.3	0.4	0.7	0.3	1.5	15.2	6.9	0.4	1.0	0.0
Apr.	2.2	0.1	0.5	4.5	3.6	4.2	2.3	0.4	0.7	0.4	1.2	15.0	7.1	0.4	.	0.0
May	2.5	0.1	0.6	4.2	3.2	4.1	2.1	0.3	0.7	0.3	1.3	14.6	7.1	0.4	.	0.0
<b>Private building and loan associations</b>																
2023 Mar.	1.5	0.1	0.3	3.4	2.4	3.3	1.7	0.3	0.4	0.3	1.2	10.4	3.7	0.3	0.7	0.0
Apr.	1.4	0.1	0.3	3.2	2.5	3.1	1.7	0.3	0.5	0.3	0.9	10.1	3.8	0.3	.	0.0
May	1.6	0.0	0.3	2.9	2.1	2.9	1.4	0.2	0.4	0.3	1.0	9.8	3.8	0.3	.	0.0
<b>Public building and loan associations</b>																
2023 Mar.	0.8	0.0	0.3	1.3	1.0	1.2	0.6	0.1	0.2	0.1	0.3	4.8	3.2	0.1	0.3	0.0
Apr.	0.8	0.0	0.2	1.3	1.1	1.1	0.6	0.1	0.2	0.1	0.3	4.9	3.3	0.1	.	0.0
May	0.9	0.0	0.3	1.3	1.1	1.2	0.7	0.1	0.2	0.1	0.3	4.8	3.3	0.1	.	0.0

\* Excluding assets and liabilities and/or transactions of foreign branches. The figures for the latest date are always to be regarded as provisional. Subsequent revisions, which appear in the following Monthly Report, are not specially marked. **1** See Table IV.2, footnote 1. **2** Including claims on building and loan associations, claims arising from registered debt securities and central bank credit balances. **3** Loans under savings and loan contracts and interim and bridging loans. **4** Including money market paper and small amounts of other securities issued by banks. **5** Including equalisation claims. **6** Including liabilities to building and loan associations. **7** Including small amounts of savings deposits. **8** Including participation rights capital and fund for general banking

risks. **9** 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. **10** For disbursements of deposits under savings and loan contracts arising from the allocation of contracts see "Capital disbursed". **11** Including housing bonuses credited. **12** Only allocations accepted by the beneficiaries; including allocations applied to settlement of interim and bridging loans. **13** 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".

#### IV. Banks

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

€ billion

Period	Number of		Balance sheet total 7	Lending to banks (MFIs)					Lending to non-banks (non-MFIs)					Other assets 7			
	German banks (MFIs) with foreign branches and/or foreign subsidiaries	foreign branches 1 and/or foreign subsidiaries		Total	Credit balances and loans			Money market paper, securities 2,3	Total	Loans			Money market paper, securities 2	Total	of which: Derivative financial instruments in the trading portfolio		
					Total	German banks	Foreign banks			Total	Total	to German non-banks				to foreign non-banks	
<b>Foreign branches</b>																<b>End of year or month *</b>	
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		
2021	51	207	1,504.5	471.2	457.8	297.9	159.9	13.4	497.2	418.8	12.9	405.9	78.4	536.1	404.5		
2022	47	202	1,625.5	461.8	447.4	315.6	131.8	14.4	516.7	447.7	9.7	437.9	69.0	647.0	513.3		
2022 July	52	211	1,688.6	503.1	488.6	327.5	161.1	14.5	555.8	484.9	11.0	474.0	70.8	629.7	454.0		
Aug.	50	208	1,735.3	497.8	483.0	328.4	154.6	14.8	569.2	497.0	11.1	485.9	72.2	668.3	503.1		
Sep.	50	208	1,889.5	536.3	522.4	354.4	168.0	13.9	563.5	488.9	10.6	478.3	74.6	789.8	632.4		
Oct.	50	207	1,873.5	533.0	519.9	359.7	160.2	13.1	562.1	487.8	11.2	476.5	74.4	778.4	625.8		
Nov.	50	207	1,757.8	511.2	498.6	347.3	151.3	12.6	548.7	475.2	10.5	464.7	73.6	697.9	526.6		
Dec.	47	202	1,625.5	461.8	447.4	315.6	131.8	14.4	516.7	447.7	9.7	437.9	69.0	647.0	513.3		
2023 Jan.	47	201	1,638.4	503.3	488.3	346.1	142.2	14.9	510.1	439.4	9.5	429.9	70.7	625.0	462.3		
Feb.	47	200	1,663.9	493.1	477.4	337.8	139.6	15.6	509.2	440.0	9.6	430.5	69.2	661.6	509.3		
Mar.	47	199	1,565.2	471.2	454.2	313.9	140.3	17.0	500.4	432.5	9.3	423.2	67.9	593.7	437.7		
Apr.	47	196	1,566.1	470.6	453.1	312.2	141.0	17.4	499.2	432.1	8.6	423.5	67.1	596.3	440.8		
<b>Changes *</b>																	
2021	+ 1	+ 1	- 48.4	+ 87.3	+ 87.1	+ 84.9	+ 2.2	+ 0.3	- 26.2	- 6.5	- 1.3	- 5.1	- 19.7	- 136.9	- 128.1		
2022	- 4	- 5	+ 124.1	- 13.3	- 14.3	+ 17.8	- 32.1	+ 1.0	+ 6.7	+ 17.5	- 3.2	+ 20.6	- 10.8	+ 108.1	+ 103.0		
2022 Aug.	- 2	- 3	+ 51.8	- 6.6	- 6.9	+ 0.9	- 7.8	+ 0.3	+ 9.0	+ 8.0	+ 0.1	+ 7.9	+ 1.0	+ 37.8	+ 47.9		
Sep.	± 0	-	+ 153.1	+ 36.7	+ 37.6	+ 26.0	+ 11.6	- 0.9	- 11.9	- 13.7	- 0.5	- 13.2	+ 1.8	+ 120.3	+ 128.5		
Oct.	± 0	- 1	- 15.2	- 1.6	- 0.8	+ 5.3	- 6.1	- 0.8	+ 3.0	+ 2.7	+ 0.6	+ 2.1	+ 0.3	- 10.6	- 6.0		
Nov.	± 0	-	- 113.5	- 17.9	- 17.5	- 12.4	- 5.0	- 0.4	- 0.4	- 0.8	- 0.8	- 0.0	+ 0.5	- 78.3	- 97.0		
Dec.	- 3	- 5	- 131.0	- 46.9	- 48.7	- 31.7	- 17.0	+ 1.8	- 23.6	- 19.9	- 0.7	- 19.2	- 3.7	- 49.6	- 11.9		
2023 Jan.	± 0	- 1	+ 13.3	+ 42.5	+ 42.0	+ 30.5	+ 11.5	+ 0.5	- 2.7	- 4.8	- 0.3	- 4.6	+ 2.1	- 21.6	- 50.4		
Feb.	± 0	- 1	+ 24.5	- 11.7	- 12.4	- 8.3	- 4.1	+ 0.7	- 5.7	- 3.7	+ 0.1	- 3.8	- 2.0	+ 35.6	+ 46.2		
Mar.	± 0	- 1	- 97.4	- 20.0	- 21.3	- 24.0	+ 2.6	+ 1.3	- 2.9	- 2.3	- 0.3	- 2.0	- 0.7	- 66.6	- 70.4		
Apr.	± 0	- 3	+ 1.3	+ 0.4	- 0.0	- 1.7	+ 1.6	+ 0.5	+ 1.6	+ 2.1	- 0.7	+ 2.8	- 0.5	+ 3.1	+ 3.5		
<b>Foreign subsidiaries</b>																<b>End of year or month *</b>	
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		
2021	12	35	246.0	50.8	44.4	20.7	23.7	6.3	139.5	116.3	12.6	103.7	23.2	55.7	0.0		
2022	11	32	256.7	61.5	52.0	20.5	31.4	9.5	145.8	124.5	13.3	111.2	21.3	49.4	0.0		
2022 July	11	34	256.6	47.8	42.1	19.7	22.4	5.7	150.6	126.0	13.0	113.0	24.7	58.2	0.0		
Aug.	11	34	263.5	48.4	42.8	19.7	23.0	5.6	150.1	125.5	13.2	112.3	24.6	64.9	0.0		
Sep.	11	33	260.5	53.0	47.9	20.8	27.1	5.2	149.3	126.0	13.1	112.9	23.3	58.2	0.0		
Oct.	11	33	258.2	53.0	47.0	19.3	27.7	6.0	149.1	127.0	13.3	113.7	22.0	56.1	0.0		
Nov.	11	33	258.2	58.1	49.5	19.4	30.1	8.6	148.4	127.0	13.4	113.6	21.4	51.7	0.0		
Dec.	11	32	256.7	61.5	52.0	20.5	31.4	9.5	145.8	124.5	13.3	111.2	21.3	49.4	0.0		
2023 Jan.	11	32	253.0	60.0	49.9	20.0	29.9	10.1	145.3	124.5	13.3	111.3	20.7	47.8	0.0		
Feb.	11	32	254.8	60.7	50.6	22.4	28.2	10.1	146.1	125.4	13.4	111.9	20.7	47.9	0.0		
Mar.	11	32	253.9	62.2	51.7	20.7	31.0	10.5	146.5	126.2	13.3	112.9	20.2	45.2	0.0		
Apr.	11	31	250.9	64.4	53.3	22.4	30.9	11.1	145.3	125.6	13.0	112.6	19.8	41.2	0.0		
<b>Changes *</b>																	
2021	± 0	- 1	+ 12.0	+ 3.8	+ 2.8	+ 3.4	- 0.5	+ 1.0	- 2.5	- 0.5	- 0.5	- 0.0	- 2.1	+ 10.8	± 0.0		
2022	- 1	- 3	+ 6.5	+ 8.2	+ 5.2	- 0.2	+ 5.6	+ 2.8	+ 5.0	+ 6.9	+ 0.7	+ 6.3	- 1.9	- 6.5	± 0.0		
2022 Aug.	-	-	+ 5.9	+ 0.2	+ 0.3	+ 0.1	+ 0.2	- 0.1	- 0.9	- 0.9	+ 0.3	- 1.1	- 0.1	+ 6.7	± 0.0		
Sep.	-	- 1	- 4.4	+ 3.9	+ 4.5	+ 1.0	+ 3.5	- 0.6	- 1.5	- 0.2	- 0.1	- 0.1	- 1.3	- 6.7	± 0.0		
Oct.	-	-	- 1.2	+ 0.6	- 0.4	- 1.5	+ 1.1	+ 1.0	+ 0.3	+ 1.5	+ 0.2	+ 1.4	- 1.2	- 2.1	± 0.0		
Nov.	-	-	+ 1.7	+ 5.4	+ 2.6	+ 0.1	+ 2.6	+ 2.8	+ 0.7	+ 1.4	+ 0.1	+ 1.2	- 0.7	- 4.4	± 0.0		
Dec.	-	- 1	+ 0.2	+ 4.1	+ 3.0	+ 1.2	+ 1.8	+ 1.1	- 1.7	- 1.6	- 0.2	- 1.5	- 0.0	- 2.2	± 0.0		
2023 Jan.	-	-	- 2.7	- 1.0	- 1.7	- 0.6	- 1.2	+ 0.7	- 0.0	+ 0.6	- 0.0	+ 0.6	- 0.6	- 1.6	± 0.0		
Feb.	-	-	+ 0.6	+ 0.3	+ 0.4	+ 2.4	- 2.1	- 0.1	+ 0.2	+ 0.2	+ 0.2	+ 0.0	- 0.0	+ 0.1	± 0.0		
Mar.	-	-	+ 0.4	+ 2.0	+ 1.5	- 1.7	+ 3.2	+ 0.6	+ 1.1	+ 1.6	- 0.1	+ 1.7	- 0.5	- 2.7	± 0.0		
Apr.	-	- 1	- 2.7	+ 2.2	+ 1.6	+ 1.7	- 0.1	+ 0.6	- 0.8	- 0.4	- 0.3	- 0.1	- 0.5	- 4.1	± 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												Other liabilities 6,7		Period	
of banks (MFIs)				of non-banks (non-MFIs)					Money market paper and debt securities outstanding 5	Working capital and own funds	Total	of which: Derivative financial instruments in the trading portfolio			
Total	Total	German banks	Foreign banks	Total	German non-banks 4			Foreign non-banks							
					Total	Shortterm	Medium and longterm								
<b>End of year or month *</b>													<b>Foreign branches</b>		
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		
950.2	638.5	461.2	177.3	311.7	8.1	6.3	1.8	303.6	65.2	51.3	437.9	403.4	2021		
943.4	573.6	435.2	138.5	369.8	10.4	8.9	1.5	359.4	61.7	63.1	557.4	512.9	2022		
1,045.4	634.6	458.7	175.9	410.8	10.6	8.8	1.8	400.2	81.3	53.9	507.9	452.6	2022 July		
1,050.7	639.8	470.6	169.1	411.0	11.3	9.5	1.8	399.6	88.1	54.6	541.9	500.5	2022 Aug.		
1,072.5	661.9	480.1	181.8	410.6	11.3	9.5	1.9	399.3	89.6	55.4	672.1	629.1	2022 Sep.		
1,054.2	645.1	466.6	178.5	409.1	10.7	8.9	1.8	398.4	85.7	66.2	667.4	622.7	2022 Oct.		
1,041.1	639.9	457.8	182.1	401.2	10.2	8.6	1.6	391.0	82.6	65.5	568.6	523.8	2022 Nov.		
943.4	573.6	435.2	138.5	369.8	10.4	8.9	1.5	359.4	61.7	63.1	557.4	512.9	2022 Dec.		
985.2	595.5	432.8	162.6	389.7	9.5	8.3	1.2	380.2	85.2	63.2	504.8	462.6	2023 Jan.		
960.9	578.2	420.7	157.5	382.7	9.0	7.8	1.2	373.7	87.3	63.5	552.1	509.9	2023 Feb.		
950.4	574.0	425.9	148.1	376.3	7.8	6.6	1.2	368.6	71.7	63.4	479.7	439.4	2023 Mar.		
940.7	561.4	407.2	154.2	379.3	7.5	6.3	1.2	371.8	79.9	62.9	482.6	442.1	2023 Apr.		
<b>Changes *</b>													<b>Foreign subsidiaries</b>		
+ 71.1	+ 43.1	+ 31.0	+ 12.0	+ 28.1	- 3.6	- 3.9	+ 0.3	+ 31.7	+ 0.1	+ 1.4	- 130.8	- 119.7	2021		
- 6.2	- 64.2	- 22.2	- 42.0	+ 58.0	+ 2.3	+ 2.6	- 0.3	+ 55.7	- 6.3	+ 11.8	+ 119.0	+ 109.5	2022		
+ 3.4	+ 3.4	+ 11.9	- 8.6	+ 0.1	+ 0.7	+ 0.7	+ 0.0	- 0.7	+ 6.0	+ 0.6	+ 39.9	+ 48.0	2022 Aug.		
+ 19.3	+ 19.8	+ 9.4	+ 10.4	- 0.5	- 0.0	- 0.0	+ 0.0	- 0.5	+ 0.3	+ 0.8	+ 130.2	+ 128.5	2022 Sep.		
- 15.9	- 14.5	- 13.4	- 1.1	- 1.4	- 0.6	- 0.6	- 0.1	- 0.8	- 3.0	+ 10.9	- 4.7	- 6.4	2022 Oct.		
- 7.9	- 0.5	- 8.8	+ 8.3	- 7.4	- 0.5	- 0.3	- 0.2	- 6.9	- 0.9	- 0.8	- 98.8	- 98.9	2022 Nov.		
- 94.3	- 63.2	- 22.6	- 40.6	- 31.1	+ 0.2	+ 0.3	- 0.1	- 31.3	- 19.6	- 2.4	- 11.2	- 10.9	2022 Dec.		
+ 43.3	+ 23.2	- 2.3	+ 25.5	+ 20.1	- 0.8	- 0.6	- 0.2	+ 20.9	+ 24.0	+ 0.1	- 52.5	- 50.3	2023 Jan.		
- 26.5	- 19.3	- 12.2	- 7.1	- 7.2	- 0.5	- 0.5	+ 0.0	- 6.7	+ 1.1	+ 0.4	+ 47.2	+ 47.3	2023 Feb.		
- 7.8	- 1.8	+ 5.2	- 7.0	- 6.0	- 0.2	- 0.2	- 0.0	- 5.8	- 14.3	- 0.2	- 72.3	- 70.5	2023 Mar.		
- 8.3	- 11.4	- 18.7	+ 7.3	+ 3.1	- 0.3	- 0.3	- 0.0	+ 3.4	+ 8.6	- 0.5	+ 2.9	+ 2.7	2023 Apr.		
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		
178.6	64.2	33.0	31.2	114.4	7.3	4.9	2.4	107.1	16.4	20.3	30.7	0.0	2021		
189.4	67.5	38.6	28.9	122.0	6.9	4.6	2.3	115.1	13.5	20.1	33.7	0.0	2022		
189.6	66.3	35.0	31.4	123.3	7.7	5.4	2.4	115.5	15.6	20.2	31.2	0.0	2022 July		
194.4	67.0	36.3	30.7	127.5	8.1	5.7	2.3	119.4	15.3	20.4	33.3	0.0	2022 Aug.		
191.4	68.3	37.1	31.2	123.0	7.7	5.3	2.3	115.4	14.8	20.0	34.4	0.0	2022 Sep.		
188.7	68.1	37.5	30.6	120.6	7.4	5.1	2.3	113.2	13.8	20.3	35.4	0.0	2022 Oct.		
190.2	68.8	38.7	30.1	121.5	7.1	4.8	2.3	114.4	13.1	20.4	34.4	0.0	2022 Nov.		
189.4	67.5	38.6	28.9	122.0	6.9	4.6	2.3	115.1	13.5	20.1	33.7	0.0	2022 Dec.		
186.2	66.7	38.5	28.2	119.6	7.0	4.5	2.5	112.6	12.8	20.1	33.9	0.0	2023 Jan.		
187.2	69.3	40.3	29.1	117.9	6.9	4.4	2.5	110.9	12.7	20.2	34.7	0.0	2023 Feb.		
186.6	71.2	42.2	29.1	115.4	6.8	4.3	2.5	108.5	12.3	20.3	34.8	0.0	2023 Mar.		
183.5	71.0	44.0	27.0	112.5	6.9	4.5	2.5	105.6	12.2	20.2	35.0	0.0	2023 Apr.		
<b>Changes *</b>															
+ 12.1	+ 3.2	- 1.1	+ 4.3	+ 8.9	+ 0.6	+ 0.6	- 0.1	+ 8.3	- 0.3	+ 0.1	+ 0.2	± 0.0	2021		
+ 7.7	+ 1.4	+ 5.6	- 4.2	+ 6.3	- 0.4	- 0.3	- 0.1	+ 6.7	- 2.9	- 0.2	+ 2.2	± 0.0	2022		
+ 4.1	+ 0.4	+ 1.3	- 0.9	+ 3.7	+ 0.3	+ 0.3	- 0.0	+ 3.4	- 0.3	+ 0.2	+ 1.9	± 0.0	2022 Aug.		
- 4.1	+ 1.0	+ 0.8	+ 0.1	- 5.1	- 0.4	- 0.4	- 0.0	- 4.7	- 0.5	- 0.4	+ 0.7	± 0.0	2022 Sep.		
- 2.0	+ 0.0	+ 0.4	- 0.4	- 2.0	- 0.3	- 0.2	- 0.0	- 1.7	- 1.0	+ 0.3	+ 1.4	± 0.0	2022 Oct.		
+ 2.7	+ 0.6	+ 1.2	- 0.6	+ 2.1	- 0.3	- 0.3	- 0.0	+ 2.4	- 0.7	+ 0.1	- 0.4	± 0.0	2022 Nov.		
+ 0.4	- 0.9	- 0.1	- 0.8	+ 1.3	- 0.2	- 0.2	+ 0.0	+ 1.5	+ 0.3	- 0.2	- 0.3	± 0.0	2022 Dec.		
- 2.6	- 0.6	- 0.1	- 0.5	- 2.0	+ 0.1	- 0.1	+ 0.2	- 2.1	- 0.7	+ 0.0	+ 0.5	± 0.0	2023 Jan.		
+ 0.1	+ 2.4	+ 1.8	+ 0.6	- 2.2	- 0.1	- 0.1	+ 0.0	- 2.2	- 0.1	+ 0.1	+ 0.5	± 0.0	2023 Feb.		
+ 0.3	+ 2.2	+ 1.9	+ 0.3	- 1.9	- 0.1	- 0.1	+ 0.0	- 1.8	- 0.4	+ 0.0	+ 0.4	± 0.0	2023 Mar.		
- 2.7	- 0.1	+ 1.8	- 1.9	- 2.6	+ 0.1	+ 0.2	- 0.0	- 2.7	- 0.1	- 0.1	+ 0.2	± 0.0	2023 Apr.		

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 <sup>1</sup>	Reserve base <sup>2</sup>	Required reserves before deduction of lump-sum allowance <sup>3</sup>	Required reserves after deduction of lump-sum allowance <sup>4</sup>	Current accounts <sup>5</sup>	Excess reserves (without deposit facility) <sup>6</sup>	Deficiencies <sup>7</sup>
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	15,576.6	155.8	155.4	3,812.3	3,656.9	0.1
2022	16,843.0	168.4	168.0	195.6	28.1	0.0
2023 Apr.	.	.	.	.	.	.
May <sup>P</sup>	16,521.8	165.2	164.8	181.6	16.8	0.0
June <sup>P</sup>	16,548.3	165.5	165.1	...	...	...

### 2. Reserve maintenance in Germany

€ billion

Maintenance period beginning in <sup>1</sup>	Reserve base <sup>2</sup>	German share of euro area reserve base as a percentage	Required reserves before deduction of lump-sum allowance <sup>3</sup>	Required reserves after deduction of lump-sum allowance <sup>4</sup>	Current accounts <sup>5</sup>	Excess reserves (without deposit facility) <sup>6</sup>	Deficiencies <sup>7</sup>
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	4,260,398	27.4	42,604	42,464	1,048,819	1,006,355	0
2022	4,664,630	27.7	46,646	46,512	54,848	8,337	5
2023 Apr.	.	.	.	.	.	.	.
May <sup>P</sup>	4,511,085	27.3	45,111	44,977	51,953	6,976	0
June <sup>P</sup>	4,503,620	27.2	45,036	44,902	...	...	...

### a) Required reserves of individual categories of banks

€ billion

Maintenance period beginning in <sup>1</sup>	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
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	9,113	6,713	2,943	13,682	8,028	109	1,876
2022	9,814	7,396	3,216	14,465	8,295	117	2,471
2023 Apr.	.	.	.	.	.	.	.
May	9,155	7,244	3,036	14,351	8,196	141	2,468
June	9,115	7,335	2,952	14,343	8,193	137	2,403

### b) Reserve base by subcategories of liabilities

€ billion

Maintenance period beginning in <sup>1</sup>	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
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	3,079,722	9,030	508,139	561,608	101,907
2022	3,352,177	12,609	566,227	543,694	116,094
2023 Apr.	.	.	.	.	.
May	3,368,071	14,295	458,159	508,186	123,862
June	3,380,000	16,017	446,421	499,682	119,057

<sup>1</sup> 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. <sup>2</sup> Article 5 of the Regulation (EU) 2021/378 of the European Central Bank on the application of minimum reserve requirements (excluding liabilities to which a reserve ratio of 0% applies, pursuant to Article 6(1)(a)). <sup>3</sup> 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%. <sup>4</sup> Article 6(2) of the Regulation (EU) 2021/378 of the European Central Bank on the application of minimum reserve requirements. <sup>5</sup> Average credit balances of credit institutions at national central banks. <sup>6</sup> Average credit balances less required reserves after deduction of the lump-sum allowance. <sup>7</sup> 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			
Applicable from	Deposit facility	Main refinancing operations			Applicable from	Deposit facility	Main refinancing operations			Applicable from	Basic rate of interest as per Civil Code 1	Applicable from	Basic rate of interest as per Civil Code 1
		Fixed rate	Minimum bid rate	Marginal lending facility			Fixed rate	Minimum bid rate	Marginal lending facility				
2007 Mar. 14	2.75	–	3.75	4.75	2013 May 8	0.00	0.50	–	1.00	2002 Jan. 1	2.57	2009 Jan. 1	1.62
June 13	3.00	–	4.00	5.00	Nov. 13	0.00	0.25	–	0.75	July 1	2.47	July 1	0.12
2008 July 9	3.25	–	4.25	5.25	2014 June 11	– 0.10	0.15	–	0.40	2003 Jan. 1	1.97	2011 July 1	0.37
Oct. 8	2.75	–	3.75	4.75	Sep. 10	– 0.20	0.05	–	0.30	July 1	1.22	2012 Jan. 1	0.12
Oct. 9	3.25	3.75	–	4.25	2015 Dec. 9	– 0.30	0.05	–	0.30	2004 Jan. 1	1.14	2013 Jan. 1	– 0.13
Nov. 12	2.75	3.25	–	3.75	2016 Mar. 16	– 0.40	0.00	–	0.25	July 1	1.13	July 1	– 0.38
Dec. 10	2.00	2.50	–	3.00	2019 Sep. 18	– 0.50	0.00	–	0.25	2005 Jan. 1	1.21	2014 Jan. 1	– 0.63
2009 Jan. 21	1.00	2.00	–	3.00	2022 Jul. 27	0.00	0.50	–	0.75	July 1	1.17	July 1	– 0.73
Mar. 11	0.50	1.50	–	2.50	Sep. 14	0.75	1.25	–	1.50	2006 Jan. 1	1.37	2015 Jan. 1	– 0.83
Apr. 8	0.25	1.25	–	2.25	Nov. 2	1.50	2.00	–	2.25	July 1	1.95	2016 July 1	– 0.88
May 13	0.25	1.00	–	1.75	Dec. 21	2.00	2.50	–	2.75	2007 Jan. 1	2.70	2023 Jan. 1	1.62
2011 Apr. 13	0.50	1.25	–	2.00	2023 Feb. 8	2.50	3.00	–	3.25	July 1	3.19	July 1	3.12
July 13	0.75	1.50	–	2.25						2008 Jan. 1	3.32		
Nov. 9	0.50	1.25	–	2.00						July 1	3.19		
Dec. 14	0.25	1.00	–	1.75									
2012 July 11	0.00	0.75	–	1.50									

### 2. Eurosystem monetary policy operations allotted through tenders \*

Date of Settlement	Bid amount € million	Allotment amount	Fixed rate tenders		Variable rate tenders		Running for ... days
			Fixed rate	Minimum bid rate	Marginal rate 1	Weighted average rate	
			% per annum				
<b>Main refinancing operations</b>							
2023 June 7		1 326	1 326	3.75	–	–	7
June 14		1 162	1 162	3.75	–	–	7
June 21		1 244	1 244	4.00	–	–	7
June 28		18 559	18 559	4.00	–	–	7
July 5		12 536	12 536	4.00	–	–	7
July 12		11 883	11 883	4.00	–	–	7
<b>Long-term refinancing operations</b>							
2023 Apr. 27		716	716	2 ...	–	–	91
June 1		789	789	2 ...	–	–	91
June 29		4 327	4 327	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.

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	EURIBOR @ 2				
		One-week funds	One-month funds	Three-month funds	Six-month funds	Twelve-month funds
2022 Nov.	1.368	1.38	1.42	1.83	2.32	2.83
Dec.	1.568	1.60	1.72	2.06	2.56	3.02
2023 Jan.	1.902	1.89	1.98	2.35	2.86	3.34
Feb.	2.275	2.30	2.37	2.64	3.14	3.53
Mar.	2.572	2.57	2.71	2.91	3.27	3.65
Apr.	2.900	2.88	2.96	3.18	3.52	3.76
May	3.080	3.09	3.15	3.37	3.68	3.86
June	3.238	3.25	3.34	3.54	3.83	4.01

1 Euro Short-Term Rate: on the basis of individual euro-denominated transactions conducted and settled on the previous business day, the European Central Bank publishes the €STR since 2 October 2019. T Monthly averages are calculations by Deutsche Bundesbank. Transactions are reported by euro area banks subject to reporting obligations in compliance with Money Market Statistical Reporting Regulation.

2 Monthly averages are own calculations by Deutsche Bundesbank based on Euribor @ daily rates calculated by the European Money Markets Institute (EMMI). The monthly data are unweighted averages. Information on the methodology of Euribor @ daily rates administered by EMMI is available here: <https://www.emmi-benchmarks.eu/benchmarks/euribor/methodology/>

## VI. Interest rates

### 4. Interest rates and volumes for outstanding amounts and new business of German banks (MFIs) \*

#### a) Outstanding amounts °

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
2022 May	0.19	39,659	0.87	218,855	-0.20	65,198	0.73	23,335
June	0.19	39,682	0.87	218,128	-0.10	66,308	0.78	23,397
July	0.24	40,392	0.86	217,843	0.04	72,141	0.86	24,213
Aug.	0.30	42,949	0.86	217,606	0.17	79,349	0.92	24,813
Sep.	0.46	50,096	0.86	217,608	0.52	95,994	0.97	24,605
Oct.	0.67	56,389	0.85	217,771	0.76	116,977	1.00	24,179
Nov.	0.94	69,368	0.85	218,426	1.13	121,576	1.00	23,542
Dec.	1.16	84,147	0.86	220,466	1.39	123,678	1.02	22,605
2023 Jan.	1.37	103,036	0.87	221,773	1.67	131,363	1.05	23,299
Feb.	1.57	119,894	0.87	222,671	1.98	140,254	1.07	23,409
Mar.	1.77	140,046	0.88	223,661	2.29	148,756	1.09	22,527
Apr.	1.91	157,796	0.89	224,586	2.44	155,233	1.12	22,140
May	2.07	180,322	0.90	225,883	2.65	153,693	1.17	22,199

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
2022 May	2.15	3,584	1.55	26,874	1.70	1,492,093	6.51	46,567	3.33	76,658	3.25	330,295
June	2.19	3,573	1.58	26,899	1.70	1,500,141	6.59	47,810	3.36	76,324	3.27	330,379
July	2.28	3,687	1.70	27,244	1.70	1,508,724	6.58	46,813	3.39	77,074	3.27	333,017
Aug.	2.43	3,713	1.76	27,275	1.70	1,515,561	6.75	47,402	3.41	76,990	3.29	334,182
Sep.	2.61	3,627	1.86	27,290	1.70	1,522,592	6.95	48,339	3.46	77,011	3.32	333,384
Oct.	3.06	3,689	2.06	27,325	1.72	1,528,186	7.39	47,749	3.53	76,686	3.42	333,308
Nov.	3.35	3,604	2.21	27,320	1.73	1,533,123	7.51	47,012	3.60	75,908	3.46	333,366
Dec.	3.66	3,497	2.37	26,984	1.74	1,535,823	7.73	47,250	3.68	76,467	3.49	331,711
2023 Jan.	4.10	3,550	2.52	26,527	1.76	1,534,684	8.20	46,598	3.78	75,973	3.55	332,207
Feb.	4.32	3,429	2.64	26,317	1.77	1,536,492	8.44	47,291	3.84	75,755	3.59	332,184
Mar.	4.45	3,493	2.77	26,266	1.78	1,540,365	8.67	48,137	3.94	75,854	3.64	330,164
Apr.	4.72	3,490	2.94	26,102	1.79	1,542,767	8.86	47,023	4.05	75,742	3.72	330,568
May	4.93	3,423	3.03	25,960	1.81	1,544,206	9.12	47,534	4.14	75,472	3.77	330,677

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
2022 May	1.87	184,783	1.62	208,824	1.58	842,912
June	1.94	189,986	1.65	213,733	1.64	846,768
July	2.07	194,397	1.69	218,875	1.66	854,793
Aug.	2.24	209,826	1.74	226,447	1.68	861,022
Sep.	2.63	211,369	2.00	230,393	1.80	865,922
Oct.	3.05	209,961	2.26	237,078	1.92	874,758
Nov.	3.49	213,334	2.49	236,253	1.96	879,122
Dec.	3.70	192,635	2.83	240,161	2.01	872,949
2023 Jan.	4.04	199,612	3.07	241,498	2.05	876,315
Feb.	4.28	194,396	3.22	246,124	2.07	878,910
Mar.	4.66	193,205	3.45	245,152	2.13	876,723
Apr.	4.98	194,154	3.65	247,337	2.19	879,353
May	5.19	194,108	3.76	252,288	2.22	885,478

\* 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). ° 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 +

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		
Reporting period	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
2022 May	-0.02	1,827,315	0.14	2,052	0.52	574	0.66	1,023	0.07	533,590	0.14	22,562
June	-0.02	1,831,910	0.17	2,490	0.71	357	0.80	891	0.08	531,943	0.14	22,408
July	-0.00	1,854,420	0.31	3,227	0.83	776	0.75	1,128	0.07	530,302	0.15	22,255
Aug.	0.00	1,852,118	0.49	4,742	1.04	925	0.95	1,582	0.08	527,959	0.16	22,201
Sep.	0.01	1,854,045	0.84	7,457	1.49	915	1.29	1,289	0.09	522,685	0.19	22,155
Oct.	0.01	1,853,933	1.06	10,188	1.89	1,332	1.49	1,549	0.11	519,453	0.27	22,383
Nov.	0.02	1,858,811	1.34	17,255	1.99	1,783	1.70	1,958	0.13	514,161	0.33	22,556
Dec.	0.07	1,857,241	1.53	20,197	2.01	1,738	1.52	2,138	0.16	510,188	0.40	22,970
2023 Jan.	0.09	1,839,201	1.68	26,082	2.14	2,941	1.97	2,504	0.20	498,875	0.53	23,945
Feb.	0.12	1,828,243	1.95	25,533	2.24	2,346	2.09	1,853	0.26	490,990	0.67	25,179
Mar.	0.17	1,801,473	2.19	29,674	2.36	3,672	2.07	2,194	0.30	480,790	0.84	26,746
Apr.	0.22	1,807,037	2.33	28,088	2.47	3,409	2.35	2,055	0.35	470,731	0.96	28,261
May	0.30	1,792,904	2.58	35,359	2.67	4,281	2.39	2,371	0.39	460,587	1.13	30,499

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		
Reporting period	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
2022 May	-0.15	609,181	-0.44	41,476	0.44	1,240	1.35	513
June	-0.15	600,646	-0.36	43,089	0.91	687	2.27	742
July	-0.07	604,802	-0.11	26,039	1.15	678	1.90	1,466
Aug.	-0.01	636,259	0.07	51,099	0.92	467	.	.
Sep.	0.03	615,838	0.62	73,349	1.93	494	2.75	1,111
Oct.	0.04	617,742	0.81	99,703	1.34	707	1.89	146
Nov.	0.10	612,760	1.43	90,346	2.66	631	1.94	189
Dec.	0.11	601,728	1.66	65,813	2.94	734	2.42	252
2023 Jan.	0.19	595,205	1.96	89,287	2.92	671	2.41	89
Feb.	0.28	580,954	2.31	100,034	3.09	539	2.17	238
Mar.	0.44	568,777	2.58	89,971	2.95	723	2.62	292
Apr.	0.48	558,564	2.82	79,535	3.14	655	2.83	210
May	0.55	558,693	3.01	81,462	2.86	625	2.64	225

Loans to households											
Loans for consumption 4 with an initial rate fixation of											
Reporting period	Total (including charges)	Total		of which: Renegotiated loans 9		floating rate or up to 1 year 9		over 1 year and up to 5 years		over 5 years	
		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.
2022 May	5.81	5.77	9,788	6.51	1,924	8.04	332	4.56	3,067	6.24	6,390
June	5.99	5.95	9,509	6.79	1,926	8.50	307	4.66	3,054	6.46	6,149
July	6.15	6.12	9,064	6.97	1,771	8.76	314	4.80	2,968	6.65	5,782
Aug.	6.33	6.31	8,927	7.25	1,765	8.79	349	4.92	2,931	6.88	5,647
Sep.	6.43	6.43	8,562	7.37	1,613	8.64	346	4.96	2,922	7.09	5,294
Oct.	6.74	6.75	7,362	7.57	1,339	8.79	366	5.28	2,546	7.43	4,450
Nov.	6.81	6.87	7,913	7.92	1,330	7.51	385	5.37	2,868	7.74	4,659
Dec.	6.62	6.71	7,270	7.69	1,091	7.64	465	5.26	3,083	7.79	3,722
2023 Jan.	7.49	7.54	8,159	8.43	1,607	7.95	406	6.01	2,728	8.34	5,025
Feb.	7.56	7.52	7,505	8.42	1,364	8.96	307	6.13	2,664	8.24	4,534
Mar.	7.74	7.70	8,778	8.62	1,592	8.71	322	6.39	3,150	8.42	5,306
Apr.	8.10	7.99	7,348	8.87	1,351	9.77	278	6.69	2,551	8.62	4,519
May	8.13	8.07	8,269	9.00	1,505	9.98	296	6.79	2,819	8.66	5,154

