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Abbreviations and symbols

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 Data unknown, not to be published or not meaningful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

Discrepancies in the totals are due to rounding.

Commentaries

Economic conditions

Underlying trends

German economic data give mixed signals

Economic data for the German economy sent mixed signals at the start of the fourth quarter of 2022. On an average of October and November, enterprises were significantly less satisfied with their business situation than in the third quarter, according to the ifo Institute. Output figures for October brought a positive surprise, however. This is particularly true of the main construction sector, which recorded a marked increase despite sharply declining new orders. Industry kept its output at roughly the same level as in the third quarter, although energy-intensive sectors continued to contract significantly. By contrast, retail sales continued their steep decline – both in nominal and in real terms. Consumers showed a marked hesitance to buy, with high inflation diminishing their purchasing power and concerns about high energy costs dampening their propensity to spend. In November, the consumer climate index compiled by the market research institute GfK departed only slightly from its record low in October. Enterprises' business expectations as surveyed by the ifo Institute also improved somewhat in November, but were still very pessimistic. Economic output in Germany is likely to decline in the fourth quarter on the whole, although probably somewhat less sharply than previously expected.¹

Industry

Industrial output split between energy-intensive and less energy-intensive sectors, but stable overall

In October 2022, seasonally adjusted² industrial output fell a little short of the September level (-1/2%), although this September figure was also revised upwards significantly. Output increased slightly compared with the third-quarter average, however (+1/4%). A dichotomy between sectors is evident. In the energy-intensive sectors,³ especially in the chemicals industry, out-

put fell sharply again, while continuing to fare well in the other industrial sectors. Production of intermediate goods declined overall, but much less sharply than in the energy-intensive sectors, all of which are included here. For intermediate goods that are not classified as energy-intensive, the manufacture of fabricated metal products rose, for example, driven by massive increases in weapons and ammunition. Consumer goods production remained roughly at the same level as the third quarter but production of capital goods increased significantly. In particular, the manufacture of motor vehicles and motor vehicle parts was well above the third-quarter average in October. According to data on passenger car production provided by the German Association of the Automotive Industry (VDA), the automotive industry is likely to have performed well in November, too. These figures show that the production level was significantly higher than that of October. Overall, despite the tight energy supply and high costs, industry is likely to come through the fourth quarter relatively unscathed.

Industrial new orders stabilised again somewhat in October, following substantial declines in August and September. They were up slightly on the previous month in seasonally adjusted terms (+3/4%). However, the order level remained well below the average of the third quarter (-2%). Excluding large orders, new orders were down even more markedly (-23/4%). Large orders have a longer lead time and thus have a delayed impact on the production fig-

Industrial new orders up slightly due to large orders, but well below the third-quarter average

¹ For more on the November economic situation, see Deutsche Bundesbank (2022). For further information on the macroeconomic outlook, see pp. 17 ff. of this Monthly Report.

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

³ 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 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 Q1	112.3	103.4	119.1	127.5
Q2	106.2	102.3	109.1	110.4
Q3	104.9	97.2	110.7	107.9
2022 Aug.	105.2	96.2	112.0	106.9
Sep.	102.1	96.7	106.2	103.0
Oct.	102.9	94.9	108.9	...
Output; 2015 = 100				
Industry				
Period	Total	of which:		Construction
		Intermediate goods	Capital goods	
2022 Q1	96.6	102.3	89.8	117.0
Q2	95.7	101.1	89.7	113.2
Q3	96.4	99.3	92.6	112.8
2022 Aug.	95.8	98.4	92.2	111.3
Sep.	97.1	98.6	94.1	111.7
Oct.	96.7	96.8	95.4	116.4
Foreign trade; € billion				Memo item: Current account balance in € billion
Exports	Imports	Balance		
2022 Q1	370.79	344.03	26.76	52.74
Q2	392.41	378.38	14.03	32.96
Q3	400.83	393.56	7.27	17.17
2022 Aug.	135.31	134.36	0.95	3.91
Sep.	134.32	131.47	2.85	5.16
Oct.	135.46	128.64	6.82	9.39
Labour market				
Period	Employment	Vacancies ¹	Un-employment	Un-employment rate %
	Number in thousands			
2022 Q1	45,416	850	2,323	5.1
Q2	45,543	867	2,337	5.1
Q3	45,569	847	2,493	5.5
2022 Sep.	45,575	838	2,512	5.5
Oct.	45,607	821	2,521	5.5
Nov.	...	814	2,538	5.6
Prices; 2015 = 100				
Period	Import prices	Producer prices of industrial products	Construction prices ²	Harmonised consumer prices
2022 Q1	130.4	136.2	138.1	114.2
Q2	139.3	146.9	147.9	117.5
Q3	146.8	165.7	151.7	120.0
2022 Sep.	148.1	172.5	.	122.0
Oct.	146.2	165.3	.	123.4
Nov.	...	...	.	123.9

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

Deutsche Bundesbank

ures compared with other orders. Broken down by region, incoming orders from both Germany and abroad declined distinctly, with a comparatively strong drop in orders from the euro area. Broken down by sector, new orders were considerably lower for intermediate goods and somewhat lower for capital goods. The inflow of orders stagnated in the case of consumer goods. Among producers of capital goods, however, the automotive industry and manufacturers of other transport equipment received more orders than the average of the third quarter.

In October, industrial sales were up only slightly on the month in seasonally adjusted terms (+¼%). Compared with the third-quarter average, however, they were distinctly higher (+1¼%) and even after price adjustment, there was still a small rise (+½%). This increase was mainly driven by foreign sales, particularly to non-euro area countries. Broken down by sector, sales of capital goods rose steeply in line with production. In particular, sales of other transport equipment, mainly in the building of ships and boats, were very significantly higher in October than the third-quarter average. The automotive industry also saw a significant increase in sales. By contrast, consumer goods producers posted only a slight uptick in sales. Sales of intermediate goods were down somewhat, with chemical products experiencing a strong decline.

Nominal industrial sales up somewhat

Nominal exports rose slightly in October compared with the previous month (seasonally adjusted +¾%) and significantly compared with the average of the third quarter (+1½%). The increase was even more pronounced after price adjustment due to falling export prices. This was partly due to decreasing prices for energy exports, as natural gas became significantly cheaper in October. By contrast, there was no decline in export prices for intermediate, consumer and capital goods. Broken down by country group, nominal exports to the euro area's partner countries were weak. However, exports to non-euro area countries more than

Nominal exports up, imports down significantly

offset this decline. In October, nominal imports were considerably lower than in the previous month (seasonally adjusted -2¼%) and the average of the third quarter (-2%). After price adjustment, the decrease was somewhat smaller, as import prices for energy and intermediate goods fell in October. Unlike in the case of exports, nominal imports from non-euro area countries were particularly weak, although imports from the euro area were able to mitigate the decline somewhat. Roughly the same amount was spent on Russian goods in October (€1.79 billion) as in September. In August, before the complete suspension of natural gas deliveries, the figure had been €2.83 billion.

Construction

Surprisingly steep rise in construction output in October

Construction output rose steeply in October. It was up by 4¼% on the month in seasonally adjusted terms and by around 3¼% on the third quarter. The increase was surprisingly substantial in both the main construction sector and the finishing trades. In the short term, the favourable weather conditions probably had a positive impact on activity in the main construction sector. According to ifo Institute surveys, disruption to construction activity due to weather conditions was well below the long-term monthly average in October. The share of enterprises affected by a shortage of materials also declined again recently. However, the positive development in October is unlikely to continue. High construction prices and lending rates are tending to depress demand, suggesting a slowdown in construction activity.⁴ According to the ifo Institute, the assessment of the business situation improved slightly in November but it remained at an exceptionally low level. In addition, the number of construction firms complaining of a lack of orders was already significantly higher in November than in the previous months. This is also a reflection of the downward trend in new orders in the main construction sector over the past few months.

Labour market

Employment was up distinctly in October in seasonally adjusted terms, after having remained unchanged in the third quarter. Given the gloomier economic outlook and the substantial increase in the minimum wage in October, this illustrates how extraordinarily stable the German labour market is. The number of persons in work went up by 32,000 on the month. Employment subject to social security contributions also grew somewhat more strongly in September (more recent data are unavailable at present) than on average in the previous months. However, take-up of short-time work was once again stronger than it has been recently. In September, the number of persons in short-time work doubled on the month, albeit from a relatively moderate level. The employment outlook improved again in November. In particular, the ifo employment barometer, which had previously fallen significantly, saw a distinct recovery and now lies in expansionary territory.

Employment up in October, outlook stable

Registered unemployment rose slightly by 17,000 persons to 2.54 million in November after adjustment for seasonal variations. The unemployment rate was up by 0.1 percentage point to 5.6%. Ukrainian refugees did not cause an increase, as some of the refugees from the war dropped out of the unemployment statistics by joining language and integration courses. Total underemployment went up more strongly as a result, as that figure includes persons involved in active labour market policy measures and in integration measures. The slight increase likewise recorded in registered unemployment in the statutory unemployment insurance scheme suggests that the high level of labour market tightness is easing as the economy slows down. This process is likely to continue over the next few months as well, according to the unemployment barometer of the Institute for Employment Research (IAB). However, given how employment is expected

Slight increase in unemployment

⁴ See Deutsche Bundesbank (2022).

to develop, this cannot be taken to indicate a strong short-term increase in unemployment.

Prices

Crude oil price distinctly lower, European gas prices up significantly

The price of crude oil continued to come under marked pressure recently. Various factors came into play here. The subdued global economy weighed on oil demand. The G7 nations agreed on a relatively high price cap for Russian crude oil, which is unlikely to curtail Russia's crude oil exports all that much. In addition, at the start of December, OPEC member states and their partners decided not to cut their own production any more than previously planned for the time being. As this report went to press, a barrel of Brent crude oil cost US\$82. Crude oil futures were trading at minimal discounts, amounting to US\$3½ for deliveries 12 months ahead. By contrast, European wholesale gas prices have risen significantly in recent weeks to €139 per megawatt hour due to the cold weather. This is around 36% more than last year.

Inflation at upstream stages and in sales somewhat weaker recently, mainly due to energy

At the upstream stages of the economy, the exceptionally high price pressures by historical standards recently eased somewhat. In October, prices in European gas markets in particular experienced a significant fall compared with the previous month. This was reflected in a further marked reduction in the price of energy imports. In addition, domestic energy prices came down for the first time. Year-on-year inflation was 23.5% for imports and 34.5% for domestic products. In both cases, this was markedly lower than in September. Alongside energy, price increases for imports and production of intermediate goods declined again somewhat, while the rate of price increase for capital and consumer goods remained unchanged at a high level.

Inflation rate still double-digit in November

In November, consumer price inflation weakened and the Harmonised Index of Consumer Prices (HICP) rose by just 0.4% on the month in seasonally adjusted terms. The year-on-year increase was still in the double digits, however,

and amounted to 11.3%, down from 11.6% in October.⁵ In particular, the extremely strong energy inflation decreased somewhat, although the already very high growth in food prices picked up once more. The increase in prices of industrial goods and services was similarly significant to October. The core rate (excluding energy and food) thus remained at 5.1% in November. Inflation rates are likely to become significantly more volatile in the coming months. The first stage of the gas price brake envisages the government paying gas bills in December. This could push the inflation rate down into single digits. Starting in January, inflation is set to then rise again markedly, although the second stage of the gas price brake and the electricity price brake are likely to dampen the inflation rate already. Overall, there is still a high degree of uncertainty about price developments in the coming months. Besides the uncertainties surrounding the inclusion of the price brakes in the official price statistics, one of the factors contributing to this is the plan to rebase the national consumer price index to base year 2020 with effect from January 2023. Nevertheless, the underlying inflationary pressures in Germany are likely to remain high for the time being.⁶

Public finances⁷

Statutory health insurance scheme

The statutory health insurance scheme (comprising the health insurance institutions and the

⁵ The national consumer price index (CPI) stood at 10.0%, down from 10.4%. CPI and HICP inflation rates differ significantly at the moment, as the HICP has a greater share of goods than the CPI and goods (including energy and food) currently have higher inflation rates than services. Services have a lower weight in the HICP than in the CPI, as the HICP does not include owner-occupied housing.

⁶ See p. 35 f. of this Monthly Report.

⁷ The short commentaries on public finances present cash outturns that were not yet available when the previous quarterly report on public finances (February, May, August and November) went to press. A broad overview of the data can be found in the statistical section of the Monthly Report.

Statutory health insurance scheme in Q3: small surplus, and thus considerable improvement on the year

health fund) posted a surplus of €½ billion in the third quarter of 2022. Without lagged central government refunds, the surplus would have amounted to €1 billion. This result marks a significant improvement on the third quarter of 2021, when a deficit of €3 billion was recorded. Additional central government grants are the main reason for this positive development. These grants are intended to offset the health insurance institutions' funding gap expected back in autumn 2021 by the group of statutory health insurance estimators in order to stabilise supplementary contribution rates. The funding gap is predominantly structural in nature. In the previous year, the health insurance institutions covered the funding gap using their reserves.

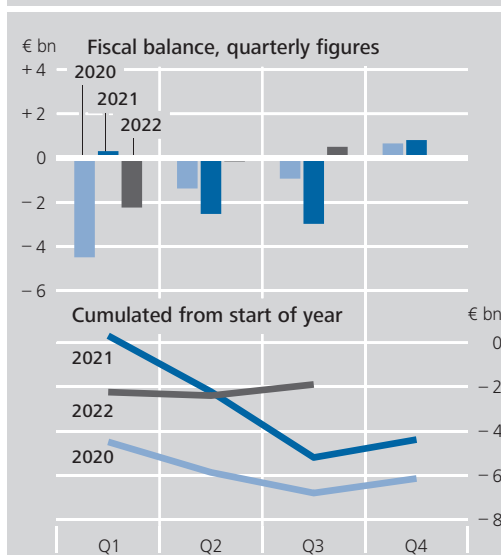
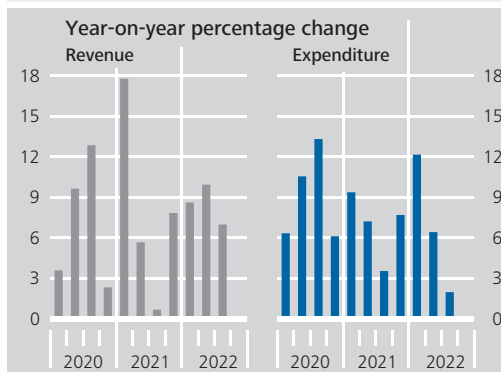
Strong revenue growth – not least due to additional central government funds

The statutory health insurance scheme's revenue was up by 7% on the same quarter of 2021, not least because of higher central government payments. Central government issued an additional grant of €3½ billion. In 2022, it is paying additional grants totalling €14 billion in quarterly instalments. In 2021, central government paid an additional grant of €5 billion in the first quarter only. By contrast, its refunds for pandemic-related special expenditure fell by €1½ billion. Contribution receipts grew by 5½%, bolstered in part by the large pension increase at mid-year. Average supplementary contribution rates – which were up slightly, by 0.1 percentage point – contributed only ½ percentage point to this.

Expenditure only moderately higher overall, as pandemic-related expenditure fell

The expenditure of the statutory health insurance scheme rose moderately, by 2%. The health fund's falling pandemic-related payments had an easing effect. This pandemic-related expenditure was mainly due to coronavirus tests for the general public (€1½ billion), financial assistance to hospitals and the fund's share of vaccination costs (€½ billion in each case). In addition, there were special payments of €½ billion to nursing staff providing long-term care. These special payments had not yet been reimbursed by central government, leading to a temporary negative impact on the re-

Finances of the statutory health insurance scheme*



Source: Federal Ministry of Health. * Health fund and health insurance institutions (consolidated). Preliminary quarterly figures. The final annual figures differ from the total of the reported preliminary quarterly figures as the latter are not revised retroactively.
 Deutsche Bundesbank

sult. Health insurance institutions' spending on benefits climbed by 4%. In this context, base effects in opposing directions make it difficult to assess the underlying developments in the individual benefit areas. Overall, expenditure on benefits was 14½% higher than in the same quarter of the pre-crisis year of 2019.⁸ Administrative expenditure grew by just over 5% on the year.

The statutory health insurance scheme could post a significant surplus for 2022 as a whole.

⁸ Growth in the contribution base was significantly weaker during this period, totalling 10½%.

2022: significant surplus for statutory health insurance scheme

This would be a considerable improvement on the previous year (deficit of €5½ billion for 2021 according to final accounting figures). In the autumn of 2021, the group of statutory health insurance estimators expected a deficit of €2 billion for 2022. The better-than-projected developments are mainly due to a stronger rise in earnings subject to compulsory contributions. Furthermore, the average supplementary contribution rate is just under 0.1 percentage point higher than estimated. However, expenditure rose somewhat more sharply after the first three quarters than projected in autumn 2021 by the group of statutory health insurance estimators for the year as a whole.⁹ Overall, a surplus of just over €2 billion is thus on the cards for 2022.

2023: high deficit in the statutory health insurance scheme – health fund to use up available reserves

For 2023, the assumptions made by the group of statutory health insurance estimators in the autumn of 2022 anticipate a large deficit of €7 billion in the statutory health insurance scheme. The lion's share (€5 billion) is attributable to the health fund. According to the estimators' assumptions, this deficit corresponds to the available funds in the health fund's liquidity reserve at the end of 2022. The applicable new minimum reserve is 50% lower, at 0.25 times the scheme's monthly expenditure. For the last time, the fund will transfer funds to compensate the health insurance institutions for losses caused by the reduction of statutory health insurance contributions on occupational pensions since 2020, drawing on its liquidity reserve (€½ billion). In addition, the health insurance institutions will receive a one-off special grant of €4½ billion. However, the deficit could still be just over €1 billion higher than projected, due to the fact that the health fund will still transfer just over €½ billion from its liquidity reserve to the Innovation Fund and the Structural Fund. Moreover, the health insurance institutions will receive an additional €½ billion from this for improvements in the areas of obstetrics and paediatrics. As the health fund is likely to close 2022 in a better position than projected by the group of estimators, the

liquidity reserve is nonetheless unlikely to fall below its minimum level.

The smaller part of the statutory health insurance scheme's deficit is attributable to the health insurance institutions. The group of statutory health insurance estimators expects the institutions' spending to rise by 4½% in 2023 despite savings, above all in the area of pharmaceuticals. On the revenue side, the health insurance institutions will receive contribution receipts and central government funds. The latter (excluding pandemic-related refunds) will fall by €11 billion on the year.¹⁰ Transfers from the health fund's liquidity reserve will increase to the aforementioned €5 billion. In order to limit the necessary rise in the supplementary contribution rate, the health insurance institutions are supposed to withdraw €2½ billion from their reserves. These funds will be redistributed among the health insurance institutions.¹¹ In addition, the upper limit on reserves will be lowered from 0.8 to 0.5 times the scheme's monthly expenditure. If a health insurance institution then still has remaining funding gaps, it must close them by raising its supplementary contribution rate as necessary. The Federal Ministry of Health accordingly raised the supplementary contribution rate for 2023 by 0.3 percentage point to 1.6%.

For 2023, the government is focusing mainly on temporary measures to close the structural funding gap. In doing so, it is putting off taking action that is fundamentally necessary. As things stand, in 2024 all special payments from central government will have come to an end and, according to the plans, the buffers in the reserves will have been used up. As the underlying funding pressures on the statutory health insurance scheme are unlikely to ease, the pres-

Health insurance institutions to record a marked deficit – with their reserves largely depleted, too

Temporary measures covering structural funding gaps – fundamental reforms announced

⁹ Excluding the health fund's pandemic-related special expenditure, which is reimbursed by central government.

¹⁰ Next year, central government will provide an additional grant of €2 billion. Furthermore, it will issue a loan of €1 billion, to be repaid by the end of 2026.

¹¹ The health fund will make smaller transfers to health insurance institutions with larger reserves and larger transfers to health insurance institutions with smaller reserves.

tures on the (supplementary) contribution rates will then increase. The Federal Minister of Health has therefore announced a comprehensive financial reform for next year. Hospital remuneration is also expected to change, albeit without impacting on the scheme's finances overall.

Public long-term care insurance scheme

Considerable deficit due to reform of long-term care

The core budget of the public long-term care insurance scheme was €1½ billion in deficit in the third quarter of 2022.¹² This constitutes a deterioration of €1 billion compared with the same quarter of the previous year and is mainly due to additional expenditure generated by the recent reform of long-term care.

Contribution receipts rose steeply; additional central government funds for long-term care bonus

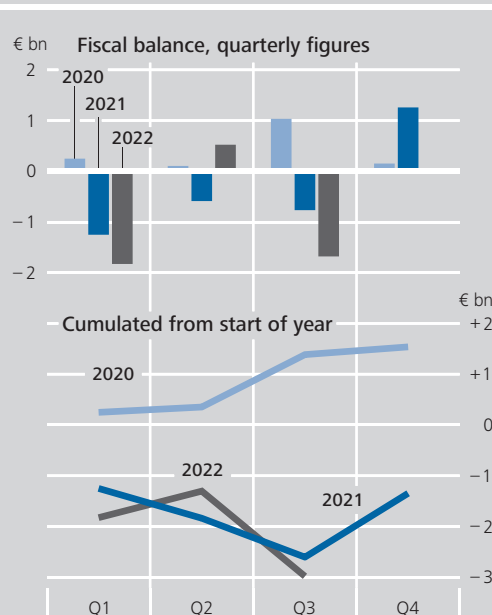
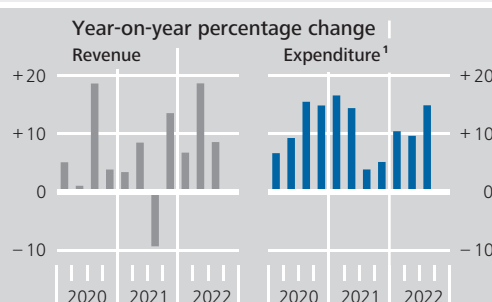
Revenue rose by 8½%, with contribution receipts growing by 6%. Almost 1 percentage point of this increase was due to the fact that the contribution rate for childless persons also rose by 0.1 percentage point to 3.4% at the beginning of the year as part of the benefit reform. Alongside contribution receipts, central government provided additional funds of €½ billion in order to pay a bonus to nursing staff providing long-term care.

¹² The developments outlined here and in the remainder of the text exclude the provident fund. Since 2015, this fund has been receiving 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 contribution rate rise.

¹³ Other special payments to long-term care facilities and for coronavirus tests remained broadly unchanged. Overall, they amounted to €1½ billion. The long-term care insurance scheme reimbursed non-residential and (semi-)residential long-term care facilities for coronavirus testing costs. Furthermore, these facilities received financial compensation for additional expenditure relating to the pandemic. They were also compensated for revenue shortfalls caused by the non-utilisation of long-term care services on account of the pandemic. But even if there had been no pandemic, the long-term care insurance scheme's spending on benefits would still have been higher.

¹⁴ The co-contribution rate of long-term care recipients drops to 30% after a three-year period of residence. The limitation on residents' co-contribution does not apply to fees for accommodation, food and investment.

Finances of the public long-term care insurance scheme*



Source: Federal Ministry of Health. * Preliminary quarterly figures. The final annual figures differ from the total of the reported preliminary quarterly figures as the latter are not revised retroactively. ¹ Including transfers to the long-term care provident fund.
 Deutsche Bundesbank

At 15%, growth in expenditure was much stronger still. Coronavirus-related special payments increased by one-third, in connection with the bonuses paid to nursing staff providing long-term care.¹³ However, the rise in other expenditure was also strong, at 13%, which was mainly attributable to spending on inpatient care (+24%). The reason for this is the reform of long-term care: since the beginning of this year, the long-term care insurance scheme has been taking on a greater share of the costs as the length of residence in long-term care homes increases.¹⁴ In the draft law, the Federal Government projected additional expenditure of €2½ billion in 2022 for this purpose. How-

Expenditure grew even more strongly because of long-term care bonuses and benefit increases

ever, the outturns for the first three quarters of the year point to markedly higher expenditure. Cash benefits continued to grow by a substantial 7% even though benefit rates remained unchanged.

2022: deficit could be lower than in 2021 thanks to central government funds

A deficit appears to be on the cards for the year as whole, although it will probably be markedly smaller than in 2021 (€1½ billion). The sharp increase in spending on benefits would normally have led to a significantly higher deficit. Furthermore, coronavirus-specific expenditure increased. Under the 2022 long-term care reform, central government provides a regular grant of €1 billion. In addition to this, however, it paid further grants amounting to just over €2 billion, as well as issuing a loan of €1 billion this year, to be repaid by the end of 2023. The significant growth in earnings subject to compulsory contributions over the year as a whole is another positive influence.

2023: further benefit increases announced, contribution rate likely to rise over the course of the year

Although costs arising from special coronavirus payments will be absent next year, the long-term care insurance scheme will nevertheless be in structural deficit. In addition, the Federal Minister of Health plans to expand benefits again in mid-2023. Amongst other things, long-term care rates are then set to rise. In addition, the long-term care insurance scheme will have to repay the central government loan granted in 2022. Overall, available reserves will probably already be used up in the first half of 2023. A higher contribution rate would then be needed to close the funding gap.

■ Securities markets

Bond market

High net issuance in the German bond market in October 2022

At €174.0 billion, gross issuance in the German bond market in October 2022 was up on the previous month (€159.4 billion). After deducting redemptions, which were somewhat lower than in September, and taking account of changes in issuers' holdings of their own debt securities, net issuance of domestic debt secur-

ities came to €61.7 billion. The outstanding volume of foreign debt securities in Germany fell by €1.0 billion in the reporting month, pushing up the outstanding volume of debt instruments in the German market by €60.7 billion overall.

During the reporting month, the public sector increased its capital market debt by €61.0 billion net (following net redemptions of €20.9 billion in September). On balance, central government issued primarily ten-year Federal bonds (Bunds: €39.0 billion), 30-year Federal bonds (Bunds: €8.0 billion), two-year Treasury notes (Schätze: €8.3 billion) and Treasury discount paper (Bubills: €6.2 billion). This contrasted with net redemptions of five-year Federal notes (Bobls) amounting to €8.2 billion. State and local governments issued bonds worth €2.2 billion net.

Net public sector issuance

Domestic credit institutions pared back their capital market debt by €6.2 billion in the month under review, compared with borrowing activity amounting to €32.1 billion in the previous month. In this context, the outstanding volume of debt securities issued by specialised credit institutions – which also include public promotional banks – fell by €9.8 billion. Mortgage Pfandbriefe and public Pfandbriefe were issued in the amount of €3.4 billion and €0.2 billion net, respectively.

Fall in credit institutions' capital market debt

Domestic enterprises issued bonds worth €6.8 billion net in October, compared with €3.9 billion in the previous month. Overall, this was entirely attributable to issuances by other financial institutions, which on balance solely issued bonds with maturities of up to one year.

Net issuance by enterprises

On balance, domestic non-banks were the main buyers of debt securities in the month under review, adding a net €73.7 billion in bonds to their portfolios. These consisted entirely of domestic debt securities on balance. Domestic credit institutions expanded their bond portfolios by €4.2 billion, likewise purchasing exclusively domestic assets. Holdings of bonds in the Bundesbank's portfolio in-

Purchases of debt securities

creased by €3.6 billion net. Foreign investors offloaded German debt securities amounting to €20.9 billion net.

Equity market

Low net issuance of German equities

In October, domestic enterprises placed only small quantities of new shares in the German equity market (€0.6 billion, following €38.8 billion in the previous month). The volume of foreign equities in the German market fell by €3.5 billion during the same period. Ultimately, shares were purchased solely by non-resident investors (€2.2 billion). Domestic non-banks sold shares worth €3.5 billion on balance, including domestic shares worth €1.6 billion. Domestic banks offloaded solely foreign assets (-€1.6 billion).

Mutual funds

Higher inflows to mutual funds

Domestic investment funds recorded net inflows of €4.0 billion in October (previous month: €1.3 billion). On balance, specialised funds reserved for institutional investors were the chief beneficiaries of such inflows (€3.6 billion). By contrast, retail funds sold their own certificates only to a small extent (€0.3 billion). Among the fund providers, the main sellers of new shares were mixed securities funds (€11.4 billion), followed to a lesser extent by real estate funds (€2.0 billion) and bond funds (€1.1 billion). By contrast, funds of funds redeemed their own shares to the tune of €7.9 billion net. The outstanding volume of foreign mutual fund shares distributed in Germany increased by €1.0 billion in October. Domestic non-banks were almost the sole buyers of mutual fund shares on balance (€5.7 billion). Foreign investors pared back their domestic fund portfolios by €0.8 billion in net terms, while domestic credit institutions left their holdings virtually unchanged on balance.

Sales and purchases of debt securities

€ billion

Item	2021	2022	
	Oct.	Sep.	Oct.
Sales	3.2	15.1	61.7
Domestic debt securities ¹			
of which:			
Bank debt securities	7.4	32.1	- 6.2
Public debt securities	3.3	- 20.9	61.0
Foreign debt securities ²	- 3.1	- 5.2	- 1.0
Purchases			
Residents	9.4	20.9	81.6
Credit institutions ³	- 17.9	7.5	4.2
Deutsche Bundesbank	20.8	- 3.1	3.6
Other sectors ⁴	6.5	16.6	73.7
of which:			
Domestic debt securities	0.1	26.5	74.8
Non-residents ²	- 9.3	- 11.0	- 20.9
Total sales/purchases	0.1	9.9	60.7

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

Balance of payments

Germany's current account recorded a surplus of €5.9 billion in October 2022, almost half of the previous month's result. This was caused by the narrower surplus in the goods account and the shift into a deficit in invisible current transactions, which comprise services as well as primary and secondary income.

Current account surplus down

In October, the surplus in the goods account fell by €3.7 billion to €6.4 billion because receipts recorded a sharper decrease than expenditure.

Fall in goods account surplus

Invisible current transactions shifted from a surplus of €1.5 billion in September into a deficit of €0.5 billion. Net receipts in primary income in fact grew by €0.4 billion to €11.3 billion, with expenditure narrowing somewhat more sharply than receipts. However, the deficit in the secondary income account widened signifi-

Invisible current transactions shifted into deficit due to higher deficits in secondary income and services

Major items of the balance of payments

€ billion

Item	2021	2022	
	Oct.	Sep.	Oct.P
I. Current account	+ 16.3	+ 11.7	+ 5.9
1. Goods	+ 15.1	+ 10.2	+ 6.4
Receipts	121.0	141.6	132.2
Expenditure	105.9	131.4	125.7
Memo item:			
Foreign trade ¹	+ 12.5	+ 8.1	+ 5.3
Exports	121.4	142.1	133.3
Imports	108.9	134.0	128.0
2. Services	- 5.6	- 5.3	- 6.5
Receipts	29.9	33.5	31.9
Expenditure	35.5	38.8	38.4
3. Primary income	+ 11.8	+ 10.9	+ 11.3
Receipts	19.3	20.7	20.4
Expenditure	7.4	9.9	9.1
4. Secondary income	- 5.1	- 4.0	- 5.3
II. Capital account	+ 0.4	- 1.6	- 1.9
III. Financial account (increase: +)	+ 21.7	- 7.2	+ 23.9
1. Direct investment	+ 4.7	+ 2.5	+ 10.8
Domestic investment abroad	+ 13.7	- 3.1	+ 19.8
Foreign investment in the reporting country	+ 9.0	- 5.6	+ 9.0
2. Portfolio investment	+ 28.2	- 7.6	+ 15.4
Domestic investment in foreign securities	+ 13.3	- 7.6	- 3.9
Shares ²	+ 5.9	- 1.2	- 3.9
Investment fund shares ³	+ 10.5	- 1.2	+ 1.0
Short-term debt securities ⁴	+ 1.3	+ 0.9	- 2.4
Long-term debt securities ⁵	- 4.4	- 6.1	+ 1.4
Foreign investment in domestic securities	- 14.9	+ 0.0	- 19.3
Shares ²	- 5.0	+ 10.9	+ 2.4
Investment fund shares	- 0.6	+ 0.2	- 0.8
Short-term debt securities ⁴	- 8.7	+ 3.7	- 17.9
Long-term debt securities ⁵	- 0.6	- 14.7	- 3.0
3. Financial derivatives ⁶	+ 7.3	+ 10.5	+ 5.2
4. Other investment ⁷	- 18.7	- 13.9	- 8.2
Monetary financial institutions ⁸	+ 23.0	- 34.6	- 4.0
of which:			
Short-term	+ 11.2	- 29.0	- 0.6
Enterprises and households ⁹	- 6.5	- 6.2	+ 13.0
General government	+ 1.7	- 10.0	+ 2.8
Bundesbank	- 37.0	+ 37.0	- 20.0
5. Reserve assets	+ 0.3	+ 1.2	+ 0.7
IV. Errors and omissions ¹⁰	+ 5.0	- 17.3	+ 19.9

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

Deutsche Bundesbank

cantly by €1.3 billion to stand at €5.3 billion. The main reason for this was lower receipts, with reduced government income from current taxes on income and wealth playing a role. In addition, expenditure rose somewhat. Although payments to the EU budget in connection with financing related to gross national income went down, general government expenditure on current transfers relating to international cooperation recorded significant growth. Moreover, the deficit in the services account expanded by €1.2 billion to €6.5 billion. Receipts, in particular, declined, with lower receipts in transport and charges for the use of intellectual property contributing to this contraction. The increase in travel expenditure counteracted the predominantly receding expenditure in other areas.

In October 2022, financial markets were dominated by high global inflation rates and expectations of further monetary policy tightening in the major economies. Germany's cross-border portfolio investment generated net capital exports of €15.4 billion (September: net capital imports of €7.6 billion). Non-resident investors reduced their holdings of German securities by €19.3 billion, disposing of money market paper in particular (€17.9 billion), but also selling bonds (€3.0 billion) and a small volume of mutual fund shares (€0.8 billion). By contrast, they purchased shares of German enterprises to the tune of €2.4 billion. Resident investors parted with foreign securities (€3.9 billion) on balance, offloading shares (€3.9 billion) and money market paper (€2.4 billion), whilst acquiring bonds (€1.4 billion) and mutual fund shares (€1.0 billion). In October, transactions in financial derivatives recorded outflows of €5.2 billion (September: €10.5 billion).

Direct investment recorded net capital exports of €10.8 billion in October (September: €2.5 billion). Enterprises domiciled in Germany expanded their direct investment funds abroad by €19.8 billion. They boosted their cross-border equity capital (€23.5 billion), with reinvested profits accounting for around one-third of this

Portfolio investment sees net capital exports

Direct investment records capital outflows

capital. By contrast, they reduced the volume of loans to business units abroad (€3.7 billion) – chiefly in the form of financial loans. Conversely, foreign enterprises stepped up their investment in Germany (€9.0 billion), raising their equity capital in affiliated enterprises in Germany by €1.1 billion and granting additional loans to domestic business units (€7.9 billion). On balance, this lending exclusively took the form of financial credits as trade credits were mainly redeemed.

inflows of capital amounting to €8.2 billion in October (following €13.9 billion in September). The Bundesbank's net external claims declined by €20.0 billion, with TARGET2 claims falling by €36.6 billion. At the same time, however, deposits from non-euro area residents decreased as well. Monetary financial institutions excluding the Bundesbank also registered net capital imports (€4.0 billion). By contrast, the transactions by enterprises and households (€13.0 billion) and by general government (€2.8 billion) resulted in net capital exports.

*Net capital
imports in other
investment*

Other statistically recorded investment – which comprises loans and trade credits (where these do not constitute direct investment), bank deposits and other investments – registered net

The Bundesbank's reserve assets rose – at transaction values – by €0.7 billion in October.

Reserve assets

■ List of references

Deutsche Bundesbank (2022), The German economy, Monthly Report, November 2022, p. 49.

Outlook for the German economy for 2023 to 2025

While the German economy is likely to contract in the current winter half-year, it will not experience a severe downturn. Due to additional gas imports from other countries as well as reduced consumption, a gas shortage is unlikely to occur despite the cessation of deliveries from Russia. However, the energy crisis will boost inflation. As a result, real disposable income and household consumption will fall until mid-2023. High energy costs will weigh on production, especially in energy-intensive industry. This will dampen exports. In addition, foreign demand will wane. The elevated level of uncertainty and higher financing costs will depress investment amongst enterprises and in housing construction. Real government consumption will decline as pandemic-related spending comes to an end.

From the second half of 2023 onwards, the German economy will gradually recover. This is because foreign demand is expected to rise, uncertainty will abate, price pressures from energy commodities will diminish, and the rate of inflation will fall. As the labour market will remain robust and wages will see strong growth, real household income and private consumption will increase again.

In these circumstances, the German economy will contract by 0.5% in calendar-adjusted terms next year, after expanding by 1.8% this year. It will grow by 1.7% in 2024 and by 1.4% in 2025. Macroeconomic production capacity will not return to normal levels of utilisation until 2025. Compared with the June projection, the rate of change in gross domestic product (GDP) for 2023 has been revised considerably downwards. This is due to the massive deterioration in conditions regarding the supply of energy, weaker growth in foreign demand, and higher financing costs.

The rate of inflation as measured by the Harmonised Index of Consumer Prices (HICP) is expected to be 8.6% this year. It will fall to 7.2% next year, partly because of the government's electricity and gas price brake. Inflation rates will continue to decline in the following years. The headline rate will diminish to 2.8% by 2025. By contrast, the core rate (excluding energy and food) will first continue to rise slightly in 2023, climbing to 4.3%. It will subsequently decline to 2.6% by 2025. Price inflation, however, will remain high owing to the pressure from labour costs as well as to rebound effects after the electricity and gas price brake has expired. Compared with the June projection, both the headline and core rates have been revised markedly upwards again for every year.

The government will provide substantial support to enterprises and households during the energy crisis, especially in the form of broad-based subsidies and other transfers. At the same time, the measures related to the pandemic will come to an end. On balance, the deficit will rise from 2¾% of GDP this year to 4% next year. Thereafter, the support measures will be gradually phased out and the deficit will fall to around 1½% of GDP.

The risks to economic growth are tilted predominantly to the downside, mainly due to potential shortages in the supply of energy. With regard to inflation, upside risks predominate.

Economic outlook¹

Despite the energy crisis, the German economy saw marked expansion in Q2-Q3 period

The German economy grew markedly over the 2022 summer half-year (April-September). Despite the crisis in the energy markets caused by Russia's war of aggression against Ukraine, GDP growth was only slightly lower in real terms than had been expected in the June projection.² Private consumption expenditure rose as anticipated, despite higher rates of inflation and rising consumer uncertainty. In this context, roles are likely to have been played by unexpectedly strong catch-up effects following the expiration of most of the pandemic containment measures as well as by additional government assistance measures. Investment, by contrast, was lacking. In particular, the housing sector was impeded to a larger extent by the very sharp increase in construction prices and higher interest rates.

Gas shortage likely to be avoided, even after cessation of gas deliveries from Russia

With the cessation of gas deliveries from Russia to Germany, the key downside risk of the June projection became a reality. As a result, the spot market prices for both gas as well as electricity initially rose extremely sharply before falling significantly again. Furthermore, the uncertainty surrounding the energy supply and its costs considerably depressed the sentiment amongst enterprises and households. However, the outlook for the supply of gas, even without

deliveries from Russia, is now less critical than had been feared in June. This is due to additional deliveries from other countries, a significant reduction in gas consumption, and the fact that gas storage facilities are well stocked as a result. A gas shortage and an accompanying rationing of gas supplies have therefore become much less likely and are not assumed in the projection.³ In order to mitigate the economic impact on households and enterprises resulting from the sharp rise in energy costs, the Federal Government also initiated extensive support measures, particularly the electricity and gas price brake (see pp. 23 f.).

The German economy is likely to contract in the current winter half-year. However, it is not experiencing a severe economic downturn, which had been forecast by the adverse scenario in the June projection, for example.⁴ Economic activity is likely to see a marked decline as early as the fourth quarter of 2022. According to the ifo Institute, enterprises' assessments of the business situation are deteriorating. The Bundesbank's weekly activity index (WAI) also shows a declining trend.⁵ Although enterprises' business expectations as surveyed by the ifo Institute recently brightened somewhat, they remain highly pessimistic. This also holds true for

While the German economy is likely to contract in the current winter half-year, it is not experiencing a severe downturn

December 2022 projection

Year-on-year percentage change

Item	2022	2023	2024	2025
Real GDP, calendar adjusted	1.8	-0.5	1.7	1.4
Real GDP, unadjusted	1.7	-0.7	1.7	1.3
Harmonised Index of Consumer Prices	8.6	7.2	4.1	2.8
Excluding energy and food	3.9	4.3	2.9	2.6

Source: Federal Statistical Office (up to Q3 2022). Annual figures for 2022 to 2025 are Bundesbank projections.

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¹ This projection for Germany was finalised on 30 November 2022. It was incorporated into the projections for the euro area published by the ECB on 15 December 2022.

² See Deutsche Bundesbank (2022a).

³ The assumptions regarding gas consumption that underlie the baseline scenario of this projection are based on the reductions in gas consumption observed since the cessation of gas deliveries from Russia. It is assumed that this and next winter will experience averagely low temperatures. Furthermore, it is assumed that there will be additional imports of gas (for example in the form of liquefied natural gas). For an adverse risk scenario that includes less favourable assumptions regarding the gas supply, amongst other factors, see the box on pp. 39 ff.

⁴ The adverse scenario of the June projection incorporates other unfavourable assumptions alongside the cessation of gas deliveries from Russia. However, not all of these have fully materialised. For instance, there was no significant rise in the price of oil nor a slump in global economic activity. See Deutsche Bundesbank (2022b).

⁵ When this projection was finalised, the WAI included high-frequency indicators, such as the toll index and credit card payments, that were available up to the end of November 2022. Until recently, the GDP growth rate for the past 13 weeks implied by the WAI was distinctly in negative territory. See Deutsche Bundesbank (2022c).

the expectations surveyed by the Association of German Chambers of Commerce and Industry, which cover a slightly longer period of time. Overall, economic output is likely to continue to decline somewhat in the first quarter of 2023 and marginally in the second quarter.

Multiple factors lead to a broad-based decline in economic activity

The expected decline in economic activity will be broadly based and the result of multiple factors. Households will be confronted with a decline in the purchasing power of their incomes due to high inflation and will therefore reduce their consumption expenditure. This will affect retailers and other consumption-related service providers. Furthermore, as in many other sectors, these will themselves be burdened by the high costs of energy. Energy-intensive industry has already sharply cut back production and is likely to scale it back even further at first. On the whole, however, industry is likely to remain fairly unscathed through the winter. Although new orders have fallen sharply since the beginning of the year, order books are still well filled. In addition, some industrial sectors will benefit from easing tensions in global supply chains. This could mitigate the downward pressure on exports stemming from the reduced competitiveness and weakening foreign demand caused by high energy costs. Investment will also be dampened by elevated uncertainty and higher financing costs. The downturn in the construction sector will continue. Lastly, the end of coronavirus pandemic-related expenditure on vaccination and testing will lead to a distinct drop in government consumption.

From the second half of 2023, the German economy will gradually recover

The German economy is expected to gradually recover from the second half of 2023. Slightly before that time, exporters will receive their first boost to growth from foreign demand, which is assumed to rise (see pp. 22 f. for more information on the assumptions). This will also drive business investment, especially as uncertainty starts to abate. As a result of progress made in diversifying the energy supply, energy commodity price pressures will gradually diminish. As the labour market will remain robust and nominal wages will rise sharply, real wages

Business situation and expectations in the economy as a whole

Balances, seasonally and calendar adjusted



Source: ifo Institute.
 Deutsche Bundesbank

Revisions since the June 2022 projection

Year-on-year percentage change

Item	2022	2023	2024
GDP (real, calendar adjusted)			
December 2022 projection	1.8	-0.5	1.7
June 2022 projection	1.9	2.4	1.8
Difference (in percentage points)	-0.1	-2.9	-0.1
Harmonised Index of Consumer Prices			
December 2022 projection	8.6	7.2	4.1
June 2022 projection	7.1	4.5	2.6
Difference (in percentage points)	1.5	2.7	1.5

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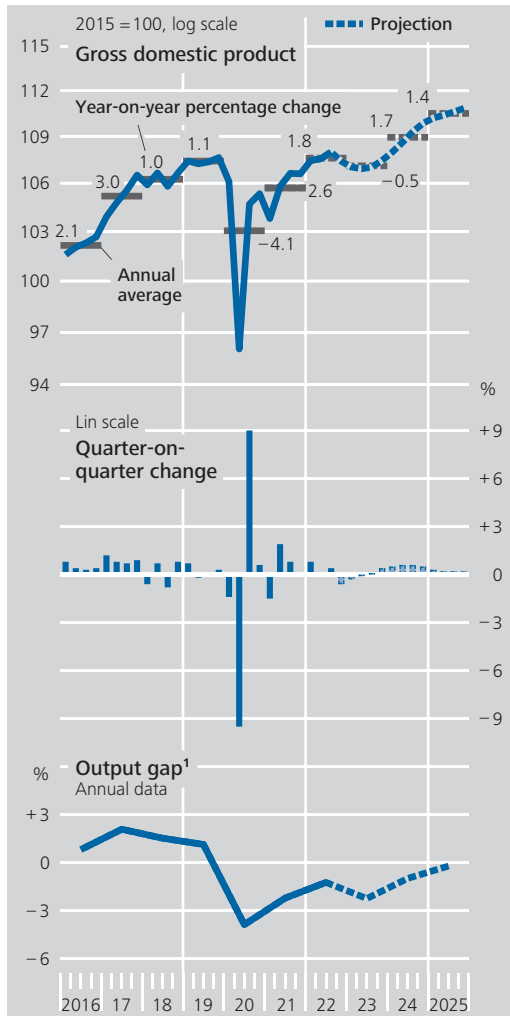
will also rise again from the second half of 2023 as inflation rates fall. Consequently, households' real disposable income and consumption expenditure will also increase once again. The decline in housing investment is likely to continue for the longest time.

Overall, the German economy will contract by 0.5% in calendar-adjusted terms next year, after expanding by 1.8% this year. It will then grow by 1.7% in 2024 and by 1.4% in 2025. This means that, compared with the June projection, the expected growth rate for 2022 has been revised slightly downwards, the rate for 2023 has been revised significantly down-

Significant downward revision for GDP growth rate in 2023

Aggregate output and output gap

Price, seasonally and calendar adjusted



Sources: Federal Statistical Office and Bundesbank calculations. 2022 to 2025 Bundesbank projections. ¹ Deviation of annual average GDP from estimated potential output.
 Deutsche Bundesbank

Technical components of the GDP growth projection

% or percentage points

Item	2022	2023	2024	2025
Statistical carry-over at the end of the previous year ¹	0.8	-0.2	0.3	0.8
Fourth-quarter rate ²	0.7	0.1	2.2	0.9
Average annual GDP growth rate, calendar adjusted	1.8	-0.5	1.7	1.4
Calendar effect ³	-0.1	-0.2	0.0	-0.1
Average annual GDP growth rate ⁴	1.7	-0.7	1.7	1.3

Source: Federal Statistical Office (up to Q3 2022). Annual figures for 2022 to 2025 are Bundesbank projections. ¹ Seasonally and calendar-adjusted index level in the fourth quarter of the previous year in relation to the calendar-adjusted quarterly average of the previous year. ² Annual rate of change in the fourth quarter, seasonally and calendar adjusted. ³ As a percentage of GDP. ⁴ Discrepancies in the totals are due to rounding.

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wards, and the rate for 2024 has likewise been revised slightly downwards. The decisive factor for these downward revisions is primarily the massive deterioration in supply conditions, particularly with regard to the energy supply, following the Russian war of aggression against Ukraine. However, weaker growth in foreign demand and higher financing costs also play a role.

At present, the German economy is operating considerably below its medium-term performance potential. Macroeconomic production capacity will not return to more or less normal levels of utilisation until 2025. Until that time, however, the output gap will not be due to any lack of demand, but will instead be primarily the result of supply disruptions, especially with regard to energy. To a certain extent, these disruptions may be considered temporary.⁶ Nevertheless, it cannot be assumed that, in the long term, the costs of energy supply in Germany will return to their levels from before the current energy crisis. This will lead to losses in value added. For this reason, the estimate of the German economy's potential output was downgraded steeply (see the box on pp. 29 f.). The growth rate of potential output is now estimated at +0.8% for the current year, +0.6% for 2023, +0.4% for 2024, and +0.7% for 2025.

Economy will not reach potential output until 2025

Economic activity in detail

Private consumption has risen sharply over the course of the year so far, despite the extraordinary uncertainty caused by the war in Ukraine and the high rates of inflation. This is chiefly due to catch-up effects following the rollback of virtually all coronavirus pandemic containment measures in the spring. These upward forces continued to dominate in the third quar-

Private consumption expenditure declines significantly at first ...

⁶ The Bundesbank's estimate of potential output is based on a disaggregated production function. See Deutsche Bundesbank (2007, 2012). The estimation of potential output incorporates the trend allocation of production factors. By definition, the sustainable supply-side performance of a national economy is not directly affected by temporary or cyclical phenomena.

Underlying conditions for macroeconomic projections

This projection is based on assumptions made by Eurosystem experts about the global economy, exchange rates, commodity prices and interest rates. These were made on the basis of information available as at 23 November 2022. The assumptions regarding economic activity in the euro area are derived from projections from the national central banks of the euro area countries.¹ These projections incorporate those fiscal policy measures that have been either adopted or adequately specified and are deemed likely to be implemented.

With regard to the war in Ukraine and its ramifications, it is assumed that the conflict will gradually abate, but that sanctions will remain in force. This projection likewise presupposes that it is possible to avoid a situation in which a shortage of gas in the euro area would lead to rationing. In addition, it expects that more and more bottlenecks in the supply of intermediate inputs will be resolved.

Weakening global economic growth amid gradual easing of high price pressures

High inflation in many countries is weighing on global consumption. The considerable rise in energy prices and uncertainty about future energy supply are also taking their toll on business activities, especially in Europe. In China, strict restrictions imposed to combat the COVID-19 pandemic and turmoil in the real estate market are dampening demand. At the same time, the progressive tightening of monetary policy in many countries is having a negative impact on economic activity, too.

In the summer half-year (April-September) of 2022, the global economy expanded at a

somewhat weaker pace than expected in the June projection. However, given the negative factors, the outlook for the current winter half-year (October 2022-March 2023) has deteriorated. Global economic growth in the next two years is now also expected to be lower than previously estimated.

Growth in the global economy excluding the euro area looks set to slow to 2½% in 2023, after rising by 3¼% in 2022. It is then expected to return to somewhat higher rates of 3% and 3¼% in 2024 and 2025. At 5½% this year, the uptick in international trade (excluding the euro area) is higher than the rise in global gross domestic product (GDP) and what had been projected in the June outlook. The projected growth rates of 2% in 2023 and 3¼% in 2024, however, will subsequently lag behind June expectations. A rise of 3¼% is anticipated for 2025.

Effects of Ukraine war weighing on economic activity in euro area; high inflation rates eroding purchasing power

Economic recovery in the euro area in the summer half-year was much better than expected, driven especially by the recovery in the services sector following the end of pandemic-related restrictions. However, the impact of burdens associated with the Ukraine war is likely to be stronger than expected in June – and this is set to continue well into next year. The deterioration in global economic activity is also holding back developments in exporters' sales mar-

¹ The projections made by the national central banks of the euro area countries were completed on 30 November 2022.

Major assumptions of the projection

Item	2022	2023	2024	2025
Exchange rates of the euro				
US dollar/euro Effective ¹	1.05 116.5	1.03 117.5	1.03 117.5	1.03 117.5
Interest rates				
Three-month EURIBOR	0.4	2.9	2.7	2.5
Yield on government bonds outstanding ²	1.2	2.0	2.0	2.0
Prices				
Crude oil ³	104.6	86.4	79.7	76.0
Natural gas ⁴	122.5	123.6	98.4	68.9
Electricity ^{4,5}	262.2	324.8	234.5	164.0
Other commodities ^{6,7}	6.4	-10.8	0.7	1.4
Food ^{7,8}	40.7	6.1	-1.7	-1.2
German exporters' sales markets ^{7,9}	6.3	1.8	3.1	3.2

¹ Compared with 42 currencies of major trading partners of the euro area (EER-42 group of currencies); Q1 1999 = 100. ² Yield on German government bonds outstanding with a residual maturity of over nine and up to ten years. ³ US dollars per barrel of Brent crude oil. ⁴ Euro per MWh. ⁵ Wholesale prices in the euro area based on data from the European Central Bank. ⁶ In US dollars. ⁷ Year-on-year percentage change. ⁸ Producer prices for food in the euro area based on data from the European Commission. In euro. ⁹ Calendar adjusted.

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kets. In addition, with monetary policy normalisation now under way, the cost of credit-financed expenditure has risen. Overall, this will slightly depress economic activity in the winter half-year. The economy will be able to expand at a stronger pace again – towards the latter part of the projection horizon – only once uncertainty decreases, inflation rates go down, more supply bottlenecks are resolved and foreign demand rebounds. This year, a growth rate of 4.1% is expected for the euro area (excluding Germany). Next year, at an average rate of 0.8%, economic activity will expand at a much weaker pace than had been assumed in the June outlook. At 2.0%, the rate projected for 2024 will then be somewhat lower still. A rate of 1.9% is anticipated for 2025.

German exporters' sales markets are likely to see somewhat slower growth than world

trade over the projection horizon. This is because the EU economies that have close ties with Germany are being more adversely affected by the Ukraine war and the energy crisis.

Technical assumptions of the projection

Following completion of the June projection, energy commodity prices initially rose further. With Russia first sharply cutting back its supply of natural gas to Europe through the Nord Stream 1 pipeline and then terminating it altogether at the beginning of September, European gas prices accelerated to new highs in this period. Thanks to other gas-producing countries expanding their supply, increased imports of liquefied natural gas (LNG), successful energy-saving efforts and the mild weather conditions, the EU's natural gas reservoirs are now just about replenished. Against this background, the European prices for gas and – due to their close relationship – electricity fell quite significantly in the months leading up to the projection cut-off date. In the meantime, both prices have already picked up again, and futures prices indicate that this trend will continue in the winter months. Market quotations suggest that the decline in prices for crude oil observed since the summer will continue in the coming year. Electricity and gas prices are also expected to fall in 2024 and 2025 but will remain significantly higher than the prices projected in June.² Given the gloomier global economic outlook, other commodity prices are expected to decline steeply on average in the coming year and to rise only marginally in the two years thereafter.

Agricultural producer prices in the euro area temporarily slipped slightly from the peak reached in the summer months – probably

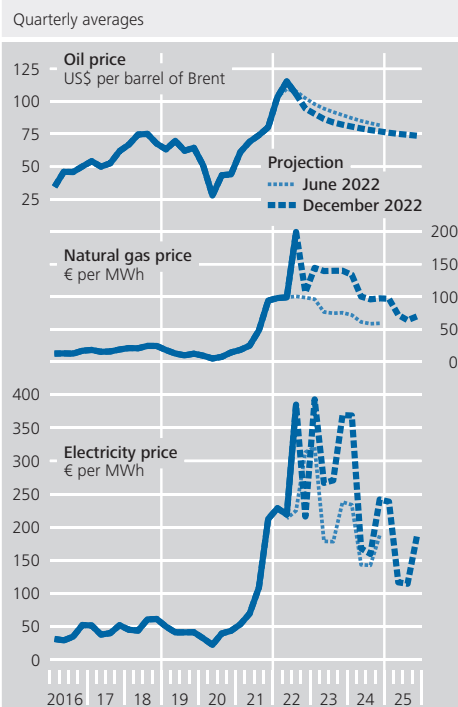
² For a historical comparison of the high prices of fossil fuels, see Deutsche Bundesbank (2022d).

partly due to the resumption of grain exports from Ukrainian ports. However, they have risen again in recent months. The assumptions derived from futures quotations suggest that producer prices for food will remain high. In 2024 and 2025, they are set to weaken slightly, but will remain, on the whole, well above the June projection.

The Eurosystem discontinued its net asset purchases under the asset purchase programme (APP) as of 1 July 2022. Given the considerable rise in inflation, the prospect of the inflation rate remaining above the 2% target for an extended period of time and further upside risks, the ECB Governing Council decided to raise its key interest rates – by 50 basis points in July, 75 basis points in September and a further 75 basis points at its October meeting. The Governing Council expects policy rates to continue to increase. In the money market, interest rates have gone up significantly in recent months. In addition, EURIBOR futures are on a far steeper upward trajectory into the coming year than had been assumed in the June outlook. Against this backdrop, yields on ten-year Federal bonds (Bunds) also went up significantly. The yield trajectory derived from futures prices will remain more or less constant over the projection horizon – similar to what was assumed in the June outlook, but at a much higher level. Distinctly higher financing costs are also expected for bank loans.

The tightening of monetary policy in the United States, which foreign exchange markets perceive to be stronger than in the euro area, caused the euro to depreciate further after the June projection was completed. In the period underlying the exchange rate assumptions, the euro was trading at US\$1.03, 2% lower than assumed in the June projection. However, increases in value against the pound sterling, yen and renminbi contributed to a 1¼% ap-

Oil, natural gas and electricity prices



Sources: Bloomberg, European Energy Exchange and ECB staff. Projections derived from forward quotations. Deutsche Bundesbank

preciation of the euro against 42 currencies of major trading partners.

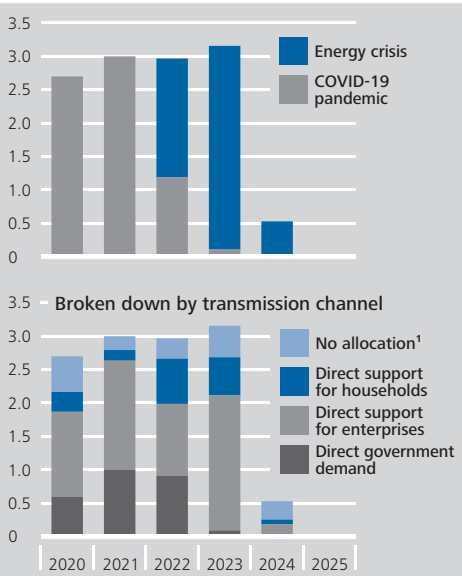
Fiscal policy shaped by energy crisis and high inflation

Temporary, crisis-related fiscal measures have a major impact on the outlook for public finances. This year, they will push up the government deficit by around 3% of GDP (see the chart on p. 24).³ Coronavirus-related measures are still exerting pressure on the government budget, albeit to a lesser extent than in 2021. Transfers to enterprises and healthcare expenditure constitute the main strains. In addition, there are extensive new support measures in response to the energy crisis and high inflation. Payments to gas trading companies

³ This definition does not include longer-term fiscal expenditure plans, such as those for climate change mitigation and the military.

Temporary fiscal measures affecting the deficit that are directly linked to the COVID-19 pandemic and the energy crisis*

As a percentage of GDP



* Bundesbank estimate. ¹ VAT rate and energy tax rate cuts, ticket price cut for local public transport, and revenue shortfalls due to employers' one-off payments being exempt from income tax and social contributions.
 Deutsche Bundesbank

(especially Uniper) and lump-sum transfers to households are particularly weighty in financial terms.

The coronavirus measures will largely expire in 2023. By contrast, new crisis assistance measures are increasing sharply. At around 2% of GDP, transfers to households and enterprises under the electricity and gas price brake are the largest of these measures. In addition, special assistance is being provided to enterprises that are severely affected by the energy crisis, in particular government capital injections to offset losses (capital transfers) and cost subsidies. Further measures have been implemented. For instance, employers' one-off payments of up to €3,000 are exempt from income tax and social contributions until the end of 2024. In addition, VAT on natural gas and district heating is being charged at a reduced rate up to the end of the first quarter of 2024.

In 2024, transfers under the electricity and gas price brake will fall significantly in annual terms. This is because, in the projection, they will expire at the end of April 2024. In addition, in 2024, the government budget is not to supply any of the funding for the electricity price brake. This measure is to be financed instead from profits made on the electricity market between December 2022 and June 2023. Furthermore, the government will no longer be effecting any capital transfers to gas trading companies in 2024.

The projection also includes fiscal policy measures that will affect the government budget in the longer term. On the revenue side, income tax cuts are beginning to take effect. In particular, the tax scale is being shifted in order to compensate for bracket creep. The projection assumes that legislation will be passed in order to continue this practice in 2025. In addition, revenue from the EU programme NextGenerationEU (NGEU) will decrease next year.⁴ By contrast, contribution rates for the social security funds will be raised by just over 1 percentage point for 2023 and 2024 together. Health insurance scheme rates, in particular, will increase significantly. This will close the structural financing gap that is largely still being plugged by central government this year. On the expenditure side, investment in military machinery and equipment and spending on climate change mitigation are set to increase sharply based on projects under the Federal Armed Forces Special Fund and the Climate and Transformation Fund. Pension expenditure will be marked by the fact that pensions for persons with reduced earnings capacity will be extended from 2024 onwards.

⁴ In Germany, NGEU is primarily used to finance existing programmes, thus reducing the general government deficit resulting from this programme.

ter, but are now likely to have run their course. In the current winter half-year, households are likely to considerably reduce their consumption expenditure due to the high rates of inflation and the resulting decline in real disposable income. This will apply to more than just the consumption of electricity and heating energy. For instance, price-adjusted sales in retail trade and the accommodation and food service activities sector have been declining for several months now. Moreover, consumer sentiment is highly pessimistic. This likewise holds true for the business expectations among consumption-related service providers, such as retail trade and accommodation and food service activities, as surveyed by the ifo Institute. While the measures implemented by the Federal Government will mitigate the cost burden on consumers, they will not compensate for the losses in purchasing power. Some households will use some of their savings to smooth their consumption. However, given the expectation of rising energy costs and the uncertainty regarding the exact amounts of future energy bills, it is likely they will put money aside for future expenditure at the same time. On balance, the saving ratio will therefore fall only slightly in the current winter half-year.