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 +

Loans to households (cont'd)											
Loans to households for other purposes <sup>5</sup> with an initial rate fixation of											
Reporting period	Total		of which: Renegotiated loans <sup>9</sup>		floating rate or up to 1 year <sup>9</sup>		over 1 year and up to 5 years		over 5 years		
	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	
<b>Loans to households</b>											
2022 May	2.32	4,277	2.03	913	1.84	1,387	2.89	628	2.46	2,262	
June	2.39	5,035	1.96	1,196	1.81	1,990	3.04	717	2.68	2,328	
July	2.62	4,606	1.97	1,195	2.06	1,980	3.24	629	2.97	1,997	
Aug.	2.94	4,474	2.33	777	2.24	1,627	3.48	730	3.30	2,117	
Sep.	2.95	4,255	2.51	1,090	2.60	2,250	3.39	610	3.33	1,395	
Oct.	3.40	3,728	2.68	1,190	3.06	1,805	4.00	541	3.61	1,382	
Nov.	3.78	3,938	3.28	947	3.52	1,808	4.18	746	3.90	1,384	
Dec.	3.90	5,403	3.43	1,210	3.86	3,026	4.24	762	3.80	1,615	
2023 Jan.	4.10	3,906	3.74	1,286	3.98	2,082	4.55	621	4.07	1,203	
Feb.	4.35	3,065	4.03	814	4.36	1,467	4.83	508	4.10	1,090	
Mar.	4.56	4,852	4.29	1,293	4.66	2,388	4.87	761	4.28	1,703	
Apr.	4.64	3,803	4.45	1,210	4.76	1,767	4.92	744	4.31	1,292	
May	4.83	3,400	4.62	997	5.08	1,511	5.10	710	4.37	1,179	
<b>of which: Loans to sole proprietors</b>											
2022 May	2.40	2,886	.	.	2.00	928	2.95	493	2.48	1,465	
June	2.50	3,461	.	.	2.06	1,239	3.13	538	2.62	1,684	
July	2.76	2,994	.	.	2.21	1,252	3.36	474	3.08	1,268	
Aug.	2.94	2,573	.	.	2.38	1,063	3.68	435	3.19	1,075	
Sep.	3.09	2,843	.	.	2.76	1,446	3.53	465	3.37	932	
Oct.	3.44	2,570	.	.	3.05	1,244	4.19	405	3.63	921	
Nov.	3.91	2,684	.	.	3.69	1,175	4.32	563	3.94	946	
Dec.	4.11	3,777	.	.	4.10	2,187	4.51	554	3.89	1,036	
2023 Jan.	4.18	2,830	.	.	4.06	1,489	4.75	465	4.07	876	
Feb.	4.44	2,297	.	.	4.47	1,105	4.94	411	4.15	781	
Mar.	4.69	3,544	.	.	4.75	1,822	5.13	567	4.37	1,155	
Apr.	4.77	2,657	.	.	4.90	1,207	5.01	575	4.44	875	
May	4.98	2,473	.	.	5.28	1,072	5.24	547	4.44	854	

Loans to households (cont'd)													
Housing loans <sup>3</sup> with an initial rate fixation of													
Erhebungszeitraum	Total (including charges)	Total		of which: Renegotiated loans <sup>9</sup>		floating rate or up to 1 year <sup>9</sup>		over 1 year and up to 5 years		over 5 year and up to 10 years		over 10 years	
	Annual percentage rate of charge <sup>10</sup> % p.a.	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million
<b>Total loans</b>													
2022 May	2.29	2.25	27,272	2.20	4,758	2.10	2,491	2.10	1,834	2.12	10,907	2.42	12,041
June	2.62	2.57	22,990	2.46	3,897	2.19	2,461	2.45	1,663	2.46	8,659	2.77	10,208
July	2.85	2.80	21,054	2.48	3,828	2.33	2,814	2.64	1,592	2.73	8,023	3.04	8,626
Aug.	2.89	2.84	18,491	2.57	3,215	2.55	2,488	2.78	1,512	2.74	6,880	3.04	7,610
Sep.	3.08	3.01	16,113	2.81	2,719	2.73	2,186	2.93	1,366	2.96	5,969	3.18	6,593
Oct.	3.31	3.25	14,926	2.79	3,204	2.90	2,522	3.23	1,363	3.19	5,433	3.48	5,607
Nov.	3.67	3.60	13,557	3.32	2,689	3.40	2,330	3.75	1,209	3.51	4,846	3.75	5,172
Dec.	3.60	3.52	13,514	3.17	2,756	3.57	2,620	3.74	1,267	3.41	4,837	3.55	4,790
2023 Jan.	3.73	3.66	12,735	3.47	3,076	3.95	2,244	3.80	1,196	3.45	4,531	3.70	4,764
Feb.	3.85	3.79	12,055	3.73	2,724	4.16	2,097	3.99	1,207	3.60	4,229	3.74	4,522
Mar.	3.95	3.88	15,260	3.76	3,248	4.44	2,459	4.10	1,524	3.64	5,388	3.80	5,889
Apr.	3.98	3.93	12,999	4.06	2,870	4.63	2,109	4.23	1,276	3.70	4,471	3.77	5,144
May	3.99	3.94	13,657	3.92	2,945	4.82	2,148	4.27	1,359	3.66	5,038	3.76	5,112
<b>of which: Collateralised loans <sup>11</sup></b>													
2022 May	.	2.20	12,086	.	.	1.96	839	2.08	856	2.11	5,030	2.34	5,361
June	.	2.49	10,285	.	.	2.08	865	2.37	774	2.41	4,073	2.67	4,573
July	.	2.69	9,711	.	.	2.19	1,031	2.51	802	2.63	3,794	2.91	4,084
Aug.	.	2.74	8,203	.	.	2.36	820	2.63	711	2.68	3,215	2.92	3,457
Sep.	.	2.90	7,168	.	.	2.54	746	2.80	638	2.84	2,725	3.05	3,059
Oct.	.	3.15	6,622	.	.	2.78	916	3.20	661	3.10	2,482	3.31	2,563
Nov.	.	3.47	6,083	.	.	3.22	806	3.62	563	3.42	2,402	3.57	2,312
Dec.	.	3.43	5,975	.	.	3.46	923	3.64	554	3.36	2,213	3.42	2,285
2023 Jan.	.	3.51	5,615	.	.	3.85	813	3.66	584	3.38	2,136	3.47	2,082
Feb.	.	3.64	5,134	.	.	4.04	763	3.84	556	3.49	1,928	3.58	1,887
Mar.	.	3.74	6,734	.	.	4.30	841	4.05	752	3.56	2,520	3.65	2,621
Apr.	.	3.79	5,967	.	.	4.61	824	4.02	601	3.59	2,141	3.62	2,401
May	.	3.82	5,821	.	.	4.68	789	4.14	629	3.59	2,225	3.66	2,178

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 <sup>12</sup> and overdrafts <sup>13</sup> Credit card debt <sup>14</sup>		of which:			Revolving loans <sup>12</sup> and overdrafts <sup>13</sup> Credit card debt <sup>14</sup>		of which:		
			Revolving loans <sup>12</sup> and overdrafts <sup>13</sup>		Extended credit card debt			Revolving loans <sup>12</sup> and overdrafts <sup>13</sup>		
	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>2</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>2</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>2</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>2</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>2</sup> € million
2022 May	6.96	37,636	6.98	28,730	14.89	4,143	2.63	89,402	2.65	88,972
June	7.01	38,876	7.02	30,004	14.84	4,192	2.66	93,301	2.67	92,870
July	7.04	37,549	6.98	28,881	14.80	4,246	2.68	93,897	2.69	93,495
Aug.	7.17	38,113	7.17	29,170	14.94	4,305	2.73	96,714	2.74	96,288
Sep.	7.31	39,138	7.36	30,018	14.97	4,359	3.04	97,298	3.05	96,819
Oct.	7.78	38,898	7.74	30,031	15.66	4,479	3.39	97,186	3.40	96,732
Nov.	8.44	38,580	8.20	27,368	15.61	6,475	3.74	97,850	3.76	97,371
Dec.	8.70	38,597	8.53	27,493	15.55	6,515	3.99	94,611	4.01	94,205
2023 Jan.	9.16	38,116	8.95	27,199	16.34	6,480	4.31	98,205	4.32	97,791
Feb.	9.40	38,538	9.32	27,356	16.60	6,475	4.63	98,285	4.65	97,859
Mar.	9.56	39,280	9.54	28,281	16.58	6,390	5.08	98,123	5.11	97,659
Apr.	9.78	38,352	9.76	27,177	17.13	6,407	5.44	99,534	5.47	99,094
May	9.98	38,906	10.10	27,431	17.19	6,478	5.61	99,175	5.63	98,709

Reporting period	Loans to non-financial corporations (cont'd)															
	Total		of which:		Loans up to €1 million <sup>15</sup> with an initial rate fixation of						Loans over €1 million <sup>15</sup> with an initial rate fixation of					
			Renegotiated loans <sup>9</sup>		floating rate or up to 1 year <sup>9</sup>		over 1 year and up to 5 years		over 5 years		floating rate or up to 1 year <sup>9</sup>		over 1 year and up to 5 years		over 5 years	
	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million	Effective interest rate <sup>1</sup> % p.a.	Volume <sup>7</sup> € million
<b>Total loans</b>																
2022 May	1.49	78,588	1.73	18,948	1.82	9,416	2.82	1,358	2.31	1,703	1.17	53,228	2.65	3,419	2.16	9,464
June	2.19	123,645	1.58	28,803	1.88	10,561	2.97	1,465	2.59	1,483	2.16	94,434	2.35	4,558	2.43	11,144
July	1.89	80,810	1.76	22,550	1.95	10,057	3.12	1,435	2.91	1,400	1.66	53,206	2.43	3,997	2.50	10,715
Aug.	1.97	87,373	1.54	20,380	2.17	9,306	3.36	1,327	2.96	1,241	1.80	64,748	2.47	2,987	2.56	7,764
Sep.	2.67	99,740	2.23	28,861	2.60	10,891	3.85	1,435	3.19	1,075	2.61	75,992	2.99	3,670	2.96	6,677
Oct.	2.86	88,486	2.60	25,332	3.12	10,741	4.26	1,591	3.55	989	2.67	64,795	3.83	3,917	3.34	6,453
Nov.	3.14	76,430	3.14	20,220	3.53	10,542	4.71	1,587	3.80	1,046	2.94	51,493	3.51	3,923	3.33	7,839
Dec.	3.45	107,068	3.42	32,607	3.91	11,995	4.98	1,854	3.81	1,138	3.35	75,616	3.55	6,334	3.25	10,131
2023 Jan.	3.59	81,688	3.66	23,420	4.41	10,450	5.10	1,586	3.88	1,021	3.42	60,491	3.85	2,968	3.24	5,172
Feb.	3.88	85,530	3.83	19,830	4.84	10,275	5.58	1,480	4.06	863	3.70	64,785	4.07	2,789	3.66	5,338
Mar.	4.36	102,182	4.20	29,585	5.18	12,826	5.70	2,212	4.13	1,223	4.24	70,035	4.41	5,308	3.91	10,578
Apr.	4.45	73,584	4.46	23,051	5.24	9,722	5.84	1,572	4.32	999	4.36	51,380	4.18	3,476	3.77	6,435
May	4.65	79,815	4.61	21,589	5.37	11,322	6.13	1,607	4.22	1,060	4.58	55,611	4.43	3,590	3.91	6,625
<b>of which: Collateralised loans <sup>11</sup></b>																
2022 May	2.02	9,121	.	.	1.95	385	2.43	114	2.20	461	1.81	5,246	3.02	726	2.14	2,189
June	1.90	13,721	.	.	1.89	490	2.69	127	2.43	458	1.49	8,720	2.72	1,076	2.72	2,850
July	2.00	11,739	.	.	2.03	487	2.84	102	2.67	398	1.64	7,081	2.99	1,130	2.41	2,541
Aug.	2.20	7,929	.	.	2.25	501	2.97	91	2.74	319	2.02	4,945	2.99	603	2.30	1,470
Sep.	.	.	.	.	2.86	608	3.37	78	3.01	299	.	.	3.16	1,131	2.99	1,712
Oct.	2.82	10,559	.	.	3.01	572	3.48	95	3.32	261	2.71	7,209	3.43	750	2.82	1,672
Nov.	3.50	9,542	.	.	3.45	462	3.93	93	3.49	269	3.56	6,290	3.81	739	3.12	1,689
Dec.	3.41	17,202	.	.	3.72	588	4.08	126	3.41	291	3.41	10,703	4.20	1,417	3.08	4,077
2023 Jan.	3.80	9,477	.	.	4.00	553	3.72	123	3.33	318	3.92	6,635	4.01	652	3.07	1,196
Feb.	3.93	8,371	.	.	4.34	400	4.37	96	3.61	208	4.03	6,148	3.87	514	3.20	1,005
Mar.	4.15	14,364	.	.	4.60	641	4.73	117	3.62	331	4.22	10,350	4.11	1,117	3.64	1,808
Apr.	4.48	10,295	.	.	4.88	452	4.52	120	3.81	269	4.71	6,760	4.81	541	3.69	2,153
May	4.70	11,312	.	.	5.06	456	4.80	108	3.80	268	4.93	7,981	4.37	876	3.77	1,623

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 <sup>1</sup>	Debt securities	Loans <sup>2</sup>	Shares and other equity	Investment fund shares/units	Financial derivatives	Technical reserves <sup>3</sup>	Non-financial assets	Remaining assets
<b>Insurance corporations</b>										
2020 Q3	2,561.3	311.1	476.9	373.8	410.1	819.8	4.4	67.1	39.0	58.9
Q4	2,605.6	301.7	485.5	370.6	425.0	853.2	4.7	68.1	38.2	58.7
2021 Q1	2,592.3	292.4	470.7	361.7	437.4	858.1	3.9	71.9	38.9	57.2
Q2	2,609.9	280.5	470.3	361.2	449.2	879.6	3.4	72.5	38.9	54.2
Q3	2,653.1	271.7	474.2	358.2	463.4	899.8	3.3	87.8	38.3	56.3
Q4	2,667.2	261.3	468.6	355.1	472.4	921.6	3.2	85.0	40.8	59.3
2022 Q1	2,547.3	243.7	440.2	333.2	468.7	870.5	2.7	87.5	41.0	59.8
Q2	2,369.7	215.6	390.3	305.5	462.5	803.5	3.0	85.5	41.3	62.5
Q3	2,296.2	202.0	369.9	289.1	461.2	776.7	4.0	84.2	41.4	67.6
Q4	2,274.7	189.5	373.7	279.7	465.8	772.2	3.4	79.5	38.7	72.2
2023 Q1	2,326.4	201.6	380.7	280.0	472.2	790.4	3.6	85.1	38.5	74.4
<b>Life insurance</b>										
2020 Q3	1,378.1	188.4	243.6	225.7	66.0	599.5	3.0	13.6	20.6	17.6
Q4	1,406.7	183.5	246.4	229.9	70.2	623.8	3.3	14.3	20.8	14.5
2021 Q1	1,372.8	170.4	234.3	219.6	74.3	623.1	2.1	14.2	21.5	13.2
Q2	1,384.9	164.4	234.1	219.4	78.0	637.6	2.0	14.1	21.5	13.8
Q3	1,400.1	159.2	233.8	214.8	87.7	654.6	1.9	13.4	20.8	13.8
Q4	1,411.1	152.4	231.9	211.8	93.4	669.1	1.7	14.6	21.9	14.3
2022 Q1	1,317.7	136.8	211.5	193.1	99.7	626.1	0.9	13.9	22.0	13.8
Q2	1,202.1	120.5	180.3	173.1	104.2	569.4	0.9	13.6	22.1	17.9
Q3	1,149.6	110.2	166.6	162.1	107.0	546.4	1.1	12.3	22.3	21.7
Q4	1,130.1	103.6	170.5	155.6	111.4	540.0	1.1	11.5	19.5	16.8
2023 Q1	1,147.9	105.0	170.4	155.7	113.3	553.5	1.0	12.1	19.4	17.5
<b>Non-life insurance</b>										
2020 Q3	697.6	109.3	139.2	83.3	82.6	206.1	0.4	38.5	12.1	26.3
Q4	709.4	105.9	141.9	84.5	85.1	214.2	0.5	37.5	12.7	27.3
2021 Q1	721.2	108.1	140.2	83.6	88.7	218.9	0.4	40.0	12.8	28.6
Q2	724.6	103.3	141.0	83.4	90.5	225.7	0.4	40.3	12.7	27.2
Q3	733.1	98.7	141.0	83.8	93.7	228.4	0.4	46.4	12.8	27.7
Q4	738.4	94.6	140.1	84.7	97.5	234.3	0.3	44.6	14.0	28.4
2022 Q1	722.4	91.4	133.4	80.8	98.5	227.7	0.2	45.7	13.9	30.7
Q2	681.6	81.9	122.0	74.8	98.6	216.5	0.1	44.0	14.1	29.5
Q3	661.1	76.2	116.0	70.3	99.2	212.2	0.1	43.1	14.1	29.7
Q4	659.0	72.7	115.2	69.1	99.8	215.5	0.2	42.4	14.2	30.1
2023 Q1	686.8	81.3	121.1	69.5	102.5	219.8	0.1	45.1	14.2	33.2
<b>Reinsurance <sup>4</sup></b>										
2020 Q3	485.6	13.5	94.1	64.9	261.4	14.3	1.0	15.0	6.3	15.1
Q4	489.5	12.3	97.2	56.3	269.7	15.2	1.0	16.3	4.7	16.9
2021 Q1	498.4	13.9	96.3	58.5	274.4	16.2	1.4	17.7	4.7	15.3
Q2	500.4	12.8	95.2	58.4	280.7	16.4	1.0	18.1	4.6	13.2
Q3	519.9	13.9	99.3	59.6	282.0	16.7	1.0	28.0	4.7	14.8
Q4	517.7	14.3	96.6	58.6	281.4	18.2	1.1	25.9	4.9	16.7
2022 Q1	507.1	15.5	95.3	59.3	270.4	16.7	1.6	27.9	5.0	15.3
Q2	486.0	13.2	88.0	57.5	259.6	17.6	1.9	27.9	5.1	15.1
Q3	485.5	15.6	87.3	56.7	255.1	18.1	2.7	28.8	5.1	16.2
Q4	485.6	13.2	88.0	55.0	254.6	16.7	2.1	25.7	5.0	25.3
2023 Q1	491.8	15.3	89.3	54.9	256.5	17.1	2.4	27.8	4.8	23.7
<b>Pension funds <sup>5</sup></b>										
2020 Q3	638.5	91.1	59.6	50.2	10.1	394.7	0.2	11.6	18.5	2.5
Q4	662.9	88.9	60.6	49.5	10.3	419.5	0.2	11.9	18.8	3.1
2021 Q1	664.3	86.1	58.7	48.6	10.8	427.9	0.2	12.1	17.6	2.3
Q2	683.2	85.0	60.2	49.3	11.2	445.2	0.1	12.1	17.8	2.3
Q3	689.8	82.9	60.4	48.9	11.8	453.6	0.1	12.2	17.8	2.2
Q4	709.9	82.1	60.0	48.7	11.2	473.5	0.1	12.4	18.5	3.3
2022 Q1	689.0	75.7	56.6	46.2	11.9	465.3	0.0	12.5	18.5	2.2
Q2	664.2	70.2	52.8	43.2	12.3	452.2	0.0	12.4	18.6	2.5
Q3	654.6	67.6	51.8	42.0	12.7	446.0	0.0	13.2	18.7	2.6
Q4	660.9	67.3	53.0	41.8	12.8	450.2	0.0	13.6	18.8	3.4
2023 Q1	664.9	65.7	55.0	41.8	13.2	454.3	0.0	13.5	18.8	2.6

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. <sup>1</sup> Accounts receivable to monetary financial institutions, including registered bonds, borrower's note loans and registered Pfandbriefe. <sup>2</sup> Including deposits retained on assumed reinsurance as well as registered bonds, borrower's note loans and registered Pfandbriefe. <sup>3</sup> Including reinsurance recoverables and claims of

pension funds on pension managers. <sup>4</sup> Not including the reinsurance business conducted by primary insurers, which is included there. <sup>5</sup> The term "pension funds" refers to the institutional sector "pension funds" of the European System of Accounts. Pension funds thus comprise company pension schemes and occupational pension schemes for the self-employed. Social security funds are not included.

## VII. Insurance corporations and pension funds

### 2. Liabilities

€ billion

End of year/quarter	Total	Debt securities issued	Loans <sup>1</sup>	Shares and other equity	Technical reserves			Financial derivatives	Remaining liabilities	Net worth <sup>6</sup>
					Total <sup>2</sup>	Life/pension entitlements <sup>3</sup>	Non-life			
<b>Insurance corporations</b>										
2020 Q3	2,561.3	34.3	80.0	515.8	1,785.6	1,549.2	236.4	1.7	144.0	–
Q4	2,605.6	36.6	79.7	540.4	1,798.9	1,579.2	219.8	1.6	148.5	–
2021 Q1	2,592.3	34.8	81.4	551.7	1,778.6	1,541.3	237.3	2.5	143.4	–
Q2	2,609.9	33.0	81.3	558.7	1,793.5	1,556.3	237.1	2.2	141.1	–
Q3	2,653.1	35.4	82.8	567.0	1,817.7	1,569.1	248.7	2.5	147.6	–
Q4	2,667.2	36.0	81.9	579.3	1,820.7	1,578.3	242.3	2.5	146.8	–
2022 Q1	2,547.3	34.4	82.1	563.1	1,725.9	1,472.6	253.3	4.0	137.7	–
Q2	2,369.7	33.6	78.7	541.6	1,574.4	1,326.8	247.5	6.0	135.3	–
Q3	2,296.2	33.8	73.6	537.4	1,506.0	1,262.3	243.7	7.4	138.0	–
Q4	2,274.7	32.3	70.1	543.7	1,486.5	1,248.7	237.8	5.6	136.5	–
2023 Q1	2,326.4	33.1	71.2	544.5	1,538.9	1,277.1	261.8	4.4	134.3	–
<b>Life insurance</b>										
2020 Q3	1,378.1	3.9	19.5	136.8	1,164.7	1,164.7	–	0.5	52.7	–
Q4	1,406.7	3.9	20.7	142.8	1,185.6	1,185.6	–	0.5	53.2	–
2021 Q1	1,372.8	3.3	19.9	143.1	1,154.3	1,154.3	–	1.0	51.2	–
Q2	1,384.9	3.3	20.4	144.2	1,164.9	1,164.9	–	1.0	51.1	–
Q3	1,400.1	3.3	19.3	148.1	1,176.4	1,176.4	–	1.1	51.9	–
Q4	1,411.1	3.3	20.7	148.2	1,185.5	1,185.5	–	0.9	52.5	–
2022 Q1	1,317.7	3.2	19.9	142.9	1,101.6	1,101.6	–	1.4	48.8	–
Q2	1,202.1	3.1	19.0	141.4	984.5	984.5	–	2.7	51.3	–
Q3	1,149.6	3.0	17.0	138.0	936.9	936.9	–	3.1	51.8	–
Q4	1,130.1	2.7	16.6	136.0	924.9	924.9	–	2.3	47.7	–
2023 Q1	1,147.9	2.8	17.8	133.0	945.8	945.8	–	1.9	46.6	–
<b>Non-life insurance</b>										
2020 Q3	697.6	1.2	9.6	151.9	482.1	362.3	119.8	0.1	52.7	–
Q4	709.4	1.3	9.7	158.0	482.9	368.7	114.2	0.0	57.6	–
2021 Q1	721.2	1.2	10.6	162.7	491.5	362.6	128.9	0.1	55.1	–
Q2	724.6	1.2	10.5	166.2	493.4	366.2	127.1	0.1	53.1	–
Q3	733.1	1.2	10.5	168.9	498.7	367.8	130.9	0.2	53.7	–
Q4	738.4	1.4	10.7	175.8	492.6	367.6	125.0	0.2	57.8	–
2022 Q1	722.4	1.3	11.7	173.1	483.0	347.1	135.9	0.3	53.0	–
Q2	681.6	1.2	11.1	167.6	451.9	322.7	129.2	0.5	49.2	–
Q3	661.1	1.2	10.5	167.9	430.4	307.4	123.0	0.5	50.5	–
Q4	659.0	1.2	10.4	170.2	425.1	306.7	118.4	0.4	51.7	–
2023 Q1	686.8	1.2	10.7	172.8	450.8	314.3	136.5	0.4	50.9	–
<b>Reinsurance <sup>4</sup></b>										
2020 Q3	485.6	29.2	50.9	227.1	138.8	22.1	116.7	1.0	38.6	–
Q4	489.5	31.4	49.3	239.6	130.4	24.8	105.6	1.0	37.7	–
2021 Q1	498.4	30.2	50.9	245.8	132.8	24.4	108.4	1.4	37.2	–
Q2	500.4	28.5	50.4	248.3	135.2	25.2	110.0	1.1	36.9	–
Q3	519.9	30.9	53.0	250.1	142.7	24.9	117.8	1.3	42.0	–
Q4	517.7	31.4	50.5	255.3	142.6	25.3	117.3	1.4	36.5	–
2022 Q1	507.1	30.0	50.4	247.2	141.3	23.9	117.4	2.3	35.9	–
Q2	486.0	29.3	48.6	232.6	138.0	19.6	118.4	2.8	34.7	–
Q3	485.5	29.7	46.2	231.5	138.7	18.0	120.7	3.8	35.7	–
Q4	485.6	28.4	43.1	237.5	136.5	17.1	119.4	2.9	37.1	–
2023 Q1	491.8	29.2	42.8	238.7	142.2	17.0	125.3	2.1	36.8	–
<b>Pension funds <sup>5</sup></b>										
2020 Q3	638.5	–	1.6	27.8	510.5	509.9	–	0.3	9.2	89.0
Q4	662.9	–	1.6	28.4	528.5	527.9	–	0.3	9.0	95.1
2021 Q1	664.3	–	1.7	29.1	530.3	529.2	–	0.3	9.0	94.0
Q2	683.2	–	1.8	31.3	536.7	535.0	–	0.2	9.2	104.0
Q3	689.8	–	1.9	31.9	539.8	537.6	–	0.2	9.3	106.8
Q4	709.9	–	1.9	32.0	560.2	557.3	–	0.1	8.9	106.8
2022 Q1	689.0	–	2.0	26.8	559.0	556.8	–	0.1	11.2	89.9
Q2	664.2	–	1.8	23.4	559.7	558.1	–	0.1	11.6	67.7
Q3	654.6	–	1.9	21.2	561.1	560.2	–	0.1	13.0	57.2
Q4	660.9	–	1.8	24.3	580.8	580.5	–	0.1	11.5	42.5
2023 Q1	664.9	–	1.8	24.7	578.9	578.6	–	0.1	11.4	48.1

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. **1** Including deposits retained on ceded business as well as registered bonds, borrower's 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** Not including the reinsurance business conducted by primary insurers, which is included there. **5** 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. **6** Own funds correspond to the sum of "Net worth" and "Shares and other equity".

## VIII. Capital market

### 1. Sales and purchases of debt securities and shares in Germany

€ million

Period	Debt securities										
	Sales = total pur- chases	Sales					Purchases				
		Domestic debt securities <sup>1</sup>					Residents				
		Total	Bank debt securities	Corporate bonds (non-MFIs) <sup>2</sup>	Public debt secur- ities	Foreign debt secur- ities <sup>3</sup>	Total <sup>4</sup>	Credit in- stitutions including building and loan associations <sup>5</sup>	Deutsche Bundesbank	Other sectors <sup>6</sup>	Non- residents <sup>7</sup>
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	58,735	31,962	47,404	1,330	16,776	90,697	44,384	12,124	11,951	68,459	14,351
2015	15,219	36,010	65,778	26,762	3,006	51,229	99,225	66,330	121,164	44,391	84,006
2016	68,998	27,429	19,177	18,265	10,012	41,569	161,776	58,012	187,500	32,288	92,778
2017	51,034	11,563	1,096	7,112	3,356	39,471	134,192	71,454	161,012	44,634	83,158
2018	78,657	16,630	33,251	12,433	29,055	62,027	107,155	24,417	67,328	64,244	28,499
2019	139,611	68,536	29,254	32,505	6,778	71,075	60,195	8,059	2,408	49,728	79,416
2020	451,409	374,034	14,462	88,703	270,870	77,374	285,318	18,955	226,887	39,476	166,091
2021	233,453	221,648	31,941	19,754	169,953	11,805	255,702	41,852	245,198	52,356	22,249
2022	155,940	156,190	59,322	35,221	61,648	219	155,609	2,915	49,774	102,920	331
2022 May	22,147	23,911	4,066	4,901	14,944	1,763	24,117	5,485	14,400	4,233	1,970
2022 June	16,927	12,731	5,517	1,563	8,777	4,196	8,848	8,471	2,289	2,665	8,079
2022 July	17,525	13,509	7,536	11,041	17,014	4,016	6,403	10,710	13,670	3,443	11,122
2022 Aug.	15,672	22,057	2,780	2,225	17,052	6,385	3,617	10,189	726	7,298	19,289
2022 Sep.	9,558	15,007	32,705	3,897	21,595	5,449	18,638	7,491	3,147	14,294	9,080
2022 Oct.	1,614	3,868	6,143	2,570	4,846	2,254	17,813	4,260	3,619	9,934	19,427
2022 Nov.	45,419	36,891	2,672	5,087	29,133	8,528	13,173	193	4,041	8,940	32,246
2022 Dec.	27,425	31,394	15,450	6,091	9,853	4,001	11,231	18,577	6,015	35,823	38,656
2023 Jan.	58,333	26,856	19,250	4,335	3,270	31,477	41,346	10,522	7,783	23,041	16,987
2023 Feb.	24,581	11,680	5,466	1,673	7,886	12,901	25,280	13,504	4,961	16,736	699
2023 Mar.	59,563	39,989	22,802	1,704	18,892	19,573	18,732	8,063	1,710	12,379	40,831
2023 Apr.	8,074	4,404	1,130	3,176	97	12,477	12,253	747	13,293	26,292	4,179
2023 May	49,683	33,983	28,380	3,191	2,412	15,700	12,698	1,205	1,655	13,148	36,985

€ million

Period	Shares						
	Sales = total purchases	Sales			Purchases		
		Domestic shares <sup>8</sup>		Foreign shares <sup>9</sup>	Residents		
		Total	Bank debt securities	Corporate bonds (non-MFIs) <sup>2</sup>	Total <sup>10</sup>	Credit in- stitutions <sup>5</sup>	Other sectors <sup>11</sup>
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	17,337	11,991	5,346	2,851
2014	43,488	18,778	24,710	43,930	17,203	26,727	443
2015	56,979	7,668	49,311	46,721	5,421	52,142	10,258
2016	39,133	4,409	34,724	39,265	5,143	44,408	132
2017	52,932	15,570	37,362	51,270	7,031	44,239	1,662
2018	61,400	16,188	45,212	89,624	11,184	100,808	28,224
2019	54,830	9,076	45,754	43,070	1,119	44,189	11,759
2020	72,321	17,771	54,550	105,483	27	105,456	33,162
2021	115,746	49,066	66,681	102,927	10,869	92,058	12,819
2022	14,234	27,792	34,858	7,006	8,262	1,256	7,228
2022 May	5,101	1,411	3,690	5,756	1,600	4,156	655
2022 June	25,124	894	26,018	23,703	3,308	20,395	1,421
2022 July	2,745	1,374	4,119	2,030	2,145	115	715
2022 Aug.	1,603	87	1,690	1,049	165	884	2,652
2022 Sep.	986	1,166	2,152	12,004	529	11,475	11,018
2022 Oct.	1,785	154	1,939	4,007	1,588	2,419	2,222
2022 Nov.	5,647	247	5,894	8,903	1,414	10,317	3,256
2022 Dec.	14,926	20,925	1,169	16,366	3,089	19,455	1,440
2023 Jan.	6,525	133	6,393	8,105	2,935	5,170	1,580
2023 Feb.	4,863	2,371	2,492	6,098	4,494	1,604	1,235
2023 Mar.	1,346	1,696	3,042	650	1,985	1,335	1,996
2023 Apr.	5,001	2,576	2,426	6,321	3,235	3,086	1,320
2023 May	776	592	1,368	541	2,497	3,038	1,318

**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	Bank debt securities <sup>1</sup>						Corporate bonds (non-MFIs) <sup>2</sup>	Public debt securities	
	Total	Total	Mortgage Pfandbriefe	Public Pfandbriefe	Debt securities issued by special-purpose credit institutions	Other bank debt securities			
<b>Gross sales</b>									
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 <sup>3</sup>	1,206,483	717,002	29,059	7,621	511,222	169,103	73,371	416,108	
2017 <sup>3</sup>	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 <sup>6</sup>	1,870,084	778,411	39,548	18,327	643,380	77,156	184,206	907,466	
2021	1,658,004	795,271	41,866	17,293	648,996	87,116	139,775	722,958	
2022	1,683,265	861,989	66,811	11,929	700,062	83,188	169,680	651,596	
2022 Sep.	160,306	96,922	10,333	2,847	73,938	9,804	18,913	44,471	
Oct.	172,464	59,445	5,875	1,086	45,698	6,786	11,037	101,982	
Nov.	152,777	70,448	2,969	91	55,905	11,482	20,625	61,705	
Dec.	80,590	49,026	2,329	979	39,181	6,538	11,536	20,028	
2023 Jan.	132,817	74,019	10,797	929	52,888	9,405	14,710	44,088	
Feb.	155,676	81,678	2,245	1,729	63,385	14,319	12,146	61,853	
Mar.	190,528	99,938	1,252	60	89,786	8,840	11,158	79,431	
Apr.	129,401	69,020	2,954	543	60,740	4,783	10,608	49,772	
May	169,625	97,601	4,531	760	83,511	8,800	16,325	55,699	
<b>of which: Debt securities with maturities of more than four years <sup>4</sup></b>									
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 <sup>3</sup>	375,859	173,900	24,741	5,841	78,859	64,460	47,818	154,144	
2017 <sup>3</sup>	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 <sup>6</sup>	658,521	165,097	28,500	7,427	90,839	38,330	77,439	415,985	
2021	486,335	171,799	30,767	6,336	97,816	36,880	64,234	250,303	
2022	485,287	164,864	41,052	7,139	91,143	25,530	56,491	263,932	
2022 Sep.	48,333	19,382	7,086	1,821	7,209	3,267	8,100	20,850	
Oct.	85,086	9,230	3,570	77	4,885	697	2,507	73,350	
Nov.	34,411	7,379	1,895	–	2,006	3,478	9,336	17,696	
Dec.	6,561	2,256	54	4	711	1,488	304	4,000	
2023 Jan.	47,131	21,923	4,927	529	14,197	2,271	3,408	21,800	
Feb.	51,443	14,927	820	310	10,272	3,525	3,065	33,450	
Mar.	46,975	14,091	1,147	–	11,809	1,136	1,658	31,225	
Apr.	33,709	10,326	2,769	500	6,367	690	2,683	20,700	
May	49,184	14,581	2,898	–	9,458	2,225	4,517	30,085	
<b>Net sales <sup>5</sup></b>									
2012	–	85,298	–	4,177	–	3,259	–	6,401	21,298
2013	–	140,017	–	17,364	–	4,027	–	1,394	15,479
2014	–	34,020	–	6,313	–	862	–	10,497	12,383
2015	–	65,147	–	9,271	–	2,758	–	25,300	13,174
2016 <sup>3</sup>	–	21,951	–	2,176	–	12,979	–	18,177	7,020
2017 <sup>3</sup>	–	2,669	–	6,389	–	4,697	–	14,525	6,828
2018	–	2,758	–	19,814	–	6,564	–	5,453	9,738
2019	–	59,719	–	13,098	–	3,728	–	6,885	30,449
2020 <sup>6</sup>	–	473,795	–	8,661	–	8,816	–	11,398	49,536
2021	–	210,231	–	17,821	–	7,471	–	4,314	35,531
2022	–	135,853	–	23,894	–	9,399	–	6,444	30,671
2022 Sep.	–	4,494	–	5,512	–	30	–	4,293	3,795
Oct.	–	44,009	–	8,997	–	1,764	–	1,187	4,111
Nov.	–	37,459	–	2,300	–	944	–	3,488	6,015
Dec.	–	42,448	–	23,318	–	3,697	–	216	1,825
2023 Jan.	–	24,590	–	14,006	–	6,314	–	4,815	3,554
Feb.	–	9,644	–	2,433	–	1,512	–	6,482	2,541
Mar.	–	46,022	–	19,989	–	1,517	–	5,206	1,614
Apr.	–	26,464	–	2,812	–	5	–	976	3,714
May	–	40,636	–	26,542	–	254	–	3,794	2,440