... and increases again from mid-2023 as real disposable incomes rise

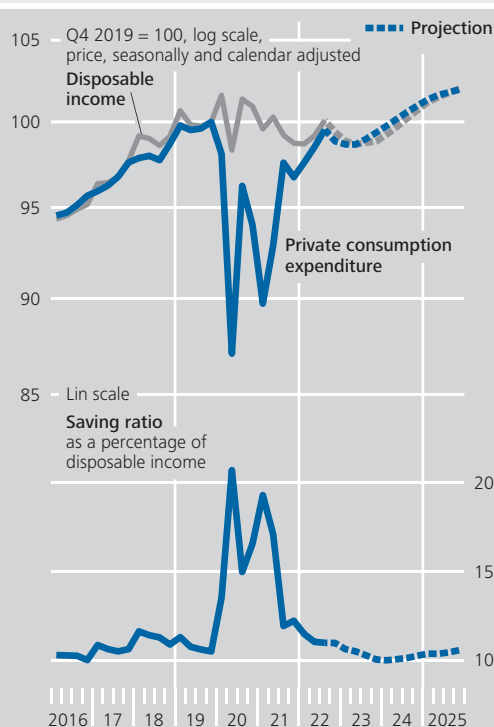
Real disposable incomes will increase again from the middle of next year as inflation eases and real wages subsequently rise as well. Consumers will then spend more on goods and services again. In addition, the saving ratio will initially decline somewhat more once uncertainty goes down and the reserves built up in the winter are used for energy back-payments. Some of the savings accumulated during the pandemic-related restrictions on consumption will be unwound. The saving ratio will therefore remain below the pre-pandemic level for a number of quarters. This will stabilise consumption. Overall, private consumption will grow markedly in 2024 and 2025 and the saving ratio will largely normalise by the end of the projection horizon.⁷

Consumer climate



Source: GfK.
 Deutsche Bundesbank

Private consumption and saving ratio



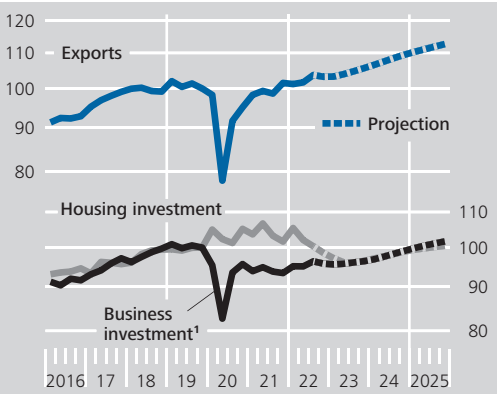
Sources: Federal Statistical Office, Bundesbank calculations and Bundesbank projections.
 Deutsche Bundesbank

Exports are expected to fall below the level of the third quarter in the current winter half-year. This is indicated by the subdued ifo export ex-

⁷ The results of the Bundesbank Online Panel Households from March 2022 suggest that the saving ratio will more or less return to its pre-pandemic level over the long run. See Deutsche Bundesbank (2022a, 2022e).

Exports and investment

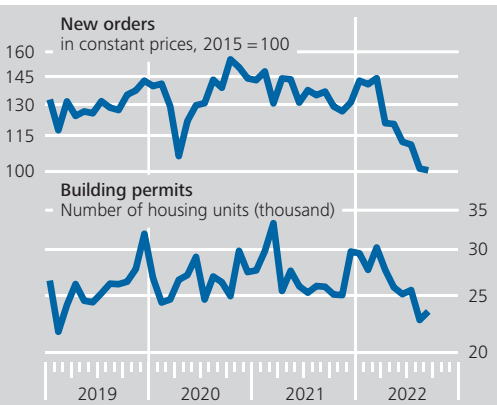
Q4 2019 = 100, log scale, price, seasonally and calendar adjusted



Sources: Federal Statistical Office and Bundesbank projections.
¹ Private non-residential fixed capital formation.
 Deutsche Bundesbank

Demand indicators for housing construction

Seasonally and calendar adjusted, log scale



Source: Federal Statistical Office.
 Deutsche Bundesbank

Exports initially dampened by energy costs and weak demand, but more buoyant again from Q2 2023

Expectations and new orders from abroad, which have been trending downward for some time. Although the order books – which are still well filled due to the shortage of intermediate goods – are a buffer against the weakening of demand, the export-oriented industry is suffering as a result of the high energy prices. The comparatively sharp rise in labour costs is placing an additional burden on price competitiveness. However, exports are likely to pick up again from the second quarter of 2023. The headwinds caused by energy prices and supply chain pressures should then gradually diminish and demand for goods manufactured in Germany should rise again significantly. The accu-

mulated order backlog is likely to temporarily provide a perceptible additional boost. Exports will, however, lose some momentum again towards the end of the projection horizon.

The burdens on the export sector will also affect business investment. In particular, firms are likely to postpone or completely scrap investment projects given the high degree of uncertainty regarding the energy supply and its costs. Increased financing costs will represent an additional burden. Against this backdrop, business investment is likely to decline markedly in the current winter half-year. As uncertainty gradually eases and foreign demand rises, investment is expected to rebound from the second quarter of 2023, however. Investment in vehicles, in particular, could temporarily stimulate catch-up effects if supply bottlenecks are resolved. The requirements for Germany's transition to a low-carbon economy are likely to support investment. This could be intensified further by the high energy costs.

Business investment additionally affected by uncertainty and financing costs

Housing investment declined sharply in the summer half-year of 2022, much more strongly than expected in the June projection. The downturn is likely to continue well into the coming year, with several factors playing a role here. Alongside the sharp rise in construction costs that has persisted for some time now, the financing costs of housing loans, in particular, have climbed significantly of late. This has made credit-financed housing less affordable. Added to this are heightened uncertainty, particularly regarding income developments, and the limited scope for financing due to high inflation. This is likely to dampen demand for housing markedly. In line with this, the number of building permits has fallen sharply since the beginning of the year and new orders for residential housing projects have seen a sharp decline recently. In addition, construction companies are reporting a rising number of order cancellations, according to the ifo Institute. However, the fundamental conditions for housing construction remain favourable. There is a general need for additional housing and this

Recovery in housing investment only after strong and prolonged setback

could increase even further as a result of the high level of migration. Furthermore, the housing stock needs to be adjusted to the changed conditions, especially with regard to heating. Consistent with the robust labour market and the renewed rise in real income, housing investment is therefore likely to veer back onto an expansionary path towards the end of next year. Growth will be relatively moderate, though.

Temporary halt in house price inflation

Very strong rates of increase in housing prices continued until mid-2022. Amid the sharp rise in financing costs, house price growth subsequently ground to a virtual halt. Depressed housing demand is likely to cause prices to initially continue to stagnate. But, a tighter supply – as is anticipated – and the extremely high and ever rising construction costs will gradually drive prices back up. The generally intact demand for housing will also contribute to this. Overall, house prices will rise again during the course of 2023 and over the remainder of the projection horizon, albeit at a much slower pace than before.

Absence of pandemic-related healthcare spending will reduce government consumption and dampen GDP next year

Government demand will significantly dampen economic activity next year. This is because pandemic-related healthcare spending is likely to largely tail off, which, taken in isolation, will reduce government consumption considerably. Higher government investment spending, particularly on military equipment, will not offset this. Real government demand will pick up again from 2024 and grow somewhat more strongly than real GDP.

Considerable rise in imports

Imports will rise considerably during the projection period. They are likely to initially decline in the current winter half-year. However, as exports and business investment rise from the second quarter onwards, imports will also rebound. High demand for imported intermediate inputs will arise via these two channels, in particular. This demand will be further strengthened by the uptick in private consumption that will take place later next year. Imports will then expand quite sharply in line with aggregate de-

Key figures of the macroeconomic projection

Year-on-year percentage change, calendar adjusted¹

Item	2021	2022	2023	2024
GDP (real)	2.6	1.8	-0.5	1.7
GDP (real, unadjusted)	2.6	1.7	-0.7	1.7
Components of real GDP				
Private consumption	0.4	4.6	0.3	1.5
Memo item: Saving ratio	15.1	11.1	10.4	10.1
Government consumption	3.8	1.4	-2.9	1.3
Gross fixed capital formation	1.0	0.4	-0.7	2.6
Business investment ²	2.4	1.7	0.4	2.1
Private housing construction investment	0.3	-2.1	-5.1	1.6
Exports	9.5	3.0	1.9	3.5
Imports	8.9	6.5	2.5	3.5
Memo item: Current account balance ³	7.4	3.4	2.5	2.7
Contributions to GDP growth ⁴				
Domestic final demand	1.3	2.7	-0.6	1.7
Changes in inventories	0.5	0.4	0.4	0.1
Exports	4.1	1.4	1.0	1.8
Imports	-3.3	-2.7	-1.2	-1.8
Labour market				
Total number of hours worked ⁵	1.6	1.6	-0.2	0.8
Employed persons ⁵	0.1	1.2	0.2	0.4
Unemployed persons ⁶	2.6	2.4	2.6	2.4
Unemployment rate ⁷	5.7	5.3	5.6	5.3
Memo item: ILO unemployment rate ⁸	3.6	3.0	3.4	3.2
Wages and wage costs				
Negotiated pay rates ⁹	1.6	2.6	3.9	4.2
Gross wages and salaries per employee	3.3	4.3	5.1	5.0
Compensation per employee	3.1	4.1	5.0	5.1
Real GDP per employed person	2.4	0.6	-0.7	1.3
Unit labour costs ¹⁰	0.7	3.5	5.7	3.8
Memo item: GDP deflator	3.1	5.1	4.6	3.7
Consumer prices ¹¹				
Excluding energy	2.4	5.2	5.5	3.0
Energy component	10.1	33.9	17.0	10.4
Excluding energy and food	2.2	3.9	4.3	2.9
Food component	3.0	10.6	10.2	3.3
Residential real estate prices ¹²	11.6	7.5	1.2	3.2

Sources: Federal Statistical Office (up to Q3 2022); Federal Employment Agency; Eurostat. 2022 to 2024, Bundesbank projections. ¹ If calendar effects present. For unadjusted data, see the table on p. 26. ² Private non-residential fixed capital formation. ³ As a percentage of nominal GDP. ⁴ In arithmetical terms, in percentage points. Discrepancies in the totals are due to rounding. ⁵ Domestic concept. ⁶ In millions of persons (Federal Employment Agency definition). ⁷ As a percentage of the civilian labour force. ⁸ Internationally standardised as per ILO definition, Eurostat differentiation. ⁹ Unadjusted figures, monthly basis. Pursuant to the Bundesbank's negotiated wage index. ¹⁰ Ratio of domestic compensation per employee to real GDP per employed person. ¹¹ Harmonised Index of Consumer Prices (HICP), unadjusted figures. ¹² Unadjusted figures.

mand over the remainder of the projection horizon.

Current account balance will temporarily dip well below 3%

Germany's current account surplus will fall sharply this year. On an average for 2022, it could stand at just under 3½% of GDP, following as much as 7½% in 2021. The key factor is the considerable decline in the trade balance. This is reflected in the terms of trade, which hugely deteriorated as a result of the sharp increase in the prices of energy and other imported commodities. With regard to real trade flows, imports will also grow much more strongly than exports. The higher demand for imported goods and services this year is being supported, in particular, by private consumption, partly because of the normalisation in travel activity. The terms of trade will drop again significantly on average next year. They will only recover to some extent thereafter. The assumed decline in commodity prices and strong domestic inflation, which also affects export prices, will come into play here. All in all, the trade balance will continue to decline next year before subsequently rising somewhat. As a result, the current account surplus will fall to 2½% of GDP in 2023 and will rise again slightly in 2024. It could stand at around 3% of GDP in 2025.

■ Labour market

Labour market showing sideways movement in Q3

The previously favourable labour market developments have given way to a sideways movement in recent months. Employment barely rose from an already very high level in the third quarter. Unemployment increased only marginally from its low level – if the effect of recording Ukrainian refugees is disregarded.⁸ A small proportion of the Ukrainian population in Germany were already able to take on jobs subject to social security contributions. Short-time work played only a minor role in the third quarter. Working hours per employee remained broadly stable at a comparatively low level.

The general statutory minimum wage, which has been raised sharply in two stages over the past few months, probably had minimal impact on employment and unemployment in the short term. Given the persistently high labour shortages – which extend to some unskilled labour segments – the minimum wage increases are likely to have had comparatively little impact on labour demand. This may also have been due to the fact that enterprises are likely to be able to push through price increases more easily in the current environment than in previous years.⁹

Minimum wage increase likely had no major short-term impact

The high demand for labour compared with the labour supply suggests that the labour market will largely withstand the economic headwinds in the next few quarters. Enterprises' employment plans have weakened in recent months, but remain slightly positive. Although the number of job vacancies and the time taken to fill vacant positions have declined somewhat recently, they are still very high by historical standards. The high demand for labour is likely to decline somewhat in the current winter half-year. As a result, the hitherto tight labour market would ease to some extent. However, there are no signs of a major employment adjustment. For people who lose their jobs, the prospects of finding a new job are very good. In this respect, unemployment is also likely to rise only to a relatively minor extent. This is mainly due to increased frictional unemployment.

Labour market largely withstand economic headwinds; high demand for labour declining somewhat

As the economic recovery begins in the second half of 2023, employment and the number of hours worked will also increase again, albeit at

Moderate labour market recovery from mid-2023

⁸ See Statistics provided by the Federal Employment Agency (2022), "Auswirkungen der Fluchtmigration aus der Ukraine auf den deutschen Arbeitsmarkt und die Grundversicherung für Arbeitsuchende", p. 12.

⁹ For example, Bobeica et al. (2019) find that the relationship between wages and prices is narrower in times of high inflation, on the one hand, yet also more responsive to demand shocks than to supply shocks, on the other. As a result of the easing of measures to contain the coronavirus pandemic, demand is likely to have picked up in the services sector in particular, which is especially affected by the increase in the minimum wage.

Impact of permanently higher energy costs on German potential output

The decline in natural gas deliveries from Russia and heightened uncertainty about energy supply caused energy prices in Germany to rise sharply this year. Energy prices in Germany are likely to be higher than before the current crisis over the long term as well. This is due, among other things, to the higher transport and production costs associated with the substitution of Russian natural gas by liquefied natural gas (LNG).¹ Over the projection horizon, energy prices are likely to more than double compared with 2019 and to remain elevated.²

A production function approach can be used to determine the supply-side effects of permanent energy price hikes.³ The aggregate production function is expanded to take into account energy consumption as a further factor of production alongside labour and capital. In this model framework,

high energy prices mean that enterprises tend to reduce their energy use and – in the case of imperfect substitutes – their production. The calculations focus on the energy-intensive sectors industry and transport. By assumption, output in the rest of the enterprise sector is not directly affected in the calculations by high energy prices, yet spillover effects emanating from industry and transport have a supply-dampening impact in the model framework.

The scale of output losses depends on the extent to which production declines when energy prices rise. This energy price elasticity of output can be derived by assuming a production structure with energy as an input factor.⁴ According to the model results, the projected sustained rise in energy prices dampens gross value added by around 4½% in industry and 3½% in transport. In addition, there is evidence of direct spillover effects from industry to the transport sector and the rest of the enterprise sector.⁵ Overall, direct energy price and indirect spillover effects give rise to a negative supply effect of around 2% of gross value added.

¹ See German Council of Economic Experts (2022).

² Energy price developments are modelled here on the energy imports deflator, which is largely dependent on the commodity prices for oil and gas assumed in the projection. A comparison with 2019 is more meaningful as energy prices fell briefly in 2020 as a result of the pandemic.

³ See Knetsch and Molzahn (2012). In the second step, the identified energy price effects are incorporated into the Bundesbank's estimate of potential output, which is based on a medium-term oriented production function with capital and labour as inputs as well as total factor productivity (see Deutsche Bundesbank (2007, 2012)).

⁴ See Knetsch and Molzahn (2012). According to the model results, the energy price elasticity of output depends on the (econometrically estimated) elasticity of substitution between energy and capital, the share of energy costs in production and the initial price of energy. The elasticity of substitution was estimated as a regression parameter using the ordinary least squares (OLS) method based on the energy demand function from the production model.

⁵ They are based on cumulative impulse-response functions from vector autoregressions for the value added of industry, the transport sector and the rest of the enterprise sector. These spillover effects can arise, for example, through the interconnectedness of the economic sectors' value chains.

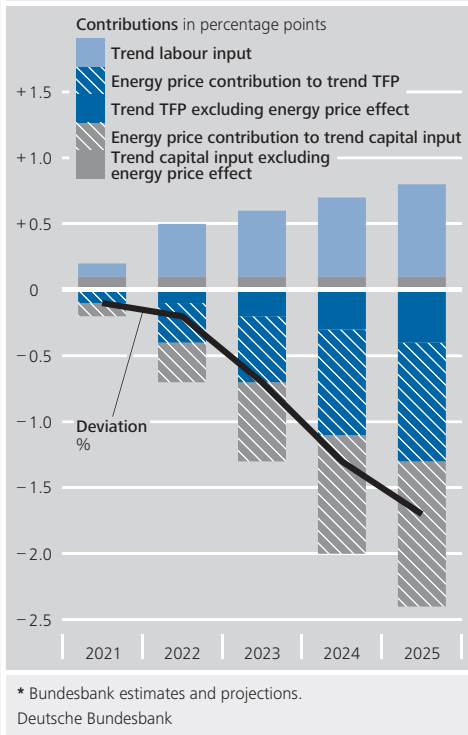
Direct and indirect supply effects of energy price increases

% , Bundesbank calculations

Item	Industry	Transport	Rest of enterprise sector
Share of value added	22.1	9.1	34.8
Sectoral supply effect	- 4.4	- 5.8	- 1.7
Direct effect	- 4.4	- 3.6	-
Indirect effects	-	- 2.2	- 1.7
Sectoral total contribution (in percentage points)	- 1.0	- 0.5	- 0.6
Total effect			- 2.1

Deutsche Bundesbank

Potential output compared to the June 2022 projection⁶



These results are subject to high uncertainty, the estimation uncertainty surrounding the model parameters playing a role here. Moreover, the results are heavily dependent on the assumption that energy price increases are permanent. They are therefore prone to revision with regard to possible future changes in energy supply and policy that impact energy prices, for example.

In this projection, potential output will be around 1¾% lower in 2025 than reported in the June projection.⁶ In addition to the identified energy price effects, there is also still the remaining impact, with a smaller contribution, of Russia's ongoing war against Ukraine. The downward revision is based in roughly equal measure on the contributions made by total factor productivity (TFP) and the capital stock. In particular, the higher cost of energy inputs will significantly weaken trend TFP. Disruptions to

supply chains and the use of less tailored inputs in order to save costs are also likely to be reflected in the depressed trend TFP. Furthermore, parts of the capital stock will be rendered obsolete if energy-intensive investments are no longer profitable due to high energy costs. From today's perspective, the potential labour supply is barely affected by the rise in energy costs. It will benefit from the high influx of refugees from Ukraine in 2022 and 2023, however.

⁶ Overall, the impact of the Ukraine war could cut German potential output by 2¼% up to 2025 – if it is also taken into account that potential output was already revised downwards in the June projection. This assessment is based on a comparison of the current estimate of potential output with that in the December 2021 forecast.

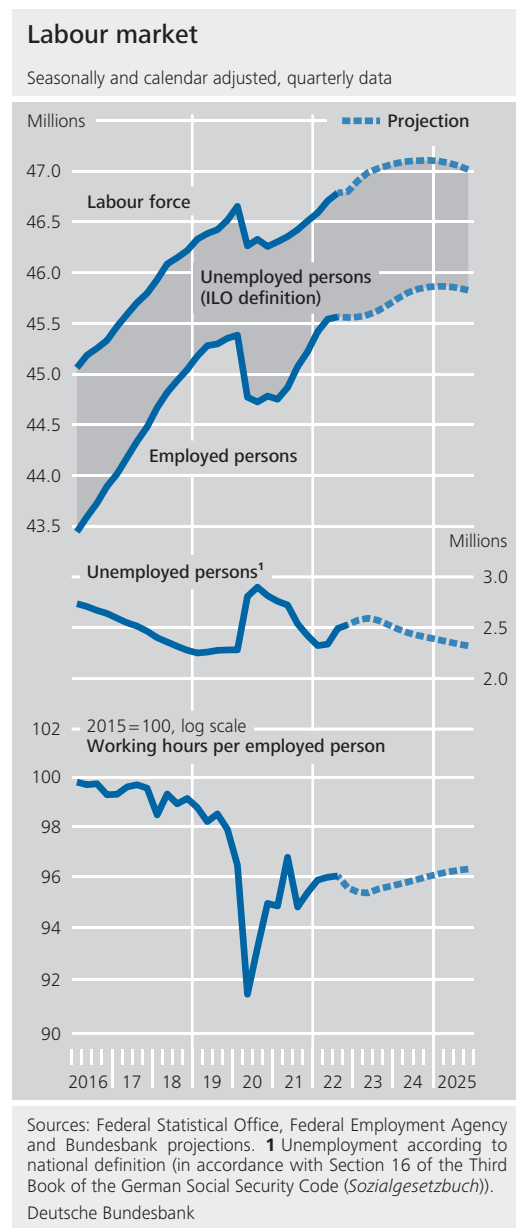
a comparatively moderate pace. On an annual average, the improvement will be particularly evident in 2024. Employment with full social security coverage will gain greatly in importance here – as in previous years. By contrast, the number of self-employed persons and persons exclusively in low-paid part-time employment will continue to go down. Labour shortages will gradually intensify again.

Immigration buoys labour supply over the projection horizon

The current high degree of labour market tightness is primarily a consequence of demographic shifts in the German population. Labour-related immigration will help to reduce this tension. In 2022 to date, immigration to Germany has been very high, mainly on account of refugees, especially from Ukraine. For the period from February to August alone, data from the Federal Statistical Office show that 874,000 people migrated from Ukraine in net terms. This figure is higher than that expected for 2022 as a whole in the June projection. However, as refugees from Ukraine are disproportionately women with children, many of these people are unavailable to the labour market, or are only available to a limited extent or not available immediately (due to integration measures, for example). This projection reckons with a net total of 1.3 million immigrants to Germany this year. Net immigration of 350,000 is assumed for 2023 and of 300,000 per year from 2024. Despite new immigrants' relatively low labour force participation for the time being, the labour force is growing more strongly in absolute terms than assumed in the previous projection. However, medium-term immigration is not high enough to prevent the demographic decline in the labour supply, even over the longer term.

Employment will still rise marginally until 2025; unemployment will fall almost to its pre-pandemic level

Based on these assumptions, the labour force will decline from 2025 – one year later than expected in the June projection. Meanwhile, employment will continue to rise slightly due to underemployment falling. Amid rising demand for labour, the volume of work will also increase in the medium term as the result of an increase in the number of hours worked per



employee. This is corroborated, in particular, by the fairly low number of hours worked by part-time employees by international standards. Unemployment will fall nearly all the way back to its pre-pandemic level over the projection horizon.

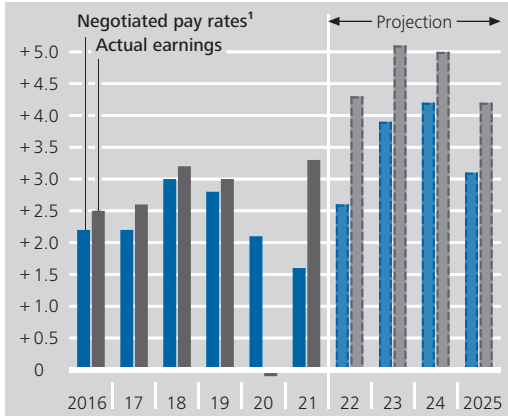
■ Labour costs and prices

Since the second quarter of 2022, wage agreements have been markedly higher than in previous years. Trade unions in the chemical and metal industries recently achieved unusually high wage increases of between 5% and 6% in

Recent wage agreements set out significantly larger wage increases

Negotiated pay rates and actual earnings

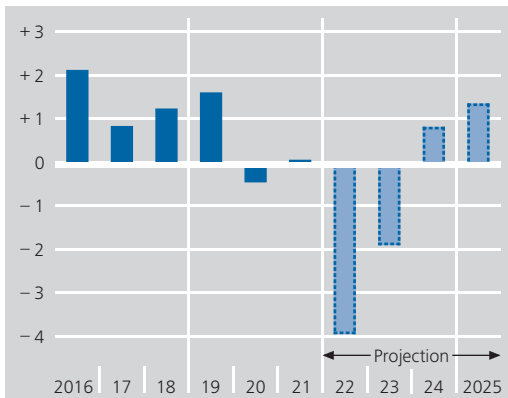
Year-on-year percentage change, monthly basis



Sources: Federal Statistical Office and Bundesbank projections. ¹ According to the Bundesbank's negotiated wage index. Deutsche Bundesbank

Real actual earnings per employee*

Year-on-year percentage change



Sources: Federal Statistical Office, Bundesbank calculations and Bundesbank projections. * Deflated by the Harmonised Index of Consumer Prices. Deutsche Bundesbank

wage component structure is likely to serve as a template for upcoming wage negotiations in many sectors.

The major pay round in 2023 for approximately 10 million employed persons will likely remain caught between opposing forces: high inflation and labour market tightness, on the one hand, and depressed economic activity and uncertainty, on the other. Wage increases will probably be strong but insufficient to fully compensate for high inflation. This, coupled with the low wage settlements of the pandemic-shaped years of 2020 and 2021, will create a certain pressure to attain higher wage settlements in future. Together with the improved economic situation and the further increase in labour market tightness, pent-up wage demands in 2024 and 2025 will contribute to further sharp increases in negotiated rates of pay. Against this backdrop, in 2025 it will be possible to compensate in part for the inflation compensation bonuses that will have expired at the end of 2024. Nevertheless, the increase in negotiated rates of pay will then be a great deal lower once more, albeit still higher than during the pre-pandemic economic boom.¹¹

Strong wage increases over projection horizon

Actual earnings are rising considerably more steeply than negotiated wages this year. The main reasons for this are the decline in short-time work and the increase in working hours. The increase in the general statutory minimum wage to €12 per hour in the fourth quarter of

Actual earnings rise even more sharply than negotiated rates of pay

annualised terms. The high inflation played an important role in the pay negotiations and is also likely to be a major factor in upcoming wage negotiations. This is already reflected in the current, exceptionally high wage demands being posed by trade unions.

The most recent wage agreements are characterised by the fact that the rise in earnings is only partly based on permanent increases in scheduled rates of pay. In addition, tax-free and social contribution-exempt "inflation compensation bonuses" are being paid out. This will remain possible up to the end of 2024 as a measure to mitigate the high inflation.¹⁰ This

Combination of permanent wage increases and special tax-free and social contribution-exempt bonuses

¹⁰ The Act on the Temporary Reduction of the Valued Added Tax Rate on Gas Deliveries via the Natural Gas Network (*Gesetz zur temporären Senkung des Umsatzsteuersatzes auf Gaslieferungen über das Erdgasnetz*), which was promulgated in the Federal Gazette on 25 October 2022, allows employers to grant their employees up to €3,000 tax-free and exempt from social contributions as an additional payment at any time between 26 October 2022 and the end of December 2024 to compensate for high inflation. This relief measure, referred to as the inflation compensation bonus, can be paid out in a lump sum or alternatively in multiple instalments.

¹¹ All past pay agreements included in the Bundesbank's negotiated pay rate statistics (around 500 collective wage agreements and provisions governing civil servant pay) are factored into the projections of negotiated wage increases. They are extrapolated beyond their contractual term, taking into account the overall economic situation and industry-specific idiosyncrasies.

2022 will trigger a robust boost to wages, though this will not fully come to bear until 2023.¹² Added to this is the fact that, following a cyclical setback next year, the number of hours worked will climb significantly once more in the years thereafter. Furthermore, more paid overtime will accrue as a result of increasing labour market tightness. Wage drift is therefore set to be firmly in positive territory for the duration of the projection horizon. Actual wages will rise by around 5% in both 2023 and 2024 accordingly. These are the highest rates since German reunification. In 2025, wage growth could then fall considerably but remain very strong at slightly over 4%.

Unit labour costs rise sharply; domestic inflation remains high overall

Compensation per employee will rise at similarly high rates as actual earnings over the projection horizon. In combination with declining economic activity and stable employment, this means a strong boost for unit labour costs next year. Labour productivity will increase further in 2024, with the result that unit labour costs will still rise steeply, but with decreasing momentum. This trend is set to continue in 2025. The price pressure exerted by wage costs will therefore be consistently high over the projection horizon. Domestic inflation as measured by the GDP deflator is set to reach a rate of just over 5% in the current year. It will stand at a similar level next year, putting it well below the rise in unit labour costs, however. This is because profit margins and government subsidies will partly cushion the cost surge. Over the remainder of the projection horizon, the GDP deflator rate will remain high overall, though it will gradually decline somewhat.

Inflation rate in double digits since September

At the consumer level, the underlying trend for price inflation in the summer half-year remained extremely strong, although measures to ease the rise in energy prices came into force. The inflation rate as measured by the HICP reached a new high of 8.7% in May, but then declined slightly with the introduction of the €9 public transport ticket and the fuel rebate in June. Both measures were in place until the end of August, and, in addition, the levy

imposed by the German Renewable Energy Act (*Erneuerbare-Energien-Gesetz* – EEG) was abolished in July. Nevertheless, the inflation rate in August was even slightly above its previous peak in May. With the €9 public transport ticket and the fuel rebate coming to an end in September, inflation entered double-digit territory for the first time in more than 70 years, expanding further to 11.3% by November. Back at the time of the June projection, by contrast, a rate of 7% had been expected for November. Price inflation was higher than expected across the board.

Energy inflation rose surprisingly strongly, despite the fact that relief in the form of the fuel rebate and the EEG levy was passed through to consumers more or less in full, as expected. This is probably also true of the recent reduction in the VAT rate on gas and district heating from 19% to 7%, which has been in force since October. However, consumer rates for electricity and gas were raised much more strongly than expected. This was presumably partly due to purchase prices having risen significantly more steeply than anticipated in the meantime. Another factor here is that higher supplier costs were probably passed on to a greater extent and/or more rapidly than was usual in the past. Furthermore, the prices of heating oil and diesel rose sharply despite the decline in the price of crude oil.¹³

Not only energy prices rose more strongly than expected ...

Although European agricultural producer prices roughly matched expectations in the fourth quarter, consumer food prices were also well above the June projection. Cost increases in production and transport as well as the pro-

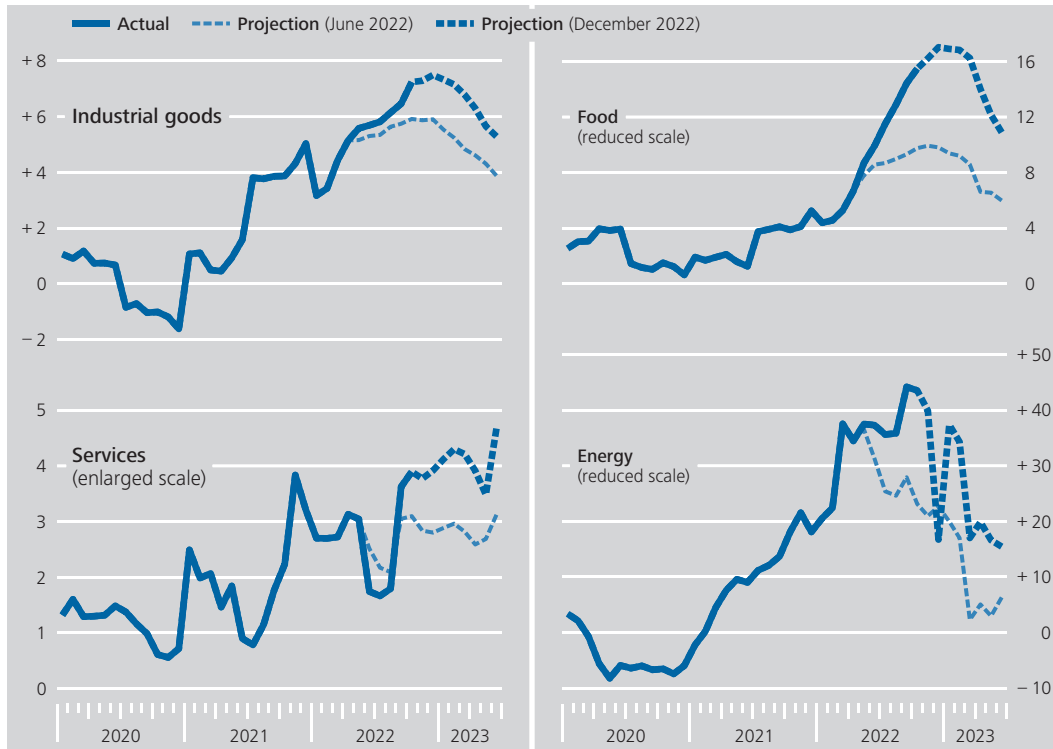
... but also the prices of food, industrial goods (excluding energy) and services

¹² The higher minimum wage is expected to push up actual earnings by around 0.8 percentage point. See Deutsche Bundesbank (2022f). The general statutory minimum wage had already been raised on 1 January 2022 and 1 July 2022. In macroeconomic terms, these rises had a stronger impact on actual wages than on negotiated wages, even if the latter are being strongly affected in some low-wage sectors, such as accommodation and food service activities.

¹³ This was due to a supply shortage caused by several factors, including a decline in imports from Russia and reduced refining capacity. For more information, see International Energy Agency (2022a).

Latest upward revisions to projections for selected HICP components in Germany

Year-on-year percentage change



Sources: Federal Statistical Office and Bundesbank projections.
 Deutsche Bundesbank

tracted drought are likely to have contributed to this.¹⁴ Core inflation (the headline inflation rate excluding energy and food) rose surprisingly steeply, too. The fact that the euro depreciated unexpectedly against the US dollar and that price pressures were higher at the earlier input stages probably also caused the prices of industrial goods excluding energy to climb more substantially. Services inflation slightly exceeded the level anticipated in the projection as well. A stronger than expected widening of profit margins is likely to have played a role in this, particularly in sectors that were previously heavily affected by pandemic containment measures.

Inflation rate to remain very high for the time being ...

The inflation rate is likely to remain very high for the time being. The government's assumption of the advance payment for gas, which is envisaged in the Act on Emergency Aid for Natural Gas Heating for End Consumers (*Erdgas-Wärme-Soforthilfegesetz*), will probably markedly dampen the HICP in December. The

HICP rate could then temporarily fall below 10%. However, it is likely to return in January 2023 to a double-digit figure similar to that of November 2022. This is because consumer prices for electricity and gas are rising sharply – according to the reference dataset used, they are, on average, still currently below the level that the electricity and gas price brake will reach by then.¹⁵ Non-subsidised consumption

¹⁴ Although the prolonged drought is also likely to have contributed to the rise in agricultural producer prices, this is difficult to substantiate, as relevant assumptions about agricultural producer prices are not available for all of the food products recorded in the HICP – for fruit and vegetables, for instance. However, these products were probably hit particularly hard by the drought.

¹⁵ The impact of the electricity and gas brake was determined on the basis of the average prices for electricity and natural gas as calculated by the Federal Statistical Office for households in the first half of 2022. See Federal Statistical Office (2022). Here, the prices for the first half of the year are extrapolated using the Bundesbank's projection for the HICP for electricity and gas up to the end of 2022.

Estimated direct effects of selected government relief measures on consumer prices

Effects in percentage points

Measure	Time frame	HICP component concerned	Effect on headline HICP rate				
			Month of implementation ¹	Annual average			
				2022	2023	2024	2025
Reduction in fuel tax	June 2022 to August 2022	Energy	-0.4	-0.1	+0.1	.	.
€9 public transport ticket	June 2022 to August 2022	Services	-0.7	-0.2	+0.2	.	.
Abolition of the renewable energy (EEG) levy	From July 2022	Energy	-0.4	-0.2	-0.2	.	.
Reduced VAT rate on natural gas and district heating	October 2022 to March 2024	Energy	-0.4	-0.1	-0.2	+0.2	+0.1
Suspension of carbon price increase	From January 2023	Energy	-0.1	.	-0.1	.	.
Gas price brake ²	January 2023 to April 2024	Energy	³ -0.6	.	-1.0	+0.6	+0.4
Electricity price brake	January 2023 to April 2024	Energy	³ -0.4	.	-0.5	+0.2	+0.2
€49 public transport ticket ⁴	From May 2023	Services	-0.3	.	-0.2	-0.1	.
Total	-	-	-	-0.6	-1.9	+0.9	+0.7

Source: Bundesbank calculations. **1** For temporary measures, a countereffect occurs of roughly the same size as in the month following expiry of the measure. **2** The one-off Act on Emergency Aid for Natural Gas Heating for End Consumers (*Erdgas-Wärme-Soforthilfegesetz*) in December 2022 is likely to dampen the HICP rate markedly in this month. **3** The effect in the month of implementation is weaker than on an annual average, because relief is still expected for subsequent months. As gas and electricity tariffs without price brakes continue to rise after January 2023 according to the projection, the effect of the brakes will intensify over the months that follow. **4** Implementation date according to assumption.

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is likely to become particularly expensive.¹⁶ In addition, for other goods and services, the heightened cost pressure from energy will increasingly compound other cost pressures.

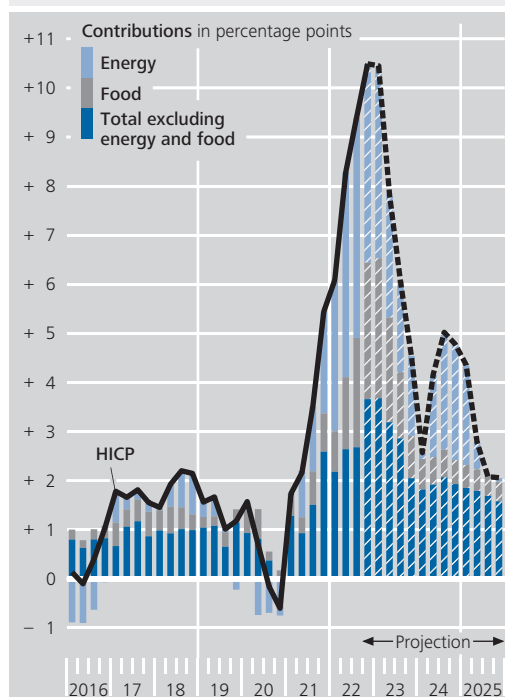
However, after the beginning of 2023, the inflation rate could then fall short of its peak levels and decrease substantially in due course. On the one hand, the electricity and gas price brake will significantly dampen further increases in these energy components.¹⁷ In add-

... but will decline significantly over the course of next year

16 The subsidisation of energy prices in the context of the electricity and gas price brake will only begin in March for the lion's share of consumption, but will also be paid out retroactively for January and February. This means that the price brake will probably already have a dampening effect on the HICP at the beginning of the year. However, it will only mitigate the underlying rise in electricity and gas prices. **17** Consumers pay, at maximum, the respective highest price for a specified basic consumption, which is dependent on the consumption of the previous year (40 cent per kWh for electricity and 12 cent per kWh for gas). The remaining difference from the non-subsidised price is credited to them in the form of government transfers via suppliers – irrespective of whether they have actually met the basic consumption level. In this respect, no price cap has been set from an economic point of view.

Contributions to headline HICP inflation by component

Quarterly, year-on-year percentage change



Sources: Federal Statistical Office, Bundesbank calculations and Bundesbank projections.
 Deutsche Bundesbank

ition, it is assumed that the oil price will decline, and the base effect of the sharp rise in energy prices in March 2022 will stop impacting on inflation. Furthermore, the introduction of the €49 “Deutschland-Ticket” public transport ticket, taken in isolation, is likely to have a dampening effect from the spring onwards. The core rate, by contrast, will remain high. It could rise to just over 4% next year and thus be slightly higher than in the current year. Overall, the inflation rate will fall to around 7% on an annual average in 2023, starting out at just over 8½% this year. The various government measures to cushion the rise in energy prices are estimated to reduce the rates considerably in 2022 and even more so in 2023 (see the table on p. 35).

Inflation rate substantially lower in 2024 and 2025, but still far above average

The gradual easing of consumer prices is expected to continue into 2024 and 2025. However, price inflation will remain high. The projected inflation rate will fall to just over 4% in 2024, but will still stand at around 2¾% in 2025. The core rate is set to decrease to approximately 3% in 2024 and 2½% in 2025.

Energy price inflation set to decline markedly, but expiry of electricity and gas price brake after April 2024 will lead to rebound effects

There are various factors behind this expectation. For one thing, energy and food commodity prices are assumed to be falling. Although energy price inflation will likely decline distinctly on account of this, it will remain substantial. As electricity and gas suppliers sometimes buy energy on the stock exchanges far in advance, consumer prices will initially still have to be adjusted to previously increased market prices. Because of this, consumer prices will also not fall as sharply later, as the assumed decline in commodity prices might suggest. In addition, the cost increases will be passed through to many tenants only with a significant delay in any case, as the settlement payments are based on the previous heating period. For this reason, the levels of the end consumer rates, which will be decisive after the electricity and gas price brake expires in May 2024, are still likely to considerably surpass the limits of the price brake. This will then trigger strong re-

bound effects in electricity and gas prices (see the table on p. 35).

Further upward pressure on prices will come from the surge in wage costs, which will only ease off slightly in 2025. This is a major reason why inflation excluding energy will be markedly above its longer-term average in 2024 and 2025. In addition, the sharp rise in import prices will also drive prices over a prolonged period. However, price pressures will gradually diminish on this front, too, in part due to the subsiding of strains in global supply chains over the projection horizon. Lastly, Germany’s transition to a low-carbon economy will create additional cost pressures.

Inflation excluding energy will also recede slightly, but will remain above average

■ Public finances

According to this projection, the general government deficit ratio stands at 2¾% for 2022. This is a significant year-on-year decrease (2021: 3.7%). The economic recovery and the high inflation are providing budgetary relief, with inflation initially causing revenue to rise considerably faster than expenditure after factoring out new fiscal measures. Moreover, profit-related taxes are recording strong growth. This growth is significantly stronger than would have been expected on the basis of nominal macroeconomic variables and changes in tax law. There is barely any change in the volume of temporary support measures compared with 2021: pandemic-related budget burdens are decreasing, while financial assistance in response to the energy crisis is now being provided (for more on fiscal policy measures, see pp. 23 f.).

Deficit down significantly in 2022 due to economic recovery and inflation

The deficit ratio will rise considerably in 2023, to 4%. The deficit will grow in size for a number of reasons. The volume of temporary support measures will increase, with transfers as part of the electricity and gas price brake, in particular, exceeding the coronavirus assistance ending in 2022. Moreover, the fact that high inflation will increasingly push up government

In 2023, burdens associated with energy crisis and high inflation will predominate, while deficit will see another significant rise

expenditure, such as on tangible goods purchases, will have a detrimental impact. Military expenditure will rise sharply as more funds are channelled out of the Armed Forces Fund. Lastly, the high level of profit-related taxes in 2022 will not be carried over in full to 2023. Meanwhile, the cyclical weakness of the real economy will not play a major role in the trajectory of the government budget, as inflation will be high at the same time and the labour market will remain robust. For example, nominal gross wages and salaries will rise sharply, which is especially relevant for revenue from direct taxes and social contributions – and thus for government finances as a whole.

Deficit to fall significantly from 2024 as support measures come to an end

The deficit ratio will then fall sharply in 2024, hitting 1¾%, and dip slightly further still to 1½% in 2025. The main reason for this is that the support measures temporarily put in place will have already largely come to an end in 2024 and will have been completely phased out by 2025. Rising shortfalls in central government's off-budget entities for climate change mitigation and the armed forces will somewhat lessen the extent to which the deficit will shrink. Moreover, pension expenditure will go up significantly: aggregate wage increases will be reflected in large pension adjustments, and more and more baby boomers will reach retirement age.

Deterioration in structural balance as a result of higher expenditure

The temporary measures are obscuring the general government structural balance. At the end of the projection horizon, the structural deficit will be around 1% of GDP.¹⁸ Prior to the COVID-19 crisis, structural surplus of ½% of GDP was still recorded in 2019. The reason for the deterioration can be attributed to expenditure: in particular, spending on pensions, climate change mitigation and the military, respectively, is rising considerably. By contrast, interest expenditure is playing a limited role: whilst interest rates have risen sharply and expenditure on inflation-indexed government securities is seeing a temporary sharp rise, the associated burdens remain rather small. This is due to the longer maturities of debt instru-

ments and the small share of inflation-linked bonds.

According to this projection, the debt ratio will shrink this year (2021: 68.6%). This is attributable mainly to the strong growth in nominal GDP in the denominator of the ratio. Moreover, due to the use of cash reserves accumulated during the COVID-19 pandemic, the deficit will not cause the debt level to go up as sharply. Government liquidity and capital measures resulting from the energy crisis that are not included in the deficit will increase the ratio only slightly. The debt ratio will then edge back upwards slightly next year. The general government deficit will rise significantly and nominal GDP will grow at a slower pace than in the current year. In addition, loans granted to build up capital stock for a funded pension and transfers to the IMF trust funds for low-income countries will push up the debt ratio. The increase will be dampened considerably due to non-recurring effects further diminishing. For instance, additional cash reserves from the COVID-19 pandemic will be used to finance the budget, and a growing number of assistance loans will be repaid. Furthermore, the scaling-back of government-owned bad banks' portfolios from the financial crisis of just over a decade ago will continue. In 2024 and 2025, the debt ratio will then fall markedly: according to this projection, it will amount to around 65% at the end of the projection horizon.

Debt ratio will temporarily go back up in 2023

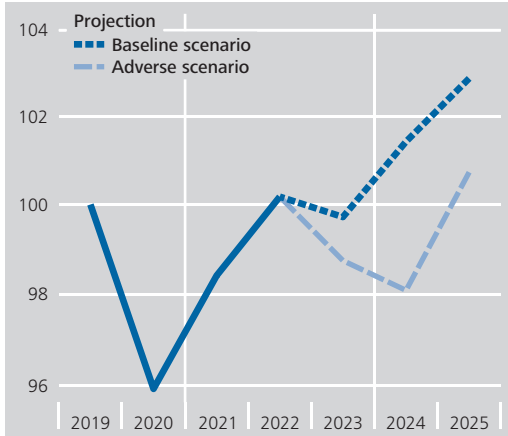
■ Risk assessment

The macroeconomic projections described here are subject to an unusually high level of uncertainty in the current environment. The greatest unknowns include further developments in the war in Ukraine and the energy crisis triggered as a result, the consequences of government

¹⁸ Cyclical factors and non-recurring temporary measures have been stripped out of the structural variables. In the period under review, the temporary measures that have been stripped out are identical to the temporary crisis response measures (see the chart on p. 24).

Real gross domestic product in Germany

2019 = 100, log scale, annual averages



Sources: Federal Statistical Office and Bundesbank projections.
 Deutsche Bundesbank

All in all, risks to economic growth tilted overwhelmingly to the downside, but risks to outlook for inflation rate tilted to the upside

Risks related to energy supply and Ukraine war

countermeasures, and the impact of the high inflation. From today's perspective, the risks to economic growth appear to be tilted overwhelmingly to the downside in overall terms, due largely to the possibility of energy supply bottlenecks. With regard to inflation, upside risks predominate throughout the projection horizon.

In the baseline scenario of this projection, it is assumed that, despite halted Russian gas deliveries from September onwards, there will be no gap in the gas supply. However, the additional gas deliveries or gas savings required could also be smaller than expected, e.g. due to unusually cold weather. This could lead to gas being rationed, which would go hand in hand with a sharp decline in economic output and further price increases. Escalating geopolitical tensions in connection with the war in Ukraine also pose a risk. For example, sanctions could be expanded and supply chains affected by the war – those for grain, for instance – could be disrupted more severely or interrupted altogether, with potentially severe consequences for global and German economic activity. As a result, price pressures would probably be further intensified. For information on an adverse risk scenario of this nature, see the box on pp. 39 ff.

There are also unknowns relating to the government measures implemented to mitigate the energy crisis. If, for example, consumer electricity or gas prices are still well above the levels at which the price brake applies when the brake is due to end – as is envisaged in the projection – this measure could potentially be extended by law. This could cause inflation in 2024 and 2025 to be lower than expected, provided that the rebound effect contained in the projection would then be eliminated.¹⁹ The projected inflation rate could also be lower if electricity and gas prices were to fall faster than assumed. Economic output would be supported in both cases, because the longer-term lower cost burden for firms and households would stimulate investment and consumption. However, where this is associated with higher energy consumption, this would cause the risks arising from energy bottlenecks to increase.

Irrespective of any further possible disruptions that could result from the Ukraine war, there are other risks to the global economy. For example, despite China recently signalling some relaxation of its zero-COVID policy, the trajectory of the pandemic in the country could cause a global economic slowdown that is greater than anticipated. In this context, global supply chain problems could also temporarily worsen again, with corresponding pressure being put on world trade. Lastly, further geopolitical tensions would also entail downside risks for both the global economy and the German economy. Inflation in Germany could then be stronger if, for example, commodity prices were to increase or price pressures at the earlier input stages continued to go up. However, it is also conceivable that commodity prices could fall faster than assumed, e.g. if the global economy cools to a greater extent as a result of weaker demand. As consumer prices for energy and food, in particular, are already at very high levels, enterprises could then even pass

Unknowns in context of government measures

Risks to global economy, particularly due to China, with consequences for economic activity and inflation in Germany

¹⁹ Compared with a scenario excluding an electricity and gas price brake, the inflation rates are, other things being equal, lower during the period when the brake is in place and higher once it ceases to apply.

An adverse risk scenario for the German economy

The macroeconomic projection (hereinafter referred to as the “baseline scenario”) remains heavily influenced by the fallout from the Russian war of aggression against Ukraine and its global economic impact. An adverse risk scenario was created on the basis of various less favourable assumptions about this situation than in the baseline scenario. One assumption, for example, is that the conflict with Russia will be more severe and that geopolitical tensions will be greater than in the baseline.¹ Regarding energy supply and consumption, it is assumed that additional gas deliveries from other countries will be smaller, that temperatures will be significantly lower than average in the coming and subsequent winter and that cuts in gas consumption will be less substantial. Furthermore, the adverse risk scenario includes additional disruptions to foreign trade and heightened supply chain problems, whilst exports of food from Ukraine are assumed to decline steeply. In this scenario, prices for energy and food commodities are assumed to rise again and remain higher than in the baseline scenario over the projection horizon. All of these factors contribute to a significant increase in macroeconomic uncertainty and financial market volatility compared with the baseline scenario.²

Looking at the supply of gas in Germany, from December 2022 onwards the combination of unfavourable developments on the supply and demand sides leads to a more tense supply situation than in the baseline scenario. By mid-2023, cuts in gas consumption will be only half the size of those in the baseline scenario.³ Furthermore, for the months from December 2022 to March 2023 as well as from December 2023 to March 2024, temperature-related additional

Major assumptions in the adverse scenario

Percentage deviations from baseline scenario¹

Item	2023	2024	2025
Commodity prices			
Crude oil	41.9	15.4	1.1
Natural gas	99.4	104.3	85.3
Food	12.4	11.2	6.0
German exporters' sales markets	- 1.3	- 2.7	- 2.6

Source: ECB staff. ¹ For information on the assumptions made in the baseline scenario, see the table on p. 22.

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consumption is assumed to be 8% compared with the previous winter periods. In the adverse risk scenario, the expansion of supply through deliveries of liquefied natural gas (LNG) in 2023 is two-fifths smaller than in the baseline scenario – for example, owing to delays in expanding Germany’s

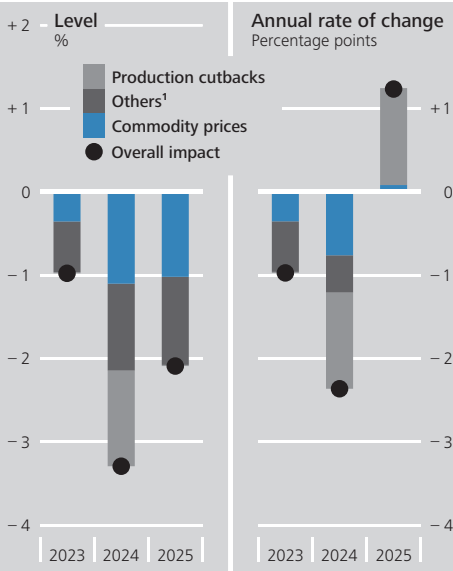
¹ The adverse risk scenario applies assumptions based on those employed by ECB staff in a euro area downside scenario; see European Central Bank (2022). In addition, however, it also takes account of developments specific to Germany, including in relation to natural gas supply and demand. For the euro area aggregate, the macroeconomic impact for the euro area was calculated directly by ECB staff. The results for Germany presented in this box are derived from Bundesbank estimates. They were not incorporated into the ECB staff’s results for the euro area and therefore did not form part of the Eurosystem’s Broad Macroeconomic Projection Exercise.

² The adverse risk scenario is based on monetary and fiscal policy that is unchanged from the baseline scenario. With regard to fiscal policy in Germany, this means that no additional fiscal measures that go beyond the scope of the automatic stabilisers endogenous to the model are included. The electricity and gas price brake is implemented in the same way as in the baseline scenario.

³ Up to and including the second quarter of 2023, the baseline scenario assumes savings of 20% compared with average consumption in the 2018-21 period. After that, they are set at 10% on account of decreasing efforts to reduce consumption. The German gas exports assumed in both the baseline scenario and the adverse risk scenario roughly correspond to the average monthly outflows since the start of the Russian war of aggression against Ukraine. A possible European gas supply compensation mechanism is not explicitly incorporated into the adverse risk scenario.

Potential impact on real GDP in Germany in the adverse risk scenario

Deviations from the baseline scenario



Source: Bundesbank calculations using BbkM-DE, building on the ECB staff's assumptions regarding the international environment and including information from SVAR model and analysis of rationing effects. ¹ Encompasses foreign demand and foreign competitors' prices, uncertainty, lending rates and the equity market.

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LNG capacity or to underutilisation of LNG terminals.⁴ It is also assumed that gas storage facilities will be filled to a minimum of 15%, e.g. as an emergency reserve to ensure a continuous supply of gas to critical infrastructures, or because of technical and geological restrictions. Natural gas is thus rationed if the storage level falls below this limit. Given these assumptions, a gas gap of 12 terawatt hours (TWh) is calculated for 2023. As gas storage facilities are not entirely full again in the summer of 2023, the

gas gap expands to 121 TWh in 2024. This corresponds to around 1% and 13%, respectively, of the assumed demand for gas in 2023 and 2024.⁵ By contrast, there is no further shortage of gas in 2025, particularly given the assumed increase in imports and higher utilisation of LNG capacity from the summer of 2024 onwards.

The impact of the gas shortages on the real economy in 2023 and 2024 is estimated on the basis of a production function with constant elasticity of substitution.⁶ This approach allows a certain degree of substitution between gas and the other input factors of the production function, thus taking account of the experience that enterprises will have gained in dealing with a gas shortage. A negligible effect on gross domestic product (GDP) is identified for 2023 owing

Comparison of baseline and adverse scenarios – December 2022 projection

Year-on-year percentage change

Item	2023	2024	2025
Real GDP, calendar adjusted			
Baseline scenario	- 0.5	1.7	1.4
Adverse scenario	- 1.4	- 0.7	2.7
HICP			
Baseline scenario	7.2	4.1	2.8
Adverse scenario	8.5	5.4	3.1

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⁴ The supply increases in the baseline scenario of around 8% in 2023 and 23% in 2024 compared with the average imports since 31 August are based on the data in Federal Network Agency (2022), Deutscher Bundestag (2022) and Tagesschau (2022). For information on possible bottlenecks in the global market for LNG next year, see International Energy Agency (2022b).

⁵ By contrast, in the adverse risk scenario developed for the June 2022 macroeconomic projection, the gas gap was particularly pronounced in 2023; see Deutsche Bundesbank (2022b). This was due to the assumption that Russian gas deliveries would come to a complete halt as early as July of this year and that additional imports from other countries would be very limited. In actual fact, however, Russia continued to supply Germany with gas up to the end of August, and imports from other countries were expanded much more strongly than assumed in the June adverse risk scenario. In addition, German gas exports to neighbouring countries have declined steeply in recent months and consumption has been much lower than in previous years, partly because of favourable weather conditions. As a result, gas storage facilities were completely full by November of this year.

⁶ This follows the ECB staff's approach to scenario calculations for the euro area. In addition to the elasticity of substitution, the size of the gas gap and the share of natural gas in Germany's gross national expenditure are key variables. For a similar approach, see also Bachmann et al. (2022). Cascade effects along the value chain are not considered. However, given that the gas gap arises with a significant time lag, these effects should play a more minor role anyway: by the first quarter of 2024, many enterprises are likely to have taken steps to dampen the effects of gas rationing along value chains.

to the fairly small gas gap. However, the rationing effect, taken in isolation, will dampen GDP considerably more strongly in 2024, by just over 1%.

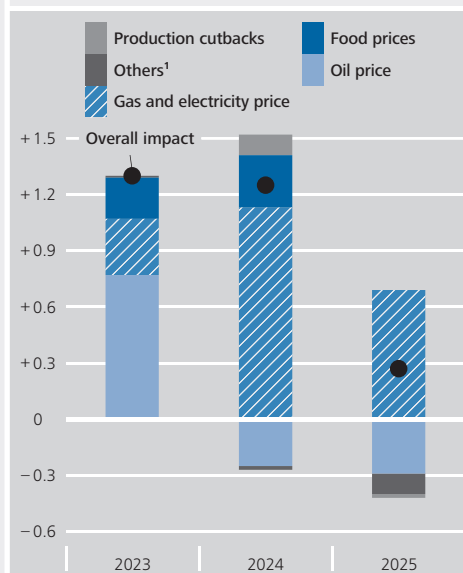
If the assumptions about the international setting of the German economy are incorporated into the simulation calculations, the overall year-on-year decline in real GDP in 2023, at around 1½%, is significantly larger than in the baseline scenario.⁷ This is due primarily to the slump in German exporters' sales markets and, in part, to heightened uncertainty. Moreover, economic growth is also held back by higher commodity prices, although this effect is significantly dampened by the electricity and gas price brake. The same is true of the impact on the inflation rate. Nevertheless, the rise in consumer prices in 2023, at around 8½%, is more than 1 percentage point higher than in the baseline scenario.

The negative impact of the adverse risk scenario is most pronounced in 2024. Instead of growing significantly again as it does in the baseline scenario, the German economy then shrinks for the second year in a row – by ¾% on the year. As the electricity and gas price brake comes to an end in the course of 2024, there is a rebound effect which more than offsets the dampening impact of falling crude oil prices on inflation. This rebound effect is markedly stronger still than in the baseline scenario (see the table on p. 35). The inflation rate in 2024, at close to 5½%, is therefore well above the figure in the baseline scenario.

It is not until 2025 that the German economy recovers in the adverse risk scenario, too – thanks to the absence of rationing in the winter of 2024-25 and easing commodity price pressures. Real GDP grows by 2¾% on the year, and thus much more strongly than in the baseline scenario. Nevertheless,

Potential impact on the HICP rate in Germany in the adverse risk scenario

Deviations from the baseline scenario in percentage points



Source: Bundesbank calculations using BbkM-DE, building on the ECB staff's assumptions regarding the international environment and including information from SVAR model and analysis of rationing effects. ¹ Encompasses foreign demand and foreign competitors' prices, uncertainty, lending rates and the equity market.

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real GDP is thus only slightly above its starting level in the third quarter of 2022. The inflation rate, at just above 3%, still exceeds the baseline projection for 2025 by three-tenths of a percentage point.

⁷ As in this year's June projection, the Bundesbank's macroeconomic model (BbkM-DE) is used for the simulation calculations; see Deutsche Bundesbank (2022b). For details on BbkM-DE, see Haertel et al. (2022).

Key figures of the macroeconomic projection – non-calendar adjusted

Year-on-year percentage change

Item	2021	2022	2023	2024
GDP (real)	2.6	1.7	-0.7	1.7
GDP (real, calendar adjusted)	2.6	1.8	-0.5	1.7
Components of real GDP				
Private consumption	0.4	4.6	0.2	1.5
Memo item: Saving ratio	15.1	11.1	10.3	10.0
Government consumption	3.8	1.4	-2.9	1.3
Gross fixed capital formation	1.2	0.4	-0.2	3.0
Business investment ¹	2.5	0.1	3.4	3.1
Private housing construction investment	0.5	-2.2	-5.5	1.4
Exports	9.7	2.9	1.4	3.3
Imports	9.0	6.4	2.1	3.4
Memo item: Current account balance ²	7.4	3.5	2.5	2.7
Contributions to GDP growth ³				
Domestic final demand	1.3	2.7	-0.6	1.8
Changes in inventories	0.5	0.3	0.3	-0.1
Exports	4.2	1.3	0.7	1.7
Imports	-3.4	-2.7	-1.0	-1.7
Labour market				
Total number of hours worked ⁴	1.7	1.4	-0.5	0.9
Employed persons ⁴	0.1	1.2	0.2	0.4
Unemployed persons ⁵	2.6	2.4	2.6	2.4
Unemployment rate ⁶	5.7	5.3	5.6	5.3
Memo item: ILO unemployment rate ⁷	3.6	3.0	3.4	3.2
Wages and wage costs				
Negotiated pay rates ⁸	1.6	2.6	3.9	4.2
Gross wages and salaries per employee	3.3	4.3	5.1	5.0
Compensation per employee	3.1	4.1	5.0	5.1
Real GDP per employed person	2.5	0.5	-0.9	1.2
Unit labour costs ⁹	0.6	3.6	5.9	3.9
Memo item: GDP deflator	3.1	5.1	4.6	3.8
Consumer prices ¹⁰				
Excluding energy	2.4	5.2	5.5	3.0
Energy component	10.1	33.9	17.0	10.4
Excluding energy and food	2.2	3.9	4.3	2.9
Food component	3.0	10.6	10.2	3.3
Residential real estate prices	11.6	7.5	1.2	3.2

Sources: Federal Statistical Office (up to Q3 2022); Federal Employment Agency; Eurostat. 2022 to 2024, Bundesbank projections. **1** Private non-residential fixed capital formation. **2** As a percentage of nominal GDP. **3** In arithmetical terms, in percentage points. Discrepancies in the totals are due to rounding. **4** Domestic concept. **5** In millions of persons (Federal Employment Agency definition). **6** As a percentage of the civilian labour force. **7** Internationally standardised as per ILO definition, Eurostat differentiation. **8** Monthly basis. Pursuant to the Bundesbank's negotiated wage index. **9** Ratio of domestic compensation per employee to real GDP per employed person. **10** Harmonised Index of Consumer Prices (HICP).

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through a larger portion of any price decreases to their end customers. Inflation rates would then fall much more quickly.

There are further downside risks in Germany with regard to the housing market. Should residential real estate prices fall to a greater extent, construction activity is likely to slow down even more quickly and housing investment could decline more sharply than previously assumed. In addition, there would be risks to the financial system, which could, in a worst-case scenario, have feedback effects on the real economy. One consequence would be that the value of collateral used to secure real estate loans would fall, meaning that, in the event of future credit defaults, lenders would suffer higher losses.²⁰

Falling real estate prices pose a downside risk in Germany

There is also uncertainty in Germany as to the degree to which the "demand buffers" formed since the outbreak of the pandemic will stabilise. These exist for households in the form of savings built up involuntarily during the pandemic, and for industrial enterprises in the form of an order backlog owing to supply bottlenecks. In the projection, both factors will counteract, to a certain extent, the headwinds from the high inflation and weakening foreign demand. If households' saving ratio were to fall more sharply than expected, private consumption would decline to a lesser degree. Moreover, the temporary boost expected in the export projection from reducing the order backlog could be even stronger. Both would bolster economic activity.²¹ At least in the case of the former, however, price pressures would also continue to increase at the same time.

Chance of more favourable developments in Germany with a greater impact from the buffers coming from industrial order backlog and coronavirus savings

Looking at the inflation forecast, there are uncertainties arising from the high inflation dynamics themselves. For example, strong wage growth, which is partly attributable to second-

²⁰ See Deutsche Bundesbank (2022g).

²¹ These factors could play a role even in the short term. Specifically, some economic indicators not published until after the projection was finalised suggest that the decline in GDP in the current quarter may be somewhat weaker than projected.