\* For definitions, see the explanatory notes in Statistical Series - Securities Issues Statistics on pages 43 f. <sup>1</sup> Excluding registered bank debt securities. <sup>2</sup> Including cross-border financing within groups from January 2011. <sup>3</sup> Sectoral reclassification of debt securities. <sup>4</sup> Maximum maturity according to the terms of issue. <sup>5</sup> Gross sales less

redemptions. <sup>6</sup> 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	Bank debt securities						Corporate bonds (non-MFIs)	Public debt securities				
	Total	Total	Mortgage Pfandbriefe	Public Pfandbriefe	Debt securities issued by special-purpose credit institutions	Other bank debt securities						
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 <sup>1</sup>	3,068,111		1,164,965	132,775	62,701	633,578		335,910		275,789		1,627,358
2017 <sup>1</sup>	3,090,708		1,170,920	141,273	58,004	651,211		320,432		302,543		1,617,244
2018	3,091,303		1,194,160	161,088	51,439	670,062		311,572		313,527		1,583,616
2019	3,149,373	2	1,222,911	174,188	47,712	696,325		304,686		342,325		1,584,136
2020 <sup>4</sup>	3,545,200	2	1,174,817	183,980	55,959	687,710	2	247,169	2	379,342		1,991,040
2021	3,781,975		1,250,777	202,385	63,496	731,068		253,828		414,791		2,116,406
2022	3,930,390		1,302,028	225,854	54,199	761,047		260,928		441,234		2,187,127
2022 Sep.	3,913,133		1,357,666	228,228	60,631	808,553		260,254		443,512		2,111,954
Oct.	3,954,338		1,345,723	231,901	58,854	796,028		258,940		438,743		2,169,872
Nov.	3,981,275		1,333,432	229,589	57,912	784,494		261,438		444,010		2,203,833
Dec.	3,930,390		1,302,028	225,854	54,199	761,047		260,928		441,234		2,187,127
2023 Jan.	3,948,426		1,313,581	232,105	52,647	763,260		265,568		444,529		2,190,316
Feb.	3,963,852		1,320,844	229,851	54,180	764,148		272,666		442,389		2,200,618
Mar.	4,005,403		1,335,447	227,451	52,890	777,696		277,410		440,399		2,229,557
Apr.	3,977,194		1,330,812	228,764	52,910	772,714		276,424		436,591		2,209,790
May	4,027,812		1,364,541	230,966	53,237	799,626		280,712		439,485		2,223,786

#### Breakdown by remaining period to maturity <sup>3</sup>

	1	2	3	4	5	6	7	8	9	10	11	12
bis unter 2	1 211 982	507 643	60 430	18 582	337 611	91 021	79 956	624 383				
2 bis unter 4	739 263	316 799	65 218	15 600	168 040	67 941	78 197	344 267				
4 bis unter 6	625 032	224 581	54 200	7 219	117 860	45 302	71 061	329 389				
6 bis unter 8	426 273	134 511	25 464	5 076	76 192	27 780	41 440	250 322				
8 bis unter 10	286 062	75 321	12 904	2 521	44 168	15 727	32 264	178 477				
10 bis unter 15	247 295	60 828	8 563	3 870	38 922	9 473	31 486	154 981				
15 bis unter 20	114 664	14 451	3 420	282	8 601	2 148	13 260	86 952				
20 und darüber	377 242	30 406	767	88	8 233	21 319	91 821	255 015				

#### Position at end-April 2023

\* Including debt securities temporarily held in the issuers' portfolios. <sup>1</sup> Sectoral reclassification of debt securities. <sup>2</sup> Adjustments due to the change in the country of residence of the issuers or debt securities. <sup>3</sup> 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. <sup>4</sup> 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 <sup>2</sup>	
			cash payments and exchange of convertible bonds <sup>1</sup>	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			
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 <sup>3 4</sup>	183,461	1,673	2,411	2,419	542	—	858	65	—	2,775	1,950,224
2020 <sup>4</sup>	181,881	2,872	1,877	219	178	—	2,051	460	—	2,635	1,963,588
2021	186,580	4,152	9,561	672	35	—	326	212	—	5,578	2,301,942
2022	199,789	12,272	14,950	224	371	—	29	293	—	2,952	1,858,963
2022 Sep.	186,436	—	36	—	—	—	7	—	—	62	1,635,332
Oct.	186,402	—	36	76	—	—	0	—	—	112	1,777,136
Nov.	186,351	—	57	13	—	—	—	—	—	102	1,918,565
Dec.	199,789	13,437	13,584	—	—	—	—	—	—	147	1,858,963
2023 Jan.	199,778	—	11	16	—	—	—	0	—	27	2,027,004
Feb.	198,334	—	162	149	—	50	—	0	—	37	2,064,749
Mar.	198,157	—	185	178	—	—	—	—	—	363	2,080,189
Apr.	198,426	—	267	431	—	—	0	6	—	157	2,086,578
May	198,497	—	71	153	—	—	0	—	—	82	2,048,166

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

AG. <sup>3</sup> Methodological changes since October 2019. <sup>4</sup> 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	
	Total	Total	Listed Federal securities		Total	With a residual maturity of 9 to 10 years 4	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)
			Total	With a residual maturity of 9 to 10 years 4								
% per annum								Average daily rate	End-1998 = 100	End-1987 = 100	End-1987 = 1,000	
2011	2.6	2.4	2.4	2.6	2.9	3.5	4.3	131.48	109.53	304.60	5,898.35	
2012	1.4	1.3	1.3	1.5	1.6	2.1	3.7	135.11	111.18	380.03	7,612.39	
2013	1.4	1.3	1.3	1.6	1.3	2.1	3.4	132.11	105.92	466.53	9,552.16	
2014	1.0	1.0	1.0	1.2	0.9	1.7	3.0	139.68	114.37	468.39	9,805.55	
2015	0.5	0.4	0.4	0.5	0.5	1.2	2.4	139.52	112.42	508.80	10,743.01	
2016	0.1	0.0	0.0	0.1	0.3	1.0	2.1	142.50	112.72	526.55	11,481.06	
2017	0.3	0.2	0.2	0.3	0.4	0.9	1.7	140.53	109.03	595.45	12,917.64	
2018	0.4	0.3	0.3	0.4	0.6	1.0	2.5	141.84	109.71	474.85	10,558.96	
2019	- 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	- 0.1	- 0.3	- 0.4	- 0.4	- 0.1	0.2	0.9	144.23	108.88	654.20	15,884.86	
2022	1.5	1.2	1.1	1.1	1.9	1.9	3.3	125.74	88.43	525.64	13,923.59	
2022 Nov.	2.6	2.2	2.1	2.1	3.0	2.9	4.4	127.52	92.43	544.52	14,397.04	
2022 Dec.	2.5	2.2	2.1	2.1	3.0	2.9	4.2	125.74	88.43	525.64	13,923.59	
2023 Jan.	2.7	2.3	2.2	2.2	3.1	2.9	4.1	125.97	89.91	581.65	15,128.27	
2023 Feb.	2.8	2.5	2.4	2.4	3.2	3.1	4.1	123.74	87.57	583.92	15,365.14	
2023 Mar.	2.9	2.6	2.4	2.4	3.3	3.2	4.4	125.99	89.48	587.20	15,522.40	
2023 Apr.	2.8	2.5	2.4	2.4	3.3	3.1	4.2	125.78	89.74	598.41	15,922.38	
2023 May	2.8	2.5	2.4	2.3	3.3	3.1	4.2	126.41	90.00	573.96	15,664.02	

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

Period	€ million														
	Sales									Purchases					
	Sales = total purchases	Open-end domestic mutual funds 1 (sales receipts)								Residents					Non-residents 5
		Total	Mutual funds open to the general public				Foreign funds 4	Total	Credit institutions including building and loan associations 2		Other sectors 3				
Total			Money market funds	Securities-based funds	Real estate funds	Specialised funds			Total	of which: Foreign mutual fund shares	Total	of which: Foreign mutual fund shares			
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	137,294	97,711	3,998	- 473	862	1,000	93,713	39,583	141,134	819	- 1,745	140,315	41,328	- 3,841	
2015	189,802	146,136	30,420	318	22,345	3,636	115,716	43,665	181,932	7,362	494	174,570	43,171	7,870	
2016	149,288	119,369	21,301	- 342	11,131	7,384	98,068	29,919	156,236	2,877	- 3,172	153,359	33,091	- 6,948	
2017	148,214	94,921	29,560	- 235	21,970	4,406	65,361	53,292	150,740	4,938	1,048	145,802	52,244	- 2,526	
2018	108,293	103,694	15,279	377	4,166	6,168	88,415	4,599	114,973	2,979	- 2,306	111,994	6,905	- 6,680	
2019	171,666	122,546	17,032	- 447	5,097	10,580	105,514	49,120	176,210	2,719	- 812	173,491	49,932	- 4,544	
2020	151,960	116,028	19,193	- 42	11,343	8,795	96,835	35,932	150,998	336	- 1,656	150,662	37,588	962	
2021	274,261	157,861	41,016	482	31,023	7,841	116,845	116,401	282,694	13,154	254	269,540	116,147	- 8,433	
2022	112,637	79,022	6,057	482	444	5,071	72,991	33,614	115,872	3,170	- 1,459	112,702	35,073	- 3,235	
2022 Nov.	911	- 2,635	612	- 2	400	190	- 3,247	3,546	1,581	499	22	1,082	3,524	- 671	
2022 Dec.	24,523	11,942	431	108	- 17	322	11,513	12,581	23,320	1,885	- 534	21,435	13,115	1,203	
2023 Jan.	14,093	8,014	2,506	- 218	2,185	557	5,508	6,079	13,890	- 4,078	- 672	17,968	6,751	203	
2023 Feb.	13,837	10,533	2,090	- 167	2,077	137	8,444	3,304	12,862	- 426	- 507	13,288	3,811	975	
2023 Mar.	3,720	2,204	1,226	300	814	164	984	1,516	3,966	- 1,018	- 416	4,984	1,932	- 246	
2023 Apr.	3,367	1,130	297	146	- 61	235	833	2,237	3,340	- 247	96	3,587	2,141	28	
2023 May	8,301	6,261	1,228	- 144	1,301	21	5,035	2,040	8,042	- 49	42	8,091	1,998	259	

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	2020	2021	2022	2021		2022				
				Q3	Q4	Q1	Q2	Q3	Q4	
<b>Acquisition of financial assets</b>										
Currency and deposits	96.82	46.19	67.90	21.38	26.03	13.90	- 26.90	51.95	28.96	
Debt securities	2.99	3.11	4.12	1.58	1.16	0.64	- 0.10	3.52	0.05	
Short-term debt securities	1.27	2.27	1.23	0.26	1.12	0.39	- 1.94	3.00	- 0.22	
Long-term debt securities	1.72	0.85	2.89	1.32	0.05	0.25	- 1.84	0.53	0.27	
Memo item:										
Debt securities of domestic sectors	1.38	1.34	3.40	1.75	- 0.64	0.34	- 0.98	1.65	0.43	
Non-financial corporations	- 0.17	0.74	0.87	0.59	- 0.57	0.17	- 0.17	0.74	0.14	
Financial corporations	0.12	1.08	1.78	0.58	0.56	0.44	0.73	0.66	- 0.05	
General government	1.44	- 0.48	0.74	0.58	- 0.63	- 0.27	0.43	0.25	0.34	
Debt securities of the rest of the world	1.61	1.78	0.72	- 0.17	1.80	0.31	- 1.08	1.88	- 0.38	
Loans	- 7.35	63.01	44.18	20.25	35.29	4.29	16.30	31.37	- 7.78	
Short-term loans	- 4.27	44.68	27.96	19.16	18.60	2.69	12.28	27.97	- 14.97	
Long-term loans	- 3.09	18.34	16.22	1.09	16.69	1.60	4.02	3.40	7.19	
Memo item:										
Loans to domestic sectors	- 0.12	10.10	22.99	0.18	16.16	8.25	2.92	14.54	- 2.72	
Non-financial corporations	- 12.27	7.11	23.94	- 1.21	13.38	2.44	5.52	8.47	7.51	
Financial corporations	11.58	2.38	- 1.29	1.24	2.63	5.73	- 2.68	5.98	- 10.31	
General government	0.57	0.61	0.34	0.15	0.15	0.08	0.08	0.08	0.08	
Loans to the rest of the world	- 7.23	52.92	21.18	20.07	19.13	- 3.96	13.38	16.83	- 5.07	
Equity and investment fund shares	101.62	163.24	123.73	30.13	44.16	42.09	50.04	4.53	27.07	
Equity	88.85	141.46	123.84	27.39	35.87	39.91	51.89	6.81	25.22	
Listed shares of domestic sectors	- 77.97	15.33	44.06	- 18.27	16.59	6.03	7.40	34.33	- 3.70	
Non-financial corporations	- 78.06	16.89	43.77	- 18.80	18.30	5.58	7.12	34.91	- 3.84	
Financial corporations	0.09	- 1.56	0.29	0.54	- 1.70	0.46	0.28	- 0.58	0.13	
Listed shares of the rest of the world	5.01	5.11	5.53	4.64	0.70	- 0.26	3.16	0.08	2.55	
Other equity <sup>1</sup>	161.80	121.03	74.25	41.02	18.58	34.13	41.33	- 27.60	26.38	
Investment fund shares	12.77	21.78	- 0.11	2.74	8.29	2.17	- 1.85	- 2.28	1.85	
Money market fund shares	3.79	0.66	- 0.38	- 0.41	1.73	- 1.22	- 0.42	- 1.12	2.37	
Non-MMF investment fund shares	8.99	21.12	0.27	3.15	6.56	3.39	- 1.44	- 1.16	- 0.53	
Insurance technical reserves	0.37	18.01	2.72	4.40	4.47	5.32	- 0.90	- 0.68	- 1.03	
Financial derivatives	- 27.54	15.54	33.92	0.43	- 1.09	21.29	28.29	11.90	- 27.56	
Other accounts receivable	59.30	71.37	28.93	11.71	53.23	- 9.79	- 33.89	- 52.36	124.97	
<b>Total</b>	<b>226.22</b>	<b>380.47</b>	<b>305.50</b>	<b>89.88</b>	<b>163.26</b>	<b>77.75</b>	<b>32.83</b>	<b>50.23</b>	<b>144.68</b>	
<b>External financing</b>										
Debt securities	36.89	20.86	14.13	10.29	- 1.12	10.95	3.77	1.37	- 1.96	
Short-term securities	- 4.40	2.51	- 0.36	3.50	- 1.02	3.85	1.21	- 2.73	- 2.69	
Long-term securities	41.29	18.35	14.49	6.79	- 0.10	7.10	2.56	4.10	0.72	
Memo item:										
Debt securities of domestic sectors	18.12	9.16	5.92	2.14	1.78	5.65	1.64	0.20	- 1.57	
Non-financial corporations	- 0.17	0.74	0.87	0.59	- 0.57	0.17	- 0.17	0.74	0.14	
Financial corporations	19.86	9.11	4.52	1.78	2.61	5.35	1.87	- 0.74	- 1.96	
General government	- 0.22	0.09	- 0.07	0.02	- 0.10	- 0.01	- 0.08	0.01	0.01	
Households	- 1.35	- 0.79	0.59	- 0.26	- 0.15	0.14	0.01	0.19	0.25	
Debt securities of the rest of the world	18.83	11.73	8.28	8.15	- 2.87	5.31	2.15	1.18	- 0.35	
Loans	97.05	136.81	180.68	33.14	71.41	34.17	41.22	66.97	38.32	
Short-term loans	- 2.80	81.44	105.49	23.97	29.93	29.25	21.81	46.53	7.90	
Long-term loans	99.85	55.37	75.19	9.17	41.48	4.92	19.41	20.44	30.42	
Memo item:										
Loans from domestic sectors	38.70	78.60	157.12	11.71	40.62	37.30	36.34	59.24	24.24	
Non-financial corporations	- 12.27	7.11	23.94	- 1.21	13.38	2.44	5.52	8.47	7.51	
Financial corporations	15.29	57.70	117.87	9.79	24.28	33.34	28.05	36.48	20.01	
General government	35.68	13.79	15.31	3.13	2.96	1.52	2.78	14.29	- 3.28	
Loans from the rest of the world	58.34	58.21	23.55	21.43	30.79	- 3.14	4.87	7.73	14.08	
Equity	60.37	61.44	17.34	17.93	20.38	3.11	8.64	3.50	2.08	
Listed shares of domestic sectors	- 62.25	26.38	57.11	- 21.41	24.50	12.93	10.15	33.33	0.70	
Non-financial corporations	- 78.06	16.89	43.77	- 18.80	18.30	5.58	7.12	34.91	- 3.84	
Financial corporations	3.46	- 2.39	2.29	- 3.25	- 0.67	5.17	- 1.43	- 4.47	3.01	
General government	0.26	- 0.09	0.76	- 0.00	0.04	0.18	0.24	0.25	0.10	
Households	12.08	11.96	10.24	0.63	6.84	1.98	4.21	2.63	1.43	
Listed shares of the rest of the world	10.09	18.94	- 7.67	31.69	- 6.62	- 12.77	- 2.46	8.05	- 0.50	
Other equity <sup>1</sup>	112.54	16.11	- 32.10	7.65	2.50	2.95	0.95	- 37.89	1.88	
Insurance technical reserves	5.83	4.25	4.25	1.06	1.06	1.06	1.06	1.06	1.06	
Financial derivatives and employee stock options	0.54	14.32	- 10.64	3.93	0.93	- 2.28	- 0.27	3.37	- 11.45	
Other accounts payable	22.28	136.29	70.37	27.37	49.28	15.54	13.55	22.06	19.21	
<b>Total</b>	<b>222.96</b>	<b>373.98</b>	<b>276.12</b>	<b>93.72</b>	<b>141.95</b>	<b>62.55</b>	<b>67.97</b>	<b>98.33</b>	<b>47.27</b>	

<sup>1</sup> Including unlisted shares.

## IX. Financial accounts

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

End of year/quarter; € billion

Item	2020	2021	2022	2021		2022			
				Q3	Q4	Q1	Q2	Q3	Q4
<b>Financial assets</b>									
Currency and deposits	717.4	727.5	795.3	710.3	727.5	731.7	698.7	767.4	795.3
Debt securities	51.5	54.3	53.8	53.3	54.3	53.4	51.3	53.7	53.8
Short-term debt securities	4.8	7.1	8.4	6.0	7.1	7.5	5.6	8.6	8.4
Long-term debt securities	46.7	47.2	45.5	47.3	47.2	45.9	45.7	45.1	45.5
Memo item:									
Debt securities of domestic sectors	22.1	23.3	24.7	24.0	23.3	23.0	23.0	24.1	24.7
Non-financial corporations	4.7	5.3	5.8	5.9	5.3	5.2	4.9	5.5	5.8
Financial corporations	13.4	14.5	15.0	14.0	14.5	14.6	14.7	14.9	15.0
General government	4.0	3.5	3.9	4.1	3.5	3.2	3.5	3.6	3.9
Debt securities of the rest of the world	29.4	31.0	29.2	29.3	31.0	30.4	28.2	29.7	29.2
Loans	725.1	780.5	827.2	744.4	780.5	785.9	806.5	840.9	827.2
Short-term loans	571.1	611.2	640.8	592.4	611.2	614.9	629.8	660.0	640.8
Long-term loans	154.0	169.2	186.3	152.0	169.2	171.0	176.7	180.9	186.3
Memo item:									
Loans to domestic sectors	412.5	422.6	445.5	406.4	422.6	430.8	433.7	448.3	445.5
Non-financial corporations	327.6	334.7	358.7	321.3	334.7	337.2	342.7	351.1	358.7
Financial corporations	76.9	79.3	78.0	76.7	79.3	85.0	82.4	88.3	78.0
General government	7.9	8.5	8.9	8.4	8.5	8.6	8.7	8.8	8.9
Loans to the rest of the world	312.7	357.9	381.6	338.0	357.9	355.1	372.7	392.6	381.6
Equity and investment fund shares	2,572.0	2,920.7	2,720.9	2,894.5	2,920.7	2,844.7	2,785.3	2,756.7	2,720.9
Equity	2,367.2	2,680.6	2,506.0	2,667.0	2,680.6	2,612.4	2,567.8	2,544.8	2,506.0
Listed shares of domestic sectors	307.0	393.0	331.8	371.5	393.0	350.1	305.0	307.5	331.8
Non-financial corporations	298.9	384.9	324.4	361.7	384.9	342.4	298.2	301.7	324.4
Financial corporations	8.1	8.0	7.4	9.8	8.0	7.7	6.8	5.7	7.4
Listed shares of the rest of the world	66.6	71.5	69.7	71.0	71.5	67.0	66.8	65.4	69.7
Other equity <sup>1</sup>	1,993.6	2,216.1	2,104.5	2,224.5	2,216.1	2,195.3	2,196.0	2,172.0	2,104.5
Investment fund shares	204.7	240.2	214.9	227.5	240.2	232.3	217.5	211.9	214.9
Money market fund shares	7.0	7.6	7.2	5.9	7.6	6.4	6.0	4.9	7.2
Non-MMF investment fund shares	197.7	232.6	207.7	221.6	232.6	225.9	211.5	207.0	207.7
Insurance technical reserves	62.1	64.8	42.2	64.1	64.8	48.1	45.8	43.7	42.2
Financial derivatives	30.9	106.0	92.4	106.6	106.0	147.8	164.4	199.0	92.4
Other accounts receivable	1,243.9	1,456.5	1,524.8	1,395.3	1,456.5	1,490.3	1,514.3	1,524.9	1,524.8
<b>Total</b>	<b>5,403.0</b>	<b>6,110.3</b>	<b>6,056.6</b>	<b>5,968.6</b>	<b>6,110.3</b>	<b>6,101.9</b>	<b>6,066.3</b>	<b>6,186.3</b>	<b>6,056.6</b>
<b>Liabilities</b>									
Debt securities	238.3	252.3	228.6	256.1	252.3	245.3	229.7	226.7	228.6
Short-term securities	7.1	9.6	9.3	10.6	9.6	13.4	14.7	12.0	9.3
Long-term securities	231.2	242.7	219.4	245.5	242.7	231.8	215.1	214.7	219.4
Memo item:									
Debt securities of domestic sectors	96.0	100.6	91.0	99.7	100.6	98.6	92.6	90.4	91.0
Non-financial corporations	4.7	5.3	5.8	5.9	5.3	5.2	4.9	5.5	5.8
Financial corporations	78.1	83.2	73.6	81.2	83.2	81.8	76.8	73.9	73.6
General government	0.4	0.4	0.3	0.5	0.4	0.4	0.3	0.3	0.3
Households	12.8	11.8	11.3	12.1	11.8	11.2	10.6	10.7	11.3
Debt securities of the rest of the world	142.3	151.7	137.7	156.4	151.7	146.7	137.1	136.2	137.7
Loans	2,270.6	2,403.7	2,588.1	2,331.7	2,403.7	2,440.0	2,485.6	2,559.6	2,588.1
Short-term loans	830.0	903.1	1,011.3	872.4	903.1	933.5	959.1	1,010.1	1,011.3
Long-term loans	1,440.5	1,500.6	1,576.8	1,459.4	1,500.6	1,506.5	1,526.5	1,549.5	1,576.8
Memo item:									
Loans from domestic sectors	1,391.8	1,470.8	1,628.0	1,431.9	1,470.8	1,508.8	1,542.7	1,603.2	1,628.0
Non-financial corporations	327.6	334.7	358.7	321.3	334.7	337.2	342.7	351.1	358.7
Financial corporations	962.2	1,020.5	1,138.7	998.0	1,020.5	1,054.9	1,080.5	1,118.3	1,138.7
General government	102.0	115.5	130.6	112.5	115.5	116.8	119.5	133.8	130.6
Loans from the rest of the world	878.8	932.9	960.2	899.9	932.9	931.1	942.9	956.4	960.2
Equity	3,260.9	3,689.0	2,988.1	3,645.9	3,689.0	3,391.9	2,994.2	2,843.1	2,988.1
Listed shares of domestic sectors	739.9	924.8	760.6	882.4	924.8	840.1	733.4	691.5	760.6
Non-financial corporations	298.9	384.9	324.4	361.7	384.9	342.4	298.2	301.7	324.4
Financial corporations	171.9	210.2	151.2	196.9	210.2	194.3	161.9	138.2	151.2
General government	56.3	69.9	69.2	70.6	69.9	70.0	70.7	61.4	69.2
Households	212.8	259.7	215.7	253.2	259.7	233.3	202.6	190.2	215.7
Listed shares of the rest of the world	995.6	1,126.3	823.9	1,119.2	1,126.3	984.0	795.8	731.9	823.9
Other equity <sup>1</sup>	1,525.5	1,637.9	1,403.6	1,644.2	1,637.9	1,567.9	1,465.0	1,419.7	1,403.6
Insurance technical reserves	283.1	287.4	291.6	286.3	287.4	288.4	289.5	290.6	291.6
Financial derivatives and employee stock options	83.4	137.9	63.1	134.9	137.9	143.5	137.1	161.0	63.1
Other accounts payable	1,275.8	1,525.4	1,620.2	1,446.1	1,525.4	1,546.3	1,565.3	1,649.7	1,620.2
<b>Total</b>	<b>7,412.2</b>	<b>8,295.8</b>	<b>7,779.8</b>	<b>8,101.2</b>	<b>8,295.8</b>	<b>8,055.4</b>	<b>7,701.3</b>	<b>7,730.7</b>	<b>7,779.8</b>

<sup>1</sup> Including unlisted shares.



## IX. Financial accounts

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

€ billion

Item	2020	2021	2022	2021		2022			
				Q3	Q4	Q1	Q2	Q3	Q4
<b>Acquisition of financial assets</b>									
Currency and deposits	213.31	146.16	106.06	12.03	32.62	10.65	27.21	32.96	35.24
Currency	61.94	60.55	44.57	15.06	16.24	13.55	11.39	13.58	6.05
Deposits	151.36	85.61	61.48	- 3.04	16.38	- 2.90	15.81	19.37	29.20
Transferable deposits	165.34	90.84	47.63	2.69	16.35	- 0.99	23.73	20.48	4.41
Time deposits	1.29	- 5.09	29.80	- 3.92	- 0.17	- 0.16	- 4.31	6.22	27.73
Savings deposits (including savings certificates)	- 15.26	- 0.13	- 15.94	- 1.81	0.20	- 2.07	- 3.61	- 7.32	- 2.95
Debt securities	- 5.94	- 5.89	25.07	- 1.32	- 0.62	2.81	4.85	5.36	12.06
Short-term debt securities	0.08	0.31	1.98	- 0.10	0.03	- 0.02	0.05	0.17	1.77
Long-term debt securities	- 6.02	- 6.20	23.09	- 1.22	- 0.64	2.83	4.80	5.18	10.28
Memo item:									
Debt securities of domestic sectors	- 2.56	- 3.70	20.30	- 0.99	- 0.39	2.26	3.77	3.76	10.52
Non-financial corporations	- 1.32	- 0.83	0.49	- 0.25	- 0.16	0.08	- 0.02	0.21	0.23
Financial corporations	- 1.26	- 2.57	17.47	- 0.66	- 0.23	2.34	3.18	2.94	9.01
General government	0.02	- 0.30	2.35	- 0.08	0.00	- 0.16	0.61	0.61	1.29
Debt securities of the rest of the world	- 3.38	- 2.19	4.67	- 0.32	- 0.23	0.55	1.08	1.60	1.44
Equity and investment fund shares	90.18	136.54	77.42	34.68	42.10	30.54	22.26	9.12	15.50
Equity	48.53	31.76	26.97	7.57	14.30	7.82	10.01	3.98	5.16
Listed shares of domestic sectors	16.05	14.21	12.31	2.34	6.29	2.70	5.55	3.36	0.71
Non-financial corporations	11.92	12.64	9.91	1.82	6.12	1.97	3.90	2.68	1.36
Financial corporations	4.14	1.58	2.40	0.52	0.17	0.74	1.64	0.67	- 0.66
Listed shares of the rest of the world	23.29	10.87	8.68	3.77	5.26	3.47	2.46	- 0.45	3.20
Other equity <sup>1</sup>	9.19	6.68	5.97	1.46	2.76	1.64	2.01	1.07	1.26
Investment fund shares	41.65	104.79	50.45	27.11	27.80	22.72	12.25	5.14	10.34
Money market fund shares	0.09	0.18	0.82	- 0.01	0.18	- 0.02	0.28	0.12	0.44
Non-MMF investment fund shares	41.56	104.61	49.63	27.12	27.62	22.74	11.97	5.02	9.90
Non-life insurance technical reserves and provision for calls under standardised guarantees	18.34	20.31	3.40	3.73	5.60	5.60	- 0.84	- 0.55	- 0.81
Life insurance and annuity entitlements	47.71	51.63	32.72	13.23	11.00	6.52	5.87	12.28	8.03
Pension entitlement, claims of pension funds on pension managers, entitlements to non-pension benefits	33.70	27.36	53.67	7.54	10.57	15.29	14.45	10.52	13.42
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 <sup>2</sup>	- 10.48	- 0.85	- 9.65	5.07	- 24.87	13.62	- 3.18	- 4.42	- 15.67
<b>Total</b>	<b>386.82</b>	<b>375.26</b>	<b>288.68</b>	<b>74.96</b>	<b>76.41</b>	<b>85.03</b>	<b>70.61</b>	<b>65.26</b>	<b>67.78</b>
<b>External financing</b>									
Loans	83.92	98.63	84.92	30.68	23.70	20.34	28.10	25.95	10.53
Short-term loans	- 5.61	0.86	2.60	1.21	- 1.61	0.66	1.09	0.74	0.11
Long-term loans	89.52	97.77	82.33	29.46	25.31	19.67	27.01	25.22	10.43
Memo item:									
Mortgage loans	85.69	100.35	80.94	29.34	25.77	19.20	26.81	23.37	11.56
Consumer loans	- 4.29	- 0.89	4.60	2.38	- 2.04	0.23	0.91	2.59	0.87
Entrepreneurial loans	2.51	- 0.83	- 0.61	- 1.04	- 0.04	0.91	0.39	- 0.01	- 1.90
Memo item:									
Loans from monetary financial institutions	83.17	94.32	82.56	28.38	23.91	20.70	27.94	24.46	9.45
Loans from financial corporations other than MFIs	0.78	3.85	1.11	2.38	- 0.78	- 0.33	- 0.02	1.41	0.05
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	0.01	0.90	3.92	0.25	0.63	- 0.94	0.68	1.10	3.08
<b>Total</b>	<b>83.93</b>	<b>99.53</b>	<b>88.84</b>	<b>30.93</b>	<b>24.32</b>	<b>19.40</b>	<b>28.78</b>	<b>27.05</b>	<b>13.61</b>

<sup>1</sup> Including unlisted shares. <sup>2</sup> 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	2020	2021	2022	2021		2022			
				Q3	Q4	Q1	Q2	Q3	Q4
<b>Financial assets</b>									
Currency and deposits	2,860.4	3,005.5	3,113.7	2,973.2	3,005.5	3,017.2	3,047.2	3,083.7	3,113.7
Currency	324.5	385.1	429.6	368.8	385.1	398.6	410.0	423.6	429.6
Deposits	2,535.8	2,620.5	2,684.1	2,604.4	2,620.5	2,618.6	2,637.2	2,660.1	2,684.1
Transferable deposits	1,674.1	1,764.4	1,811.7	1,748.1	1,764.4	1,763.5	1,786.7	1,807.3	1,811.7
Time deposits	302.8	297.3	330.1	297.8	297.3	298.5	297.9	307.6	330.1
Savings deposits (including savings certificates)	558.9	558.8	542.3	558.6	558.8	556.7	552.6	545.3	542.3
Debt securities	113.3	109.6	125.1	110.1	109.6	109.5	107.8	110.4	125.1
Short-term debt securities	1.6	1.8	3.9	1.8	1.8	1.7	1.7	1.9	3.9
Long-term debt securities	111.7	107.8	121.2	108.3	107.8	107.7	106.1	108.5	121.2
Memo item:									
Debt securities of domestic sectors	76.7	75.3	88.4	75.3	75.3	75.2	74.7	76.1	88.4
Non-financial corporations	10.9	9.8	9.5	10.2	9.8	9.4	8.9	8.9	9.5
Financial corporations	63.3	63.2	74.6	62.9	63.2	63.8	63.3	64.2	74.6
General government	2.6	2.2	4.2	2.2	2.2	2.0	2.5	3.0	4.2
Debt securities of the rest of the world	36.6	34.3	36.7	34.8	34.3	34.3	33.1	34.3	36.7
Equity and investment fund shares	1,536.4	1,900.5	1,726.9	1,787.9	1,900.5	1,841.4	1,694.5	1,661.2	1,726.9
Equity	801.8	968.0	875.0	917.4	968.0	927.8	845.3	828.2	875.0
Listed shares of domestic sectors	243.3	296.0	255.8	287.1	296.0	271.0	236.1	223.2	255.9
Non-financial corporations	204.0	250.4	208.0	244.3	250.4	224.7	195.1	183.3	208.0
Financial corporations	39.2	45.6	47.9	42.7	45.6	46.3	41.0	39.9	47.9
Listed shares of the rest of the world	180.6	249.3	213.8	223.3	249.3	241.1	210.7	210.2	213.8
Other equity <sup>1</sup>	378.0	422.7	405.3	407.1	422.7	415.7	398.5	394.8	405.3
Investment fund shares	734.6	932.5	851.9	870.5	932.5	913.6	849.3	833.0	851.9
Money market fund shares	2.3	2.5	3.3	2.3	2.5	2.5	2.8	2.9	3.3
Non-MMF investment fund shares	732.2	930.0	848.6	868.2	930.0	911.1	846.5	830.1	848.6
Non-life insurance technical reserves and provision for calls under standardised guarantees	412.2	432.5	45.2	426.9	432.5	51.3	48.9	46.8	45.2
Life insurance and annuity entitlements	1,112.1	1,162.2	1,094.8	1,151.6	1,162.2	1,278.4	1,157.0	1,103.2	1,094.8
Pension entitlement, claims of pension funds on pension managers, entitlements to non-pension benefits	956.8	986.2	1,120.1	973.6	986.2	1,124.0	1,114.8	1,110.6	1,120.1
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 <sup>2</sup>	27.9	27.5	27.8	28.5	27.5	25.8	27.5	27.3	27.8
<b>Total</b>	<b>7,019.0</b>	<b>7,624.0</b>	<b>7,253.7</b>	<b>7,451.8</b>	<b>7,624.0</b>	<b>7,447.5</b>	<b>7,197.8</b>	<b>7,143.2</b>	<b>7,253.7</b>
<b>Liabilities</b>									
Loans	1,923.8	2,024.4	2,112.2	2,000.5	2,024.4	2,045.5	2,074.7	2,103.0	2,112.2
Short-term loans	53.2	53.0	55.5	55.6	53.0	53.7	54.8	55.8	55.5
Long-term loans	1,870.6	1,971.4	2,056.6	1,944.9	1,971.4	1,991.8	2,020.0	2,047.2	2,056.6
Memo item:									
Mortgage loans	1,447.5	1,549.4	1,632.7	1,523.0	1,549.4	1,569.5	1,597.9	1,621.5	1,632.7
Consumer loans	226.1	224.5	228.9	226.7	224.5	224.9	225.5	228.1	228.9
Entrepreneurial loans	250.2	250.5	250.6	250.8	250.5	251.1	251.3	253.4	250.6
Memo item:									
Loans from monetary financial institutions	1,824.6	1,920.3	2,004.0	1,896.1	1,920.3	1,941.0	1,968.8	1,995.3	2,004.0
Loans from financial corporations other than MFIs	99.1	104.1	108.2	104.4	104.1	104.5	106.0	107.6	108.2
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	19.5	20.3	24.3	19.7	20.3	19.4	20.1	21.2	24.3
<b>Total</b>	<b>1,943.3</b>	<b>2,044.7</b>	<b>2,136.5</b>	<b>2,020.2</b>	<b>2,044.7</b>	<b>2,064.9</b>	<b>2,094.9</b>	<b>2,124.2</b>	<b>2,136.5</b>