Looking at inflation forecast, uncertainties arise from high inflation dynamics themselves – with risks tilted to the upside

round effects of the high inflation, has already been baked into the projection. However, inflation compensation bonuses have become a relatively important part of recent wage settlements and will reduce the permanent component of wage growth. The wage forecast assumes that, once the period in which the one-off payments subsidised by the government comes to an end, the wage increases agreed will be so large that there will be no major setback to the wage level in the sectors concerned. Should such a setback occur nevertheless, wage growth and the resulting price pres-

sure would be noticeably lower in 2025. However, given the persistently high inflation rates and rising inflation expectations, wages could also go up even more than projected. This would then lead to stronger price increases. As things currently stand, this upside risk is likely to predominate. In such an environment, enterprises could also increasingly try to expand their profit margins. This would drive prices up even further. Overall, inflation rates could then remain at high levels for an extended period of time.

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Rise in energy prices, the exchange rate of the euro and Germany's price competitiveness

Energy prices have risen sharply in 2021 and this year, but especially since the Russian war of aggression against Ukraine. For Germany, the price increase this has caused is particularly pronounced compared with many of its trading partners. At the same time, the euro has depreciated significantly against the US dollar in the year to date. This article examines the impact on Germany's price competitiveness of, first, the relative rise in costs and, second, the depreciation of the euro in 2022.

Estimation results show that the uncertain energy supply situation has itself contributed to the observed depreciation of the euro against the US dollar. However, it is just one of many causes of the depreciation. The swifter tightening of US monetary policy relative to that of the euro area probably played a more important role in the euro's decline. In purely arithmetical terms, the relative rise in energy costs in Germany from the start of the year to September 2022 – a period in which this rise was particularly pronounced – caused Germany's price competitiveness to deteriorate by 0.9%. By contrast, the euro's losses against the US dollar improved price competitiveness by around 1.9% in this period, all other things being equal. This rough calculation illustrates why common indicators of price competitiveness still show it to be fairly favourable for Germany and to have hardly changed since the end of 2021.

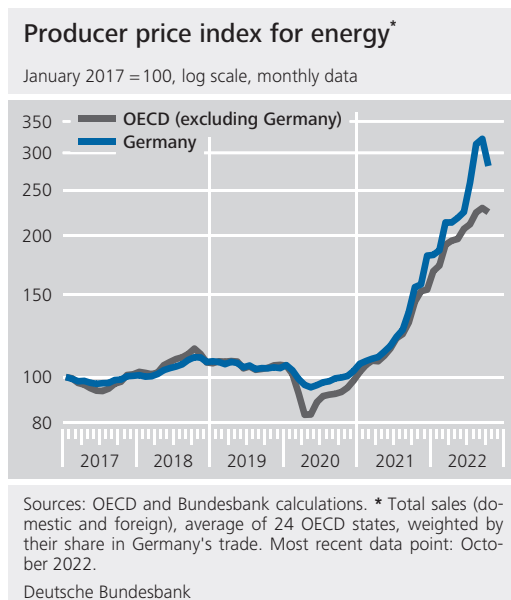
However, when interpreting these indicators, it should be noted that price competitiveness is a macroeconomic concept that does not reflect heterogeneities, effects on individual sectors and firms, or distributional effects. Firms for which energy makes up a large proportion of total costs will, for example, inevitably be more affected by the rise in energy prices than is reflected in the macroeconomic indicator of price competitiveness.

Rise in energy prices and depreciation of the euro having an impact on price competitiveness

■ Introduction

Over the past two years, energy prices have risen sharply worldwide. In addition to the economic recovery following the pandemic-induced downturn, this has been driven first and foremost by shortages in Russian gas supplies and Russia's war of aggression against Ukraine. Compared with other industrial countries, the rise in energy costs has been particularly sharp in Germany in the year to date. Taken in isolation, such a relative increase in costs reduces a country's price competitiveness. At the same time, the euro has depreciated noticeably against the US dollar in the year to date. In US dollar terms, goods exports from Germany therefore became cheaper and thus more competitive.

These considerations raise two questions: to what extent is the observed nominal depreciation of the euro against the US dollar itself related to developments in the energy markets? And what effects on Germany's price competitiveness are the result of the rise in energy prices, on the one hand, and the euro's depreciation, on the other?



■ Uncertainty about the energy supply in the euro area and depreciation of the euro

One of the main reasons for the comparatively sharp rise in energy costs in the euro area is that many Member States previously relied heavily on Russian gas supplies. Even before the attack on Ukraine, Russia had reduced the supply of gas. After the start of the war, Russia further restricted supply, and those countries previously heavily dependent on Russian gas supplies had to obtain gas from other countries. This sent gas prices worldwide, but especially in the euro area, sharply higher.¹

Germany, like other European countries, thus had to spend a larger proportion of its economic output on energy imports. At the same time, the uncertain supply situation fuelled fears of a marked economic slowdown in the euro area.² According to economic theory, these developments should weigh on the external value of the euro, particularly against the US dollar, as the United States is not hit as hard by the impact of the war and is a net exporter of energy. In addition, demand for US dollar assets is often higher in uncertain times, which is another reason why the US currency is appreciating. The depreciation of the euro could therefore have been driven largely by developments in energy prices.

Bundesbank estimates based on vector autoregressive (VAR) models do, indeed, suggest that higher uncertainty about the supply of gas leads to a nominal depreciation of the euro against the US dollar (see the box on pp. 48 f.). It is not, however, the main reason for the depreciation seen since the beginning of 2022 – of, on balance, 6.8%³ and at times more than 15%. The bulk of the depreciation against the

Euro area energy price increase in the wake of the Russian war against Ukraine ...

... weighing on the euro, on balance

The bulk of the euro's depreciation against the US dollar in 2022 is probably less a result of the energy crisis ...

¹ See Deutsche Bundesbank (2022a). An increase in the gas price can, through substitution effects, also impact the prices of other energy sources and, via the merit order principle, drive up the price of electricity in particular; see German Council of Economic Experts (2022).

² See Deutsche Bundesbank (2022b).

³ Current as at 9 December 2022.

... than of the relative pace of monetary policy tightening in the two currency areas

US currency can consequently be attributed to other factors. These include, in particular, the Federal Reserve's monetary policy tightening: the faster rise in interest rates across the entire maturity spectrum there compared with the euro area made portfolio reallocations to the United States comparatively attractive and thereby exerted downward pressure on the euro.

International price competitiveness: indicators and current assessment

Euro depreciation should, all other things being equal, increase Germany's price competitiveness

Irrespective of what has caused the euro's depreciation against the US dollar, the question is: to what extent has it contributed to improving Germany's price competitiveness? Nominal depreciation makes imports more expensive in the domestic currency and renders foreign currency exports cheaper, and should therefore cause a shift in demand for goods towards those produced domestically. However, Germany's price competitiveness is driven not only by the exchange rate against the US dollar, but also by the exchange rate against Germany's other major trading partners and, in particular, by the relative development of prices and costs at home and abroad.

Indicator of price competitiveness based on long-term averages ...

The Bundesbank mainly uses two indicators to assess international price competitiveness.⁴ First, it tracks an indicator in which the current value of a real effective exchange rate is compared with its long-term average.⁵ In addition to the nominal effective exchange rate, the real effective exchange rate used here also includes the deflator of total sales at home and abroad. It has the advantage of taking into account not only domestic value added but also the prices of imported goods and services, which represent a cost component of domestic production where intermediate goods are imported. Moreover, real exports can be forecast better on the basis of broadly defined price and cost indicators, such as the deflators of total sales, than using narrowly defined ones.⁶

Historical decomposition of the euro-US dollar exchange rate in the year to date

Daily data, percentage change versus 31 December 2021



1 (Median) contributions of an uncertainty shock relating to European gas supply to the rate of change in the euro's exchange rate against the US dollar in a proxy VAR model. **2** Values in % as the difference between logarithmic values. An increase indicates an appreciation of the euro.

Deutsche Bundesbank

The chart on p. 50 shows the development of this indicator for Germany compared with 26 selected industrial countries since 1975. Two key conclusions can be drawn from its course. First, Germany's price competitiveness can currently still be regarded as fairly favourable by historical standards. Second, as compared with the final quarter of 2021, it has hardly changed overall despite the (relative) rise in energy prices. The reason why price competitiveness as measured by this indicator has so far not deteriorated despite an increase in aggregate relative prices is the euro's nominal performance, which has seen the single currency lose around 1.6% of its value in trade-weighted terms from Germany's perspective since the last quarter of 2021.⁷

... broadly unchanged on balance since the beginning of the year

⁴ See Deutsche Bundesbank (2013) for a detailed overview of the various approaches and their respective pros and cons.

⁵ According to the relative purchasing power parity theory, nominal exchange rate movements balance out relative inflation differentials over the long term. This implies that the real effective exchange rate would have to fluctuate around a constant mean.

⁶ See Fischer et al. (2018).

⁷ The exchange rate movements against the currencies of industrial countries which are part of the above group of countries but do not belong to the euro area are considered here. In some cases, the above-mentioned aggregate relative price increase will already reflect the fact that the relative increase in energy prices in Germany vis-à-vis its partner countries is passed on as a relative increase in the prices of other products.

Uncertainty about European energy supply and the external value of the euro in a proxy VAR model

A large number of factors influence financial market variables like the exchange rate of the euro against the US dollar. The following analysis uses a structural vector autoregressive (SVAR) model to identify and isolate one of these determinants: uncertainty about the future supply of Russian gas to Europe.

A VAR model consists of n variables that interact with one another over time. Expressed mathematically, the reduced form of the model to be estimated using data is

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

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

A total of seven variables are included in the estimation of the model under consideration here in order to capture developments in the financial markets as comprehensively as possible: the European gas price (Dutch TTF natural gas) as a spot price and one-month future, the Brent crude oil price, the Euro STOXX 50 index, the VIX (a measure of implied stock market volatility derived from option prices), the yields on ten-year German government bonds and, finally, the euro-US dollar exchange rate.¹ The reduced form of the model shown above is estimated using Bayesian methods based on daily data from the start of April 2020 to mid-December 2022.²

The resulting model residuals \hat{u}_t are deviations of the observed data from the values predicted by the model. In terms of the model, the residuals therefore represent surprising changes in the individual variables. In the model residuals, the underlying driving forces are mixed, meaning the model residuals themselves are correlated. In order to be able to make statements about the explanatory contribution of individual influencing factors, it is assumed in the context of SVARs that the residuals can be broken down into mutually uncorrelated impulses – referred to as structural shocks – permitting a causal interpretation. Proxy VAR models, for example, draw on information from outside the model itself in the form of instrumental variables for this purpose.³ A suitable instrument would be correlated with the shock to be identified – here increased uncertainty regarding energy supply – but not with other potential structural shocks.

In the case at hand, an indicator variable (i.e. a time series consisting of only zeros and ones) is used as an instrument. To this

¹ All of the variables except for yields are included in the model in logarithmic form.

² The financial markets experienced sharp price declines in March 2020 with the onset of the COVID-19 pandemic. The estimation period has been chosen so as to deliberately exclude this exceptionally volatile period. The number of lags is set to $p = 5$, which is equivalent to one week for data available on trading days. However, this specific choice has hardly any impact on the results. Bayesian methods are often used in the literature to estimate VAR models. In this context, certain assumptions are made about the coefficients (priors). The actual estimated coefficients are then derived from a combination of the priors with information derived from the data. If, alternatively (as in classical frequentist statistics) only data are used for the estimation, the results presented here change only marginally.

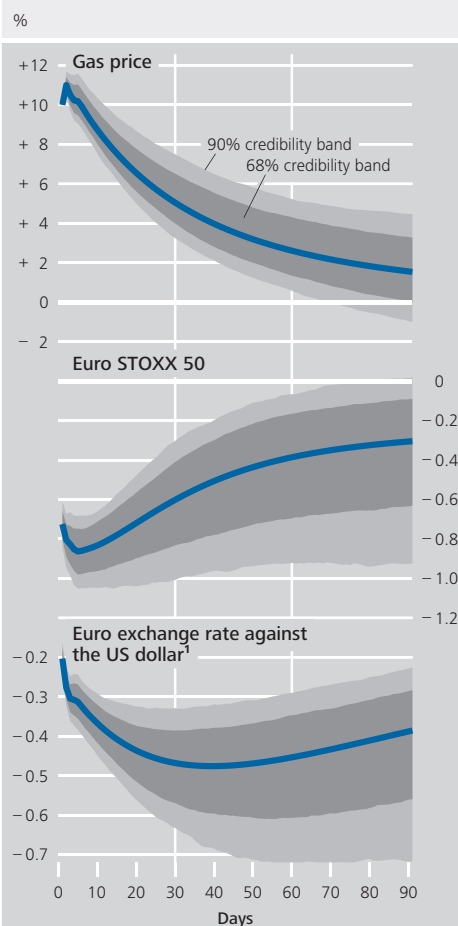
³ See Stock and Watson (2012) and Mertens and Ravn (2013).

end, various events are identified which could be plausibly interpreted as actual or perceived exogenous changes in the supply situation and which should have led to an immediate increase in the price of gas. These include, in particular, Russian announcements concerning limitation or discontinuation of gas supplies.⁴ The events generally increased uncertainty about whether the necessary gas supply for euro area consumers would be safeguarded going forward.

Once the shock is identified using the instrument, impulse response functions can be calculated. These show how the shock affects the individual variables in the system over time. The adjacent chart shows the effect of an increase in uncertainty about gas supply which increases the price of gas by 10%. A shock of this kind directly reduces the market valuation of European equities by around 0.7% and leads to a persistent depreciation of the euro against the US dollar of between 0.4% and 0.5%.

Finally, the model can be used to estimate the extent to which the historical development of individual variables can be attributed to the identified shock. The chart on p. 47 shows that uncertainty about energy supply at the beginning of the war was the main reason for the short-term depreciation of the euro at that time, but also that the impact of the shock subsequently lessened again for some time. At the beginning of the summer months, supply uncertainty gradually increased again, but even in late summer it accounted for no more than around one-third of the euro's depreciation.⁵

Impulse response functions to increased uncertainty about European gas supply*



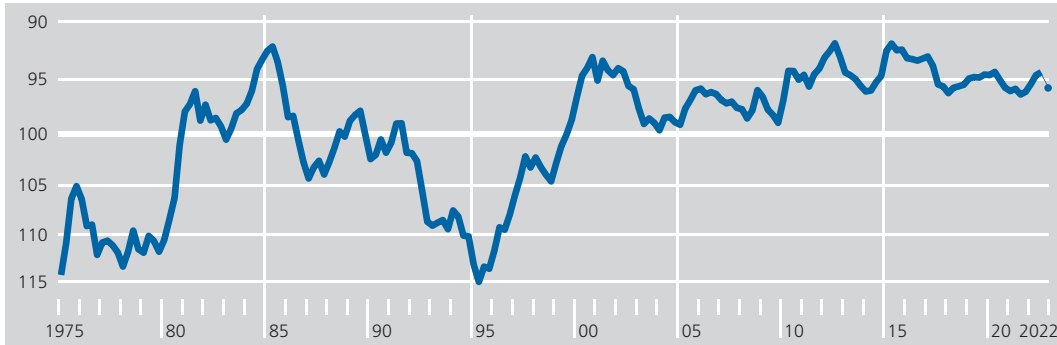
*Response in the proxy VAR model to an uncertainty shock which increases the gas price (wholesale spot price, Dutch TTF) by 10%. Values in % as the difference between logarithmic values. ¹ An increase indicates an appreciation of the euro.
 Deutsche Bundesbank

4 The events are: 7 March 2022 (Russia threatens to halt gas supply via Nord Stream 1), 23 March 2022 (Russia requires Russian gas to be paid in Russian roubles in future), 14 June 2022 (Russia announces that it will cut gas supply via Nord Stream 1 by 40%), 26 July 2022 (Russia announces that it will cut gas supply via Nord Stream 1 to 20%), 22 August 2022 (Russia announces an unscheduled temporary closure of Nord Stream 1 for maintenance, fuelling fears of a delivery stoppage), 5 September 2022 (Russia ends gas supply via Nord Stream 1 for an indefinite period), 27 September 2022 (suspected sabotage of Nord Stream pipelines). On each of these dates, the European gas price rose by more than 10% compared to the previous day. To construct the instrument, these identified dates are assigned a value of 1, while all other dates are assigned a value of 0.

5 Estimates based on other structural models tend to suggest even smaller contributions.

Indicator of the price competitiveness of the German economy as compared to selected industrial countries*

Average since 1975 = 100, quarterly data, log scale, inverted scale¹



* Based on the deflators of total sales. Group of countries: Austria, Belgium, Cyprus (from 2008), Denmark, Estonia (from 2011), Finland, France, Greece (from 2001), Ireland, Italy, Latvia (from 2014), Lithuania (from 2015), Luxembourg, Malta (from 2008), the Netherlands, Portugal, Slovakia (from 2009), Slovenia (from 2007), Spain, Sweden, the UK, Norway, Switzerland, Japan, Canada and the United States. ¹ Rise in the curve (decline in values) indicates an increase in competitiveness. ● = Last data point: 9 December 2022.

Deutsche Bundesbank

Indicator based on the productivity approach suggests that Germany is in a favourable competitive position

A second indicator of price competitiveness which is frequently used at the Bundesbank is based on the productivity approach.⁸ This indicator is particularly suitable when assessing price competitiveness against a broad group of countries that also includes emerging market economies which are in the process of catching up. To calculate indicators based on the productivity approach, real exchange rates are adjusted for productivity effects using econometric estimates.⁹ The approach consequently takes account of the fact that a higher relative price level is not accompanied by a loss of competitiveness if it is due to an increased relative productivity level. The Bundesbank calculates such an indicator of the German economy's price competitiveness compared with a broad group of currently 56 partner countries. This indicator, too, at present suggests a favourable competitive position.

Indicators not distorted by high inflation rates

One might now ask whether the indicators of price competitiveness described here are distorted by the sharp rise in energy prices or, more generally, by the high inflation rates. This could be the case, in particular, because daily values are derived from real exchange rates, which are only available at a quarterly or annual frequency, by extrapolation using nominal effective exchange rates available at a daily frequency. Since such an extrapolation does not

take into account relative price developments, very different inflation rates could, in principle, lead to a distortion of the indicators. However, rough calculations show that such distortions are also currently still very small and do not change the general finding that Germany's competitive position is fairly favourable at present.¹⁰

⁸ The problem with competitiveness indicators based solely on real effective exchange rates is that they result in a distorted representation of international price competitiveness when there are diverging productivity developments at home and abroad and associated Balassa-Samuelson effects occur. According to the Balassa-Samuelson model, productivity gains in the tradable goods sector are accompanied by corresponding wage increases not only in this sector itself, but also in the non-tradable goods sector. This results in an increase in prices in the domestic sector, a rise in the aggregate inflation rate and real currency appreciation. However, this does not reflect deteriorated competitiveness, as the export sector is not affected by the price increase. See Deutsche Bundesbank (2002), Balassa (1964) and Samuelson (1964).

⁹ See Fischer and Hossfeld (2014).

¹⁰ The price differential between Germany and the weighted average of its trading partners based on consumer price indices can provide an indication of the extent of the distortion. For example, from the second quarter of 2022 through to the quarter for which the data needed to calculate the productivity proxy are available, consumer prices in Germany have risen by roughly the same magnitude as the average of the partner countries. This suggests that, at present, the extrapolation does not significantly distort the indicator.

Rise in energy costs and price competitiveness: a rough calculation

Relative rise in energy costs in Germany in 2022, ...

How are the relative rise in energy prices in Germany, on the one hand, and the nominal depreciation of the euro against the US dollar, on the other, now being reflected in the price competitiveness indicators described above? If we first look at the impact of the rise in energy costs on price competitiveness, we need to determine the extent to which this leads to an increase in aggregate prices relative to other countries.

... taking energy intensity into account, ...

It should be borne in mind that energy costs account for only part of production costs, meaning that the response of the deflator in question will be disproportionately small even if the costs are passed on in their entirety. The lower the energy cost share, the smaller the effect on the aggregate price level. Using input-output tables, the share of energy costs in total costs for Germany can be roughly estimated at a little over 2%.¹¹

... led to a deterioration in Germany's price competitiveness of around 0.9% by September

The actual increase in relative energy costs can be assessed, for example, using an energy-specific producer price index published by the Organisation for Economic Co-operation and Development (OECD) for industrial economies.¹² For Germany, this index rose by just under 30% from the beginning of the year to September relative to a trade-weighted average of 24 partner countries.¹³ Taking the energy cost share calculated above of a little over 2% as the basis, the relative increase in said energy costs is reflected in a deterioration of 0.9% in Germany's aggregate price competitiveness.¹⁴

By contrast, domestic competitiveness improved by 1.9% in the same period due to euro depreciation against US dollar

This deterioration was counteracted by the euro's depreciation against the US dollar over the course of the year, which, when taken in isolation, improved Germany's price competitiveness.¹⁵ If we consider a group of 26 of Germany's trading partners in broad analogy to the OECD energy-specific producer price index used above, the trade weight of the United

States amounts to just under 15%.¹⁶ The euro's nominal depreciation against the US dollar of 12.5% observed between January and September thus results in an improvement of 1.9% in Germany's price competitiveness compared with the group of countries under analysis.¹⁷

The improvement in Germany's price competitiveness as a result of the euro's nominal depreciation against the US dollar in the period under review from January to September was thus markedly larger in purely arithmetical terms than its deterioration as a result of the relative rise in energy prices in Germany as measured by the OECD's energy-specific producer price index.¹⁸ Similarly, based on the

¹¹ The input-output tables of 2019 serve as the basis for this estimate. If an aggregate energy component is defined in simplified terms as consisting of intermediate inputs of different categories of goods, the share of the corresponding expenditure in total costs ("production value") is 2¼%. Relative to gross value added, this would be around 4½%.

¹² See also the chart on p. 46.

¹³ According to this index, the rise in energy costs between January (before the start of the war) and September amounted to 77% for Germany and 36% for the weighted average of partner countries. Energy prices in Germany thus rose by just under 30% relative to these trading partners. In October, however, energy prices in Germany fell again.

¹⁴ For the sake of simplicity, this rough calculation assumes that energy costs as a share of total costs do not differ significantly between the partner countries and Germany. If, for example, it were only 1% in the partner countries, Germany's price competitiveness would have deteriorated by 1.4%. If energy intensity abroad were higher at 3%, the deterioration would only amount to 0.6%. In addition, for the sake of simplicity it is assumed that country-specific energy prices do not differ in terms of their starting level.

¹⁵ The following analyses therefore assume, for the sake of simplicity, that the euro's exchange rate against the currencies of all other trading partners has not changed. In reality, the external value of the euro increased slightly in trade-weighted terms over the period under review if the depreciation against the US dollar is excluded.

¹⁶ See Deutsche Bundesbank (2020). Among the 26 trading partners considered here, Japan and Canada were not included in the calculation of the relative increase in energy costs in Germany compared with 24 countries owing to a lack of data.

¹⁷ To harmonise the calculation of the depreciation with the relative increase in energy prices calculated above, the change in monthly averages of the euro-US dollar exchange rate between January and September 2022 was used.

¹⁸ It should be noted that a rough calculation of this kind is highly simplified. For example, no second-round effects of the rise in energy prices on other cost components are taken into account, and adjustment effects such as a substitution of energy sources in production or in the demand for final products are also disregarded, as are international differences in the starting level of energy costs.

aforementioned group of 26 trading partners, in purely arithmetical terms a 1% nominal depreciation of the euro against the US dollar would improve Germany's price competitiveness to around the same extent as – in purely hypothetical terms – its price competitiveness would deteriorate owing to a 6% increase in relative energy costs against these countries.¹⁹

Classification: price competitiveness as a macroeconomic concept

Price competitiveness as a macroeconomic concept

How can we now assess the finding that Germany's price competitiveness is currently fairly favourable according to our indicators, given the fears voiced by many that the rise in energy prices poses enormous challenges to parts of Germany's industrial base? To answer this question, it should first be borne in mind that the exchange rate is a macroeconomic variable and that the price competitiveness indicators based on it are therefore necessarily a macroeconomic concept as well. Such a concept does not capture heterogeneities, the effects on individual sectors and firms or the distributional effects between them. For example, if one particular sector has a distinctly higher energy cost share than the average of the economy as a whole, it will be more strongly affected by the relatively pronounced rise in energy prices in Germany. In addition, a depreciation of the euro against the US dollar alone does not necessarily reduce the price of exports with sales markets located in currency areas other than the United States.²⁰ Exporters to the United Kingdom and Japan, for example, have been particularly affected, with their exports invoiced in euro even becoming more expensive owing to the depreciation of the pound and the yen against the euro over the period under review. By contrast, exporters to the United States with a low energy cost share benefited all the more from the depreciation against the US dollar.²¹

Moreover, it should be borne in mind that intermediate goods – especially a number of energy

sources – are often themselves invoiced in US dollars.²² A depreciation of the euro against the US dollar is therefore itself likely to have a price-driving effect on energy costs. If, in an extreme case, all intermediate goods are invoiced in US dollars, but export revenues come from a third currency area and are denominated in euro, the profit of an affected firm would not increase as a result of the euro's depreciation, but would actually decrease further.

Depreciation against the US dollar can have a price-driving effect

Germany's currently fairly favourable price competitiveness despite the relative rise in energy costs should therefore be interpreted in macroeconomic terms. The result certainly does not mean that, just because of the euro's depreciation against the US dollar, the rise in energy prices is unproblematic for all domestic sectors or firms. Rather, exchange rate movements by their very nature as macroeconomic variables affect different sectors or firms in different ways.

Finally, as described here, the depreciation of the euro against the US dollar should not be seen primarily as a response to the energy crisis itself. Instead, it is largely due to other circumstances, such as the relatively strong tightening of US monetary policy. If these circumstances prove to be temporary,²³ the exchange rate ef-

Euro depreciation may be temporary

¹⁹ This result is approximated by $(1/(2\frac{1}{4}\%)) * 14.6\% \approx 6.5$. If a broader group of 56 partner countries is considered, the US dollar would have a weight of just over 9%, which would result in a value of $(1/(2\frac{1}{4}\%)) * 9.4\% \approx 4.2$.

²⁰ In such a scenario, exporters can still benefit from a depreciation of the euro against the US dollar if exports are invoiced in US dollars. This is actually the case for many goods in global trade, even when the United States is not one of the two trading partners (see Gopinath (2015) and Gopinath and Itskhoki, (2021)). In such a case, exporters' profit margins would rise if viewed in isolation, provided intermediate goods and other cost components are not also invoiced in US dollars. If exporters subsequently lowered their prices, demand effects would also arise.

²¹ A demand effect results directly if exports are invoiced in euro and thus become cheaper for US importers. If export goods are invoiced in US dollars, exporters' profit margins increase, all other things being equal.

²² However, this does not necessarily apply to trade in natural gas, for which contracts are often invoiced in euro, at least in Europe.

²³ For example, the euro has already appreciated again against the US dollar since the period up to September considered in the calculation.

fect improving price competitiveness would also disappear in the future. This would then worsen Germany's price competitiveness if the sharp rise in energy costs compared with other countries were to also prove persistent at the same time. In this respect, therefore, it cannot be assumed that relative price shifts emanating from the energy market, which may be structural in nature, will always and permanently be absorbed by nominal exchange rate changes.

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Access to cash in Germany – results of a representative public survey

For the German public to be able to use cash, there needs to be a nationwide and cost-effective network of cash dispensers. At the end of 2021, the Bundesbank investigated the state of this coverage as part of a representative public survey. The analysis considers three questions. What is the outlay in terms of monetary cost, time and effort involved in withdrawing cash from an automated teller machine (ATM)? Does provision fall short when it comes to people from rural areas or vulnerable groups? And what is the relationship between the individual outlay associated with withdrawing cash and the use of cash as a means of payment? This provides insights into whether people in Germany are able to pay by cash or cashless means of payment according to their preferences or whether their choice is indirectly impaired by a lack of options for making cash withdrawals.

The empirical analysis shows that, at present, it is very easy for the German population to access cash. Overall, 94% of respondents say they need to exert little or very little effort to get to an ATM. The average time required per withdrawal is approximately nine minutes. Vulnerable groups report needing somewhat longer. However, they, too, consider the effort involved to be low. There is no evidence that rural areas specifically are undersupplied with cash.

A regression analysis does not reveal any statistically significant relationship between the individual outlay for withdrawing cash and payment behaviour. ATM coverage therefore appears to be good enough to allow consumers to pay in cash as and when they wish. In a hypothetical context, however, many respondents state that they would be increasingly inclined to move away from cash if provision were to deteriorate significantly. There would then be the danger of a downward spiral of reduced cash infrastructure and falling cash usage. Lower cash use entails rising cost pressures for private sector players in the cash cycle, such as cash-in-transit (CIT) companies and commercial banks. This could cause the existing cash infrastructure to be scaled back in the medium or long term, which in turn would adversely affect cash usage.

■ Introduction

Cash has advantages for the individual ...

Changing preferences and new developments in the payments space mean that more and more purchases are being paid for by card or smartphone instead of in cash. This trend was amplified by the COVID-19 pandemic. Nevertheless, cash remains a highly popular means of payment. According to a representative Bundesbank survey, 58% (2017: 74%) of day-to-day payments are still made using cash. The general public like that cash protects privacy, provides a clear overview of spending and means you can rely on the fact that the payment transaction has been properly settled.¹

... and is of social importance

Of at least equal importance with the benefits of cash for the individual is its meaning for society as a whole. As the only physical payment instrument, cash can be used without intermediaries. This means that it remains largely usable even in the event of local power outages or problems with technical infrastructure and it constitutes an important component of crisis preparedness. It should also be borne in mind that some population groups – especially children – are not easily able to utilise cashless means of payment and are reliant on cash.²

Nationwide and cost-effective provision are key to unrestricted cash use

This is why the Bundesbank and the Eurosystem as a whole advocate for freedom of choice between cash and cashless means of payment. The idea is for citizens to be able to decide for themselves whether to pay in cash or use a cashless option. For that to work, there needs to be an unrestricted and cost-effective supply of cash because – unlike in the case of cashless means of payment – cash is “used up” when a payment is made; the consumer always has to source fresh cash for the next time.³

Downward spiral: falling demand for cash can lead to erosion of cash infrastructure, and vice versa

The inherent risk of a cost-driven downward spiral makes it all the more important to maintain a good cash infrastructure. Alongside the Bundesbank, the business of supplying cash also involves commercial banks and CIT companies, and those stakeholders are subject to economic cost pressures. The provision of cash

is fixed-cost intensive, meaning that when cash use goes down, unit costs go up – as happened recently during the COVID-19 pandemic. This cost pressure could lead to a reduction in the cash infrastructure in place in the future. ATMs that are less frequently used could be taken out of operation as a result, for example. This could be the start of a downward spiral whereby a poorer supply of cash leads to lower use of cash, and vice versa. Those members of the public who wish to carry on using cash or who are reliant on it would be the first to bear the brunt of this. But since cash – as a physical means of payment – also constitutes an important component of crisis preparedness, risks for the security of society as a whole may ensue.⁴

With this in mind, the Eurosystem keeps a constant eye on developments with regard to the cash infrastructure and, in particular, the availability of ATMs. There are currently around 55,000 ATMs in Germany, which equates to roughly 70 ATMs per 100,000 inhabitants.⁵ That figure has remained broadly stable over the past ten years. This places Germany in the top quarter of European countries, fundamentally indicating a good state of provision. Alongside the number of ATMs, another factor that is of at least equal importance is how those machines are distributed. They should be present wherever they are needed and be available even in sparsely populated regions. One good way of measuring the extent to which this requirement is met is to look at the distance between the place of residence and the nearest ATM. According to the ECB, in most

Eurosystem uses geographical indicators to monitor developments in cash infrastructure

¹ For detailed information on current payment behaviour in Germany and what happened during the COVID-19 pandemic, see Deutsche Bundesbank (2022a).

² See https://www.ecb.europa.eu/euro/cash_strategy/cash_role/html/index.en.html

³ See https://www.ecb.europa.eu/euro/cash_strategy/html/index.en.html

⁴ For example, the Federal Office of Civil Protection and Disaster Assistance recommends that the public keep a sufficient reserve of cash at home in case of a power outage. See https://www.bbk.bund.de/EN/Prepare-for-disasters/Recommendations/Electric-power-breakdown/electric-power-breakdown_node.html

⁵ See Deutsche Bundesbank (2022b).

euro area countries, 95% of the population live no more than five kilometres from their nearest ATM, as the crow flies.⁶

days' worth of purchases together with the payment method that they used.

Survey data show actual outlay involved in withdrawing cash ...

This article fleshes out these geographical analyses for the euro area with findings from a public survey carried out in Germany. Using data from the Bundesbank's 2021 payment behaviour study, the analysis explores three questions. First, what is the outlay (in terms of time, monetary cost and effort) of withdrawing cash from an ATM? Second, does provision fall short with respect to people from rural areas or vulnerable groups – in other words, people who might be disadvantaged, for example, because of their social status? And, third, what is the relationship between the individual outlay associated with withdrawing cash and the use of cash as a means of payment?

The survey shows that cash is currently the most widely used means of payment in Germany, even if its use has declined sharply as a result of the COVID-19 pandemic. 58% of all day-to-day payments are settled in cash, which corresponds to 30% of expenditure in terms of value. In the 2017 survey, these shares stood at 74% and 48%, respectively. The move towards internet shopping and many retailers asking customers during the pandemic to refrain from paying in cash are the main reasons for this decline. Nonetheless, 69% of respondents consider it important to be able to continue using cash in the future.⁸

Cash has been used less frequently since COVID-19 pandemic, but is still popular

... and whether freedom to choose between cash and cashless means of payment could be impaired

The results can be used to ascertain how well the population in Germany is actually supplied with cash. They also enable inferences to be made as to whether citizens are able to freely choose between cash and cashless means of payment when making payments or whether proximity to the nearest ATM sometimes makes that decision for them.

This study drew on a sub-sample of 2,487 people who were asked additional questions about cash withdrawals in the telephone interviews. Information about the amount and frequency of withdrawals as well as the outlay involved is available for these respondents. Together with the records from the payment diaries, this provides a detailed overview of how people in Germany obtain cash and use it to make payments.

Survey contains information about payment and cash withdrawal behaviour

Data basis: the Bundesbank's 2021 payment behaviour study

Cash access points in Germany

Study series on payment behaviour in Germany

The following analysis is built on data from the "Payment behaviour in Germany" survey. These are studies undertaken by the Bundesbank every two to three years to examine how consumers in Germany pay and to find out what views and opinions exist as far as cash and other means of payment are concerned.⁷ The data are representative of the German-speaking population aged 18 and over. The survey period for 2021 ran from 8 September to 5 December. During this time, a total of 5,870 people were randomly selected and interviewed by telephone. In addition, 4,197 of these respondents completed a diary in which they recorded three

People who want to withdraw cash in Germany can choose from various options: ATMs, bank counters, and points of sale at retailers that offer cash withdrawals as part of a purchase or via a cash service provider ("cashback" or "cash-in-shop").

Consumers in Germany can obtain cash at ATMs, bank counters and points of sale

⁶ For an overview of the current state of provision in the Eurosystem, see, for example, European Central Bank (2022), Stix (2020), Banco de España (2021) and Banque de France (2021).

⁷ For more information on the "Payment behaviour in Germany" study series, see <https://www.bundesbank.de/en/publications/reports/studies/payment-behaviour-in-germany-738024>

⁸ See Deutsche Bundesbank (2022a).

ATMs the most frequently used source for obtaining cash ...

The table on this page outlines the relevance of the various withdrawal sources in Germany; the top section shows general usage while the bottom section focuses on intensity of use. 96% of respondents use ATMs for cash withdrawals, making 81% of their withdrawals there on average. These percentages have hardly changed since the last survey in 2017. This means that ATMs are still by far the most important source for withdrawing cash. By contrast, only 20% (2017: 38%) of respondents now go to a bank counter, where they withdraw on average 11% of the cash they need (2017: 14%). Withdrawals at the point of sale, on the other hand, have become more significant in recent years, with one in three people now making use of this service. Overall, respondents withdraw on average 8% of their cash this way.

... and especially important from a logistical point of view

Although a growing number of retailers now allow customers to make withdrawals at the point of sale, this type of cash supply is more of a complementary solution than a fully-fledged alternative to bank-operated ATMs. Withdrawal at the point of sale usually requires the customer to purchase goods at the shop offering the service and is only possible during the shop's opening hours.⁹ Moreover, the cash is not checked for authenticity by machine before it is paid out. Lastly, withdrawals at the point of sale are only available if the till contains cash

withdrawn from ATMs or bank counters by customers making cash payments over and above the amount the cashiers need to make change. This article therefore focuses in particular detail on access to the bank-based cash infrastructure, i.e. ATMs and bank counters. These cover most of the everyday need for cash and guarantee that cash can be supplied even if retailers experience technical disruptions or in the event of a crisis (see also the box on pp. 59 f.).

Outlay involved in withdrawing cash from ATMs and bank counters

How well can the general public access cash? To capture the outlay involved in making withdrawals from ATMs or bank counters, respondents were asked first to describe their usual route there and then to assess the effort required. This may depend, for example, on how long the journey is, what means of transport is used, whether the withdrawal can be combined with other errands and whether fees are charged for the withdrawal.

Outlay involved in obtaining cash has multiple components

The first aspect – the situations in which respondents withdraw cash and the means of transport they use when doing so – are summarised in the table on p. 61. Most people combine cash withdrawals with going shopping (47%) or to work (17%), meaning that the outlay is less of a factor. Only 15% leave home solely to get cash out. In total, when withdrawing cash, 58% of respondents travel by car, 21% on foot, 12% by bicycle and 8% by public transport. The most common scenario involves withdrawing cash while going shopping by car.¹⁰

Most people combine withdrawing cash with other activities

How much time does it take respondents to withdraw cash from an ATM or a bank coun-

Importance of different withdrawal sources*		
%		
Item	2017	2021
Share of users		
ATM	95	96
Bank counter	38	20
Point of sale	23	34
Average share of annual total withdrawals		
ATM	84	81
Bank counter	14	11
Point of sale	2	8

* Data based on the Bundesbank's 2017 and 2021 payment behaviour studies.
 Deutsche Bundesbank

⁹ Cash-in-shop withdrawals do not require any goods to be purchased. However, the person making the withdrawal has to sign an agreement with a cash service provider.

¹⁰ As these questions were only asked in the 2021 survey, a comparison cannot be made with previous years.

Increased demand for cash due to card reader disruptions

From the second half of May 2022, Germany experienced frequent disruptions to retail card payments due to a software error affecting a certain type of card payment terminal which is used by many large retail chains. The EHI Retail Institute estimates that around 10% of all terminals in Germany's retail sector were affected by the disruptions.¹ Until the problems were resolved, only cash payments were accepted at the businesses affected.

At the same time, the Bundesbank branches registered unusually large deposits and withdrawals of cash, indicating its increased use in the retail sector. In August, the Bundesbank conducted a public survey in order to shed more light on the causes of the increase in cash turnover and the effects of the disruptions. In the Bundesbank Online Panel – Households (BOP-HH), a representative monthly online survey of several thousand people, respondents reported the extent to which they were affected by the disruptions and what consequences this had for their personal behaviour.

As shown in the adjacent chart, 29% of respondents were personally affected by the disruptions. Moreover, 32% were not affected but had heard about them, whereas 39% were wholly unaware of the problems.

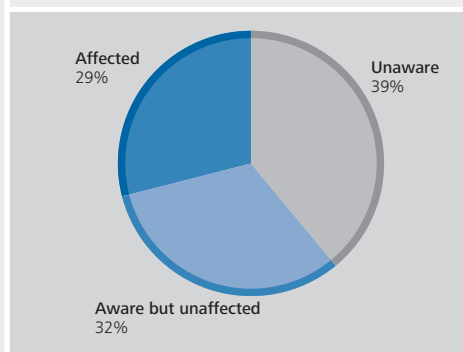
What did the disruption mean for respondents' shopping? Of those affected, 62% had enough cash on them and were able to continue shopping without any problems

(see the upper chart on p. 60). People who had insufficient cash bought less (13%), stopped shopping in order to get cash (15%), or stopped shopping altogether so they could pay by card later or elsewhere (11%).

The results show that the majority of those affected were able to continue shopping unhindered because they had sufficient cash in reserve. According to the Bundesbank's payment behaviour study, people in Germany carry an average of €100 in cash – a fairly high transaction balance compared with other European countries, which actually proved useful when the disruption occurred.²

What did consumers do as a consequence of the incidents, and do they carry more cash on them to be safe? Looking at the group of people who had heard about the disruptions and/or were affected by them, 18% reported carrying more cash in reserve, at least for a short period of time. While 11% always carry more cash, 71% have not made any change to their cash re-

Disruption to card terminals*



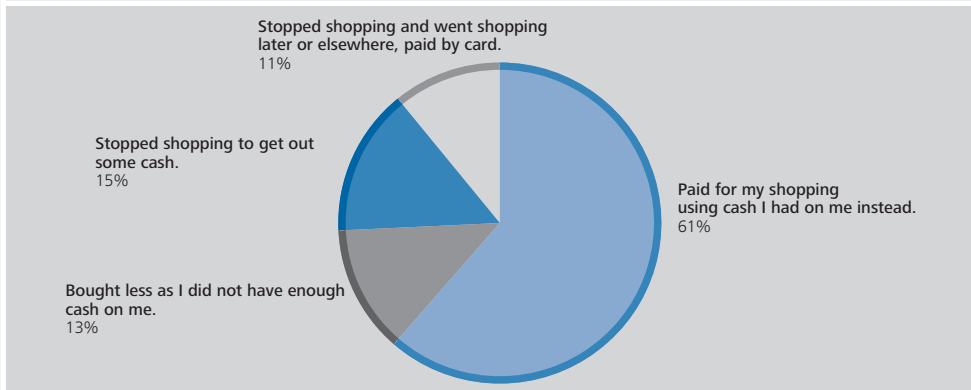
Source: Bundesbank Online Panel – Households (BOP-HH). Basis: all 8,996 respondents. * Questions: Were you aware of these disruptions? Were you affected by the disruptions when shopping?

Deutsche Bundesbank

¹ See the "Handelsblatt" article: <https://www.handelsblatt.com/unternehmen/handel-konsumgueter/stoerung-bei-bezahlterminals-finanzaufsicht-untersucht-probleme-bei-kartenzahlungen-/28383042.html>

² See Deutsche Bundesbank (2022a) and European Central Bank (2020).

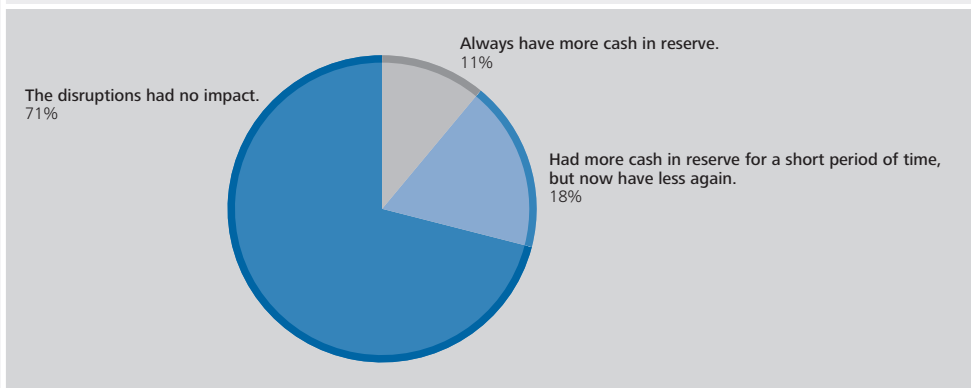
Impact of the card terminal disruption on shopping*



Source: Bundesbank Online Panel – Households (BOP-HH). Basis: 2,647 respondents who were affected by the disruptions to card terminals. * Question: How did the disruptions affect your shopping?

Deutsche Bundesbank

Impact of the card terminal disruption on cash reserves*



Source: Bundesbank Online Panel – Households (BOP-HH). Basis: 5,306 respondents who were aware of the disruptions to card terminals. * Question: Broadly speaking, how have the disruptions to card readers affected the way you use money?

Deutsche Bundesbank

serves because of the disruptions (see the lower chart on this page).

The analysis confirms increased demand for cash in connection with the disruptions to card terminals in Germany. Around 75% of those affected made their purchases in cash instead of using a card as planned. This underscores the importance of a nationwide, bank-operated cash infrastructure in the event of crisis or disruption. Without Germany's broad network of ATMs and bank branches, retailers and consumers would potentially have faced much greater problems.

Three-quarters of respondents need no more than ten minutes to withdraw cash from an ATM or bank counter

ter? Respondents were asked how much time the round trip or the detour took them, and how long it took to make the withdrawal itself. The chart below shows the average time taken and its distribution. On average, it takes respondents nine minutes to get cash. 55% of respondents need no more than five minutes, and 75% no longer than ten minutes. Only 1% need three-quarters of an hour or more.¹¹

Withdrawal fees are only rarely charged

Besides involving a logistical effort, withdrawals can be subject to fees. The top chart on p. 62 shows how often respondents have to pay charges when withdrawing cash. Overall, 82% of respondents report never or only rarely having to pay fees, while a total of 9% say they are charged fees more frequently and as many as 5% pay a fee for every withdrawal.¹²

Satisfaction with access to ATMs is high

The statistics presented so far suggest that the time and monetary outlay involved in withdrawing cash from ATMs or bank counters in Germany is low. But how do the respondents themselves assess their outlay? 94% say it is very or fairly easy to get to an ATM or bank counter (see the bottom chart on p. 62), while only 6% find it fairly or very difficult. In a survey conducted by the ECB in 2019 for the euro area as a whole, 9% of respondents reported that it was very difficult to access cash.¹³ The outlay in

How people get to an ATM or bank counter*

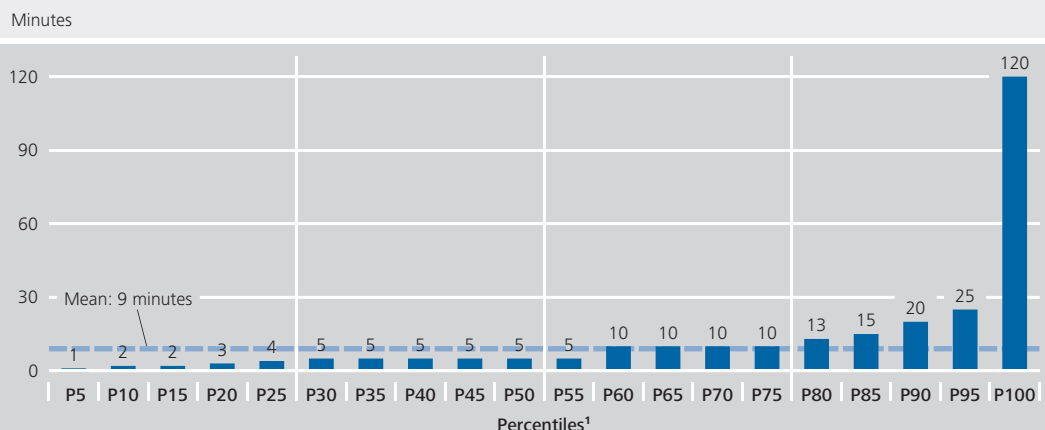
Route	Means of transport				Total
	Walk-ing	Bicycle	Car/ motor-bike	Public trans-port	
Shopping for day-to-day retail purchases	9	5	30	3	47
Journey to work	2	2	11	2	17
Shopping/ eating out/ going into town	2	1	3	1	8
Journey to the petrol station	0	0	1	0	1
Other business	3	2	6	1	12
Separate journey from home	7	2	6	1	15
Total	21	12	58	8	100

* Data based on the Bundesbank's 2021 payment behaviour study. Question: With which business do you combine the journey to an ATM/bank counter most frequently and which means of transport do you generally use?
 Deutsche Bundesbank

Germany, then, appears to be lower than the European average.

11 See footnote 10.
 12 See footnote 10 on p. 58.
 13 See European Central Bank (2020).

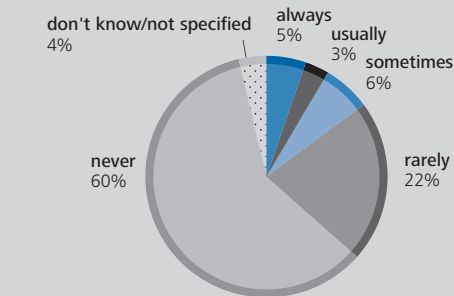
Time required to get cash at an ATM*



* Data based on the Bundesbank's 2021 payment behaviour study. Question: How long do you need in total for the detour to the ATM or bank counter as well as for the withdrawal itself? 1 For example, in the case of the 75th percentile (P75), 75% of respondents need a maximum time of 10 minutes to get cash at an ATM.
 Deutsche Bundesbank

Withdrawal fees*

When I withdraw cash from an ATM, I ...

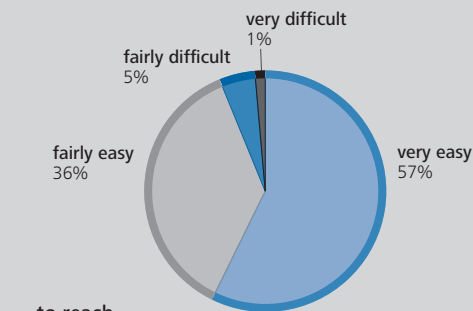


... pay fees.

* Data based on the Bundesbank's 2021 payment behaviour study. Question: Assume you want to withdraw cash from an ATM with your girocard (previously EC card) or other debit card. Which of the following statements applies to you?
 Deutsche Bundesbank

Ease of access to cash withdrawals*

The ATM/bank counter is ...



... to reach.

* Data based on the Bundesbank's 2021 payment behaviour study. Question: When you want to withdraw cash from an ATM or the bank, how easy or difficult do you usually find it to get there?
 Deutsche Bundesbank

Vulnerable people need longer to withdraw cash, but are equally satisfied

What is the provision of cash like for vulnerable groups of people in particular, i.e. people who might be socially disadvantaged owing to their health or social status? In the following, respondents' age and employment status are used as indicators to assign them to this group. A comparison shows that people over the age of 65, those who are unemployed and people unfit for work take on average 3.8 minutes longer to withdraw cash from ATMs than other people. Nevertheless, they consider the outlay involved to be similarly low. This could be because of a certain type of habituation effect as they may also be accustomed to facing challenges in other areas of their lives. By contrast,

they are charged fees somewhat less often, possibly because they make more specific efforts to avoid them and instead accept that they may have to make a longer journey to withdraw cash.

A comparison of the urban and rural population shows that it takes people living in rural regions roughly the same amount of time to withdraw cash from ATMs as people who live in a town or city. They, too, consider the outlay involved to be low. There is thus no evidence that rural areas specifically are undersupplied with cash.¹⁴ It is worth noting, however, that people in rural regions are more likely to travel by car when withdrawing cash, mostly in connection with other activities. As a result of poorer local amenities and transport infrastructure, people in rural regions have higher mobility costs overall. However, the additional outlay involved in withdrawing cash does not appear to be a factor in this.

People in rural regions are well supplied with cash, but are reliant on their cars

The relationship between the outlay involved in obtaining cash and withdrawal and payment behaviour

Findings collected from the interviews show that, on the whole, the outlay involved in withdrawing cash from ATMs is limited for most people in Germany. All the same, there are some who have further to travel to reach an ATM or who are charged withdrawal fees. Do these individuals adjust their withdrawal behaviour in response to this greater outlay? Or do they go so far as to reduce the amount of cash they use?

Hypotheses from the economic model

According to the classic economic model of Baumol (1952) and Tobin (1956), an increased

¹⁴ A similar study conducted by the Bundesbank in 2017 came to the same conclusion. See Deutsche Bundesbank (2020).

outlay per withdrawal (time involved or in the form of fees) lowers withdrawal frequency. Consequently, individuals may choose, for example, to regularly withdraw larger amounts, hold cash in reserve or additionally withdraw cash at the point of sale. But it is also conceivable that they would reduce their demand for cash and (by necessity) use cashless means of payment more frequently. In this case, using cash as a means of payment would be restricted by the high outlay involved in obtaining it.

Linear regression to estimate relationship between withdrawal and payment behaviour, on the one hand, and outlay involved in obtaining cash, on the other

To find answers to these questions, various linear regression models are estimated below in which respondents' withdrawal and payment behaviour (dependent variable) is attributed to the outlay involved in obtaining cash (explanatory variable).¹⁵ The dependent variables used to describe withdrawal behaviour are (i) the number of ATM withdrawals per year, (ii) whether a person withdraws cash to keep in reserve and (iii) withdrawals at the point of sale as a share of total annual withdrawals. Dependent variables describing payment behaviour are (iv) the share of cash payments made at shops measured by the number of transactions and (v) by the value of the transactions. Explanatory variables that reflect the outlay involved in obtaining cash are the time involved in making withdrawals and whether a person often pays fees when withdrawing cash. In addition, the models contain numerous socio-demographic control variables. The models describing withdrawal behaviour ((i) to (iii)) also contain the sum withdrawn annually at ATMs, the point of sale and bank counters. In other words, they analyse how individuals adjust their withdrawal behaviour for each type of cash use.

Description of withdrawal and payment behaviour

Descriptive statistics on the variables used can be found in the adjacent table. Looking at withdrawal behaviour, the statistics show that respondents visit ATMs an average of 31 times a year. 43% withdraw cash to keep it in reserve. In addition, 8% of respondents' total withdrawals are made at the point of sale. Looking at payment behaviour, the statistics show that respondents make an average of

Descriptive statistics*

Estimation variables	Mean	Standard deviation
Dependent variables		
(i) Number of withdrawals per year	31	28
(ii) Withdrawal to keep in reserve (0/1)	0.43	.
(iii) Share of withdrawals at the point of sale	0.08	0.17
(iv) Share of cash payments measured by number of transactions ¹	0.59	0.36
(v) Share of cash payments measured by turnover ¹	0.48	0.41
Explanatory variables		
Time required per withdrawal (in minutes)	9	8
Withdrawal fees (0/1)	0.08	.
Age (in years)	52	18
Male (0/1)	0.48	.
German citizenship (0/1)	0.96	.
Senior school-leaving certificate (0/1)	0.30	.
Equivalent net income in euro	1,804	943
Residential area (0/1)		
Rural	0.22	.
Suburban	0.35	.
Urban	0.43	.
Vulnerable group (0/1)	0.32	.
Financial problems (0/1)	0.15	.
Sum withdrawn annually in euro	6,947	7,802
Number of observations	2,487	
* Data based on the Bundesbank's 2021 payment behaviour study. ¹ Number of observations: 1,737. Deutsche Bundesbank		

59% of their shop purchases in cash, which corresponds to 48% of their expenditure.¹⁶

The results of the regressions (coefficients and standard errors) can be found in the above table. Columns (i) to (iii) show how withdrawal behaviour and the outlay involved in obtaining

¹⁵ For general information on the linear regression model, see, for example, Wooldridge (2010).

¹⁶ The respondents' average cash payment shares provided here denote the average expenditure shares covered by individual respondents using cash. They should not be equated with cash payment shares in the German economy, which refer to cash transactions as a percentage of total transactions (currently 58% in terms of the number of transactions and 30% in terms of turnover; see Deutsche Bundesbank (2022a)).

Regression results for withdrawal and payment behaviour⁹

Explanatory variables	Number of withdrawals per year (i)	Withdrawal to keep in reserve (0/1) (ii)	Share of withdrawals at the point of sale (iii)	Share of cash payments measured by number of transactions (iv)	Share of cash payments measured by turnover (v)
Time required per withdrawal	- 0.1879* (0.0503)	0.0026* (0.0010)	0.0015* (0.0005)	0.0005 (0.0009)	0.0006 (0.0011)
Withdrawal fees	- 3.8342* (1.6005)	0.0526 (0.0361)	- 0.0016 (0.0138)	0.0441 (0.0334)	0.0664 (0.0391)
Age	- 0.1599* (0.0433)	0.0047* (0.0008)	0.0001 (0.0002)	0.0050* (0.0007)	0.0044* (0.0007)
Male	2.4155* (0.9104)	- 0.0502* (0.0187)	- 0.0402* (0.0071)	- 0.0028 (0.0165)	0.0006 (0.0191)
German citizenship	0.0157 (2.6110)	0.0392 (0.0580)	- 0.0091 (0.0235)	0.0431 (0.0546)	0.0089 (0.0601)
Senior school-leaving certificate	- 1.7529 (0.9644)	- 0.0549* (0.0204)	0.0147 (0.0077)	- 0.0624* (0.0179)	- 0.0685* (0.0206)
Equivalised net income (in euro thousands)	- 1.1039* (0.4106)	- 0.0355* (0.0094)	0.0060 (0.0038)	- 0.0390* (0.089)	- 0.0352* (0.0099)
Residential area					
Rural	Ref.	Ref.	Ref.	Ref.	Ref.
Suburban	- 1.0072 (1.2636)	- 0.0073 (0.0257)	0.0065 (0.0090)	- 0.0280 (0.0229)	- 0.0295 (0.0271)
Urban	0.2994 (1.2868)	0.0073 (0.0251)	0.0233* (0.0094)	- 0.0748* (0.0222)	- 0.0667* (0.0261)
Vulnerable group	- 2.5228 (1.4128)	0.1221* (0.0290)	- 0.0384* (0.0105)	- 0.0331 (0.0250)	- 0.0007 (0.0293)
Financial problems	5.2216* (1.7189)	- 0.0610* (0.0299)	0.0003 (0.0118)	0.0381 (0.0281)	0.0631 (0.0329)
Sum withdrawn annually (in euro thousands)	1.3441* (0.1271)	0.0116* (0.0017)	0.0000 (0.0004)	-	-
Constant	31.4545* (3.4848)	0.1269 (0.0724)	0.0813* (0.0273)	0.4085* (0.0682)	0.3375* (0.0760)
Number of observations	2,487	2,487	2,487	1,737	1,737
R-squared (adjusted)	0.17	0.15	0.03	0.09	0.07

⁹ Note: The table shows the estimated coefficients of various linear regressions (ordinary least squares) and their robust standard errors in parentheses. Data based on the Bundesbank's 2021 payment behaviour study. * denotes statistical significance at the 5% level. Regression unweighted.

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Regression results: if ATM withdrawals involve a higher outlay, larger amounts are withdrawn to keep in reserve and use is instead made of cashback services, ...

cash are related, while columns (iv) and (v) concern payment behaviour. Statistically significant correlations can be seen with regard to withdrawal behaviour (columns (i) to (iii)). For example, if respondents need five minutes longer to make an ATM withdrawal, they make on average one less trip to the ATM a year (and instead withdraw larger amounts). Furthermore, the probability of cash being kept in reserve after it is withdrawn increases by somewhat more than 1 percentage point, while the share of cash withdrawn at the point of sale goes up by 0.75 percentage point.¹⁷ Individuals who are at least occasionally affected by fees make an average of four fewer withdrawals per year

(and instead withdraw larger amounts). However, fees do not appear to affect whether cash is kept in reserve after it is withdrawn or whether withdrawals are made at the point of sale. Overall, the regression results for withdrawal behaviour are consistent with the economic model.¹⁸

¹⁷ In a complementary analysis, a number of interaction terms were used to determine whether the means of transport used by respondents plays a role when it comes to the time it takes to travel to an ATM. This was not the case.

¹⁸ As a robustness check, in a further estimation of model (i), the share of withdrawals at the point of sale was included as an explanatory variable. This variable can be seen as an additional proxy for payment method preference. The inclusion had hardly any effect on the coefficients of the outlay variables.

... but payment behaviour remains the same

By contrast, looking at payment behaviour (columns (iv) and (v)) reveals no statistically significant correlations with the individual outlay involved in obtaining cash. In the estimated models, the amount of cash used by respondents cannot be explained by the cost of withdrawing it. The regression therefore does not give any indication that cash use might currently be restricted by an excessive outlay involved in obtaining it.

Alternative analysis using hypothetical scenarios

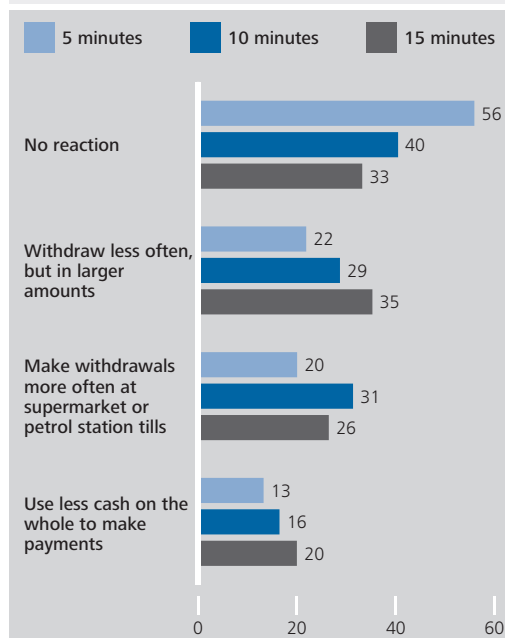
In addition to the regression analysis, the empirical relationship between the outlay involved in obtaining cash and withdrawal and payment behaviour can also be approached using hypothetical scenarios. To this end, survey participants were asked the following question: "Assume it took 5 (or 10 or 15) minutes longer than it does now to reach the nearest ATM or bank counter belonging to your bank or savings bank. What would you probably do in this case?" The responses are shown in the adjacent chart.

If options for withdrawing cash worsened, respondents would adjust their withdrawal and payment behaviour

Five extra minutes to reach an ATM would have no impact on 56% of respondents. Still, 42% would adjust their withdrawal behaviour by withdrawing less frequently at ATMs, instead withdrawing larger amounts (22%) and/or withdrawing cash at the point of sale (20%). 13% would even (additionally) change their payment behaviour and use less cash. As the amount of time to reach an ATM increases (10 or 15 extra minutes), even more respondents lean towards adjusting their behaviour. At 15 minutes, only one-third of respondents would withdraw cash and use it to make payments as before. Overall, 61% would adjust their withdrawal strategy and 20% would use less cash. So if the number of ATMs were reduced, many consumers would adjust not only their withdrawal behaviour but also their payment behaviour. These individuals would then be limited in their freedom to choose between cash and cashless means of payment.

Reaction if the distance to the nearest ATM or bank counter increases*

%, multiple responses allowed



* Data based on the Bundesbank's 2021 payment behaviour study. Question: Assume it took 5/10/15 minutes longer to reach the nearest ATM or bank counter belonging to your bank or savings bank. What would you probably do in this case?

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Conclusion

Empirical analysis of data from the 2021 payment behaviour study shows that the general public in Germany still has very good access to cash. Overall, 94% of respondents estimate that the outlay involved in making withdrawals at ATMs is either low or very low. The average time required per withdrawal is approximately nine minutes. Vulnerable groups report needing somewhat longer. However, they, too, consider the effort involved to be low. There is no evidence that rural areas specifically are under-supplied with cash.