<sup>1</sup> Including unlisted shares. <sup>2</sup> 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	€ billion					As a percentage of GDP					Deficit/surplus	Memo item: Total tax burden <sup>1</sup>
	General government	Central government	State government	Local government	Social security funds	General government	Central government	State government	Local government	Social security funds		
<b>Deficit/surplus <sup>1</sup></b>												
2016	+ 36.4	+ 13.7	+ 7.7	+ 6.3	+ 8.7	+ 1.2	+ 0.4	+ 0.2	+ 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	+ 0.3	
2018	+ 65.6	+ 21.0	+ 12.0	+ 16.7	+ 16.0	+ 1.9	+ 0.6	+ 0.4	+ 0.5	+ 0.5	+ 0.5	
2019 p	+ 53.2	+ 21.4	+ 14.0	+ 8.6	+ 9.2	+ 1.5	+ 0.6	+ 0.4	+ 0.2	+ 0.3	+ 0.3	
2020 p	- 147.6	- 87.4	- 30.9	+ 5.5	- 34.8	- 4.3	- 2.6	- 0.9	+ 0.2	- 1.0	- 1.0	
2021 p	- 134.3	- 145.9	+ 2.8	+ 4.6	+ 4.3	- 3.7	- 4.1	+ 0.1	+ 0.1	+ 0.1	+ 0.1	
2022 pe	- 106.0	- 132.7	+ 14.4	+ 3.9	+ 8.4	- 2.7	- 3.4	+ 0.4	+ 0.1	+ 0.2	+ 0.2	
2021 H1 p	- 75.6	- 60.7	- 4.0	+ 1.5	- 12.4	- 4.3	- 3.5	- 0.2	+ 0.1	- 0.7	- 0.7	
H2 p	- 58.6	- 85.2	+ 6.8	+ 3.1	+ 16.7	- 3.1	- 4.6	+ 0.4	+ 0.2	+ 0.9	+ 0.9	
2022 H1 pe	- 6.5	- 37.5	+ 17.7	+ 5.8	+ 7.5	- 0.3	- 2.0	+ 0.9	+ 0.3	+ 0.4	+ 0.4	
H2 pe	- 99.6	- 95.3	- 3.4	- 1.8	+ 0.9	- 5.0	- 4.8	- 0.2	- 0.1	+ 0.0	+ 0.0	
<b>Debt level <sup>2</sup></b>												
2016	2,161.6	1,365.6	642.3	166.2	1.2	69.0	43.6	20.5	5.3	0.0	0.0	
2017	2,130.5	1,361.7	616.8	168.3	0.8	65.2	41.7	18.9	5.2	0.0	0.0	
2018	2,083.4	1,334.7	603.1	161.7	0.7	61.9	39.7	17.9	4.8	0.0	0.0	
2019 p	2,068.8	1,312.7	612.6	160.3	0.7	59.6	37.8	17.6	4.6	0.0	0.0	
2020 p	2,339.9	1,527.1	664.3	162.0	7.5	68.7	44.8	19.5	4.8	0.2	0.2	
2021 p	2,494.6	1,679.8	665.1	164.1	0.4	69.3	46.6	18.5	4.6	0.0	0.0	
2022 p	2,563.1	1,776.9	636.6	171.2	2.2	66.2	45.9	16.4	4.4	0.1	0.1	
2021 Q1 p	2,368.9	1,552.6	667.5	162.0	16.2	69.7	45.7	19.6	4.8	0.5	0.5	
Q2 p	2,418.8	1,602.7	667.8	163.2	21.2	69.3	45.9	19.1	4.7	0.6	0.6	
Q3 p	2,452.5	1,630.6	673.1	162.6	24.3	69.2	46.0	19.0	4.6	0.7	0.7	
Q4 p	2,494.6	1,679.8	665.1	164.1	0.4	69.3	46.6	18.5	4.6	0.0	0.0	
2022 Q1 p	2,498.8	1,684.9	664.0	163.7	3.1	67.9	45.8	18.0	4.4	0.1	0.1	
Q2 p	2,536.6	1,724.1	660.2	165.8	3.3	67.6	45.9	17.6	4.4	0.1	0.1	
Q3 p	2,551.5	1,757.8	644.9	165.6	3.7	67.0	46.2	16.9	4.3	0.1	0.1	
Q4 p	2,563.1	1,776.9	636.6	171.2	2.2	66.2	45.9	16.4	4.4	0.1	0.1	
2023 Q1 p	2,589.0	1,799.7	633.2	173.4	3.0	65.9	45.8	16.1	4.4	0.1	0.1	

Sources: Federal Statistical Office and Bundesbank calculations. <sup>1</sup> The deficit/surplus in accordance with ESA 2010 corresponds to the Maastricht definition. <sup>2</sup> 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 <sup>1</sup>
	Total	of which: Taxes	Social contributions	Other	Total	of which: Social benefits	Compensation of employees	Intermediate consumption	Gross capital formation	Interest	Other		
<b>€ billion</b>													
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	1,557.2	808.1	572.6	176.6	1,491.6	805.6	260.3	176.4	78.5	31.2	139.7	+ 65.6	1,387.7
2019 p	1,615.8	834.3	598.2	183.4	1,562.6	845.6	273.2	187.2	84.4	27.4	144.8	+ 53.2	1,439.6
2020 p	1,569.1	783.1	608.1	177.8	1,716.6	904.8	284.3	209.4	93.2	21.5	203.4	- 147.6	1,398.2
2021 p	1,711.7	887.6	633.7	190.5	1,846.0	940.9	294.4	227.2	93.4	20.8	269.3	- 134.3	1,528.8
2022 pe	1,820.1	956.5	666.3	197.3	1,926.2	973.3	307.6	238.5	103.1	26.2	277.5	- 106.0	1,633.6
<b>As a percentage of GDP</b>													
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	46.3	24.0	17.0	5.2	44.3	23.9	7.7	5.2	2.3	0.9	4.1	+ 1.9	41.2
2019 p	46.5	24.0	17.2	5.3	45.0	24.3	7.9	5.4	2.4	0.8	4.2	+ 1.5	41.4
2020 p	46.1	23.0	17.9	5.2	50.4	26.6	8.3	6.1	2.7	0.6	6.0	- 4.3	41.1
2021 p	47.5	24.6	17.6	5.3	51.3	26.1	8.2	6.3	2.6	0.6	7.5	- 3.7	42.4
2022 pe	47.0	24.7	17.2	5.1	49.8	25.1	7.9	6.2	2.7	0.7	7.2	- 2.7	42.2
<b>Percentage growth rates</b>													
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	+ 4.7	+ 4.5	+ 4.2	+ 7.6	+ 3.3	+ 2.6	+ 3.9	+ 4.1	+ 9.7	- 7.8	+ 5.1	.	+ 4.4
2019 p	+ 3.8	+ 3.2	+ 4.5	+ 3.8	+ 4.8	+ 5.0	+ 5.0	+ 6.1	+ 7.5	- 12.2	+ 3.7	.	+ 3.7
2020 p	- 2.9	- 6.1	+ 1.7	- 3.0	+ 9.9	+ 7.0	+ 4.0	+ 11.8	+ 10.4	- 21.5	+ 40.5	.	- 2.9
2021 p	+ 9.1	+ 13.3	+ 4.2	+ 7.1	+ 7.5	+ 4.0	+ 3.6	+ 8.5	+ 0.2	- 3.4	+ 32.4	.	+ 9.3
2022 pe	+ 6.3	+ 7.8	+ 5.1	+ 3.6	+ 4.3	+ 3.4	+ 4.5	+ 5.0	+ 10.4	+ 26.0	+ 3.0	.	+ 6.9

Source: Federal Statistical Office. \* Figures in accordance with ESA 2010. <sup>1</sup> 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						Deficit/ surplus	Rev- enue 6	Expend- iture	Deficit/ surplus	Rev- enue	Expend- iture	Deficit/ surplus
	Total 4	of which:		Total 4	of which: 3											
		Taxes	Finan- cial transac- tions 5		Person- nel expend- iture	Current grants	Interest	Fixed asset forma- tion	Finan- cial transac- tions 5							
2016	859.7	705.8	8.8	842.8	251.3	320.8	43.3	48.3	11.7	+ 16.8	601.8	594.8	+ 7.1	1,352.5	1,328.6	+ 23.9
2017	897.6	734.5	7.7	867.8	261.5	327.2	41.9	51.7	13.8	+ 29.8	631.5	622.0	+ 9.5	1,414.9	1,375.6	+ 39.3
2018	949.2	776.3	6.0	904.0	272.4	337.3	39.1	55.1	16.1	+ 45.2	656.2	642.5	+ 13.6	1,488.1	1,429.3	+ 58.8
2019	1,007.7	799.4	11.0	973.9	285.9	348.9	33.5	62.2	16.8	+ 33.7	685.0	676.7	+ 8.3	1,571.2	1,529.2	+ 42.0
2020	944.3	739.9	13.7	1,109.7	299.4	422.0	25.8	68.6	59.9	- 165.4	719.5	747.8	- 28.3	1,516.2	1,709.9	- 193.7
2021	1,105.4	833.3	25.3	1,239.9	310.7	530.7	21.0	69.3	26.1	- 134.5	769.2	777.1	- 7.9	1,701.5	1,843.9	- 142.4
2022 P	1,146.2	895.9	32.4	1,284.6	325.6	500.9	33.5	72.4	74.4	- 138.4	800.6	794.8	+ 5.9	1,774.0	1,906.5	- 132.5
2020 Q1	244.8	197.5	2.5	236.4	72.9	90.5	11.9	12.0	2.6	+ 8.4	P 168.3	P 175.7	P - 7.4	P 380.0	P 379.1	P + 0.9
Q2	215.6	158.1	2.7	275.4	72.2	119.1	8.6	15.4	3.4	- 59.8	P 175.9	P 187.0	P - 11.1	P 358.1	P 429.0	P - 70.9
Q3	227.5	181.4	4.0	282.1	72.4	101.9	1.4	18.3	34.3	- 54.5	P 181.1	P 195.0	P - 13.9	P 369.9	P 438.3	P - 68.4
Q4	259.3	201.9	4.5	315.4	81.4	109.2	5.9	22.8	19.6	- 56.1	P 186.0	P 189.6	P - 3.5	P 410.6	P 470.2	P - 59.6
2021 Q1	240.7	185.3	4.3	300.6	75.5	130.8	7.3	11.1	14.6	- 59.9	P 182.4	P 196.3	P - 13.9	P 385.2	P 458.9	P - 73.8
Q2	267.0	195.8	7.5	297.1	74.8	122.7	10.7	15.2	10.5	- 30.2	P 185.9	P 197.0	P - 11.1	P 414.1	P 455.3	P - 41.2
Q3	270.9	210.7	7.4	290.2	75.8	116.3	-0.4	16.5	10.4	- 19.3	P 183.4	P 191.9	P - 8.6	P 413.5	P 441.4	P - 27.8
Q4	332.9	237.7	6.1	347.8	84.1	153.4	3.1	26.4	-9.4	- 14.9	P 197.3	P 190.4	P + 6.9	P 492.6	P 500.6	P - 8.0
2022 Q1	278.2	224.0	5.0	279.3	79.6	116.8	5.5	11.9	7.0	- 1.0	P 193.8	P 199.8	P - 6.0	P 430.3	P 437.3	P - 7.1
Q2	288.0	224.6	5.1	294.2	77.8	126.4	10.6	15.3	5.9	- 6.2	P 199.9	P 196.7	P + 3.2	P 444.7	P 447.7	P - 3.1
Q3	272.3	207.0	13.3	303.4	78.1	117.0	10.8	17.7	10.8	- 31.0	P 194.0	P 197.6	P - 3.6	P 423.1	P 457.7	P - 34.6
Q4 P	314.3	243.1	9.1	406.1	89.5	139.2	6.5	27.5	50.6	- 91.8	210.5	198.1	+ 12.4	481.6	560.9	- 79.4

Source: Bundesbank calculations based on Federal Statistical Office data. 1 Annual figures based on the quarterly figures of the Federal Statistical Office, core budgets and off-budget entities which are assigned to the general government sector. 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 Excluding 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
2016	344.7	338.4	+ 6.2	380.2	372.0	+ 8.2	247.1	241.7	+ 5.4
2017	357.8	352.8	+ 5.0	396.7	385.5	+ 11.3	258.5	247.7	+ 10.7
2018	374.4	363.5	+ 10.9	419.6	399.8	+ 19.9	270.0	260.1	+ 9.8
2019	382.5	369.2	+ 13.3	436.3	419.3	+ 17.0	282.4	276.7	+ 5.7
2020	341.4	472.1	- 130.7	455.5	489.0	- 33.6	295.2	293.2	+ 2.0
2021	370.3	585.9	- 215.6	509.3	508.7	+ 0.5	308.0	303.4	+ 4.6
2022	399.6	515.6	- 116.0	P 534.3	P 523.7	P + 10.6	328.5	325.8	+ 2.7
2020 Q1	92.3	90.4	+ 1.9	105.6	99.7	+ 5.9	57.9	67.7	- 9.8
Q2	70.8	114.8	- 44.0	108.2	128.0	- 19.8	69.4	69.4	+ 0.1
Q3	83.7	105.4	- 21.7	112.9	113.7	- 0.8	67.5	72.6	- 5.1
Q4	94.5	161.5	- 67.0	127.4	146.3	- 18.9	100.3	83.5	+ 16.8
2021 Q1	75.0	127.5	- 52.5	113.7	120.7	- 7.1	61.1	69.7	- 8.6
Q2	86.4	123.5	- 37.1	122.8	122.0	+ 0.8	74.6	71.7	+ 2.9
Q3	93.9	128.7	- 34.7	125.9	120.2	+ 5.7	74.6	74.9	- 0.3
Q4	115.1	206.3	- 91.2	145.6	144.5	+ 1.2	97.6	87.0	+ 10.6
2022 Q1	94.7	114.0	- 19.3	134.6	122.7	+ 11.9	68.4	73.8	- 5.4
Q2	99.7	123.5	- 23.7	133.2	123.6	+ 9.6	81.0	77.3	+ 3.7
Q3	89.0	127.8	- 38.7	126.1	121.4	+ 4.7	81.1	80.3	+ 0.8
Q4	116.1	150.4	- 34.2	139.6	153.4	- 13.8	98.0	94.5	+ 3.5

Source: Federal Ministry of Finance, Federal Statistical Office data and Bundesbank calculations. 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 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	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	Total	Central government 1	State government 1	European Union 2					
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	739,911	632,268	313,381	286,065	32,822		107,916	- 274	30,266	
2021	833,337	706,978	342,988	325,768	38,222		125,000	+ 1,359	29,321	
2022	895,854	760,321	372,121	349,583	38,617		134,146	+ 1,387	34,911	
2021 Q1	189,316	159,271	72,814	73,137	13,320		19,882	+ 10,163	6,887	
Q2	191,931	163,158	81,129	74,024	8,005		29,609	- 835	7,438	
Q3	211,364	180,378	87,603	84,312	8,464		29,726	+ 1,260	7,823	
Q4	240,726	204,171	101,442	94,295	8,433		45,784	- 9,229	7,173	
2022 Q1	224,006	189,158	92,112	87,240	9,806		24,772	+ 10,077	7,261	
Q2	224,538	190,982	94,153	86,852	9,977		34,149	- 594	11,576	
Q3	205,544	174,232	84,078	80,020	10,133		33,618	- 2,306	7,953	
Q4	241,767	205,950	101,778	95,471	8,702		41,607	- 5,790	8,121	
2023 Q1	220,950	186,173	93,366	83,536	9,271		26,505	+ 8,271	7,665	
2022 Apr.	.	52,743	25,483	23,918	3,341		.	.	2,649	
May	.	51,356	25,130	22,938	3,288		.	.	2,613	
2023 Apr.	.	50,321	25,108	22,328	2,885		.	.	2,486	
May	.	56,035	28,526	24,387	3,121		.	.	3,986	

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	Joint taxes											Local government tax transfers 8	Central government taxes 9	State government taxes 9	EU customs duties	Memo item: Local government share in joint taxes
	Total 1	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							
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	682,376	320,798	209,286	58,982	24,268	28,261	219,484	168,700	50,784	3,954	105,632	27,775	4,734	50,107		
2021	760,953	370,296	218,407	72,342	42,124	37,423	250,800	187,631	63,169	4,951	98,171	31,613	5,122	53,976		
2022	814,886	390,111	227,205	77,411	46,334	39,161	284,850	198,201	86,649	6,347	96,652	30,097	6,829	54,565		
2021 Q1	171,974	86,381	50,854	17,826	10,203	7,498	54,795	45,403	9,392	252	21,712	7,757	1,076	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		
Q3	193,910	90,619	53,857	17,973	9,853	8,936	69,528	49,052	20,476	1,189	23,469	7,813	1,292	13,532		
Q4	219,827	108,791	62,913	22,196	13,208	10,474	68,843	49,777	19,066	2,295	29,780	8,645	1,473	15,656		
2022 Q1	203,130	96,245	56,206	20,915	11,178	7,946	73,584	54,234	19,350	615	22,252	8,975	1,459	13,972		
Q2	204,740	101,822	60,363	17,194	11,246	13,019	67,763	46,755	21,008	1,521	24,441	7,564	1,630	13,758		
Q3	185,552	82,392	43,431	17,598	10,724	10,639	71,164	49,323	21,841	1,471	21,657	7,115	1,753	11,320		
Q4	221,464	109,652	67,205	21,704	13,186	7,557	72,339	47,889	24,451	2,740	28,302	6,444	1,987	15,514		
2023 Q1	199,764	94,453	55,669	19,728	10,700	8,357	73,522	52,197	21,325	370	23,110	6,815	1,494	13,591		
2022 Apr.	56,555	24,257	20,221	555	1,223	2,258	20,774	14,364	6,411	1,229	7,306	2,430	559	3,813		
May	54,992	22,587	19,193	487	153	2,755	21,235	17,527	3,707	287	7,795	2,583	506	3,637		
2023 Apr.	53,953	23,064	19,855	- 112	1,128	2,193	19,788	13,838	5,950	1,231	7,358	2,021	492	3,633		
May	59,648	23,002	19,140	- 287	937	3,212	25,870	18,726	7,144	258	8,140	1,915	463	3,613		

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 2022: 46.6:50.5:2.8. The EU share is deducted from central government's share. **8** Respective percentage share of central and state government for 2022: 41.4:58.6. **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	Solida- rity surcharge	Tobacco tax	Insurance tax	Motor vehicle tax	Electri- city tax	Alcohol tax	Other	Tax on the acqui- sition of land and buildings	Inheri- tance tax	Betting and lottery tax	Other	Total	of which:	
														Local business tax 2	Real property taxes
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
2021	37,120	11,028	14,733	14,980	9,546	6,691	2,089	1,984	18,335	9,824	2,333	1,121	77,335	61,251	14,985
2022	33,667	11,978	14,229	15,672	9,499	6,830	2,191	2,585	17,122	9,226	2,569	1,180	87,315	70,382	15,282
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	17,904	13,692	4,034
Q3	9,532	2,338	3,636	2,911	2,381	1,618	514	538	4,571	2,457	516	269	18,643	14,215	4,133
Q4	14,745	2,972	4,458	2,449	2,130	1,741	651	633	4,816	2,884	700	244	23,194	19,546	3,316
2022 Q1	4,452	2,840	2,372	7,175	2,594	1,785	531	503	5,061	2,827	701	385	21,492	17,454	3,577
Q2	9,092	3,518	3,648	2,872	2,433	1,722	505	651	4,406	2,238	661	259	21,318	16,839	4,077
Q3	7,103	2,571	3,742	3,059	2,325	1,598	549	710	4,100	2,138	596	281	21,463	16,792	4,249
Q4	13,020	3,049	4,467	2,567	2,147	1,725	606	722	3,555	2,023	611	254	23,043	19,298	3,380
2023 Q1	4,362	2,888	2,669	7,637	2,632	1,749	530	643	3,362	2,368	666	420	21,555	17,471	3,610
2022 Apr.	2,777	631	1,202	942	802	591	146	214	1,368	747	230	84	.	.	.
May	3,034	652	1,254	1,116	796	539	186	217	1,519	758	222	85	.	.	.
2023 Apr.	2,827	614	1,104	1,054	769	574	185	229	904	804	230	82	.	.	.
May	3,123	701	1,377	1,157	805	561	183	233	1,016	649	193	57	.	.	.

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			Expenditure 1			Deficit/ surplus	Assets 3					Memo item: Adminis- trative assets
	Total	of which:		Total	of which:			Total	Deposits 4	Securities	Equity interests, mortgages and other loans 5	Real estate	
		Contri- butions 2	Payments from central government		Pension payments	Pen- sioners' health insurance							
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
2021	348,679	245,185	102,772	347,486	296,343	22,734	+ 1,192	42,014	40,320	1,241	400	52	3,807
2022	363,871	258,269	104,876	360,436	308,168	23,792	+ 3,435	46,087	44,181	1,399	457	51	3,746
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
Q3	85,535	59,941	25,468	87,123	74,453	5,718	- 1,588	36,041	34,670	973	345	53	3,840
Q4	92,818	67,211	25,415	87,385	74,556	5,730	+ 5,432	41,974	40,310	1,241	370	52	3,835
2022 Q1	86,684	60,599	25,937	86,841	74,568	5,734	- 157	41,784	39,952	1,367	399	65	3,783
Q2	90,040	63,978	25,879	87,138	74,644	5,756	+ 2,903	44,425	42,441	1,513	406	65	3,761
Q3	89,284	62,891	26,218	92,606	79,400	6,127	- 3,322	41,548	39,767	1,315	415	51	3,775
Q4	96,931	70,750	25,995	93,444	79,944	6,170	+ 3,487	46,082	44,186	1,399	446	51	3,767
2023 Q1	91,370	64,171	26,972	92,422	79,330	6,142	- 1,052	45,109	43,030	1,569	460	51	3,724

Sources: German pension insurance scheme and Bundesbank calculations. \* Excluding the German pension insurance scheme for mining, railway and maritime industries. The final annual figures generally differ from the total of the reported quarterly figures as the latter are not revised. 1 Including financial compensation payments. Excluding in-

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

## X. Public finance in Germany

### 9. Federal Employment Agency: budgetary development \*

€ million

Period	Revenue				Expenditure						Deficit/ surplus	Memo item: Deficit- offsetting grant or loan from central government
	Total 1	of which:			Total	of which:						
		Contri- butions	Insolvency compen- sation levy	Government funds		Unemploy- ment benefit 2	Short-time working benefits 3	Job promotion 4	Insolvency benefit payment	Adminis- trative expendi- ture 5		
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	6,913
2021	35,830	29,571	1,302	–	57,570	19,460	21,003	7,475	493	6,080	– 21,739	16,935
2022	37,831	31,651	1,062	–	37,530	16,588	3,865	7,125	534	6,256	+ 300	423
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	6,913
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	–
Q3	8,791	7,290	330	–	12,042	4,447	3,631	1,744	91	1,452	– 3,251	–
Q4	9,982	8,234	359	–	10,547	4,028	1,871	1,884	110	1,785	– 565	16,935
2022 Q1	8,827	7,374	251	–	10,685	4,424	2,087	1,821	135	1,412	– 1,858	–
Q2	9,327	7,857	262	–	9,457	4,091	1,215	1,794	147	1,450	– 130	–
Q3	9,278	7,740	261	–	8,401	4,056	408	1,621	107	1,506	+ 877	–
Q4	10,398	8,679	289	–	8,987	4,016	156	1,889	145	1,888	+ 1,411	423
2023 Q1	9,836	8,442	178	–	9,942	4,727	592	1,858	376	1,550	– 106	–

Source: Federal Employment Agency and Bundesbank calculations. \* 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, meas-

ures to encourage job take-up, rehabilitation, integration, 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	
	Total	of which:		Total	of which:							
		Contri- butions	Central government funds 2		Hospital treatment	Pharma- ceuticals	Medical treatment	Dental treatment 3	Remedies and therapeutic appliances	Sickness benefits		Adminis- trative expendi- ture 4
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
2021	289,270	249,734	36,977	294,602	82,748	46,199	45,075	16,335	20,163	16,612	11,735	– 5,332
2022	315,248	262,367	50,223	310,594	85,061	48,354	46,379	16,737	21,259	17,947	12,421	+ 4,654
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	12,008	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
Q3	70,592	61,899	7,942	73,569	20,748	11,756	10,730	4,060	5,085	4,004	2,849	– 2,977
Q4	74,020	66,678	5,767	73,209	21,340	12,043	11,252	4,062	5,290	4,200	3,109	+ 810
2022 Q1	79,253	62,142	17,049	81,493	20,550	11,891	11,847	4,286	5,216	4,574	3,510	– 2,240
Q2	79,112	64,611	14,280	79,269	21,080	12,053	12,085	4,249	5,335	4,457	2,958	– 158
Q3	75,516	65,242	9,804	75,011	21,164	12,221	11,545	3,956	5,352	4,441	2,996	+ 505
Q4	81,512	70,384	9,091	74,894	21,659	12,242	11,717	4,310	5,442	4,486	3,148	+ 6,617
2023 Q1	73,718	66,513	6,759	77,593	22,196	12,209	12,181	4,370	5,621	4,927	3,169	– 3,875

Source: Federal Ministry of Health and Bundesbank calculations. 1 The final annual figures generally differ from the total of the reported quarterly figures as the latter are not revised. Excluding revenue and expenditure as part of the risk structure compensation

scheme. 2 Federal grant and liquidity assistance. 3 Including dentures. 4 Net, i.e. after deducting reimbursements for expenses for levying contributions incurred by other social security funds.

## X. Public finances in Germany

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

€ million

Period	Revenue		Expenditure 1						Deficit/ surplus
	Total	of which:	Total	of which:					
		Contributions		Non-cash care benefits	Inpatient care total 2	Nursing benefit	Contributions to pension insur- ance scheme 3	Administrative expenditure	
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
2021	52,573	49,764	53,903	9,573	16,511	13,865	3,070	2,024	- 1,330
2022 P	57,783	52,451	60,030	10,247	20,478	14,917	3,209	2,148	- 2,247
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
Q3	12,624	12,294	13,390	2,393	4,182	3,466	783	509	- 767
Q4	14,853	13,242	13,595	2,475	4,270	3,646	788	503	+ 1,258
2022 Q1	12,912	12,412	14,739	2,564	4,974	3,572	775	529	- 1,827
Q2	15,350	12,951	14,827	2,464	5,026	3,698	795	548	+ 523
Q3	13,708	13,021	15,387	2,638	5,197	3,755	802	542	- 1,679
Q4	15,813	14,067	15,078	2,581	5,281	3,892	837	528	+ 735
2023 Q1	14,283	13,169	14,698	2,876	5,377	3,846	843	570	- 415

Source: Federal Ministry of Health and Bundesbank calculations. \* The final annual figures generally differ from the total of the reported provisional quarterly figures as the latter are not revised. 1 Including transfers to the long-term care provident fund. 2 In-

cluding benefits for short-term care and daytime/night-time nursing care, inter alia. 3 For non-professional carers.

### 12. Maastricht debt by creditor

€ million

Period (end of year or quarter)	Banking system						Domestic non-banks				Foreign creditors		
	Bundesbank			Domestic MFIs			Other domestic financial corporations		Other domestic creditors				
	Total	of which:		Total	of which:		Total	of which:		Total		of which:	
		Total	Debt securities		Total	Debt securities		Total	Debt securities			Total	Debt securities
2016	2,161,570	205,391	191,880	585,456	223,407	211,515	111,843	48,630	14,181	1,110,579	1,012,275		
2017	2,130,519	319,159	305,301	557,949	194,619	180,104	81,125	45,106	10,456	1,028,201	941,750		
2018	2,083,367	364,731	350,487	516,113	167,506	186,346	89,794	44,124	8,724	972,053	892,223		
2019	2,068,810	366,562	352,025	480,190	158,119	183,714	88,771	48,738	7,224	989,607	908,750		
2020	2,339,934	522,392	507,534	517,602	157,828	191,231	99,840	41,093	8,372	1,067,616	996,418		
2021	2,494,587	716,004	700,921	509,199	144,646	191,580	103,049	39,444	7,436	1,038,360	969,252		
2022 P	2,563,081	741,363	726,147	521,043	126,890	210,888	126,042	43,796	8,972	1,045,990	980,812		
2020 Q1	2,114,285	371,076	356,469	492,265	163,767	185,789	92,790	49,820	7,746	1,015,334	935,611		
Q2	2,284,382	424,141	409,393	558,876	172,257	186,352	93,968	49,942	8,600	1,065,069	983,910		
Q3	2,358,574	468,723	453,952	531,714	167,754	189,475	97,660	51,791	8,100	1,116,871	1,046,047		
Q4	2,339,934	522,392	507,534	517,602	157,828	191,231	99,840	41,093	8,372	1,067,616	996,418		
2021 Q1	2,368,916	561,443	546,539	491,995	162,961	190,136	99,333	50,869	8,060	1,074,473	1,010,644		
Q2	2,418,789	620,472	605,429	494,443	151,182	189,992	99,734	39,995	7,700	1,073,887	1,008,537		
Q3	2,452,516	669,659	654,600	496,368	152,068	191,571	101,742	41,857	8,069	1,053,061	987,742		
Q4	2,494,587	716,004	700,921	509,199	144,646	191,580	103,049	39,444	7,436	1,038,360	969,252		
2022 Q1 P	2,498,760	737,978	722,843	493,359	143,411	194,096	106,165	37,842	6,959	1,035,484	968,957		
Q2 P	2,536,603	759,385	744,213	497,517	133,999	202,680	115,576	39,891	8,086	1,037,128	971,366		
Q3 P	2,551,520	741,360	726,147	528,509	126,865	202,277	116,267	39,610	8,986	1,039,763	969,223		
Q4 P	2,563,081	741,363	726,147	521,043	126,890	210,888	126,042	43,796	8,972	1,045,990	980,812		
2023 Q1 P	2,589,018	741,587	726,326	495,838	129,371	209,058	124,774	49,918	16,123	1,092,617	1,029,687		

Source: Bundesbank calculations based on data from the Federal Statistical Office.



## X. Public finances in Germany

### 13. Maastricht debt by instrument

€ million

Period (end of year or quarter)	Total	Currency and deposits <sup>1</sup>	Debt securities by original maturity		Loans by original maturity		Memo item: 2	
			Short-term debt securities (up to one year)	Long-term debt securities (more than one year)	Short-term loans (up to one year)	Long-term loans (more than one year)	Debt vis-à-vis other government subsectors	Claims vis-à-vis other government subsectors
<b>General government</b>								
2016	2,161,570	15,491	69,715	1,483,871	96,254	496,239	.	.
2017	2,130,519	14,298	48,789	1,484,462	88,841	494,129	.	.
2018	2,083,367	14,680	52,572	1,456,160	79,171	480,783	.	.
2019	2,068,810	14,449	56,350	1,458,540	64,464	475,007	.	.
2020 Q1	2,114,285	11,410	84,160	1,472,222	74,813	471,680	.	.
Q2	2,284,382	13,120	134,272	1,533,857	133,665	469,468	.	.
Q3	2,358,574	11,886	190,939	1,582,574	104,075	469,099	.	.
Q4	2,339,934	14,486	173,851	1,596,141	85,384	470,072	.	.
2021 Q1	2,368,916	12,283	190,022	1,637,516	62,725	466,371	.	.
Q2	2,418,789	13,065	182,660	1,689,923	69,272	463,869	.	.
Q3	2,452,516	13,565	192,481	1,711,741	70,629	464,100	.	.
Q4	2,494,587	17,743	195,420	1,729,884	88,684	462,855	.	.
2022 Q1 P	2,498,760	15,676	172,881	1,775,454	70,285	464,464	.	.
Q2 P	2,536,603	17,793	161,918	1,811,322	75,954	469,616	.	.
Q3 P	2,551,520	22,631	150,016	1,797,472	82,941	498,460	.	.
Q4 P	2,563,081	16,985	150,704	1,818,159	92,781	484,452	.	.
2023 Q1 P	2,589,018	14,913	145,846	1,880,435	86,529	461,294	.	.
<b>Central government</b>								
2016	1,365,579	15,491	55,208	1,123,853	50,004	121,022	556	8,567
2017	1,361,680	14,298	36,297	1,131,896	48,305	130,885	1,131	10,618
2018	1,334,661	14,680	42,246	1,107,140	43,067	127,528	933	9,975
2019	1,312,675	14,449	38,480	1,101,866	29,956	127,924	605	10,301
2020 Q1	1,340,794	11,410	56,679	1,103,934	40,120	128,652	605	8,119
Q2	1,487,263	13,120	109,217	1,139,510	96,960	128,457	585	7,026
Q3	1,550,507	11,886	166,559	1,178,687	64,470	128,905	605	11,713
Q4	1,527,062	14,486	154,498	1,180,683	48,414	128,981	609	14,521
2021 Q1	1,552,615	12,283	167,485	1,212,495	31,284	129,068	602	22,929
Q2	1,602,675	13,065	165,374	1,259,206	36,297	128,734	643	29,448
Q3	1,630,577	13,565	170,962	1,280,586	37,116	128,348	687	31,382
Q4	1,679,842	17,743	176,428	1,300,416	57,806	127,448	640	8,080
2022 Q1 P	1,684,879	15,676	155,119	1,340,340	41,903	131,841	531	10,451
Q2 P	1,724,097	17,793	147,674	1,373,617	47,652	137,362	604	10,552
Q3 P	1,757,787	22,631	144,987	1,369,630	56,254	164,285	768	13,203
Q4 P	1,776,883	16,985	146,974	1,391,710	71,867	149,348	8,826	9,159
2023 Q1 P	1,799,711	14,913	140,484	1,456,149	60,887	127,278	3,686	10,642
<b>State government</b>								
2016	642,291	-	14,515	361,996	20,482	245,298	11,273	1,694
2017	616,790	-	12,543	354,688	19,790	229,769	14,038	2,046
2018	603,143	-	10,332	351,994	19,250	221,567	14,035	1,891
2019	612,559	-	17,873	360,495	19,076	215,115	14,934	1,826
2020 Q1	626,402	-	27,484	372,021	16,329	210,568	12,292	1,783
Q2	648,455	-	25,056	398,404	17,267	207,728	11,059	2,085
Q3	659,035	-	24,382	408,310	20,208	206,136	11,701	2,090
Q4	664,284	-	19,354	419,862	19,481	205,587	11,924	1,410
2021 Q1	667,504	-	22,538	429,641	14,367	200,958	10,942	1,998
Q2	667,750	-	17,287	435,726	16,169	198,568	12,454	2,047
Q3	673,140	-	21,521	436,506	16,312	198,801	11,414	2,119
Q4	665,104	-	18,994	434,930	14,313	196,866	12,441	1,766
2022 Q1 P	663,981	-	17,765	440,766	12,390	193,061	11,697	1,935
Q2 P	660,246	-	14,247	443,413	12,056	190,530	11,449	1,777
Q3 P	644,911	-	5,031	433,503	14,826	191,552	14,099	2,200
Q4 P	636,554	-	3,732	432,252	11,782	188,788	11,704	1,701
2023 Q1 P	633,211	-	5,366	430,184	11,800	185,861	12,020	2,365
<b>Local government</b>								
2016	166,205	-	-	2,404	27,002	136,798	1,819	431
2017	168,305	-	-	3,082	24,909	140,314	1,881	466
2018	161,729	-	1	3,046	20,903	137,779	1,884	497
2019	160,250	-	-	2,996	19,607	137,647	1,856	532
2020 Q1	161,020	-	-	3,128	20,257	137,636	1,824	508
Q2	161,393	-	-	3,094	20,236	138,063	2,084	350
Q3	162,760	-	-	2,961	21,108	138,691	2,106	339
Q4	161,974	-	-	3,366	18,520	140,088	1,402	330
2021 Q1	161,985	-	-	3,121	18,025	140,839	2,009	320
Q2	163,157	-	-	3,121	19,079	140,957	2,070	313
Q3	162,609	-	-	3,000	18,311	141,298	2,127	306
Q4	164,118	-	-	3,241	17,978	142,899	1,768	293
2022 Q1 P	163,678	-	-	3,052	16,821	143,804	1,933	315
Q2 P	165,754	-	-	2,902	16,961	145,891	1,823	361
Q3 P	165,560	-	-	2,856	15,926	146,778	2,247	358
Q4 P	171,150	-	-	2,883	18,210	150,057	1,748	470
2023 Q1 P	173,432	-	-	2,883	18,525	152,024	2,355	487

For footnotes see end of table.