A regression analysis of the data shows statistically significant correlations between the outlay involved in withdrawals and withdrawal behaviour. The results suggest that those who are currently faced with a higher outlay adjust their withdrawal behaviour in an economically rational manner by withdrawing higher amounts

of cash at ATMs that they then keep in reserve or by withdrawing additional cash at the point of sale. However, the regression does not show any statistically significant correlations between the outlay involved in withdrawals and the use of cash as a means of payment. At the moment, access to cash can be interpreted in such a way that consumers are largely free to choose whether or not to use cash at the point of sale. In other words, the Eurosystem's objective of ensuring the freedom of choice between cash and cashless means of payment does not appear to be impaired at present.

In a hypothetical context, however, many respondents state that they would be increas-

ingly inclined to move away from cash if the supply of cash were to deteriorate significantly. In this scenario, they would be limited in their choice of means of payment. Furthermore, this risks setting in motion a cost-driven downward spiral: if cash usage were to fall, cost pressures would rise for private sector stakeholders in the cash cycle, such as CIT companies and commercial banks. This could cause the existing cash infrastructure to be further scaled back in the medium or long term, which in turn would adversely affect cash usage. In order to prevent such a turn of events in the Eurosystem, it is important to continue statistically recording and evaluating the use and availability of cash.

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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 5,7	3 month EURIBOR 6,7	Yield on European government bonds outstanding 8
				3-month moving average (centred)						
	Annual percentage change							% p.a. as a monthly average		
2021 Mar.	13.6	10.2	10.0	10.6	8.6	4.0	-0.3	-0.56	-0.54	0.0
Apr.	12.4	9.2	9.4	9.4	7.3	3.4	-0.3	-0.57	-0.54	0.1
May	11.7	8.4	8.6	8.8	6.3	2.9	-1.0	-0.56	-0.54	0.2
June	11.7	8.3	8.4	8.3	6.0	3.3	-0.6	-0.56	-0.54	0.2
July	11.0	7.7	7.8	8.1	5.8	3.1	-0.5	-0.57	-0.55	0.0
Aug.	11.1	7.8	8.0	7.8	5.5	2.8	-0.8	-0.57	-0.55	-0.1
Sep.	11.1	7.6	7.6	7.8	5.6	3.3	-0.7	-0.57	-0.55	0.1
Oct.	10.7	7.5	7.7	7.5	5.6	3.6	-0.3	-0.57	-0.55	0.2
Nov.	10.1	7.1	7.4	7.3	5.8	3.7	-0.5	-0.57	-0.57	0.2
Dec.	9.8	6.9	6.9	6.9	6.1	3.9	-0.5	-0.58	-0.58	0.1
2022 Jan.	9.1	6.8	6.5	6.6	6.2	4.3	-0.3	-0.58	-0.56	0.4
Feb.	9.1	6.7	6.4	6.4	6.2	4.4	-0.6	-0.58	-0.53	0.8
Mar.	8.8	6.6	6.3	6.2	6.1	4.4	-0.7	-0.58	-0.50	0.9
Apr.	8.2	6.3	6.1	6.1	6.4	5.0	-0.1	-0.58	-0.45	1.4
May	7.9	6.1	5.8	5.9	6.2	5.1	0.0	-0.59	-0.39	1.7
June	7.2	5.9	5.8	5.8	6.3	5.4	-0.0	-0.58	-0.24	2.2
July	6.8	5.9	5.7	5.9	5.9	5.4	-0.1	-0.51	0.04	1.9
Aug.	6.8	6.3	6.1	6.0	5.7	5.7	-0.1	-0.09	0.40	1.8
Sep.	5.6	6.2	6.3	5.8	5.5	5.7	-0.1	0.36	1.01	2.6
Oct.	3.8	5.2	5.1	...	5.1	5.3	-0.4	0.66	1.43	3.0
Nov.	...	...	...	...	...	...	...	1.37	1.83	2.7

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 Euro interbank offered rate. 7 See also footnotes to Table VI.4, p. 43*. 8 GDP-weighted yield on ten-year government bonds. Countries included: DE, FR, NL, BE, AT, FI, IE, PT, ES, IT, GR, SK, CY, SI.

2. External transactions and positions *

Period	Selected items of the euro area balance of payments								Euro exchange rates 1		
	Current account		Financial account						Dollar rate	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 Mar.	+ 40,387	+ 37,836	+ 22,098	+ 28,899	- 50,962	- 4,926	+ 49,572	- 486	1.1899	100.3	94.1
Apr.	+ 35,687	+ 29,397	+ 11,050	+ 4,306	+ 31,029	+ 6,654	- 31,533	+ 593	1.1979	100.6	94.3
May	+ 11,656	+ 26,793	+ 32,263	+ 5,619	+ 79,738	- 7,115	- 47,302	+ 1,323	1.2146	100.8	94.3
June	+ 30,931	+ 31,425	+ 67,135	- 11,569	+ 44,284	- 2,680	+ 31,903	+ 5,198	1.2047	100.2	93.8
July	+ 36,184	+ 34,231	+ 27,732	+ 46,148	- 8,774	+ 18,412	- 27,716	- 337	1.1822	99.7	93.5
Aug.	+ 20,457	+ 17,145	+ 32,837	+ 61,459	+ 12,932	+ 2,203	- 165,839	+ 122,082	1.1772	99.3	93.1
Sep.	+ 33,115	+ 22,271	+ 14,945	+ 13,409	+ 14,477	+ 2,664	- 17,009	+ 1,404	1.1770	99.4	93.2
Oct.	+ 6,514	+ 12,934	+ 17,186	+ 28,579	+ 20,476	+ 13,355	- 48,393	+ 3,170	1.1601	98.4	92.3
Nov.	+ 13,803	+ 14,913	- 2,546	+ 4,881	+ 56,566	+ 25,649	- 90,183	+ 540	1.1414	97.6	91.7
Dec.	+ 21,920	+ 9,977	+ 15,028	+ 25,582	+ 5,571	+ 1,183	- 16,486	- 822	1.1304	97.1	91.2
2022 Jan.	- 9,342	- 9,912	+ 14,199	- 10,398	+ 78,022	+ 3,628	- 54,733	- 2,320	1.1314	96.6	91.2
Feb.	+ 54	+ 4,160	- 71	+ 26,941	- 27,411	- 2,766	+ 1,638	+ 1,527	1.1342	96.9	91.6
Mar.	+ 5,578	+ 4,261	- 19,406	+ 5,909	- 101,539	- 2,948	+ 79,267	- 95	1.1019	95.9	91.3
Apr.	- 15,110	- 12,537	- 50,031	- 5,404	+ 26,931	+ 32,911	- 103,831	- 639	1.0819	95.2	90.0
May	- 32,004	- 6,230	+ 46,326	+ 101,495	+ 21,400	+ 1,081	- 78,863	+ 1,213	1.0579	95.6	90.3
June	- 5,111	- 6,740	+ 22,637	+ 5,148	- 66,199	- 10,044	+ 91,987	+ 1,745	1.0566	95.9	90.5
July	- 9,411	- 11,807	+ 22,113	- 6,627	+ 39,878	- 1,139	- 11,638	+ 1,639	1.0179	94.1	89.1
Aug.	- 20,823	- 25,770	+ 12,160	+ 16,702	- 84,411	+ 10,705	+ 67,000	+ 2,163	1.0128	93.6	88.7
Sep.	+ 3,807	- 9,254	- 22,398	+ 72,736	- 114,356	+ 22,629	- 7,005	+ 3,599	0.9904	94.2	p 89.7
Oct.	...	...	...	...	...	...	...	...	0.9826	94.8	p 91.0
Nov.	...	...	...	...	...	...	...	...	1.0201	95.9	p 92.4

* Source: ECB, according to the international standards of the International Monetary Fund's Balance of Payments Manual (sixth edition). 1 Monthly averages, see also Tables XII.10 and 11, pp. 82*/ 83*. 2 Including employee stock options. 3 Bundesbank

calculation. Against the currencies of the EER-19 group. 4 Based on consumer price indices.

I. Key economic data for the euro area

3. General economic indicators

Period	Euro area	Belgium	Germany	Estonia	Finland	France	Greece	Ireland	Italy	Latvia
Real gross domestic product ¹										
Annual percentage change										
2019	1.6	2.2	1.1	3.7	1.2	1.8	1.9	5.4	0.5	2.6
2020	- 6.1	- 5.4	- 3.7	- 0.6	- 2.2	- 7.8	- 9.0	6.2	- 9.0	- 2.2
2021	5.3	6.1	2.6	8.0	3.0	6.8	8.4	13.6	6.7	4.1
2021 Q2	14.2	14.4	10.6	13.9	7.5	19.0	14.3	19.5	17.1	9.9
Q3	3.9	4.8	1.8	8.4	3.1	3.7	12.4	10.4	4.5	4.5
Q4	4.8	6.1	1.2	7.4	3.0	4.8	8.2	13.8	5.9	2.7
2022 Q1	5.5	5.2	3.9	4.5	3.7	4.9	9.3	11.8	6.1	5.6
Q2	4.2	4.0	1.7	0.4	2.7	4.2	7.5	12.4	4.7	2.9
Q3	2.3	1.9	1.2	- 2.4	1.0	1.0	2.1	10.9	2.4	- 0.5
Industrial production ²										
Annual percentage change										
2019	- 0.7	4.8	- 3.2	7.1	1.6	0.5	- 0.7	7.0	- 1.1	0.8
2020	- 7.7	- 3.8	- 9.6	- 2.8	- 3.2	- 10.9	- 2.1	14.5	- 11.5	- 1.8
2021	8.0	16.8	4.7	6.8	4.1	5.9	10.4	16.4	12.2	6.5
2021 Q2	23.6	29.8	20.3	15.1	4.3	22.3	15.5	33.2	32.6	12.6
Q3	5.9	19.4	2.5	7.2	4.5	2.6	9.9	27.6	4.9	6.3
Q4	0.2	11.2	- 1.2	5.6	7.4	- 0.4	11.9	- 18.2	4.6	3.5
2022 Q1	- 0.3	6.4	- 1.2	4.1	3.4	0.1	4.9	- 15.0	1.4	4.0
Q2	0.4	- 5.1	- 1.3	2.9	6.9	0.1	3.1	- 7.3	2.0	3.6
Q3	1.7	- 3.6	p 1.8	- 4.7	3.1	0.4	3.7	4.0	0.0	- 2.6
Capacity utilisation in industry ³										
As a percentage of full capacity										
2020	74.5	75.5	77.3	67.6	76.9	73.8	71.0	68.8	53.4	72.0
2021	81.4	80.1	84.8	78.1	81.2	81.1	75.6	78.2	76.5	75.3
2022	82.2	79.1	85.2	71.7	80.9	81.7	75.9	80.0	78.4	75.0
2021 Q3	83.0	80.8	86.1	77.7	81.5	82.9	77.9	80.8	77.5	75.5
Q4	82.7	81.2	85.8	83.5	82.7	82.0	77.3	81.7	77.8	76.7
2022 Q1	82.4	80.0	85.9	72.6	81.9	82.7	76.8	78.9	78.6	75.5
Q2	82.5	80.1	85.1	70.4	80.2	82.2	76.6	82.6	78.5	75.6
Q3	82.3	78.9	85.0	74.3	80.8	81.7	74.6	79.7	78.5	75.7
Q4	81.4	77.2	84.9	69.5	80.8	80.3	75.5	78.7	77.9	73.3
Standardised unemployment rate ⁴										
As a percentage of civilian labour force										
2019	7.5	5.4	3.0	4.5	6.7	8.2	17.3	5.0	10.0	6.3
2020	7.8	5.6	3.6	7.0	7.8	7.8	16.3	5.6	9.2	8.1
2021	e 7.7	e 6.3	e 3.6	e 6.2	e 7.7	e 7.9	e 14.8	e 6.3	e 9.5	e 7.6
2022 June	6.7	5.8	3.0	6.0	6.8	7.6	12.5	4.2	8.0	6.6
July	6.6	5.5	3.0	5.9	7.2	7.3	12.4	4.3	7.9	6.9
Aug.	6.7	5.4	3.0	5.6	7.3	7.2	12.3	4.4	7.9	7.0
Sep.	6.6	5.4	3.0	5.2	7.3	7.1	12.0	4.4	7.9	7.1
Oct.	6.5	5.4	3.0	5.2	6.4	7.1	11.6	4.5	7.8	7.1
Nov.	...	...	...	...	...	...	...	4.4	...	...
Harmonised Index of Consumer Prices										
Annual percentage change										
2019	1.2	1.2	1.4	2.3	1.1	1.3	0.5	0.9	0.6	2.7
2020	0.3	0.4	5 0.4	- 0.6	0.4	0.5	- 1.3	- 0.5	- 0.1	0.1
2021	2.6	3.2	5 3.2	4.5	2.1	2.1	0.6	2.4	1.9	3.2
2022 June	8.6	10.5	8.2	22.0	8.1	6.5	11.6	9.6	8.5	19.2
July	8.9	10.4	8.5	23.2	8.0	6.8	11.3	9.6	8.4	21.3
Aug.	9.1	10.5	8.8	25.2	7.9	6.6	11.2	9.0	9.1	21.4
Sep.	9.9	12.1	10.9	24.1	8.4	6.2	12.1	8.6	9.4	22.0
Oct.	10.6	13.1	11.6	22.5	8.4	7.1	9.5	9.4	12.6	21.7
Nov.	e 10.0	10.5	11.3	e 21.4	9.1	e 7.1	8.8	9.0	e 12.5	21.7
General government financial balance ⁶										
As a percentage of GDP										
2019	- 0.6	- 1.9	1.5	0.1	- 0.9	- 3.1	1.1	0.5	- 1.5	- 0.6
2020	- 7.0	- 9.0	- 4.3	- 5.5	- 5.5	- 9.0	- 9.9	- 5.0	- 9.5	- 4.3
2021	- 5.1	- 5.6	- 3.7	- 2.4	- 2.7	- 6.5	- 7.5	- 1.7	- 7.2	- 7.0
General government debt ⁶										
As a percentage of GDP										
2019	83.9	97.6	58.9	8.5	64.9	97.4	180.6	57.0	134.1	36.5
2020	97.0	112.0	68.0	18.5	74.8	115.0	206.3	58.4	154.9	42.0
2021	95.4	109.2	68.6	17.6	72.4	112.8	194.5	55.4	150.3	43.6

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
Real gross domestic product ¹										
Annual percentage change										
4.6	2.3	7.0	2.0	1.5	2.7	2.5	3.5	2.0	5.5	2019
- 0.0	- 0.8	- 8.6	- 3.9	- 6.5	- 8.3	- 3.4	- 4.3	- 11.3	- 4.4	2020
6.0	5.1	11.7	4.9	4.6	5.5	3.0	8.2	5.5	6.6	2021
9.1	10.6	17.1	10.2	13.0	16.3	9.9	16.2	17.9	12.1	2021 Q2
5.6	2.0	15.8	5.4	5.4	5.3	1.4	5.1	4.2	8.2	Q3
6.5	4.0	13.4	6.2	6.0	6.7	1.3	10.5	6.6	6.9	Q4
4.8	3.0	8.3	6.7	9.2	11.3	2.9	9.7	6.8	6.7	2022 Q1
1.7	1.6	9.4	5.2	6.1	7.8	1.3	8.3	6.7	5.9	Q2
2.0	2.9	5.2	3.1	1.7	4.8	1.4	3.4	4.2	5.5	Q3
Industrial production ²										
Annual percentage change										
2.9	- 3.2	1.1	- 0.9	- 0.0	- 2.2	0.5	- 2.8	0.5	4.4	2019
- 1.7	- 10.8	- 0.3	- 3.9	- 5.9	- 7.3	- 9.1	- 6.4	- 9.8	- 7.3	2020
20.0	8.4	- 0.2	5.0	11.2	3.5	10.4	10.0	7.5	6.4	2021
25.0	24.0	14.3	10.0	24.2	24.3	35.9	24.3	27.2	21.2	2021 Q2
17.8	3.6	- 0.0	6.8	9.1	- 3.8	0.9	6.3	1.9	4.5	Q3
23.9	3.0	- 5.4	4.4	10.3	- 1.7	4.0	7.6	1.8	1.0	Q4
23.5	0.2	- 2.0	1.9	11.2	- 2.9	- 1.7	5.0	1.7	3.3	2022 Q1
8.8	- 1.7	- 5.5	4.8	10.0	2.0	- 4.8	2.7	5.2	3.1	Q2
9.4	- 0.1	10.1	2.2	6.5	1.3	- 3.4	3.1	4.6	0.5	Q3
Capacity utilisation in industry ³										
As a percentage of full capacity										
73.0	72.5	70.7	78.3	79.5	74.9	79.5	78.5	74.4	51.5	2020
76.7	82.0	76.8	82.4	87.1	79.2	82.2	84.5	77.8	51.3	2021
77.7	80.8	64.7	83.7	87.7	81.9	83.3	85.0	78.7	58.3	2022
77.4	83.7	78.4	83.8	89.5	78.9	81.9	85.9	77.5	50.3	2021 Q3
78.6	81.8	75.2	83.7	88.6	80.2	82.1	85.3	79.2	55.4	Q4
78.0	81.9	62.9	84.0	88.4	81.8	82.8	86.1	78.8	55.4	2022 Q1
77.5	79.9	64.6	84.3	88.9	82.5	83.9	85.2	80.0	58.3	Q2
78.4	81.4	67.6	83.9	87.8	81.6	83.5	84.6	78.9	58.4	Q3
76.9	79.8	63.6	82.6	85.6	81.6	83.0	84.1	77.2	60.9	Q4
Standardised unemployment rate ⁴										
As a percentage of civilian labour force										
6.3	5.6	3.6	3.4	4.5	6.5	5.8	4.5	14.1	7.1	2019
8.6	6.8	4.4	3.9	5.4	6.9	6.7	5.0	15.5	7.6	2020
7.1	5.4	3.4	4.2	6.2	6.6	6.9	4.8	14.8	7.5	2021
5.4	4.3	2.9	3.4	4.2	6.0	6.1	4.4	12.6	7.4	2022 June
5.8	4.3	2.9	3.6	4.6	6.0	6.1	4.1	12.6	8.0	July
5.9	4.4	2.9	3.8	5.2	6.0	6.0	4.0	12.6	8.4	Aug.
6.0	4.5	3.0	3.8	5.1	6.1	6.0	4.0	12.7	8.1	Sep.
6.1	4.6	3.1	3.7	4.6	6.1	5.9	4.1	12.5	8.0	Oct.
...	...	...	...	...	...	...	...	...	...	Nov.
Harmonised Index of Consumer Prices										
Annual percentage change										
2.2	1.6	1.5	2.7	1.5	0.3	2.8	1.7	0.8	0.5	2019
1.1	0.0	0.8	1.1	1.4	- 0.1	2.0	- 0.3	- 0.3	- 1.1	2020
4.6	3.5	0.7	2.8	2.8	0.9	2.8	2.0	3.0	2.3	2021
20.5	10.3	6.1	9.9	8.7	9.0	12.6	10.8	10.0	9.0	2022 June
20.9	9.3	6.8	11.6	9.4	9.4	12.8	11.7	10.7	10.6	July
21.1	8.6	7.0	13.7	9.3	9.3	13.4	11.5	10.5	9.6	Aug.
22.5	8.8	7.4	17.1	11.0	9.8	13.6	10.6	9.0	9.0	Sep.
22.1	8.8	7.4	16.8	11.5	10.6	14.5	10.3	7.3	8.6	Oct.
21.4	e 7.3	7.2	11.3	e 11.1	e 10.3	e 15.1	10.8	6.7	8.1	Nov.
General government financial balance ⁶										
As a percentage of GDP										
0.5	2.2	0.6	1.8	0.6	0.1	- 1.2	0.6	- 3.1	1.3	2019
- 7.0	- 3.4	- 9.4	- 3.7	- 8.0	- 5.8	- 5.4	- 7.7	- 10.1	- 5.8	2020
- 1.0	0.8	- 7.8	- 2.6	- 5.9	- 2.9	- 5.5	- 4.7	- 6.9	- 1.7	2021
General government debt ⁶										
As a percentage of GDP										
35.8	22.4	40.7	48.5	70.6	116.6	48.0	65.4	98.2	90.4	2019
46.3	24.5	53.3	54.7	82.9	134.9	58.9	79.6	120.4	113.5	2020
43.7	24.5	56.3	52.4	82.3	125.5	62.2	74.5	118.3	101.0	2021

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 According to Maastricht Treaty definition.

II. Overall monetary survey in the euro area

1. The money stock and its counterparts *

a) Euro area ¹

€ billion

Period	I. Lending to non-banks (non-MFIs) in the euro area					II. Net claims on non-euro area residents			III. Monetary capital formation at monetary financial institutions (MFIs) in the euro area				
	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) ²	Capital and reserves ³
		Total	of which: Securities	Total	of which: Securities								
2021 Mar.	176.0	100.7	8.5	75.3	74.0	- 5.9	- 6.7	- 0.7	12.2	- 9.0	- 0.3	1.2	20.3
Apr.	55.9	13.3	8.6	42.6	29.0	- 11.4	104.5	115.9	- 36.9	- 23.9	- 0.1	- 7.5	- 5.4
May	124.9	48.3	15.2	76.6	77.6	2.6	24.5	21.8	- 23.5	- 1.2	- 0.2	- 15.1	- 6.9
June	94.5	37.2	0.8	57.3	58.6	9.2	- 74.4	- 83.7	26.8	- 6.1	- 0.4	- 4.2	37.6
July	112.9	56.0	8.1	56.8	50.3	- 4.2	74.3	78.6	3.1	- 4.7	- 0.6	9.3	- 0.8
Aug.	35.0	- 16.7	- 7.8	51.7	60.9	- 4.7	141.2	146.0	- 5.9	- 7.3	- 0.4	- 7.0	8.9
Sep.	107.4	72.9	3.6	34.5	43.2	- 40.1	- 58.2	- 18.1	16.6	- 4.5	- 0.4	8.3	13.2
Oct.	80.7	68.3	21.4	12.3	18.5	- 7.6	194.4	202.0	11.4	- 10.7	- 0.7	16.8	6.0
Nov.	156.1	89.3	- 3.6	66.8	67.5	- 26.5	15.0	41.5	- 7.0	- 10.6	- 0.7	1.8	2.5
Dec.	53.0	27.8	20.3	25.2	22.7	- 56.5	- 205.5	- 149.0	4.4	18.0	- 0.8	- 25.0	12.2
2022 Jan.	166.4	91.4	- 10.2	75.0	64.7	- 0.8	136.3	135.5	- 18.2	- 14.7	- 0.1	9.3	- 12.7
Feb.	109.5	43.1	2.0	66.5	73.8	- 12.7	82.6	95.3	- 21.2	- 12.6	- 0.4	- 3.5	- 4.8
Mar.	158.4	113.2	26.4	45.3	36.0	- 1.8	- 20.6	- 18.9	- 0.1	2.8	- 0.7	- 21.8	19.6
Apr.	112.1	96.9	20.1	15.2	5.2	- 99.0	- 78.9	20.0	8.5	- 10.5	- 0.2	1.3	17.9
May	107.1	65.1	- 18.8	42.1	49.5	- 58.5	40.1	98.6	- 16.1	3.1	- 3.3	- 21.1	5.3
June	114.9	82.3	- 9.0	32.6	33.5	102.7	- 25.9	- 128.6	23.0	- 4.9	- 0.4	1.0	27.2
July	30.4	59.3	- 2.9	- 28.9	- 28.8	- 11.4	63.9	75.4	0.1	- 11.5	- 0.4	- 3.8	15.7
Aug.	- 11.2	25.6	- 18.9	- 36.8	- 31.1	46.9	69.4	22.5	- 10.1	- 22.1	0.7	2.0	9.3
Sep.	83.8	80.1	- 0.0	3.8	2.6	- 52.7	- 200.2	- 147.4	17.5	- 16.4	- 0.5	3.6	30.8
Oct.	- 10.2	2.8	- 2.1	- 13.0	- 10.0	- 2.3	170.5	172.8	- 8.3	- 14.5	- 0.0	15.7	- 9.5

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) ²	Capital and reserves ³
		Total	of which: Securities	Total	of which: Securities								
2021 Mar.	54.1	35.8	1.8	18.3	19.5	- 61.9	1.9	63.9	3.5	- 3.5	- 0.3	7.1	0.2
Apr.	11.4	0.5	2.4	10.8	7.0	- 67.3	25.3	- 42.0	9.3	- 2.4	- 0.3	6.4	5.6
May	33.4	16.8	3.2	16.6	18.9	- 35.0	- 10.9	24.1	- 10.3	- 2.8	- 0.1	- 7.3	0.0
June	30.0	8.7	2.4	21.4	22.3	- 36.1	- 5.3	30.8	3.2	- 3.4	- 0.2	- 7.3	14.1
July	42.9	22.4	2.2	20.4	18.4	42.8	- 14.6	- 57.4	5.1	- 1.8	- 0.3	4.3	2.8
Aug.	28.5	16.6	1.6	11.9	15.7	- 18.0	18.2	36.2	2.0	- 0.5	- 0.2	0.9	1.9
Sep.	33.1	16.7	5.4	16.4	16.5	- 92.2	- 0.7	91.5	3.8	- 2.2	- 0.2	2.6	3.6
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.	18.6	16.2	4.3	2.4	1.9	50.2	20.5	- 29.7	- 2.6	- 0.9	0.2	7.7	- 9.6

* The data in this table are based on the consolidated balance sheet of monetary financial institutions (MFIs) (Table II.2); statistical breaks have been eliminated from the flow figures (see also the "Notes on the figures" in the "Explanatory notes" of the Statistical Series Banking Statistics). ¹ Source: ECB. ² Excluding MFIs' portfolios. ³ After

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

II. Overall monetary survey in the euro area

a) Euro area ¹

IV. 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) ^{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							
19.6	73.2	0.0	83.2	101.6	82.6	10.5	72.2	7.3	11.7	- 18.6	- 4.7	- 13.3	2021 Mar.	
- 32.3	14.1	0.0	94.5	69.1	88.9	8.5	80.4	- 27.9	8.1	15.3	8.9	6.8	Apr.	
- 8.5	48.9	0.0	110.1	115.6	116.7	13.2	103.5	- 11.7	10.7	- 4.1	- 8.9	8.1	May	
16.8	- 4.3	0.0	74.0	88.1	119.7	10.5	109.2	- 33.9	2.3	- 10.8	- 8.4	- 4.6	June	
0.4	- 55.8	0.0	151.2	113.5	103.3	14.6	88.6	10.5	- 0.3	17.4	22.6	7.4	July	
26.6	- 10.6	0.0	28.3	33.4	32.4	1.7	30.7	- 2.5	3.6	- 12.3	5.3	- 6.2	Aug.	
6.5	- 0.8	0.0	31.1	60.4	76.0	5.3	70.8	- 16.5	0.8	12.7	- 31.1	2.9	Sep.	
- 2.4	- 72.9	0.0	136.0	84.7	70.5	6.8	63.7	19.2	- 5.0	13.2	31.5	7.5	Oct.	
- 48.5	84.9	0.0	95.7	83.7	102.7	6.0	96.7	- 19.7	0.7	- 4.4	26.2	- 5.2	Nov.	
- 44.5	- 22.2	0.0	84.6	114.4	104.0	20.6	83.3	6.9	3.6	- 41.8	- 6.7	- 7.0	Dec.	
68.1	91.0	0.0	- 21.4	- 23.9	- 51.4	1.0	- 52.4	14.9	12.6	63.5	- 23.2	8.6	2022 Jan.	
44.6	31.8	0.0	41.1	69.7	76.6	9.1	67.4	- 14.8	8.0	9.4	- 37.2	- 0.3	Feb.	
13.7	51.9	0.0	98.8	113.2	93.1	22.5	70.6	16.0	4.0	- 21.8	- 3.4	- 2.1	Mar.	
- 22.1	- 95.4	0.0	95.8	58.0	52.9	11.2	41.7	2.8	2.3	28.8	20.2	16.5	Apr.	
- 28.9	47.8	0.0	53.0	62.7	69.0	7.8	61.2	- 18.2	11.9	4.4	- 10.1	- 5.1	May	
69.6	71.2	0.0	72.1	78.5	51.8	6.6	45.1	23.6	3.1	- 35.5	- 1.0	11.1	June	
- 31.2	-111.7	0.0	151.7	118.8	64.2	8.6	55.6	49.5	5.1	27.0	- 2.0	18.0	July	
- 80.3	56.0	0.0	85.4	77.9	29.4	- 4.6	34.1	38.4	10.1	- 21.5	6.8	7.4	Aug.	
7.3	- 44.3	0.0	62.4	58.6	- 44.9	- 1.6	- 43.3	103.9	- 0.5	- 21.8	- 8.4	22.3	Sep.	
- 3.7	63.8	0.0	- 62.0	- 79.0	- 155.4	- 0.3	- 155.1	81.4	- 4.9	5.5	33.7	- 24.7	Oct.	

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) ¹⁰										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				
											Total			
- 2.3	- 38.0	2.5	2.7	29.1	24.3	- 0.6	0.1	5.0	0.5	- 0.1	0.1	2021 Mar.		
- 7.4	71.2	0.7	2.6	5.5	13.9	- 5.2	0.7	- 3.4	- 0.1	- 0.1	0.4	Apr.		
18.8	- 44.9	3.0	2.9	34.8	27.8	2.8	0.6	1.7	- 0.1	- 0.1	2.0	May		
6.0	- 14.0	3.1	2.3	- 1.2	7.1	- 8.0	- 0.4	- 0.2	0.1	0.1	0.3	June		
- 12.0	75.2	4.2	3.7	17.4	21.2	- 4.1	- 0.3	0.6	- 0.1	- 0.1	0.1	July		
0.7	- 13.2	2.9	0.2	21.0	20.4	- 1.6	- 0.3	0.1	0.1	0.0	2.3	Aug.		
7.1	- 77.3	4.6	0.8	7.3	7.6	- 1.3	- 0.6	1.5	- 0.0	- 0.0	0.1	Sep.		
- 3.9	53.7	3.3	1.6	16.4	3.9	13.0	- 0.4	- 0.4	- 0.1	- 0.1	0.4	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	2022 Jan.			
2.5	14.4	3.0	2.2	26.8	23.3	1.1	0.3	1.1	0.1	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	Mar.			
- 3.0	32.9	3.4	2.3	3.7	- 3.4	10.4	- 0.4	- 2.0	- 0.2	- 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	May			
14.9	- 37.5	3.7	0.5	29.0	19.6	7.5	- 1.6	0.6	- 0.0	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	July			
- 24.1	- 71.1	- 11.7	12.5	67.9	56.8	13.9	- 2.4	- 1.8	- 0.1	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	Sep.			
5.2	69.9	0.1	0.1	- 3.7	- 31.5	36.8	- 3.3	- 0.2	0.1	- 5.5	Oct.			

of paper issued by euro area MFIs. ⁹ Including national banknotes still in circulation. ¹⁰ The German contributions to the Eurosystem's monetary aggregates should on no account be interpreted as national monetary aggregates and are therefore not comparable with the erstwhile German money stocks M1, M2 or M3. ¹¹ The

difference between the volume of euro banknotes actually issued by the Bundesbank and the amount disclosed in accordance with the accounting regime chosen by the Eurosystem (see also footnote 2 on banknote circulation in Table III.2).

II. Overall monetary survey in the euro area

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

End of month	Total assets or liabilities	Assets										
		Lending to non-banks (non-MFIs) in the euro area									Claims on non-euro area residents	Other assets
		Total	Enterprises and households				General government					
Total	Loans		Debt securities ²	Shares and other equities	Total	Loans	Debt securities ³					
Euro area (€ billion) ¹												
2020 Sep.	30,522.8	20,084.9	14,349.5	12,019.2	1,520.4	809.9	5,735.4	998.7	4,736.8	6,238.1	4,199.8	
Oct.	30,687.0	20,162.5	14,376.6	12,054.8	1,520.5	801.3	5,785.9	1,004.2	4,781.7	6,337.4	4,187.0	
Nov.	30,749.4	20,292.0	14,457.7	12,090.4	1,542.2	825.0	5,834.4	1,003.4	4,831.0	6,331.0	4,126.4	
Dec.	30,438.8	20,266.1	14,438.3	12,042.9	1,532.2	863.2	5,827.8	990.2	4,837.6	6,108.9	4,063.8	
2021 Jan.	30,643.8	20,387.8	14,466.2	12,067.8	1,535.8	862.6	5,921.6	999.4	4,922.1	6,299.8	3,956.2	
Feb.	30,546.3	20,463.6	14,500.5	12,090.1	1,541.1	869.3	5,963.1	992.4	4,970.6	6,300.7	3,782.0	
Mar.	30,827.0	20,653.7	14,576.8	12,185.3	1,512.6	879.0	6,076.9	993.3	5,083.5	6,360.7	3,812.6	
Apr.	30,752.9	20,667.2	14,566.6	12,169.2	1,509.7	887.7	6,100.6	1,007.2	5,093.4	6,396.3	3,689.5	
May	30,890.4	20,788.2	14,612.8	12,198.6	1,521.6	892.6	6,175.5	1,006.2	5,169.2	6,434.1	3,668.1	
June	30,991.0	20,890.7	14,652.8	12,234.6	1,530.0	888.3	6,237.8	1,004.8	5,233.1	6,400.0	3,700.3	
July	31,313.8	21,028.7	14,708.3	12,278.0	1,543.6	886.7	6,320.4	1,011.3	5,309.1	6,504.2	3,781.0	
Aug.	31,438.1	21,047.9	14,684.9	12,261.1	1,533.4	890.4	6,363.1	1,002.3	5,360.8	6,653.5	3,736.6	
Sep.	31,473.8	21,133.9	14,757.6	12,331.3	1,534.9	891.4	6,376.3	993.6	5,382.7	6,620.6	3,719.3	
Oct.	31,778.7	21,201.7	14,817.7	12,379.4	1,548.1	890.2	6,384.0	987.7	5,396.3	6,825.2	3,751.9	
Nov.	32,193.0	21,381.2	14,911.2	12,478.0	1,542.2	891.0	6,470.0	985.8	5,484.2	6,917.3	3,894.5	
Dec.	31,777.4	21,384.4	14,917.1	12,462.9	1,567.2	887.0	6,467.3	988.5	5,478.8	6,738.8	3,654.3	
2022 Jan.	32,405.1	21,564.4	15,039.5	12,601.7	1,553.3	884.5	6,525.0	999.2	5,525.8	6,909.7	3,930.9	
Feb.	32,589.0	21,620.2	15,066.9	12,636.6	1,553.7	876.5	6,553.3	991.8	5,561.5	7,007.2	3,961.7	
Mar.	32,936.3	21,736.9	15,175.9	12,721.8	1,587.5	866.6	6,561.0	1,001.4	5,559.6	6,994.9	4,204.5	
Apr.	33,568.8	21,763.7	15,253.7	12,805.0	1,597.6	851.1	6,510.0	1,011.3	5,498.8	7,061.9	4,743.1	
May	33,481.4	21,815.8	15,304.2	12,877.8	1,568.3	858.1	6,511.7	1,003.9	5,507.7	7,012.1	4,653.5	
June	33,884.9	21,884.2	15,371.8	12,971.6	1,569.1	831.1	6,512.4	1,003.0	5,509.3	7,063.5	4,937.3	
July	33,877.0	21,983.2	15,450.2	13,042.3	1,578.7	829.2	6,533.1	1,003.0	5,530.1	7,216.8	4,677.0	
Aug.	34,342.1	21,870.5	15,457.6	13,078.2	1,553.7	825.6	6,412.9	996.9	5,416.0	7,301.6	5,170.0	
Sep.	34,616.0	21,896.6	15,553.0	13,186.4	1,544.9	821.7	6,343.6	998.1	5,345.5	7,241.3	5,478.1	
Oct.	34,548.6	21,884.7	15,546.5	13,184.3	1,533.0	829.2	6,338.2	995.0	5,343.2	7,337.5	5,326.5	
German contribution (€ billion)												
2020 Sep.	7,236.4	4,749.2	3,647.1	3,184.0	204.9	258.1	1,102.1	289.7	812.4	1,293.8	1,193.4	
Oct.	7,257.1	4,801.4	3,670.3	3,200.4	210.7	259.3	1,131.1	292.0	839.1	1,278.8	1,176.8	
Nov.	7,240.5	4,841.7	3,688.6	3,213.7	214.3	260.6	1,153.1	290.2	862.9	1,261.9	1,136.9	
Dec.	7,172.5	4,839.4	3,695.5	3,216.4	214.7	264.5	1,143.9	286.4	857.4	1,224.1	1,109.1	
2021 Jan.	7,220.7	4,865.5	3,705.9	3,224.4	216.4	265.1	1,159.6	286.5	873.1	1,307.6	1,047.6	
Feb.	7,182.0	4,885.0	3,724.3	3,238.8	217.4	268.1	1,160.7	283.8	877.0	1,305.0	991.9	
Mar.	7,233.5	4,939.8	3,761.1	3,273.4	217.3	270.4	1,178.7	282.6	896.1	1,315.4	978.3	
Apr.	7,228.4	4,946.1	3,760.5	3,270.3	217.6	272.6	1,185.6	285.7	899.9	1,333.6	948.6	
May	7,228.0	4,977.5	3,777.2	3,283.3	219.5	274.4	1,200.3	283.4	916.9	1,329.8	920.7	
June	7,277.1	5,009.8	3,786.4	3,290.4	220.8	275.2	1,223.4	282.3	941.1	1,325.1	942.1	
July	7,362.7	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.	8,829.5	5,367.4	4,165.0	3,636.0	245.9	283.1	1,202.4	284.8	917.5	1,508.9	1,953.2	

* Monetary financial institutions (MFIs) comprise banks (including building and loan associations), money market funds, and the European Central Bank and national central banks (the Eurosystem). ¹ Source: ECB. ² Including money market paper of

enterprises. ³ Including Treasury bills and other money market paper issued by general government. ⁴ Euro currency in circulation (see also footnote 8 on p.12*). Excluding MFIs' cash in hand (in euro). The German contribution includes the volume of

II. Overall monetary survey in the euro area

Liabilities											End of month
Currency in circulation ⁴	Deposits of non-banks (non-MFIs) in the euro area										
	Total	of which: in euro ⁵	Enterprises and households						At agreed notice of ⁶		
			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				
Euro area (€ billion) ¹											
1,330.3	14,758.4	13,361.0	13,467.6	8,175.8	781.0	195.4	1,883.6	2,392.0	39.8	2020 Sep.	
1,338.1	14,814.8	13,431.7	13,545.6	8,266.0	783.3	181.9	1,880.4	2,394.6	39.4	Oct.	
1,349.9	14,813.0	13,527.2	13,621.6	8,358.3	756.5	179.6	1,885.7	2,402.5	39.0	Nov.	
1,370.7	14,772.9	13,620.6	13,728.8	8,459.6	772.0	176.9	1,877.6	2,404.2	38.5	Dec.	
1,373.3	14,873.9	13,631.3	13,752.9	8,505.4	743.9	173.8	1,870.6	2,421.0	38.1	2021 Jan.	
1,380.6	14,957.8	13,678.6	13,807.8	8,569.6	733.7	169.2	1,865.1	2,432.5	37.7	Feb.	
1,391.1	15,076.4	13,757.0	13,913.7	8,654.9	753.5	164.3	1,858.8	2,444.8	37.4	Mar.	
1,399.6	15,061.0	13,775.4	13,936.1	8,727.0	731.8	159.5	1,827.5	2,453.0	37.3	Apr.	
1,412.8	15,147.4	13,870.8	14,018.1	8,811.2	724.4	155.5	1,826.2	2,463.6	37.1	May	
1,423.2	15,241.8	13,943.4	14,091.4	8,917.7	698.2	150.4	1,822.0	2,466.2	36.8	June	
1,437.6	15,335.4	14,017.3	14,185.7	9,006.8	705.9	153.6	1,817.0	2,466.2	36.3	July	
1,439.2	15,386.3	14,039.3	14,196.7	9,030.0	707.3	151.2	1,809.9	2,462.4	35.9	Aug.	
1,444.5	15,442.5	14,075.3	14,239.8	9,093.0	701.2	140.0	1,806.7	2,463.3	35.6	Sep.	
1,450.3	15,504.6	14,139.4	14,312.3	9,166.1	709.0	148.0	1,795.5	2,458.8	34.9	Oct.	
1,456.3	15,518.4	14,188.5	14,345.4	9,224.1	697.5	143.3	1,786.3	2,459.8	34.3	Nov.	
1,477.0	15,579.6	14,310.0	14,464.4	9,316.4	714.5	131.3	1,805.2	2,463.5	33.6	Dec.	
1,477.9	15,636.9	14,277.0	14,469.0	9,294.6	707.9	135.3	1,820.2	2,478.2	32.9	2022 Jan.	
1,487.0	15,731.6	14,323.8	14,506.2	9,356.7	688.6	134.3	1,807.7	2,486.2	32.7	Feb.	
1,509.6	15,840.4	14,415.6	14,599.9	9,439.7	703.7	123.5	1,809.7	2,491.1	32.2	Mar.	
1,520.7	15,876.3	14,464.4	14,654.1	9,493.9	709.3	123.5	1,802.0	2,493.3	32.1	Apr.	
1,528.5	15,891.7	14,510.7	14,682.1	9,537.7	686.5	120.2	1,803.2	2,505.6	28.9	May	
1,535.1	16,040.6	14,573.9	14,750.5	9,583.0	705.9	123.4	1,800.2	2,509.4	28.5	June	
1,543.7	16,119.8	14,673.8	14,872.9	9,667.1	744.8	127.1	1,791.0	2,514.8	28.1	July	
1,539.1	16,103.7	14,734.9	14,927.3	9,695.1	782.4	125.9	1,770.0	2,525.0	28.9	Aug.	
1,537.5	16,201.5	14,787.3	15,038.6	9,685.1	918.4	125.5	1,756.3	2,524.8	28.5	Sep.	
1,537.1	16,096.5	14,706.9	14,936.0	9,519.5	994.4	130.2	1,741.9	2,521.5	28.5	Oct.	
German contribution (€ billion)											
301.9	4,235.6	3,905.7	3,745.0	2,445.3	160.3	30.3	549.2	531.5	28.4	2020 Sep.	
303.6	4,245.3	3,935.3	3,781.4	2,476.4	165.4	30.5	549.7	531.5	28.0	Oct.	
306.6	4,260.2	3,961.8	3,804.4	2,507.7	157.7	30.6	549.0	531.8	27.6	Nov.	
312.2	4,228.5	3,954.1	3,801.5	2,500.9	160.3	31.0	548.8	533.1	27.3	Dec.	
313.1	4,218.7	3,980.7	3,829.7	2,541.7	147.0	31.0	548.5	534.8	26.8	2021 Jan.	
314.6	4,245.1	3,990.0	3,837.4	2,555.8	141.0	31.1	547.0	536.0	26.4	Feb.	
317.3	4,264.3	4,011.8	3,863.4	2,579.8	145.1	31.7	544.6	536.1	26.1	Mar.	
319.9	4,262.2	4,013.0	3,874.5	2,594.4	143.0	31.9	542.5	536.8	25.8	Apr.	
322.8	4,308.8	4,040.3	3,895.1	2,613.5	146.0	32.2	540.4	537.4	25.7	May	
325.1	4,311.0	4,035.3	3,890.5	2,619.4	139.3	31.9	537.5	537.0	25.5	June	
328.8	4,313.9	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	4,546.9	4,270.2	4,140.5	2,803.8	233.2	31.7	529.7	519.8	22.4	Oct.	

euro banknotes put into circulation by the Bundesbank in accordance with the accounting regime chosen by the Eurosystem (see also footnote 2 on banknote circulation in Table III.2). The volume of currency actually put into circulation by the

Bundesbank can be calculated by adding to this total the item "Intra-Eurosystem liability/claim related to banknote issue" (see "Other liability items"). ⁵ Excluding central governments' deposits. ⁶ In Germany, only savings deposits.

II. Overall monetary survey in the euro area

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

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) ³	Debt securities	
	Central government	Other general government							Total	of which: Enterprises and households		Total	of which: Denominated in euro
		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						
Euro area (€ billion) ¹													
2020 Sep.	848.8	442.1	274.8	74.4	20.8	49.1	19.5	3.4	237.7	237.5	595.2	2,059.6	1,431.0
Oct.	831.5	437.6	277.4	69.6	20.8	47.0	19.5	3.4	243.1	242.9	609.3	2,043.2	1,418.6
Nov.	733.0	458.4	307.1	64.6	17.8	46.1	19.4	3.3	246.4	246.4	610.3	2,025.2	1,406.4
Dec.	604.8	439.3	294.7	60.3	17.2	44.8	19.0	3.3	221.4	221.3	625.9	1,995.5	1,386.3
2021 Jan.	683.2	437.8	294.4	58.9	17.4	44.1	19.2	3.8	251.6	251.5	644.4	1,990.9	1,369.7
Feb.	713.6	436.4	296.4	54.3	19.0	43.9	19.2	3.7	254.6	254.5	613.7	2,004.4	1,369.6
Mar.	733.1	429.6	295.4	52.1	16.4	43.2	18.9	3.7	236.5	236.5	609.1	2,005.5	1,357.4
Apr.	700.9	424.0	293.9	48.5	16.2	42.9	18.9	3.6	251.1	251.0	617.9	1,991.6	1,350.5
May	692.4	436.9	308.3	47.7	15.9	42.4	19.1	3.5	246.7	246.7	608.4	1,980.7	1,339.4
June	709.2	441.2	314.0	46.6	16.3	42.0	18.8	3.5	236.5	236.5	600.0	1,984.2	1,332.5
July	709.6	440.1	313.9	45.6	16.6	42.0	18.6	3.5	253.9	253.9	622.6	1,999.3	1,334.0
Aug.	736.1	453.5	329.1	43.9	17.0	42.0	18.0	3.4	241.7	241.7	627.9	1,988.5	1,334.0
Sep.	742.6	460.1	334.6	46.3	16.6	41.3	18.1	3.3	257.3	257.2	596.8	2,011.7	1,343.3
Oct.	740.3	451.9	323.3	48.1	18.0	41.6	17.7	3.3	270.3	270.3	628.3	2,038.4	1,355.8
Nov.	691.5	481.6	349.8	50.3	19.1	41.7	17.5	3.3	266.4	266.4	654.5	2,046.8	1,355.2
Dec.	646.7	468.4	337.4	49.7	19.4	41.1	17.6	3.2	224.7	223.5	647.7	2,019.9	1,346.8
2022 Jan.	711.0	456.9	307.3	67.4	19.6	41.2	17.6	3.8	288.5	288.3	624.5	2,048.9	1,351.2
Feb.	755.6	469.9	314.1	73.5	19.8	41.3	17.6	3.7	297.9	297.7	587.2	2,044.7	1,358.5
Mar.	769.7	470.9	304.7	82.5	20.5	42.4	17.3	3.4	276.2	276.0	583.8	2,026.7	1,358.5
Apr.	747.7	474.5	306.7	83.4	21.2	42.6	17.2	3.4	306.2	306.0	604.0	2,073.8	1,362.6
May	718.8	490.8	316.7	88.4	22.3	43.3	16.8	3.3	308.8	308.7	593.9	2,038.0	1,337.6
June	788.4	501.8	325.2	90.9	22.9	43.3	16.2	3.2	274.0	273.8	592.9	2,069.2	1,360.9
July	757.2	489.8	302.8	100.4	24.2	42.9	16.2	3.3	302.1	302.0	590.8	2,090.8	1,360.8
Aug.	676.9	499.6	309.1	104.6	24.0	42.5	16.1	3.2	280.9	280.9	597.5	2,113.4	1,374.9
Sep.	684.3	478.6	281.7	111.2	24.5	42.3	16.0	3.0	259.6	259.6	589.1	2,154.1	1,415.1
Oct.	680.6	479.9	287.0	109.1	24.3	41.5	14.7	3.2	264.8	264.7	622.8	2,131.8	1,417.8
German contribution (€ billion)													
2020 Sep.	244.7	245.8	119.4	66.0	16.5	41.1	2.5	0.3	1.3	1.1	2.0	525.3	296.1
Oct.	224.8	239.1	119.1	61.7	16.6	39.0	2.5	0.3	1.4	1.3	2.7	519.9	296.2
Nov.	212.1	243.7	131.6	57.3	14.0	38.0	2.5	0.2	9.1	9.1	2.4	515.5	296.1
Dec.	189.2	237.8	131.9	52.8	13.5	36.8	2.5	0.2	12.2	12.2	2.5	503.3	290.1
2021 Jan.	148.9	240.1	136.5	51.6	13.5	35.8	2.4	0.2	8.4	8.4	2.4	503.3	284.6
Feb.	164.3	243.4	142.8	47.3	15.2	35.5	2.5	0.2	6.0	6.0	2.4	510.0	288.4
Mar.	161.9	239.0	144.4	44.9	12.7	34.4	2.4	0.2	11.0	11.0	2.9	523.3	289.8
Apr.	154.6	233.1	142.4	41.5	12.5	34.1	2.4	0.2	7.6	7.6	2.8	524.3	296.2
May	173.3	240.3	150.8	41.0	12.5	33.4	2.4	0.2	9.2	9.2	2.2	518.0	293.2
June	179.3	241.2	152.9	39.9	13.0	32.8	2.4	0.2	9.0	9.0	2.3	515.5	294.6
July	167.3	235.3	148.0	38.9	13.3	32.5	2.4	0.2	9.6	9.6	2.2	518.3	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.	152.6	253.8	108.1	93.1	20.5	30.1	2.1	0.1	5.2	5.2	2.5	635.0	398.1

* 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

3. Banking systems liquidity position * Stocks

€ billion; period averages of daily positions

Reserve maintenance period ending in ¹	Liquidity-providing factors					Liquidity-absorbing factors					Credit institutions' current account balances (including minimum reserves) ⁷	Base money ⁸
	Net assets in gold and foreign currency	Monetary policy operations of the Eurosystem				Deposit facility	Other liquidity-absorbing operations ⁴	Banknotes in circulation ⁵	Central government deposits	Other factors (net) ⁶		
		Main refinancing operations	Longer-term refinancing operations	Marginal lending facility	Other liquidity-providing operations ³							
Eurosystem ²												
2020 Nov.	864.4	1.3	1,707.8	0.0	3,475.8	460.7	0.0	1,389.1	749.0	653.5	2,797.0	4,646.8
Dec.	865.1	0.5	1,754.4	0.0	3,614.7	535.4	0.0	1,403.9	647.0	687.7	2,960.7	4,900.0
2021 Jan.	848.6	0.3	1,792.6	0.0	3,712.9	586.9	0.0	1,429.4	530.3	778.4	3,029.4	5,045.7
Feb.	834.9	0.4	1,792.4	0.0	3,825.1	598.0	0.0	1,433.4	595.8	667.9	3,157.7	5,189.1
Mar.	816.7	0.3	2,054.6	0.0	3,951.4	676.4	0.0	1,447.7	644.5	633.4	3,421.1	5,545.2
Apr.	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
May	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
June	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
July	.	.	.	.	.	.	.	.	.	.	.	.
Aug.	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
Sep.	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
Oct.	.	.	.	.	.	.	.	.	.	.	.	.
2022 Jan.	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
Feb.	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
Mar.	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
Apr.	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
May	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
June	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
July	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
Aug.	.	.	.	.	.	.	.	.	.	.	.	.
Sep.	.	.	.	.	.	.	.	.	.	.	.	.
Oct.	.	.	.	.	.	.	.	.	.	.	.	.
Nov.	.	.	.	.	.	.	.	.	.	.	.	.
Dec.	.	.	.	.	.	.	.	.	.	.	.	.
Deutsche Bundesbank												
2020 Nov.	212.1	0.7	319.5	0.0	729.0	145.5	0.0	338.1	254.7	-302.9	826.0	1,309.6
Dec.	213.0	0.3	333.9	0.0	768.7	166.6	0.0	341.2	217.9	-294.5	884.7	1,392.5
2021 Jan.	208.3	0.1	341.1	0.0	791.3	178.9	0.0	347.3	189.4	-252.8	878.0	1,404.2
Feb.	205.3	0.1	341.0	0.0	816.9	177.5	0.0	348.3	172.7	-298.0	962.8	1,488.6
Mar.	198.0	0.0	407.3	0.0	845.8	203.0	0.0	351.7	187.4	-300.4	1,008.9	1,563.5
Apr.	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
May	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
June	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
July	.	.	.	.	.	.	.	.	.	.	.	.
Aug.	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
Sep.	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
Oct.	.	.	.	.	.	.	.	.	.	.	.	.
2022 Jan.	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
Feb.	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
Mar.	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
Apr.	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
May	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
June	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
July	.	.	.	.	.	.	.	.	.	.	.	.
Aug.	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
Sep.	.	.	.	.	.	.	.	.	.	.	.	.
Oct.	.	.	.	.	.	.	.	.	.	.	.	.
Nov.	.	.	.	.	.	.	.	.	.	.	.	.
Dec.	.	.	.	.	.	.	.	.	.	.	.	.

Discrepancies may arise from rounding. * The banking system's liquidity position is defined as the current account holdings in euro of euro area credit institutions with the Eurosystem. Amounts are derived from the consolidated financial statement of the Eurosystem and the financial statement of the Bundesbank. ¹ Figures are daily averages for the reserve maintenance period ending in the month indicated. Following the changeover in the frequency of Governing Council monetary policy meetings to a six-week cycle, a reserve maintenance period no longer ends in every month. No figures

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

II. Overall monetary survey in the euro area

Flows

Liquidity-providing factors					Liquidity-absorbing factors					Credit institutions' current account balances (including minimum reserves) ⁷	Base money ⁸	Reserve maintenance period ending in ¹
Net assets in gold and foreign currency	Monetary policy operations of the Eurosystem				Deposit facility	Other liquidity-absorbing operations ⁴	Banknotes in circulation ⁵	Central government deposits	Other factors (net) ⁶			
	Main refinancing operations	Longer-term refinancing operations	Marginal lending facility	Other liquidity-providing operations ³								
Eurosystem ²												
- 1.5	± 0.0	+ 114.6	± 0.0	+ 152.2	+ 47.5	± 0.0	+ 7.9	+ 36.1	+ 2.5	+ 171.3	+ 226.7	2020 Nov.
+ 0.7	- 0.8	+ 46.6	± 0.0	+ 138.9	+ 74.7	± 0.0	+ 14.8	-102.0	+ 34.2	+ 163.7	+ 253.2	Dec.
- 16.5	- 0.2	+ 38.2	± 0.0	+ 98.2	+ 51.5	± 0.0	+ 25.5	-116.7	+ 90.7	+ 68.7	+ 145.7	2021 Jan.
- 13.7	+ 0.1	- 0.2	± 0.0	+ 112.2	+ 11.1	± 0.0	+ 4.0	+ 65.5	- 110.5	+ 128.3	+ 143.4	Feb.
- 18.2	- 0.1	+ 262.2	± 0.0	+ 126.3	+ 78.4	± 0.0	+ 14.3	+ 48.7	- 34.5	+ 263.4	+ 356.1	Mar.
- 6.9	- 0.1	+ 52.4	± 0.0	+ 141.3	+ 30.1	± 0.0	+ 18.1	- 57.8	+ 25.7	+ 170.6	+ 218.7	Apr.
+ 11.9	- 0.1	+ 89.0	± 0.0	+ 151.8	+ 30.1	± 0.0	+ 20.0	+ 65.6	+ 75.4	+ 61.4	+ 111.6	May
+ 5.0	+ 0.1	+ 17.2	± 0.0	+ 134.4	+ 30.0	± 0.0	+ 14.1	- 16.6	+ 55.9	+ 73.1	+ 117.3	June
+ 8.4	± 0.0	- 3.3	± 0.0	+ 133.4	- 28.1	± 0.0	+ 7.5	+ 35.6	+ 43.3	+ 80.3	+ 59.6	July
+ 4.1	± 0.0	- 1.1	± 0.0	+ 143.3	+ 6.5	± 0.0	+ 14.0	- 43.0	+ 132.0	+ 36.8	+ 57.3	Aug.
+ 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.
+ 9.5	± 0.0	- 0.2	± 0.0	+ 91.8	+ 11.8	± 0.0	+ 10.0	+ 60.6	- 69.4	+ 88.5	+ 110.2	Feb.
+ 26.0	+ 0.1	- 1.5	± 0.0	+ 47.2	- 31.1	± 0.0	+ 25.3	+ 25.2	+ 25.6	+ 26.5	+ 20.8	Mar.
+ 21.0	+ 0.1	- 1.0	± 0.0	+ 49.9	- 33.6	± 0.0	+ 15.6	- 43.7	+ 12.4	+ 118.8	+ 100.9	Apr.
+ 9.5	+ 0.5	- 49.4	± 0.0	+ 19.7	- 2.6	± 0.0	+ 12.5	+ 43.5	+ 28.9	- 102.8	- 93.0	May
+ 6.4	+ 0.7	- 24.5	± 0.0	- 4.0	+ 28.3	± 0.0	- 18.7	-113.7	+ 91.2	- 7.2	+ 2.5	June
+ 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	July
Deutsche Bundesbank												
+ 0.0	- 0.1	+ 35.5	- 0.0	+ 37.0	+ 9.5	± 0.0	+ 1.7	+ 15.0	- 5.0	+ 51.2	+ 62.3	2020 Nov.
+ 0.9	- 0.4	+ 14.4	+ 0.0	+ 39.8	+ 21.1	± 0.0	+ 3.1	- 36.8	+ 8.4	+ 58.7	+ 82.9	Dec.
- 4.7	- 0.2	+ 7.1	+ 0.0	+ 22.6	+ 12.3	± 0.0	+ 6.1	- 28.5	+ 41.7	- 6.7	+ 11.7	2021 Jan.
- 3.0	- 0.0	- 0.1	- 0.0	+ 25.6	- 1.4	± 0.0	+ 1.0	- 16.7	- 45.2	+ 84.8	+ 84.4	Feb.
- 7.3	- 0.1	+ 66.3	+ 0.0	+ 28.8	+ 25.5	± 0.0	+ 3.4	+ 14.7	- 2.4	+ 46.0	+ 74.9	Mar.
- 3.7	+ 0.0	+ 13.2	+ 0.0	+ 38.6	+ 5.5	± 0.0	+ 5.1	- 0.1	- 1.5	+ 37.9	+ 48.5	Apr.
+ 3.1	- 0.0	+ 13.8	- 0.0	+ 34.2	- 4.3	± 0.0	+ 5.2	+ 19.4	+ 31.1	- 0.5	+ 0.4	May
+ 1.6	+ 0.1	+ 2.4	+ 0.0	+ 32.3	+ 6.5	± 0.0	+ 3.0	- 2.5	+ 29.9	- 0.9	+ 8.6	June
+ 1.3	+ 0.0	+ 2.4	- 0.0	+ 27.8	- 6.4	± 0.0	+ 2.4	+ 13.4	+ 5.7	+ 16.3	+ 12.3	July
+ 1.0	- 0.1	+ 1.2	- 0.0	+ 37.3	+ 2.1	± 0.0	+ 3.5	+ 2.7	+ 15.7	+ 15.6	+ 21.1	Aug.
+ 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.
+ 3.2	- 0.1	- 0.0	+ 0.0	+ 23.9	+ 7.4	± 0.0	+ 3.5	- 14.5	- 28.6	+ 59.2	+ 70.1	Feb.
+ 8.2	- 0.0	- 0.9	- 0.0	+ 10.8	- 14.2	± 0.0	+ 6.8	+ 5.6	+ 4.6	+ 15.2	+ 7.9	Mar.
+ 6.6	+ 0.1	- 0.6	- 0.0	+ 18.7	- 7.7	± 0.0	+ 3.0	+ 0.2	+ 6.0	+ 24.1	+ 19.4	Apr.
+ 1.3	+ 0.2	- 11.1	- 0.0	- 3.1	- 4.1	± 0.0	+ 2.4	+ 18.0	+ 7.7	- 37.7	- 39.5	May
+ 0.4	+ 0.0	- 5.5	- 0.0	- 7.5	+ 42.7	± 0.0	- 10.8	- 57.1	+ 13.5	- 0.9	+ 31.0	June
- 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	July
												Aug.
												Sep.
												Oct.
												Nov.