## X. Public finances in Germany

### 13. Maastricht debt by instrument (cont'd)

€ million

Period (end of year or quarter)	Currency and deposits <sup>1</sup>	Debt securities by original maturity		Loans by original maturity		Memo item: <sup>2</sup>	
		Short-term debt securities (up to one year)	Long-term debt securities (more than one year)	Short-term loans (up to one year)	Long-term loans (more than one year)	Debt vis-à-vis other government subsectors	Claims vis-à-vis other government subsectors
Total							
<b>Social security funds</b>							
2016	1,232	-	-	562	670	89	3,044
2017	807	-	-	262	545	15	3,934
2018	704	-	-	388	316	16	4,506
2019	738	-	-	375	363	16	4,753
2020 Q1	806	-	-	287	519	16	4,328
Q2	1,015	-	-	581	433	16	4,284
Q3	4,640	-	-	4,210	430	3,956	4,226
Q4	7,480	-	-	7,128	352	6,931	4,606
2021 Q1	16,220	-	-	15,985	235	15,853	4,160
Q2	21,234	-	-	20,995	239	20,860	4,220
Q3	24,288	-	-	24,053	235	23,872	4,292
Q4	392	-	-	131	261	19	4,729
2022 Q1 P	3,104	-	-	2,863	240	2,720	4,181
Q2 P	3,320	-	-	3,078	242	2,939	4,124
Q3 P	3,686	-	-	3,439	247	3,311	4,665
Q4 P	2,196	-	-	1,589	607	1,424	12,372
2023 Q1 P	2,971	-	-	1,895	1,076	2,245	6,812

Source: Bundesbank calculations based on data from the Federal Statistical Office and the Federal Republic of Germany - Finance Agency. <sup>1</sup> Particularly liabilities resulting from coins in circulation. <sup>2</sup> 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.

### 14. Maastricht debt of central government by instrument and category

€ million

Period (end of year or quarter)	Currency and deposits <sup>2</sup>		Debt securities								Loans <sup>1</sup>	
	Total <sup>1</sup>	Federal day bond	Total <sup>1</sup>	of which: <sup>3</sup>					Capital indexation of inflation- linked securities			
				Conventional Federal bonds (Bunds)	Conventional Federal notes (Bobs)	Conventional Federal Treasury notes (Schätze) <sup>4</sup>	Treasury discount paper (Bubills) <sup>5</sup>	Federal savings notes		Green Federal securities		Inflation- linked Federal securities <sup>6</sup>
2007	987,909	6,675	917,584	564,137	173,949	102,083	37,385	10,287	.	13,464	506	63,650
2008	1,019,905	12,466	928,754	571,913	164,514	105,684	40,795	9,649	.	19,540	1,336	78,685
2009	1,086,173	9,981	1,013,072	577,798	166,471	113,637	104,409	9,471	.	24,730	1,369	63,121
2010	1,337,160	10,890	1,084,019	602,624	185,586	126,220	85,867	8,704	.	35,906	2,396	242,251
2011	1,346,869	10,429	1,121,331	615,200	199,284	130,648	58,297	8,208	.	44,241	3,961	215,109
2012	1,390,377	9,742	1,177,168	631,425	217,586	117,719	56,222	6,818	.	52,119	5,374	203,467
2013	1,392,735	10,582	1,192,025	643,200	234,759	110,029	50,004	4,488	.	51,718	4,730	190,127
2014	1,398,472	12,146	1,206,203	653,823	244,633	103,445	27,951	2,375	.	63,245	5,368	180,123
2015	1,371,933	13,949	1,188,463	663,296	232,387	96,389	18,536	1,305	.	74,495	5,607	169,521
2016	1,365,579	15,491	1,179,062	670,245	221,551	95,727	23,609	737	.	66,464	3,602	171,026
2017	1,361,680	14,298	1,168,193	693,687	203,899	91,013	10,037	289	.	72,855	4,720	179,190
2018	1,334,661	14,680	1,149,386	710,513	182,847	86,009	12,949	48	.	64,647	5,139	170,599
2019	1,312,675	14,449	1,140,346	719,747	174,719	89,230	13,487	.	.	69,805	6,021	157,880
2020	1,527,062	14,486	1,335,181	801,910	179,560	98,543	113,141	.	9,876	58,279	3,692	177,995
2021	1,679,842	17,743	1,476,844	892,464	190,839	103,936	153,978	.	21,627	65,390	6,722	185,255
2022 P	1,776,883	16,985	1,538,683	947,349	198,084	113,141	137,990	.	36,411	72,357	15,844	221,215
2020 Q1	1,340,794	11,410	1,160,613	721,343	182,095	91,084	23,572	.	.	71,028	5,310	168,772
Q2	1,487,263	13,120	1,248,728	774,587	178,329	95,622	79,987	.	.	56,061	3,752	225,416
Q3	1,550,507	11,886	1,345,246	790,288	191,388	99,276	127,478	.	6,050	57,144	3,737	193,375
Q4	1,527,062	14,486	1,335,181	801,910	179,560	98,543	113,141	.	9,876	58,279	3,692	177,395
2021 Q1	1,552,615	12,283	1,379,980	814,864	189,935	103,910	134,800	.	11,026	60,687	3,857	160,352
Q2	1,602,675	13,065	1,424,579	861,455	184,413	104,997	139,451	.	16,526	62,569	5,056	165,031
Q3	1,630,577	13,565	1,451,549	869,195	198,692	105,398	146,533	.	19,824	63,851	5,456	165,464
Q4	1,679,842	17,743	1,476,844	892,464	190,839	103,936	153,978	.	21,627	65,390	6,722	185,255
2022 Q1 P	1,684,879	15,676	1,495,459	911,280	204,534	108,702	140,427	.	23,961	67,776	7,809	173,744
Q2 P	1,724,097	17,793	1,521,291	937,949	198,472	111,343	138,495	.	29,425	70,217	11,209	185,014
Q3 P	1,757,787	22,631	1,514,617	918,838	208,509	111,675	137,740	.	35,527	71,498	12,879	220,539
Q4 P	1,776,883	16,985	1,538,683	947,349	198,084	113,141	137,990	.	36,411	72,357	15,844	221,215
2023 Q1 P	1,799,711	14,913	1,596,633	987,363	213,514	120,904	127,143	.	39,459	73,591	15,497	188,164

Sources: Federal Republic of Germany - Finance Agency, Federal Statistical Office, and Bundesbank calculations. <sup>1</sup> 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. <sup>2</sup> Particularly liabilities

resulting from coins in circulation. <sup>3</sup> Issuances by the Federal Republic of Germany. Excluding issuers' holdings of own securities but including those held by other government entities. <sup>4</sup> Including medium-term notes issued by the Treuhand agency (expired in 2011). <sup>5</sup> Including Federal Treasury financing papers (expired in 2014). <sup>6</sup> Excluding inflation-induced indexation of capital.

## XI. Economic conditions in Germany

### 1. Origin and use of domestic product, distribution of national income

Item	2020			2021			2022		2021		2022				2023
	2020	2021	2022	2020	2021	2022	Q3	Q4	Q1	Q2	Q3	Q4	Q1		
	Index 2015=100			Annual percentage change											
<b>At constant prices, chained</b>															
<b>I. Origin of domestic product</b>															
Production sector (excluding construction)	100.4	104.9	104.8	- 7.2	4.5	- 0.1	2.6	- 1.1	1.2	- 0.1	0.9	- 2.2	1.6		
Construction	102.1	100.7	97.7	2.0	- 1.4	- 2.9	2.3	- 6.1	4.7	- 3.4	- 4.6	- 6.4	- 0.7		
Wholesale/retail trade, transport and storage, hotel and restaurant services	101.0	103.9	108.1	- 7.5	2.8	4.0	3.2	4.1	9.2	5.7	2.3	- 0.4	- 0.5		
Information and communication	120.8	125.2	129.4	0.1	3.6	3.4	3.9	2.9	3.6	2.8	3.9	3.2	2.8		
Financial and insurance activities	98.9	99.1	101.3	3.6	0.3	2.2	- 0.1	0.6	2.2	2.0	2.4	2.4	- 0.4		
Real estate activities	102.2	103.1	104.2	0.4	0.9	1.1	0.2	0.7	1.8	1.1	0.7	0.7	1.1		
Business services <sup>1</sup>	105.1	109.8	112.9	- 5.0	4.4	2.9	6.5	4.4	6.7	2.2	1.0	1.8	0.1		
Public services, education and health	105.4	107.6	110.2	- 1.1	2.0	2.4	- 0.2	1.6	2.7	0.8	2.8	3.4	1.8		
Other services	91.2	91.5	97.6	-11.6	0.4	6.7	1.5	4.3	9.8	8.4	2.8	6.2	1.5		
Gross value added	102.8	105.6	107.5	- 3.9	2.7	1.8	2.2	1.2	3.8	1.7	1.4	0.4	0.7		
Gross domestic product <sup>2</sup>	103.2	105.9	107.8	- 3.7	2.6	1.8	1.8	1.2	4.1	1.7	1.3	0.2	- 0.2		
<b>II. Use of domestic product</b>															
Private consumption <sup>3</sup>	101.1	101.5	106.5	- 5.7	0.4	4.9	1.4	3.1	9.2	7.4	3.0	0.6	- 1.0		
Government consumption	113.8	118.1	119.5	4.0	3.8	1.2	2.1	1.4	4.4	- 0.0	0.3	0.2	- 5.4		
Machinery and equipment	100.8	104.3	107.7	-11.0	3.5	3.3	- 2.1	- 2.6	0.7	0.7	8.9	3.1	6.7		
Premises	112.9	112.9	110.8	- 3.9	0.0	- 1.8	0.6	- 3.2	3.4	- 3.3	- 1.7	- 5.2	- 2.9		
Other investment <sup>4</sup>	116.3	117.6	120.0	- 3.3	1.0	2.1	1.6	0.7	1.7	1.8	2.4	2.5	2.6		
Changes in inventories <sup>5,6</sup>	.	.	.	- 0.3	0.5	0.4	1.0	0.9	- 1.0	0.1	1.3	1.0	1.1		
Domestic demand	106.1	108.1	111.7	- 3.0	1.9	3.3	2.3	2.4	5.2	3.6	3.5	1.0	- 0.4		
Net exports <sup>6</sup>	.	.	.	- 0.8	0.8	- 1.3	- 0.3	- 1.0	- 0.8	- 1.7	- 2.0	- 0.7	0.1		
Exports	101.0	110.8	114.5	- 9.3	9.7	3.4	7.4	7.2	4.6	3.3	5.4	0.4	1.8		
Imports	107.6	117.3	125.4	- 8.5	9.0	6.9	9.3	11.1	7.2	7.8	11.0	2.0	1.7		
Gross domestic product <sup>2</sup>	103.2	105.9	107.8	- 3.7	2.6	1.8	1.8	1.2	4.1	1.7	1.3	0.2	- 0.2		
<b>At current prices (€ billion)</b>															
<b>III. Use of domestic product</b>															
Private consumption <sup>3</sup>	1,713.5	1,773.8	1,982.7	- 5.1	3.5	11.8	5.3	7.9	14.2	14.2	10.4	8.8	7.3		
Government consumption	748.0	797.5	849.3	6.4	6.6	6.5	6.2	6.1	9.4	6.0	5.6	5.2	- 1.6		
Machinery and equipment	217.5	229.4	253.7	- 9.8	5.5	10.6	- 0.3	0.2	6.2	7.6	17.4	11.2	14.8		
Premises	384.8	416.7	474.7	5.9	8.3	13.9	12.8	10.3	18.7	14.8	13.3	9.5	11.4		
Other investment <sup>4</sup>	133.8	137.7	144.0	- 2.8	2.9	4.6	3.4	2.9	5.6	5.0	4.9	3.1	3.5		
Changes in inventories <sup>5</sup>	16.1	55.1	89.5	.	.	.	.	.	.	.	.	.	.		
Domestic use	3,213.8	3,410.2	3,794.0	- 1.9	6.1	11.3	7.8	9.4	12.9	12.8	11.8	7.9	5.1		
Net exports	191.7	191.6	75.9	.	.	.	.	.	.	.	.	.	.		
Exports	1,464.8	1,693.9	1,954.6	- 9.6	15.6	15.4	15.1	17.1	16.3	17.3	19.0	9.5	6.3		
Imports	1,273.1	1,502.4	1,878.7	-10.6	18.0	25.0	20.3	26.7	26.6	29.2	33.4	12.9	4.2		
Gross domestic product <sup>2</sup>	3,405.4	3,601.8	3,869.9	- 2.0	5.8	7.4	6.3	6.3	9.2	8.2	6.1	6.5	6.0		
<b>IV. Prices (2015=100)</b>															
Private consumption	105.7	109.0	116.2	0.6	3.1	6.6	3.8	4.7	4.6	6.4	7.2	8.1	8.4		
Gross domestic product	109.1	112.4	118.6	1.8	3.1	5.5	4.4	5.0	4.9	6.3	4.8	6.2	6.2		
Terms of trade	102.8	100.1	95.5	2.0	- 2.6	- 4.6	- 2.7	- 4.2	- 5.7	- 5.2	- 6.1	- 1.4	1.8		
<b>V. Distribution of national income</b>															
Compensation of employees	1,853.9	1,918.0	2,020.5	- 0.1	3.5	5.3	4.7	4.6	6.7	5.4	4.2	5.1	6.3		
Entrepreneurial and property income	717.7	825.4	840.1	- 4.6	15.0	1.8	9.7	10.5	4.2	- 1.4	5.2	- 1.4	9.9		
National income	2,571.6	2,743.4	2,860.5	- 1.4	6.7	4.3	6.2	6.1	5.9	3.4	4.5	3.3	7.5		
Memo item: Gross national income	3,505.7	3,729.5	4,000.8	- 2.4	6.4	7.3	7.3	6.9	9.4	7.7	6.0	6.2	6.1		

Source: Federal Statistical Office; figures computed in May 2023. <sup>1</sup> Professional, scientific, technical, administration and support service activities. <sup>2</sup> Gross value added plus taxes on products (netted with subsidies on products). <sup>3</sup> Including non-profit institu-

tions serving households. <sup>4</sup> Intellectual property rights (inter alia, computer software and entertainment, literary or artistic originals) and cultivated assets. <sup>5</sup> Including net increase in valuables. <sup>6</sup> Contribution of growth to GDP.

## XI. Economic conditions in Germany

### 2. Output in the production sector \*

Adjusted for working-day variations ◦

Production sector, total	of which:											
	Construc- tion	Energy	Industry									
			Total	of which: by main industrial grouping				of which: by economic sector				
				Inter- mediate goods	Capital goods	Durable goods	Non- durable goods	Manu- facture of basic metals and fabricated metal products	Manu- facture of computers, electronic and optical products and electrical equipment	Machinery and equipment	Motor vehicels, trailers and semi- trailers	
<b>2015 = 100</b>												
% of total 1	100	14.04	6.37	79.60	29.44	36.96	2.28	10.92	10.27	9.95	12.73	14.14
Period												
2019	102.9	112.7	90.4	102.2	101.8	102.6	106.2	101.0	102.8	106.5	103.4	94.9
2020	95.0	116.2	84.4	92.2	94.9	88.2	97.6	97.2	90.6	98.5	89.5	75.9
2021	98.4	114.3	87.0	96.5	102.6	90.5	103.6	99.1	98.9	108.7	95.9	73.9
2022	97.9	112.5	85.5	96.3	99.5	92.3	105.4	99.6	96.5	114.0	96.7	76.7
2022 Q1	95.8	98.7	95.4	95.4	103.1	87.5	103.7	99.8	98.9	109.9	90.6	73.4
Q2	97.5	115.0	82.7	95.6	101.8	89.6	105.5	97.2	98.1	111.2	94.1	75.0
Q3	98.0	116.5	79.7	96.2	99.8	91.6	105.4	100.0	95.9	117.9	96.5	75.2
Q4	100.3	119.9	84.3	98.0	93.2	100.3	106.9	101.4	93.0	116.9	105.7	83.0
2023 Q1 x	96.6	97.6	85.0	97.4	98.4	96.2	103.4	97.7	96.7	117.9	93.4	90.5
2022 May	96.4	114.0	81.0	94.5	101.3	87.7	104.9	96.7	97.5	110.4	91.7	73.8
June	100.6	118.7	77.7	99.2	102.7	95.7	106.2	99.9	99.4	115.7	101.6	80.2
July 2	99.1	121.0	82.2	96.6	102.2	91.5	101.4	97.4	97.5	115.5	95.4	75.9
Aug. 2	91.5	110.4	78.1	89.2	95.0	81.7	98.2	96.7	90.0	112.0	89.4	60.2
Sep.	103.4	118.1	78.7	102.8	102.2	101.6	116.6	105.9	100.3	126.1	104.6	89.6
Oct.	101.6	121.8	80.8	99.7	100.4	96.7	111.5	105.3	100.7	118.6	98.4	83.7
Nov.	105.8	124.0	85.1	104.2	100.6	106.2	113.6	104.9	100.1	124.2	106.3	95.4
Dec.	93.4	113.9	86.9	90.2	78.6	98.0	95.7	94.0	78.2	108.0	112.3	69.9
2023 Jan. x	88.6	80.6	89.1	90.0	94.2	85.1	93.2	94.3	91.2	108.6	83.7	78.3
Feb. x	95.6	97.6	82.1	96.4	97.0	96.5	102.0	93.3	95.1	116.2	92.3	94.0
Mar. x	105.7	114.6	83.8	105.9	104.1	106.9	114.9	105.5	103.8	128.8	104.3	99.2
Apr. x	97.2	113.8	73.0	96.2	96.5	94.7	102.7	98.8	96.6	114.0	92.3	87.1
May x,p	97.1	114.3	65.6	96.6	96.4	96.1	100.0	98.2	95.9	114.9	93.2	89.7

### Annual percentage change

2019	- 2.3	+ 3.5	- 7.2	- 2.9	- 3.5	- 1.9	± 0.0	- 5.5	- 4.2	- 2.3	- 2.9	- 5.0
2020	- 7.7	+ 3.1	- 6.6	- 9.8	- 6.8	- 14.0	- 8.1	- 3.8	- 11.9	- 7.5	- 13.4	- 20.0
2021	+ 3.6	- 1.6	+ 3.1	+ 4.7	+ 8.1	+ 2.6	+ 6.1	+ 2.0	+ 9.2	+ 10.4	+ 7.2	- 2.6
2022	- 0.5	- 1.6	- 1.7	- 0.2	- 3.0	+ 2.0	+ 1.7	+ 0.5	- 2.4	+ 4.9	+ 0.8	+ 3.8
2022 Q1	- 0.6	+ 4.2	+ 3.4	- 1.6	- 0.9	- 4.5	+ 2.9	+ 4.4	- 1.3	+ 2.4	- 0.7	- 13.4
Q2	- 1.5	- 2.7	+ 1.1	- 1.4	- 3.4	- 0.6	+ 2.5	+ 0.7	- 3.5	+ 2.3	- 1.4	+ 0.3
Q3	+ 1.2	- 2.4	- 1.1	+ 2.1	- 2.5	+ 7.7	+ 3.5	- 1.6	- 2.0	+ 8.1	+ 1.9	+ 21.9
Q4	- 1.2	- 4.0	- 9.8	+ 0.1	- 5.7	+ 5.5	- 1.7	- 1.3	- 3.1	+ 6.7	+ 3.4	+ 11.8
2023 Q1 x	+ 0.8	- 1.1	- 10.9	+ 2.1	- 4.5	+ 9.9	- 0.4	- 2.1	- 2.2	+ 7.2	+ 3.2	+ 23.3
2022 May	- 1.4	- 2.7	- 0.5	- 1.3	- 3.8	+ 0.3	+ 4.6	± 0.0	- 2.9	+ 3.1	- 1.3	+ 3.4
June	+ 0.2	- 1.9	+ 0.8	+ 0.6	- 3.2	+ 4.8	- 0.6	- 1.6	- 3.9	+ 3.4	+ 2.7	+ 12.0
July 2	- 1.3	- 2.1	+ 5.7	- 1.5	- 3.2	+ 0.5	- 0.9	- 3.6	- 3.8	+ 5.3	- 2.7	+ 3.1
Aug. 2	+ 1.6	- 2.0	- 2.6	+ 2.6	- 2.9	+ 9.7	+ 7.3	- 1.6	- 1.3	+ 7.1	+ 3.4	+ 30.9
Sep.	+ 3.3	- 3.0	- 5.9	+ 5.3	- 1.4	+ 13.4	+ 4.4	+ 0.4	- 0.9	+ 11.8	+ 5.0	+ 36.6
Oct.	- 0.5	- 1.5	- 12.3	+ 0.6	- 3.9	+ 5.5	- 1.3	- 0.9	- 0.8	+ 7.2	+ 2.2	+ 14.0
Nov.	± 0.0	- 2.7	- 8.6	+ 1.2	- 3.7	+ 6.5	- 0.8	- 2.6	- 3.2	+ 9.8	+ 4.4	+ 13.7
Dec.	- 3.1	- 7.8	- 8.7	- 1.6	- 10.3	+ 4.5	- 3.1	- 0.3	- 5.7	+ 2.8	+ 3.6	+ 6.7
2023 Jan. x	- 1.0	- 1.5	- 9.9	- 0.2	- 5.5	+ 5.3	- 2.4	- 0.7	- 3.3	+ 5.7	+ 3.1	+ 11.7
Feb. x	+ 1.0	+ 0.8	- 13.3	+ 2.1	- 4.1	+ 9.4	- 2.5	- 2.0	- 2.6	+ 7.5	+ 3.4	+ 19.0
Mar. x	+ 2.3	- 2.6	- 9.6	+ 4.1	- 4.1	+ 14.5	+ 3.4	- 3.4	- 0.9	+ 8.3	+ 3.1	+ 39.5
Apr. x	+ 1.7	+ 1.4	- 18.3	+ 3.2	- 4.7	+ 10.8	- 2.6	+ 4.0	- 0.8	+ 5.9	+ 3.7	+ 22.5
May x,p	+ 0.7	+ 0.3	- 19.0	+ 2.2	- 4.8	+ 9.6	- 4.7	+ 1.6	- 1.6	+ 4.1	+ 1.6	+ 21.5

Source of the unadjusted figures: Federal Statistical Office. \* For explanatory notes, see Statistical Series - Seasonally adjusted business statistics, Tables III.1.a to III.1.c ◦ 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 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 ◦

Period	Industry		of which:				Consumer goods		of which:				
	2015 = 100	Annual percentage change	Intermediate goods		Capital goods		2015 = 100	Annual percentage change	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	
<b>Total</b>													
2019	104.9	- 5.1	103.5	- 7.2	105.4	- 4.2	107.0	- 2.8	123.3	+ 3.7	101.7	- 5.0	
2020	97.2	- 7.3	97.9	- 5.4	95.6	- 9.3	105.7	- 1.2	124.4	+ 0.9	99.6	- 2.1	
2021	119.3	+ 22.7	124.6	+ 27.3	116.3	+ 21.7	117.4	+ 11.1	146.5	+ 17.8	107.9	+ 8.3	
2022	126.2	+ 5.8	138.4	+ 11.1	118.3	+ 1.7	129.0	+ 9.9	164.8	+ 12.5	117.2	+ 8.6	
2022 May	123.9	+ 8.8	139.4	+ 13.3	113.8	+ 5.1	127.5	+ 11.9	178.8	+ 13.8	110.6	+ 11.0	
June	129.3	+ 2.1	142.4	+ 11.6	120.4	- 4.1	136.0	+ 3.0	168.3	+ 11.2	125.3	- 0.2	
July	127.7	- 0.3	143.7	+ 12.4	118.9	- 7.5	120.7	- 5.2	149.9	- 0.7	111.0	- 7.1	
Aug.	114.5	+ 7.6	128.3	+ 11.0	104.9	+ 4.8	122.2	+ 9.9	161.0	+ 18.9	109.4	+ 5.9	
Sep.	123.6	+ 0.8	132.0	+ 6.3	117.1	- 4.6	134.4	+ 17.9	166.4	+ 19.5	123.9	+ 17.2	
Oct.	125.5	+ 7.1	134.9	+ 8.1	119.3	+ 6.3	128.9	+ 7.6	173.5	+ 22.3	114.2	+ 1.5	
Nov.	124.4	- 0.7	135.4	+ 1.9	117.0	- 3.1	129.4	+ 3.9	149.6	- 0.1	122.8	+ 5.7	
Dec.	121.3	- 1.9	127.6	+ 6.2	118.6	- 6.5	112.0	- 2.2	139.8	- 6.2	102.9	- 0.2	
2023 Jan.	125.8	- 5.3	139.2	- 3.5	118.1	- 6.9	122.2	- 3.3	135.6	- 11.9	117.8	+ 0.3	
Feb.	128.9	+ 0.1	133.7	- 2.1	126.3	+ 1.9	125.8	- 2.4	154.0	+ 0.1	116.6	- 3.4	
Mar.	130.2	- 6.3	138.7	- 9.4	124.8	- 3.4	132.5	- 8.9	168.5	- 13.1	120.6	- 6.9	
Apr.	115.9	- 6.1	128.6	- 10.0	107.6	- 1.9	118.5	- 13.1	156.3	- 17.1	106.1	- 10.9	
May <sup>P</sup>	121.5	- 1.9	124.5	- 10.7	120.3	+ 5.7	116.7	- 8.5	136.8	- 23.5	110.0	- 0.5	
<b>From the domestic market</b>													
2019	101.2	- 5.6	99.1	- 8.7	103.0	- 3.4	101.2	- 1.7	116.2	+ 1.3	96.1	- 2.8	
2020	94.9	- 6.2	94.1	- 5.0	95.1	- 7.7	98.0	- 3.2	105.5	- 9.2	95.4	- 0.7	
2021	115.5	+ 21.7	119.5	+ 27.0	113.1	+ 18.9	108.0	+ 10.2	114.9	+ 8.9	105.6	+ 10.7	
2022	122.7	+ 6.2	135.4	+ 13.3	112.6	- 0.4	118.2	+ 9.4	125.0	+ 8.8	115.9	+ 9.8	
2022 May	122.4	+ 9.0	136.3	+ 14.9	112.0	+ 3.1	113.3	+ 12.4	138.0	+ 13.7	104.9	+ 11.8	
June	125.6	- 1.6	137.0	+ 9.5	116.0	- 11.1	124.7	+ 0.6	127.4	+ 8.7	123.8	- 2.0	
July	124.5	- 3.3	143.9	+ 14.1	110.1	- 16.7	110.4	- 9.0	124.7	+ 7.5	105.6	- 14.2	
Aug.	110.2	+ 5.5	124.9	+ 12.0	97.9	- 0.5	108.2	+ 2.1	121.3	+ 9.4	103.7	- 0.7	
Sep.	120.6	+ 9.6	128.8	+ 9.2	112.9	+ 8.2	125.7	+ 21.9	123.5	+ 16.3	126.4	+ 23.9	
Oct.	120.5	+ 4.2	133.8	+ 8.8	108.9	- 1.0	121.7	+ 10.1	123.7	+ 15.9	121.0	+ 8.2	
Nov.	123.2	+ 3.2	134.4	+ 6.1	113.3	- 0.4	125.7	+ 8.9	128.2	+ 9.0	124.9	+ 9.0	
Dec.	115.4	- 3.0	127.5	+ 14.5	108.6	- 14.9	92.1	- 12.7	99.3	- 2.6	89.7	- 15.9	
2023 Jan.	121.5	- 2.6	137.3	- 1.0	110.5	- 3.0	105.0	- 10.7	105.7	- 9.0	104.8	- 11.3	
Feb.	125.8	+ 2.0	133.3	+ 0.8	121.4	+ 4.3	111.8	- 5.6	113.6	- 3.4	111.2	- 6.3	
Mar.	130.1	- 6.0	137.0	- 7.9	126.0	- 3.7	118.7	- 8.9	133.1	- 6.8	113.8	- 9.8	
Apr.	117.5	- 4.9	132.6	- 4.3	106.9	- 2.6	102.8	- 21.2	118.9	- 13.7	97.4	- 23.9	
May <sup>P</sup>	123.9	+ 1.2	124.5	- 8.7	126.3	+ 12.8	104.4	- 7.9	111.3	- 19.3	102.0	- 2.8	
<b>From abroad</b>													
2019	107.6	- 4.8	108.3	- 5.5	106.9	- 4.6	111.5	- 3.5	129.0	+ 5.6	105.9	- 6.6	
2020	98.9	- 8.1	102.0	- 5.8	95.9	- 10.3	111.8	+ 0.3	139.6	+ 8.2	102.8	- 2.9	
2021	122.2	+ 23.6	130.1	+ 27.5	118.2	+ 23.3	124.8	+ 11.6	171.9	+ 23.1	109.6	+ 6.6	
2022	128.8	+ 5.4	141.6	+ 8.8	121.8	+ 3.0	137.4	+ 10.1	196.8	+ 14.5	118.2	+ 7.8	
2022 May	125.0	+ 8.5	142.8	+ 11.7	114.9	+ 6.3	138.5	+ 11.7	211.7	+ 13.9	114.9	+ 10.4	
June	132.1	+ 4.9	148.2	+ 13.8	123.0	+ 0.4	144.7	+ 4.7	201.2	+ 12.5	126.4	+ 1.0	
July	130.2	+ 2.0	143.4	+ 10.4	124.2	- 1.7	128.6	- 2.5	170.2	- 4.9	115.1	- 1.4	
Aug.	117.7	+ 9.1	132.0	+ 9.9	109.1	+ 7.9	133.0	+ 15.5	193.0	+ 24.4	113.7	+ 11.0	
Sep.	125.9	- 4.8	135.4	+ 3.3	119.6	- 10.6	141.2	+ 15.4	200.9	+ 21.2	121.9	+ 12.4	
Oct.	129.3	+ 9.1	136.0	+ 7.3	125.5	+ 10.6	134.5	+ 5.9	213.6	+ 25.5	109.0	- 3.6	
Nov.	125.3	- 3.5	136.5	- 2.2	119.2	- 4.6	132.3	+ 0.6	166.8	- 5.0	121.2	+ 3.2	
Dec.	125.7	- 1.1	127.7	- 1.5	124.6	- 1.5	127.4	+ 4.9	172.4	- 7.8	113.0	+ 12.5	
2023 Jan.	129.1	- 7.3	141.2	- 6.0	122.7	- 8.9	135.6	+ 1.7	159.7	- 13.3	127.8	+ 9.3	
Feb.	131.3	- 1.2	134.2	- 5.0	129.2	+ 0.6	136.7	- 0.2	186.5	+ 1.9	120.7	- 1.2	
Mar.	130.3	- 6.4	140.5	- 11.0	124.0	- 3.3	143.2	- 9.0	197.0	- 16.1	125.8	- 4.9	
Apr.	114.6	- 7.0	124.3	- 15.8	108.1	- 1.4	130.7	- 7.2	186.4	- 18.8	112.7	+ 0.4	
May <sup>P</sup>	119.7	- 4.2	124.5	- 12.8	116.7	+ 1.6	126.2	- 8.9	157.4	- 25.6	116.1	+ 1.0	

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. ◦ Using JDemetra+ 2.2.2 (X13).

## XI. Economic conditions in Germany

### 4. Orders received by construction \*

Adjusted for working-day variations ◦

Zeit	Breakdown by type of construction												Breakdown by client <sup>1</sup>			
	Structural engineering												Civil engineering			
	Total		Residential construction		Industrial construction		Public sector construction		Industrial clients		Public sector <sup>2</sup>					
	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
2019	146.2	+ 8.2	145.3	+ 10.3	150.4	+ 9.7	142.6	+ 10.8	138.9	+ 10.9	147.1	+ 5.9	148.1	+ 8.8	141.3	+ 6.6
2020	145.6	- 0.4	144.2	- 0.8	160.8	+ 6.9	130.2	- 8.7	141.5	+ 1.9	147.3	+ 0.1	139.6	- 5.7	143.3	+ 1.4
2021	159.0	+ 9.2	164.1	+ 13.8	174.3	+ 8.4	156.6	+ 20.3	158.5	+ 12.0	153.0	+ 3.9	161.5	+ 15.7	146.7	+ 2.4
2022	166.8	+ 4.9	161.7	- 1.5	167.7	- 3.8	155.0	- 1.0	166.8	+ 5.2	172.7	+ 12.9	171.9	+ 6.4	160.5	+ 9.4
2022 Apr.	164.2	+ 2.5	157.7	- 0.4	178.1	- 3.8	142.7	+ 2.3	146.4	+ 4.7	171.8	+ 5.9	154.0	+ 4.0	167.5	+ 5.5
May	175.9	+ 10.6	172.1	+ 5.5	182.1	- 1.1	163.0	+ 11.0	173.5	+ 12.4	180.2	+ 16.9	170.7	+ 13.1	178.0	+ 16.4
June	175.2	+ 6.4	166.3	+ 0.7	177.9	+ 0.2	153.3	- 4.3	176.6	+ 24.0	185.6	+ 13.1	177.5	+ 6.5	171.0	+ 10.7
July	180.6	+ 12.9	179.3	+ 6.5	171.1	- 4.5	178.0	+ 8.7	211.5	+ 40.4	182.1	+ 21.2	190.1	+ 19.9	175.5	+ 17.1
Aug.	157.2	- 1.1	148.2	- 8.8	145.1	- 13.2	143.0	- 12.4	178.0	+ 23.6	167.6	+ 8.3	155.9	- 1.6	165.9	+ 7.4
Sep.	164.2	- 9.3	159.4	- 15.6	162.5	- 15.1	153.9	- 20.3	169.5	+ 2.6	169.9	- 1.1	166.1	- 13.8	163.2	+ 1.3
Oct.	161.8	+ 2.0	145.1	- 14.1	148.3	- 12.3	140.2	- 18.4	153.0	- 2.7	181.3	+ 23.5	172.5	+ 0.5	157.9	+ 14.8
Nov.	148.3	+ 2.1	134.7	- 5.7	130.9	- 17.9	127.0	- 4.2	176.1	+ 38.6	164.0	+ 10.7	155.2	- 2.7	150.9	+ 25.3
Dec.	166.0	- 10.3	162.2	- 21.0	154.8	- 21.1	165.5	- 4.4	174.5	- 50.9	170.4	+ 5.4	188.6	+ 1.0	146.9	- 16.8
2023 Jan.	132.2	- 7.4	125.7	- 13.6	126.8	- 23.5	128.4	- 4.3	112.1	- 7.5	139.7	- 0.1	145.8	- 2.3	119.8	- 1.6
Feb.	151.8	- 2.5	130.4	- 19.0	127.4	- 27.6	133.0	- 15.9	130.9	+ 7.5	176.6	+ 18.1	167.6	+ 1.5	148.5	+ 12.1
Mar.	192.7	- 8.0	179.4	- 14.0	155.1	- 29.3	197.2	- 2.0	193.1	- 3.5	208.2	- 1.1	216.9	- 0.1	187.8	- 3.5
Apr.	169.9	+ 3.5	147.6	- 6.4	144.6	- 18.8	141.6	- 0.8	179.7	+ 22.7	195.9	+ 14.0	178.4	+ 15.8	175.6	+ 4.8

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. ◦ Using JDemetra+ 2.2.2 (X13). <sup>1</sup> Excluding residential construction. <sup>2</sup> Including road construction.