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

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

III. Consolidated financial statement of the Eurosystem

1. Assets *

€ billion

As at reporting date	Total assets	Gold and gold receivables	Claims on non-euro area residents denominated in foreign currency			Claims on euro area residents denominated in foreign currency	Claims on non-euro area residents denominated in euro			
			Total	Receivables from the IMF	Balances with banks, security investments, external loans and other external assets		Total	Balances with banks, security investments and loans	Claims arising from the credit facility under ERM II	
Eurosystem ¹										
2022 May 13	8,810.3	604.5	500.2	220.2	279.9	27.2	10.2	10.2	–	
20	8,814.0	604.3	500.4	220.2	280.1	27.1	10.4	10.4	–	
27	8,813.8	604.3	500.3	220.2	280.0	26.7	10.6	10.6	–	
June 3	8,817.9	604.3	500.8	220.2	280.6	26.2	10.1	10.1	–	
10	8,820.9	604.3	501.3	220.2	281.1	26.8	10.8	10.8	–	
17	8,827.9	604.3	503.8	220.2	283.6	25.0	11.2	11.2	–	
24	8,836.0	604.3	502.6	220.2	282.4	26.6	12.1	12.1	–	
July 1	8,788.8	604.3	519.3	225.9	293.4	26.9	11.6	11.6	–	
8	8,774.4	604.3	519.0	226.6	292.4	27.5	10.3	10.3	–	
15	8,765.7	604.3	519.5	226.6	292.9	27.0	10.3	10.3	–	
22	8,768.3	604.3	520.3	226.6	293.7	26.3	10.2	10.2	–	
29	8,764.5	604.3	521.1	226.6	294.5	25.7	10.3	10.3	–	
Aug. 5	8,746.0	604.3	520.5	226.6	293.9	26.8	9.8	9.8	–	
12	8,747.8	604.3	520.7	226.6	294.1	26.6	9.9	9.9	–	
19	8,750.7	604.3	521.4	226.6	294.7	26.5	9.9	9.9	–	
26	8,750.0	604.3	523.4	227.1	296.3	25.4	10.0	10.0	–	
Sep. 2	8,756.8	604.3	523.8	227.6	296.2	25.3	10.4	10.4	–	
9	8,759.1	604.3	525.5	227.8	297.8	23.8	10.5	10.5	–	
16	8,756.9	604.3	526.6	227.8	298.8	24.0	10.7	10.7	–	
23	8,777.4	604.3	528.0	227.8	300.2	23.3	11.2	11.2	–	
30	8,810.1	592.8	544.7	234.6	310.1	25.6	10.8	10.8	–	
Oct. 7	8,772.0	592.8	545.3	234.6	310.7	25.8	10.7	10.7	–	
14	8,778.1	592.8	547.2	234.6	312.6	24.9	10.4	10.4	–	
21	8,774.8	592.8	548.5	235.2	313.3	25.4	10.8	10.8	–	
28	8,770.7	592.8	549.2	236.0	313.2	25.7	11.4	11.4	–	
Nov. 4	8,761.7	592.8	553.0	237.3	315.7	23.2	11.4	11.4	–	
11	8,764.7	592.8	550.9	237.3	313.5	25.2	11.4	11.4	–	
18	8,769.1	592.8	549.2	237.4	311.8	25.8	11.3	11.3	–	
25	8,471.4	592.8	549.8	238.1	311.7	26.3	11.3	11.3	–	
Dec. 2	8,470.9	592.8	549.8	238.5	311.4	25.6	11.1	11.1	–	
Deutsche Bundesbank										
2022 May 13	2,998.1	187.7	90.3	56.1	34.2	0.0	–	–	–	
20	2,975.2	187.6	90.3	56.1	34.2	0.0	–	–	–	
27	2,992.4	187.6	90.3	56.1	34.3	0.0	–	–	–	
June 3	2,992.8	187.6	90.2	56.1	34.1	0.0	–	–	–	
10	2,975.2	187.6	90.5	56.1	34.4	0.0	0.4	0.4	–	
17	2,999.7	187.6	90.9	56.1	34.8	0.0	0.9	0.9	–	
24	2,968.5	187.6	91.1	56.1	35.1	0.0	1.8	1.8	–	
July 1	3,013.1	187.6	93.6	57.7	35.9	0.0	1.5	1.5	–	
8	2,950.0	187.6	93.4	57.7	35.8	0.0	–	–	–	
15	2,946.9	187.6	93.3	57.7	35.7	0.0	–	–	–	
22	2,941.3	187.6	93.4	57.7	35.7	0.0	–	–	–	
29	2,964.1	187.6	93.1	57.6	35.5	0.0	0.1	0.1	–	
Aug. 5	2,998.7	187.6	93.1	57.6	35.5	0.0	–	–	–	
12	3,024.8	187.6	92.9	57.7	35.2	0.0	–	–	–	
19	3,028.6	187.6	93.1	57.7	35.5	0.0	–	–	–	
26	3,060.0	187.6	93.5	57.7	35.9	0.0	–	–	–	
Sep. 2	3,042.0	187.6	93.2	57.9	35.4	0.0	–	–	–	
9	3,020.3	187.6	93.0	57.9	35.2	0.0	–	–	–	
16	3,036.5	187.6	93.7	57.9	35.9	0.0	–	–	–	
23	3,014.7	187.6	94.3	57.9	36.5	0.0	–	–	–	
30	3,064.3	184.0	97.2	59.6	37.6	0.0	–	–	–	
Oct. 7	3,057.7	184.0	97.5	59.6	37.9	0.0	–	–	–	
14	3,060.7	184.0	97.4	59.6	37.8	0.0	–	–	–	
21	3,026.3	184.0	97.3	59.6	37.7	0.0	–	–	–	
28	3,037.7	184.0	97.6	59.7	37.9	0.0	–	–	–	
Nov. 4	3,053.2	184.0	98.1	60.2	37.9	0.0	–	–	–	
11	3,053.5	184.0	98.1	60.2	37.9	0.0	–	–	–	
18	3,045.4	184.0	98.1	60.2	37.9	0.0	–	–	–	
25	2,959.7	184.0	98.3	60.2	38.1	0.0	–	–	–	
Dec. 2	2,950.5	184.0	98.3	60.5	37.8	0.0	–	–	–	

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

for foreign currency, securities, gold and financial instruments are valued at the end of the quarter. ¹ Source: ECB.

III. Consolidated financial statement of the Eurosystem

Lending to euro area credit institutions related to monetary policy operations denominated in euro							Other claims on euro area credit institutions 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				
Eurosystem ¹														
2,199.3	0.5	2,198.8	-	-	-	-	29.5	5,105.9	4,940.6	165.3	22.1	311.4	2022 May	13
2,199.2	0.3	2,198.8	-	-	-	-	29.9	5,114.7	4,949.4	165.3	22.1	306.0		20
2,199.5	0.7	2,198.9	-	-	-	-	28.3	5,117.1	4,952.7	164.4	22.1	305.0		27
2,199.3	0.4	2,198.9	-	-	-	-	30.7	5,119.4	4,954.5	165.0	22.1	304.9	June	3
2,199.3	0.4	2,198.8	-	-	-	-	31.9	5,121.4	4,956.1	165.3	22.1	303.0		10
2,199.5	0.7	2,198.8	-	-	-	-	36.4	5,125.1	4,959.2	165.9	22.1	300.5		17
2,199.5	0.7	2,198.8	-	-	-	-	32.2	5,130.7	4,963.7	167.0	22.1	305.9		24
2,126.1	1.5	2,124.6	-	-	-	-	34.5	5,129.1	4,963.5	165.6	21.7	315.4	July	1
2,125.6	1.0	2,124.6	-	-	0.0	-	28.4	5,123.0	4,956.9	166.1	21.7	314.6		8
2,125.5	0.9	2,124.6	-	-	-	-	28.8	5,119.3	4,953.9	165.4	21.7	309.4		15
2,125.6	1.0	2,124.6	-	-	0.0	-	27.6	5,123.3	4,956.7	166.6	21.7	309.1		22
2,125.8	1.1	2,124.7	-	-	0.0	-	30.8	5,125.6	4,958.9	166.8	21.7	299.2		29
2,125.6	0.9	2,124.7	-	-	-	-	15.2	5,117.9	4,952.2	165.7	21.7	304.2	Aug.	5
2,125.6	0.9	2,124.7	-	-	0.0	-	15.5	5,119.7	4,953.4	166.4	21.7	303.7		12
2,125.5	0.8	2,124.7	-	-	-	-	13.2	5,123.8	4,956.7	167.2	21.7	304.4		19
2,125.5	0.7	2,124.7	-	-	0.0	-	12.9	5,123.1	4,955.5	167.6	21.7	303.8		26
2,129.3	3.9	2,125.4	-	-	0.0	-	14.8	5,122.4	4,956.5	165.9	21.7	304.9	Sep.	2
2,129.1	3.7	2,125.4	-	-	-	-	13.7	5,121.5	4,955.3	166.3	21.7	309.0		9
2,129.3	3.9	2,125.4	-	-	-	-	22.4	5,112.4	4,945.7	166.7	21.7	305.5		16
2,129.1	3.7	2,125.4	-	-	-	-	32.0	5,116.9	4,949.9	167.1	21.7	310.9		23
2,120.8	4.5	2,116.0	-	-	0.3	-	32.2	5,109.5	4,943.0	166.5	21.7	351.8		30
2,119.7	3.7	2,116.0	-	-	0.0	-	19.3	5,109.9	4,943.6	166.2	21.7	326.8	Oct.	7
2,119.7	3.6	2,116.0	-	-	0.0	-	17.7	5,120.2	4,953.3	166.9	21.7	323.3		14
2,119.7	3.6	2,116.0	-	-	-	-	13.3	5,118.3	4,951.0	167.3	21.7	324.3		21
2,120.9	4.6	2,116.3	-	-	-	-	16.1	5,111.0	4,946.9	164.2	21.7	321.8		28
2,119.4	3.1	2,116.3	-	-	-	-	19.6	5,104.1	4,942.1	162.1	21.7	316.5	Nov.	4
2,117.8	1.5	2,116.3	-	-	0.0	-	16.3	5,108.3	4,945.1	163.2	21.7	320.1		11
2,117.9	1.6	2,116.3	-	-	0.0	-	17.2	5,113.5	4,949.8	163.7	21.7	319.7		18
1,821.8	1.8	1,820.0	-	-	0.0	-	19.4	5,109.0	4,944.3	164.7	21.7	319.1		25
1,822.9	2.6	1,820.2	-	-	-	-	18.8	5,111.8	4,946.3	165.5	21.7	316.3	Dec.	2
Deutsche Bundesbank														
420.2	0.0	420.2	-	-	0.0	-	3.9	1,089.0	1,089.0	-	4.4	1,202.4	2022 May	13
420.2	0.1	420.2	-	-	0.0	-	4.0	1,088.4	1,088.4	-	4.4	1,180.2		20
420.5	0.3	420.2	-	-	0.0	-	4.3	1,093.3	1,093.3	-	4.4	1,191.9		27
420.2	0.0	420.2	-	-	0.0	-	5.9	1,095.3	1,095.3	-	4.4	1,189.1	June	3
420.2	0.1	420.2	-	-	0.0	-	5.4	1,091.2	1,091.2	-	4.4	1,175.5		10
420.2	0.1	420.2	-	-	0.0	-	6.3	1,093.9	1,093.9	-	4.4	1,195.4		17
420.3	0.1	420.2	-	-	0.0	-	5.3	1,091.2	1,091.2	-	4.4	1,166.7		24
404.2	0.7	403.6	-	-	0.0	-	4.2	1,091.1	1,091.1	-	4.4	1,226.4	July	1
403.8	0.3	403.6	-	-	0.0	-	4.2	1,078.6	1,078.6	-	4.4	1,178.0		8
403.8	0.3	403.6	-	-	0.0	-	5.6	1,079.4	1,079.4	-	4.4	1,172.7		15
403.9	0.4	403.6	-	-	0.0	-	5.2	1,075.7	1,075.7	-	4.4	1,171.1		22
404.0	0.4	403.6	-	-	0.0	-	0.6	1,077.2	1,077.2	-	4.4	1,197.1		29
403.7	0.1	403.6	-	-	0.0	-	0.3	1,077.7	1,077.7	-	4.4	1,231.8	Aug.	5
403.8	0.2	403.6	-	-	0.0	-	0.2	1,078.5	1,078.5	-	4.4	1,257.4		12
403.8	0.2	403.6	-	-	0.0	-	0.1	1,079.1	1,079.1	-	4.4	1,260.5		19
403.7	0.1	403.6	-	-	0.0	-	0.1	1,076.1	1,076.1	-	4.4	1,294.4		26
404.5	0.8	403.7	-	-	0.0	-	0.3	1,078.5	1,078.5	-	4.4	1,273.4	Sep.	2
403.9	0.3	403.7	-	-	0.0	-	0.0	1,073.5	1,073.5	-	4.4	1,257.7		9
404.1	0.5	403.7	-	-	0.0	-	2.5	1,069.5	1,069.5	-	4.4	1,274.6		16
404.2	0.5	403.7	-	-	0.0	-	3.2	1,069.8	1,069.8	-	4.4	1,251.1		23
400.7	1.4	399.3	-	-	0.0	-	3.5	1,072.2	1,072.2	-	4.4	1,302.1		30
399.8	0.5	399.3	-	-	0.0	-	3.0	1,067.0	1,067.0	-	4.4	1,302.0	Oct.	7
399.9	0.6	399.3	-	-	0.0	-	2.5	1,070.4	1,070.4	-	4.4	1,302.0		14
399.9	0.7	399.3	-	-	0.0	-	2.5	1,071.9	1,071.9	-	4.4	1,266.2		21
401.0	1.7	399.3	-	-	0.0	-	2.9	1,075.2	1,075.2	-	4.4	1,272.7		28
399.7	0.5	399.3	-	-	0.0	-	2.3	1,077.9	1,077.9	-	4.4	1,286.7	Nov.	4
399.7	0.4	399.3	-	-	0.0	-	2.6	1,078.9	1,078.9	-	4.4	1,285.8		11
399.8	0.6	399.3	-	-	0.0	-	3.2	1,081.1	1,081.1	-	4.4	1,274.6		18
318.0	0.5	317.4	-	-	0.0	-	2.8	1,079.1	1,079.1	-	4.4	1,273.0		25
318.4	0.9	317.4	-	-	0.0	-	3.5	1,080.9	1,080.9	-	4.4	1,260.9	Dec.	2

III. Consolidated financial statement of the Eurosystem

Liabilities to non-euro area residents denominated in euro	Liabilities to euro area residents in foreign currency	Liabilities to non-euro area residents denominated in foreign currency			Counterpart of special drawing rights allocated by the IMF	Other liabilities ²	Intra-Eurosystem liability related to euro banknote issue ¹	Revaluation accounts	Capital and reserves	As at reporting date
		Total	Deposits, balances and other liabilities	Liabilities arising from the credit facility under ERM II						
Eurosystem ³										
425.3	11.7	5.7	5.7	–	180.2	323.4	–	598.9	116.0	2022 May 13
437.2	11.3	5.6	5.6	–	180.2	321.3	–	598.9	116.0	20
426.4	11.1	5.6	5.6	–	180.2	320.5	–	598.9	116.0	27
409.9	11.4	5.5	5.5	–	180.2	320.6	–	598.9	114.9	June 3
403.3	11.7	5.6	5.6	–	180.2	320.1	–	598.9	114.9	10
422.3	11.1	6.2	6.2	–	180.2	322.9	–	598.9	114.9	17
410.6	10.9	6.9	6.9	–	180.2	323.7	–	598.9	114.9	24
434.0	11.5	6.2	6.2	–	184.9	327.5	–	608.5	114.8	July 1
396.5	11.4	6.1	6.1	–	184.9	327.0	–	608.5	114.8	8
397.2	11.5	5.9	5.9	–	184.9	326.2	–	608.5	114.8	15
412.1	11.3	6.0	6.0	–	184.9	324.3	–	608.5	114.8	22
442.2	11.5	5.7	5.7	–	184.9	322.7	–	608.5	114.8	29
476.1	11.3	5.9	5.9	–	184.9	325.6	–	608.5	114.8	Aug. 5
473.7	11.1	5.8	5.8	–	184.9	323.3	–	608.5	114.8	12
484.8	11.4	6.2	6.2	–	184.9	323.7	–	608.5	114.8	19
489.8	11.4	6.7	6.7	–	184.9	321.8	–	608.5	114.8	26
478.6	11.3	6.4	6.4	–	184.9	324.7	–	608.5	114.8	Sep. 2
447.8	11.7	5.9	5.9	–	184.9	326.1	–	608.5	114.7	9
391.9	11.1	6.5	6.5	–	184.9	325.3	–	608.5	114.7	16
407.5	11.0	7.0	7.0	–	184.9	326.5	–	608.5	114.7	23
440.3	11.6	6.8	6.8	–	189.9	326.1	–	611.7	114.7	30
392.3	11.5	6.9	6.9	–	189.9	321.9	–	611.7	114.7	Oct. 7
385.1	11.5	6.9	6.9	–	189.9	319.7	–	611.7	114.7	14
384.8	11.9	6.1	6.1	–	189.9	318.3	–	611.7	114.7	21
391.0	12.2	6.1	6.1	–	189.9	320.3	–	611.7	114.7	28
410.8	12.5	5.8	5.8	–	189.9	319.6	–	611.7	114.7	Nov. 4
368.4	12.5	5.8	5.8	–	189.9	320.1	–	611.7	114.7	11
365.2	12.6	5.7	5.7	–	189.9	327.3	–	611.7	114.7	18
383.3	12.7	5.5	5.5	–	189.9	321.5	–	611.7	114.7	25
372.5	12.2	5.6	5.6	–	189.9	318.0	–	611.7	114.6	Dec. 2
Deutsche Bundesbank										
200.8	0.5	0.2	0.2	–	46.8	38.8	523.3	185.0	5.7	2022 May 13
206.0	0.5	0.1	0.1	–	46.8	39.0	523.3	185.0	5.7	20
196.4	0.5	0.1	0.1	–	46.8	39.2	523.3	185.0	5.7	27
185.8	0.5	–0.0	–0.0	–	46.8	39.3	526.8	185.0	5.7	June 3
180.9	0.5	0.3	0.3	–	46.8	39.5	526.8	185.0	5.7	10
189.8	0.5	0.7	0.7	–	46.8	40.3	526.8	185.0	5.7	17
175.9	0.5	0.9	0.9	–	46.8	40.5	526.8	185.0	5.7	24
187.7	0.6	0.1	0.1	–	48.0	39.6	530.5	187.1	5.7	July 1
166.1	0.6	0.1	0.1	–	48.0	41.0	530.5	187.1	5.7	8
167.6	0.6	–0.0	–0.0	–	48.0	40.9	530.5	187.1	5.7	15
168.5	0.4	0.2	0.2	–	48.0	41.2	530.5	187.1	5.7	22
214.6	0.4	–0.0	–0.0	–	48.0	41.7	525.2	187.1	5.7	29
237.4	0.4	0.1	0.1	–	48.0	41.8	525.2	187.1	5.7	Aug. 5
240.8	0.4	–0.0	–0.0	–	48.0	41.8	525.2	187.1	5.7	12
247.3	0.4	0.3	0.3	–	48.0	41.9	525.2	187.1	5.7	19
256.2	0.4	0.8	0.8	–	48.0	41.9	525.2	187.1	5.7	26
240.0	0.4	0.2	0.2	–	48.0	42.4	513.5	187.1	5.7	Sep. 2
226.8	0.4	0.1	0.1	–	48.0	43.2	513.5	187.1	5.7	9
207.6	0.4	0.6	0.6	–	48.0	43.3	513.5	187.1	5.7	16
227.2	0.4	1.1	1.1	–	48.0	43.3	513.5	187.1	5.7	23
241.7	0.6	0.6	0.6	–	49.3	41.8	516.8	185.6	5.7	30
221.4	0.6	0.7	0.7	–	49.3	42.0	516.8	185.6	5.7	Oct. 7
222.7	0.6	0.5	0.5	–	49.3	41.8	516.8	185.6	5.7	14
216.3	0.6	–0.0	–0.0	–	49.3	41.7	516.8	185.6	5.7	21
216.3	0.6	–0.0	–0.0	–	49.3	41.6	516.8	185.6	5.7	28
241.0	0.6	–0.0	–0.0	–	49.3	42.5	516.8	185.6	5.7	Nov. 4
218.8	0.6	–0.0	–0.0	–	49.3	42.0	516.8	185.6	5.7	11
219.7	0.6	–0.0	–0.0	–	49.3	41.6	516.8	185.6	5.7	18
226.6	0.6	–0.0	–0.0	–	49.3	39.9	516.8	185.6	5.7	25
210.1	0.6	–0.0	–0.0	–	49.3	41.4	516.8	185.6	5.7	Dec. 2

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". ² For the Deutsche Bundesbank: including DEM banknotes still in circulation. ³ Source: ECB.

IV. Banks

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

€ billion

End of month	Number of reporting institutions	Balance sheet total ¹	Cash in hand and credit balances with central banks	Lending to banks (MFIs)			Lending to non-banks (non-MFIs)					Participating interests	Other assets ¹
				Total	of which:		Total	of which:			Securities issued by non-banks		
					Balances and loans	Securities issued by banks		Loans	for up to and including 1 year	for more than 1 year				Bills
All categories of banks													
2022 May	1,439	10,321.7	1,173.6	2,675.5	2,199.3	473.8	4,801.0	458.6	3,640.1	0.3	685.3	94.5	1,577.1
June	1,432	10,491.7	1,143.9	2,695.5	2,222.0	470.5	4,835.6	467.9	3,657.7	0.3	692.3	94.9	1,721.8
July	1,425	10,330.6	1,127.2	2,702.9	2,227.8	471.4	4,874.4	464.5	3,690.2	0.3	703.2	96.2	1,529.9
Aug.	1,417	10,690.2	1,150.7	2,746.8	2,270.5	471.6	4,907.5	484.8	3,714.3	0.2	690.9	95.8	1,789.3
Sep.	1,407	11,124.8	144.9	3,861.7	3,377.0	479.0	4,929.2	492.3	3,732.3	0.3	688.2	96.3	2,092.8
Oct.	1,395	11,098.4	106.9	3,887.0	3,400.3	482.0	4,945.2	486.2	3,754.6	0.3	687.5	107.4	2,051.8
Commercial banks ⁶													
2022 Sep.	246	5,178.8	63.5	1,826.7	1,740.8	84.3	1,558.1	311.5	1,013.9	0.2	223.1	31.6	1,698.9
Oct.	244	5,157.3	31.1	1,853.6	1,767.9	85.0	1,563.7	308.6	1,021.5	0.2	223.3	42.6	1,666.3
Big banks ⁷													
2022 Sep.	3	2,717.6	18.7	771.7	741.8	29.8	728.0	145.4	456.6	0.1	121.6	26.3	1,172.9
Oct.	3	2,685.1	8.0	773.0	742.7	30.3	726.7	145.0	459.0	0.0	117.1	26.3	1,151.0
Regional banks and other commercial banks													
2022 Sep.	136	1,989.5	36.3	743.6	689.1	52.9	691.1	116.6	475.3	0.1	95.0	4.6	513.9
Oct.	135	1,980.3	19.6	743.3	689.6	53.2	698.3	114.0	480.6	0.1	99.8	15.6	503.5
Branches of foreign banks													
2022 Sep.	107	471.8	8.4	311.5	309.9	1.6	139.0	49.5	82.0	0.1	6.4	0.7	12.2
Oct.	106	491.9	3.5	337.3	335.7	1.6	138.7	49.6	81.9	0.1	6.3	0.7	11.8
Landesbanken													
2022 Sep.	6	988.2	1.0	395.4	345.8	49.4	430.8	50.9	340.6	0.0	36.5	9.4	151.6
Oct.	6	989.1	14.5	387.3	337.0	50.1	429.4	47.4	343.3	0.0	35.8	9.4	148.5
Savings banks													
2022 Sep.	362	1,585.5	42.3	295.0	176.0	118.8	1,208.7	52.8	979.4	–	176.3	15.4	24.1
Oct.	362	1,591.0	29.7	308.7	188.6	119.9	1,212.9	53.0	983.5	–	176.1	15.5	24.3
Credit cooperatives													
2022 Sep.	748	1,175.6	26.6	230.5	114.5	115.2	870.9	32.9	713.9	0.0	124.1	19.5	28.1
Oct.	738	1,178.3	18.7	237.6	121.5	115.1	874.4	32.9	717.4	0.0	124.1	19.6	28.1
Mortgage banks													
2022 Sep.	9	234.9	4.8	27.5	20.8	6.4	197.3	2.8	179.6	–	14.9	0.1	5.2
Oct.	9	234.4	2.4	28.7	22.0	6.5	197.8	2.8	180.1	–	14.9	0.1	5.4
Building and loan associations													
2022 Sep.	18	259.0	1.0	45.7	30.6	15.1	208.2	1.3	183.5	.	23.4	0.3	3.8
Oct.	18	259.6	0.6	46.3	31.0	15.3	208.6	1.3	183.9	.	23.4	0.3	3.8
Banks with special, development and other central support tasks													
2022 Sep.	18	1,702.7	5.7	1,040.8	948.5	89.7	455.1	40.2	321.5	0.0	90.0	20.0	181.1
Oct.	18	1,688.6	10.0	1,024.9	932.4	90.2	458.5	40.3	324.9	–	90.0	20.0	175.4
Memo item: Foreign banks ⁸													
2022 Sep.	143	2,532.5	38.2	979.5	941.6	36.4	665.0	165.1	394.8	0.2	99.6	3.6	846.3
Oct.	141	2,531.3	15.7	999.6	962.8	36.3	669.4	160.7	400.3	0.2	103.0	14.6	832.0
of which: Banks majority-owned by foreign banks ⁹													
2022 Sep.	36	2,060.8	29.8	668.0	631.7	34.8	526.0	115.6	312.8	0.1	93.2	2.9	834.1
Oct.	35	2,039.4	12.2	662.3	627.1	34.7	530.8	111.2	318.4	0.1	96.7	13.9	820.3

* 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 ⁵	Capital including published reserves, participation rights capital, funds for general banking risks	Other liabilities ¹	End of month		
Total	of which:		Total	of which:		Memo item: Liabilities arising from repos ³	Savings deposits ⁴							
	Sight deposits	Time deposits		Sight deposits	Time deposits ²		Total	of which: At 3 months' notice					Bank savings bonds	
				for up to and including 1 year	for more than 1 year ²									
All categories of banks														
2,521.3	783.2	1,738.1	4,438.7	2,941.4	263.1	648.0	62.5	562.3	539.3	24.0	1,261.9	579.5	1,520.4	2022 May
2,484.9	772.6	1,712.3	4,439.4	2,937.1	272.0	645.8	62.8	560.4	537.6	24.0	1,273.7	585.7	1,708.0	June
2,490.7	743.1	1,747.6	4,476.6	2,950.6	296.0	647.2	65.6	558.6	535.9	24.2	1,274.3	586.4	1,502.6	July
2,523.9	746.9	1,777.0	4,534.7	2,998.1	309.1	646.3	70.2	556.1	533.5	25.1	1,276.5	587.5	1,767.5	Aug.
2,585.3	788.2	1,797.1	4,559.0	2,987.1	354.5	640.7	64.0	550.7	528.1	26.1	1,309.4	588.6	2,082.6	Sep.
2,607.9	795.7	1,812.2	4,570.2	2,968.7	385.1	640.5	64.3	547.6	524.8	28.3	1,299.9	588.5	2,032.0	Oct.
Commercial banks ⁶														
1,351.9	590.5	761.4	1,809.2	1,271.8	195.9	234.4	63.4	97.1	93.8	9.9	184.9	198.8	1,634.1	2022 Sep.
1,381.9	612.1	769.7	1,804.7	1,251.8	213.5	233.0	63.7	96.1	92.8	10.2	184.2	198.6	1,587.9	Oct.
Big banks ⁷														
533.7	206.1	327.6	859.3	591.7	107.1	77.2	23.2	82.3	79.6	1.1	138.4	72.7	1,113.5	2022 Sep.
523.7	197.9	325.8	871.8	591.4	122.8	75.0	33.3	81.5	78.8	1.1	137.4	72.6	1,079.6	Oct.
Regional banks and other commercial banks														
547.0	231.8	315.2	776.8	555.7	63.6	134.3	40.2	14.5	13.9	8.7	46.0	110.8	508.9	2022 Sep.
569.7	250.1	319.6	757.0	535.8	63.1	134.6	30.4	14.3	13.7	9.1	46.4	110.7	496.5	Oct.
Branches of foreign banks														
271.1	152.6	118.5	173.1	124.5	25.3	22.9	–	0.3	0.3	0.1	0.4	15.4	11.7	2022 Sep.
288.5	164.2	124.4	175.9	124.6	27.5	23.4	–	0.3	0.3	0.1	0.4	15.2	11.8	Oct.
Landesbanken														
292.5	52.7	239.8	302.6	151.4	74.8	70.8	0.5	5.5	5.5	0.1	188.7	43.1	161.3	2022 Sep.
289.7	51.4	238.3	308.4	157.4	74.8	70.6	0.6	5.5	5.4	0.1	191.7	43.1	156.2	Oct.
Savings banks														
204.9	3.3	201.7	1,175.6	862.9	16.1	14.1	–	271.2	255.9	11.4	16.2	137.3	51.4	2022 Sep.
205.7	3.2	202.5	1,179.2	865.0	17.6	13.9	–	269.9	254.5	12.7	16.4	137.4	52.3	Oct.
Credit cooperatives														
178.2	3.2	174.9	852.4	624.4	29.2	18.1	–	176.4	172.6	4.3	8.6	101.1	35.4	2022 Sep.
178.7	2.7	176.0	854.2	626.4	29.1	18.3	–	175.6	171.7	4.8	8.6	101.2	35.5	Oct.
Mortgage banks														
60.9	4.1	56.9	53.8	2.4	5.2	46.2	–	–	–	–	103.0	10.4	6.7	2022 Sep.
60.1	3.8	56.2	53.7	2.7	5.0	46.0	–	–	–	–	103.4	10.4	6.9	Oct.
Building and loan associations														
38.6	3.1	35.5	193.2	3.8	1.5	187.4	–	0.5	0.5	0.1	5.1	12.1	10.0	2022 Sep.
39.1	2.8	36.4	193.1	3.9	1.4	187.3	–	0.5	0.5	0.1	5.1	12.1	10.1	Oct.
Banks with special, development and other central support tasks														
458.2	131.3	326.9	172.1	70.4	31.8	69.7	0.1	–	–	–	802.9	85.6	183.8	2022 Sep.
452.6	119.6	333.1	176.9	61.5	43.7	71.4	0.1	–	–	–	790.4	85.6	183.1	Oct.
Memo item: Foreign banks ⁸														
791.4	393.9	397.5	748.9	549.8	81.0	97.8	41.0	17.2	16.9	3.1	45.0	96.1	851.1	2022 Sep.
822.6	415.8	406.8	743.9	536.4	88.9	98.3	31.8	16.9	16.6	3.4	43.6	95.9	825.2	Oct.
of which: Banks majority-owned by foreign banks ⁹														
520.3	241.3	278.9	575.8	425.4	55.7	74.9	41.0	16.9	16.6	3.0	44.6	80.7	839.4	2022 Sep.
534.1	251.6	282.4	568.0	411.9	61.4	74.9	31.8	16.6	16.3	3.4	43.2	80.7	813.4	Oct.

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

lending													Period
prises and households					to general government								
Loans			Securities	Memo item: Fiduciary loans	Total	Loans			Securities 1	Equalisation claims 2	Memo item: Fiduciary loans		
Total	Medium-term	Long-term				Total	Medium-term	Long-term					
End of year or month *													
2,119.5	249.7	1,869.8	191.4	31.4	533.4	292.7	39.4	253.3	240.7	–	3.5	2012	
2,136.9	248.0	1,888.9	191.7	28.9	534.0	288.4	38.8	249.7	245.6	–	2.7	2013	
2,172.7	251.7	1,921.0	204.2	24.4	532.9	283.1	33.5	249.6	249.8	–	2.1	2014	
2,232.4	256.0	1,976.3	219.0	18.3	527.0	277.0	27.9	249.0	250.0	–	2.1	2015	
2,306.5	264.1	2,042.4	223.4	17.3	495.8	269.4	23.9	245.5	226.4	–	1.8	2016	
2,399.5	273.5	2,125.9	240.6	17.4	450.9	254.0	22.5	231.5	196.9	–	1.7	2017	
2,499.4	282.6	2,216.8	233.4	16.5	412.1	241.7	19.7	222.0	170.4	–	1.4	2018	
2,626.4	301.3	2,325.1	240.5	15.7	394.2	235.9	17.2	218.8	158.2	–	1.5	2019	
2,771.8	310.5	2,461.4	241.1	22.4	390.8	234.3	15.7	218.6	156.6	–	1.1	2020	
2,915.7	314.5	2,601.2	258.9	24.7	373.8	229.9	14.3	215.6	143.9	–	1.0	2021	
2,825.1	311.7	2,513.5	249.9	23.6	385.9	231.1	14.9	216.2	154.8	–	1.1	2021 May	
2,831.8	310.0	2,521.8	250.7	23.9	376.0	229.2	14.7	214.5	146.8	–	1.1	June	
2,851.4	310.7	2,540.8	251.0	24.0	374.6	229.5	14.9	214.6	145.1	–	1.1	July	
2,864.5	311.5	2,553.1	252.2	24.2	374.7	229.1	14.7	214.4	145.6	–	1.1	Aug.	
2,870.0	310.1	2,559.9	253.2	24.2	378.7	228.7	14.3	214.4	150.1	–	1.0	Sep.	
2,885.5	313.5	2,572.0	257.4	24.1	370.9	230.2	14.6	215.6	140.7	–	1.0	Oct.	
2,906.5	315.6	2,590.9	258.4	24.2	373.5	230.0	14.5	215.6	143.5	–	1.0	Nov.	
2,915.7	314.5	2,601.2	258.9	24.7	373.8	229.9	14.3	215.6	143.9	–	1.0	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.	
Changes *													
+ 17.7	– 0.1	+ 17.8	– 0.1	– 2.5	+ 0.6	– 4.3	– 0.7	– 3.6	+ 4.9	–	– 0.8	2013	
+ 39.9	+ 5.6	+ 34.3	+ 12.5	– 1.8	– 4.1	– 8.5	– 5.1	– 3.4	+ 4.3	–	– 0.2	2014	
+ 59.0	+ 4.5	+ 54.6	+ 14.8	– 2.1	– 6.6	– 6.9	– 4.8	– 2.0	+ 0.2	–	+ 0.0	2015	
+ 75.1	+ 9.7	+ 65.4	+ 4.7	– 0.9	– 30.9	– 7.3	– 4.0	– 3.3	– 23.6	–	– 0.4	2016	
+ 87.6	+ 9.4	+ 78.2	+ 15.8	+ 0.1	– 39.9	– 10.6	– 1.3	– 9.3	– 29.4	–	– 0.1	2017	
+ 108.7	+ 19.3	+ 89.4	– 6.7	– 0.9	– 37.1	– 10.5	– 2.7	– 7.8	– 26.6	–	– 0.0	2018	
+ 126.0	+ 18.9	+ 107.2	+ 6.8	– 0.8	– 17.8	– 5.5	– 2.6	– 2.9	– 12.3	–	+ 0.1	2019	
+ 145.0	+ 9.4	+ 135.5	+ 0.6	+ 6.1	– 2.8	– 1.1	– 1.5	+ 0.4	– 1.7	–	– 0.4	2020	
+ 140.1	+ 5.6	+ 134.5	+ 17.8	+ 2.3	– 14.6	– 3.3	– 1.3	– 2.0	– 11.3	–	– 0.0	2021	
+ 11.0	– 1.9	+ 13.0	+ 2.3	+ 0.2	+ 2.1	+ 0.3	– 0.1	+ 0.4	+ 1.8	–	+ 0.0	2021 May	
+ 6.5	– 1.7	+ 8.2	+ 0.8	+ 0.3	– 9.7	– 1.8	– 0.2	– 1.5	– 7.9	–	– 0.0	June	
+ 19.2	+ 0.2	+ 19.0	+ 0.3	+ 0.1	– 1.4	+ 0.3	+ 0.2	+ 0.1	– 1.7	–	– 0.0	July	
+ 13.0	+ 0.8	+ 12.3	+ 1.2	+ 0.2	– 0.1	– 0.6	– 0.1	– 0.4	+ 0.5	–	– 0.0	Aug.	
+ 5.2	– 1.4	+ 6.6	+ 1.0	– 0.0	+ 4.0	– 0.4	– 0.5	+ 0.0	+ 4.4	–	+ 0.0	Sep.	
+ 15.6	+ 3.5	+ 12.1	+ 4.1	– 0.1	– 7.9	+ 1.4	+ 0.3	+ 1.1	– 9.4	–	– 0.0	Oct.	
+ 18.9	+ 4.4	+ 14.5	+ 1.0	+ 0.1	+ 4.4	+ 0.9	– 0.1	+ 1.0	+ 3.5	–	– 0.0	Nov.	
+ 9.3	– 1.1	+ 10.4	+ 0.5	+ 0.5	+ 0.2	– 0.1	– 0.1	+ 0.0	+ 0.4	–	+ 0.0	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.	

IV. Banks

						Lending to employees and other individuals					Lending to non-profit institutions			
Services sector (including the professions)				Memo items:		Total	Housing loans	Other lending			Total	of which: Housing loans	Period	
Total	of which:			Lending to self-employed persons ²	Lending to craft enterprises			Total	of which:					Debit balances on wage, salary and pension accounts
	Housing enterprises	Holding companies	Other real estate activities			Instalment loans ³								
End of year or quarter *													Lending, total	
843.7	286.6	53.8	204.1	464.0	47.9	1,353.4	1,118.3	235.2	177.4	6.7	16.2	4.0	2020	
881.4	304.0	57.5	210.5	478.3	48.9	1,410.5	1,176.6	233.9	176.4	7.0	16.3	4.3	2021 Sep.	
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	Dec.	
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 Mar.	
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	June	
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	Sep.	
													Short-term lending	
61.9	15.7	9.6	10.5	20.9	3.7	28.6	3.4	25.2	1.3	6.7	0.6	0.0	2020	
63.3	16.9	10.3	9.8	20.5	4.3	29.6	3.4	26.2	1.5	7.0	0.5	0.0	2021 Sep.	
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	Dec.	
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 Mar.	
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	June	
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	Sep.	
													Medium-term lending	
89.6	20.4	11.8	24.5	32.0	3.5	79.6	20.0	59.6	56.1	-	0.5	0.0	2020	
96.7	23.2	13.8	27.4	31.1	3.4	76.3	20.0	56.3	52.4	-	0.6	0.1	2021 Sep.	
97.0	23.1	15.2	27.1	30.0	3.3	74.4	19.8	54.6	50.6	-	0.6	0.1	Dec.	
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 Mar.	
99.8	24.1	17.1	26.6	29.9	3.2	72.5	19.8	52.7	48.6	-	0.5	0.1	June	
103.6	25.2	17.7	27.5	30.4	6.4	73.0	20.1	52.9	48.7	-	0.5	0.1	Sep.	
													Long-term lending	
692.3	250.5	32.4	169.1	411.1	40.7	1,245.3	1,094.9	150.4	120.0	-	15.1	4.0	2020	
721.3	263.9	33.3	173.3	426.7	41.2	1,304.7	1,153.3	151.4	122.6	-	15.3	4.2	2021 Sep.	
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	Dec.	
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 Mar.	
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	June	
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	Sep.	
Change during quarter *													Lending, total	
+ 9.4	+ 6.5	- 0.8	+ 1.7	+ 4.2	+ 0.2	+ 24.3	+ 22.7	+ 1.6	+ 1.1	+ 0.5	+ 0.1	+ 0.1	2021 Q3	
+ 18.8	+ 7.3	+ 4.2	+ 2.8	+ 5.2	- 0.6	+ 18.8	+ 19.6	- 0.7	- 0.1	- 0.2	+ 0.4	+ 0.1	Q4	
+ 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	
													Short-term lending	
- 2.7	+ 0.9	- 1.2	- 0.6	- 0.5	+ 0.2	+ 1.0	+ 0.0	+ 1.0	+ 0.1	+ 0.5	- 0.0	+ 0.0	2021 Q3	
+ 3.4	- 1.1	+ 2.5	+ 0.5	- 0.6	- 0.5	- 0.3	- 0.2	- 0.1	- 0.0	- 0.2	+ 0.1	+ 0.0	Q4	
+ 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	
													Medium-term lending	
+ 0.8	+ 0.8	- 0.5	+ 0.9	- 0.2	- 0.1	- 0.4	+ 0.2	- 0.6	- 0.7	-	+ 0.1	+ 0.0	2021 Q3	
+ 1.7	+ 1.3	+ 1.4	- 0.4	- 0.4	- 0.1	- 1.3	- 0.1	- 1.1	- 1.3	-	+ 0.0	+ 0.0	Q4	
- 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	
													Long-term lending	
+ 11.3	+ 4.7	+ 1.0	+ 1.3	+ 4.9	+ 0.1	+ 23.6	+ 22.5	+ 1.2	+ 1.7	-	+ 0.1	+ 0.1	2021 Q3	
+ 13.6	+ 7.2	+ 0.4	+ 2.7	+ 6.2	+ 0.1	+ 20.4	+ 19.9	+ 0.5	+ 1.2	-	+ 0.3	+ 0.1	Q4	
+ 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	

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 * (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	End of year or month *
					Total	for up to and including 2 years	for more than 2 years						
Domestic enterprises and households													End of year or month *
2019	3,423.9	2,161.6	661.4	126.7	534.7	26.6	508.0	571.8	29.1	7.8	12.6	0.0	
2020	3,655.7	2,432.9	640.3	129.3	511.0	27.0	483.9	557.9	24.6	9.0	12.3	0.1	
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	
2021 Nov.	3,788.6	2,599.8	610.0	115.7	494.3	26.3	467.9	557.4	21.4	8.5	13.3	0.9	
Dec.	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 Jan.	3,792.4	2,602.4	610.8	116.6	494.1	25.5	468.6	558.3	20.8	8.4	15.0	1.1	
Feb.	3,799.9	2,613.1	607.8	114.5	493.3	24.9	468.3	558.4	20.6	8.2	15.1	1.2	
Mar.	3,792.7	2,610.4	605.1	113.7	491.4	24.8	466.6	556.6	20.5	8.2	15.2	1.6	
Apr.	3,802.9	2,619.4	607.6	119.0	488.6	25.1	463.6	555.5	20.4	8.2	15.2	1.1	
May	3,801.2	2,632.9	593.7	107.2	486.5	25.3	461.2	554.2	20.4	8.0	15.1	0.8	
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	
Changes *													
2020	+ 228.5	+ 268.0	- 21.1	+ 1.5	- 22.6	+ 0.5	- 23.0	- 13.9	- 4.6	+ 1.2	- 0.2	+ 0.1	
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	
2021 Nov.	+ 13.5	+ 20.6	- 6.6	- 4.3	- 2.3	- 0.6	- 1.7	- 0.2	- 0.3	- 0.2	- 0.0	- 0.6	
Dec.	- 22.3	- 27.5	+ 4.1	+ 3.3	+ 0.8	- 0.5	+ 1.2	+ 1.3	- 0.2	- 0.1	+ 1.8	- 0.6	
2022 Jan.	+ 26.2	+ 30.2	- 3.3	- 2.3	- 1.0	- 0.4	- 0.6	- 0.4	- 0.4	+ 0.0	- 0.0	+ 0.8	
Feb.	+ 7.5	+ 10.7	- 3.0	- 2.1	- 0.9	- 0.6	- 0.3	+ 0.1	- 0.2	- 0.2	+ 0.0	+ 0.2	
Mar.	- 7.4	- 2.7	- 2.8	- 0.8	- 2.0	- 0.1	- 1.9	- 1.8	- 0.1	+ 0.0	+ 0.0	+ 0.3	
Apr.	+ 10.3	+ 8.5	+ 2.5	+ 5.3	- 2.8	+ 0.2	- 3.0	- 0.6	- 0.1	- 0.1	+ 0.1	- 0.5	
May	- 1.4	+ 13.5	- 13.6	- 11.7	- 1.9	+ 0.2	- 2.1	- 1.3	- 0.0	- 0.2	- 0.1	- 0.2	
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.	+ 20.2	- 7.3	+ 28.3	+ 29.7	- 1.4	+ 0.4	- 1.8	- 3.0	+ 2.1	+ 0.4	+ 0.0	+ 0.5	
of which: Domestic enterprises													End of year or month *
2019	1,031.5	614.4	399.7	81.1	318.6	15.5	303.1	6.7	10.7	2.4	10.1	0.0	
2020	1,116.1	719.1	381.7	89.2	292.5	15.0	277.5	5.8	9.4	2.3	9.7	0.1	
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	
2021 Nov.	1,166.2	791.7	361.1	84.3	276.7	15.5	261.3	5.5	8.0	2.3	10.5	0.9	
Dec.	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 Jan.	1,170.4	795.8	361.6	85.3	276.4	15.9	260.4	5.1	7.8	2.4	12.2	1.1	
Feb.	1,165.1	793.2	359.0	83.4	275.6	15.4	260.2	5.2	7.8	2.2	12.2	1.2	
Mar.	1,171.9	802.1	356.9	82.7	274.2	15.5	258.7	5.2	7.8	2.3	12.3	1.6	
Apr.	1,165.3	792.4	360.0	88.0	272.0	16.0	256.1	5.2	7.7	2.3	12.4	1.1	
May	1,165.6	806.0	346.7	76.4	270.4	16.3	254.1	5.1	7.7	2.3	12.3	0.8	
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	
Changes *													
2020	+ 81.0	+ 101.2	- 18.0	+ 7.0	- 25.0	- 0.4	- 24.6	- 0.8	- 1.3	- 0.0	- 0.5	+ 0.1	
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	
2021 Nov.	+ 6.1	+ 11.9	- 5.4	- 3.9	- 1.5	- 0.1	- 1.4	- 0.2	- 0.2	+ 0.0	- 0.0	- 0.6	
Dec.	- 23.4	- 26.5	+ 3.3	+ 3.1	+ 0.2	+ 0.3	- 0.1	- 0.2	- 0.0	+ 0.0	+ 1.8	- 0.6	
2022 Jan.	+ 27.8	+ 30.8	- 2.6	- 2.1	- 0.5	+ 0.1	- 0.7	- 0.2	- 0.2	+ 0.0	- 0.1	+ 0.8	
Feb.	- 5.3	- 2.6	- 2.7	- 1.9	- 0.7	- 0.5	- 0.3	+ 0.0	- 0.0	- 0.1	+ 0.0	+ 0.2	
Mar.	+ 6.6	+ 8.8	- 2.2	- 0.7	- 1.5	+ 0.0	- 1.6	+ 0.0	+ 0.0	+ 0.0	+ 0.0	+ 0.3	
Apr.	- 6.6	- 9.6	+ 3.2	+ 5.4	- 2.2	+ 0.4	- 2.6	- 0.0	- 0.1	+ 0.0	+ 0.1	- 0.5	
May	- 0.5	+ 12.6	- 13.0	- 11.7	- 1.4	+ 0.3	- 1.7	- 0.0	+ 0.0	- 0.0	- 0.1	- 0.2	
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.	+ 17.0	- 6.7	+ 23.6	+ 25.1	- 1.5	+ 0.1	- 1.5	- 0.1	+ 0.1	+ 0.0	- 0.0	+ 0.5	

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

IV. Banks

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

€ billion

Period	Sight deposits							Time deposits 1,2					
	Total	by creditor group					Total	by creditor group					
		Domestic households						Domestic households					
			Self-employed persons	Employees	Other individuals	Domestic non-profit institutions		Total	Self-employed persons	Employees	Other individuals		
													End of year or month *
2019	2,392.4	1,547.2	1,507.9	266.3	1,081.6	160.1	39.3	261.7	248.3	20.8	190.2	37.3	
2020	2,539.5	1,713.8	1,672.7	291.1	1,215.4	166.2	41.1	258.6	245.1	19.3	190.5	35.2	
2021	2,623.6	1,807.1	1,762.4	308.6	1,288.4	165.4	44.7	249.8	237.8	18.2	185.6	33.9	
2022 May	2,635.6	1,827.0	1,780.3	311.6	1,308.0	160.8	46.7	247.0	235.0	18.6	181.8	34.6	
June	2,638.0	1,831.5	1,784.9	308.1	1,316.2	160.7	46.6	246.6	234.4	19.0	181.0	34.4	
July	2,659.3	1,853.9	1,807.6	317.0	1,328.2	162.4	46.3	247.1	234.8	19.3	181.0	34.4	
Aug.	2,656.3	1,850.8	1,803.8	320.0	1,323.2	160.5	47.0	248.8	235.7	19.8	181.7	34.1	
Sep.	2,661.2	1,853.3	1,805.7	314.2	1,329.9	161.5	47.6	255.7	242.0	21.8	185.8	34.4	
Oct.	2,664.4	1,852.6	1,807.1	317.1	1,329.7	160.3	45.5	260.4	246.5	23.1	188.8	34.6	
													Changes *
2020	+ 147.5	+ 166.9	+ 165.0	+ 26.0	+ 131.5	+ 7.5	+ 1.8	- 3.1	- 3.2	- 1.5	- 1.6	- 0.2	
2021	+ 84.7	+ 93.8	+ 90.3	+ 17.3	+ 73.7	- 0.6	+ 3.5	- 8.6	- 7.2	- 1.1	- 4.7	- 1.3	
2022 May	- 0.9	+ 1.0	+ 0.8	+ 2.0	- 0.2	- 1.1	+ 0.2	- 0.6	- 0.9	-	- 0.6	- 0.3	
June	+ 2.4	+ 4.5	+ 4.6	- 3.5	+ 8.2	- 0.1	- 0.1	- 0.3	- 0.6	+ 0.4	- 0.9	- 0.1	
July	+ 21.3	+ 22.4	+ 22.7	+ 8.9	+ 12.5	+ 1.2	- 0.3	+ 0.4	+ 0.3	+ 0.3	+ 0.1	- 0.1	
Aug.	- 2.8	- 3.2	- 3.9	+ 3.0	- 5.1	- 1.9	+ 0.7	+ 2.0	+ 1.2	+ 0.5	+ 0.8	- 0.1	
Sep.	+ 4.9	+ 2.5	+ 1.9	- 5.8	+ 6.7	+ 1.0	+ 0.5	+ 6.9	+ 6.3	+ 2.0	+ 4.0	+ 0.3	
Oct.	+ 3.2	- 0.6	+ 1.5	+ 2.9	- 0.3	- 1.2	- 2.1	+ 4.7	+ 4.5	+ 1.3	+ 3.0	+ 0.2	

* See Table IV.2, footnote *; statistical breaks have been eliminated from the changes. Subsequent revisions, which appear in the following Monthly Report, are not specially marked. **1** Including subordinated liabilities and liabilities arising from

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

€ billion

Period	Deposits													
	Domestic government, total	Federal Government and its special funds ¹							State governments					
		Total	Sight deposits	Time deposits			Savings deposits and bank savings bonds ²	Memo item: Fiduciary loans	Total	Sight deposits	Time deposits		Savings deposits and bank savings bonds ²	Memo item: Fiduciary loans
				for up to and including 1 year	for more than 1 year	for up to and including 1 year					for more than 1 year			
													End of year or month *	
2019	237.1	11.2	5.4	1.5	4.2	0.1	11.6	53.8	21.1	17.1	14.5	1.0	13.1	
2020	229.5	48.6	4.8	7.2	36.5	0.0	11.3	46.5	21.2	11.4	13.2	0.7	14.1	
2021	210.1	43.5	4.2	3.2	36.0	0.1	11.7	47.4	21.7	13.8	11.3	0.6	14.1	
2022 May	255.6	42.8	5.6	1.1	36.0	0.1	11.7	62.0	21.1	29.0	11.4	0.5	13.9	
June	254.9	43.0	5.5	4.4	33.1	0.1	11.6	62.8	18.0	33.0	11.3	0.5	13.8	
July	258.3	44.0	5.7	4.2	34.0	0.1	11.5	65.7	17.2	36.8	11.2	0.5	13.9	
Aug.	272.6	44.0	5.6	4.3	34.0	0.1	11.5	65.7	16.0	38.1	11.1	0.5	14.0	
Sep.	273.0	43.3	6.7	8.3	28.2	0.1	11.6	71.2	19.4	40.5	10.8	0.5	14.1	
Oct.	271.2	44.9	6.2	8.5	30.2	0.1	11.5	67.2	19.4	36.8	10.5	0.5	14.2	
													Changes *	
2020	- 6.9	+ 37.3	- 0.6	+ 5.7	+ 32.2	- 0.0	- 0.3	- 7.0	+ 0.2	- 5.7	- 1.3	- 0.2	+ 1.0	
2021	- 17.9	- 5.0	- 0.5	- 4.1	- 0.4	+ 0.0	+ 0.3	+ 1.0	+ 0.6	+ 2.3	- 1.8	- 0.1	+ 0.0	
2022 May	+ 11.5	+ 0.6	+ 0.6	+ 0.0	+ 0.0	- 0.0	- 0.0	+ 1.3	- 0.8	+ 2.0	+ 0.1	- 0.0	+ 0.0	
June	- 0.7	+ 0.2	- 0.2	+ 3.3	- 2.9	+ 0.0	- 0.1	+ 0.8	- 3.1	+ 4.0	- 0.1	- 0.0	- 0.0	
July	+ 3.5	+ 1.1	+ 0.2	- 0.1	+ 1.0	-	- 0.1	+ 2.8	- 0.8	+ 3.8	- 0.1	- 0.0	+ 0.1	
Aug.	+ 14.3	+ 0.0	- 0.1	+ 0.1	+ 0.0	+ 0.0	+ 0.0	+ 0.0	- 1.2	+ 1.4	- 0.2	- 0.0	+ 0.1	
Sep.	+ 0.4	- 0.7	+ 1.1	+ 4.0	- 5.8	- 0.0	+ 0.0	+ 5.5	+ 3.4	+ 2.4	- 0.3	+ 0.0	+ 0.2	
Oct.	- 1.9	+ 1.6	- 0.6	+ 0.2	+ 2.0	- 0.0	- 0.0	- 4.0	- 0.0	- 3.7	- 0.2	- 0.0	+ 0.0	

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

IV. Banks

					Savings deposits ³			Memo item:					Period
by maturity					Total	Domestic households	Domestic non-profit institutions	Bank savings bonds ⁴	Fiduciary loans	Subordinated liabilities (excluding negotiable debt securities) ⁵	Liabilities arising from repos		
Domestic non-profit institutions	up to and including 1 year	more than 1 year ²											
		Total	of which:										
		up to and including 2 years	more than 2 years										
End of year or month *													
13.3	45.6	216.1	11.2	204.9	565.1	558.1	7.0	18.4	5.4	2.4	-	2019	
13.5	40.1	218.5	12.0	206.5	552.0	545.7	6.3	15.1	6.7	2.7	-	2020	
12.0	31.7	218.1	10.1	208.0	553.4	547.2	6.2	13.2	6.1	2.8	-	2021	
12.0	30.9	216.1	9.0	207.2	549.0	543.1	5.9	12.6	5.7	2.8	-	2022 May	
12.2	31.5	215.1	8.7	206.4	547.3	541.4	5.9	12.6	5.7	2.9	-	June	
12.3	32.3	214.8	8.8	206.1	545.5	539.7	5.7	12.8	5.6	2.9	-	July	
13.2	34.5	214.4	8.8	205.6	543.1	537.4	5.7	13.5	5.6	2.9	-	Aug.	
13.7	41.3	214.4	8.9	205.5	537.9	532.3	5.6	14.3	5.6	3.0	-	Sep.	
13.9	45.9	214.5	9.3	205.2	535.1	529.5	5.5	16.3	5.9	3.0	-	Oct.	
Changes *													
+ 0.2	- 5.5	+ 2.4	+ 0.9	+ 1.6	- 13.0	- 12.3	- 0.7	- 3.3	+ 1.3	+ 0.2	-	2020	
- 1.4	- 8.4	- 0.2	- 1.9	+ 1.6	+ 1.4	+ 1.5	- 0.1	- 1.9	- 0.6	+ 0.2	-	2021	
+ 0.4	- 0.1	- 0.5	- 0.1	- 0.4	- 1.3	- 1.3	- 0.0	- 0.0	- 0.2	- 0.0	-	2022 May	
+ 0.2	+ 0.6	- 1.0	- 0.3	- 0.7	- 1.8	- 1.7	- 0.1	- 0.0	- 0.0	+ 0.0	-	June	
+ 0.1	+ 0.8	- 0.3	+ 0.0	- 0.4	- 1.8	- 1.7	- 0.1	+ 0.2	- 0.1	+ 0.0	-	July	
+ 0.8	+ 2.2	- 0.2	+ 0.1	- 0.3	- 2.3	- 2.3	- 0.1	+ 0.7	- 0.1	+ 0.0	-	Aug.	
+ 0.6	+ 6.8	+ 0.0	+ 0.2	- 0.1	- 5.2	- 5.1	- 0.1	+ 0.8	+ 0.0	+ 0.0	-	Sep.	
+ 0.2	+ 4.6	+ 0.1	+ 0.3	- 0.3	- 2.9	- 2.8	- 0.1	+ 2.0	+ 0.3	+ 0.0	-	Oct.	

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

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

Local government and local government associations (including municipal special-purpose associations)						Social security funds						Period
Total	Sight deposits	Time deposits ³		Savings deposits and bank savings bonds ^{2,4}	Memo item: Fiduciary loans	Total	Sight deposits	Time deposits		Savings deposits and bank savings bonds ²	Memo item: Fiduciary loans	
		for up to and including 1 year	for more than 1 year					for up to and including 1 year	for more than 1 year			
End of year or month *												
65.3	37.4	8.6	14.0	5.4	0.0	106.8	10.8	48.8	46.2	1.1	-	2019
68.5	43.2	8.0	12.4	4.9	0.0	66.0	10.9	32.9	21.4	0.8	-	2020
70.9	48.5	6.0	12.0	4.4	0.0	48.3	8.0	19.0	20.5	0.8	-	2021
72.4	47.9	7.0	13.1	4.4	0.0	78.4	16.8	39.0	21.7	0.9	-	2022 May
70.1	45.2	7.2	13.2	4.4	0.0	78.9	16.0	40.0	22.0	0.9	-	June
67.0	41.2	7.7	13.7	4.4	0.0	81.6	13.9	44.3	22.6	0.7	-	July
76.2	48.9	9.1	13.8	4.4	0.0	86.7	18.6	44.7	22.6	0.7	-	Aug.
72.1	45.0	9.5	13.2	4.4	0.0	86.5	15.5	46.3	23.9	0.7	-	Sep.
70.1	42.7	9.6	13.3	4.5	0.0	89.0	18.6	46.3	23.4	0.7	-	Oct.
Changes *												
+ 3.5	+ 5.9	- 0.6	- 1.3	- 0.5	- 0.0	- 40.8	+ 0.2	- 15.9	- 24.8	- 0.3	-	2020
+ 2.8	+ 5.6	- 2.0	- 0.2	- 0.5	-	- 16.8	- 2.2	- 13.9	- 0.6	+ 0.1	-	2021
+ 6.0	+ 4.8	+ 0.8	+ 0.4	+ 0.0	-	+ 3.6	+ 0.7	+ 2.4	+ 0.5	- 0.0	-	2022 May
- 2.3	- 2.6	+ 0.2	+ 0.1	+ 0.0	-	+ 0.6	- 0.7	+ 1.0	+ 0.3	- 0.0	-	June
- 3.1	- 4.0	+ 0.5	+ 0.5	-	-	+ 2.7	- 2.1	+ 4.3	+ 0.6	- 0.1	-	July
+ 9.1	+ 7.6	+ 1.4	+ 0.1	+ 0.0	-	+ 5.1	+ 4.7	+ 0.4	+ 0.0	+ 0.0	-	Aug.
- 4.1	- 3.9	+ 0.4	- 0.6	+ 0.0	-	- 0.2	- 3.1	+ 1.6	+ 1.3	-	-	Sep.
- 2.0	- 2.3	+ 0.1	+ 0.2	+ 0.0	-	+ 2.5	+ 3.1	+ 0.0	- 0.6	- 0.0	-	Oct.

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

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

IV. Banks

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

€ billion

Period	Savings deposits ¹								Memo item: Interest credited on savings deposits	Bank savings bonds, ³ sold to			
	of residents				of non-residents					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 ²	Total	of which: Special savings facilities ²							
End of year or month *													
2019	581.8	575.2	540.5	313.2	34.7	24.7	6.6	5.9	2.0	35.9	33.2	25.1	2.6
2020	566.8	560.6	533.3	288.0	27.3	18.0	6.3	5.7	1.8	30.2	28.3	22.1	1.9
2021	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 June	560.4	554.8	532.4	259.4	22.4	13.4	5.6	5.2	0.1	24.0	23.8	18.8	0.1
July	558.6	553.0	530.7	259.5	22.2	13.3	5.6	5.2	0.1	24.2	24.1	18.9	0.1
Aug.	556.1	550.6	528.4	257.1	22.2	13.3	5.6	5.1	0.1	25.1	25.0	19.2	0.2
Sep.	550.7	545.2	523.1	252.7	22.1	13.3	5.5	5.0	0.1	26.1	25.9	19.4	0.2
Oct.	547.6	542.2	519.8	252.4	22.3	13.6	5.4	5.0	0.1	28.3	28.1	19.8	0.2
Changes *													
2020	- 14.8	- 14.5	- 7.2	- 24.6	- 7.3	- 6.7	- 0.3	- 0.2	.	- 5.7	- 4.9	- 3.0	- 0.7
2021	+ 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 June	- 1.8	- 1.8	- 1.6	- 2.8	- 0.2	- 0.1	- 0.0	- 0.0	.	- 0.0	- 0.0	- 0.0	-
July	- 1.9	- 1.8	- 1.7	+ 0.2	- 0.2	- 0.0	- 0.0	- 0.0	.	+ 0.3	+ 0.3	+ 0.1	-
Aug.	- 2.5	- 2.4	- 2.3	- 2.3	- 0.1	- 0.0	- 0.1	- 0.1	.	+ 0.9	+ 0.9	+ 0.3	+ 0.0
Sep.	- 5.4	- 5.3	- 5.3	- 4.3	- 0.0	- 0.0	- 0.1	- 0.1	.	+ 1.0	+ 0.9	+ 0.2	+ 0.0
Oct.	- 3.1	- 3.1	- 3.3	- 0.4	+ 0.2	+ 0.3	- 0.1	- 0.1	.	+ 2.2	+ 2.2	+ 0.4	+ 0.0

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

deposits. ² Savings deposits bearing interest at a rate which exceeds the minimum or basic rate of interest. ³ Including liabilities arising from non-negotiable bearer debt securities.

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

€ billion

Period	Negotiable bearer debt securities and money market paper										Non-negotiable bearer debt securities and money market paper ⁶		Subordinated	
	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 ¹	Zero coupon bonds ^{1,2}	Foreign currency bonds ^{3,4}	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 ⁵	Total	of which: without a nominal guarantee ⁵					
End of year or month *														
2019	1,140.7	123.5	28.6	367.7	96.7	117.7	2.6	23.6	4.2	999.4	0.9	0.7	31.5	0.4
2020	1,119.0	117.1	12.7	313.6	89.4	94.3	1.5	23.8	3.1	1,009.9	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 June	1,237.2	99.0	16.2	353.3	113.3	124.4	2.3	16.8	4.1	1,096.1	0.8	0.8	36.4	0.1
July	1,237.8	98.0	16.2	344.8	105.0	115.4	2.1	17.7	4.1	1,104.7	1.0	0.9	36.5	0.1
Aug.	1,239.1	96.8	16.7	336.8	98.9	109.9	2.1	21.6	4.1	1,107.7	0.9	0.8	37.4	0.1
Sep.	1,271.1	96.1	16.9	353.1	117.9	128.8	1.9	23.1	3.9	1,119.3	0.8	0.8	38.2	0.1
Oct.	1,261.8	95.5	15.6	335.7	102.2	111.5	1.8	25.1	3.9	1,125.1	0.9	0.8	38.1	0.1
Changes *														
2020	- 20.5	- 5.2	- 0.8	- 54.1	- 22.3	- 22.2	- 1.1	+ 0.2	- 1.1	+ 1.5	+ 0.3	+ 0.2	+ 2.1	- 0.0
2021	+ 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 June	+ 11.1	+ 0.6	+ 1.3	+ 14.1	+ 13.2	+ 15.1	- 0.0	+ 0.6	- 0.4	- 4.7	+ 0.4	+ 0.4	+ 0.7	-
July	+ 1.8	+ 0.3	- 0.0	- 8.5	- 8.3	- 9.0	- 0.2	+ 0.9	- 0.0	+ 9.8	+ 0.1	+ 0.1	+ 0.1	-
Aug.	+ 1.3	- 1.2	+ 0.5	- 8.0	- 6.1	- 5.5	+ 0.0	+ 3.8	- 0.1	+ 3.0	- 0.0	- 0.0	+ 0.9	-
Sep.	+ 32.0	- 0.7	+ 0.2	+ 16.3	+ 19.0	+ 18.9	- 0.2	+ 1.5	- 0.2	+ 11.6	- 0.1	- 0.1	+ 0.8	-
Oct.	- 9.4	- 0.6	- 1.4	- 17.4	- 15.5	- 17.2	- 0.1	+ 2.0	+ 0.0	+ 5.8	+ 0.0	+ 0.0	- 0.1	-

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

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

IV. Banks

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

€ billion

End of year/month	Number of associations	Balance sheet total ¹	Lending to banks (MFIs)			Lending to non-banks (non-MFIs)				Deposits of banks (MFIs) ⁶		Deposits of non-banks (non-MFIs)		Bearer debt securities outstanding	Capital (including published reserves) ⁸	Memo item: New contracts entered into in year or month ⁹
			Credit balances and loans (excluding building loans) ²	Building loans ³	Bank debt securities ⁴	Building loans			Securities (including Treasury bills and Treasury discount paper) ⁵	Deposits under savings and loan contracts	Sight and time deposits	Deposits under savings and loan contracts	Sight and time deposits ⁷			
						Loans under savings and loan contracts	Interim and bridging loans	Other building loans								
All building and loan associations																
2021	18	253.2	30.0	0.0	15.7	10.1	130.5	36.7	26.5	3.0	30.1	184.4	9.2	4.2	12.4	71.4
2022 Aug.	18	258.9	32.3	0.0	15.0	10.4	133.9	39.8	23.6	2.9	36.0	184.0	9.3	4.6	12.1	8.1
Sep.	18	259.0	31.6	0.0	15.1	10.5	134.3	40.0	23.4	2.9	35.7	184.0	9.2	5.1	12.1	8.2
Oct.	18	259.6	31.6	0.0	15.3	10.7	134.3	40.2	23.4	2.8	36.3	183.9	9.2	5.1	12.1	8.4
Private building and loan associations																
2022 Aug.	10	182.3	17.4	–	6.7	7.6	104.2	33.8	9.9	1.7	33.0	119.3	8.8	4.6	8.2	5.3
Sep.	10	182.4	16.9	–	7.0	7.6	104.6	34.0	9.7	1.6	32.8	119.2	8.8	5.1	8.2	5.4
Oct.	10	183.2	16.9	–	7.3	7.8	104.5	34.2	9.8	1.6	33.6	119.1	8.9	5.1	8.2	5.7
Public building and loan associations																
2022 Aug.	8	76.6	14.9	0.0	8.3	2.8	29.7	6.0	13.7	1.3	3.0	64.8	0.5	–	3.9	2.8
Sep.	8	76.6	14.8	0.0	8.1	2.9	29.8	6.0	13.6	1.2	2.9	64.8	0.5	–	3.9	2.8
Oct.	8	76.4	14.7	0.0	8.0	3.0	29.8	6.0	13.6	1.2	2.8	64.8	0.3	–	3.9	2.7

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 ¹¹		Memo item: Housing bonuses received ¹³	
	Amounts paid into savings and loan accounts ¹⁰	Interest credited on deposits under savings and loan contracts	Repayments of deposits under cancelled savings and loan contracts	Total	of which: Net allocations ¹²	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 ¹⁰							
							Total	of which: Applied to settlement of interim and bridging loans	Total							of which: Applied to settlement of interim and bridging loans
All building and loan associations																
2021	27.7	2.0	9.1	52.3	27.7	47.1	18.3	4.0	4.2	3.4	24.7	18.6	6.3	6.1	4.9	0.1
2022 Aug.	2.2	0.1	0.7	3.9	2.5	3.9	1.6	0.4	0.5	0.3	1.9	19.0	6.6	0.4	–	0.0
Sep.	2.2	0.1	0.8	3.7	2.4	3.9	1.6	0.4	0.5	0.3	1.8	18.3	6.5	0.4	1.0	0.0
Oct.	2.2	0.1	0.7	3.9	2.7	3.8	1.7	0.4	0.5	0.4	1.6	18.0	6.6	0.4	–	0.0
Private building and loan associations																
2022 Aug.	1.4	0.1	0.4	2.8	1.7	3.0	1.2	0.3	0.3	0.3	1.5	13.6	3.5	0.3	–	0.0
Sep.	1.4	0.1	0.4	2.7	1.7	2.9	1.2	0.3	0.3	0.2	1.4	13.2	3.5	0.3	0.8	0.0
Oct.	1.4	0.0	0.4	2.8	1.9	2.9	1.3	0.3	0.4	0.3	1.2	12.8	3.6	0.3	–	0.0
Public building and loan associations																
2022 Aug.	0.8	0.0	0.3	1.1	0.7	0.9	0.4	0.1	0.1	0.1	0.4	5.4	3.1	0.1	–	0.0
Sep.	0.8	0.0	0.3	1.0	0.7	1.0	0.4	0.1	0.2	0.1	0.4	5.2	3.0	0.1	0.3	0.0
Oct.	0.8	0.0	0.3	1.1	0.8	0.9	0.4	0.1	0.2	0.1	0.3	5.2	3.1	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

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								
End of year or month *													Foreign branches		
894.1	613.6	453.2	160.4	280.5	12.7	10.1	2.7	267.8	94.6	53.4	410.9	361.1	2019		
872.2	588.5	431.8	156.7	283.7	11.7	10.2	1.5	272.0	61.5	49.9	568.6	523.1	2020		
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		
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 Dec.		
1,066.8	659.1	457.3	201.8	407.7	9.5	7.7	1.8	398.2	86.1	51.8	414.1	377.6	2022 Jan.		
1,079.5	664.5	466.8	197.6	415.0	9.8	8.1	1.7	405.2	82.7	51.8	420.4	383.8	Feb.		
1,087.0	663.1	462.8	200.3	423.9	10.7	9.0	1.7	413.2	80.7	52.3	454.9	418.8	Mar.		
1,075.8	655.6	453.6	202.0	420.1	10.5	8.7	1.8	409.7	88.6	53.3	566.4	526.8	Apr.		
1,059.1	633.0	437.3	195.7	426.1	10.5	8.7	1.7	415.6	90.4	52.9	556.8	512.4	May		
1,035.8	630.0	447.9	182.1	405.8	10.7	8.9	1.8	395.1	84.1	53.4	567.7	521.9	June		
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	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	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	Sep.		
Changes *													Foreign subsidiaries		
- 9.2	- 13.3	- 21.4	+ 8.1	+ 4.1	- 1.0	+ 0.3	- 1.4	+ 5.1	- 28.1	- 3.5	+ 157.6	+ 162.0	2020		
+ 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		
+ 114.7	+ 18.7	- 4.0	+ 22.7	+ 96.0	+ 1.4	+ 1.4	+ 0.0	+ 94.6	+ 20.4	+ 0.6	- 23.8	- 25.8	2022 Jan.		
+ 13.3	+ 6.0	+ 9.6	- 3.6	+ 7.3	+ 0.3	+ 0.4	- 0.1	+ 7.0	- 3.2	+ 0.0	+ 6.3	+ 6.3	Feb.		
+ 7.0	- 1.8	- 4.0	+ 2.2	+ 8.8	+ 0.9	+ 0.9	+ 0.0	+ 7.9	- 2.4	+ 0.5	+ 34.5	+ 35.0	Mar.		
- 15.2	- 11.0	- 9.2	- 1.8	- 4.2	- 0.2	- 0.3	+ 0.1	- 4.0	+ 5.3	+ 0.9	+ 108.8	+ 108.0	Apr.		
- 10.4	- 16.5	- 12.5	- 4.1	+ 6.2	- 0.0	+ 0.0	- 0.0	+ 6.2	+ 2.7	- 0.4	- 13.3	- 14.4	May		
- 26.9	- 6.4	+ 10.6	- 17.0	- 20.5	+ 0.3	+ 0.2	+ 0.1	- 20.7	- 8.0	+ 0.5	+ 10.9	+ 9.5	June		
+ 6.6	+ 1.9	+ 10.8	- 8.9	+ 4.7	- 0.2	- 0.2	- 0.0	+ 4.8	- 3.9	+ 0.5	- 59.8	- 69.3	July		
+ 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	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	Sep.		
End of year or month *													Foreign subsidiaries		
165.7	68.7	36.6	32.1	97.0	6.6	3.9	2.7	90.4	16.0	22.1	31.4	0.0	2019		
163.4	59.6	34.1	25.5	103.8	6.7	4.2	2.5	97.1	16.6	20.3	29.2	0.0	2020		
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		
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 Dec.		
179.6	64.8	33.2	31.7	114.7	7.2	4.8	2.4	107.5	15.9	19.9	29.8	0.0	2022 Jan.		
180.9	66.3	33.7	32.7	114.5	7.4	5.0	2.4	107.1	15.8	19.8	29.3	0.0	Feb.		
184.0	66.5	34.2	32.3	117.5	7.5	5.1	2.4	110.0	15.7	19.8	29.8	0.0	Mar.		
187.8	70.6	36.1	34.4	117.2	7.2	4.8	2.4	110.0	15.5	19.9	30.3	0.0	Apr.		
190.9	70.3	36.3	34.1	120.5	7.2	4.8	2.4	113.3	15.3	20.1	30.2	0.0	May		
190.7	68.9	35.9	33.0	121.7	7.4	5.1	2.3	114.3	16.0	20.3	31.0	0.0	June		
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	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	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	Sep.		
Changes *													Foreign subsidiaries		
+ 1.4	- 7.3	- 2.5	- 4.8	+ 8.7	+ 0.0	+ 0.3	- 0.3	+ 8.7	+ 0.6	- 1.8	- 1.0	± 0.0	2020		
+ 12.1	+ 3.2	- 1.1	+ 4.3	+ 8.9	+ 0.6	+ 0.6	- 0.1	+ 8.3	- 0.1	+ 0.1	+ 0.2	± 0.0	2021		
+ 0.4	+ 0.4	+ 0.2	+ 0.2	+ 0.0	- 0.1	- 0.1	+ 0.0	+ 0.1	- 0.5	- 0.5	- 1.2	± 0.0	2022 Jan.		
+ 1.5	+ 1.6	+ 0.5	+ 1.1	- 0.1	+ 0.2	+ 0.2	- 0.0	- 0.4	- 0.1	- 0.1	- 0.5	± 0.0	Feb.		
+ 2.8	+ 0.1	+ 0.5	- 0.5	+ 2.7	+ 0.0	+ 0.1	- 0.0	+ 2.7	- 0.1	+ 0.1	+ 0.4	± 0.0	Mar.		
+ 1.6	+ 3.1	+ 1.9	+ 1.2	- 1.5	- 0.2	- 0.2	- 0.0	- 1.2	- 0.2	+ 0.1	- 0.1	± 0.0	Apr.		
+ 3.8	+ 0.1	+ 0.1	- 0.0	+ 3.7	- 0.0	- 0.0	+ 0.0	+ 3.8	- 0.2	+ 0.2	+ 0.1	± 0.0	May		
- 1.5	- 2.0	- 0.4	- 1.6	+ 0.4	+ 0.2	+ 0.3	- 0.1	+ 0.2	+ 0.7	+ 0.2	+ 0.4	± 0.0	June		
- 2.0	- 3.0	- 1.0	- 2.0	+ 1.0	+ 0.3	+ 0.3	+ 0.0	+ 0.7	- 0.4	- 0.1	- 0.3	± 0.0	July		
+ 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	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	Sep.		

domicile are regarded as a single branch. 2 Treasury bills, Treasury discount paper and other money market paper, debt securities. 3 Including own debt securities. 4 Excluding subordinated liabilities and non-negotiable debt securities. 5 Issues of negotiable and

non-negotiable debt securities and money market paper. 6 Including subordinated liabilities. 7 See also Table IV.2, footnote 1.

V. Minimum reserves

1. Reserve maintenance in the euro area

€ billion

Maintenance period beginning in ¹	Reserve base ²	Required reserves before deduction of lump-sum allowance ³	Required reserves after deduction of lump-sum allowance ⁴	Current accounts ⁵	Excess reserves (without deposit facility) ⁶	Deficiencies ⁷
2015	11,375.0	113.8	113.3	557.1	443.8	0.0
2016	11,918.5	119.2	118.8	919.0	800.3	0.0
2017	12,415.8	124.2	123.8	1,275.2	1,151.4	0.0
2018	12,775.2	127.8	127.4	1,332.1	1,204.8	0.0
2019	13,485.4	134.9	134.5	1,623.7	1,489.3	0.0
2020	14,590.4	145.9	145.5	3,029.4	2,883.9	0.0
2021	15,576.6	155.8	155.4	3,812.3	3,656.9	0.1
2022 Sep.	16,469.8	164.7	164.4	332.0	167.7	0.1
Oct.	.	.	.	.	.	.
Nov. ^p	16,753.0	167.5	167.2	...	...	...

2. Reserve maintenance in Germany

€ billion

Maintenance period beginning in ¹	Reserve base ²	German share of euro area reserve base as a percentage	Required reserves before deduction of lump-sum allowance ³	Required reserves after deduction of lump-sum allowance ⁴	Current accounts ⁵	Excess reserves (without deposit facility) ⁶	Deficiencies ⁷
2015	3,137,353	27.6	31,374	31,202	174,361	143,159	0
2016	3,371,095	28.3	33,711	33,546	301,989	268,443	0
2017	3,456,192	27.8	34,562	34,404	424,547	390,143	2
2018	3,563,306	27.9	35,633	35,479	453,686	418,206	1
2019	3,728,027	27.6	37,280	37,131	486,477	449,346	0
2020	4,020,792	27.6	40,208	40,062	878,013	837,951	1
2021	4,260,398	27.4	42,604	42,464	1,048,819	1,006,355	0
2022 Sep.	4,448,025	27.0	44,480	44,344	125,890	81,546	39
Oct.	.	.	.	.	.	.	.
Nov. ^p	4,626,252	27.6	46,263	46,128	...	...	...

a) Required reserves of individual categories of banks

€ billion

Maintenance period beginning in ¹	Big banks	Regional banks and other commercial banks	Branches of foreign banks	Landesbanken and savings banks	Credit cooperatives	Mortgage banks	Banks with special, development and other central support tasks
2015	6,105	5,199	2,012	10,432	5,649	226	1,578
2016	6,384	5,390	2,812	10,905	5,960	236	1,859
2017	6,366	5,678	3,110	11,163	6,256	132	1,699
2018	7,384	4,910	3,094	11,715	6,624	95	1,658
2019	7,684	5,494	2,765	12,273	7,028	109	1,778
2020	8,151	6,371	3,019	12,912	7,547	111	2,028
2021	9,113	6,713	2,943	13,682	8,028	109	1,876
2022 Sep.	9,453	7,106	2,909	14,152	8,219	109	2,396
Oct.	.	.	.	.	.	.	.
Nov.	9,860	7,463	3,017	14,396	8,279	118	2,634

b) Reserve base by subcategories of liabilities

€ billion

Maintenance period beginning in ¹	Liabilities (excluding savings deposits, deposits with building and loan associations and repos) to non-MFIs with agreed maturities of up to 2 years	Liabilities (excluding repos and deposits with building and loan associations) with agreed maturities of up to 2 years to MFIs that are resident in euro area countries but not subject to minimum reserve requirements	Liabilities (excluding repos and deposits with building and loan associations) with agreed maturities of up to 2 years to banks in non-euro area countries	Savings deposits with agreed periods of notice of up to 2 years	Liabilities arising from bearer debt securities issued with agreed maturities of up to 2 years and bearer money market paper after deduction of a standard amount for bearer debt certificates or deduction of such paper held by the reporting institution
2015	2,063,317	1,879	375,891	592,110	104,146
2016	2,203,100	1,595	447,524	585,099	133,776
2017	2,338,161	628	415,084	581,416	120,894
2018	2,458,423	1,162	414,463	576,627	112,621
2019	2,627,478	1,272	410,338	577,760	111,183
2020	2,923,462	1,607	436,696	560,770	105,880
2021	3,079,722	9,030	508,139	561,608	101,907
2022 Sep.	3,245,595	12,012	522,559	554,738	113,122
Oct.	.	.	.	.	.
Nov.	3,338,047	14,874	561,376	546,860	128,993

¹ The reserve maintenance period starts on the settlement day of the main refinancing operation immediately following the meeting of the Governing Council of the ECB for which the discussion on the monetary policy stance is scheduled. ² Article 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)). ³ Amount after applying the reserve ratio to the reserve base. The reserve ratio for liabilities with agreed maturities of up to two years was 2%

between 1 January 1999 and 17 January 2012. Since 18 January 2012, it has stood at 1%. ⁴ Article 6(2) of the Regulation (EU) 2021/378 of the European Central Bank on the application of minimum reserve requirements. ⁵ Average credit balances of credit institutions at national central banks. ⁶ Average credit balances less required reserves after deduction of the lump-sum allowance. ⁷ Required reserves after deduction of the lump-sum allowance.

VI. Interest rates

1. ECB interest rates / basic rates of interest

% per annum

ECB interest rates										Basic rates of interest			
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				
2005 Dec. 6	1.25	–	2.25	3.25	2011 Apr. 13	0.50	1.25	–	2.00	2002 Jan. 1	2.57	2009 Jan. 1	1.62
2006 Mar. 8	1.50	–	2.50	3.50	July 13	0.75	1.50	–	2.25	July 1	2.47	July 1	0.12
June 15	1.75	–	2.75	3.75	Nov. 9	0.50	1.25	–	2.00	2003 Jan. 1	1.97	2011 July 1	0.37
Aug. 9	2.00	–	3.00	4.00	Dec. 14	0.25	1.00	–	1.75	July 1	1.22	2012 Jan. 1	0.12
Oct. 11	2.25	–	3.25	4.25	2012 July 11	0.00	0.75	–	1.50	2004 Jan. 1	1.14	2013 Jan. 1	–0.13
Dec. 13	2.50	–	3.50	4.50	2013 May 8	0.00	0.50	–	1.00	July 1	1.13	July 1	–0.38
2007 Mar. 14	2.75	–	3.75	4.75	Nov. 13	0.00	0.25	–	0.75	2005 Jan. 1	1.21	2014 Jan. 1	–0.63
June 13	3.00	–	4.00	5.00	2014 June 11	–0.10	0.15	–	0.40	July 1	1.17	July 1	–0.73
2008 July 9	3.25	–	4.25	5.25	Sep. 10	–0.20	0.05	–	0.30	2006 Jan. 1	1.37	2015 Jan. 1	–0.83
Oct. 8	2.75	–	3.75	4.75	2015 Dec. 9	–0.30	0.05	–	0.30	July 1	1.95	2016 July 1	–0.88
Oct. 9	3.25	3.75	–	4.25	2016 Mar. 16	–0.40	0.00	–	0.25	2007 Jan. 1	2.70		
Nov. 12	2.75	3.25	–	3.75	2019 Sep. 18	–0.50	0.00	–	0.25	July 1	3.19		
Dec. 10	2.00	2.50	–	3.00	2022 Jul. 27	0.00	0.50	–	0.75	2008 Jan. 1	3.32		
2009 Jan. 21	1.00	2.00	–	3.00	Sep. 14	0.75	1.25	–	1.50	July 1	3.19		
Mar. 11	0.50	1.50	–	2.50	Nov. 2	1.50	2.00	–	2.25				
Apr. 8	0.25	1.25	–	2.25									
May 13	0.25	1.00	–	1.75									

1 Pursuant to Section 247 of the Civil Code.

2. Eurosystem monetary policy operations allotted through tenders *

Date of Settlement	Bid amount € 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	
Main refinancing operations								
2022 Nov. 2		3 105	3 105		2,00	–	–	7
Nov. 9		1 545	1 545		2,00	–	–	7
Nov. 16		1 629	1 629		2,00	–	–	7
Nov. 23		1 835	1 835		2,00	–	–	7
Nov. 30		2 627	2 627		2,00	–	–	7
Dec. 7		1 381	1 381		2,00	–	–	7
Dec. 14		1 458	1 458		2,00	–	–	7
Long-term refinancing operations								
2022 Oct. 27		408	408	2 ...	–	–	–	91
Dec. 1		997	997	2 ...	–	–	–	84

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

operation including a spread or b) the average deposit facility rate over the life of this operation.

3. Money market rates, by month *

% per annum

Monthly average	€STR 1	EONIA 1	EURIBOR 2				
			One-week funds	One-month funds	Three-month funds	Six-month funds	Twelve-month funds
2022 May	–0.585	.	–0.57	–0.55	–0.39	–0.14	0.29
June	–0.582	.	–0.57	–0.53	–0.24	0.16	0.85
July	–0.511	.	–0.46	–0.31	0.04	0.47	0.99
Aug.	–0.085	.	–0.07	0.02	0.40	0.84	1.25
Sep.	0.355	.	0.42	0.57	1.01	1.60	2.23
Oct.	0.656	.	0.70	0.92	1.43	2.00	2.63
Nov.	1.368	.	1.38	1.42	1.83	2.32	2.83

* Averages are Bundesbank calculations. Neither the Deutsche Bundesbank nor anyone else can be held liable for any irregularity or inaccuracy of the EONIA or the EURIBOR. 1 Euro overnight index average: weighted average overnight rate for interbank operations; calculated by the European Central Bank from January 4th 1999 until September 30th 2019 based on real turnover according to the act/360 method. Since

October 1st 2019 calculated as Euro Short-Term Rate (€STR) + 8.5 basis points spread. 2 Euro interbank offered rate: unweighted average rate calculated by Reuters since 30 December 1998 according to the act/360 method. Administrator for EONIA and EURIBOR: European Money Markets Institute (EMMI)

VI. Interest rates

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

a) Outstanding amounts ^o

End of month	Households' deposits				Non-financial corporations' deposits			
	with an agreed maturity of							
	up to 2 years		over 2 years		up to 2 years		over 2 years	
	Effective interest rate 1 % p.a.	Volume 2 € million	Effective interest rate 1 % p.a.	Volume 2 € million	Effective interest rate 1 % p.a.	Volume 2 € million	Effective interest rate 1 % p.a.	Volume 2 € million
2021 Oct.	0.23	43,497	0.92	219,456	-0.29	75,404	0.77	22,443
Nov.	0.22	42,503	0.91	219,058	-0.30	70,830	0.76	22,793
Dec.	0.18	41,979	0.91	220,289	-0.37	75,038	0.74	22,966
2022 Jan.	0.18	41,157	0.90	220,225	-0.31	72,404	0.73	23,078
Feb.	0.18	40,586	0.90	220,056	-0.30	71,560	0.71	23,680
Mar.	0.17	40,201	0.89	219,655	-0.28	68,341	0.74	24,011
Apr.	0.18	39,503	0.88	219,264	-0.27	73,001	0.73	23,471
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	56,387	0.85	217,769	0.76	116,984	1.00	24,179

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
2021 Oct.	1.97	4,623	1.52	27,324	1.79	1,436,840	6.59	44,700	3.32	80,768	3.30	326,197
Nov.	2.08	3,680	1.52	26,929	1.77	1,446,574	6.53	44,871	3.32	79,066	3.30	328,130
Dec.	2.02	3,547	1.52	26,755	1.75	1,454,553	6.60	44,914	3.32	78,679	3.28	327,421
2022 Jan.	2.02	3,690	1.52	26,583	1.74	1,457,059	6.69	44,473	3.32	78,019	3.27	328,346
Feb.	2.02	3,559	1.52	26,620	1.73	1,464,103	6.61	44,903	3.32	77,521	3.26	328,991
Mar.	2.10	3,620	1.53	26,670	1.71	1,473,852	6.59	46,226	3.33	77,518	3.25	328,996
Apr.	2.08	3,636	1.54	26,766	1.71	1,483,015	6.52	45,715	3.33	77,073	3.25	329,959
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	1,528,184	7.56	49,082	3.53	76,686	3.42	333,356

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
2021 Oct.	1.92	158,326	1.63	197,964	1.62	813,714
Nov.	1.91	156,340	1.58	203,103	1.61	819,855
Dec.	1.82	161,611	1.56	202,457	1.59	822,730
2022 Jan.	1.81	166,574	1.57	202,813	1.58	824,650
Feb.	1.80	172,663	1.56	202,563	1.58	830,564
Mar.	1.90	179,074	1.58	204,001	1.57	832,210
Apr.	1.91	180,007	1.58	206,200	1.57	838,405
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	209,968	2.26	237,072	1.92	874,717

* The interest rate statistics gathered on a harmonised basis in the euro area from January 2003 are collected in Germany on a sample basis. The MFI interest rate statistics are based on the interest rates applied by MFIs and the related volumes of euro-denominated deposits and loans to households and non-financial corporations domiciled in the euro area. The household sector comprises individuals (including sole proprietors) and non-profit institutions serving households. Non-financial corporations include all enterprises other than insurance corporations, banks and other financial institutions. The most recent figures are in all cases to be regarded as provisional. Subsequent revisions appearing in the following Monthly Report are not specially marked. Further information on the MFI interest rate statistics can be found on the Bundesbank's website (Statistics/Money and capital markets/Interest rates and yields/Interest rates on deposits and loans). ^o The statistics on outstanding amounts are collected at the end of the month. ¹ The effective interest rates are calculated either as

annualised agreed interest rates or as narrowly defined effective rates. Both calculation methods cover all interest payments on deposits and loans but not any other related charges which may occur for enquiries, administration, preparation of the documents, guarantees and credit insurance. ² Data based on monthly balance sheet statistics. ³ Secured and unsecured loans for home purchase, including building and home improvements; including loans granted by building and loan associations and interim credits as well as transmitted loans granted by the reporting agents in their own name and for their own account. ⁴ Loans for consumption are defined as loans granted for the purpose of personal use in the consumption of goods and services. ⁵ For the purpose of these statistics, other loans are loans granted for other purposes such as business, debt consolidation, education, etc. ⁶ Including overdrafts (see also footnotes 12 to 14 on p. 47).

VI. Interest rates

4. Interest rates and volumes for outstanding amounts and new business of German banks (MFIs) * (cont'd) b) New business +

Households' deposits												
		with an agreed maturity of						redeemable at notice 8 of				
Overnight		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
2021 Oct.	-0.01	1,800,411	0.06	1,944	0.25	228	0.39	474	0.08	535,197	0.15	24,558
Nov.	-0.01	1,808,547	0.09	1,879	0.21	266	0.48	650	0.08	535,140	0.15	24,329
Dec.	-0.01	1,806,993	-0.07	2,327	0.20	204	0.51	721	0.08	536,715	0.14	24,116
2022 Jan.	-0.01	1,806,352	0.11	2,132	0.22	363	0.36	642	0.08	537,038	0.14	23,363
Feb.	-0.02	1,819,881	0.06	2,167	0.25	226	0.33	564	0.07	537,327	0.13	23,136
Mar.	-0.02	1,808,690	0.12	2,044	0.28	258	0.38	824	0.07	535,696	0.13	22,897
Apr.	-0.02	1,826,796	0.14	1,974	0.39	292	0.46	694	0.07	534,800	0.13	22,686
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	1,853,931	1.06	10,188	1.89	1,332	1.49	1,549	0.11	519,453	0.27	22,383

Non-financial corporations' deposits									
		with an agreed maturity of							
Overnight		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	
2021 Oct.	-0.13	598,979	-0.51	70,382	-0.21	214	0.19	1,102	
Nov.	-0.13	604,607	-0.52	47,155	-0.16	619	0.25	732	
Dec.	-0.14	585,718	-0.58	43,578	-0.07	836	0.19	1,004	
2022 Jan.	-0.14	596,648	-0.50	38,323	-0.18	311	0.28	1,033	
Feb.	-0.14	594,874	-0.48	30,745	0.03	234	0.63	1,123	
Mar.	-0.15	607,552	-0.50	42,187	0.09	417	1.09	1,069	
Apr.	-0.15	600,726	-0.49	42,722	0.37	633	1.12	182	
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.	0.05	617,681	0.81	99,705	1.32	707	1.89	146	

Loans to households											
Loans for consumption 4 with an initial rate fixation of											
Total (including charges)	Total		of which: Renegotiated loans 9		floating rate or up to 1 year 9		over 1 year and up to 5 years		over 5 years		
Reporting period	Annual percentage rate of charge 10 % p.a.	Effective interest rate 1 % p.a.	Volume 7 € million	Effective interest rate 1 % p.a.	Volume 7 € million	Effective interest rate 1 % p.a.	Volume 7 € million	Effective interest rate 1 % p.a.	Volume 7 € million	Effective interest rate 1 % p.a.	Volume 7 € million
2021 Oct.	5.58	5.50	8,375	6.30	1,660	7.55	345	4.34	2,677	5.95	5,353
Nov.	5.46	5.43	8,076	6.17	1,524	7.24	408	4.34	2,691	5.88	4,976
Dec.	5.35	5.36	6,927	6.04	1,221	6.75	465	4.31	2,445	5.84	4,017
2022 Jan.	5.53	5.54	8,604	6.19	1,862	7.29	383	4.29	2,643	6.01	5,578
Feb.	5.41	5.45	8,372	6.14	1,641	7.31	378	4.28	2,652	5.90	5,343
Mar.	5.34	5.38	10,208	6.24	1,935	7.28	397	4.08	3,481	5.97	6,330
Apr.	5.70	5.64	8,523	6.35	1,682	7.93	316	4.46	2,654	6.08	5,553
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	7,356	7.57	1,338	8.79	366	5.28	2,543	7.43	4,447

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 ⁵ with an initial rate fixation of											
Reporting period	Total		of which: Renegotiated loans ⁹		floating rate or up to 1 year ⁹		over 1 year and up to 5 years		over 5 years		
	Effective interest rate ¹ % p.a.	Volume ⁷ € million	Effective interest rate ¹ % p.a.	Volume ⁷ € million	Effective interest rate ¹ % p.a.	Volume ⁷ € million	Effective interest rate ¹ % p.a.	Volume ⁷ € million	Effective interest rate ¹ % p.a.	Volume ⁷ € million	
Loans to households											
2021 Oct.	1.69	4,327	1.54	1,068	1.79	1,792	2.23	631	1.42	1,904	
Nov.	1.68	4,433	1.39	847	1.65	1,759	2.42	704	1.44	1,970	
Dec.	1.64	5,757	1.48	1,144	1.58	2,326	2.45	860	1.44	2,571	
2022 Jan.	1.62	4,552	1.48	1,288	1.54	1,914	2.32	622	1.49	2,016	
Feb.	1.76	4,173	1.60	859	1.69	1,560	2.55	514	1.62	2,099	
Mar.	1.87	5,992	1.61	1,247	1.70	2,149	2.43	724	1.85	3,119	
Apr.	2.03	4,980	1.70	1,170	1.82	1,829	2.33	760	2.10	2,391	
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.	3.48	3,819	2.68	1,200	3.29	1,802	4.00	541	3.52	1,476	
of which: Loans to sole proprietors											
2021 Oct.	1.75	2,884	.	.	1.84	1,193	2.17	514	1.46	1,177	
Nov.	1.83	2,674	.	.	1.83	1,076	2.47	461	1.56	1,137	
Dec.	1.73	3,787	.	.	1.76	1,495	2.48	564	1.47	1,728	
2022 Jan.	1.71	2,950	.	.	1.64	1,227	2.38	455	1.54	1,268	
Feb.	1.88	2,728	.	.	1.92	970	2.68	380	1.64	1,378	
Mar.	1.96	3,879	.	.	1.84	1,414	2.58	512	1.88	1,953	
Apr.	2.13	3,210	.	.	1.92	1,079	2.42	577	2.16	1,554	
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.	3.43	2,571	.	.	3.11	1,163	4.19	405	3.51	1,003	

Loans to households (cont'd)													
Housing loans ³ with an initial rate fixation of													
Erhebungszeitraum	Total (including charges)		of which: Renegotiated loans ⁹		floating rate or up to 1 year ⁹		over 1 year and up to 5 years		over 5 year and up to 10 years		over 10 years		
	Annual percentage rate of charge ¹⁰ % p.a.	Effective interest rate ¹ % p.a.	Volume ⁷ € million	Effective interest rate ¹ % p.a.	Volume ⁷ € million	Effective interest rate ¹ % p.a.	Volume ⁷ € million	Effective interest rate ¹ % p.a.	Volume ⁷ € million	Effective interest rate ¹ % p.a.	Volume ⁷ € million	Effective interest rate ¹ % p.a.	Volume ⁷ € million
Total loans													
2021 Oct.	1.32	1.28	22,630	1.29	3,683	1.79	2,353	1.33	1,613	1.10	8,013	1.29	10,650
Nov.	1.36	1.32	22,516	1.31	3,079	1.83	2,022	1.43	1,564	1.15	8,171	1.33	10,759
Dec.	1.37	1.32	23,851	1.27	3,446	1.80	2,383	1.39	1,661	1.16	8,614	1.34	11,194
2022 Jan.	1.39	1.35	25,085	1.33	4,969	1.83	2,527	1.35	1,706	1.19	8,661	1.37	12,191
Feb.	1.49	1.45	26,299	1.43	4,706	1.86	2,270	1.45	1,606	1.29	9,322	1.48	13,100
Mar.	1.69	1.65	32,270	1.63	6,216	1.93	2,704	1.65	1,987	1.50	11,809	1.71	15,770
Apr.	1.98	1.94	25,813	1.90	4,946	2.01	2,323	1.88	1,703	1.81	10,024	2.04	11,763
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	3.00	2,256	3.23	1,363	3.19	5,433	3.41	5,872
of which: Collateralised loans ¹¹													
2021 Oct.	.	1.20	9,766	.	.	1.70	874	1.16	746	1.02	3,569	1.25	4,577
Nov.	.	1.23	9,668	.	.	1.72	708	1.22	685	1.08	3,670	1.29	4,605
Dec.	.	1.25	10,265	.	.	1.70	783	1.22	727	1.09	3,784	1.31	4,971
2022 Jan.	.	1.28	11,005	.	.	1.75	942	1.18	861	1.13	4,087	1.33	5,115
Feb.	.	1.37	11,593	.	.	1.74	749	1.28	826	1.24	4,366	1.43	5,652
Mar.	.	1.57	14,566	.	.	1.80	936	1.54	974	1.46	5,637	1.64	7,019
Apr.	.	1.86	11,672	.	.	1.88	804	1.71	831	1.77	4,658	1.96	5,379
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	6,621	.	.	2.92	805	3.20	661	3.10	2,482	3.24	2,673

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

VI. Interest rates

4. Interest rates and volumes for outstanding amounts and new business of German banks (MFIs) * (cont'd) b) New business +

Reporting period	Loans to households (cont'd)					Loans to non-financial corporations				
	Revolving loans ¹² and overdrafts ¹³ Credit card debt ¹⁴		of which:			Revolving loans ¹² and overdrafts ¹³ Credit card debt ¹⁴		of which:		
			Revolving loans ¹² and overdrafts ¹³	Extended credit card debt	Revolving loans ¹² and overdrafts ¹³					
	Effective interest rate ¹ % p.a.	Volume ² € million	Effective interest rate ¹ % p.a.	Volume ² € million	Effective interest rate ¹ % p.a.	Volume ² € million	Effective interest rate ¹ % p.a.	Volume ² € million	Effective interest rate ¹ % p.a.	Volume ² € million
2021 Oct.	7.10	35,633	6.94	27,535	15.02	4,109	2.81	75,550	2.83	75,182
Nov.	7.01	36,013	6.90	27,565	15.01	4,153	2.77	76,312	2.79	75,909
Dec.	7.11	36,163	6.93	28,124	14.94	4,165	2.73	76,261	2.75	75,914
2022 Jan.	7.20	36,030	6.97	28,433	14.97	4,110	2.61	81,598	2.62	81,290
Feb.	7.08	36,335	6.95	28,225	14.96	4,103	2.62	85,173	2.63	84,843
Mar.	7.14	37,360	7.02	29,314	14.94	4,076	2.71	87,104	2.72	86,709
Apr.	7.00	36,819	6.91	28,444	14.96	4,100	2.65	88,202	2.66	87,834
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

Reporting period	Loans to non-financial corporations (cont'd)															
	Total		of which:		Loans up to €1 million ¹⁵ with an initial rate fixation of						Loans over €1 million ¹⁵ with an initial rate fixation of					
			Renegotiated loans ⁹	floating rate or up to 1 year ⁹	over 1 year and up to 5 years	over 5 years	floating rate or up to 1 year ⁹	over 1 year and up to 5 years	over 5 years							
	Effective interest rate ¹ % p.a.	Volume ⁷ € million	Effective interest rate ¹ % p.a.	Volume ⁷ € million	Effective interest rate ¹ % p.a.	Volume ⁷ € million	Effective interest rate ¹ % p.a.	Volume ⁷ € million	Effective interest rate ¹ % p.a.	Volume ⁷ € million	Effective interest rate ¹ % p.a.	Volume ⁷ € million	Effective interest rate ¹ % p.a.	Volume ⁷ € million		
Total loans																
2021 Oct.	1.21	71,404	1.32	20,386	1.76	9,149	2.38	1,247	1.50	1,242	1.08	48,160	1.43	2,573	1.07	9,033
Nov.	1.18	75,363	1.34	18,828	1.85	9,681	2.35	1,402	1.44	1,474	1.03	48,548	0.95	4,444	1.16	9,814
Dec.	1.20	105,525	1.32	29,572	1.94	10,348	2.28	1,529	1.45	1,817	1.05	71,028	1.40	5,515	1.18	15,288
2022 Jan.	1.29	64,813	1.26	21,030	1.80	8,812	2.39	1,280	1.53	1,443	1.14	44,620	1.49	1,821	1.27	6,837
Feb.	1.32	66,898	1.22	18,910	1.78	9,056	2.55	1,205	1.63	1,445	1.13	42,295	1.71	3,088	1.42	9,809
Mar.	1.50	99,725	1.39	29,044	1.78	10,692	2.54	1,571	1.83	1,981	1.38	68,399	1.77	5,314	1.65	11,768
Apr.	1.53	74,483	1.51	19,771	1.82	9,033	2.63	1,388	2.19	1,883	1.31	47,761	1.79	3,673	1.91	10,745
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	88,481	2.60	25,332	3.14	10,623	4.26	1,590	3.37	1,105	2.67	64,654	3.83	3,917	3.31	6,592
of which: Collateralised loans ¹¹																
2021 Oct.	1.29	10,023	.	.	1.72	371	1.87	78	1.24	298	1.46	5,810	1.90	660	0.73	2,806
Nov.	1.34	8,064	.	.	1.76	359	1.60	96	1.19	382	1.43	4,537	1.36	704	1.08	1,986
Dec.	1.27	18,534	.	.	1.69	438	1.93	113	1.23	430	1.20	11,302	1.73	1,948	1.18	4,303
2022 Jan.	1.25	10,159	.	.	1.66	371	1.54	102	1.35	406	1.19	7,044	1.20	386	1.37	1,850
Feb.	1.60	9,498	.	.	1.66	296	1.98	87	1.37	318	1.63	4,798	1.85	1,166	1.46	2,833
Mar.	1.40	14,380	.	.	1.71	503	2.07	120	1.63	444	1.15	9,349	2.56	1,117	1.63	2,847
Apr.	1.72	9,355	.	.	1.92	325	2.15	113	1.93	481	1.53	5,242	1.68	817	2.07	2,377
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	.	.	3.10	541	3.48	95	3.13	292	2.72	7,180	3.43	750	2.80	1,701

For footnotes * and 1 to 6, see p. 44*. For footnotes + and 7 to 10, see p. 45*;
11 For the purposes of the interest rate statistics, a loan is considered to be secured if collateral (amongst others financial collateral, real estate collateral, debt securities) in at least the same value as the loan amount has been posted, pledged or assigned.
12 Including revolving loans which have all the following features: (a) the borrower may use or withdraw the funds to a pre-approved credit limit without giving prior notice to the lender; (b) the amount of available credit can increase and decrease as funds are borrowed and repaid; (c) the loan may be used repeatedly; (d) there is no obligation of regular repayment of funds. **13** Overdrafts are defined as debit balances

on current accounts. They include all bank overdrafts regardless of whether they are within or beyond the limits agreed between customers and the bank. **14** Including convenience and extended credit card debt. Convenience credit is defined as the credit granted at an interest rate of 0% in the period between payment transactions effected with the card during one billing cycle and the date at which the debt balances from this specific billing cycle become due. **15** The amount category refers to the single loan transaction considered as new business. **x** Dominated by the business of one or two banks. Therefore, the value cannot be published due to confidentiality.

VII. Insurance corporations and pension funds

1. Assets

€ billion

End of year/quarter	Total	Currency and deposits ¹	Debt securities	Loans ²	Shares and other equity	Investment fund shares/units	Financial derivatives	Technical reserves ³	Non-financial assets	Remaining assets
Insurance corporations ⁴										
2019 Q4	2,473.9	317.5	448.2	355.6	407.3	778.3	3.6	64.9	39.8	58.8
2020 Q1	2,426.8	318.2	452.0	364.1	383.1	738.2	4.5	68.5	38.6	59.6
Q2	2,517.5	317.0	460.5	371.9	409.4	788.7	4.3	68.5	38.7	58.5
Q3	2,547.1	311.1	472.9	373.8	411.3	809.5	4.4	67.1	39.0	58.0
Q4	2,587.4	301.7	478.9	370.6	425.4	841.0	4.7	68.1	38.2	58.7
2021 Q1	2,575.3	292.4	466.8	361.7	437.8	844.7	3.9	72.0	38.9	57.2
Q2	2,591.4	280.5	466.5	361.3	449.6	864.5	3.4	72.6	39.0	54.1
Q3	2,633.2	271.8	471.3	358.3	464.4	882.1	3.3	87.9	38.4	55.8
Q4	2,649.9	261.4	468.7	355.1	472.9	903.3	3.2	85.1	40.8	59.4
2022 Q1	2,541.0	244.9	441.0	333.9	469.7	860.3	2.7	87.8	41.1	59.6
Q2	2,367.9	217.7	394.2	306.5	464.2	793.6	3.0	85.7	41.3	61.6
Life insurance										
2019 Q4	1,325.2	194.8	227.6	217.6	61.1	570.4	2.4	13.7	21.1	16.5
2020 Q1	1,295.7	191.4	231.0	220.6	62.0	538.1	2.2	13.9	20.3	16.3
Q2	1,347.1	192.3	234.4	223.6	64.4	577.0	2.8	13.7	20.3	18.5
Q3	1,369.2	188.4	241.6	225.7	66.1	592.6	3.0	13.6	20.6	17.6
Q4	1,395.8	183.5	242.7	229.9	70.2	616.5	3.3	14.3	20.8	14.5
2021 Q1	1,361.2	170.4	231.5	219.6	74.3	614.3	2.1	14.2	21.5	13.2
Q2	1,371.7	164.4	231.3	219.4	78.0	627.2	2.0	14.1	21.5	13.8
Q3	1,386.6	159.1	232.2	214.8	87.7	642.8	1.9	13.4	20.8	13.8
Q4	1,400.8	152.4	232.7	211.8	93.5	658.0	1.7	14.6	21.9	14.3
2022 Q1	1,312.9	137.6	211.8	193.6	99.9	619.4	0.9	13.9	22.1	13.8
Q2	1,200.2	121.8	182.3	174.0	104.4	563.2	0.9	13.5	22.2	18.0
Non-life insurance										
2019 Q4	673.5	111.2	130.4	79.6	83.6	193.3	0.4	36.2	12.2	26.7
2020 Q1	669.3	111.1	131.3	79.8	80.0	186.9	0.3	38.7	12.0	29.3
Q2	685.4	111.8	134.4	82.4	81.1	197.0	0.4	39.5	12.1	26.7
Q3	693.0	109.3	137.6	83.3	82.7	203.1	0.4	38.5	12.1	26.3
Q4	703.1	105.9	139.5	84.5	85.1	210.2	0.5	37.6	12.7	27.3
2021 Q1	716.8	108.1	139.5	83.6	88.7	215.1	0.4	40.0	12.8	28.6
Q2	720.3	103.3	140.4	83.5	90.6	221.6	0.4	40.4	12.8	27.3
Q3	727.5	98.8	140.2	83.8	93.9	223.3	0.4	46.6	12.9	27.8
Q4	732.4	94.7	139.9	84.8	97.8	227.8	0.3	44.7	14.0	28.4
2022 Q1	721.4	91.9	134.1	81.0	98.9	224.6	0.2	46.0	14.0	30.7
Q2	681.9	82.6	124.1	75.1	99.0	213.2	0.1	44.3	14.1	29.5
Reinsurance ⁵										
2019 Q4	475.2	11.5	90.2	58.3	262.6	14.5	0.8	15.1	6.6	15.6
2020 Q1	461.7	15.7	89.8	63.7	241.0	13.3	1.9	15.9	6.3	14.1
Q2	485.0	12.9	91.7	65.9	264.0	14.6	1.1	15.2	6.3	13.3
Q3	485.0	13.5	93.7	64.9	262.6	13.7	1.0	15.0	6.3	14.2
Q4	488.5	12.3	96.7	56.3	270.2	14.3	1.0	16.3	4.7	16.9
2021 Q1	497.3	13.9	95.8	58.5	274.7	15.4	1.4	17.7	4.7	15.3
Q2	499.4	12.8	94.8	58.4	280.9	15.6	1.0	18.1	4.6	13.1
Q3	519.0	13.9	98.9	59.6	282.7	16.1	1.0	28.0	4.7	14.2
Q4	516.7	14.3	96.1	58.6	281.6	17.5	1.1	25.9	4.9	16.6
2022 Q1	506.6	15.5	95.1	59.3	271.0	16.3	1.6	27.9	5.0	15.0
Q2	485.7	13.2	87.8	57.5	260.8	17.3	1.9	27.9	5.1	14.2
Pension funds ⁶										
2019 Q4	735.8	85.2	79.6	31.1	38.7	421.1	-	8.8	48.9	22.3
2020 Q1 ⁷	601.0	92.2	56.8	48.9	9.4	362.0	0.1	11.3	17.6	2.7
Q2	626.0	91.8	58.8	49.8	9.8	383.4	0.1	11.3	18.3	2.8
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	86.2	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	11.3	445.1	0.1	12.1	17.8	2.3
Q3	689.8	82.9	60.4	48.8	11.8	453.6	0.1	12.2	17.8	2.2
Q4	709.8	82.1	60.0	48.7	11.3	473.5	0.1	12.4	18.4	3.2
2022 Q1	687.7	76.4	56.9	46.3	12.1	462.6	0.0	12.9	18.4	2.1
Q2	661.3	71.3	53.4	43.3	12.5	447.6	0.0	12.5	17.4	3.3

Sources: The calculations for the insurance sectors are based on supervisory data according to Solvency I and II and for pension funds on IORP supervisory data and own data collections as of 2020 Q1. Until 2019 Q4 these are compiled using Solvency I supervisory data, supplemented by voluntary reports and own calculations. ¹ Accounts receivable to monetary financial institutions, including registered bonds, borrowers' note loans and registered Pfandbriefe. For pension funds as of 2020 Q1 fair values, previously book values. ² Including deposits retained on assumed reinsurance as well as registered bonds, borrowers' note loans and registered Pfandbriefe. For pension funds

as of 2020 Q1 fair values, previously book values. ³ Including reinsurance recoverables and claims of pension funds on pension managers. ⁴ Valuation of listed securities at the corresponding consistent price from the ESCB's securities database. ⁵ Not including the reinsurance business conducted by primary insurers, which is included there. ⁶ The term "pension funds" refers to the institutional sector "pension funds" of the European System of Accounts. Pension funds thus comprise company pension schemes and occupational pension schemes for the self-employed. Social security funds are not included. ⁷ Change in data sources.

VII. Insurance corporations and pension funds

2. Liabilities

€ billion

End of year/quarter	Total	Debt securities issued	Loans ¹	Shares and other equity	Technical reserves			Financial derivatives	Remaining liabilities	Net worth ⁴
					Total ²	Life/ pension entitlements ³	Non-life			
Insurance corporations										
2019 Q4	2,473.9	31.7	75.8	515.3	1,714.9	1,499.6	215.3	1.9	134.4	–
2020 Q1	2,426.8	31.8	82.4	464.3	1,721.8	1,483.2	238.6	2.4	124.1	–
Q2	2,517.5	33.1	82.2	505.3	1,767.6	1,527.7	239.9	1.9	127.3	–
Q3	2,547.1	34.3	80.0	515.7	1,785.5	1,549.1	236.4	1.7	129.9	–
Q4	2,587.4	36.6	79.7	540.4	1,799.0	1,579.2	219.8	1.6	130.2	–
2021 Q1	2,575.3	34.8	81.4	551.7	1,778.7	1,541.3	237.4	2.5	126.2	–
Q2	2,591.4	33.0	81.3	558.9	1,793.7	1,556.4	237.3	2.2	122.2	–
Q3	2,633.2	35.4	82.8	567.3	1,818.0	1,569.1	248.9	2.5	127.0	–
Q4	2,649.9	36.1	82.0	579.7	1,821.1	1,578.4	242.7	2.5	128.6	–
2022 Q1	2,541.0	34.4	82.2	563.8	1,728.4	1,474.6	253.8	4.0	128.3	–
Q2	2,367.9	33.7	78.8	542.5	1,578.9	1,331.1	247.8	5.9	128.1	–
Life insurance										
2019 Q4	1,325.2	3.6	19.1	127.6	1,129.7	1,129.7	–	0.5	44.7	–
2020 Q1	1,295.7	3.6	19.3	114.2	1,117.8	1,117.8	–	0.6	40.3	–
Q2	1,347.1	3.8	19.2	129.8	1,150.3	1,150.3	–	0.5	43.4	–
Q3	1,369.2	3.9	19.5	136.8	1,164.7	1,164.7	–	0.5	43.7	–
Q4	1,395.8	3.9	20.7	142.8	1,185.6	1,185.6	–	0.5	42.2	–
2021 Q1	1,361.2	3.3	19.9	143.1	1,154.3	1,154.3	–	1.0	39.6	–
Q2	1,371.7	3.3	20.4	144.2	1,164.9	1,164.9	–	1.0	37.9	–
Q3	1,386.6	3.3	19.3	148.1	1,176.4	1,176.4	–	1.1	38.4	–
Q4	1,400.8	3.3	20.7	148.2	1,185.5	1,185.5	–	0.9	42.2	–
2022 Q1	1,312.9	3.2	19.9	142.8	1,103.6	1,103.6	–	1.4	42.1	–
Q2	1,200.2	3.1	19.1	141.5	988.5	988.5	–	2.6	45.4	–
Non-life insurance										
2019 Q4	673.5	1.2	9.3	153.7	457.2	349.4	107.8	0.1	52.0	–
2020 Q1	669.3	1.3	9.8	141.9	468.2	344.4	123.8	0.1	48.0	–
Q2	685.4	1.3	9.5	149.3	478.1	355.6	122.5	0.1	47.1	–
Q3	693.0	1.2	9.6	151.9	482.1	362.3	119.8	0.1	48.1	–
Q4	703.1	1.3	9.7	157.9	482.9	368.7	114.2	0.0	51.2	–
2021 Q1	716.8	1.2	10.6	162.8	491.6	362.6	129.0	0.1	50.5	–
Q2	720.3	1.2	10.5	166.4	493.6	366.3	127.3	0.1	48.4	–
Q3	727.5	1.2	10.5	169.2	499.0	367.9	131.2	0.2	47.5	–
Q4	732.4	1.4	10.8	176.2	493.0	367.6	125.4	0.2	50.9	–
2022 Q1	721.4	1.3	11.8	174.1	483.8	347.2	136.6	0.3	50.1	–
Q2	681.9	1.2	11.1	168.8	452.7	323.1	129.7	0.5	47.6	–
Reinsurance ⁵										
2019 Q4	475.2	26.9	47.4	234.0	128.0	20.6	107.5	1.3	37.7	–
2020 Q1	461.7	26.9	53.3	208.1	135.9	21.0	114.9	1.7	35.8	–
Q2	485.0	28.1	53.5	226.2	139.1	21.8	117.4	1.3	36.8	–
Q3	485.0	29.2	50.9	227.0	138.7	22.1	116.6	1.0	38.1	–
Q4	488.5	31.4	49.3	239.6	130.4	24.8	105.6	1.0	36.7	–
2021 Q1	497.3	30.2	50.9	245.8	132.8	24.4	108.4	1.4	36.2	–
Q2	499.4	28.5	50.4	248.3	135.2	25.2	110.0	1.1	35.9	–
Q3	519.0	30.9	53.0	250.1	142.7	24.9	117.8	1.3	41.1	–
Q4	516.7	31.4	50.5	255.3	142.6	25.3	117.3	1.4	35.5	–
2022 Q1	506.6	30.0	50.4	246.8	140.9	23.8	117.2	2.3	36.1	–
Q2	485.7	29.3	48.6	232.2	137.7	19.5	118.2	2.8	35.1	–
Pension funds ⁶										
2019 Q4	735.8	–	8.4	8.6	638.0	638.0	–	–	3.7	77.1
2020 Q1	601.0	–	1.6	22.6	497.5	496.9	–	0.3	8.8	70.3
Q2	626.0	–	1.6	25.6	507.3	506.7	–	0.3	8.9	82.4
Q3	638.5	–	1.6	27.3	511.4	510.8	–	0.3	8.9	88.9
Q4	662.9	–	1.6	28.4	528.5	527.9	–	0.3	9.0	95.1
2021 Q1	664.3	–	1.6	28.8	529.3	528.1	–	0.3	8.6	95.8
Q2	683.2	–	1.8	31.1	536.5	534.8	–	0.2	9.3	104.3
Q3	689.8	–	1.8	31.5	541.1	538.9	–	0.2	9.3	106.0
Q4	709.8	–	1.9	31.8	560.5	557.6	–	0.1	9.2	106.4
2022 Q1	687.7	–	1.4	28.7	555.1	552.3	–	0.1	7.3	95.0
Q2	661.3	–	0.9	23.7	555.6	552.8	–	0.1	5.1	75.9

Sources: The calculations for the insurance sectors are based on supervisory data according to Solvency I and II and for pension funds on IORP supervisory data and own data collections as of 2020 Q1. Until 2019 Q4 these are compiled using Solvency I supervisory data, supplemented by voluntary reports and own calculations. ¹ Including deposits retained on ceded business as well as registered bonds, borrowers' note loans and registered Pfandbriefe. ² Including claims of pension funds on pension managers and entitlements to non-pension benefits. ³ Technical reserves "life" taking account of

transitional measures. Health insurance is also included in the "non-life insurance" sector. ⁴ Own funds correspond to the sum of "Net worth" and "Shares and other equity". ⁵ Not including the reinsurance business conducted by primary insurers, which is included there. ⁶ Valuation at book values. The term "pension funds" refers to the institutional sector "pension funds" of the European System of Accounts. Pension funds thus comprise company pension schemes and occupational pension schemes for the self-employed. Social security funds are not included. ⁷ Change in data sources.

VIII. Capital market

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

€ million

Period	Debt securities										
	Sales = total pur- chases	Sales					Purchases				
		Domestic debt securities ¹					Residents				
		Total	Bank debt securities	Corporate bonds (non-MFIs) ²	Public debt secur- ities	Foreign debt secur- ities ³	Total ⁴	Credit in- stitutions including building and loan associations ⁵	Deutsche Bundesbank	Other sectors ⁶	Non- residents ⁷
2010	146,620	- 1,212	- 7,621	24,044	- 17,635	147,831	- 92,682	- 103,271	22,967	172,986	53,938
2011	33,649	- 13,575	- 46,796	850	59,521	20,075	- 23,876	- 94,793	36,805	34,112	57,525
2012	51,813	- 21,419	- 98,820	- 8,701	86,103	73,231	- 3,767	- 42,017	- 3,573	41,823	55,581
2013	- 15,971	- 101,616	- 117,187	153	15,415	85,645	16,409	- 25,778	- 12,708	54,895	- 32,379
2014	64,775	- 31,962	- 47,404	- 1,330	16,776	96,737	50,408	- 12,124	- 11,951	74,483	14,366
2015	33,024	- 36,010	- 65,778	26,762	3,006	69,034	116,493	- 66,330	121,164	61,659	- 83,471
2016	71,380	27,429	19,177	18,265	- 10,012	43,951	164,148	- 58,012	187,500	34,660	- 92,768
2017	54,840	11,563	1,096	7,112	3,356	43,277	137,907	- 71,454	161,012	48,349	- 83,067
2018	64,682	16,630	33,251	12,433	- 29,055	48,052	93,103	- 24,417	67,328	50,192	- 28,421
2019	136,117	68,536	29,254	32,505	6,778	67,581	59,013	8,059	2,408	48,546	77,104
2020	437,976	374,034	14,462	88,703	270,870	63,941	274,979	- 18,955	226,887	29,138	162,996
2021	283,684	221,648	31,941	19,754	169,953	62,036	310,838	- 41,852	245,198	107,492	- 27,154
2021 Nov.	39,728	31,488	6,574	8,351	16,563	8,241	34,851	- 529	23,375	12,005	4,877
2021 Dec.	- 39,780	- 23,893	- 17,511	- 8,944	2,561	- 15,886	- 1,271	- 9,420	14,137	- 5,988	- 38,509
2022 Jan.	49,962	25,410	9,976	6,559	8,876	24,552	40,530	- 2,870	14,990	28,409	9,432
2022 Feb.	32,181	27,557	10,598	3,056	13,902	4,624	25,329	8,057	14,793	2,478	6,852
2022 Mar.	62,964	43,608	23,278	7,972	12,358	19,356	46,555	6,811	10,709	29,035	16,409
2022 Apr.	- 17,423	- 2,212	- 3,140	707	222	- 15,211	- 2,285	- 16,927	13,068	1,574	- 15,138
2022 May	23,669	23,911	4,066	4,901	14,944	- 242	25,954	5,485	14,400	6,069	- 2,285
2022 June	23,509	12,731	5,517	- 1,563	8,777	- 10,778	17,236	8,471	- 2,289	11,054	6,273
2022 July	- 17,762	- 12,924	- 6,955	11,041	- 17,011	- 4,838	- 6,668	10,710	- 13,670	- 3,708	- 11,094
2022 Aug.	17,950	25,220	2,770	2,198	20,251	- 7,270	- 334	- 10,189	- 726	10,581	18,284
2022 Sep.	9,924	15,094	32,114	3,897	- 20,918	- 5,170	20,928	7,491	- 3,147	16,583	- 11,004
2022 Oct.	60,659	61,678	- 6,163	6,796	61,045	- 1,019	81,588	4,241	3,619	73,728	- 20,929

€ million

Period	Shares						
	Sales = total pur- chases	Sales			Purchases		
		Domestic shares ⁸		Foreign shares ⁹	Residents		
		Total ¹⁰	Credit in- stitutions ⁵	Other sectors ¹¹	Non- residents ¹²		
2010	37,767	20,049	17,718	36,406	7,340	29,066	1,360
2011	25,833	21,713	4,120	40,804	670	40,134	14,971
2012	15,061	5,120	9,941	14,405	10,259	4,146	656
2013	20,187	10,106	10,081	17,336	11,991	5,345	2,851
2014	43,501	18,778	24,723	43,950	17,203	26,747	449
2015	44,165	7,668	36,497	34,437	- 5,421	39,858	9,728
2016	30,896	4,409	26,487	31,037	- 5,143	36,180	141
2017	51,571	15,570	36,001	49,913	7,031	42,882	1,658
2018	54,883	16,188	38,695	83,107	- 11,184	94,291	28,224
2019	46,021	9,076	36,945	33,675	- 1,119	34,794	12,346
2020	83,859	17,771	66,088	115,960	27	115,933	32,101
2021	125,541	49,066	76,475	124,105	10,869	113,236	1,436
2021 Nov.	6,393	2,367	4,026	15,628	2,698	12,930	9,235
2021 Dec.	13,692	10,698	2,995	6,987	- 1,848	8,835	6,705
2022 Jan.	6,155	396	5,760	9,711	2,076	7,635	3,556
2022 Feb.	- 5,455	628	6,084	4,539	- 1,599	2,940	916
2022 Mar.	9,478	359	9,119	14,188	- 1,736	15,924	4,710
2022 Apr.	6,207	150	6,056	9,419	477	8,942	3,212
2022 May	3,197	1,411	1,786	3,880	1,600	2,280	684
2022 June	- 25,843	894	- 26,737	- 24,422	- 3,308	- 21,114	- 1,421
2022 July	- 2,467	1,374	- 3,841	- 704	- 2,145	- 1,441	- 1,763
2022 Aug.	- 917	87	- 1,003	1,736	165	1,571	2,653
2022 Sep.	37,243	38,800	- 1,557	26,230	- 529	26,759	11,013
2022 Oct.	- 2,894	609	- 3,503	5,104	- 1,588	3,516	2,210

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 ¹						Corporate bonds (non-MFIs) ²	Public debt securities
	Total	Total	Mortgage Pfandbriefe	Public Pfandbriefe	Debt securities issued by special-purpose credit institutions	Other bank debt securities		
Gross sales								
2011	1,337,772	658,781	31,431	24,295	376,876	226,180	86,614	592,375
2012	1,340,568	702,781	36,593	11,413	446,153	208,623	63,258	574,530
2013	1,433,628	908,107	25,775	12,963	692,611	176,758	66,630	458,892
2014	1,362,056	829,864	24,202	13,016	620,409	172,236	79,873	452,321
2015	1,359,422	852,045	35,840	13,376	581,410	221,417	106,675	400,701
2016 ³	1,206,483	717,002	29,059	7,621	511,222	169,103	73,371	416,108
2017 ³	1,047,822	619,199	30,339	8,933	438,463	141,466	66,290	362,332
2018	1,148,091	703,416	38,658	5,673	534,552	124,530	91,179	353,496
2019	1,285,541	783,977	38,984	9,587	607,900	127,504	94,367	407,197
2020 ⁶	1,870,084	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 Feb.	123,858	67,336	5,174	1,364	54,198	6,600	9,451	47,071
Mar.	168,436	85,551	5,602	875	72,212	6,862	16,473	66,412
Apr.	129,238	68,828	3,091	140	59,957	5,640	8,317	52,093
May	139,081	71,010	3,777	1,809	60,594	4,830	15,238	52,833
June	141,105	74,361	5,924	770	62,377	5,290	12,335	54,408
July	148,625	72,487	5,291	348	59,203	7,645	21,763	54,375
Aug.	130,730	77,533	5,282	110	66,372	5,769	10,735	42,462
Sep.	160,276	96,892	10,333	2,847	73,908	9,804	18,913	44,471
Oct.	181,744	59,427	5,875	1,086	45,698	6,768	11,017	111,299
of which: Debt securities with maturities of more than four years ⁴								
2011	368,039	153,309	13,142	8,500	72,985	58,684	41,299	173,431
2012	421,018	177,086	23,374	6,482	74,386	72,845	44,042	199,888
2013	372,805	151,797	16,482	10,007	60,662	64,646	45,244	175,765
2014	420,006	157,720	17,678	8,904	61,674	69,462	56,249	206,037
2015	414,593	179,150	25,337	9,199	62,237	82,379	68,704	166,742
2016 ³	375,859	173,900	24,741	5,841	78,859	64,460	47,818	154,144
2017 ³	357,506	170,357	22,395	6,447	94,852	46,663	44,891	142,257
2018	375,906	173,995	30,934	4,460	100,539	38,061	69,150	132,760
2019	396,617	174,390	26,832	6,541	96,673	44,346	69,682	152,544
2020 ⁶	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 Feb.	41,368	22,391	3,487	1,364	14,364	3,175	2,101	16,876
Mar.	44,448	17,785	3,236	300	11,718	2,532	6,408	20,255
Apr.	28,734	13,879	1,926	50	10,089	1,814	1,050	13,805
May	33,822	12,448	3,173	1,264	6,238	1,774	4,423	16,950
June	37,845	7,517	2,676	500	2,342	1,999	4,128	26,200
July	47,135	12,838	2,626	250	8,760	1,201	13,373	20,925
Aug.	26,527	13,524	2,158	–	9,811	1,555	1,178	11,825
Sep.	48,303	19,352	7,086	1,821	7,179	3,267	8,100	20,850
Oct.	87,363	9,210	3,570	77	4,885	677	2,503	75,650
Net sales ⁵								
2011	22,518	54,582	1,657	44,290	32,904	44,852	3,189	80,289
2012	85,298	100,198	4,177	41,660	3,259	51,099	6,401	21,298
2013	140,017	125,932	17,364	37,778	4,027	66,760	1,394	15,479
2014	34,020	56,899	6,313	23,856	862	25,869	10,497	12,383
2015	65,147	77,273	9,271	9,754	2,758	74,028	25,300	13,174
2016 ³	21,951	10,792	2,176	12,979	16,266	5,327	18,177	7,020
2017 ³	2,669	5,954	6,389	4,697	18,788	14,525	6,828	10,114
2018	2,758	26,648	19,814	6,564	18,850	5,453	9,738	33,630
2019	59,719	28,750	13,098	3,728	26,263	6,885	30,449	519
2020 ⁶	473,795	28,147	8,661	8,816	22,067	11,398	49,536	396,113
2021	210,231	52,578	17,821	7,471	22,973	4,314	35,531	122,123
2022 Feb.	18,055	10,554	2,870	869	7,435	619	924	6,577
Mar.	41,894	23,733	2,097	250	20,258	1,128	7,541	10,620
Apr.	16,610	4,444	720	310	4,339	515	1,343	10,823
May	24,352	3,706	685	1,774	1,967	721	3,607	17,039
June	8,820	3,351	1,834	150	1,840	474	411	5,880
July	9,336	9,581	1,183	4,070	7,083	390	11,189	10,945
Aug.	14,448	1,731	4,546	1,290	778	747	119	12,836
Sep.	4,464	29,793	5,512	30	19,958	4,293	3,795	29,123
Oct.	54,229	8,066	3,797	814	9,845	1,204	4,139	66,434

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

redemptions. ⁶ Methodological changes since January 2020. — The figures for the year 2020 have been revised. The figures for the most recent date are provisional. Revisions are not specially marked.