### 5. Retail trade turnover \*

Adjusted for calendar variations ◦

Zeit	of which:															
	In stores by enterprises main product range															
	Total		Food, beverages, tobacco <sup>1</sup>		Textiles, clothing, footwear and leather goods		Information and communications equipment		Construction and flooring materials, household appliances, furniture		Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles		Retail sale via mail order houses or via internet as well as other retail sale <sup>2</sup>			
	At current prices	Annual percentage change	At 2015 prices	Annual percentage change	At current prices	Annual percentage change	At current prices	Annual percentage change	At current prices	Annual percentage change	At current prices	Annual percentage change	At current prices	Annual percentage change		
2019	115.0	+ 3.9	111.0	+ 3.3	112.2	+ 2.4	106.7	+ 1.0	108.9	+ 1.6	107.1	+ 4.0	118.8	+ 5.7	138.3	+ 8.3
2020	121.4	+ 5.6	115.9	+ 4.4	121.4	+ 8.2	81.9	- 23.2	106.9	- 1.8	117.1	+ 9.3	125.4	+ 5.6	169.0	+ 22.2
2021	124.7	+ 2.7	116.7	+ 0.7	121.7	+ 0.2	78.1	- 4.6	95.4	- 10.8	110.5	- 5.6	135.2	+ 7.8	189.9	+ 12.4
2022 <sup>3</sup>	134.4	+ 7.8	115.8	- 0.8	128.3	+ 5.4	102.8	+ 31.6	107.6	+ 12.8	122.9	+ 11.2	144.7	+ 7.0	188.6	- 0.7
2022 May	133.7	+ 6.7	115.8	- 1.3	127.5	+ 0.6	109.5	+ 75.5	89.4	+ 21.6	129.9	+ 14.9	140.1	+ 7.9	180.9	- 8.3
June	130.7	+ 0.6	112.6	- 7.6	126.9	+ 4.3	105.6	- 6.8	92.7	- 3.8	119.5	- 5.2	141.5	+ 7.1	174.6	- 4.6
July	135.6	+ 8.0	116.1	- 1.3	130.9	+ 8.5	106.0	+ 3.2	100.2	- 0.9	122.1	+ 0.2	149.0	+ 9.3	182.0	+ 14.0
Aug.	130.2	+ 6.2	110.6	- 3.8	126.2	+ 10.0	98.3	- 2.2	98.5	- 2.4	114.4	- 3.6	142.8	+ 6.6	173.0	+ 4.2
Sep.	133.4	+ 10.7	111.9	- 0.3	125.3	+ 11.9	116.4	+ 16.3	108.7	+ 6.2	119.0	+ 4.9	144.7	+ 10.5	186.7	+ 9.2
Oct.	138.5	+ 6.4	115.0	- 4.6	132.7	+ 11.0	116.5	+ 1.5	111.9	+ 2.5	126.0	+ 0.1	145.6	+ 3.2	193.1	+ 1.4
Nov.	148.4	+ 5.8	123.6	- 4.8	133.6	+ 10.0	117.0	+ 11.4	137.1	+ 1.4	130.0	+ 0.2	156.7	+ 6.6	236.3	+ 0.5
Dec.	152.6	+ 4.9	126.7	- 5.7	146.9	+ 6.8	125.7	+ 28.8	149.4	+ 1.1	123.5	+ 1.1	161.2	+ 3.5	210.4	- 4.3
2023 Jan.	125.1	+ 3.7	104.4	- 5.9	123.6	+ 6.4	86.6	+ 21.1	112.0	+ 0.4	109.4	- 1.4	140.3	+ 1.1	171.8	- 5.4
Feb.	123.3	+ 4.1	101.7	- 5.6	123.9	+ 7.9	83.9	+ 16.2	100.3	+ 3.8	109.1	- 2.8	136.1	+ 3.9	165.9	- 3.1
Mar.	139.0	+ 0.9	113.4	- 7.4	138.5	+ 4.8	99.7	+ 6.6	104.7	+ 3.3	130.5	- 4.1	149.5	+ 2.5	183.6	- 4.4
Apr.	137.6	+ 3.9	111.6	- 4.1	137.6	+ 8.3	107.7	+ 5.8	93.5	- 0.4	129.2	- 1.7	147.3	+ 5.6	176.8	- 2.3
May	139.3	+ 4.2	113.0	- 2.4	138.8	+ 8.9	111.5	+ 1.8	89.6	+ 0.2	129.7	- 0.2	147.7	+ 5.4	178.6	- 1.3

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. ◦ Using JDemetra+ 2.2.2 (X13). <sup>1</sup> Including stalls and markets. <sup>2</sup> Excluding

stores, stalls and markets. <sup>3</sup> As of January 2022 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					Short-time workers 3			Unemployment 4		Unemployment rate in % 4,5	Vacancies, thousands 4,6
	Thousands	Annual percentage change	Total		of which:			Total	of which:		Assigned to the legal category of the Third Book of the Social Security Code (SGB III)			
			Thousands	Annual percentage change	Production sector	Services excluding temporary employment	Temporary employment		Solely jobs exempt from social contributions 2	Cyclically induced		Total		
2018	44,866	+ 1.4	32,964	+ 2.3	9,349	22,532	840	4,671	118	25	2,340	802	5.2	796
2019	45,276	+ 0.9	33,518	+ 1.7	9,479	23,043	751	4,579	145	60	2,267	7	5.0	774
2020	44,914	- 0.8	33,579	+ 0.2	9,395	23,277	660	4,290	2,939	2,847	2,695	1,137	5.9	613
2021	44,980	+ 0.1	33,897	+ 0.9	9,344	23,602	702	4,101	1,852	1,744	2,613	999	5.7	706
2022	45,573	+ 1.3	34,507	+ 1.8	9,400	24,135	721	4,125	426	337	2,418	808	5.3	845
2020 Q2	44,723	- 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	44,809	- 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	44,993	- 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	44,514	- 1.4	33,568	- 0.2	9,294	23,376	665	4,051	3,473	3,157	2,878	1,248	6.3	586
Q2	44,812	+ 0.2	33,718	+ 0.9	9,322	23,446	697	4,066	2,164	2,143	2,691	1,024	5.9	658
Q3	45,157	+ 0.8	33,929	+ 1.5	9,347	23,606	719	4,161	935	915	2,545	920	5.5	774
Q4	45,437	+ 1.0	34,374	+ 1.6	9,415	23,982	727	4,125	835	762	2,341	802	5.1	804
2022 Q1	45,183	+ 1.5	34,242	+ 2.0	9,348	23,943	715	4,061	1,033	792	2,417	874	5.3	818
Q2	45,496	+ 1.5	34,401	+ 2.0	9,372	24,056	718	4,112	337	324	2,311	777	5.0	864
Q3	45,676	+ 1.1	34,522	+ 1.7	9,405	24,133	724	4,159	103	92	2,501	804	5.5	880
Q4	45,934	+ 1.1	34,864	+ 1.4	9,475	24,409	730	4,166	229	139	2,443	778	5.3	817
2023 Q1	8 45,629	8 + 1.0	9 34,603	9 + 1.1	9 9,394	9 24,280	9 695	9 4,151	...	9 151	2,610	900	5.7	773
Q2	...	...	...	...	...	...	...	...	...	...	2,561	839	10 5.6	770
2020 Feb.	45,169	+ 0.6	33,624	+ 1.3	9,427	23,278	683	4,461	439	134	2,396	971	5.3	690
Mar.	45,077	+ 0.2	33,648	+ 1.1	9,440	23,290	675	4,350	2,834	2,580	2,335	925	5.1	691
Apr.	44,808	- 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	44,672	- 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	44,688	- 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	44,699	- 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.	44,737	- 1.3	33,482	- 0.4	9,367	23,218	642	4,266	2,537	2,551	2,955	1,302	6.4	584
Sep.	44,990	- 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.	45,076	- 1.1	33,862	- 0.3	9,410	23,530	671	4,229	2,037	2,021	2,730	1,183	6.0	602
Nov.	45,030	- 1.3	33,899	- 0.2	9,400	23,559	696	4,166	2,405	2,386	2,699	1,152	5.9	601
Dec.	44,873	- 1.3	33,700	- 0.1	9,327	23,478	666	4,134	2,856	2,676	2,707	1,166	5.9	581
2021 Jan.	44,489	- 1.5	33,515	- 0.3	9,282	23,347	657	4,045	3,638	2,901	2,198	6.3	566	
Feb.	44,486	- 1.5	33,521	- 0.3	9,281	23,343	662	4,026	3,766	3,358	2,904	1,270	6.3	583
Mar.	44,567	- 1.1	33,636	- 0.0	9,309	23,397	685	4,032	3,016	2,818	2,827	1,177	6.2	609
Apr.	44,676	- 0.3	33,689	+ 0.8	9,324	23,427	687	4,039	2,583	2,560	2,771	1,091	6.0	629
May	44,796	+ 0.3	33,747	+ 1.3	9,326	23,461	703	4,067	2,342	2,320	2,687	1,020	5.9	654
June	44,963	+ 0.6	33,802	+ 1.4	9,324	23,504	716	4,151	1,568	1,548	2,614	961	5.7	693
July	45,027	+ 0.7	33,731	+ 1.5	9,304	23,458	715	4,194	1,088	1,068	2,590	956	5.6	744
Aug.	45,096	+ 0.8	33,994	+ 1.5	9,358	23,658	722	4,153	857	838	2,578	940	5.6	779
Sep.	45,347	+ 0.8	34,323	+ 1.6	9,432	23,903	726	4,123	859	839	2,465	864	5.4	799
Oct.	45,434	+ 0.8	34,369	+ 1.5	9,425	23,965	724	4,123	780	762	2,377	814	5.2	809
Nov.	45,490	+ 1.0	34,449	+ 1.6	9,423	24,039	739	4,133	767	759	2,317	789	5.1	808
Dec.	45,386	+ 1.1	34,284	+ 1.7	9,364	23,980	708	4,112	957	772	2,330	803	5.1	794
2022 Jan.	45,111	+ 1.4	34,176	+ 2.0	9,332	23,900	711	4,048	1,123	847	2,462	903	5.4	792
Feb.	45,172	+ 1.5	34,243	+ 2.2	9,346	23,939	719	4,049	1,087	803	2,428	884	5.3	822
Mar.	45,266	+ 1.6	34,334	+ 2.1	9,369	23,999	719	4,061	888	727	2,362	835	5.1	839
Apr.	45,378	+ 1.6	34,368	+ 2.0	9,366	24,037	713	4,091	453	439	2,309	800	5.0	852
May	45,513	+ 1.6	34,445	+ 2.1	9,376	24,089	719	4,131	318	305	2,260	771	4.9	865
June	45,598	+ 1.4	34,445	+ 1.9	9,376	24,084	724	4,164	241	228	2,363	761	5.2	877
July	45,556	+ 1.2	34,322	+ 1.8	9,361	23,988	718	4,176	115	102	2,470	801	5.4	881
Aug.	45,612	+ 1.1	34,571	+ 1.7	9,417	24,169	725	4,151	87	76	2,547	827	5.6	887
Sep.	45,861	+ 1.1	34,899	+ 1.7	9,499	24,401	733	4,136	108	97	2,486	782	5.4	873
Oct.	45,953	+ 1.1	34,893	+ 1.5	9,489	24,414	734	4,161	134	124	2,442	764	5.3	846
Nov.	45,979	+ 1.1	34,897	+ 1.3	9,478	24,435	738	4,179	156	147	2,434	770	5.3	823
Dec.	45,871	+ 1.1	34,705	+ 1.2	9,414	24,357	704	4,182	397	146	2,454	799	5.4	781
2023 Jan.	45,554	+ 1.0	9 34,552	9 + 1.1	9 9,382	9 24,242	9 697	9 4,142	...	9 141	2,616	911	5.7	764
Feb.	45,619	+ 1.0	9 34,574	9 + 1.0	9 9,388	9 24,261	9 690	9 4,145	...	9 151	2,620	910	5.7	778
Mar.	8 45,715	8 + 1.0	9 34,658	9 + 0.9	9 9,409	9 24,317	9 690	9 4,150	...	9 160	2,594	878	5.7	777
Apr.	8 45,799	8 + 0.9	9 34,658	9 + 0.8	9 9,406	9 24,323	9 682	9 4,186	...	9 135	2,586	855	5.7	773
May	8 45,878	8 + 0.8	...	...	...	...	...	...	...	...	2,544	829	10 5.5	767
June	...	...	...	...	...	...	...	...	...	...	2,555	833	5.5	769

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 Statistical break due to late recording of unemployed persons in the legal category of the Second Book of the Social Security Code (SGB II).

8 Initial preliminary estimate by the Federal Statistical Office. 9 Unadjusted figures estimated by the Federal Employment Agency. In 2021 and 2022, 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 0.5% for persons solely in jobs exempt from social contributions, and by a maximum of 61.3% for cyclically induced short-time work. 10 From May 2023, 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)	Con- struction price index	Index of producer prices of industrial products sold on the domestic market <sup>3</sup>	Index of producer prices of agri- cultural products <sup>3</sup>	Indices of foreign trade prices		HWWI Index of World Market Prices of Raw Materials <sup>4</sup>	
	Total	of which:				Actual rents for housing					Exports	Imports	Energy <sup>5</sup>	Other raw materials <sup>6</sup>
		Food <sup>1,2</sup>	Non- energy industrial goods <sup>1</sup>	Energy <sup>1</sup>	Services <sup>1</sup>									
2015 = 100	2020 = 100						2015 = 100	2020 = 100						
<b>Index level</b>														
2020	7 105.8	7 110.9	7 104.1	7 99.0	7 106.9	107.6	7 100.0	7 117.0	103.8	108.0	101.7	97.3	100.0	100.0
2021	7 109.2	7 114.1	7 106.7	7 107.6	7 109.0	109.0	7 103.1	7 127.0	114.7	117.5	107.4	110.4	220.7	137.6
2022	118.7	126.2	112.7	146.8	112.2	110.8	110.2	148.3	152.4	8 156.2	123.1	139.4	430.8	164.0
2021 Aug.	7 109.8	7 114.4	7 106.5	7 109.4	7 110.3	109.2	7 103.5	7 129.4	115.6	118.7	108.5	112.4	217.6	138.9
Sep.	7 110.1	7 114.4	7 107.6	7 110.1	7 109.9	109.3	7 103.8	7 129.4	118.3	117.4	109.5	113.9	256.1	136.3
Oct.	7 110.7	7 114.5	7 108.0	7 114.6	7 110.0	109.5	7 104.3	7 132.2	122.8	120.7	111.0	118.2	352.7	143.0
Nov.	7 111.0	7 114.9	7 108.4	7 116.7	7 109.5	109.5	7 104.5	7 132.2	123.8	125.6	111.9	121.7	304.4	143.0
Dec.	7 111.3	7 115.7	7 108.6	7 115.0	7 110.3	109.6	7 104.7	7 132.2	130.0	127.2	113.0	121.8	352.9	148.3
2022 Jan.	112.3	117.2	108.4	123.7	109.8	109.9	105.2	138.1	132.8	129.2	115.0	127.0	327.8	157.0
Feb.	113.3	118.2	109.1	127.4	110.2	110.0	106.0	138.1	134.6	133.4	116.1	128.6	336.0	166.5
Mar.	116.1	119.1	110.4	146.1	110.6	110.2	108.1	138.1	141.2	153.6	120.7	135.9	504.2	185.4
Apr.	116.9	122.2	111.3	142.7	111.7	110.4	108.8	138.1	145.2	162.3	121.7	138.3	407.8	184.8
May	118.2	124.2	112.3	146.7	112.0	110.6	109.8	147.9	147.5	160.7	122.4	139.5	366.8	178.9
June	118.1	125.4	112.5	147.8	111.0	110.8	109.8	147.9	148.4	157.5	123.5	140.9	389.3	169.6
July	119.0	127.6	112.6	147.8	112.1	110.9	110.3	151.7	156.3	156.5	126.0	142.9	449.8	158.0
Aug.	119.5	129.1	113.0	148.6	112.2	111.1	110.7	151.7	168.6	159.8	128.7	149.1	534.2	159.4
Sep.	122.1	130.9	114.5	158.8	113.9	111.2	112.7	151.7	172.5	8 164.7	127.9	147.8	528.5	157.4
Oct.	123.5	132.2	115.8	164.5	114.3	111.4	113.5	155.4	165.2	166.5	125.5	146.0	442.1	154.4
Nov.	123.5	133.6	116.3	163.5	113.7	111.6	113.7	155.4	158.7	165.7	124.9	139.4	425.7	149.5
Dec.	122.0	136.7	116.6	143.9	114.8	111.7	113.2	155.4	158.1	165.1	125.0	137.1	435.7	147.0
2023 Jan.	122.6	136.6	116.4	154.8	113.8	112.1	114.3	159.7	154.8	161.8	124.0	135.4	306.4	148.8
Feb.	123.8	139.5	117.0	154.9	115.0	112.2	115.2	159.7	152.8	160.6	123.8	132.2	277.2	150.8
Mar.	125.1	141.3	118.3	155.0	116.1	112.5	116.1	159.7	150.6	155.3	123.5	130.8	247.1	146.2
Apr.	125.8	141.1	119.0	156.1	117.1	112.6	116.6	161.0	151.1	151.7	123.0	128.6	248.0	143.2
May	125.6	141.1	119.3	154.0	116.9	112.8	116.5	161.0	149.0	...	122.5	126.8	212.8	138.2
June	126.1	141.2	119.5	153.7	117.8	113.0	116.8	161.0	...	...	...	...	203.4	137.1
<b>Annual percentage change</b>														
2020	7 + 0.4	7 + 2.3	7 - 0.1	7 - 4.5	7 + 1.2	+ 1.4	7 + 0.5	7 + 1.4	- 1.0	- 3.1	- 0.7	- 4.3	- 33.4	+ 1.3
2021	7 + 3.2	7 + 2.9	7 + 2.5	7 + 10.1	7 + 2.0	+ 1.3	7 + 3.1	7 + 8.6	+ 10.5	+ 8.8	+ 5.6	+ 13.5	+ 120.7	+ 37.6
2022	+ 8.7	+ 10.6	+ 5.7	+ 34.7	+ 2.9	+ 1.7	+ 6.9	+ 16.8	+ 32.9	8 + 32.9	+ 14.6	+ 26.3	+ 95.2	+ 19.2
2021 Aug.	7 + 3.4	7 + 3.9	7 + 3.8	7 + 12.1	7 + 1.2	+ 1.3	7 + 3.8	7 + 11.8	+ 12.0	+ 13.3	+ 7.2	+ 16.5	+ 127.1	+ 41.2
Sep.	7 + 4.1	7 + 4.1	7 + 3.9	7 + 13.6	7 + 1.8	+ 1.4	7 + 4.1	7 + 11.8	+ 14.2	+ 13.4	+ 8.1	+ 17.7	+ 163.7	+ 31.7
Oct.	7 + 4.6	7 + 3.9	7 + 3.9	7 + 18.1	7 + 2.2	+ 1.4	7 + 4.4	7 + 14.0	+ 18.4	+ 16.3	+ 9.5	+ 21.7	+ 241.4	+ 36.3
Nov.	7 + 6.0	7 + 4.2	7 + 4.2	7 + 21.6	7 + 3.8	+ 1.3	7 + 4.8	7 + 14.0	+ 19.2	+ 20.9	+ 9.9	+ 24.7	+ 178.0	+ 33.5
Dec.	7 + 5.7	7 + 5.3	7 + 5.0	7 + 18.1	7 + 3.2	+ 1.3	7 + 4.9	7 + 14.0	+ 24.2	+ 22.1	+ 10.9	+ 24.0	+ 189.7	+ 32.1
2022 Jan.	+ 5.1	+ 4.4	+ 3.1	+ 20.6	+ 2.7	+ 1.4	+ 4.2	+ 13.9	+ 25.0	+ 21.0	+ 11.9	+ 26.9	+ 131.5	+ 30.2
Feb.	+ 5.5	+ 4.6	+ 3.4	+ 22.4	+ 2.7	+ 1.4	+ 4.3	+ 13.9	+ 25.9	+ 22.5	+ 12.4	+ 26.3	+ 130.1	+ 33.5
Mar.	+ 7.6	+ 5.3	+ 4.4	+ 37.6	+ 2.8	+ 1.5	+ 5.9	+ 13.9	+ 30.9	+ 34.7	+ 15.9	+ 31.2	+ 235.5	+ 42.2
Apr.	+ 7.8	+ 6.7	+ 5.2	+ 34.5	+ 3.1	+ 1.6	+ 6.3	+ 18.2	+ 33.5	+ 40.0	+ 16.0	+ 31.7	+ 164.6	+ 37.6
May	+ 8.7	+ 8.8	+ 5.6	+ 37.5	+ 3.0	+ 1.6	+ 7.0	+ 18.2	+ 33.6	+ 35.6	+ 15.9	+ 30.6	+ 117.9	+ 23.5
June	+ 8.2	+ 9.9	+ 5.6	+ 37.4	+ 1.7	+ 1.7	+ 6.7	+ 18.2	+ 32.7	+ 33.8	+ 16.1	+ 29.9	+ 112.7	+ 19.2
July	+ 8.5	+ 11.5	+ 5.8	+ 35.6	+ 1.7	+ 1.6	+ 6.7	+ 17.2	+ 37.2	+ 33.5	+ 17.0	+ 28.9	+ 119.6	+ 11.3
Aug.	+ 8.8	+ 12.8	+ 6.1	+ 35.8	+ 1.7	+ 1.7	+ 7.0	+ 17.2	+ 45.8	+ 34.6	+ 18.6	+ 32.7	+ 145.5	+ 14.8
Sep.	+ 10.9	+ 14.4	+ 6.4	+ 44.2	+ 3.6	+ 1.7	+ 8.6	+ 17.2	+ 45.8	8 + 40.3	+ 16.8	+ 29.8	+ 106.4	+ 15.5
Oct.	+ 11.6	+ 15.5	+ 7.2	+ 43.5	+ 3.9	+ 1.7	+ 8.8	+ 17.5	+ 34.5	+ 37.9	+ 13.1	+ 23.5	+ 25.3	+ 8.0
Nov.	+ 11.3	+ 16.3	+ 7.3	+ 40.1	+ 3.8	+ 1.9	+ 8.8	+ 17.5	+ 28.2	+ 31.9	+ 11.6	+ 14.5	+ 39.8	+ 4.5
Dec.	+ 9.6	+ 16.3	+ 7.4	+ 25.1	+ 4.1	+ 1.9	+ 8.1	+ 17.5	+ 21.6	+ 29.8	+ 10.6	+ 12.6	+ 23.5	- 0.9
2023 Jan.	+ 9.2	+ 16.6	+ 7.4	+ 25.1	+ 3.6	+ 2.0	+ 8.7	+ 15.6	+ 16.6	+ 25.2	+ 7.8	+ 6.6	- 6.5	- 5.2
Feb.	+ 9.3	+ 18.0	+ 7.2	+ 21.6	+ 4.4	+ 2.0	+ 8.7	+ 15.6	+ 13.5	+ 20.4	+ 6.6	+ 2.8	- 17.5	- 9.4
Mar.	+ 7.8	+ 18.6	+ 7.2	+ 6.1	+ 5.0	+ 2.1	+ 7.4	+ 15.6	+ 6.7	+ 1.1	+ 2.3	- 3.8	- 51.0	- 21.1
Apr.	+ 7.6	+ 15.5	+ 6.9	+ 9.4	+ 4.8	+ 2.0	+ 7.2	+ 8.9	+ 4.1	- 6.5	+ 1.1	- 7.0	- 39.2	- 22.5
May	+ 6.3	+ 13.6	+ 6.2	+ 5.0	+ 4.4	+ 2.0	+ 6.1	+ 8.9	+ 1.0	...	+ 0.1	- 9.1	- 42.0	- 22.8
June	+ 6.8	+ 12.6	+ 6.2	+ 4.0	+ 6.1	+ 2.0	+ 6.4	+ 8.9	...	...	...	...	- 47.8	- 19.2

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. <sup>1</sup> The last data point is at times based on the Bundesbank's own estimates. <sup>2</sup> Including alcoholic beverages and tobacco. <sup>3</sup> Excluding value added tax. <sup>4</sup> For the eu-

ro area, in euro. <sup>5</sup> Coal, crude oil (Brent) and natural gas. <sup>6</sup> Food, beverages and tobacco as well as industrial raw materials. <sup>7</sup> Influenced by a temporary reduction of value added tax between July and December 2020. <sup>8</sup> From September 2022 onwards, provisional figures.



## XI. Economic conditions in Germany

### 8. Households' income \*

Period	Gross wages and salaries <sup>1</sup>		Net wages and salaries <sup>2</sup>		Monetary social benefits received <sup>3</sup>		Mass income <sup>4</sup>		Disposable income <sup>5</sup>		Saving <sup>6</sup>		Saving ratio <sup>7</sup>
	€ 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
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	1,462.7	4.8	976.1	4.7	455.2	3.0	1,431.3	4.1	1,976.6	3.7	223.2	10.1	11.3
2019	1,524.4	4.2	1,022.0	4.7	476.7	4.7	1,498.7	4.7	2,023.6	2.4	218.2	- 2.3	10.8
2020	1,514.9	- 0.6	1,020.0	- 0.2	524.6	10.0	1,544.6	3.1	2,050.1	1.3	336.6	54.3	16.4
2021	1,570.6	3.7	1,062.6	4.2	532.8	1.6	1,595.4	3.3	2,089.9	1.9	316.0	- 6.1	15.1
2022	1,660.4	5.7	1,118.7	5.3	538.9	1.1	1,657.5	3.9	2,235.8	7.0	253.1	- 19.9	11.3
2021 Q4	438.5	4.9	295.8	5.0	129.0	- 2.6	424.8	2.6	532.5	2.7	61.2	- 25.0	11.5
2022 Q1	388.9	7.4	261.4	6.9	134.5	- 2.4	395.9	3.6	541.9	3.8	77.6	- 32.9	14.3
Q2	399.1	5.8	262.3	4.7	131.4	- 2.6	393.7	2.1	548.9	6.6	57.5	- 32.2	10.5
Q3	410.0	4.3	282.9	4.2	137.6	4.9	420.5	4.4	570.6	9.7	56.2	3.4	9.9
Q4	462.4	5.5	312.0	5.5	135.5	5.0	447.4	5.3	574.4	7.9	61.7	0.8	10.7
2023 Q1	415.7	6.9	284.9	9.0	140.9	4.8	425.9	7.6	578.1	6.7	80.0	3.1	13.8

Source: Federal Statistical Office; figures computed in May 2023. \* 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 <sup>1</sup>								Memo item: Wages and salaries per employee <sup>3</sup>	
	On an hourly basis		On a monthly basis				Basic pay rates <sup>2</sup>			
	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	100.0	2.3	100.0	2.3	100.0	2.3	100.0	2.4	100.0	2.9
2016	102.2	2.2	102.2	2.2	102.2	2.2	102.3	2.3	102.5	2.5
2017	104.5	2.3	104.5	2.3	104.5	2.3	104.7	2.4	105.1	2.6
2018	107.6	3.0	107.6	3.0	107.5	2.8	107.6	2.8	108.4	3.2
2019	110.8	3.0	110.8	3.0	110.6	2.9	110.4	2.6	111.7	3.0
2020	113.2	2.1	113.2	2.2	112.9	2.0	112.6	2.0	111.6	- 0.1
2021	114.9	1.5	114.9	1.5	114.7	1.6	114.3	1.5	115.3	3.3
2022	117.9	2.7	117.9	2.6	117.3	2.2	116.7	2.1	120.0	4.1
2021 Q4	127.5	1.5	127.5	1.5	127.5	2.3	115.0	1.7	127.2	3.7
2022 Q1	110.8	4.3	110.8	4.2	108.8	2.2	115.5	1.5	113.3	5.5
Q2	109.9	2.0	109.9	1.9	109.3	2.2	116.6	2.2	115.6	4.0
Q3	120.9	2.5	120.9	2.5	120.9	2.5	116.9	2.2	118.4	2.9
Q4	130.1	2.0	130.1	2.0	130.1	2.0	117.8	2.4	132.5	4.2
2023 Q1	115.1	3.9	115.1	3.9	111.7	2.6	118.6	2.7	119.7	5.7
2022 Nov.	167.8	2.5	167.8	2.5	167.9	2.5	117.6	2.2	.	.
Dec.	112.5	2.4	112.5	2.4	112.3	2.5	118.1	2.6	.	.
2023 Jan.	115.9	6.8	115.9	6.7	110.9	2.7	118.6	2.7	.	.
Feb.	117.7	6.5	117.7	6.5	113.4	2.6	118.6	2.7	.	.
Mar.	111.8	- 1.5	111.8	- 1.5	110.9	2.6	118.7	2.7	.	.
Apr.	112.3	2.5	112.3	2.5	112.0	2.4	119.2	2.4	.	.
May	113.0	1.5	112.9	1.5	111.8	2.3	119.2	2.2	.	.

**1** Current data are normally revised on account of additional reports. **2** Excluding one-off payments and covenants (capital formation benefits, special payments, such as annual bonuses, holiday pay, Christmas bonuses (13th monthly salary payment) and

retirement provisions). **3** Source: Federal Statistical Office; figures computed in May 2023.

XI. Economic conditions in Germany

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

End of year/half

Period	Assets								Equity and liabilities							
	Total assets	Non-current assets	of which:			Current assets	of which:			Equity	Total	Liabilities				
			Intangible assets	Tangible assets	Financial assets		Inventories	Trade receivables	Cash <sup>1</sup>			Total	Long-term		Short-term	
													of which: Financial debt	Total	Financial debt	Trade payables
<b>Total (€ billion)</b>																
2019	2,800.6	1,769.7	586.3	737.1	333.4	1,030.9	257.5	237.6	168.4	821.0	1,979.6	1,091.2	676.3	888.4	289.8	207.6
2020	2,850.0	1,797.3	607.6	733.1	335.1	1,052.7	243.6	225.9	240.5	811.5	2,038.5	1,181.5	746.4	857.0	304.4	196.1
2021	3,292.0	1,971.6	680.1	773.8	367.9	1,320.4	272.1	261.5	261.5	994.4	2,297.6	1,206.9	772.1	1,090.7	391.8	236.7
2022 P	3,432.3	2,057.2	713.5	804.4	368.5	1,375.1	326.0	268.1	244.3	1,133.7	2,298.6	1,195.7	760.3	1,102.8	331.7	273.2
2021 H1	3,017.6	1,877.0	649.3	745.0	343.7	1,140.6	256.2	242.3	238.5	906.9	2,110.7	1,178.6	763.1	932.1	330.3	206.9
H2	3,292.0	1,971.6	680.1	773.8	367.9	1,320.4	272.1	261.5	261.5	994.4	2,297.6	1,206.9	772.1	1,090.7	391.8	236.7
2022 H1	3,593.6	2,108.1	719.1	796.3	387.5	1,485.5	322.4	284.8	225.4	1,075.4	2,518.2	1,237.0	847.9	1,281.2	430.7	260.7
H2 P	3,432.3	2,057.2	713.5	804.4	368.5	1,375.1	326.0	268.1	244.3	1,133.7	2,298.6	1,195.7	760.3	1,102.8	331.7	273.2
As a percentage of total assets																
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	24.2	31.7	10.4	7.4
2020	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
2021	100.0	59.9	20.7	23.5	11.2	40.1	8.3	7.9	7.9	30.2	69.8	36.7	23.5	33.1	11.9	7.2
2022 P	100.0	59.9	20.8	23.4	10.7	40.1	9.5	7.8	7.1	33.0	67.0	34.8	22.2	32.1	9.7	8.0
2021 H1	100.0	62.2	21.5	24.7	11.4	37.8	8.5	8.0	7.9	30.1	70.0	39.1	25.3	30.9	10.9	6.9
H2	100.0	59.9	20.7	23.5	11.2	40.1	8.3	7.9	7.9	30.2	69.8	36.7	23.5	33.1	11.9	7.2
2022 H1	100.0	58.7	20.0	22.2	10.8	41.3	9.0	7.9	6.3	29.9	70.1	34.4	23.6	35.7	12.0	7.3
H2 P	100.0	59.9	20.8	23.4	10.7	40.1	9.5	7.8	7.1	33.0	67.0	34.8	22.2	32.1	9.7	8.0
<b>Groups with a focus on the production sector (€ billion) <sup>2</sup></b>																
2019	2,302.9	1,396.4	419.6	565.4	319.7	906.5	243.8	188.5	136.8	662.2	1,640.7	887.5	523.8	753.2	257.5	158.0
2020	2,265.0	1,354.9	399.1	543.5	320.0	910.1	228.7	179.5	187.9	636.3	1,628.8	904.7	537.0	724.0	267.3	149.8
2021	2,626.3	1,479.3	441.7	573.9	346.6	1,147.0	254.4	206.3	204.2	764.7	1,861.6	918.5	548.5	943.2	356.3	184.0
2022 P	2,731.4	1,538.5	461.6	591.8	346.7	1,192.9	307.5	209.0	186.4	880.2	1,851.2	912.8	534.4	938.5	291.1	215.0
2021 H1	2,392.8	1,398.3	416.6	551.0	322.5	994.6	240.6	190.9	190.1	703.5	1,689.4	892.3	543.2	797.1	294.2	162.1
H2	2,626.3	1,479.3	441.7	573.9	346.6	1,147.0	254.4	206.3	204.2	764.7	1,861.6	918.5	548.5	943.2	356.3	184.0
2022 H1	2,898.3	1,582.5	462.4	583.8	362.8	1,315.9	303.6	222.5	177.2	830.9	2,067.4	945.2	616.6	1,122.2	389.8	207.6
H2 P	2,731.4	1,538.5	461.6	591.8	346.7	1,192.9	307.5	209.0	186.4	880.2	1,851.2	912.8	534.4	938.5	291.1	215.0
As a percentage of total assets																
2019	100.0	60.6	18.2	24.6	13.9	39.4	10.6	8.2	5.9	28.8	71.3	38.5	22.7	32.7	11.2	6.9
2020	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
2021	100.0	56.3	16.8	21.9	13.2	43.7	9.7	7.9	7.8	29.1	70.9	35.0	20.9	35.9	13.6	7.0
2022 P	100.0	56.3	16.9	21.7	12.7	43.7	11.3	7.7	6.8	32.2	67.8	33.4	19.6	34.4	10.7	7.9
2021 H1	100.0	58.4	17.4	23.0	13.5	41.6	10.1	8.0	7.9	29.4	70.6	37.3	22.7	33.3	12.3	6.8
H2	100.0	56.3	16.8	21.9	13.2	43.7	9.7	7.9	7.8	29.1	70.9	35.0	20.9	35.9	13.6	7.0
2022 H1	100.0	54.6	16.0	20.1	12.5	45.4	10.5	7.7	6.1	28.7	71.3	32.6	21.3	38.7	13.5	7.2
H2 P	100.0	56.3	16.9	21.7	12.7	43.7	11.3	7.7	6.8	32.2	67.8	33.4	19.6	34.4	10.7	7.9
<b>Groups with a focus on the services sector (€ billion)</b>																
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	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
2021	665.7	492.2	238.5	200.0	21.3	173.5	17.7	55.2	57.3	229.7	436.0	288.4	223.6	147.6	35.5	52.6
2022 P	700.9	518.7	251.9	212.5	21.8	182.2	18.5	59.1	57.8	253.5	447.3	283.0	225.9	164.3	40.7	58.1
2021 H1	624.7	478.7	232.6	194.1	21.2	146.1	15.5	51.4	48.4	203.4	421.3	286.4	219.9	135.0	36.1	44.8
H2	665.7	492.2	238.5	200.0	21.3	173.5	17.7	55.2	57.3	229.7	436.0	288.4	223.6	147.6	35.5	52.6
2022 H1	695.3	525.7	256.7	212.5	24.8	169.6	18.8	62.2	48.2	244.5	450.8	291.8	231.4	159.0	40.9	53.1
H2 P	700.9	518.7	251.9	212.5	21.8	182.2	18.5	59.1	57.8	253.5	447.3	283.0	225.9	164.3	40.7	58.1
As a percentage of total assets																
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	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
2021	100.0	73.9	35.8	30.0	3.2	26.1	2.7	8.3	8.6	34.5	65.5	43.3	33.6	22.2	5.3	7.9
2022 P	100.0	74.0	36.0	30.3	3.1	26.0	2.6	8.4	8.3	36.2	63.8	40.4	32.2	23.5	5.8	8.3
2021 H1	100.0	76.6	37.2	31.1	3.4	23.4	2.5	8.2	7.8	32.6	67.4	45.8	35.2	21.6	5.8	7.2
H2	100.0	73.9	35.8	30.0	3.2	26.1	2.7	8.3	8.6	34.5	65.5	43.3	33.6	22.2	5.3	7.9
2022 H1	100.0	75.6	36.9	30.6	3.6	24.4	2.7	9.0	6.9	35.2	64.8	42.0	33.3	22.9	5.9	7.6
H2 P	100.0	74.0	36.0	30.3	3.1	26.0	2.6	8.4	8.3	36.2	63.8	40.4	32.2	23.5	5.8	8.3

\* 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. Ex-

cluding groups engaged in real estate activities. <sup>1</sup> Including cash equivalents. <sup>2</sup> Including groups in agriculture and forestry.

## 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				
	€ billion 3	Annual percentage change 4	€ billion 3	Annual percentage change 4	Weighted average	Annual change in percentage points 4	Distribution 2			Operating income (EBIT)	Annual percentage change 4	Weighted average	Annual change in percentage points 4	Distribution 2		
							First quartile	Median	Third quartile					First quartile	Median	Third quartile
	%	%	%	%	%	%	%	%	€ billion 3	%	%	%	%	%	%	
<b>Total</b>																
2015	1,633.9	6.9	195.9	-1.1	12.0	-1.0	6.3	10.6	17.8	91.5	-16.4	5.6	-1.5	1.8	6.7	11.3
2016	1,624.3	-0.4	214.4	7.8	13.2	1.0	6.7	11.4	17.9	111.7	9.0	6.9	0.5	2.6	6.7	12.0
2017	1,719.3	5.1	243.4	14.6	14.2	1.2	7.0	11.0	18.0	141.9	33.3	8.3	1.8	2.5	6.8	12.1
2018 <sup>6</sup>	1,706.8	0.7	232.8	-0.9	13.6	-0.2	6.1	10.6	17.8	129.2	-6.3	7.6	-0.6	2.1	6.5	11.9
2019	1,764.6	2.6	233.6	0.4	13.2	-0.3	6.9	12.2	19.2	105.5	-17.9	6.0	-1.5	1.6	5.8	11.8
2020	1,632.8	-8.8	213.6	-7.7	13.1	0.2	6.5	11.5	17.9	52.1	-41.0	3.2	-2.1	-0.8	4.9	10.5
2021	1,994.7	20.4	297.7	37.7	14.9	1.9	7.8	13.4	19.9	161.5	212.6	8.1	5.0	2.9	8.2	12.2
2022 <sup>p</sup>	2,430.3	20.8	324.6	7.8	13.4	-1.6	6.2	11.8	18.4	170.8	4.0	7.0	-1.1	1.6	6.5	12.4
2018 H1	848.2	-0.1	120.8	-2.1	14.2	-0.3	5.1	10.6	18.2	72.7	-5.3	8.6	-0.5	1.7	6.4	12.5
H2	869.4	1.4	114.4	0.5	13.2	-0.1	6.3	11.2	18.0	58.0	-7.6	6.7	-0.6	2.1	6.8	12.5
2019 H1	861.3	2.7	112.3	-4.0	13.0	-0.9	6.5	11.8	18.6	53.4	-23.3	6.2	-2.1	1.5	5.7	11.7
H2	903.7	2.4	121.3	4.8	13.4	0.3	6.6	11.8	20.0	52.0	-11.4	5.8	-0.9	0.8	6.1	12.5
2020 H1	744.5	-14.4	78.2	-34.1	10.5	-3.0	4.8	9.9	16.7	7.9	-88.0	1.1	-5.3	-2.1	3.5	8.8
H2	888.4	-3.3	135.4	17.1	15.2	2.8	7.6	13.2	19.8	44.2	8.6	5.0	0.7	1.7	6.5	11.6
2021 H1	920.0	20.3	151.5	87.2	16.5	5.9	7.4	12.6	19.5	84.5	.	9.2	8.3	2.3	7.8	12.2
H2	1,075.6	20.4	146.4	8.1	13.6	-1.6	7.9	13.2	20.8	77.0	73.1	7.2	2.2	2.9	7.7	13.4
2022 H1	1,149.7	23.5	161.0	4.8	14.0	-2.5	6.1	11.5	18.4	84.9	-1.6	7.4	-1.9	1.6	6.4	11.8
H2 <sup>p</sup>	1,282.4	18.4	163.7	10.9	12.8	-0.9	5.5	11.6	18.9	86.0	10.2	6.7	-0.5	1.7	6.7	12.9
<b>Groups with a focus on the production sector 5</b>																
2015	1,309.7	7.0	149.0	-2.6	11.4	-1.1	6.3	10.5	16.3	69.1	-19.7	5.3	-1.8	2.2	6.6	10.4
2016	1,295.9	-0.8	161.9	6.3	12.5	0.8	6.5	10.6	16.0	84.8	4.2	6.5	0.3	2.8	6.3	10.5
2017	1,395.9	5.5	187.5	16.6	13.4	1.3	7.1	11.0	15.8	112.5	40.6	8.1	2.0	3.2	6.7	10.4
2018 <sup>6</sup>	1,367.7	1.0	175.7	-1.5	12.9	-0.3	6.9	10.7	16.0	100.7	-7.1	7.4	-0.6	2.8	6.9	11.4
2019	1,410.9	2.0	168.1	-4.4	11.9	-0.8	6.9	11.3	16.6	76.3	-23.8	5.4	-1.8	1.4	5.7	10.1
2020	1,285.2	-9.4	143.6	-8.6	11.2	0.1	5.7	10.6	16.5	29.1	-48.1	2.3	-2.3	-0.7	4.3	9.8
2021	1,585.8	22.4	208.9	45.9	13.2	2.1	7.9	12.8	17.9	118.6	325.8	7.5	5.4	2.8	7.8	11.1
2022 <sup>p</sup>	1,956.4	21.6	222.7	4.6	11.4	-1.9	6.8	11.3	16.4	117.1	-4.0	6.0	-1.6	1.8	6.3	10.7
2018 H1	681.9	-0.1	94.9	-3.4	13.9	-0.5	7.0	10.9	16.7	60.0	-5.9	8.8	-0.6	2.9	6.8	11.5
H2	695.4	2.1	83.1	0.7	12.0	-0.2	6.2	11.1	16.2	42.1	-8.7	6.1	-0.7	2.0	6.4	11.4
2019 H1	689.9	2.4	83.3	-8.8	12.1	-1.5	7.1	10.9	16.1	41.9	-26.8	6.1	-2.4	1.8	6.0	9.5
H2	721.0	1.7	84.8	0.3	11.8	-0.2	6.1	10.8	16.9	34.4	-19.7	4.8	-1.3	0.6	5.2	11.1
2020 H1	580.6	-16.0	49.0	-42.4	8.4	-3.8	4.4	8.8	14.9	0.2	-101.7	0.0	-6.2	-2.1	3.1	7.8
H2	704.6	-3.0	94.6	25.4	13.4	3.4	7.0	12.1	18.6	28.9	19.6	4.1	1.1	0.3	6.0	10.4
2021 H1	731.9	24.0	111.2	126.9	15.2	6.9	8.2	12.6	18.6	66.7	.	9.1	9.3	2.9	7.9	12.1
H2	854.2	21.1	97.7	3.8	11.4	-1.9	7.8	12.3	17.5	51.9	80.8	6.1	2.0	2.6	7.0	11.5
2022 H1	923.4	23.8	110.9	-2.5	12.0	-3.3	7.7	11.5	16.3	59.0	-14.2	6.4	-2.8	2.3	6.4	10.4
H2 <sup>p</sup>	1,034.8	19.7	112.0	12.8	10.8	-0.7	5.9	10.7	16.7	58.2	9.3	5.6	-0.5	1.3	6.3	11.4
<b>Groups with a focus on the services sector</b>																
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 <sup>6</sup>	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	347.6	-6.1	70.0	-5.4	20.1	0.1	6.9	13.3	22.1	23.0	-22.1	6.6	-1.4	-1.2	6.5	12.2
2021	408.9	13.0	88.8	21.6	21.7	1.6	7.6	15.0	24.0	42.8	79.7	10.5	3.9	3.0	9.2	15.6
2022 <sup>p</sup>	473.9	17.4	101.9	15.3	21.5	-0.4	5.2	13.1	22.8	53.8	26.4	11.3	0.8	1.0	6.9	14.4
2018 H1	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	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	7.5	13.3
2021 H1	188.1	7.7	40.3	26.1	21.5	3.1	6.9	12.6	24.5	17.8	119.9	9.5	4.8	0.9	6.9	13.6
H2	221.4	17.9	48.7	18.2	22.0	0.1	9.4	16.5	24.7	25.1	59.1	11.3	3.0	3.8	9.5	17.7
2022 H1	226.3	22.0	50.1	25.3	22.2	0.6	4.6	11.6	20.9	25.9	46.4	11.5	1.9	-0.5	6.3	13.5
H2 <sup>p</sup>	247.6	13.4	51.8	7.0	20.9	-1.3	5.2	14.1	24.0	27.8	12.1	11.2	-0.1	2.2	7.5	15.4

\* 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 fig-

ures. 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 Quality report on consolidated financial statement statistics, p. 6. 5 Including groups in agriculture and forestry. 6 From 2018 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	2020 r	2021 r	2022 r	2022		2023				
				Q3 r	Q4 r	Q1	February	March		
I. Current Account	+ 201,555	+ 351,748	- 100,626	- 67,069	+ 8,516	+ 32,220	+ 10,520	+ 34,357	+ 4,232	
1. Goods										
Receipts	2,177,403	2,493,451	2,929,483	746,043	775,677	737,065	237,480	274,147	228,309	
Expenditure	1,846,539	2,219,306	3,008,746	801,805	768,244	686,809	216,451	230,540	213,570	
Balance	+ 330,862	+ 274,146	- 79,264	- 55,763	+ 7,433	+ 50,257	+ 21,029	+ 43,607	+ 14,739	
2. Services										
Receipts	883,410	1,029,838	1,258,196	334,879	329,297	295,093	91,847	103,388	101,749	
Expenditure	890,695	926,414	1,131,753	313,956	303,119	281,290	87,237	101,605	94,128	
Balance	- 7,286	+ 103,423	+ 126,446	+ 20,923	+ 26,179	+ 13,802	+ 4,610	+ 1,782	+ 7,621	
3. Primary income										
Receipts	733,848	856,413	948,766	227,109	261,644	259,035	80,194	92,451	82,915	
Expenditure	698,616	722,662	927,128	216,895	247,471	248,597	79,622	88,718	88,235	
Balance	+ 35,231	+ 133,751	+ 21,637	+ 10,215	+ 14,173	+ 10,440	+ 573	+ 3,733	- 5,320	
4. Secondary income										
Receipts	129,435	159,349	164,740	39,114	44,833	39,199	12,516	13,183	12,916	
Expenditure	286,683	318,921	334,183	81,557	84,101	81,477	28,207	27,949	25,724	
Balance	- 157,250	- 159,574	- 169,443	- 42,444	- 39,268	- 42,279	- 15,692	- 14,766	- 12,809	
II. Capital account	+ 4,591	+ 51,732	+ 146,524	+ 9,320	+ 22,555	+ 3,525	+ 1,497	+ 3,908	+ 636	
III. Financial account <sup>1</sup>	+ 183,185	+ 377,580	+ 85,607	- 36,183	+ 58,615	+ 47,610	+ 507	+ 26,319	- 24,006	
1. Direct investment	- 217,132	+ 335,674	+ 232,193	+ 33,522	- 14,759	+ 54,639	+ 53,020	- 4,081	+ 9,803	
By resident units abroad the euro area	- 66,615	+ 243,047	- 57,545	+ 10,076	- 265,500	+ 58,343	+ 53,973	+ 7,204	+ 3,107	
By non-resident units of the euro area	+ 150,518	- 92,628	- 289,741	- 23,446	- 250,741	+ 3,704	+ 953	+ 11,285	- 6,696	
2. Portfolio investment	+ 513,135	+ 321,215	- 290,271	- 177,657	+ 8,838	- 96,443	- 28,109	- 100,376	+ 33,330	
By resident units abroad the euro area	+ 698,531	+ 794,327	- 229,900	- 173,427	+ 95,518	+ 61,565	+ 14,759	- 11,191	+ 39,695	
Equity and investment fund shares	+ 321,263	+ 369,850	- 188,019	- 100,805	- 811	+ 32,175	- 5,612	- 12,095	+ 16,825	
Short-term debt securities	+ 125,759	+ 119,360	- 108,725	- 47,305	+ 58,503	- 59,396	- 18,602	- 12,455	+ 10,699	
Long-term debt securities	+ 251,509	+ 305,114	+ 66,844	- 25,316	+ 37,825	+ 88,786	+ 38,973	+ 13,359	+ 12,171	
By non-resident units of the euro area	+ 185,394	+ 473,110	+ 60,371	+ 4,231	+ 86,681	+ 158,007	+ 42,868	+ 89,184	+ 6,365	
Equity and investment fund shares	+ 189,142	+ 641,855	+ 35,137	- 6,635	+ 111,458	+ 24,295	+ 5,597	+ 28,834	- 9,375	
Short-term debt securities	+ 116,321	+ 30,111	- 66,129	- 27,754	- 23,830	- 2,070	- 32,165	+ 31,830	+ 2,840	
Long-term debt securities	- 120,070	- 198,853	+ 91,362	+ 38,619	- 947	+ 135,782	+ 69,436	+ 28,521	+ 12,900	
3. Financial derivatives and employee stock options	+ 16,737	+ 57,745	+ 62,512	+ 38,455	- 4,106	+ 15,518	+ 10,410	+ 5,676	+ 921	
4. Other investment	- 142,738	- 467,427	+ 63,209	+ 62,226	+ 59,377	+ 92,355	- 23,433	+ 123,453	- 66,210	
Eurosysteem	- 205,598	- 449,195	+ 180,651	+ 66,028	- 69,841	+ 167,664	+ 55,138	- 57,696	+ 87,972	
General government MFIs <sup>2</sup>	- 15,336	- 80,350	- 51,039	- 20,921	+ 4,630	+ 4,459	- 6,887	- 269	- 1,864	
Enterprises and households	+ 17,691	- 123,761	- 287,895	- 40,415	+ 75,957	- 10,704	- 40,686	+ 157,755	- 143,210	
5. Reserve assets	+ 13,182	+ 130,370	+ 17,964	+ 7,271	+ 9,267	- 18,459	- 11,381	+ 1,647	- 1,849	
IV. Net errors and omissions	- 22,963	- 25,899	+ 39,708	+ 21,565	+ 27,544	+ 11,864	- 11,511	- 11,946	- 28,873	

\* Source: ECB, according to the international standards of the International Monetary Fund's Balance of Payments Manual (sixth edition). <sup>1</sup> Increase: + / decrease: -. <sup>2</sup> Excluding the Eurosysteem.

## XII. External sector

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

€ million

Zeit	Current Account						Balance of capital account 2	Financial account 3		
	Total	Goods		Services	Primary income	Secondary income		Total	of which: Reserve assets	Errors and omissions 4
		Total	of which: Supplementary trade items 1							
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	+ 211,477	+ 219,629	- 14,296	- 25,303	+ 58,646	- 41,495	+ 3,255	+ 230,931	- 2,564	+ 16,200
2015	+ 259,781	+ 248,394	- 15,405	- 18,516	+ 69,324	- 39,420	+ 265	+ 237,733	- 2,213	- 22,313
2016	+ 270,200	+ 252,409	- 19,921	- 20,987	+ 77,258	- 38,480	+ 2,451	+ 258,906	+ 1,686	- 13,744
2017	+ 255,964	+ 255,077	- 13,613	- 23,994	+ 77,046	- 52,165	+ 2,653	+ 268,306	+ 1,269	+ 14,996
2018	+ 267,609	+ 221,983	- 22,985	- 15,806	+ 112,389	- 50,958	+ 914	+ 242,889	+ 392	- 25,634
2019	+ 283,849	+ 219,548	- 32,263	- 13,553	+ 128,602	- 50,747	+ 3,705	+ 200,312	- 544	- 79,832
2020	+ 240,239	+ 191,031	- 8,907	+ 7,418	+ 96,014	- 54,224	- 9,120	+ 191,481	- 51	- 39,638
2021	+ 278,689	+ 194,388	+ 4,757	+ 4,802	+ 138,545	- 59,046	- 1,179	+ 248,551	+ 31,892	- 28,959
2022 r	+ 162,033	+ 111,887	+ 9,999	- 31,036	+ 150,017	- 68,835	- 18,644	+ 227,707	+ 4,426	+ 84,319
2020 Q2	+ 37,569	+ 27,704	- 2,216	+ 6,000	+ 13,287	- 9,423	- 914	+ 14,699	+ 243	- 21,955
Q3	+ 62,279	+ 55,197	- 933	+ 4,752	+ 22,659	- 10,824	- 2,450	+ 66,302	+ 1,276	+ 6,473
Q4	+ 76,342	+ 55,114	- 2,996	+ 7,417	+ 32,628	- 18,816	- 4,181	+ 84,069	+ 848	+ 11,908
2021 Q1	+ 77,373	+ 57,527	+ 679	+ 5,095	+ 32,650	- 17,899	- 834	+ 72,025	+ 385	- 4,514
Q2	+ 67,702	+ 48,292	+ 868	+ 7,141	+ 21,166	- 8,897	- 2,336	+ 87,467	+ 58	+ 22,101
Q3	+ 65,695	+ 49,316	+ 145	- 5,830	+ 37,736	- 15,527	+ 1,985	+ 16,702	+ 31,199	- 50,977
Q4	+ 67,919	+ 39,252	+ 3,064	- 1,604	+ 46,994	- 16,723	+ 7	+ 72,358	+ 250	+ 4,432
2022 Q1 r	+ 59,579	+ 34,428	+ 3,927	+ 3,038	+ 40,362	- 18,249	- 3,021	+ 78,775	+ 2,200	+ 22,216
Q2 r	+ 30,458	+ 27,027	+ 7,766	+ 5,314	+ 22,259	- 13,513	+ 4,780	+ 67,323	+ 597	+ 41,645
Q3 r	+ 19,883	+ 19,911	- 361	- 22,180	+ 39,507	- 17,356	- 5,860	- 30,017	+ 784	- 44,040
Q4 r	+ 52,112	+ 30,520	- 1,333	- 6,579	+ 47,889	- 19,718	- 4,984	+ 111,625	+ 845	+ 64,497
2023 Q1 r	+ 69,937	+ 55,177	- 1,396	- 6,692	+ 41,057	- 19,605	- 11,325	+ 100,395	+ 224	+ 41,783
2020 Dec.	+ 28,866	+ 16,440	- 2,253	+ 3,375	+ 15,752	- 6,702	+ 62	+ 36,045	+ 618	+ 7,118
2021 Jan.	+ 21,402	+ 15,161	+ 200	+ 1,554	+ 11,132	- 6,445	- 667	+ 17,047	+ 743	- 3,688
Feb.	+ 22,176	+ 18,147	+ 39	+ 1,739	+ 9,312	- 7,022	- 1,596	+ 22,939	+ 102	+ 2,939
Mar.	+ 33,795	+ 24,219	+ 441	+ 1,802	+ 12,206	- 4,432	+ 1,430	+ 32,038	- 460	- 3,186
Apr.	+ 24,445	+ 16,424	+ 441	+ 3,520	+ 8,407	- 3,905	- 897	+ 29,252	- 251	+ 5,705
May	+ 16,786	+ 14,730	- 102	+ 2,453	+ 1,511	- 1,908	- 528	+ 23,514	+ 211	+ 7,257
June	+ 26,471	+ 17,139	+ 530	+ 1,168	+ 11,248	- 3,084	+ 911	+ 34,700	+ 98	+ 9,140
July	+ 21,623	+ 18,516	- 472	- 1,848	+ 10,917	- 5,962	- 487	+ 1,156	+ 102	- 19,980
Aug.	+ 18,381	+ 12,984	+ 897	- 3,024	+ 13,086	- 4,665	+ 532	+ 17,522	+ 31,254	- 1,391
Sep.	+ 25,690	+ 17,816	- 280	- 958	+ 13,733	- 4,901	+ 1,939	- 1,977	- 158	- 29,606
Oct.	+ 18,128	+ 15,135	+ 1,038	- 4,720	+ 13,280	- 5,567	+ 506	+ 13,955	+ 261	- 4,680
Nov.	+ 22,113	+ 14,414	+ 759	+ 138	+ 13,670	- 6,108	+ 1,007	+ 33,852	+ 963	+ 12,746
Dec.	+ 27,678	+ 9,704	+ 1,266	+ 2,978	+ 20,043	- 5,048	+ 508	+ 24,551	- 974	- 3,634
2022 Jan. r	+ 16,699	+ 6,950	+ 803	+ 1,740	+ 14,181	- 6,173	- 417	+ 29,438	+ 309	+ 13,156
Feb. r	+ 23,254	+ 15,092	+ 1,472	+ 2,099	+ 11,673	- 5,609	- 1,637	+ 48,042	+ 1,161	+ 26,424
Mar. r	+ 19,626	+ 12,386	+ 1,653	+ 801	+ 14,508	- 6,467	- 968	+ 1,295	+ 730	- 17,363
Apr. r	+ 11,358	+ 5,271	+ 2,536	- 917	+ 12,425	- 5,421	- 1,556	+ 19,988	+ 83	+ 10,186
May r	+ 3,627	+ 11,096	+ 4,323	- 1,959	- 3,881	- 1,628	+ 2,724	+ 893	+ 161	- 10
June r	+ 15,474	+ 10,661	+ 906	- 2,438	+ 13,715	- 6,464	- 501	+ 46,441	+ 353	+ 31,469
July r	+ 7,849	+ 7,849	+ 382	- 6,089	+ 13,001	- 6,912	- 2,321	- 23,333	- 484	- 28,861
Aug. r	+ 660	+ 2,096	- 567	- 9,555	+ 14,077	- 5,957	- 1,261	+ 16,672	+ 81	+ 17,273
Sep. r	+ 11,374	+ 9,967	- 176	- 6,536	+ 12,429	- 4,486	- 2,277	- 23,355	+ 1,187	- 32,452
Oct. r	+ 8,585	+ 6,243	- 34	- 5,287	+ 13,076	- 5,447	- 2,212	+ 44,969	+ 672	+ 38,596
Nov. r	+ 18,533	+ 13,428	+ 731	- 2,077	+ 13,661	- 6,479	+ 2,129	+ 466	+ 425	- 15,938
Dec. r	+ 24,994	+ 10,849	- 2,030	+ 785	+ 21,152	- 7,792	- 643	+ 66,191	- 252	+ 41,839
2023 Jan. r	+ 16,964	+ 11,678	+ 233	- 1,534	+ 12,362	- 5,542	- 4,700	+ 12,938	- 341	+ 675
Feb. r	+ 22,466	+ 18,505	- 163	- 2,175	+ 12,175	- 6,039	- 1,789	+ 32,679	+ 143	+ 12,002
Mar. r	+ 30,508	+ 24,994	- 1,466	- 2,983	+ 16,520	- 8,023	- 4,835	+ 54,778	+ 423	+ 29,105
Apr. r	+ 22,352	+ 16,296	+ 301	- 3,330	+ 14,455	- 5,069	- 640	- 11,702	+ 88	- 33,414
May p	+ 8,937	+ 15,956	+ 134	- 5,677	- 1,275	- 68	- 2,035	+ 10,806	+ 83	+ 3,904

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		2020	2021	2022	2022		2023				
					Dec.	Jan.	Feb.	Mar.	Apr.	May	
All countries <sup>1</sup>	Exports	1,206,928	1,379,346	1,576,792	124,690	126,321	132,706	146,289	122,162	131,152	
	Imports	1,026,502	1,204,050	1,494,335	113,960	116,318	115,955	123,483	108,184	117,644	
	Balance	+ 180,427	+ 175,296	+ 82,458	+ 10,730	+ 10,003	+ 16,750	+ 22,806	+ 13,978	+ 13,508	
I. European countries	Exports	824,921	949,744	1,074,144	82,703	88,263	90,675	98,406	84,064	89,357	
	Imports	682,477	803,687	966,577	73,163	72,424	75,739	80,803	69,653	76,913	
	Balance	+ 142,444	+ 146,057	+ 107,567	+ 9,540	+ 15,839	+ 14,936	+ 17,603	+ 14,411	+ 12,444	
1. EU Member States (27)	Exports	635,741	751,322	861,164	66,198	71,310	72,965	76,914	68,562	71,589	
	Imports	546,655	638,064	736,149	55,981	56,367	61,826	65,757	57,171	62,978	
	Balance	+ 89,087	+ 113,259	+ 125,015	+ 10,218	+ 14,943	+ 11,139	+ 11,156	+ 11,391	+ 8,611	
Euro area (20) countries	Exports	445,225	525,992	605,817	47,112	50,858	51,831	54,237	48,247	50,175	
	Imports	372,855	440,248	507,699	38,243	38,072	41,028	43,853	37,950	42,230	
	Balance	+ 72,370	+ 85,744	+ 98,119	+ 8,870	+ 12,786	+ 10,803	+ 10,384	+ 10,296	+ 7,945	
of which:											
Austria	Exports	60,118	72,385	88,681	6,635	6,722	6,839	7,439	6,516	6,657	
	Imports	40,454	47,922	57,660	4,428	4,137	4,731	5,150	4,541	4,854	
	Balance	+ 19,663	+ 24,893	+ 31,021	+ 2,206	+ 2,585	+ 2,108	+ 2,289	+ 1,975	+ 1,803	
Belgium and Luxembourg	Exports	48,824	58,080	69,601	5,351	5,614	5,951	6,093	5,419	5,718	
	Imports	39,584	55,726	66,536	5,148	4,513	4,732	4,789	4,623	5,296	
	Balance	+ 9,240	+ 2,354	+ 3,065	+ 203	+ 1,101	+ 1,219	+ 1,305	+ 796	+ 421	
France	Exports	90,910	102,741	116,046	9,291	9,807	10,156	10,463	9,565	9,736	
	Imports	56,364	61,921	69,301	5,635	5,177	6,135	6,548	5,596	5,927	
	Balance	+ 34,546	+ 40,820	+ 46,745	+ 3,656	+ 4,630	+ 4,022	+ 3,915	+ 3,969	+ 3,809	
Italy	Exports	60,634	75,526	87,512	6,814	7,559	7,835	8,002	6,586	7,184	
	Imports	53,906	65,389	72,310	5,598	5,262	6,148	6,853	5,741	6,276	
	Balance	+ 6,728	+ 10,137	+ 15,202	+ 1,216	+ 2,297	+ 1,687	+ 1,149	+ 844	+ 909	
Netherlands	Exports	84,579	101,050	110,645	9,077	10,224	9,403	9,904	9,259	9,228	
	Imports	87,024	105,113	119,543	8,192	9,264	8,596	9,614	7,983	9,023	
	Balance	- 2,445	- 4,063	- 8,898	+ 885	+ 959	+ 807	+ 290	+ 1,275	+ 204	
Spain	Exports	37,618	43,932	49,009	3,575	4,162	4,511	4,744	4,248	4,556	
	Imports	31,281	34,180	37,421	2,885	3,065	3,358	3,664	2,983	3,729	
	Balance	+ 6,337	+ 9,752	+ 11,589	+ 690	+ 1,097	+ 1,153	+ 1,080	+ 1,265	+ 827	
Other EU Member States	Exports	190,517	225,331	255,346	19,086	20,452	21,134	22,677	20,315	21,414	
	Imports	173,800	197,815	228,450	17,738	18,295	20,798	21,905	19,221	20,748	
	Balance	+ 16,717	+ 27,515	+ 26,896	+ 1,348	+ 2,157	+ 336	+ 772	+ 1,094	+ 666	
2. Other European countries	Exports	189,180	198,421	212,980	16,505	16,953	17,710	18,492	15,502	17,768	
	Imports	135,822	165,623	230,428	17,182	16,057	13,913	15,045	12,482	13,934	
	Balance	+ 53,358	+ 32,798	- 17,448	- 678	+ 896	+ 3,797	+ 6,447	+ 3,020	+ 3,834	
of which:											
Switzerland	Exports	56,265	60,638	70,632	5,714	5,601	5,700	6,517	4,909	5,556	
	Imports	45,556	49,247	55,349	4,526	4,499	4,045	4,655	3,732	4,609	
	Balance	+ 10,708	+ 11,391	+ 15,284	+ 1,188	+ 1,102	+ 1,655	+ 1,861	+ 1,177	+ 947	
United Kingdom	Exports	67,086	65,002	73,787	5,042	6,046	6,322	7,581	5,583	6,462	
	Imports	35,018	32,245	37,897	2,846	3,227	3,160	3,453	2,905	3,225	
	Balance	+ 32,068	+ 32,757	+ 35,890	+ 2,196	+ 2,819	+ 3,162	+ 4,128	+ 2,678	+ 3,237	
II. Non-European countries	Exports	380,292	427,430	497,592	41,609	37,694	41,672	47,502	37,726	41,415	
	Imports	343,270	399,604	526,791	40,715	43,808	40,097	42,524	38,371	40,557	
	Balance	+ 37,022	+ 27,827	- 29,198	+ 894	- 6,114	+ 1,575	+ 4,979	- 645	+ 858	
1. Africa	Exports	20,086	23,068	26,466	2,287	2,039	2,331	2,573	2,021	2,694	
	Imports	18,758	26,241	33,482	2,783	3,017	2,971	2,971	2,739	2,903	
	Balance	+ 1,328	- 3,173	- 7,016	- 496	- 978	- 246	- 399	- 718	- 209	
2. America	Exports	141,375	167,735	210,646	16,728	16,524	17,868	20,660	16,253	17,210	
	Imports	94,005	101,525	130,447	10,951	11,619	10,398	11,525	10,575	10,662	
	Balance	+ 47,370	+ 66,210	+ 80,199	+ 5,776	+ 4,905	+ 7,470	+ 8,704	+ 5,677	+ 6,548	
of which:											
United States	Exports	103,476	121,980	156,190	12,403	12,101	13,137	14,600	11,945	12,477	
	Imports	67,694	72,316	92,150	7,891	8,328	7,448	8,811	7,805	7,610	
	Balance	+ 35,782	+ 49,664	+ 64,041	+ 4,511	+ 3,772	+ 5,689	+ 5,789	+ 4,140	+ 4,867	
3. Asia	Exports	208,146	224,897	246,459	21,281	18,105	20,102	22,844	18,454	20,327	
	Imports	226,646	267,604	355,432	26,564	28,549	26,483	27,075	24,530	26,383	
	Balance	- 18,500	- 42,707	- 108,973	- 5,283	- 10,444	- 6,381	- 4,231	- 6,076	- 6,056	
of which:											
Middle East	Exports	25,882	26,090	29,660	2,824	2,409	2,654	3,131	2,297	2,374	
	Imports	6,721	7,509	12,780	1,116	1,403	1,509	1,513	1,028	1,596	
	Balance	+ 19,161	+ 18,582	+ 16,880	+ 1,708	+ 1,007	+ 1,146	+ 1,617	+ 1,269	+ 778	
Japan	Exports	17,396	18,245	20,514	1,672	1,653	1,750	1,942	1,530	1,658	
	Imports	21,427	23,477	25,284	1,935	2,093	2,120	2,407	2,061	2,019	
	Balance	- 4,032	- 5,232	- 4,770	- 263	- 440	- 370	- 465	- 532	- 362	
People's Republic of China <sup>2</sup>	Exports	95,840	103,564	106,877	8,285	7,294	7,943	9,022	7,695	8,715	
	Imports	117,373	142,964	192,008	14,172	14,608	13,157	13,050	12,043	12,852	
	Balance	- 21,533	- 39,400	- 85,131	- 5,887	- 7,314	- 5,213	- 4,028	- 4,347	- 4,137	
New industrial countries and emerging markets of Asia <sup>3</sup>	Exports	50,590	55,295	63,380	5,692	4,686	5,412	5,976	4,846	4,803	
	Imports	48,222	55,441	70,577	5,216	5,780	5,651	5,949	5,791	6,060	
	Balance	+ 2,368	- 146	- 7,196	+ 476	- 1,094	- 239	+ 27	- 944	- 1,257	
4. Oceania and polar regions	Exports	10,685	11,731	14,021	1,313	1,027	1,371	1,426	998	1,183	
	Imports	3,861	4,233	7,430	417	624	638	521	527	608	
	Balance	+ 6,824	+ 7,497	+ 6,591	+ 896	+ 403	+ 733	+ 905	+ 471	+ 575	

\* 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. Euro area incl. Croatia. <sup>1</sup> Including fuel and other supplies for

ships and aircraft and other data not classifiable by region. <sup>2</sup> Excluding Hong Kong. <sup>3</sup> 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

Zeit	Services								Primary income		
	Total	of which:							Compensation of employees	Investment income	Other primary income <sup>3</sup>
		Transport	Travel <sup>1</sup>	Financial services	Charges for the use of intellectual property	Telecommunications-, computer and information services	Other business services	Government goods and services <sup>2</sup>			
2018	- 15,806	- 2,044	- 44,543	+ 10,059	+ 17,219	- 7,060	+ 723	+ 3,322	+ 671	+ 112,410	- 692
2019	- 13,553	+ 3,607	- 45,947	+ 10,755	+ 18,368	- 9,763	- 2,948	+ 3,489	+ 492	+ 128,990	- 880
2020	+ 7,418	- 5,302	- 14,678	+ 10,051	+ 17,665	- 7,770	- 4,426	+ 3,368	+ 3,196	+ 94,205	- 1,387
2021	+ 4,802	- 6,635	- 24,323	+ 8,306	+ 32,834	- 8,466	- 9,361	+ 3,531	+ 2,664	+ 137,881	- 1,999
2022 <sup>r</sup>	- 31,036	- 8,643	- 55,244	+ 9,464	+ 31,406	- 11,241	- 10,085	+ 4,078	+ 1,993	+ 152,926	- 4,902
2021 Q3	- 5,830	- 931	- 13,518	+ 1,084	+ 9,484	- 2,457	- 2,546	+ 953	- 71	+ 38,996	- 1,189
Q4	- 1,604	- 3,073	- 8,636	+ 2,551	+ 9,344	- 1,551	- 3,757	+ 763	+ 824	+ 43,098	+ 3,071
2022 Q1 <sup>r</sup>	+ 3,038	- 2,849	- 6,033	+ 1,996	+ 11,530	- 3,704	- 1,520	+ 1,063	+ 1,288	+ 40,527	- 1,453
Q2 <sup>r</sup>	- 5,314	- 187	- 13,125	+ 2,270	+ 7,307	- 2,182	- 2,722	+ 1,062	+ 425	+ 25,841	- 4,007
Q3 <sup>r</sup>	- 22,180	- 3,727	- 22,632	+ 2,159	+ 5,874	- 3,429	- 3,712	+ 1,100	- 82	+ 41,295	- 1,705
Q4 <sup>r</sup>	- 6,579	- 1,880	- 13,454	+ 3,039	+ 6,695	- 1,926	- 2,131	+ 853	+ 362	+ 45,264	+ 2,263
2023 Q1 <sup>r</sup>	- 6,692	- 2,788	- 8,001	+ 1,777	+ 5,263	- 3,682	- 3,001	+ 1,051	+ 1,224	+ 41,509	- 1,676
2022 July <sup>r</sup>	- 6,089	- 777	- 5,900	+ 804	+ 1,542	- 1,446	- 1,287	+ 326	- 54	+ 13,614	- 559
Aug. <sup>r</sup>	- 9,555	- 2,244	- 8,609	+ 676	+ 1,673	- 783	- 1,335	+ 317	- 22	+ 14,668	- 569
Sep. <sup>r</sup>	- 6,536	- 706	- 8,123	+ 679	+ 2,659	- 1,199	- 1,090	+ 457	- 7	+ 13,013	- 577
Oct. <sup>r</sup>	- 5,287	- 315	- 7,710	+ 642	+ 2,127	- 1,050	- 108	+ 335	+ 93	+ 13,662	- 680
Nov. <sup>r</sup>	- 2,077	- 836	- 3,469	+ 956	+ 1,859	- 371	- 1,446	+ 327	+ 74	+ 14,226	- 639
Dec. <sup>r</sup>	+ 785	- 729	- 2,276	+ 1,441	+ 2,710	- 505	- 577	+ 192	+ 194	+ 17,376	+ 3,582
2023 Jan. <sup>r</sup>	- 1,534	- 637	- 2,326	+ 771	+ 1,928	- 1,434	- 1,302	+ 391	+ 449	+ 12,557	- 644
Feb. <sup>r</sup>	- 2,175	- 1,101	- 2,334	+ 542	+ 946	- 910	- 398	+ 351	+ 409	+ 12,290	- 524
Mar. <sup>r</sup>	- 2,983	- 1,050	- 3,341	+ 463	+ 2,388	- 1,338	- 1,301	+ 309	+ 366	+ 16,661	- 507
Apr. <sup>r</sup>	- 3,330	- 452	- 3,406	+ 553	+ 2,362	- 1,519	- 1,599	+ 227	+ 104	+ 14,820	- 469
May <sup>p</sup>	- 5,677	- 421	- 5,027	+ 655	+ 1,281	- 1,250	- 1,692	+ 320	+ 112	- 527	- 861

<sup>1</sup> Since 2001 the sample results of a household survey have been used on the expenditure side. <sup>2</sup> Domestic public authorities' receipts from and expenditure on services, not included elsewhere; including the receipts from foreign military bases.