VIII. Capital market

3. Amounts outstanding of debt securities issued by residents *

€ million, nominal value

End of year or month/ Maturity in years	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		
2011	3,370,721	1,515,911	149,185	188,663	577,423	600,640	247,585	1,607,226
2012	3,285,422	1,414,349	145,007	147,070	574,163	548,109	220,456	1,650,617
2013	3,145,329	1,288,340	127,641	109,290	570,136	481,273	221,851	1,635,138
2014	3,111,308	1,231,445	121,328	85,434	569,409	455,274	232,342	1,647,520
2015	3,046,162	1,154,173	130,598	75,679	566,811	381,085	257,612	1,634,377
2016 ¹	3,068,111	1,164,965	132,775	62,701	633,578	335,910	275,789	1,627,358
2017 ¹	3,090,708	1,170,920	141,273	58,004	651,211	320,432	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	1,222,911	174,188	47,712	696,325	304,686	342,325	1,584,136
2020 ⁴	3,545,200	1,174,817	183,980	55,959	687,710	247,169	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 Feb.	3,806,369	1,277,560	212,228	63,984	746,531	254,817	416,767	2,112,042
Mar.	3,851,741	1,302,963	213,413	64,234	769,133	256,183	424,622	2,124,156
Apr.	3,852,799	1,311,863	214,466	63,960	776,664	256,773	424,076	2,116,860
May	3,870,240	1,309,630	214,981	65,720	773,798	255,131	427,180	2,133,430
June	3,888,933	1,319,854	216,989	65,910	781,469	255,486	427,460	2,141,620
July	3,884,305	1,318,280	218,402	61,866	781,239	256,772	439,070	2,126,954
Aug.	3,901,993	1,323,161	222,515	60,584	784,706	255,355	439,459	2,139,374
Sep.	3,913,102	1,357,635	228,228	60,630	808,522	260,255	443,514	2,111,952
Oct.	3,964,507	1,346,622	231,901	59,803	795,996	258,923	438,718	2,179,167

Breakdown by remaining period to maturity³

bis unter 2	1 216 649	477 352	59 214	23 278	325 513	69 347	80 616	658 681
2 bis unter 4	750 366	325 939	64 060	13 922	182 494	65 464	79 719	344 708
4 bis unter 6	589 129	224 238	51 128	10 464	113 835	48 811	66 224	298 667
6 bis unter 8	405 532	128 917	29 372	5 072	73 834	20 639	39 231	237 385
8 bis unter 10	288 141	84 106	14 444	2 559	45 208	21 895	32 756	171 280
10 bis unter 15	238 645	62 134	9 265	4 062	38 289	10 517	33 665	142 847
15 bis unter 20	125 176	14 007	3 554	358	8 069	2 025	14 484	96 685
20 und darüber	350 868	29 930	864	89	8 754	20 223	92 024	228 914

Position at end-July 2022

* Including debt securities temporarily held in the issuers' portfolios. **1** Sectoral reclassification of debt securities. **2** Adjustments due to the change in the country of residence of the issuers or debt securities. **3** Calculated from month under review until final maturity for debt securities falling due en bloc and until mean maturity of the

residual amount outstanding for debt securities not falling due en bloc. **4** Methodological changes since January 2020. — The figures for the year 2020 have been revised. The figures for the most recent date are provisional. Revisions are not specially marked.

4. Shares in circulation issued by residents *

€ million, nominal value

Period	Share capital = circulation at end of period under review	Net increase or net decrease (-) during period under review	Change in domestic public limited companies' capital due to						Memo item: Share circulation at market values (market capitalisation) level at end of period under review ²			
			cash payments and ex-change of convertible bonds ¹	issue of bonus shares	contribution of claims and other real assets	merger and transfer of assets	change of legal form	reduction of capital and liquidation				
2011	177,167	2,570	6,390	552	462	—	552	—	762	—	3,532	924,214
2012	178,617	1,449	3,046	129	570	—	478	—	594	—	2,411	1,150,188
2013	171,741	6,879	2,971	718	476	—	1,432	—	619	—	8,992	1,432,658
2014	177,097	5,356	5,332	1,265	1,714	—	465	—	1,044	—	1,446	1,478,063
2015	177,416	319	4,634	397	599	—	1,394	—	1,385	—	2,535	1,614,442
2016	176,355	1,062	3,272	319	337	—	953	—	2,165	—	1,865	1,676,397
2017	178,828	2,471	3,894	776	533	—	457	—	661	—	1,615	1,933,733
2018	180,187	1,357	3,670	716	82	—	1,055	—	1,111	—	946	1,634,155
2019 ^{3,4}	183,461	1,673	2,411	2,419	542	—	858	—	65	—	2,775	1,950,224
2020 ⁴	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 Feb.	186,737	110	64	9	40	—	11	—	76	—	137	2,060,901
Mar.	186,993	256	260	91	—	—	0	—	25	—	70	2,076,514
Apr.	186,971	25	47	1	—	—	0	—	4	—	19	2,007,353
May	187,056	84	215	42	0	—	0	—	0	—	172	2,004,018
June	187,396	340	138	29	328	—	—	—	108	—	47	1,744,789
July	186,233	1,194	120	39	—	—	1	—	25	—	1,326	1,847,025
Aug.	185,545	688	42	—	—	—	0	—	32	—	698	1,769,546
Sep.	185,966	419	488	—	—	—	7	—	—	—	62	1,635,277
Oct.	186,402	420	532	1	—	—	0	—	—	—	112	1,777,136

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

AG. **3** Methodological changes since October 2019. **4** Changes due to statistical adjustments.

VIII. Capital market

5. Yields and indices on German securities

Period	Yields on debt securities outstanding issued by residents 1								Price indices 2,3			
	Public debt securities				Bank debt securities				Debt securities		Shares	
	Total	Total	Listed Federal securities		Total	With a residual maturity of more than 9 years and up to 10 years 4	Corporate bonds (non-MFIs)	Average daily rate	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								End-1998 = 100	End-1987 = 100	End-1987 = 1,000		
2010	2.5	2.4	2.4	2.4	2.7	2.7	3.3	4.0	124.96	102.95	368.72	6,914.19
2011	2.6	2.4	2.4	2.4	2.6	2.9	3.5	4.3	131.48	109.53	304.60	5,898.35
2012	1.4	1.3	1.3	1.3	1.5	1.6	2.1	3.7	135.11	111.18	380.03	7,612.39
2013	1.4	1.3	1.3	1.3	1.6	1.3	2.1	3.4	132.11	105.92	466.53	9,552.16
2014	1.0	1.0	1.0	1.0	1.2	0.9	1.7	3.0	139.68	114.37	468.39	9,805.55
2015	0.5	0.4	0.4	0.4	0.5	0.5	1.2	2.4	139.52	112.42	508.80	10,743.01
2016	0.1	0.0	0.0	0.0	0.1	0.3	1.0	2.1	142.50	112.72	526.55	11,481.06
2017	0.3	0.2	0.2	0.2	0.3	0.4	0.9	1.7	140.53	109.03	595.45	12,917.64
2018	0.4	0.3	0.3	0.3	0.4	0.6	1.0	2.5	141.84	109.71	474.85	10,558.96
2019	–	0.1	–	0.2	–	0.3	0.1	0.3	143.72	111.32	575.80	13,249.01
2020	–	0.2	–	0.4	–	0.5	–	0.0	146.15	113.14	586.72	13,718.78
2021	–	0.1	–	0.3	–	0.4	–	0.1	144.23	108.88	654.20	15,884.86
2022 May	1.3	1.0	0.9	0.9	1.0	1.6	1.7	3.0	135.30	97.98	561.04	14,388.35
June	1.9	1.5	1.4	1.4	1.4	2.1	2.3	3.8	133.21	96.13	494.98	12,783.77
July	1.5	1.2	1.0	1.0	1.1	1.9	2.0	3.7	137.14	100.13	519.98	13,484.05
Aug.	1.5	1.1	1.0	1.0	1.0	1.9	1.9	3.3	131.87	94.89	493.47	12,834.96
Sep.	2.3	1.9	1.7	1.7	1.8	2.7	2.6	4.3	127.98	91.15	458.93	12,114.36
Oct.	2.7	2.3	2.1	2.2	2.2	3.2	3.1	4.9	127.58	90.65	498.00	13,253.74

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 = total purchases	Sales								Purchases				
		Open-end domestic mutual funds 1 (sales receipts)								Residents				
		Total	Mutual funds open to the general public			Foreign funds 4				Total	Credit institutions including building and loan associations 2		Other sectors 3		Non-residents 5
	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	140,233	97,711	3,998	– 473	862	1,000	93,713	42,521	144,075	819	– 1,745	143,256	44,266	– 3,840
2015	181,889	146,136	30,420	318	22,345	3,636	115,716	35,753	174,018	7,362	494	166,656	35,259	7,871
2016	156,985	119,369	21,301	– 342	11,131	7,384	98,068	37,615	163,934	2,877	– 3,172	161,057	40,787	– 6,947
2017	153,756	94,921	29,560	– 235	21,970	4,406	65,361	58,834	156,282	4,938	1,048	151,344	57,786	– 2,526
2018	132,033	103,694	15,279	377	4,166	6,168	88,415	28,339	138,713	2,979	– 2,306	135,734	30,645	– 6,680
2019	176,254	122,546	17,032	– 447	5,097	10,580	105,514	53,708	180,772	2,719	– 812	178,053	54,520	– 4,519
2020	178,613	116,028	19,193	– 42	11,343	8,795	96,835	62,585	176,751	336	– 1,656	176,415	64,241	1,862
2021	261,295	157,861	41,016	482	31,023	7,841	116,845	103,434	264,055	13,154	254	250,901	103,180	– 2,760
2022 Apr.	11,416	9,302	2,398	– 288	1,900	676	6,904	2,113	10,952	154	393	10,798	1,720	463
May	5,606	5,058	1,045	251	380	381	4,013	548	4,981	– 132	– 434	5,113	982	625
June	3,171	4,539	– 191	– 8	– 428	389	4,730	– 1,368	2,907	– 1,186	– 72	4,093	– 1,296	264
July	3,330	2,810	– 965	76	– 1,427	386	3,775	520	5,076	1,176	74	3,900	446	– 1,746
Aug.	7,540	6,943	– 206	– 103	– 252	116	7,152	597	7,570	– 498	– 77	8,068	674	– 31
Sep.	177	1,349	– 1,343	64	– 1,577	288	2,712	– 1,172	25	– 320	– 294	345	– 878	152
Oct.	4,954	3,974	342	119	35	267	3,631	981	5,710	20	– 306	5,690	1,287	– 756

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	2019	2020	2021	2021				2022	
				Q1	Q2	Q3	Q4	Q1	Q2
Acquisition of financial assets									
Currency and deposits	17.93	96.81	40.12	21.81	- 25.36	19.57	24.11	14.83	- 27.36
Debt securities	- 2.37	2.99	3.11	- 1.53	1.90	1.58	1.16	0.64	- 0.10
Short-term debt securities	- 1.29	1.27	2.27	- 0.12	0.77	0.26	1.12	0.39	- 1.94
Long-term debt securities	- 1.08	1.72	0.85	- 1.65	1.13	1.32	0.05	0.25	1.84
Memo item:									
Debt securities of domestic sectors	- 0.58	1.38	1.34	- 0.64	0.87	1.75	- 0.64	0.34	0.98
Non-financial corporations	- 0.49	- 0.17	0.74	- 0.10	0.62	0.59	- 0.57	0.17	- 0.17
Financial corporations	- 0.64	0.12	1.08	- 0.55	0.48	0.58	0.56	0.44	0.73
General government	- 0.43	1.44	- 0.48	- 0.20	- 0.24	0.58	- 0.63	- 0.27	0.43
Debt securities of the rest of the world	- 1.79	1.61	1.78	- 0.88	1.03	- 0.17	1.80	0.31	- 1.08
Loans	- 1.48	- 9.64	50.61	- 0.23	6.50	13.55	30.79	5.36	17.95
Short-term loans	12.60	- 7.30	38.01	- 3.95	7.92	11.48	22.56	- 2.72	13.04
Long-term loans	- 14.08	- 2.34	12.61	3.73	- 1.42	2.07	8.23	8.08	4.90
Memo item:									
Loans to domestic sectors	- 26.03	- 1.13	10.10	- 6.25	0.01	0.18	16.16	7.85	2.51
Non-financial corporations	- 28.14	- 12.27	7.11	- 1.66	- 3.40	- 1.21	13.38	2.44	5.52
Financial corporations	1.86	10.57	2.38	- 4.75	3.26	1.24	2.63	5.41	- 3.01
General government	0.25	0.57	0.61	0.15	0.15	0.15	0.15	0.00	0.00
Loans to the rest of the world	24.55	- 8.51	40.51	6.02	6.49	13.37	14.63	- 2.49	15.44
Equity and investment fund shares	123.65	114.98	162.49	47.81	38.47	29.57	46.64	48.70	37.54
Equity	114.64	102.20	140.71	43.98	31.55	26.84	38.35	46.53	39.39
Listed shares of domestic sectors	6.18	- 77.97	15.33	12.08	4.92	- 18.27	16.59	6.03	7.40
Non-financial corporations	4.62	- 78.06	16.89	12.08	5.32	- 18.80	18.30	5.58	7.12
Financial corporations	1.55	0.09	- 1.56	0.01	- 0.41	0.54	- 1.70	0.46	0.28
Listed shares of the rest of the world	7.40	5.01	5.09	0.64	- 0.87	4.64	0.68	- 0.75	3.22
Other equity ¹	101.07	175.16	120.29	31.25	27.50	40.47	21.08	41.24	28.77
Investment fund shares	9.00	12.77	21.78	3.83	6.92	2.74	8.29	2.17	- 1.85
Money market fund shares	1.78	3.79	0.66	- 0.47	- 0.19	- 0.41	1.73	- 1.22	- 0.42
Non-MMF investment fund shares	7.22	8.99	21.12	4.31	7.11	3.15	6.56	3.39	- 1.43
Insurance technical reserves	1.81	2.76	2.87	0.78	0.80	0.61	0.69	- 0.11	7.74
Financial derivatives	- 0.62	- 27.52	15.55	13.92	2.29	0.44	- 1.09	18.59	27.87
Other accounts receivable	- 67.63	44.68	68.81	9.37	- 13.71	16.60	56.55	1.97	- 27.51
Total	71.28	225.07	343.56	91.93	10.88	81.92	158.84	89.98	36.13
External financing									
Debt securities	20.52	36.89	20.86	- 2.77	8.92	10.29	- 1.12	10.95	3.77
Short-term securities	4.88	- 4.40	2.51	- 1.19	1.23	3.50	- 1.02	3.85	1.21
Long-term securities	15.64	41.29	18.35	3.96	7.69	6.79	- 0.10	7.10	2.56
Memo item:									
Debt securities of domestic sectors	6.61	18.12	9.16	1.96	3.29	2.14	1.78	5.64	1.64
Non-financial corporations	0.49	- 0.17	0.74	0.10	0.62	0.59	- 0.57	0.17	- 0.17
Financial corporations	5.31	19.86	9.12	1.98	2.76	1.78	2.61	5.34	1.87
General government	0.47	- 0.22	0.09	0.14	0.03	0.02	- 0.10	- 0.01	- 0.08
Households	0.34	- 1.35	- 0.79	- 0.26	- 0.12	- 0.26	- 0.15	0.14	0.01
Debt securities of the rest of the world	13.91	18.77	11.70	0.81	5.63	8.15	- 2.89	5.31	2.13
Loans	90.09	84.73	94.00	28.53	- 10.92	22.98	53.40	33.15	39.43
Short-term loans	33.43	- 7.17	50.98	23.43	- 8.60	14.96	21.18	25.70	15.73
Long-term loans	56.66	91.89	43.02	5.10	- 2.32	8.03	32.22	7.45	23.70
Memo item:									
Loans from domestic sectors	36.84	36.81	67.74	31.86	- 14.35	9.37	40.86	33.16	32.35
Non-financial corporations	- 28.14	- 12.27	7.11	- 1.66	- 3.40	- 1.21	13.38	2.44	5.52
Financial corporations	64.24	13.26	46.49	31.00	- 15.98	7.95	23.53	28.45	22.64
General government	0.75	35.81	14.14	2.52	5.03	2.64	3.95	2.26	4.20
Loans from the rest of the world	53.25	47.92	26.26	- 3.33	3.43	13.61	12.55	- 0.01	7.08
Equity	11.69	60.37	61.44	14.63	8.50	17.93	20.38	3.11	7.71
Listed shares of domestic sectors	- 24.77	- 62.25	26.38	15.28	8.02	- 21.41	24.50	12.93	10.11
Non-financial corporations	4.62	- 78.06	16.89	12.08	5.32	- 18.80	18.30	5.58	7.12
Financial corporations	- 33.41	3.47	- 2.37	0.02	1.52	- 3.23	- 0.68	5.19	- 1.41
General government	- 0.01	0.26	- 0.09	- 0.07	- 0.07	- 0.00	0.04	0.18	0.20
Households	4.03	12.08	11.96	3.25	1.25	0.63	6.84	1.98	4.20
Listed shares of the rest of the world	- 1.16	10.09	18.94	- 4.97	- 1.16	31.69	- 6.62	- 12.77	- 1.54
Other equity ¹	37.61	112.54	16.11	4.32	1.64	7.65	2.50	2.95	- 0.87
Insurance technical reserves	7.55	5.83	4.25	1.06	1.06	1.06	1.06	1.06	1.06
Financial derivatives and employee stock options	- 1.38	0.54	14.32	1.27	8.20	3.93	0.93	0.37	2.32
Other accounts payable	8.87	14.40	147.36	48.66	8.52	29.78	60.40	27.28	28.03
Total	137.34	202.76	342.23	96.92	24.29	85.97	135.06	75.93	82.32

¹ Including unlisted shares.

IX. Financial accounts

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

End of year/quarter; € billion

Item	2019	2020	2021	2021				2022	
				Q1	Q2	Q3	Q4	Q1	Q2
Financial assets									
Currency and deposits	578.6	717.6	721.9	713.7	693.5	706.4	721.9	726.8	692.7
Debt securities	49.6	51.5	54.3	49.9	51.7	53.3	54.3	53.4	51.3
Short-term debt securities	3.7	4.8	7.1	5.0	5.7	6.0	7.1	7.5	5.6
Long-term debt securities	45.9	46.7	47.2	44.9	46.0	47.3	47.2	45.9	45.6
Memo item:									
Debt securities of domestic sectors	21.1	22.1	23.3	21.4	22.3	24.0	23.3	23.0	23.0
Non-financial corporations	5.0	4.7	5.3	4.7	5.3	5.9	5.3	5.2	4.9
Financial corporations	13.6	13.4	14.5	12.9	13.4	14.0	14.5	14.6	14.7
General government	2.6	4.0	3.5	3.8	3.6	4.1	3.5	3.2	3.5
Debt securities of the rest of the world	28.4	29.4	31.0	28.5	29.4	29.3	31.0	30.4	28.2
Loans	731.9	725.0	778.6	726.6	732.8	747.4	778.6	785.5	807.7
Short-term loans	568.5	566.1	605.1	562.7	570.5	582.7	605.1	603.6	619.2
Long-term loans	163.5	158.9	173.5	163.9	162.2	164.7	173.5	181.9	188.5
Memo item:									
Loans to domestic sectors	414.5	413.4	423.5	407.1	407.1	407.3	423.5	431.3	433.8
Non-financial corporations	339.9	327.6	334.7	325.9	322.5	331.3	334.7	337.2	342.7
Financial corporations	67.3	77.8	80.2	73.1	76.3	77.6	80.2	85.6	82.6
General government	7.4	7.9	8.5	8.1	8.2	8.4	8.5	8.5	8.5
Loans to the rest of the world	317.4	311.7	355.2	319.5	325.6	340.1	355.2	354.2	373.8
Equity and investment fund shares	2,448.6	2,559.5	2,912.8	2,726.9	2,813.6	2,871.7	2,912.8	2,838.5	2,765.7
Equity	2,258.6	2,354.8	2,672.6	2,514.5	2,589.5	2,644.2	2,672.6	2,606.2	2,548.2
Listed shares of domestic sectors	342.0	307.0	393.0	359.4	383.5	371.5	393.0	350.1	305.0
Non-financial corporations	332.9	298.9	384.9	350.9	375.0	361.7	384.9	342.4	298.2
Financial corporations	9.0	8.1	8.0	8.5	8.5	9.8	8.0	7.7	6.8
Listed shares of the rest of the world	52.3	66.6	71.5	71.0	69.4	71.0	71.5	66.5	66.3
Other equity ¹	1,864.3	1,981.2	2,208.2	2,084.2	2,136.6	2,201.7	2,208.2	2,189.6	2,176.8
Investment fund shares	190.0	204.7	240.2	212.4	224.1	227.5	240.2	232.3	217.5
Money market fund shares	3.2	7.0	7.6	6.5	6.3	5.9	7.6	6.4	6.0
Non-MMF investment fund shares	186.8	197.7	232.6	205.9	217.8	221.6	232.6	225.9	211.5
Insurance technical reserves	59.2	62.1	64.8	62.8	63.6	64.1	64.8	64.8	72.7
Financial derivatives	31.6	31.1	106.0	30.9	52.0	106.6	106.0	147.9	164.5
Other accounts receivable	1,251.0	1,237.4	1,458.5	1,347.8	1,340.7	1,392.2	1,458.5	1,506.2	1,542.3
Total	5,150.4	5,384.2	6,096.9	5,658.6	5,747.8	5,941.7	6,096.9	6,123.1	6,096.9
Liabilities									
Debt securities	204.7	238.3	252.3	239.5	249.3	256.1	252.3	245.3	229.7
Short-term securities	11.9	7.1	9.6	5.9	7.2	10.6	9.6	13.4	14.7
Long-term securities	192.9	231.2	242.7	233.6	242.1	245.5	242.7	231.8	215.1
Memo item:									
Debt securities of domestic sectors	77.7	96.0	100.6	95.6	99.5	99.7	100.6	98.6	92.6
Non-financial corporations	5.0	4.7	5.3	4.7	5.3	5.9	5.3	5.2	4.9
Financial corporations	57.8	78.1	83.2	78.0	81.2	81.2	83.2	81.8	76.8
General government	0.6	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.3
Households	14.4	12.8	11.8	12.5	12.5	12.1	11.8	11.2	10.6
Debt securities of the rest of the world	127.0	142.3	151.7	143.9	149.8	156.4	151.7	146.6	137.1
Loans	2,200.1	2,278.4	2,382.8	2,315.6	2,301.4	2,327.5	2,382.8	2,422.5	2,469.6
Short-term loans	838.3	825.0	879.6	851.1	842.2	857.6	879.6	907.0	927.9
Long-term loans	1,361.8	1,453.4	1,503.3	1,464.5	1,459.2	1,469.9	1,503.3	1,515.5	1,541.8
Memo item:									
Loans from domestic sectors	1,379.5	1,412.7	1,482.0	1,448.4	1,431.8	1,442.0	1,482.0	1,520.1	1,551.4
Non-financial corporations	339.9	327.6	334.7	325.9	322.5	321.3	334.7	337.2	342.7
Financial corporations	974.0	982.8	1,031.1	1,018.0	999.7	1,008.5	1,031.1	1,064.5	1,086.2
General government	65.7	102.3	116.2	104.5	109.5	112.2	116.2	118.4	122.5
Loans from the rest of the world	820.6	865.7	900.9	867.2	869.6	885.5	900.9	902.4	918.2
Equity	3,096.8	3,260.9	3,689.0	3,522.5	3,640.3	3,645.9	3,689.0	3,391.9	2,994.2
Listed shares of domestic sectors	734.1	739.9	924.8	848.8	896.1	882.4	924.8	840.1	734.0
Non-financial corporations	332.9	298.9	384.9	350.9	375.0	361.7	384.9	342.4	298.2
Financial corporations	158.0	171.9	210.2	193.0	202.9	196.9	210.2	194.3	161.9
General government	51.8	56.3	69.9	67.3	71.8	70.6	69.9	70.0	70.7
Households	191.3	212.8	259.7	237.6	246.3	253.2	259.7	233.3	203.2
Listed shares of the rest of the world	958.6	995.6	1,126.3	1,081.5	1,125.8	1,119.2	1,126.3	984.0	795.2
Other equity ¹	1,404.2	1,525.5	1,637.9	1,592.3	1,618.4	1,644.2	1,637.9	1,567.9	1,465.0
Insurance technical reserves	277.3	283.1	287.4	284.2	285.3	286.3	287.4	288.4	289.5
Financial derivatives and employee stock options	68.8	83.3	161.7	65.1	92.3	152.4	161.7	168.3	162.6
Other accounts payable	1,302.2	1,287.6	1,551.9	1,385.9	1,383.7	1,455.0	1,551.9	1,582.8	1,616.3
Total	7,150.0	7,431.7	8,325.2	7,812.8	7,952.2	8,123.3	8,325.2	8,099.2	7,762.0

¹ Including unlisted shares.

IX. Financial accounts

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

€ billion

Item	2019	2020	2021	2021				2022	
				Q1	Q2	Q3	Q4	Q1	Q2
Acquisition of financial assets									
Currency and deposits	146.74	213.31	145.57	48.31	53.10	12.10	32.06	11.73	31.66
Currency	35.26	61.94	59.84	12.68	16.47	14.98	15.72	13.47	12.35
Deposits	111.49	151.36	85.74	35.64	36.63	- 2.87	16.34	- 1.74	19.31
Transferable deposits	111.01	165.34	90.84	34.10	37.70	2.69	16.35	- 0.99	23.73
Time deposits	5.95	1.29	- 4.97	0.06	- 1.06	- 3.76	- 0.21	1.32	- 0.81
Savings deposits (including savings certificates)	- 5.47	- 15.26	- 0.13	1.48	- 0.01	- 1.81	0.20	- 2.07	- 3.61
Debt securities	- 1.86	- 5.94	- 5.89	- 2.66	- 1.30	- 1.32	- 0.62	2.81	4.85
Short-term debt securities	- 0.53	0.08	0.31	0.16	0.22	- 0.10	0.03	- 0.02	0.05
Long-term debt securities	- 1.33	- 6.02	- 6.20	- 2.82	- 1.52	- 1.22	- 0.64	2.83	4.79
Memo item:									
Debt securities of domestic sectors	- 2.93	- 2.56	- 3.70	- 1.07	- 1.26	- 0.99	- 0.39	2.26	3.77
Non-financial corporations	0.21	- 1.32	- 0.83	- 0.28	- 0.13	- 0.25	- 0.16	0.08	- 0.02
Financial corporations	- 2.23	- 1.26	- 2.57	- 0.67	- 1.02	- 0.66	- 0.23	2.34	3.18
General government	- 0.92	0.02	- 0.30	- 0.12	- 0.11	- 0.08	0.00	- 0.16	0.61
Debt securities of the rest of the world	1.07	- 3.38	- 2.19	- 1.59	- 0.04	- 0.32	- 0.23	0.55	1.08
Equity and investment fund shares	49.20	90.18	136.55	28.10	31.66	34.68	42.10	30.54	22.10
Equity	18.92	48.53	31.76	2.60	7.28	7.57	14.30	7.82	9.85
Listed shares of domestic sectors	6.61	16.05	14.21	3.39	2.20	2.34	6.29	2.70	5.54
Non-financial corporations	3.52	11.92	12.64	3.12	1.58	1.82	6.12	1.97	3.90
Financial corporations	3.09	4.14	1.58	0.27	0.62	0.52	0.17	0.74	1.64
Listed shares of the rest of the world	7.45	23.29	10.87	- 1.71	3.55	3.78	5.26	3.48	2.33
Other equity ¹	4.86	9.19	6.68	0.93	1.54	1.46	2.76	1.64	1.98
Investment fund shares	30.28	41.65	104.79	25.50	24.38	27.11	27.80	22.72	12.25
Money market fund shares	- 0.32	0.09	0.18	0.09	- 0.07	- 0.01	0.18	- 0.02	0.28
Non-MMF investment fund shares	30.60	41.56	104.61	25.41	24.46	27.12	27.62	22.74	11.97
Non-life insurance technical reserves and provision for calls under standardised guarantees	17.95	18.34	20.31	5.40	5.58	3.73	5.60	5.67	5.74
Life insurance and annuity entitlements	37.76	47.65	51.92	16.40	11.14	13.30	11.07	10.16	8.32
Pension entitlement, claims of pension funds on pension managers, entitlements to non-pension benefits	37.31	33.72	25.16	5.46	3.79	4.48	11.43	11.17	8.21
Financial derivatives and employee stock options	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other accounts receivable ²	- 14.28	- 10.44	1.65	21.65	- 2.74	7.97	- 25.23	12.97	- 9.19
Total	272.82	386.82	375.27	122.66	101.23	74.96	76.42	85.04	71.69
External financing									
Loans	82.57	83.92	98.64	16.73	27.53	30.68	23.70	20.35	28.13
Short-term loans	1.02	- 5.61	0.86	0.47	0.79	1.21	- 1.61	0.66	1.09
Long-term loans	81.55	89.52	97.78	16.26	26.74	29.47	25.31	19.68	27.04
Memo item:									
Mortgage loans	68.58	85.69	100.36	18.69	26.54	29.34	25.78	19.21	26.84
Consumer loans	14.42	- 4.29	- 0.89	- 1.14	- 0.09	2.38	- 2.04	0.23	0.91
Entrepreneurial loans	- 0.43	2.51	- 0.82	- 0.82	1.08	- 1.04	- 0.04	0.91	0.38
Memo item:									
Loans from monetary financial institutions	73.41	83.17	94.32	14.85	27.19	28.38	23.91	20.70	27.94
Loans from financial corporations other than MFIs	9.16	0.75	4.32	1.89	0.34	2.30	- 0.21	- 0.36	0.19
Loans from general government and rest of the world	- 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	- 0.01
Financial derivatives	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other accounts payable	0.73	0.01	0.90	0.01	0.01	0.25	0.63	- 0.94	1.75
Total	83.30	83.93	99.54	16.74	27.54	30.93	24.33	19.41	29.88

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

IX. Financial accounts

4. Financial assets and liabilities of households (non-consolidated)

End of year/quarter; € billion

Item	2019	2020	2021	2021				2022	
				Q1	Q2	Q3	Q4	Q1	Q2
Financial assets									
Currency and deposits	2,647.4	2,860.4	3,005.3	2,908.8	2,961.9	2,973.2	3,005.3	3,016.7	3,047.3
Currency	262.6	324.5	384.4	337.2	353.7	368.6	384.4	397.8	410.2
Deposits	2,384.8	2,535.8	2,620.9	2,571.6	2,608.3	2,604.6	2,620.9	2,618.9	2,637.1
Transferable deposits	1,509.1	1,674.1	1,764.4	1,708.3	1,746.0	1,748.1	1,764.4	1,763.5	1,786.7
Time deposits	301.6	302.8	297.7	302.9	301.9	297.9	297.7	298.7	297.9
Savings deposits (including savings certificates)	574.2	558.9	558.8	560.4	560.4	558.6	558.8	556.7	552.6
Debt securities	121.4	113.3	109.6	112.8	111.6	110.1	109.6	109.5	107.8
Short-term debt securities	1.6	1.6	1.8	1.7	1.9	1.8	1.8	1.7	1.7
Long-term debt securities	119.8	111.7	107.8	111.0	109.7	108.3	107.8	107.7	106.1
Memo item:									
Debt securities of domestic sectors	81.5	76.7	75.3	77.3	76.5	75.3	75.3	75.2	74.7
Non-financial corporations	12.4	10.9	9.8	10.5	10.5	10.2	9.8	9.4	8.9
Financial corporations	66.6	63.3	63.2	64.4	63.7	62.9	63.2	63.8	63.3
General government	2.5	2.6	2.2	2.4	2.3	2.2	2.2	2.0	2.5
Debt securities of the rest of the world	40.0	36.6	34.3	35.5	35.1	34.8	34.3	34.3	33.1
Equity and investment fund shares	1,388.2	1,541.0	1,901.6	1,659.4	1,746.3	1,794.3	1,901.6	1,840.4	1,696.6
Equity	708.0	806.5	969.1	868.7	904.8	923.8	969.1	926.8	847.5
Listed shares of domestic sectors	223.9	243.3	296.0	271.7	280.0	287.1	296.0	271.0	236.7
Non-financial corporations	182.3	204.0	250.4	228.2	236.9	244.3	250.4	224.7	195.7
Financial corporations	41.6	39.2	45.6	43.4	43.1	42.7	45.6	46.3	41.1
Listed shares of the rest of the world	136.3	180.6	249.3	199.6	216.5	223.3	249.3	241.1	214.1
Other equity ¹	347.8	382.6	423.8	397.4	408.3	413.4	423.8	414.7	396.7
Investment fund shares	680.3	734.6	932.5	790.7	841.5	870.5	932.5	913.6	849.1
Money market fund shares	2.3	2.3	2.5	2.4	2.3	2.3	2.5	2.5	2.8
Non-MMF investment fund shares	678.0	732.2	930.0	788.3	839.2	868.2	930.0	911.1	846.3
Non-life insurance technical reserves and provision for calls under standardised guarantees	393.8	412.2	432.5	417.6	423.2	426.9	432.5	438.2	443.9
Life insurance and annuity entitlements	1,069.1	1,112.1	1,162.2	1,128.0	1,138.7	1,151.6	1,162.2	1,172.5	1,180.0
Pension entitlement, claims of pension funds on pension managers, entitlements to non-pension benefits	924.5	956.8	984.0	962.3	966.1	970.5	984.0	991.1	993.3
Financial derivatives and employee stock options	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other accounts receivable ²	29.6	27.9	27.5	27.8	28.2	28.5	27.5	25.7	27.3
Total	6,574.2	7,023.7	7,622.6	7,216.7	7,376.0	7,455.1	7,622.6	7,594.1	7,496.3
Liabilities									
Loans	1,837.9	1,924.6	2,023.5	1,939.6	1,969.5	2,000.5	2,023.5	2,041.2	2,069.0
Short-term loans	59.0	53.2	53.0	53.6	54.4	55.6	53.0	53.7	54.8
Long-term loans	1,778.9	1,871.3	1,970.5	1,886.0	1,915.1	1,944.9	1,970.5	1,987.6	2,014.3
Memo item:									
Mortgage loans	1,358.7	1,448.2	1,548.5	1,464.8	1,493.8	1,523.0	1,548.5	1,565.3	1,592.2
Consumer loans	231.4	226.1	224.5	224.6	224.4	226.7	224.5	224.9	225.5
Entrepreneurial loans	247.7	250.2	250.5	250.2	251.2	250.8	250.5	251.1	251.4
Memo item:									
Loans from monetary financial institutions	1,741.6	1,824.6	1,920.3	1,839.8	1,867.3	1,896.1	1,920.3	1,941.0	1,968.8
Loans from financial corporations other than MFIs	96.3	99.9	103.2	99.8	102.2	104.4	103.2	100.2	100.3
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	19.4	19.5	20.3	19.5	19.5	19.7	20.3	19.4	21.1
Total	1,857.2	1,944.0	2,043.9	1,959.1	1,988.9	2,020.2	2,043.9	2,060.6	2,090.2

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

X. Public finances in Germany

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

Period	General government	Central government	State government	Local government	Social security funds	General government	Central government	State government	Local government	Social security funds	Deficit/surplus ¹
	€ billion					As a percentage of GDP					
Deficit/surplus¹											
2016	+ 36.4	+ 13.7	+ 7.7	+ 6.3	+ 8.7	+ 1.2	+ 0.4	+ 0.2	+ 0.2	+ 0.3	+ 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
2020 H1 P	- 48.6	- 27.3	- 9.4	+ 0.5	- 12.4	- 2.9	- 1.6	- 0.6	+ 0.0	- 0.8	- 0.8
H2 P	- 98.9	- 60.1	- 21.4	+ 5.1	- 22.4	- 5.6	- 3.4	- 1.2	+ 0.3	- 1.3	- 1.3
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	- 36.3	+ 17.8	+ 4.5	+ 7.5	- 0.3	- 1.9	+ 0.9	+ 0.2	+ 0.4	+ 0.4
Debt level²											
End of year or quarter											
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	2,111.8	1,349.9	614.9	163.1	0.8	64.6	41.3	18.8	5.0	0.0	0.0
2018	2,063.6	1,322.9	600.9	155.9	0.7	61.3	39.3	17.9	4.6	0.0	0.0
2019 P	2,046.6	1,299.7	610.0	153.6	0.7	58.9	37.4	17.6	4.4	0.0	0.0
2020 P	2,315.2	1,512.9	660.9	154.8	7.5	68.0	44.4	19.4	4.5	0.2	0.2
2021 P	2,471.6	1,667.2	662.7	156.2	0.4	68.6	46.3	18.4	4.3	0.0	0.0
2020 Q1 P	2,091.5	1,327.5	623.7	154.2	0.8	60.0	38.1	17.9	4.4	0.0	0.0
Q2 P	2,261.0	1,473.7	645.7	154.4	1.0	66.1	43.1	18.9	4.5	0.0	0.0
Q3 P	2,334.6	1,536.6	656.2	155.5	4.6	68.5	45.1	19.3	4.6	0.1	0.1
Q4 P	2,315.2	1,512.9	660.9	154.8	7.5	68.0	44.4	19.4	4.5	0.2	0.2
2021 Q1 P	2,345.6	1,538.7	665.4	154.7	16.2	69.0	45.2	19.6	4.5	0.5	0.5
Q2 P	2,397.7	1,589.1	667.8	155.6	21.2	68.7	45.5	19.1	4.5	0.6	0.6
Q3 P	2,430.8	1,617.3	672.4	154.9	24.3	68.6	45.6	19.0	4.4	0.7	0.7
Q4 P	2,471.6	1,667.2	662.7	156.2	0.4	68.6	46.3	18.4	4.3	0.0	0.0
2022 Q1 P	2,475.7	1,671.9	662.0	155.7	3.1	67.4	45.5	18.0	4.2	0.1	0.1
Q2 P	2,515.0	1,711.0	659.8	157.7	3.3	67.2	45.7	17.6	4.2	0.1	0.1

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

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

Period	Revenue				Expenditure						Deficit/surplus	Memo item: Total tax burden ¹	
	Total	of which:			Total	of which:							
	Taxes	Social contributions	Other	Social benefits	Compensation of employees	Intermediate consumption	Gross capital formation	Interest	Other				
€ billion													
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
As a percentage of GDP													
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
Percentage growth rates													
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

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

X. Public finances in Germany

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

€ billion

Period	Central, state and local government ¹									Social security funds ²			General government, total			
	Revenue			Expenditure						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							
2015 P	829.8	673.3	10.4	804.3	244.1	302.7	49.8	46.4	12.5	+ 25.5	575.0	573.1	+ 1.9	1,301.1	1,273.6	+ 27.4
2016 P	862.3	705.8	9.0	844.5	251.3	321.6	43.4	49.0	11.8	+ 17.8	601.8	594.8	+ 7.1	1,355.1	1,330.2	+ 24.9
2017 P	900.3	734.5	7.9	869.4	261.6	327.9	42.0	52.3	13.8	+ 30.8	631.5	622.0	+ 9.5	1,417.5	1,377.2	+ 40.3
2018 P	951.8	776.3	6.2	905.6	272.5	338.0	39.2	55.8	16.1	+ 46.2	656.2	642.5	+ 13.6	1,490.7	1,430.9	+ 59.8
2019 P	1,010.3	799.4	11.2	975.5	285.9	349.7	33.6	62.9	16.8	+ 34.8	685.0	676.7	+ 8.3	1,573.8	1,530.8	+ 43.0
2020 P	946.9	739.9	13.9	1,111.3	299.5	422.8	25.9	69.2	59.9	- 164.4	719.5	747.8	- 28.3	1,518.8	1,711.5	- 192.7
2021 P	1,108.0	833.3	25.5	1,241.5	310.7	531.5	21.1	69.9	26.2	- 133.5	769.7	776.2	- 6.5	1,704.7	1,844.7	- 140.0
2020 Q1 P	244.8	197.5	2.5	236.4	72.9	90.5	11.9	12.0	2.6	+ 8.4	168.3	175.7	- 7.4	380.0	379.1	+ 0.9
Q2 P	212.2	158.1	2.7	272.0	72.2	119.1	8.6	15.4	3.4	- 59.8	175.9	187.0	- 11.1	354.8	425.7	- 70.9
Q3 P	227.5	181.4	4.0	282.1	72.4	102.0	1.4	18.3	34.3	- 54.5	181.1	195.0	- 13.9	369.9	438.3	- 68.4
Q4 P	259.3	201.9	4.5	315.4	81.4	109.1	5.9	22.8	19.6	- 56.1	186.0	189.6	- 3.5	410.6	470.2	- 59.6
2021 Q1 P	237.1	185.3	4.3	297.0	75.5	130.8	7.3	11.1	14.6	- 59.9	182.4	196.3	- 13.9	381.5	455.3	- 73.8
Q2 P	270.6	195.8	7.5	300.8	74.8	126.8	10.7	15.2	10.5	- 30.2	185.9	197.0	- 11.1	417.7	459.0	- 41.2
Q3 P	270.9	210.7	7.4	290.2	75.8	117.5	- 0.4	16.5	10.4	- 19.3	183.4	191.9	- 8.6	413.5	441.4	- 27.8
Q4 P	328.0	237.7	6.1	342.9	84.1	148.1	3.1	26.4	- 9.4	- 14.9	197.3	190.4	+ 6.9	487.7	495.7	- 8.0
2022 Q1 P	277.4	224.0	5.0	278.4	79.6	116.3	5.5	11.9	7.0	- 1.0	193.8	199.8	- 6.0	429.4	436.5	- 7.1
Q2 P	288.4	224.6	5.1	294.7	77.8	126.5	10.6	15.3	5.9	- 6.2	199.9	196.7	+ 3.2	445.1	448.2	- 3.1

Source: Bundesbank calculations based on Federal Statistical Office data. ¹ Annual figures based on the calculations of the Federal Statistical Office. Bundesbank supplementary estimations for the reporting years after 2011 that are not yet available. The quarterly figures contain numerous off-budget entities which are assigned to the general government sector as defined in the national accounts but are not yet included in the annual calculations. From 2012 also including the bad bank FMSW. ² The annual figures do not tally with the sum of the quarterly figures, as the

latter are all provisional. The quarterly figures for some insurance sectors are estimated. ³ The development of the types of expenditure recorded here is influenced in part by statistical changeovers. ⁴ Including discrepancies in clearing transactions between central, state and local government. ⁵ On the revenue side, this contains proceeds booked as disposals of equity interests and as loan repayments. On the expenditure side, this contains the acquisition of equity interests and loans granted. ⁶ Including central government liquidity assistance to the Federal Employment Agency.

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

€ billion

Period	Central government			State government ^{2,3}			Local government ³		
	Revenue ¹	Expenditure	Deficit/surplus	Revenue	Expenditure	Deficit/surplus	Revenue	Expenditure	Deficit/surplus
2015 P	338.3	326.5	+ 11.8	355.1	350.6	+ 4.5	232.7	229.1	+ 3.6
2016 P	344.7	338.4	+ 6.2	381.1	372.4	+ 8.8	248.9	243.1	+ 5.8
2017 P	357.8	352.8	+ 5.0	397.7	385.8	+ 11.8	260.3	249.1	+ 11.2
2018 P	374.4	363.5	+ 10.9	420.5	400.1	+ 20.4	271.8	261.5	+ 10.2
2019 P	382.5	369.2	+ 13.3	437.2	419.6	+ 17.6	284.2	278.1	+ 6.1
2020 P	341.4	472.1	- 130.7	456.4	489.4	- 33.0	297.0	294.6	+ 2.4
2021 P	370.3	585.9	- 215.6	510.2	509.1	+ 1.1	309.9	304.8	+ 5.1
2020 Q1 P	92.3	90.4	+ 1.9	105.6	99.7	+ 5.9	57.9	67.7	- 9.8
Q2 P	70.8	114.8	- 44.0	108.2	128.0	- 19.8	69.4	69.4	+ 0.1
Q3 P	83.7	105.4	- 21.7	112.9	113.7	- 0.8	67.5	72.6	- 5.1
Q4 P	94.5	161.5	- 67.0	127.4	146.3	- 18.9	100.3	83.5	+ 16.8
2021 Q1 P	75.0	127.5	- 52.5	113.7	120.7	- 7.1	61.1	69.7	- 8.6
Q2 P	86.4	123.5	- 37.1	122.8	122.0	+ 0.8	74.6	71.7	+ 2.9
Q3 P	93.9	128.7	- 34.7	125.9	120.2	+ 5.7	74.6	74.9	- 0.3
Q4 P	115.1	206.3	- 91.2	145.6	144.5	+ 1.2	97.6	87.0	+ 10.6
2022 Q1 P	94.7	114.0	- 19.3	134.6	122.7	+ 11.9	68.4	73.8	- 5.4
Q2 P	99.7	123.5	- 23.7	133.2	123.6	+ 9.6	81.0	77.3	+ 3.7

Source: Bundesbank calculations based on Federal Statistical Office data. ¹ Any amounts of the Bundesbank's profit distribution exceeding the reference value that were used to repay parts of the debt of central government's special funds are not in-

cluded here. ² Including the local authority level of the city states Berlin, Bremen and Hamburg. ³ Quarterly data of core budgets and off-budget entities which are assigned to the general government sector.

X. Public finances in Germany

5. Central, state and local government: tax revenue

€ million

Period	Central and state government and European Union							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	Local government ³			
2015	673,276	580,485	308,849	240,698	30,938	93,003	-	212	27,241
2016	705,797	606,965	316,854	260,837	29,273	98,648	+	186	27,836
2017	734,540	629,458	336,730	271,046	21,682	105,158	-	76	27,368
2018	776,314	665,005	349,134	287,282	28,589	111,308	+	1	26,775
2019	799,416	684,491	355,050	298,519	30,921	114,902	+	23	25,998
2020	739,911	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
2020 Q1	198,375	168,123	83,086	75,420	9,617	18,875	+	11,377	6,855
Q2	158,161	135,185	68,653	59,557	6,974	25,107	-	2,131	6,997
Q3	182,202	156,397	78,502	72,613	5,282	25,234	+	571	9,705
Q4	201,173	172,564	83,140	78,475	10,949	38,700	-	10,090	6,709
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	...	174,232	84,078	80,020	10,133	...	...	...	7,953
2021 Oct.	...	49,736	22,502	23,413	3,821	...	...	...	2,328
2022 Oct.	...	52,876	25,996	24,125	2,756	...	...	...	2,374

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													Memo item: Local government share in joint taxes	
	Total ¹	Income taxes ²					Value added taxes (VAT) ⁷			Local business tax transfers ⁸	Central government taxes ⁹	State government taxes ⁹	EU customs duties		
		Total	Wage tax ³	Assessed income tax ⁴	Corporation tax ⁵	Investment income tax ⁶	Total	Domestic VAT	Import VAT						
2015	620,287	273,258	178,891	48,580	19,583	26,204	209,921	159,015	50,905	7,407	104,204	20,339	5,159	39,802	
2016	648,309	291,492	184,826	53,833	27,442	25,391	217,090	165,932	51,157	7,831	104,441	22,342	5,113	41,345	
2017	674,598	312,462	195,524	59,428	29,259	28,251	226,355	170,498	55,856	8,580	99,934	22,205	5,063	45,141	
2018	713,576	332,141	208,231	60,415	33,425	30,069	234,800	175,437	59,363	9,078	108,586	23,913	5,057	48,571	
2019	735,869	344,016	219,660	63,711	32,013	28,632	243,256	183,113	60,143	8,114	109,548	25,850	5,085	51,379	
2020	682,376	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	
2020 Q1	181,374	88,009	53,389	18,711	8,495	7,415	60,060	46,038	14,022	244	24,517	7,406	1,139	13,251	
Q2	146,360	69,928	50,760	10,633	2,348	6,187	44,262	31,625	12,638	1,170	23,525	6,326	1,149	11,175	
Q3	168,308	73,766	47,470	13,492	5,411	7,392	59,819	47,933	11,886	796	25,930	6,784	1,212	11,910	
Q4	186,334	89,094	57,667	16,146	8,014	7,268	55,343	43,105	12,238	1,744	31,660	7,259	1,234	13,770	
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	
2021 Oct.	53,425	20,523	17,149	1,308	-	161	2,227	21,421	15,389	6,032	993	7,466	2,521	501	3,689
2022 Oct.	56,673	22,786	19,375	1,204	593	1,614	23,210	15,358	7,852	1,175	6,866	1,986	651	3,797	

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 50:50:0, 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 2021: 45.1:51.2:3.7. The EU share is deducted from central government's share. **8** Respective percentage share of central and state government for 2021: 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	Solidarity surcharge	Tobacco tax	Insurance tax	Motor vehicle tax	Electricity tax	Alcohol tax	Other	Tax on the acquisition of land and buildings	Inheritance tax	Betting and lottery tax	Other	Total	of which:	
														Local business tax ²	Real property taxes
2015	39,594	15,930	14,921	12,419	8,805	6,593	2,070	3,872	11,249	6,290	1,712	1,088	60,396	45,752	13,215
2016	40,091	16,855	14,186	12,763	8,952	6,569	2,070	2,955	12,408	7,006	1,809	1,119	65,319	50,103	13,654
2017	41,022	17,953	14,399	13,269	8,948	6,944	2,094	-4,695	13,139	6,114	1,837	1,115	68,522	52,899	13,966
2018	40,882	18,927	14,339	13,779	9,047	6,858	2,133	2,622	14,083	6,813	1,894	1,122	71,817	55,904	14,203
2019	40,683	19,646	14,257	14,136	9,372	6,689	2,118	2,648	15,789	6,987	1,975	1,099	71,661	55,527	14,439
2020	37,635	18,676	14,651	14,553	9,526	6,561	2,238	1,792	16,055	8,600	2,044	1,076	61,489	45,471	14,676
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
2020 Q1	4,966	4,930	2,413	6,766	2,634	1,708	562	537	4,525	1,981	542	358	17,245	13,391	3,403
Q2	8,117	4,235	3,772	2,606	2,426	1,585	455	328	3,566	2,154	425	181	12,971	8,842	3,895
Q3	9,985	4,365	3,978	2,817	2,366	1,499	506	414	3,730	2,262	509	283	14,690	10,242	4,095
Q4	14,566	5,145	4,487	2,365	2,101	1,768	715	513	4,234	2,203	567	254	16,584	12,997	3,283
2021 Q1	4,126	3,171	2,585	6,776	2,567	1,692	395	400	4,716	2,110	578	353	17,594	13,798	3,503
Q2	8,717	2,546	4,053	2,843	2,469	1,640	528	413	4,231	2,374	538	255	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	...	...	...
2021 Oct.	3,371	402	1,337	716	706	564	178	190	1,471	712	257	81	.	.	.
2022 Oct.	2,465	462	1,436	758	756	567	172	250	1,089	608	202	87	.	.	.

Sources: Federal Ministry of Finance, Federal Statistical Office and Bundesbank calculations. ¹ For the sum total, see Table X. 6. ² Including revenue from offshore wind farms.

8. German statutory pension insurance scheme: budgetary development and assets*

€ million

Period	Revenue ^{1,2}			Expenditure ^{1,2}			Deficit/surplus	Assets ^{1,4}					Memo item: Administrative assets
	Total	of which:		Total	of which:			Total	Deposits ⁵	Securities	Equity interests, mortgages and other loans ⁶	Real estate	
		Contributions ³	Payments from central government		Pension payments	Pen-sioners' health insurance							
2015	276,129	194,486	80,464	277,717	236,634	16,705	- 1,588	35,556	32,795	2,506	167	88	4,228
2016	286,399	202,249	83,154	288,641	246,118	17,387	- 2,242	34,094	31,524	2,315	203	52	4,147
2017	299,826	211,424	87,502	299,297	255,261	18,028	+ 529	35,366	33,740	1,335	238	53	4,032
2018	312,788	221,572	90,408	308,356	263,338	18,588	+ 4,432	40,345	38,314	1,713	262	56	4,008
2019	327,298	232,014	94,467	325,436	277,282	20,960	+ 1,861	42,963	40,531	2,074	303	56	3,974
2020	335,185	235,988	98,447	339,072	289,284	21,865	- 3,887	39,880	38,196	1,286	344	55	3,901
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
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

Sources: Federal Ministry of Labour and Social Affairs and German pension insurance scheme. * Excluding the German pension insurance scheme for the mining, railway and maritime industries. ¹ The final annual figures generally differ from the total of the reported provisional quarterly figures as the latter are not revised sub-

sequently. ² Including financial compensation payments. Excluding investment spending and proceeds. ³ Including contributions for recipients of government cash benefits. ⁴ Largely corresponds to the sustainability reserves. End of year or quarter. ⁵ Including cash. ⁶ Excluding loans to other social security funds.

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9. Federal Employment Agency: budgetary development*

€ million

Period	Revenue				Expenditure							Deficit/ surplus	Deficit- offsetting grant or loan from central govern- ment
	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	Re- integration payment	Insolvency benefit payment	Adminis- trative expendi- ture ⁵		
2015	35,159	29,941	1,333	-	31,439	14,846	771	6,295	.	654	5,597	+ 3,720	-
2016	36,352	31,186	1,114	-	30,889	14,435	749	7,035	.	595	5,314	+ 5,463	-
2017	37,819	32,501	882	-	31,867	14,055	769	7,043	.	687	6,444	+ 5,952	-
2018	39,335	34,172	622	-	33,107	13,757	761	6,951	.	588	8,129	+ 6,228	-
2019	35,285	29,851	638	-	33,154	15,009	772	7,302	.	842	6,252	+ 2,131	-
2020	33,678	28,236	630	-	61,013	20,617	22,719	7,384	.	1,214	6,076	- 27,335	6,913
2021	35,830	29,571	1,302	-	57,570	19,460	21,003	7,475	.	493	6,080	- 21,739	16,935
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	-

Source: Federal Employment Agency. * Including transfers to the civil servants' pension fund. ¹ Excluding central government deficit-offsetting grant or loan. ² Unemployment benefit in case of unemployment. ³ Including seasonal short-time working benefits and restructuring short-time working benefits, restructuring measures and refunds of social contributions. ⁴ Vocational training, measures to en-

courage job take-up, rehabilitation, compensation top-up payments and promotion of business start-ups. ⁵ Including collection charges to other social security funds, excluding administrative expenditure within the framework of the basic allowance for job seekers.

10. Statutory health insurance scheme: budgetary development

€ million

Period	Revenue ¹			Expenditure ¹								Deficit/ surplus
	Total	of which:		Total	of which:							
		Contri- butions ²	Central govern- ment funds ³		Hospital treatment	Pharma- ceuticals	Medical treatment	Dental treatment ⁴	Remedies and therapeutic appliances	Sickness benefits	Adminis- trative expendi- ture ⁵	
2015	210,147	195,774	11,500	213,727	67,979	34,576	35,712	13,488	13,674	11,227	10,482	- 3,580
2016	223,692	206,830	14,000	222,936	70,450	35,981	37,300	13,790	14,256	11,677	11,032	+ 757
2017	233,814	216,227	14,500	230,773	72,303	37,389	38,792	14,070	14,776	12,281	10,912	+ 3,041
2018	242,360	224,912	14,500	239,706	74,506	38,327	39,968	14,490	15,965	13,090	11,564	+ 2,654
2019	251,295	233,125	14,500	252,440	77,551	40,635	41,541	15,010	17,656	14,402	11,136	- 1,145
2020	269,158	237,588	27,940	275,268	78,531	42,906	44,131	14,967	18,133	15,956	11,864	- 6,110
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
2020 Q1	61,949	57,419	3,625	66,438	20,049	11,086	10,806	3,804	4,470	4,061	2,816	- 4,489
Q2	68,108	58,096	9,359	69,487	17,674	10,492	10,908	3,389	3,986	4,143	2,980	- 1,378
Q3	70,130	59,403	10,151	71,063	20,913	10,567	11,642	3,774	4,852	3,829	2,970	- 934
Q4	68,645	62,672	4,805	67,987	19,887	12,627	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

Source: Federal Ministry of Health. ¹ The final annual figures generally differ from the total of the reported provisional quarterly figures as the latter are not revised subsequently. Excluding revenue and expenditure as part of the risk structure compensation scheme. ² Including contributions from subsidised low-paid part-time employ-

ment. ³ Federal grant and liquidity assistance. ⁴ Including dentures. ⁵ Net, i.e. after deducting reimbursements for expenses for levying contributions incurred by other social security funds.

X. Public finances in Germany

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

€ million

Period	Revenue		Expenditure ¹					Deficit/ surplus	
	Total	of which: Contributions ²	Total	of which:					
				Non-cash care benefits ³	Inpatient care total ⁴	Nursing benefit	Contributions to pension insur- ance scheme ⁵		Administrative expenditure
2015	30,825	30,751	29,101	4,626	13,003	6,410	960	1,273	+ 1,723
2016	32,171	32,100	30,936	4,904	13,539	6,673	983	1,422	+ 1,235
2017	36,305	36,248	38,862	6,923	16,034	10,010	1,611	1,606	- 2,557
2018	37,949	37,886	41,265	7,703	16,216	10,809	2,093	1,586	- 3,315
2019	47,228	46,508	44,008	8,257	16,717	11,689	2,392	1,781	+ 3,220
2020	50,622	48,003	49,284	8,794	16,459	12,786	2,714	1,946	+ 1,338
2021	52,573	49,764	53,903	9,573	16,511	13,865	3,070	2,024	- 1,330
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

Source: Federal Ministry of Health. * The final annual figures generally differ from the total of the reported provisional quarterly figures as the latter are not revised subsequently. ¹ Including transfers to the long-term care provident fund. ² Since 2005, including special contributions for childless persons (0.25% of income subject to insur-

ance contributions). ³ Data revision in 2014. ⁴ From 2014, also including benefits for short-term care and daytime/night-time nursing care, inter alia. ⁵ For non-professional carers.

12. Central government: borrowing in the market

€ million

Period	Total new borrowing ¹		of which: Change in money market loans	Change in money market deposits ³
	Gross ²	Net		
2016	+ 182,486	- 11,331	- 2,332	- 16,791
2017	+ 171,906	+ 4,531	+ 11,823	+ 2,897
2018	+ 167,231	- 16,248	- 91	- 1,670
2019	+ 185,070	+ 63	- 8,044	- 914
2020	+ 456,828	+ 217,904	+ 24,181	- 3,399
2020 Q1	+ 65,656	+ 31,296	+ 9,236	+ 1,698
Q2	+ 185,560	+ 126,585	+ 31,212	- 7,314
Q3	+ 159,067	+ 80,783	- 6,080	+ 588
Q4	+ 46,545	- 20,760	- 10,187	+ 1,629
2021 Q1	+ 109,953	+ 42,045	- 11,737	- 4,708
Q2	+ 146,852	+ 57,601	+ 3,463	+ 1,576

Source: Federal Republic of Germany – Finance Agency. ¹ Including the Financial Market Stabilisation Fund, the Investment and Repayment Fund and the Restructuring Fund for Credit Institutions. ² After deducting repurchases. ³ Excluding the central account balance with the Deutsche Bundesbank.