<sup>3</sup> 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

Zeit	Secondary income						Capital account			
	Total	General government			All sectors excluding general government <sup>2</sup>			Total	Non-produced non-financial assets	Capital transfers
		Total	of which:		Total	of which:				
		Current international cooperation <sup>1</sup>	Current taxes on income, wealth, etc.		Personal transfers between resident and non-resident households <sup>3</sup>	of which: Workers' remittances				
2018	- 50,958	- 33,109	- 10,849	+ 9,753	- 17,848	.	- 5,142	+ 914	+ 3,349	- 2,435
2019	- 50,747	- 30,251	- 11,473	+ 11,591	- 20,496	.	- 5,431	- 3,705	- 298	- 3,407
2020	- 54,224	- 36,074	- 13,498	+ 10,767	- 18,150	.	- 5,908	- 9,120	- 3,418	- 5,702
2021	- 59,046	- 36,974	- 11,303	+ 11,888	- 22,072	.	- 6,170	- 1,179	- 392	- 787
2022	- 68,835	- 41,923	- 17,878	+ 14,041	- 26,913	.	- 7,149	- 18,644	- 14,397	- 4,247
2021 Q3	- 15,527	- 9,973	- 4,119	+ 2,158	- 5,554	.	- 1,543	+ 1,985	+ 1,985	- 1
Q4	- 16,723	- 11,058	- 5,349	+ 2,135	- 5,664	.	- 1,543	+ 7	+ 963	- 956
2022 Q1	- 18,249	- 10,960	- 3,153	+ 2,477	- 7,288	- 1,995	- 1,719	- 3,021	- 2,865	- 156
Q2	- 13,513	- 5,957	- 3,247	+ 7,339	- 7,556	.	- 1,810	- 4,780	- 3,988	- 792
Q3	- 17,356	- 11,401	- 3,727	+ 2,138	- 5,955	.	- 1,810	- 5,860	- 4,533	- 1,326
Q4	- 19,718	- 13,604	- 7,751	+ 2,086	- 6,113	.	- 1,810	- 4,984	- 3,011	- 1,973
2023 Q1	- 19,605	- 10,860	- 3,352	+ 2,580	- 8,744	.	- 1,731	- 11,325	- 10,563	- 762
2022 July	- 6,912	- 4,701	- 1,865	+ 441	- 2,211	.	- 603	- 2,321	- 1,950	- 371
Aug.	- 5,957	- 4,111	- 1,275	+ 426	- 1,847	.	- 603	- 1,261	- 1,028	- 233
Sep.	- 4,486	- 2,589	- 587	+ 1,271	- 1,897	.	- 603	- 2,277	- 1,555	- 722
Oct.	- 5,447	- 3,509	- 1,505	+ 524	- 1,938	.	- 600	- 2,212	- 1,559	- 653
Nov.	- 6,479	- 4,468	- 1,623	+ 417	- 2,010	- 619	- 600	- 2,129	- 1,846	- 283
Dec.	- 7,792	- 5,628	- 4,623	+ 1,145	- 2,165	- 616	- 611	- 643	+ 394	- 1,037
2023 Jan.	- 5,542	- 3,794	- 1,910	+ 654	- 1,749	- 604	- 603	- 4,700	- 4,169	- 532
Feb.	- 6,039	- 3,879	- 923	+ 991	- 2,161	- 564	- 564	- 1,789	- 1,776	- 13
Mar.	- 8,023	- 3,188	- 519	+ 935	- 4,835	.	- 564	- 4,835	- 4,618	- 217
Apr.	- 5,069	- 3,264	- 1,060	+ 1,070	- 1,806	.	- 564	- 640	- 182	- 458
May <sup>p</sup>	- 68	+ 1,883	- 244	+ 5,109	- 1,951	.	- 564	- 2,035	- 1,944	- 91

<sup>1</sup> Excluding capital transfers, where identifiable. Includes current international cooperation and other current transfers. <sup>2</sup> Includes insurance premiums and claims

(excluding life insurance policies). <sup>3</sup> Transfers between resident and non-resident households.

## XII. External sector

### 6. Financial account of the Federal Republic of Germany (net)

€ million

Item	2020	2021	2022	2022		2023			
				Q3	Q4	Q1	March	April	May P
I. Net domestic investment abroad (increase: +)	+ 724,008	+ 819,754	+ 328,088	+ 111,380	- 66,050	+ 130,426	+ 76,615	- 42,058	+ 43,345
1. Direct investment	+ 134,017	+ 180,852	+ 169,006	+ 54,790	+ 10,260	+ 27,888	+ 13,638	+ 8,630	- 6,965
Equity	+ 89,898	+ 121,136	+ 114,061	+ 18,184	+ 32,688	+ 23,029	+ 11,953	+ 9,053	+ 5,455
of which:									
Reinvestment of earnings <sup>1</sup>	+ 17,533	+ 59,185	+ 69,943	+ 17,110	+ 12,154	+ 16,481	+ 8,434	+ 7,246	+ 2,062
Debt instruments	+ 44,119	+ 59,716	+ 54,945	+ 36,607	- 22,429	+ 4,859	+ 1,685	- 424	- 12,420
2. Portfolio investment	+ 166,417	+ 174,958	+ 16,697	- 26,789	+ 23,963	+ 78,923	+ 18,226	+ 16,930	+ 15,734
Shares <sup>2</sup>	+ 53,110	+ 46,753	- 16,698	- 9,893	- 9,357	+ 4,072	- 2,863	+ 2,216	- 2,006
Investment fund shares <sup>3</sup>	+ 35,932	+ 116,401	+ 33,614	- 1,045	+ 18,537	+ 10,899	+ 1,516	+ 2,237	+ 2,040
Short-term <sup>4</sup>									
debt securities	+ 10,507	- 107	+ 12,340	+ 2,183	+ 5,126	+ 7,640	+ 297	+ 1,961	+ 560
Long-term <sup>5</sup>									
debt securities	+ 66,867	+ 11,912	- 12,559	- 18,034	+ 9,657	+ 56,312	+ 19,277	+ 10,517	+ 15,139
3. Financial derivatives and employee stock options <sup>6</sup>	+ 94,579	+ 60,178	+ 42,677	+ 14,786	- 2,054	+ 20,246	+ 2,700	+ 5,293	+ 9,412
4. Other investment <sup>7</sup>	+ 329,046	+ 371,874	+ 95,282	+ 67,808	- 99,063	+ 3,145	+ 41,629	- 72,999	+ 25,080
MFIs <sup>8</sup>	- 4,313	+ 112,903	+ 59,476	+ 42,210	- 103,228	+ 65,798	+ 5,509	- 14,019	+ 16,892
Short-term	+ 3,683	+ 99,380	+ 34,961	+ 20,786	- 109,790	+ 68,459	+ 2,197	- 16,083	+ 18,361
Long-term	- 8,021	+ 13,204	+ 24,474	+ 21,411	+ 6,490	- 2,691	+ 3,255	+ 2,062	- 1,478
Enterprises and households <sup>9</sup>	+ 88,179	+ 143,700	+ 46,596	- 14,817	- 5,531	+ 33,616	- 21,302	+ 31,550	+ 9,639
Short-term	+ 44,218	+ 113,230	+ 23,769	- 20,699	- 13,198	+ 29,268	- 23,325	+ 30,558	+ 7,618
Long-term	+ 22,325	- 13,944	- 7,625	- 2,019	- 244	+ 594	+ 444	+ 153	+ 923
General government	+ 2,069	- 8,123	- 24,958	- 8,675	+ 645	+ 9,444	+ 3,170	- 2,251	- 876
Short-term	+ 3,461	- 7,256	- 23,451	- 8,600	+ 920	+ 3,286	+ 3,075	- 2,220	- 691
Long-term	- 2,485	- 2,327	- 2,883	- 617	- 274	+ 4,337	+ 95	- 37	- 185
Bundesbank	+ 243,112	+ 123,394	+ 14,167	+ 49,090	+ 9,051	- 105,713	+ 54,251	- 88,280	- 574
5. Reserve assets	- 51	+ 31,892	+ 4,426	+ 784	+ 845	+ 224	+ 423	+ 88	+ 83
II. Net foreign investment in the reporting country (increase: +)	+ 532,526	+ 571,203	+ 100,381	+ 141,397	- 177,676	+ 30,030	+ 21,837	- 30,356	+ 32,539
1. Direct investment	+ 138,902	+ 80,483	+ 43,725	+ 25,215	- 15,589	- 10,209	- 1,252	+ 7,275	+ 1,595
Equity	+ 45,841	+ 41,374	+ 14,811	+ 3,507	+ 3,618	+ 13,182	+ 2,496	+ 6,972	- 1,009
of which:									
Reinvestment of earnings <sup>1</sup>	+ 707	+ 7,659	+ 7,123	- 1,096	+ 1,344	+ 5,976	+ 961	+ 177	- 3,044
Debt instruments	+ 93,061	+ 39,109	+ 28,914	+ 21,708	- 19,207	- 23,391	- 3,749	+ 304	+ 2,604
2. Portfolio investment	+ 150,014	- 28,581	- 7,600	+ 4,948	- 23,214	+ 53,182	+ 38,585	- 5,471	+ 35,802
Shares <sup>2</sup>	- 17,040	+ 2,101	- 4,695	+ 7,486	+ 2,941	- 4,868	- 2,000	- 1,320	- 1,441
Investment fund shares <sup>3</sup>	+ 962	- 8,433	- 3,235	- 1,624	- 318	+ 932	- 246	+ 28	+ 259
Short-term <sup>4</sup>									
debt securities	+ 84,459	+ 29,313	- 37,218	- 4,041	- 24,696	+ 1,551	+ 19,655	- 3,789	+ 13,865
Long-term <sup>5</sup>									
debt securities	+ 81,632	- 51,563	+ 37,548	+ 3,128	- 1,142	+ 55,568	+ 21,176	- 390	+ 23,119
3. Other investment <sup>7</sup>	+ 243,611	+ 519,301	+ 64,255	+ 111,234	- 138,873	- 12,943	- 15,495	- 32,160	- 4,857
MFIs <sup>8</sup>	+ 108,426	+ 161,287	+ 152,946	+ 68,279	- 187,546	+ 108,354	- 25,923	- 3,516	+ 19,883
Short-term	+ 74,908	+ 115,265	+ 160,854	+ 48,862	- 181,523	+ 88,506	- 46,293	- 8,364	+ 14,243
Long-term	+ 33,579	+ 46,044	- 7,910	+ 19,417	- 6,025	+ 19,847	+ 20,369	+ 4,848	+ 5,640
Enterprises and households <sup>9</sup>	+ 32,084	+ 135,961	+ 6,958	+ 38,589	- 36,507	+ 5,051	- 40,822	+ 34,377	+ 35
Short-term	+ 14,969	+ 99,877	+ 9,271	+ 37,273	- 46,236	- 711	- 40,574	+ 33,599	- 1,597
Long-term	+ 13,511	+ 12,382	+ 8,907	- 398	+ 8,020	+ 4,498	- 769	+ 374	+ 1,207
General government	- 7,840	- 4,742	- 4,931	+ 2,837	- 7,399	+ 1,074	+ 2,253	+ 1,073	+ 1,341
Short-term	- 7,557	- 2,134	- 2,478	+ 2,843	- 7,371	+ 1,683	+ 2,234	+ 1,082	+ 1,324
Long-term	- 280	- 2,605	- 2,451	- 6	- 25	- 609	+ 19	- 9	+ 17
Bundesbank	+ 110,941	+ 226,796	- 90,717	+ 1,528	+ 92,579	- 127,423	+ 48,997	- 64,093	- 26,117
III. Net financial account (net lending: +/net borrowing: -)	+ 191,481	+ 248,551	+ 227,707	- 30,017	+ 111,625	+ 100,395	+ 54,778	- 11,702	+ 10,806

<sup>1</sup> 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). <sup>2</sup> Including participation certificates. <sup>3</sup> Including reinvestment of earnings. <sup>4</sup> Short-term: original maturity up to one year. <sup>5</sup> Up to and including 2012 without accrued interest. Long-term: original maturity of more than one year or unlimited.

<sup>6</sup> Balance of transactions arising from options and financial futures contracts as well as employee stock options. <sup>7</sup> Includes in particular loans, trade credits as well as currency and deposits. <sup>8</sup> Excluding Bundesbank. <sup>9</sup> 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
	Total	Reserve assets					Other investment					
		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	
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	663,320	–	497,651
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
2021	1,592,822	261,387	173,821	46,491	8,426	32,649	1,276,150	1,260,673	55,285	1,009,488	–	583,334
2022	1,617,056	276,488	184,036	48,567	9,480	34,404	1,290,317	1,269,076	50,251	919,441	–	697,614
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
Sep.	1,431,909	246,908	160,943	45,606	8,267	32,092	1,130,558	1,115,126	54,443	746,128	–	685,781
Oct.	1,388,160	250,340	164,602	45,719	8,449	31,570	1,083,141	1,066,604	54,678	735,595	–	652,564
Nov.	1,456,861	258,815	170,460	46,375	8,405	33,575	1,142,719	1,127,545	55,327	773,217	–	683,644
Dec.	1,592,822	261,387	173,821	46,491	8,426	32,649	1,276,150	1,260,673	55,285	1,009,488	–	583,334
2022 Jan.	1,479,694	261,965	173,362	46,931	8,504	33,168	1,163,561	1,149,868	54,168	807,889	–	671,805
Feb.	1,491,552	273,726	184,255	46,854	8,711	33,905	1,164,098	1,149,722	53,729	774,786	–	716,766
Mar.	1,516,744	277,782	187,779	47,375	8,663	33,965	1,184,501	1,169,952	54,462	808,690	–	708,055
Apr.	1,491,558	288,953	196,274	48,617	8,799	35,263	1,148,681	1,135,400	53,923	790,221	–	701,337
May	1,505,419	278,174	186,481	48,031	8,681	34,980	1,173,376	1,159,716	53,869	805,179	–	700,240
June	1,566,099	281,157	187,573	48,712	8,948	35,923	1,232,176	1,216,530	52,767	826,280	–	739,819
July	1,514,570	280,910	185,950	49,465	9,086	36,409	1,179,431	1,166,155	54,229	810,881	–	703,689
Aug.	1,590,572	280,160	184,794	49,614	9,300	36,451	1,258,187	1,245,014	52,225	842,576	–	747,996
Sep.	1,613,008	281,258	184,022	50,287	9,358	37,592	1,281,266	1,266,647	50,483	829,129	–	783,879
Oct.	1,569,272	274,421	178,101	49,675	9,527	37,119	1,243,873	1,230,005	50,977	811,035	–	758,237
Nov.	1,577,175	277,458	183,052	49,168	9,315	35,923	1,248,088	1,233,980	51,629	810,314	–	766,861
Dec.	1,617,056	276,488	184,036	48,567	9,480	34,404	1,290,317	1,269,076	50,251	919,441	–	697,614
2023 Jan.	1,508,507	281,692	190,062	48,256	9,437	33,938	1,176,042	1,162,354	50,772	793,716	–	714,791
Feb.	1,455,724	276,016	183,755	48,582	9,480	34,199	1,130,353	1,114,888	49,356	743,006	–	712,718
Mar.	1,522,539	288,131	196,405	48,039	9,373	34,314	1,184,604	1,170,620	49,804	791,478	–	731,061
Apr.	1,431,180	285,667	194,679	47,642	9,297	34,049	1,096,324	1,081,284	49,189	726,986	–	704,194
May	1,435,049	290,368	197,915	48,658	9,379	34,416	1,095,750	1,081,900	48,931	701,467	–	733,582
June	1,416,292	280,820	188,991	48,618	9,292	33,919	1,087,034	1,068,747	48,438	718,324	–	697,969

\* 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							
	Total	Balances with foreign banks	Claims on foreign non-banks				Total	Loans from foreign banks	Liabilities to non-banks					
			Total	from financial operations	from trade credits				Total	from financial operations	from trade credits			
					Total	Credit terms granted					Advance payments effected	Total	Credit terms used	Advance payments received
<b>Rest of the world</b>														
2019	968,277	227,767	740,510	503,698	236,812	220,465	16,348	1,312,974	167,925	1,145,050	932,555	212,495	136,829	75,666
2020	1,030,962	244,325	786,637	546,252	240,385	213,568	26,816	1,419,220	172,112	1,247,108	1,028,217	218,891	130,165	88,726
2021	1,163,639	256,764	906,875	616,964	289,911	261,752	28,159	1,576,549	215,064	1,361,485	1,105,049	256,436	159,446	96,990
2022	1,232,675	251,857	980,818	661,948	318,870	289,264	29,606	1,607,074	174,307	1,432,767	1,139,934	292,833	189,258	103,576
2022 Dec.	1,232,675	251,857	980,818	661,948	318,870	289,264	29,606	1,607,074	174,307	1,432,767	1,139,934	292,833	189,258	103,576
2023 Jan.	1,251,083	289,266	961,817	652,943	308,874	279,086	29,788	1,595,520	187,666	1,407,854	1,127,741	280,113	174,233	105,880
Feb.	1,288,815	294,730	994,085	681,436	312,649	282,699	29,950	1,639,386	203,036	1,436,350	1,158,439	277,911	170,382	107,529
Mar.	1,258,723	285,902	972,822	650,929	321,892	291,477	30,415	1,591,228	184,372	1,406,856	1,120,422	286,434	180,614	105,820
Apr.	1,287,498	326,535	960,963	657,274	303,689	273,260	30,429	1,627,060	207,609	1,419,450	1,142,227	277,223	170,765	106,458
May p	1,290,109	338,134	951,975	649,594	302,381	270,977	31,404	1,634,033	221,733	1,412,300	1,136,289	276,011	169,971	106,040
<b>EU Member States (27 excl. GB)</b>														
2019	573,453	176,913	396,539	304,545	91,994	83,227	8,768	841,017	91,513	749,504	663,166	86,337	63,664	22,674
2020	612,885	185,565	427,320	333,594	93,725	80,717	13,008	899,482	97,582	801,899	712,252	89,647	61,761	27,886
2021	660,557	194,046	466,511	358,320	108,191	95,340	12,851	988,142	151,193	836,949	733,188	103,761	74,174	29,587
2022	703,663	192,412	511,251	387,897	123,354	109,914	13,440	991,655	125,880	865,775	750,939	114,836	82,671	32,165
2022 Dec.	703,663	192,412	511,251	387,897	123,354	109,914	13,440	991,655	125,880	865,775	750,939	114,836	82,671	32,165
2023 Jan.	738,136	233,031	505,105	382,294	122,811	109,204	13,607	987,775	118,557	869,217	756,471	112,746	79,879	32,867
Feb.	748,489	237,252	511,237	385,937	125,300	111,832	13,468	981,655	119,121	862,533	747,403	115,130	81,543	33,588
Mar.	746,393	231,542	514,851	383,998	130,854	116,916	13,937	972,305	114,893	857,411	738,453	118,958	86,201	32,757
Apr.	783,061	262,600	520,462	394,679	125,782	111,680	14,102	996,850	119,224	877,627	762,940	114,686	81,522	33,165
May p	788,327	280,168	508,159	384,240	123,919	109,569	14,350	984,679	124,551	860,128	746,815	113,313	81,229	32,085
<b>Extra-EU Member States (27 incl. GB)</b>														
2019	394,824	50,853	343,971	199,153	144,818	137,238	7,580	471,958	76,412	395,546	269,388	126,157	73,165	52,992
2020	418,077	58,760	359,317	212,658	146,659	132,851	13,808	519,738	74,530	445,208	315,965	129,244	68,404	60,840
2021	503,082	62,718	440,364	258,644	181,720	166,411	15,309	588,407	63,871	524,536	371,861	152,675	85,271	67,403
2022	529,012	59,445	469,567	274,050	195,517	179,351	16,166	615,419	48,427	566,992	388,995	177,997	106,587	71,410
2022 Dec.	529,012	59,445	469,567	274,050	195,517	179,351	16,166	615,419	48,427	566,992	388,995	177,997	106,587	71,410
2023 Jan.	512,946	56,235	456,712	270,649	186,063	169,882	16,181	607,745	69,108	538,637	371,270	167,367	94,353	73,014
Feb.	540,325	57,477	482,848	295,498	187,350	170,867	16,483	657,732	83,915	573,817	411,036	162,781	88,839	73,942
Mar.	512,330	54,360	457,970	266,932	191,039	174,561	16,477	618,923	69,479	549,444	381,969	167,476	94,413	73,062
Apr.	504,437	63,935	440,502	262,595	177,907	161,580	16,327	630,209	88,386	541,824	379,287	162,537	89,244	73,293
May p	501,782	57,966	443,816	265,354	178,462	161,408	17,054	649,353	97,182	552,171	389,474	162,698	88,742	73,956
<b>Euro area (20)</b>														
2019	494,383	158,182	336,201	264,821	71,380	63,742	7,638	764,929	71,012	693,917	626,886	67,031	49,802	17,229
2020	526,584	164,691	361,893	288,485	73,408	61,662	11,746	812,136	75,869	736,267	666,749	69,518	47,547	21,971
2021	555,081	172,032	383,050	297,861	85,189	73,511	11,678	904,888	129,783	775,105	693,366	81,739	58,280	23,459
2022	597,491	173,395	424,096	328,761	95,336	83,244	12,092	903,757	105,435	798,322	709,668	88,654	63,579	25,075
2022 Dec.	597,491	173,395	424,096	328,761	95,336	83,244	12,092	903,757	105,435	798,322	709,668	88,654	63,579	25,075
2023 Jan.	638,359	216,337	422,022	326,150	95,872	83,620	12,252	901,298	99,420	801,878	715,508	86,370	60,792	25,578
Feb.	644,861	220,008	424,854	328,128	96,725	84,652	12,074	893,319	100,251	793,068	705,928	87,140	61,107	26,033
Mar.	641,632	214,675	426,957	325,761	101,197	88,646	12,550	883,244	95,565	787,679	698,040	89,639	64,217	25,422
Apr.	679,900	246,187	433,713	336,129	97,584	84,845	12,739	909,076	99,419	809,658	723,243	86,415	60,837	25,578
May p	685,200	262,292	422,908	326,410	96,497	83,565	12,932	896,942	105,652	791,289	705,853	85,437	61,024	24,413
<b>Extra-Euro area (20)</b>														
2019	473,894	69,585	404,309	238,877	165,432	156,723	8,709	548,045	.	.	.	145,464	87,027	58,437
2020	504,378	79,634	424,743	257,766	166,977	151,907	15,070	607,084	96,243	510,840	361,467	149,373	82,618	66,755
2021	608,558	84,732	523,826	319,103	204,723	188,241	16,481	671,661	85,281	586,380	411,683	174,697	101,165	73,532
2022	635,184	.	.	.	223,535	206,021	17,514	703,317	.	.	.	204,179	125,679	78,501
2022 Dec.	635,184	.	.	.	223,535	206,021	17,514	703,317	.	.	.	204,179	125,679	78,501
2023 Jan.	612,724	.	.	.	213,002	195,466	17,535	694,222	.	.	.	193,743	113,441	80,302
Feb.	643,953	.	.	.	.	.	.	746,067	.	.	.	190,771	109,275	81,497
Mar.	617,092	.	.	.	.	.	.	707,984	.	.	.	196,795	116,397	80,398
Apr.	607,598	.	.	.	.	.	.	717,983	.	.	.	190,808	109,928	80,880
May p	604,910	.	.	.	205,884	187,413	18,472	737,091	.	.	.	190,574	108,947	81,627

\* 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	Canada	China	Denmark	Japan	Norway	Sweden	Switzerland	United Kingdom	United States
	AUD	CAD	CNY	DKK	JPY	NOK	SEK	CHF	GBP	USD
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
2021	1.5749	1.4826	7.6282	7.4370	129.88	10.1633	10.1465	1.0811	0.85960	1.1827
2022	1.5167	1.3695	7.0788	7.4396	138.03	10.1026	10.6296	1.0047	0.85276	1.0530
2022 Feb.	1.5825	1.4422	7.1957	7.4408	130.66	10.0544	10.5342	1.0461	0.83787	1.1342
Mar.	1.4946	1.3950	6.9916	7.4404	130.71	9.7367	10.5463	1.0245	0.83638	1.1019
Apr.	1.4663	1.3652	6.9605	7.4391	136.61	9.6191	10.3175	1.0211	0.83655	1.0819
May	1.4995	1.3588	7.0830	7.4405	136.24	10.1453	10.4956	1.0355	0.84969	1.0579
June	1.5044	1.3537	7.0734	7.4392	141.57	10.2972	10.6005	1.0245	0.85759	1.0566
July	1.4856	1.3180	6.8538	7.4426	139.17	10.1823	10.5752	0.9876	0.84955	1.0179
Aug.	1.4550	1.3078	6.8884	7.4393	136.85	9.8309	10.5021	0.9690	0.84499	1.0128
Sep.	1.4820	1.3187	6.9508	7.4366	141.57	10.1697	10.7840	0.9640	0.87463	0.9904
Oct.	1.5474	1.3477	7.0687	7.4389	144.73	10.3919	10.9503	0.9791	0.87058	0.9826
Nov.	1.5455	1.3708	7.3171	7.4387	145.12	10.3357	10.8798	0.9842	0.86892	1.0201
Dec.	1.5685	1.4379	7.3859	7.4377	142.82	10.4480	10.9859	0.9865	0.86950	1.0589
2023 Jan.	1.5523	1.4474	7.3173	7.4383	140.54	10.7149	11.2051	0.9961	0.88212	1.0769
Feb.	1.5514	1.4400	7.3244	7.4447	142.38	10.9529	11.1725	0.9905	0.88550	1.0715
Mar.	1.6034	1.4649	7.3807	7.4456	143.01	11.2858	11.2276	0.9908	0.88192	1.0706
Apr.	1.6389	1.4792	7.5561	7.4518	146.51	11.5187	11.3370	0.9846	0.88115	1.0968
May	1.6346	1.4687	7.5948	7.4485	148.93	11.7330	11.3697	0.9751	0.87041	1.0868
June	1.6157	1.4414	7.7653	7.4492	153.15	11.7164	11.6766	0.9764	0.85861	1.0840

\* 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
2023 January 1	Croatia	Croatian kuna	HRK	7.53450

## 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						Indicators of the German economy's price competitiveness						
	extended EER group of trading partners 1				broad EER group of trading partners 2		Based on the deflators of total sales 3 vis-à-vis				Based on consumer price indices vis-à-vis		
	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	27 selected industrial countries 4			37 countries 5	27 selected industrial countries 4	37 countries 5	60 countries 6
							Total	of which:					
						Euro area countries	Non-euro area countries						
1999	96.2	96.1	95.9	96.0	96.6	95.9	97.9	99.6	95.7	97.7	98.3	98.1	97.8
2000	87.0	86.8	86.0	85.5	88.1	86.1	92.0	97.5	85.4	91.1	93.1	92.3	91.2
2001	87.5	87.1	86.5	84.3	90.2	86.9	91.7	96.6	86.0	90.5	93.0	91.7	91.0
2002	89.8	90.2	89.6	87.9	94.5	90.5	92.3	95.7	88.3	91.0	93.5	92.2	91.9
2003	100.4	101.4	100.8	99.0	106.4	101.6	95.9	94.8	97.5	95.3	97.0	96.7	96.8
2004	104.2	105.3	103.8	102.2	110.9	105.4	96.1	93.6	99.9	95.6	98.5	98.2	98.4
2005	102.8	104.0	101.8	100.4	109.1	103.0	94.7	92.1	98.7	93.3	98.4	97.1	96.7
2006	102.8	104.0	101.2	99.3	109.2	102.3	93.5	90.4	98.1	91.6	98.6	96.7	96.0
2007	106.3	107.0	103.5	101.0	112.8	104.5	94.5	89.7	101.9	92.0	100.9	98.3	97.3
2008	110.2	109.9	105.7	104.9	117.6	107.0	94.9	88.4	105.1	91.3	102.4	98.4	97.5
2009	111.7	110.8	106.8	108.6	120.7	108.1	95.2	89.2	104.5	92.0	101.9	98.6	97.9
2010	104.5	103.0	98.6	101.1	112.0	99.1	92.5	88.7	98.1	88.1	98.8	94.3	92.5
2011	104.2	102.1	96.7	99.2	112.8	98.6	92.1	88.5	97.5	87.3	98.2	93.5	91.9
2012	98.5	96.8	91.2	93.5	107.6	93.8	90.0	88.3	92.4	84.7	95.9	90.5	88.9
2013	102.1	99.9	94.2	96.3	112.3	96.8	92.3	88.8	97.4	86.6	98.1	92.3	90.9
2014	102.3	99.2	94.2	96.5	114.7	97.2	92.9	89.6	97.6	87.4	98.2	92.5	91.5
2015	92.5	89.5	85.5	85.9	106.2	88.6	89.7	90.3	88.8	83.6	94.4	87.8	87.0
2016	95.2	91.5	87.9	p 87.1	110.2	90.6	90.6	90.7	90.4	84.9	95.0	88.8	88.1
2017	97.5	93.4	89.1	p 87.9	112.6	91.8	91.9	90.9	93.3	85.7	96.3	89.9	88.9
2018	100.0	95.6	90.6	p 89.5	117.4	95.0	93.2	91.0	96.3	86.7	97.7	91.2	90.8
2019	98.1	93.2	88.9	p 86.9	115.6	92.4	92.2	91.2	93.5	85.8	96.4	89.9	89.4
2020	99.7	93.6	89.5	p 87.5	119.5	93.9	92.3	91.5	93.4	86.4	96.4	90.1	90.2
2021	99.6	93.5	p 88.7	p 86.0	120.9	94.3	93.4	92.0	95.4	86.8	97.4	90.7	91.0
2022	95.5	p 90.7	p 83.7	p 81.2	116.8	p 90.8	92.2	92.0	92.3	85.2	96.0	89.2	p 89.1
2021 Jan.	101.4	95.3			122.6	96.0				97.9	91.3	91.7	
Feb.	100.7	94.5	90.2	p 87.8	121.7	95.1	93.3	91.6	95.7	87.0	97.9	91.2	91.5
Mar.	100.3	94.2			121.4	94.9				97.7	91.1	91.4	
Apr.	100.6	94.3			122.1	95.2				97.9	91.2	91.7	
May	100.8	94.4	89.4	p 86.6	122.4	95.3	93.2	91.5	95.8	86.6	98.0	91.3	91.8
June	100.3	93.8			121.7	94.7				98.0	91.1	91.5	
July	99.7	93.5			121.0	94.3				97.7	91.0	91.3	
Aug.	99.4	93.2	p 88.5	p 85.7	120.6	93.9	93.7	92.3	95.7	87.0	97.4	90.7	90.9
Sep.	99.5	93.3			120.6	93.8				97.3	90.6	90.7	
Oct.	98.5	92.4			119.6	93.1				96.7	90.0	90.2	
Nov.	97.6	91.8	p 86.6	p 83.8	119.0	92.6	93.4	92.6	94.6	86.4	96.1	89.4	89.7
Dec.	97.1	91.2			119.2	92.4				95.7	88.9	89.4	
2022 Jan.	96.6	91.1			118.7	p 92.3				95.9	89.0	p 89.4	
Feb.	96.9	91.6	p 84.9	p 82.5	119.1	p 92.6	92.8	92.2	93.7	85.7	96.1	89.1	p 89.5
Mar.	95.9	91.4			118.6	p 92.7				96.3	89.5	p 90.0	
Apr.	95.2	90.0			116.6	p 90.2				96.1	89.0	p 88.9	
May	95.6	90.4	p 83.5	p 80.9	116.4	p 90.1	92.2	91.9	92.6	85.0	96.6	89.6	p 89.3
June	95.9	90.6			116.7	p 90.2				95.7	88.8	p 88.5	
July	94.1	89.1			114.7	p 88.9				94.9	88.0	p 87.6	
Aug.	93.6	88.8	p 81.9	p 79.6	114.2	p 88.6	91.6	92.0	90.7	84.7	94.5	87.7	p 87.3
Sep.	94.2	p 89.8			114.6	p 89.3				96.0	89.2	p 88.7	
Oct.	94.8	p 91.1			115.5	p 90.6				96.1	89.8	p 89.4	
Nov.	96.0	p 92.0	p 84.5	p 81.7	117.2	p 91.8	92.1	91.8	92.4	85.5	97.1	90.7	p 90.4
Dec.	97.0	p 92.3			119.2	p 92.6				96.2	89.7	p 89.8	
2023 Jan.	97.3	p 92.5			119.9	p 92.9				97.4	90.3	p 90.4	
Feb.	97.3	p 92.6	p 86.3	p 84.0	120.1	p 93.1	92.7	91.4	94.5	85.8	97.6	90.5	p 90.6
Mar.	97.5	p 92.8			120.5	p 93.3				98.0	91.0	p 91.1	
Apr.	98.6	p 93.6			122.3	p 94.5				98.6	p 91.6	p 92.0	
May	98.1	p 93.0			121.7	p 93.8				98.0	p 91.1	p 91.4	
June	98.3	p 93.1			122.5	p 94.3				p 98.3	p 91.4	p 92.0	

\* 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 18 countries: Australia, Bulgaria, Canada, China, 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** Includes countries belonging to the extended EER group of trading partners (fixed composition) and additionally the following 23 countries: 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. The ECB has suspended the publication and calculation of the euro foreign exchange reference rate against Russian rouble with effect from March 2, 2022 until further notice. For the calculation of effective exchange rates, an indicative rate is used for the Russian Federation from that date. It is calculated from the daily RUB/USD rates determined by the Bank of Russia in conjunction with the respective ECB's euro foreign exchange reference rate to the US dollar. **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, from 2023 including Croatia) 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 extended EER group of trading partners (fixed composition). **6** Euro area countries (current composition) and countries belonging to the broad EER group of trading partners (fixed composition).



## 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, as are also the Statistical Series, with a changed basic structure and advanced options for using data.

### ■ Annual Report

### ■ Financial Stability Review

### ■ Monthly Report

A list of the articles published in the period from 2010 to 2022 is available on the Bundesbank's website.

### Monthly Report articles

#### October 2022

- State government finances in 2021: Surplus and additional reserves from emergency borrowing
- Member States' financial relationships with the EU budget and the Next Generation EU off-budget entity in 2021
- The validity of interest parity in times of crisis
- Market conditions for Bunds in the context of monetary policy purchases and heightened uncertainty

#### November 2022

- The current economic situation in Germany

#### December 2022

- Outlook for the German economy for 2023 to 2025
- Rise in energy prices, the exchange rate of the euro and Germany's price competitiveness
- Access to cash in Germany – results of a representative public survey

#### January 2023

- From the monetary pillar to the monetary and financial analysis
- Term structures in economic analysis
- Mobile payment usage in Germany
- Access to cash in Germany: analyses of the spatial availability of cash withdrawal facilities

#### February 2023

- The current economic situation in Germany

#### March 2023

- German balance of payments in 2022
- The impact of digitalisation on labour productivity growth
- German enterprises' profitability and financing in 2021

#### **April 2023**

- Money market conditions and remuneration of government deposits
- Household wealth and finances in Germany: Results of the 2021 household wealth survey
- Turning point in payments
- Sustainability risks in banking supervision

#### **May 2023**

- The current economic situation in Germany

#### **June 2023**

- Arduous recovery amid high and only gradually easing inflation – outlook for the German economy up to 2025
- Developments in bank interest rates in Germany during the period of monetary policy tightening
- The growing significance of central government's off-budget entities

#### **July 2023**

- Digital money: options for the financial industry
- Cross-border liquidity flows – the role of the banking system in the German balance of payments
- Economic developments in emerging market economies: old problems and new challenges

### **■ 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 2023<sup>1,2</sup>
- 2 Banking statistics, customer classification, January 2023<sup>2</sup>

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|---|---|---|
| 3 | Aufbau der bankstatistischen Tabellen, July 2013 <sup>1,2</sup>                 | 02/2023<br>Households' expectations and regional COVID-19 dynamics  |
| 7 | Notes on the coding list for the balance of payments statistics, September 2013 | 03/2023<br>Inflation expectations in the wake of the war in Ukraine |

## ■ Special Publications

- |   |   |
|---|---|
| Makro-ökonometrisches Mehr-Länder-Modell, November 1996 <sup>1</sup>  | 04/2023<br>Shocks to transition risk  |
| Europäische Organisationen und Gremien im Bereich von Währung und Wirtschaft, May 1997 <sup>1</sup>                         | 05/2023<br>Time-varying shock return correlation, news shocks, and business cycles  |
| Die Zahlungsbilanz der ehemaligen DDR 1975 bis 1989, August 1999 <sup>1</sup>   | 06/2023<br>Asset allocation with recursive parameter updating and macroeconomic regime identifiers                                |
| The market for German Federal securities, May 2000  | 07/2023<br>The rollout of internal credit risk model: Implications for the novel partial-use philosophy                           |
| Macro-Econometric Multi-Country Model: MEMMOD, June 2000  | 08/2023<br>Pricing the Bund term structure with linear regressions – without an observable short rate                             |
| Bundesbank Act, September 2002  |   |
| Die Europäische Union: Grundlagen und Politikbereiche außerhalb der Wirtschafts- und Währungsunion, April 2005 <sup>1</sup> | 09/2023<br>Banks of a feather: The informational advantage of being alike   |
| Die Deutsche Bundesbank – Aufgabenfelder, rechtlicher Rahmen, Geschichte, April 2006 <sup>1</sup>                           | 10/2023<br>On the empirical relevance of the exchange rate as a shock absorber at the zero lower bound                            |
| European economic and monetary union, April 2008  | 11/2023<br>Banks' net interest margin and changes in the term structure   |
| Weltweite Organisationen und Gremien im Bereich von Währung und Wirtschaft, March 2013 <sup>1</sup>                         | 12/2023<br>Long-term deposit funding and demand for central bank funds: Evidence from targeted longer-term refinancing operations |

## ■ Discussion Papers<sup>o</sup>

- 01/2023  
 Make-up strategies with incomplete markets and bounded rationality



13/2023

Mental accounting and the marginal propensity to consume

14/2023

Shadow-rate VARs

15/2023

Convenient but risky government bonds

16/2023

Corporate taxes, productivity, and business dynamism

17/2023

The pass-through from inflation perceptions to inflation expectations

18/2023

Monetary policy rules under bounded rationality

19/2023

The state-dependent impact of changes in bank capital requirements

## ■ 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<sup>1</sup>

2a Solvency Regulation and Liquidity Regulation, February 2008<sup>2</sup>

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\* The Statistical Series replace the Statistical Supplements and, in part, the Special Statistical Publications; they will be provided exclusively on the Bundesbank's website under Publications/Statistics.

○ Discussion papers published from 2000 are available online.

<sup>1</sup> Publication available in German only.

<sup>2</sup> Available only as a download.