13. General government: debt by creditor*

€ million

Period (end of year or quarter)	Total	Banking system		Domestic non-banks		Foreign creditors ^{pe}
		Bundes- bank	Domestic MFIs ^{pe}	Other do- mestic fi- nancial cor- porations ^{pe}	Other domestic creditors ¹	
2016	2,161,570	205,391	585,456	211,797	48,651	1,110,275
2017	2,111,751	319,159	539,181	180,145	45,121	1,028,146
2018	2,063,571	364,731	496,314	186,399	44,131	971,995
2019	2,046,638	366,562	458,336	183,741	48,740	989,259
2020	2,315,216	522,392	493,679	191,450	40,615	1,067,080
2021 ^p	2,471,628	716,004	485,156	191,908	40,621	1,037,939
2020 Q1	2,091,520	371,076	469,822	186,030	49,825	1,014,768
Q2	2,261,026	424,141	535,844	186,577	49,948	1,064,516
Q3	2,334,627	468,723	508,090	189,788	51,777	1,116,249
Q4	2,315,216	522,392	493,679	191,450	40,615	1,067,080
2021 Q1 ^p	2,345,586	561,443	468,094	190,392	51,830	1,073,827
Q2 ^p	2,397,710	620,472	470,564	190,129	43,264	1,073,280
Q3 ^p	2,430,788	669,659	472,510	191,836	44,537	1,052,246
Q4 ^p	2,471,628	716,004	485,156	191,908	40,621	1,037,939
2022 Q1 ^p	2,475,736	737,978	469,107	194,059	39,384	1,035,207
Q2 ^p	2,514,988	759,385	472,710	202,494	43,034	1,037,364

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

X. Public finances in Germany

14. Maastricht debt by instrument

€ million

Period (end of year or quarter)	Total	Currency and deposits ¹	Debt securities by original maturity		Loans by original maturity		Memo item: 2	
			Short-term debt securities (up to one year)	Long-term debt securities (more than one year)	Short-term loans (up to one year)	Long-term loans (more than one year)	Debt vis-à-vis other government subsectors	Claims vis-à-vis other government subsectors
General government								
2015	2,177,231	13,949	65,676	1,499,010	90,350	508,246	.	.
2016	2,161,570	15,491	69,715	1,483,871	96,254	496,239	.	.
2017	2,111,751	14,298	48,789	1,484,462	87,799	476,403	.	.
2018	2,063,571	14,680	52,572	1,456,160	77,410	462,748	.	.
2019	2,046,638	14,449	56,350	1,458,540	62,288	455,011	.	.
2020 Q1	2,091,520	11,410	84,162	1,472,222	72,560	451,167	.	.
Q2	2,261,026	13,120	134,275	1,533,857	131,335	448,438	.	.
Q3	2,334,627	11,886	190,945	1,582,574	101,669	447,553	.	.
Q4	2,315,216	14,486	173,851	1,596,141	82,437	448,301	.	.
2021 Q1 P	2,345,586	12,200	190,021	1,637,515	61,278	444,571	.	.
Q2 P	2,397,710	12,901	182,659	1,689,922	69,010	443,218	.	.
Q3 P	2,430,788	13,319	192,480	1,711,739	69,831	443,420	.	.
Q4 P	2,471,628	17,743	195,420	1,729,881	86,437	442,146	.	.
2022 Q1 P	2,475,736	15,655	172,881	1,775,452	69,481	442,267	.	.
Q2 P	2,514,988	17,750	161,918	1,811,387	76,658	447,274	.	.
Central government								
2015	1,371,933	13,949	49,512	1,138,951	45,256	124,265	1,062	13,667
2016	1,365,579	15,491	55,208	1,123,853	50,004	121,022	556	8,567
2017	1,349,948	14,298	36,297	1,131,896	47,761	119,696	1,131	10,618
2018	1,322,907	14,680	42,246	1,107,140	42,057	116,784	933	9,975
2019	1,299,727	14,449	38,480	1,101,866	28,617	116,315	605	10,301
2020 Q1	1,327,538	11,410	56,680	1,103,934	38,714	116,799	605	8,125
Q2	1,473,699	13,120	109,221	1,139,510	95,489	116,360	585	7,037
Q3	1,536,634	11,886	166,564	1,178,687	62,933	116,564	605	11,731
Q4	1,512,875	14,486	154,498	1,180,683	46,811	116,396	609	14,545
2021 Q1 P	1,538,718	12,200	167,484	1,212,495	29,817	116,722	602	22,947
Q2 P	1,589,070	12,901	165,373	1,259,206	34,965	116,626	643	29,461
Q3 P	1,617,263	13,319	170,961	1,280,586	35,919	116,478	687	31,390
Q4 P	1,667,150	17,743	176,428	1,300,416	56,744	115,818	640	8,083
2022 Q1 P	1,671,870	15,655	155,119	1,340,340	40,701	120,055	531	10,453
Q2 P	1,710,978	17,750	147,674	1,373,617	46,356	125,581	649	10,555
State government								
2015	659,521	–	16,169	362,376	23,349	257,627	15,867	2,348
2016	642,291	–	14,515	361,996	20,482	245,298	11,273	1,694
2017	614,936	–	12,543	354,688	19,628	228,076	14,038	2,046
2018	600,899	–	10,332	351,994	18,977	219,596	14,035	1,891
2019	609,950	–	17,873	360,495	18,767	212,816	14,934	1,826
2020 Q1	623,720	–	27,484	372,021	16,000	208,216	12,297	1,783
Q2	645,700	–	25,056	398,404	16,916	205,324	11,070	2,085
Q3	656,207	–	24,382	408,310	19,836	203,679	11,717	2,090
Q4	660,917	–	19,354	419,862	18,624	203,078	11,946	1,410
2021 Q1 P	665,415	–	22,538	429,641	14,933	198,303	10,959	1,998
Q2 P	667,802	–	17,287	435,726	17,844	196,945	12,466	2,047
Q3 P	672,433	–	21,521	436,506	17,374	197,033	11,421	2,119
Q4 P	662,728	–	18,994	434,930	13,851	194,953	12,443	1,766
2022 Q1 P	661,971	–	17,765	440,766	13,534	189,906	11,700	1,935
Q2 P	659,846	–	14,247	443,413	14,876	187,310	11,451	1,823
Local government								
2015	163,439	–	–	2,047	27,474	133,918	2,143	463
2016	166,205	–	–	2,404	27,002	136,798	1,819	431
2017	163,124	–	–	3,082	24,572	135,471	1,881	466
2018	155,930	–	1	3,046	20,425	132,458	1,884	497
2019	153,634	–	–	2,996	19,079	131,559	1,856	532
2020 Q1	154,200	–	–	3,128	19,739	131,333	1,825	508
Q2	154,368	–	–	3,094	19,728	131,546	2,085	350
Q3	155,532	–	–	2,961	20,610	131,960	2,107	339
Q4	154,834	–	–	3,366	18,033	133,435	1,404	330
2021 Q1 P	154,659	–	–	3,121	17,480	134,058	2,010	320
Q2 P	155,643	–	–	3,121	18,475	134,048	2,071	313
Q3 P	154,910	–	–	3,000	17,649	134,261	2,127	306
Q4 P	156,230	–	–	3,241	17,255	135,734	1,768	293
2022 Q1 P	155,675	–	–	3,052	16,075	136,548	1,933	315
Q2 P	157,705	–	–	2,969	16,186	138,550	1,823	361

For footnotes see end of table.

X. Public finances in Germany

14. Maastricht debt by instrument (cont'd)

€ million

Period (end of year or quarter)	Currency and deposits ¹	Debt securities by original maturity		Loans by original maturity		Memo item: ²	
		Short-term debt securities (up to one year)	Long-term debt securities (more than one year)	Short-term loans (up to one year)	Long-term loans (more than one year)	Debt vis-à-vis other government subsectors	Claims vis-à-vis other government subsectors
Social security funds							
2015	1,502	–	–	537	965	91	2,685
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 P	16,220	–	–	15,985	235	15,853	4,160
Q2 P	21,234	–	–	20,995	239	20,860	4,220
Q3 P	24,288	–	–	24,053	235	23,872	4,292
Q4 P	392	–	–	131	261	19	4,729
2022 Q1 P	3,104	–	–	2,863	240	2,720	4,181
Q2 P	3,321	–	–	3,078	242	2,939	4,124

Source: Bundesbank calculations based on data from the Federal Statistical Office and the Federal Republic of Germany – Finance Agency. ¹ Particularly liabilities resulting from coins in circulation. ² Besides direct loan relationships, claims and debt

vis-à-vis other government subsectors also comprise securities holdings purchased on the market. No entry for general government as debt and claims are consolidated between different government subsectors.

15. Maastricht debt of central government by instrument and category

€ million

Period (end of year or quarter)	Currency and deposits ²		Debt securities									Loans ¹
	Total ¹	of which: ³	Total ¹	of which: ³					Federal Treasury notes (Schätze) ⁵	Treasury discount paper (Bubills) ⁶	Federal savings notes	
				Federal day bond	Federal bonds (Bunds)	Federal notes (Boblts)	Inflation-linked Federal bonds (Bunds) ⁴	Inflation-linked Federal notes (Boblts) ⁴					Capital indexation of inflation-linked securities
2007	987,909	6,675	917,584	564,137	173,949	10,019	3,444	506	102,083	37,385	10,287	63,650
2008	1,019,905	12,466	928,754	571,913	164,514	12,017	7,522	1,336	105,684	40,795	9,649	78,685
2009	1,086,173	9,981	1,013,072	577,798	166,471	16,982	7,748	1,369	113,637	104,409	9,471	63,121
2010	1,337,160	10,890	1,084,019	602,624	185,586	25,958	9,948	2,396	126,220	85,867	8,704	242,251
2011	1,346,869	10,429	1,121,331	615,200	199,284	29,313	14,927	3,961	130,648	58,297	8,208	215,109
2012	1,390,377	9,742	1,177,168	631,425	217,586	35,350	16,769	5,374	117,719	56,222	6,818	203,467
2013	1,392,735	10,582	1,192,025	643,200	234,759	41,105	10,613	4,730	110,029	50,004	4,488	190,127
2014	1,398,472	12,146	1,206,203	653,823	244,633	48,692	14,553	5,368	103,445	27,951	2,375	180,123
2015	1,371,933	13,949	1,188,463	663,296	232,387	59,942	14,553	5,607	96,389	18,536	1,305	169,521
2016	1,365,579	15,491	1,179,062	670,245	221,551	51,879	14,585	3,602	95,727	23,609	737	171,026
2017	1,349,948	14,298	1,168,193	693,687	203,899	58,365	14,490	4,720	91,013	10,037	289	167,457
2018	1,322,907	14,680	1,149,386	710,513	182,847	64,647	–	5,139	86,009	12,949	48	158,841
2019	1,299,727	14,449	1,140,346	719,747	174,719	69,805	–	6,021	89,230	13,487	–	144,932
2020	1,512,875	14,486	1,335,181	808,300	183,046	58,279	–	3,692	98,543	113,141	–	163,208
2021 P	1,667,150	17,743	1,476,844	909,276	195,654	65,390	–	6,722	103,936	153,978	–	172,562
2020 Q1	1,327,538	11,410	1,160,614	721,343	182,095	71,028	–	5,310	91,084	23,572	–	155,514
Q2	1,473,699	13,120	1,248,731	774,587	178,329	56,061	–	3,752	95,622	79,987	–	211,849
Q3	1,536,634	11,886	1,345,251	796,338	191,388	57,144	–	3,737	99,276	127,478	–	179,497
Q4	1,512,875	14,486	1,335,181	808,300	183,046	58,279	–	3,692	98,543	113,141	–	163,208
2021 Q1 P	1,538,718	12,200	1,379,979	821,254	194,571	60,687	–	3,857	103,910	134,800	–	146,538
Q2 P	1,589,070	12,901	1,424,579	873,345	189,048	62,569	–	5,056	104,997	139,451	–	151,591
Q3 P	1,617,263	13,319	1,451,547	884,358	203,353	63,851	–	5,456	105,398	146,533	–	152,397
Q4 P	1,667,150	17,743	1,476,844	909,276	195,654	65,390	–	6,722	103,936	153,978	–	172,562
2022 Q1 P	1,671,870	15,655	1,495,459	930,351	209,424	67,776	–	7,809	108,702	140,427	–	160,756
Q2 P	1,710,978	17,750	1,521,291	962,484	203,362	70,217	–	11,209	111,343	138,495	–	171,937

Sources: Federal Republic of Germany – Finance Agency, Federal Statistical Office, and Bundesbank calculations. ¹ Comprises all of central government, i.e. all off-budget entities in addition to the core budget, including the government-owned bad bank FMS Wertmanagement and liabilities attributed to central government from an economic perspective under the European System of Accounts (ESA)

2010. ² Particularly liabilities resulting from coins in circulation. ³ Issuances by the Federal Republic of Germany. Excluding issuers' holdings of own securities but including those held by other government entities. ⁴ Excluding inflation-induced indexation of capital. ⁵ Including medium-term notes issued by the Treuhand agency (expired in 2011). ⁶ Including Federal Treasury financing papers (expired in 2014).

XI. Economic conditions in Germany

1. Origin and use of domestic product, distribution of national income

Item	2019			2020			2021				2022		
	2019	2020	2021	2019	2020	2021	1.Vj.	2.Vj.	3.Vj.	4.Vj.	1.Vj.	2.Vj.	3.Vj.
	Index 2015=100			Annual percentage change									
At constant prices, chained													
I. Origin of domestic product													
Production sector (excluding construction)	108.2	100.4	104.9	- 1.1	- 7.2	4.5	0.6	- 0.9	20.2	2.6	- 1.1	1.0	- 0.2
Construction	100.1	102.1	100.7	- 3.6	2.0	- 1.4	7.2	- 5.5	4.1	2.3	- 6.1	4.0	- 3.9
Wholesale/retail trade, transport and storage, hotel and restaurant services	109.3	101.0	103.9	3.4	- 7.5	2.8	- 5.5	- 6.8	11.5	3.2	4.1	9.0	5.7
Information and communication	120.7	120.8	125.2	3.9	0.1	3.6	1.2	0.9	7.0	3.9	2.9	3.3	2.5
Financial and insurance activities	95.4	98.9	99.1	1.7	3.6	0.3	1.9	0.8	- 0.2	- 0.1	0.6	4.1	4.1
Real estate activities	101.7	102.2	103.1	0.3	0.4	0.9	0.4	- 0.2	3.1	0.2	0.7	1.6	1.1
Business services ¹	110.7	105.1	109.8	0.1	- 5.0	4.4	- 4.1	- 4.7	13.0	6.5	4.4	6.2	2.1
Public services, education and health	106.6	105.4	107.6	1.5	- 1.1	2.0	- 2.0	- 1.1	8.6	- 0.2	1.6	2.5	0.9
Other services	103.1	91.2	91.5	1.8	-11.6	0.4	-17.2	-11.0	9.0	1.5	4.3	8.2	8.3
Gross value added	107.0	102.8	105.6	0.8	- 3.9	2.7	- 1.6	- 2.7	10.7	2.2	1.2	3.6	1.7
Gross domestic product ²	107.1	103.2	105.9	1.1	- 3.7	2.6	- 1.2	- 2.3	10.6	1.8	1.2	3.9	1.7
II. Use of domestic product													
Private consumption ³	107.2	101.1	101.5	1.6	- 5.7	0.4	- 5.7	- 8.7	6.5	1.4	3.1	8.4	6.8
Government consumption	109.4	113.8	118.1	2.6	4.0	3.8	5.8	3.4	8.5	2.1	1.4	4.3	- 0.1
Machinery and equipment	113.2	100.8	104.3	1.0	-11.0	3.5	- 2.5	1.1	20.8	- 2.1	- 2.6	0.8	0.8
Premises	108.6	112.9	112.9	1.0	3.9	0.0	6.7	- 2.0	4.4	0.6	- 3.2	3.0	- 3.8
Other investment ⁴	120.3	116.3	117.6	6.1	- 3.3	1.0	- 3.2	- 2.0	4.1	1.6	0.7	1.7	1.8
Changes in inventories ^{5,6}	.	.	.	- 0.1	- 0.3	0.5	- 0.9	0.5	- 0.4	1.0	0.9	- 0.7	0.7
Domestic demand	109.4	106.1	108.1	1.7	- 3.0	1.9	- 2.5	- 3.6	7.1	2.3	2.4	5.1	3.9
Net exports ⁶	.	.	.	- 0.6	- 0.8	0.8	1.2	1.1	3.8	- 0.3	- 1.0	- 0.9	- 2.0
Exports	111.3	101.0	110.8	1.3	- 9.3	9.7	- 2.6	- 0.2	28.2	7.4	7.2	3.5	2.1
Imports	117.6	107.6	117.3	2.9	- 8.5	9.0	- 5.7	- 2.9	20.6	9.3	11.1	6.3	7.2
Gross domestic product ²	107.1	103.2	105.9	1.1	- 3.7	2.6	- 1.2	- 2.3	10.6	1.8	1.2	3.9	1.7
At current prices (€ billion)													
III. Use of domestic product													
Private consumption ³	1,805.5	1,713.5	1,773.8	3.0	- 5.1	3.5	- 5.7	- 7.0	8.3	5.3	7.9	13.8	13.8
Government consumption	703.2	748.0	797.5	5.1	6.4	6.6	7.6	6.3	7.9	6.2	6.1	9.1	5.8
Machinery and equipment	241.2	217.5	229.4	2.4	- 9.8	5.5	- 1.5	2.5	22.6	- 0.3	0.2	6.2	7.7
Premises	363.5	384.8	416.7	5.2	5.9	8.3	7.3	- 0.1	9.5	12.8	10.3	18.2	14.2
Other investment ⁴	137.7	133.8	137.7	7.6	- 2.8	2.9	- 2.6	- 0.6	5.8	3.4	2.9	5.6	5.0
Changes in inventories ⁵	25.9	16.1	55.1	.	.	.	.	.	.	.	.	.	.
Domestic use	3,276.9	3,213.8	3,410.2	3.7	- 1.9	6.1	- 1.8	- 1.9	9.3	7.8	9.4	12.5	12.7
Net exports	196.3	191.7	191.6	.	.	.	.	.	.	.	.	.	.
Exports	1,621.0	1,464.8	1,693.9	1.8	- 9.6	15.6	- 3.2	0.8	33.3	15.1	17.1	15.3	16.1
Imports	1,424.6	1,273.1	1,502.4	2.7	-10.6	18.0	- 7.3	- 2.1	30.0	20.3	26.7	25.6	28.7
Gross domestic product ²	3,473.3	3,405.4	3,601.8	3.2	- 2.0	5.8	- 0.2	- 0.6	11.5	6.3	6.3	8.6	7.7
IV. Prices (2015=100)													
Private consumption	105.1	105.7	109.0	1.3	0.6	3.1	- 0.0	1.8	1.7	3.8	4.7	5.0	6.6
Gross domestic product	107.1	109.1	112.4	2.1	1.8	3.1	1.0	1.7	0.9	4.4	5.0	4.6	5.9
Terms of trade	100.8	102.8	100.1	0.7	2.0	- 2.6	1.1	0.2	- 3.5	- 2.7	- 4.2	- 5.7	- 5.3
V. Distribution of national income													
Compensation of employees	1,856.2	1,853.9	1,918.0	4.6	- 0.1	3.5	0.5	- 0.7	5.1	4.7	4.6	6.6	5.6
Entrepreneurial and property income	752.1	717.7	825.4	- 1.7	- 4.6	15.0	5.6	7.3	39.9	9.7	10.5	2.4	- 4.0
National income	2,608.2	2,571.6	2,743.4	2.7	- 1.4	6.7	1.8	1.8	13.4	6.2	6.1	5.2	2.8
Memo item: Gross national income	3,590.1	3,505.7	3,729.5	3.2	- 2.4	6.4	- 0.3	- 0.1	11.9	7.3	6.9	8.9	7.2

Source: Federal Statistical Office; figures computed in November 2022. ¹ Professional, scientific, technical, administration and support service activities. ² Gross value added plus taxes on products (netted with subsidies on products). ³ Including non-profit insti-

tutions serving households. ⁴ Intellectual property rights (inter alia, computer soft ware and entertainment, literary or artistic originals) and cultivated assets. ⁵ Including net increase in valubles. ⁶ 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	
2015 = 100												
% of total 1	100	14,04	6,37	79,59	29,45	36,98	2,27	10,89	10,31	9,95	12,73	14,16
Period												
2018	105.3	109.0	97.4	105.3	105.5	104.6	106.2	106.9	107.4	109.0	106.5	99.9
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	116.1	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	87.1	96.6	102.7	90.5	103.6	99.1	98.9	108.7	95.9	73.9
2021 Q3	96.9	119.4	80.6	94.2	102.3	85.1	101.9	101.6	97.9	109.0	94.7	61.7
Q4	101.5	124.8	93.5	97.9	98.9	95.1	108.7	102.8	95.9	109.5	102.2	74.3
2022 Q1	96.0	98.7	95.2	95.6	103.2	87.4	104.0	100.9	98.7	109.9	90.5	73.2
Q2	97.5	114.9	82.5	95.6	102.0	89.5	106.0	97.1	98.1	111.3	94.2	74.5
Q3 x	98.1	118.1	79.2	96.1	99.8	91.5	106.1	99.8	96.1	118.0	96.6	75.0
2021 Oct.	102.1	123.8	92.1	99.0	104.5	91.7	112.9	106.2	101.5	110.5	96.3	73.4
Nov.	105.8	127.4	93.1	103.0	104.5	99.7	114.5	107.8	103.4	113.1	101.8	83.9
Dec.	96.5	123.2	95.2	91.8	87.8	93.9	98.8	94.3	82.7	104.9	108.4	65.5
2022 Jan.	90.1	82.4	98.5	90.7	100.0	81.4	96.5	95.8	94.1	103.2	81.9	70.4
Feb.	94.9	97.1	94.5	94.5	101.2	87.9	105.0	96.7	97.5	107.8	89.0	78.5
Mar.	103.0	116.7	92.6	101.5	108.4	92.9	110.6	110.2	104.4	118.6	100.7	70.6
Apr.	96.1	112.3	89.2	93.7	101.7	85.8	106.4	95.9	97.5	108.4	89.5	70.7
May	96.1	113.9	80.8	94.2	101.3	87.4	103.8	95.9	97.5	109.4	91.5	73.1
June	100.4	118.6	77.4	99.0	102.9	95.3	107.7	99.5	99.4	116.0	101.5	79.6
July 2,x	99.6	123.8	81.9	96.8	102.5	91.7	102.6	97.3	97.8	116.4	95.7	75.5
Aug. 2,x	91.5	111.4	77.6	89.2	95.5	81.5	98.5	96.4	90.2	113.2	89.4	60.2
Sep. x	103.2	119.2	78.0	102.4	101.4	101.3	117.2	105.7	100.4	124.5	104.8	89.3
Oct. x,p	102.1	125.7	79.9	99.8	100.7	96.6	112.6	105.7	100.4	120.7	98.1	83.6
Annual percentage change												
2018	+ 0.9	+ 0.3	- 1.5	+ 1.2	+ 0.6	+ 1.0	- 0.7	+ 3.8	+ 1.1	+ 1.9	+ 2.3	- 1.6
2019	- 2.3	+ 3.4	- 7.2	- 2.9	- 3.5	- 1.9	± 0.0	- 5.5	- 4.3	- 2.3	- 2.9	- 5.0
2020	- 7.7	+ 3.0	- 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	+ 3.2	+ 4.8	+ 8.2	+ 2.6	+ 6.1	+ 2.0	+ 9.2	+ 10.4	+ 7.2	- 2.6
2021 Q3	+ 2.3	+ 0.8	+ 2.2	+ 2.6	+ 8.4	- 2.9	+ 4.0	+ 3.7	+ 9.2	+ 12.3	+ 9.3	- 21.9
Q4	- 1.8	- 4.6	+ 1.9	- 1.5	+ 0.7	- 4.9	+ 2.1	+ 3.8	+ 0.4	+ 4.0	+ 3.7	- 19.4
2022 Q1	- 0.4	+ 4.2	+ 3.1	- 1.5	- 0.8	- 4.6	+ 3.2	+ 5.5	- 1.5	+ 2.4	- 0.8	- 13.7
Q2	- 1.5	- 2.7	+ 0.8	- 1.4	- 3.2	- 0.8	+ 2.9	+ 0.6	- 3.4	+ 2.3	- 1.3	- 0.4
Q3 x	+ 1.3	- 1.1	- 1.7	+ 2.1	- 2.5	+ 7.6	+ 4.2	- 1.8	- 1.8	+ 8.3	+ 2.1	+ 21.5
2021 Oct.	- 1.1	- 0.6	+ 0.8	- 1.4	+ 1.8	- 5.8	+ 3.9	+ 3.3	+ 2.5	+ 5.7	+ 6.6	- 23.6
Nov.	- 1.9	- 2.3	+ 1.4	- 2.1	+ 0.3	- 6.3	+ 0.1	+ 6.1	+ 0.3	+ 1.8	+ 3.0	- 20.5
Dec.	- 2.4	- 10.3	+ 3.4	- 0.9	- 0.1	- 2.4	+ 2.4	+ 1.8	- 1.9	+ 4.7	+ 1.7	- 12.3
2022 Jan.	+ 1.2	+ 9.4	+ 0.8	± 0.0	- 0.3	- 1.3	+ 1.2	+ 4.6	- 0.4	+ 2.8	+ 1.2	- 8.0
Feb.	+ 2.7	+ 9.7	+ 8.9	+ 1.1	+ 1.8	- 2.0	+ 6.3	+ 8.4	+ 0.9	+ 3.3	+ 0.7	- 6.9
Mar.	- 4.5	- 3.1	+ 0.1	- 5.1	- 3.6	- 9.5	+ 2.3	+ 3.9	- 4.5	+ 1.2	- 3.5	- 24.4
Apr.	- 2.7	- 3.3	+ 2.6	- 3.1	- 2.7	- 6.5	+ 4.5	+ 5.0	- 3.6	+ 1.1	- 5.2	- 13.1
May	- 1.7	- 2.8	- 0.7	- 1.6	- 3.8	± 0.0	+ 3.5	- 0.8	- 2.9	+ 2.1	- 1.4	+ 2.4
June	- 0.1	- 2.0	+ 0.3	+ 0.3	- 3.0	+ 4.3	+ 0.8	- 2.0	- 3.9	+ 3.7	+ 2.6	+ 11.2
July 2,x	- 0.8	+ 0.1	+ 5.3	- 1.3	- 2.9	+ 0.8	+ 0.3	- 3.7	- 3.5	+ 6.1	- 2.2	+ 2.6
Aug. 2,x	+ 1.6	- 1.2	- 3.2	+ 2.6	- 2.4	+ 9.4	+ 7.7	- 1.9	- 1.1	+ 8.2	+ 3.4	+ 30.9
Sep. x	+ 3.1	- 2.1	- 6.8	+ 4.9	- 2.1	+ 12.9	+ 4.8	+ 0.2	- 0.8	+ 10.4	+ 5.2	+ 36.1
Oct. x,p	± 0.0	+ 1.5	- 13.2	+ 0.8	- 3.6	+ 5.3	- 0.3	- 0.5	- 1.1	+ 9.2	+ 1.9	+ 13.9

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	
Total													
2018	110.5	+ 1.7	111.5	+ 1.9	110.0	+ 1.4	110.1	+ 4.2	118.9	+ 2.1	107.1	+ 4.8	
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	105.8	- 1.1	124.4	+ 0.9	99.6	- 2.1	
2021	119.3	+ 22.7	124.6	+ 27.3	116.3	+ 21.7	117.5	+ 11.1	146.5	+ 17.8	107.9	+ 8.3	
2021 Oct.	117.2	+ 7.4	124.9	+ 15.3	112.2	+ 2.7	119.8	+ 7.5	141.9	- 2.1	112.4	+ 12.1	
Nov.	125.3	+ 10.2	132.9	+ 16.6	120.8	+ 6.1	124.5	+ 13.0	149.6	+ 8.2	116.2	+ 15.0	
Dec.	123.7	+ 13.9	120.2	+ 18.2	127.0	+ 11.8	114.5	+ 11.6	148.9	+ 13.4	103.2	+ 10.7	
2022 Jan.	131.2	+ 19.7	143.7	+ 19.2	124.1	+ 20.8	127.5	+ 16.1	152.9	+ 8.1	119.2	+ 19.9	
Feb.	128.3	+ 15.4	136.7	+ 16.3	122.6	+ 14.0	132.6	+ 21.1	149.8	+ 14.3	126.9	+ 23.8	
Mar.	140.1	+ 8.2	152.7	+ 13.3	131.4	+ 3.4	146.5	+ 19.4	182.6	+ 23.3	134.7	+ 17.8	
Apr.	125.1	+ 6.5	143.5	+ 13.5	111.9	- 0.9	139.0	+ 26.2	185.7	+ 14.2	123.6	+ 33.2	
May	123.9	+ 8.8	139.3	+ 13.2	113.5	+ 4.8	131.0	+ 15.0	178.2	+ 13.4	115.5	+ 16.0	
June	129.5	+ 2.3	143.2	+ 12.2	120.1	- 4.2	137.6	+ 4.2	171.3	+ 13.2	126.5	+ 0.6	
July	127.6	- 0.4	144.2	+ 12.7	118.2	- 8.0	121.6	- 4.5	150.3	- 0.5	112.0	- 6.3	
Aug.	114.4	+ 7.5	127.6	+ 10.4	105.4	+ 5.3	121.7	+ 9.4	157.8	+ 16.5	109.7	+ 6.2	
Sep.	123.2	+ 0.5	131.7	+ 6.0	116.5	- 5.0	135.1	+ 18.5	166.0	+ 19.3	124.9	+ 18.2	
Oct. ^p	125.6	+ 7.2	132.7	+ 6.2	120.7	+ 7.6	130.4	+ 8.8	175.4	+ 23.6	115.5	+ 2.8	
From the domestic market													
2018	107.2	+ 0.2	108.6	+ 1.4	106.6	- 1.1	103.0	+ 1.4	114.7	+ 5.5	98.9	- 0.4	
2019	101.2	- 5.6	99.1	- 8.7	103.0	- 3.4	101.2	- 1.7	116.2	+ 1.3	96.2	- 2.7	
2020	94.9	- 6.2	94.1	- 5.0	95.2	- 7.6	98.0	- 3.2	105.5	- 9.2	95.4	- 0.8	
2021	115.5	+ 21.7	119.6	+ 27.1	113.1	+ 18.8	108.0	+ 10.2	114.8	+ 8.8	105.6	+ 10.7	
2021 Oct.	115.6	+ 10.6	123.1	+ 15.3	110.0	+ 7.2	110.4	+ 5.6	106.7	- 10.8	111.7	+ 12.4	
Nov.	119.4	+ 9.3	126.7	+ 11.8	113.8	+ 7.1	115.4	+ 10.3	117.6	- 5.4	114.6	+ 17.1	
Dec.	119.1	+ 21.3	111.4	+ 17.3	127.7	+ 25.1	105.5	+ 16.1	101.9	- 2.0	106.7	+ 23.4	
2022 Jan.	122.2	+ 18.4	137.7	+ 21.0	109.9	+ 15.7	116.5	+ 20.1	106.0	- 4.5	120.1	+ 30.1	
Feb.	123.4	+ 14.4	132.1	+ 17.2	116.0	+ 10.6	122.9	+ 22.5	115.6	+ 5.2	125.4	+ 29.1	
Mar.	137.4	+ 8.6	148.2	+ 13.7	128.9	+ 2.5	132.0	+ 20.7	135.9	+ 3.6	130.7	+ 28.1	
Apr.	124.8	+ 12.6	139.8	+ 19.3	110.5	+ 3.7	135.2	+ 32.2	134.0	+ 4.5	135.6	+ 45.0	
May	123.2	+ 9.7	136.5	+ 15.0	112.6	+ 3.7	118.5	+ 17.6	141.8	+ 16.7	110.6	+ 17.9	
June	126.8	- 0.7	138.1	+ 10.4	117.1	- 10.3	127.3	+ 2.7	135.2	+ 15.5	124.6	- 1.3	
July	124.5	- 3.3	144.5	+ 14.6	109.6	- 17.0	110.6	- 8.8	123.7	+ 6.6	106.1	- 13.8	
Aug.	109.8	+ 5.1	124.1	+ 11.3	97.8	- 0.6	108.3	+ 2.2	121.1	+ 9.2	104.0	- 0.4	
Sep.	120.2	+ 9.3	128.7	+ 9.2	111.8	+ 7.2	127.6	+ 23.9	123.7	+ 16.6	128.9	+ 26.4	
Oct. ^p	119.7	+ 3.5	131.3	+ 6.7	109.4	- 0.5	122.3	+ 10.8	123.9	+ 16.1	121.7	+ 9.0	
From abroad													
2018	113.0	+ 2.9	114.6	+ 2.4	112.0	+ 2.8	115.5	+ 6.1	122.2	- 0.5	113.4	+ 8.5	
2019	107.6	- 4.8	108.3	- 5.5	106.9	- 4.6	111.5	- 3.5	129.1	+ 5.6	105.9	- 6.6	
2020	98.9	- 8.1	102.0	- 5.8	95.9	- 10.3	111.8	+ 0.3	139.5	+ 8.1	102.8	- 2.9	
2021	122.2	+ 23.6	130.1	+ 27.5	118.1	+ 23.1	124.8	+ 11.6	171.9	+ 23.2	109.6	+ 6.6	
2021 Oct.	118.5	+ 5.2	126.8	+ 15.3	113.5	+ 0.1	127.0	+ 8.8	170.2	+ 2.9	113.0	+ 11.9	
Nov.	129.8	+ 10.8	139.5	+ 21.5	125.0	+ 5.5	131.5	+ 14.8	175.4	+ 17.4	117.4	+ 13.6	
Dec.	127.1	+ 9.1	129.7	+ 19.1	126.5	+ 4.9	121.5	+ 8.8	186.8	+ 21.9	100.5	+ 2.1	
2022 Jan.	138.1	+ 20.7	150.1	+ 17.4	132.6	+ 23.6	136.1	+ 13.6	190.6	+ 14.9	118.5	+ 13.0	
Feb.	132.0	+ 16.1	141.6	+ 15.4	126.5	+ 15.9	140.1	+ 20.2	177.4	+ 19.8	128.0	+ 20.1	
Mar.	142.1	+ 7.8	157.6	+ 13.0	132.9	+ 3.9	157.8	+ 18.6	220.2	+ 36.2	137.7	+ 11.2	
Apr.	125.3	+ 2.3	147.5	+ 8.1	112.8	- 3.3	142.0	+ 22.2	227.3	+ 19.5	114.5	+ 24.1	
May	124.5	+ 8.1	142.4	+ 11.3	114.1	+ 5.6	140.7	+ 13.5	207.5	+ 11.6	119.2	+ 14.6	
June	131.6	+ 4.6	148.7	+ 14.2	121.9	- 0.4	145.6	+ 5.3	200.3	+ 12.0	127.9	+ 2.2	
July	130.0	+ 1.8	143.9	+ 10.8	123.4	- 2.3	130.1	- 1.4	171.7	- 4.1	116.6	- 0.1	
Aug.	117.9	+ 9.3	131.4	+ 9.4	109.9	+ 8.7	132.0	+ 14.6	187.4	+ 20.7	114.1	+ 11.4	
Sep.	125.5	- 5.0	134.9	+ 2.9	119.3	- 10.8	140.9	+ 15.0	200.1	+ 20.8	121.8	+ 12.2	
Oct. ^p	130.1	+ 9.8	134.2	+ 5.8	127.5	+ 12.3	136.6	+ 7.6	216.9	+ 27.4	110.7	- 2.0	

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 ¹					
	Structural engineering											Civil engineering		Industrial clients		Public sector ²	
	Total		Residential construction		Industrial construction		Public sector construction										
2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change		
2018	135.0	+ 10.3	131.7	+ 7.0	137.1	+ 11.4	128.7	+ 4.2	125.2	+ 2.7	138.9	+ 14.2	136.1	+ 13.6	132.6	+ 6.1	
2019	146.2	+ 8.3	145.3	+ 10.3	150.4	+ 9.7	142.5	+ 10.7	138.8	+ 10.9	147.2	+ 6.0	148.1	+ 8.8	141.3	+ 6.6	
2020	145.6	- 0.4	144.2	- 0.8	160.8	+ 6.9	130.3	- 8.6	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	+ 20.2	158.7	+ 12.2	153.0	+ 3.9	161.6	+ 15.8	146.7	+ 2.4	
2021 Sep.	181.0	+ 19.3	189.0	+ 20.2	191.5	+ 10.0	193.2	+ 36.9	165.4	+ 1.9	171.7	+ 18.3	192.9	+ 31.9	161.1	+ 11.5	
Oct.	158.7	+ 11.4	168.8	+ 11.7	169.1	- 7.2	171.7	+ 35.1	157.2	+ 13.9	146.8	+ 10.7	171.6	+ 21.3	137.5	+ 15.0	
Nov.	145.3	+ 4.1	143.0	- 2.7	159.5	- 5.0	132.6	+ 0.3	127.3	- 4.6	148.0	+ 13.0	159.5	+ 10.9	120.4	+ 2.4	
Dec.	185.3	+ 24.3	205.7	+ 41.1	196.2	+ 3.5	173.7	+ 50.3	356.7	+ 213.4	161.5	+ 5.6	186.9	+ 38.2	176.7	+ 25.9	
2022 Jan.	142.8	+ 6.9	145.4	+ 4.1	165.7	+ 13.7	134.0	- 8.1	121.0	+ 24.2	139.9	+ 10.6	149.1	- 1.0	121.7	+ 14.1	
Feb.	155.7	+ 8.7	161.0	+ 8.1	176.0	+ 9.1	158.3	+ 7.5	121.8	+ 6.7	149.5	+ 9.4	165.3	+ 15.3	132.4	+ 0.2	
Mar.	209.5	+ 32.6	208.8	+ 32.9	219.4	+ 25.1	201.7	+ 42.4	200.5	+ 29.6	210.4	+ 32.3	217.4	+ 44.0	194.5	+ 25.2	
Apr.	164.2	+ 2.5	157.6	- 0.4	178.1	- 3.8	142.5	+ 2.2	146.2	+ 4.5	171.9	+ 5.9	153.9	+ 3.9	167.6	+ 5.5	
May	175.9	+ 10.6	172.4	+ 5.8	182.1	- 1.1	163.4	+ 11.4	173.9	+ 12.8	180.0	+ 16.7	170.8	+ 13.3	178.0	+ 16.3	
June	175.2	+ 6.4	166.3	+ 0.7	177.9	+ 0.2	153.3	- 4.4	176.5	+ 23.8	185.6	+ 13.2	177.5	+ 6.4	171.0	+ 10.8	
July	180.6	+ 12.9	179.1	+ 6.4	171.1	- 4.5	177.7	+ 8.6	211.0	+ 40.2	182.3	+ 21.4	190.1	+ 19.9	175.5	+ 17.1	
Aug.	157.2	- 1.1	148.3	- 8.7	145.1	- 13.2	143.2	- 12.3	178.2	+ 23.7	167.5	+ 8.2	156.0	- 1.6	165.9	+ 7.4	
Sep.	164.2	- 9.3	159.4	- 15.7	162.5	- 15.1	154.0	- 20.3	169.7	+ 2.6	169.8	- 1.1	166.1	- 13.9	163.2	+ 1.3	

Source of the unadjusted figures: Federal Statistical Office. * At current prices; excluding value added tax; for explanatory notes, see Statistical Series – Seasonally adjusted

business statistics, Table III.2.f. ◦ Using JDemetra+ 2.2.2 (X13). ¹ Excluding residential construction. ² Including road construction.

5. Retail trade turnover *

Adjusted for calendar variations ◦

Zeit	of which:															
	In stores by enterprises main product range															
	Food, beverages, tobacco ¹		Textiles, clothing, footwear and leather goods		Information and communications equipment		Construction and flooring materials, household appliances, furniture		Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles		Retail sale via mail order houses or via internet as well as other retail sale ²					
At current prices		At 2015 prices		At current prices		At current prices		At current prices		At current prices		At current prices				
2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change			
2018	110.7	+ 3.0	107.5	+ 1.6	109.6	+ 3.6	105.6	- 2.3	107.1	+ 0.8	103.0	± 0.0	112.4	+ 4.4	127.7	+ 6.0
2019	115.0	+ 3.9	111.0	+ 3.3	112.2	+ 2.4	106.7	+ 1.0	108.9	+ 1.7	107.1	+ 4.0	118.8	+ 5.7	138.4	+ 8.4
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	+ 22.1
2021	124.9	+ 2.9	116.9	+ 0.9	121.7	+ 0.2	78.2	- 4.5	95.3	- 10.9	110.5	- 5.6	135.2	+ 7.8	191.1	+ 13.1
2021 Oct.	130.5	+ 0.9	120.8	- 1.7	119.6	- 2.4	115.0	+ 5.2	109.1	- 10.0	125.9	- 3.2	141.1	+ 8.4	191.4	+ 4.8
Nov.	140.5	+ 2.7	130.1	- 0.3	121.5	- 1.6	106.2	+ 17.3	135.1	- 12.9	129.8	- 7.7	147.1	+ 9.3	236.4	+ 3.4
Dec.	145.6	+ 4.7	134.5	+ 1.5	137.5	- 3.1	97.5	+ 40.1	147.7	+ 9.2	122.0	+ 1.6	155.8	+ 9.5	220.8	+ 0.5
2022 Jan.	121.9	+ 18.5	112.0	+ 14.5	116.5	+ 1.0	73.4	+ 265.2	111.8	+ 84.5	112.8	+ 94.1	140.0	+ 13.1	183.8	- 0.9
Feb.	119.6	+ 14.9	108.9	+ 10.8	115.1	+ 0.6	73.5	+ 223.8	97.6	+ 56.2	114.0	+ 68.9	132.0	+ 6.1	173.3	- 2.7
Mar.	138.6	+ 6.8	123.2	+ 0.6	132.2	+ 0.1	94.2	+ 62.1	101.5	+ 20.1	137.8	+ 12.4	147.2	+ 8.6	194.3	- 5.5
Apr.	133.3	+ 10.4	117.2	+ 3.4	127.1	+ 2.4	102.3	+ 158.3	95.3	+ 34.8	132.9	+ 24.9	140.6	+ 6.9	183.8	- 4.4
May	134.3	+ 7.1	116.3	- 0.9	127.6	+ 0.7	109.5	+ 75.8	89.4	+ 21.8	129.8	+ 14.8	141.1	+ 8.7	183.3	- 7.7
June	130.9	+ 0.6	112.7	- 7.7	127.0	+ 4.4	105.3	- 7.1	93.0	- 3.4	119.4	- 5.3	142.2	+ 7.6	175.4	- 4.9
July	135.7	+ 8.0	116.2	- 1.4	131.0	+ 8.6	105.4	+ 2.5	100.7	- 0.3	121.9	± 0.0	149.6	+ 9.7	182.6	+ 13.6
Aug.	130.2	+ 5.9	110.7	- 3.9	126.2	+ 10.0	98.1	- 2.4	97.9	- 2.9	114.2	- 3.7	143.8	+ 7.4	173.6	+ 3.8
Sep.	133.3	+ 10.4	111.8	- 0.5	125.3	+ 11.8	116.2	+ 16.1	105.3	+ 2.9	118.9	+ 4.9	145.4	+ 11.0	187.4	+ 8.9
Oct.	138.5	+ 6.1	115.0	- 4.8	132.7	+ 11.0	116.1	+ 1.0	109.5	+ 0.4	125.6	- 0.2	146.6	+ 3.9	193.3	+ 1.0

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). ¹ Including stalls and markets. ² Excluding

stores, stalls and markets. ³ As of January 2021 figures are provisional, partially revised, and particularly uncertain in recent months due to estimates for missing reports.

XI. Economic conditions in Germany

8. Households' income *

Period	Gross wages and salaries ¹		Net wages and salaries ²		Monetary social benefits received ³		Mass income ⁴		Disposable income ⁵		Saving ⁶		Saving ratio ⁷
	€ billion	Annual percentage change	€ billion	Annual percentage change	€ billion	Annual percentage change	€ billion	Annual percentage change	€ billion	Annual percentage change	€ billion	Annual percentage change	As percentage
2014	1,234.2	4.0	830.5	3.9	394.0	2.6	1,224.5	3.5	1,734.5	2.6	170.6	8.6	9.8
2015	1,285.5	4.2	863.3	4.0	410.5	4.2	1,273.8	4.0	1,782.3	2.8	179.4	5.1	10.1
2016	1,337.4	4.0	896.3	3.8	426.2	3.8	1,322.5	3.8	1,841.5	3.3	187.8	4.7	10.2
2017	1,395.4	4.3	932.5	4.0	441.8	3.6	1,374.3	3.9	1,905.2	3.5	202.8	8.0	10.6
2018	1,462.7	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
2021 Q2	377.1	5.8	250.7	6.8	134.9	2.2	385.6	5.2	514.9	3.5	84.8	- 15.3	16.5
Q3	393.0	5.1	271.6	5.5	131.2	- 1.8	402.8	3.0	520.4	1.7	54.4	- 21.2	10.4
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	388.5	7.3	261.3	6.9	134.2	- 2.6	395.5	3.5	539.8	3.4	77.3	- 33.2	14.3
Q2	400.3	6.2	263.9	5.3	131.1	- 2.8	395.1	2.5	546.0	6.0	56.4	- 33.5	10.3
Q3	412.5	5.0	285.8	5.2	138.7	5.8	424.5	5.4	564.1	8.4	54.0	- 0.6	9.6

Source: Federal Statistical Office; figures computed in November 2022. * Households including non-profit institutions serving households. **1** Residence concept. **2** After deducting the wage tax payable on gross wages and salaries and employees' contributions to the social security funds. **3** Social security benefits in cash from the social security funds, central, state and local government and foreign countries, pension payments (net), private funded social benefits, less social contributions on social benefits, consumption-related taxes and public charges. **4** Net wages and salaries plus

monetary social benefits received. **5** Mass income plus operating surplus, mixed income, property income (net), other current transfers received, income of non-profit institutions serving households, less taxes (excluding wage tax and consumption-related taxes) and other current transfers paid. Including the increase in claims on company pension funds. **6** Including the increase in claims on company pension funds. **7** Saving as a percentage of disposable income.

9. Negotiated pay rates (overall economy)

Period	Index of negotiated wages ¹								Memo item: Wages and salaries per employee ³	
	On an hourly basis		On a monthly basis							
			Total		Total excluding one-off payments		Basic pay rates ²			
2015=100	Annual percentage change	2015=100	Annual percentage change	2015=100	Annual percentage change	2015=100	Annual percentage change	2015=100	Annual percentage change	
2014	97.7	3.1	97.7	3.0	97.7	2.8	97.6	2.9	97.2	2.9
2015	100.0	2.4	100.0	2.3	100.0	2.4	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	2.2	104.4	2.2	104.5	2.3	104.7	2.4	105.1	2.6
2018	107.6	3.0	107.5	3.0	107.5	2.8	107.6	2.8	108.4	3.2
2019	110.7	2.9	110.6	2.8	110.1	2.4	110.2	2.4	111.7	3.0
2020	112.9	2.0	112.9	2.1	112.2	1.9	112.3	1.9	111.6	- 0.1
2021	114.7	1.6	114.6	1.6	114.1	1.7	114.1	1.6	115.3	3.3
2021 Q2	107.7	2.3	107.6	2.3	106.8	1.4	113.9	1.5	111.2	5.4
Q3	117.8	1.0	117.7	1.0	116.4	1.4	114.2	1.5	115.1	4.0
Q4	127.3	1.6	127.2	1.6	127.2	2.4	114.7	1.8	127.2	3.7
2022 Q1	110.6	4.3	110.5	4.3	107.8	1.6	115.2	1.6	113.2	5.4
Q2	109.8	2.0	109.7	1.9	109.0	2.1	116.3	2.1	116.0	4.3
Q3	120.8	2.6	120.7	2.5	119.4	2.5	116.7	2.2	119.2	3.6
2022 Apr.	109.4	2.1	109.3	2.0	109.1	2.0	116.1	2.0	.	.
May	111.2	4.2	111.0	4.2	109.1	2.2	116.4	2.2	.	.
June	108.8	- 0.3	108.7	- 0.4	108.9	2.2	116.5	2.2	.	.
July	144.0	3.5	143.9	3.4	139.9	3.3	116.6	2.2	.	.
Aug.	109.3	1.9	109.2	1.9	109.1	2.2	116.7	2.2	.	.
Sep.	109.2	2.0	109.1	2.0	109.1	2.0	116.8	2.1	.	.
Oct.	109.8	0.9	109.7	0.8	109.6	0.7	117.3	2.3	.	.

1 Current data are normally revised on account of additional reports. **2** Excluding one-off payments and covenants (capital formation benefits, special payments, such as annual bonuses, holiday pay, Christmas bonuses (13th monthly salary payment) and

retirement provisions). **3** Source: Federal Statistical Office; figures computed in November 2022.

XII. External sector

1. Major items of the balance of payments of the euro area *

€ million

Item	2019	2020	2021	2022					
				Q1	Q2	Q3 P	July r	August	September P
I. Current Account	+ 274,072	+ 188,715	+ 288,711	- 3,710	- 52,225	- 26,427	- 9,411	- 20,823	+ 3,807
1. Goods									
Receipts	2,391,225	2,186,895	2,508,365	678,995	725,057	747,560	242,435	238,842	266,283
Expenditure	2,082,442	1,844,858	2,218,075	680,486	750,564	794,391	254,242	264,612	275,537
Balance	+ 308,783	+ 342,038	+ 290,289	- 1,491	- 25,507	- 46,831	- 11,807	- 25,770	- 9,254
2. Services									
Receipts	1,017,051	874,787	1,011,875	271,618	301,600	320,166	109,512	104,516	106,138
Expenditure	983,596	890,415	920,099	243,470	257,553	275,008	91,635	91,944	91,429
Balance	+ 33,456	- 15,628	+ 91,776	+ 28,147	+ 44,047	+ 45,158	+ 17,878	+ 12,571	+ 14,709
3. Primary income									
Receipts	878,662	719,224	825,878	204,034	227,187	205,679	66,641	65,901	73,137
Expenditure	799,268	699,098	760,042	191,333	262,878	191,751	68,896	59,754	63,101
Balance	+ 79,392	+ 20,127	+ 65,840	+ 12,701	- 35,691	+ 13,929	- 2,255	+ 6,148	+ 10,036
4. Secondary income									
Receipts	123,566	127,112	150,864	35,700	42,890	35,195	11,397	10,550	13,248
Expenditure	271,125	284,932	310,055	78,767	77,961	73,878	24,624	24,322	24,932
Balance	- 147,560	- 157,820	- 159,191	- 43,067	- 35,072	- 38,682	- 13,227	- 13,771	- 11,684
II. Capital account	- 26,436	+ 3,415	+ 45,816	+ 7,217	+ 98,520	+ 7,317	+ 2,291	+ 1,836	+ 3,190
III. Financial account ¹	+ 199,890	+ 185,636	+ 315,776	- 5,278	+ 18,932	+ 11,875	+ 22,113	+ 12,160	- 22,398
1. Direct investment	+ 64,432	- 197,486	+ 294,689	+ 22,452	+ 101,239	+ 82,811	- 6,627	+ 16,702	+ 72,736
By resident units abroad the euro area	+ 43,613	- 116,606	+ 162,013	+ 55,242	+ 58,995	+ 98,896	+ 12,950	+ 60,249	+ 25,697
By non-resident units of the euro area	- 20,818	+ 80,883	- 132,674	+ 32,791	- 42,241	+ 16,084	+ 19,577	+ 43,546	- 47,039
2. Portfolio investment	- 138,253	+ 530,060	+ 317,164	- 50,928	- 17,868	- 158,889	+ 39,878	- 84,411	- 114,356
By resident units abroad the euro area	+ 435,232	+ 686,301	+ 790,249	- 16,062	- 114,688	- 191,776	- 22,549	- 33,409	- 135,818
Equity and investment fund shares	+ 63,391	+ 319,816	+ 369,550	- 16,676	- 65,109	- 100,616	- 12,595	- 31,154	- 56,867
Short-term debt securities	+ 6,403	+ 120,830	+ 119,474	- 59,984	- 69,478	- 57,693	+ 1,683	+ 1,095	- 60,471
Long-term debt securities	+ 365,436	+ 245,652	+ 301,229	+ 60,597	+ 19,899	- 33,467	- 11,637	- 3,350	- 18,480
By non-resident units of the euro area	+ 573,487	+ 156,239	+ 473,083	+ 34,865	- 96,820	- 32,886	- 62,427	+ 51,002	- 21,461
Equity and investment fund shares	+ 330,676	+ 166,846	+ 667,112	- 44,670	- 27,470	- 36,781	- 5,724	+ 5,441	- 36,498
Short-term debt securities	- 27,515	+ 114,567	+ 32,997	+ 82,400	- 77,926	- 2,769	- 29,204	+ 12,385	+ 14,050
Long-term debt securities	+ 270,324	- 125,176	- 227,022	- 2,865	+ 8,576	+ 6,663	- 27,500	+ 33,177	+ 986
3. Financial derivatives and employee stock options	+ 7,219	+ 18,890	+ 68,591	- 2,086	+ 23,948	+ 32,195	- 1,139	+ 10,705	+ 22,629
4. Other investment	+ 260,495	- 179,020	- 494,729	+ 26,172	- 90,707	+ 48,357	- 11,638	+ 67,000	- 7,005
Eurosysteem	+ 144,209	- 203,797	- 442,764	+ 184,740	- 4,101	+ 72,790	+ 35,229	- 29,198	+ 66,759
General government MFIs ²	+ 4,818	- 15,761	- 71,715	- 413	- 28,609	- 23,144	- 12,116	- 655	- 10,373
Enterprises and households	+ 189,827	+ 19,340	- 126,788	- 234,488	- 91,744	- 35,865	- 39,693	+ 84,770	- 80,942
5. Reserve assets	+ 5,999	+ 13,193	+ 130,061	- 888	+ 2,319	+ 7,401	+ 1,639	+ 2,163	+ 3,599
IV. Net errors and omissions	- 47,749	- 6,492	- 18,751	- 8,786	- 27,364	+ 30,985	+ 29,233	+ 31,147	- 29,395

* Source: ECB, according to the international standards of the International Monetary Fund's Balance of Payments Manual (sixth edition). ¹ Increase: + / decrease: -. ² Excluding the 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							
2007	+ 171,493	+ 201,728	- 1,183	- 32,465	+ 35,620	- 33,390	- 1,597	+ 183,169	+ 953	+ 13,273
2008	+ 144,954	+ 184,160	- 3,947	- 29,122	+ 24,063	- 34,147	- 893	+ 121,336	+ 2,008	- 22,725
2009	+ 142,744	+ 140,626	- 6,605	- 17,642	+ 54,524	- 34,764	- 1,858	+ 129,693	+ 8,648	- 11,194
2010	+ 147,298	+ 160,829	- 6,209	- 25,255	+ 51,306	- 39,582	+ 1,219	+ 92,757	+ 1,613	- 55,760
2011	+ 167,340	+ 162,970	- 9,357	- 29,930	+ 69,087	- 34,787	+ 419	+ 120,857	+ 2,836	- 46,902
2012	+ 195,712	+ 199,531	- 11,388	- 30,774	+ 65,658	- 38,703	+ 413	+ 151,417	+ 1,297	- 43,882
2013	+ 184,352	+ 203,802	- 12,523	- 39,321	+ 63,284	- 43,413	- 563	+ 226,014	+ 838	+ 42,224
2014	+ 210,906	+ 219,629	- 14,296	- 25,303	+ 57,752	- 41,172	+ 2,936	+ 240,258	- 2,564	+ 26,416
2015	+ 260,286	+ 248,394	- 15,405	- 18,516	+ 69,262	- 38,854	- 48	+ 234,392	- 2,213	- 25,845
2016	+ 266,689	+ 252,409	- 19,921	- 20,987	+ 76,199	- 40,931	+ 2,142	+ 261,123	+ 1,686	- 7,708
2017	+ 255,814	+ 255,077	- 13,613	- 23,994	+ 76,404	- 51,673	+ 2,936	+ 276,697	- 1,269	+ 23,819
2018	+ 267,729	+ 221,983	- 22,985	- 15,806	+ 111,890	- 50,338	+ 580	+ 246,928	+ 392	- 21,381
2019	+ 262,903	+ 215,456	- 30,887	- 18,100	+ 115,359	- 49,811	- 887	+ 186,317	- 544	- 75,700
2020	+ 238,741	+ 189,963	- 7,246	+ 2,725	+ 98,780	- 52,727	- 5,829	+ 216,515	- 51	- 16,397
2021	+ 264,954	+ 194,963	+ 3,091	- 2,107	+ 127,142	- 55,044	- 588	+ 314,750	+ 31,892	+ 50,383
2019 Q4	+ 68,030	+ 49,432	- 11,400	- 3,126	+ 35,102	- 13,378	- 1,412	+ 83,477	- 576	+ 16,860
2020 Q1	+ 62,570	+ 52,090	- 2,656	- 2,238	+ 27,396	- 14,679	+ 608	+ 33,152	+ 133	- 28,810
Q2	+ 37,621	+ 28,076	- 1,806	+ 5,190	+ 13,563	- 9,209	+ 55	+ 25,747	+ 243	- 11,929
Q3	+ 62,788	+ 55,716	- 695	- 5,827	+ 23,501	- 10,601	- 1,493	+ 65,414	- 1,276	+ 4,118
Q4	+ 75,762	+ 54,082	- 2,089	+ 5,599	+ 34,320	- 18,238	- 3,783	+ 92,203	+ 848	+ 20,223
2021 Q1	+ 76,516	+ 58,643	+ 1,200	+ 3,264	+ 31,911	- 17,302	- 322	+ 106,919	+ 385	+ 30,725
Q2	+ 65,741	+ 48,853	- 194	+ 6,415	+ 18,806	- 8,332	- 1,755	+ 84,594	+ 58	+ 20,608
Q3	+ 61,739	+ 49,114	- 34	- 7,569	+ 34,408	- 14,214	+ 1,890	+ 36,922	+ 31,199	- 26,707
Q4	+ 60,958	+ 38,353	+ 2,119	- 4,217	+ 42,017	- 15,196	+ 401	+ 86,314	+ 250	+ 25,757
2022 Q1	+ 54,430	+ 35,793	+ 3,132	- 1,716	+ 37,191	- 16,836	- 1,459	+ 94,003	+ 2,200	+ 41,031
Q2	+ 24,259	+ 26,711	+ 8,139	- 7,258	+ 16,119	- 11,313	- 3,775	+ 55,875	+ 597	+ 35,390
Q3	+ 18,970	+ 21,641	- 473	- 21,443	+ 35,140	- 16,368	- 4,672	+ 5,820	+ 784	- 8,478
2020 May	+ 6,134	+ 8,575	+ 87	+ 1,110	+ 23	- 3,573	- 9	+ 2,095	+ 33	- 4,029
June	+ 20,700	+ 14,971	- 1,791	+ 2,406	+ 4,538	- 1,214	+ 47	+ 12,165	- 740	- 8,489
July	+ 20,883	+ 20,319	- 330	- 2,709	+ 7,024	- 3,751	- 1,005	+ 14,644	- 611	- 5,234
Aug.	+ 16,852	+ 13,976	+ 38	- 2,543	+ 8,850	- 3,432	+ 412	+ 30,512	- 611	+ 13,248
Sep.	+ 25,053	+ 21,421	- 404	- 575	+ 7,627	- 3,419	- 900	+ 20,258	- 53	- 3,895
Oct.	+ 24,773	+ 20,389	- 415	+ 782	+ 8,128	- 4,527	- 1,386	+ 25,983	+ 140	+ 2,596
Nov.	+ 22,799	+ 18,384	+ 164	+ 2,120	+ 9,835	- 7,541	+ 2,266	+ 23,695	+ 89	+ 3,162
Dec.	+ 28,191	+ 15,308	- 1,838	+ 2,697	+ 16,356	- 6,171	- 132	+ 42,524	+ 618	+ 14,466
2021 Jan.	+ 20,841	+ 15,161	+ 301	+ 891	+ 11,043	- 6,253	- 461	+ 22,458	+ 743	+ 2,078
Feb.	+ 20,958	+ 18,375	+ 44	+ 1,152	+ 9,043	- 7,612	- 1,457	+ 52,644	+ 102	+ 33,143
Mar.	+ 34,716	+ 25,107	+ 855	+ 1,220	+ 11,825	- 3,436	+ 1,596	+ 31,817	- 460	- 4,496
Apr.	+ 23,767	+ 16,589	+ 83	+ 3,049	+ 7,840	- 3,711	- 691	+ 35,418	- 251	+ 12,342
May	+ 16,512	+ 15,224	- 160	+ 2,349	+ 675	- 1,735	- 366	+ 14,146	+ 211	- 2,000
June	+ 25,462	+ 17,040	- 117	+ 1,017	+ 10,291	- 2,887	- 698	+ 35,029	+ 98	+ 10,266
July	+ 20,980	+ 18,951	- 451	- 2,445	+ 9,978	- 5,504	- 534	+ 5,325	+ 102	- 15,122
Aug.	+ 16,712	+ 12,506	+ 645	- 3,483	+ 11,952	- 4,264	+ 506	+ 20,653	+ 31,254	+ 3,436
Sep.	+ 24,047	+ 17,657	- 229	- 1,641	+ 12,478	- 4,446	+ 1,917	+ 10,944	- 158	- 15,021
Oct.	+ 16,282	+ 15,148	+ 1,117	- 5,570	+ 11,830	- 5,126	+ 424	+ 21,714	+ 261	+ 5,007
Nov.	+ 20,888	+ 14,647	+ 893	- 137	+ 12,051	- 5,673	- 1,062	+ 48,411	+ 963	+ 28,585
Dec.	+ 23,788	+ 8,558	+ 109	+ 1,490	+ 18,135	- 4,396	+ 237	+ 16,190	- 974	- 7,835
2022 Jan.	+ 14,593	+ 7,876	+ 1,230	- 338	+ 13,126	- 6,072	- 106	+ 55,703	+ 309	+ 41,216
Feb.	+ 21,989	+ 16,212	+ 1,885	+ 765	+ 10,445	- 5,432	- 1,295	+ 28,963	+ 1,161	+ 8,269
Mar.	+ 17,849	+ 11,705	+ 17	+ 2,144	+ 13,620	- 5,332	+ 58	+ 9,337	+ 730	- 8,454
Apr.	+ 9,914	+ 5,272	+ 2,759	- 1,170	+ 10,496	- 4,684	- 1,272	+ 6,877	+ 83	- 1,765
May	+ 750	+ 10,195	+ 4,324	- 2,570	- 5,858	- 1,016	- 2,772	+ 1,400	+ 161	+ 3,422
June	+ 13,595	+ 11,244	+ 1,056	- 3,519	+ 11,481	- 5,612	+ 269	+ 47,597	+ 353	+ 33,734
July	+ 6,395	+ 8,582	+ 323	- 7,195	+ 11,595	- 6,587	- 2,149	- 14,985	- 484	- 19,231
Aug.	+ 880	+ 2,904	+ 618	- 8,939	+ 12,679	- 5,763	- 947	+ 28,020	+ 81	+ 28,086
Sep.	+ 11,695	+ 10,155	- 177	- 5,308	+ 10,866	- 4,018	- 1,576	- 7,215	+ 1,187	- 17,333
Oct. p	+ 5,896	+ 6,437	- 311	- 6,531	+ 11,307	- 5,317	- 1,870	+ 23,890	+ 672	+ 19,863

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

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 ³
		Transport	Travel ¹	Financial services	Charges for the use of intellectual property	Telecommunications-, computer and information services	Other business services	Government goods and services ²			
2017	- 23,994	- 3,679	- 43,558	+ 9,613	+ 14,903	- 8,188	- 1,065	+ 2,177	+ 1,139	+ 76,669	- 1,403
2018	- 15,806	- 2,044	- 44,543	+ 10,060	+ 17,219	- 7,060	+ 723	+ 3,322	+ 671	+ 112,223	- 1,004
2019	- 18,100	- 72	- 45,947	+ 10,999	+ 18,299	- 9,697	- 2,984	+ 3,489	+ 846	+ 115,462	- 949
2020	+ 2,725	- 9,392	- 14,678	+ 10,239	+ 17,546	- 7,107	- 4,382	+ 3,363	+ 3,234	+ 97,017	- 1,471
2021	- 2,107	- 12,067	- 24,345	+ 8,737	+ 31,878	- 7,515	- 8,523	+ 3,513	+ 2,605	+ 126,518	- 1,981
2021 Q1	+ 3,264	- 3,183	- 31	+ 2,251	+ 5,756	- 2,478	- 1,436	+ 884	+ 1,324	+ 31,567	- 980
Q2	+ 6,415	- 2,075	- 2,136	+ 2,589	+ 8,007	- 1,329	- 1,164	+ 914	+ 494	+ 21,185	- 2,873
Q3	- 7,569	- 2,259	- 13,539	+ 1,221	+ 9,080	- 2,169	- 2,331	+ 946	- 77	+ 35,676	- 1,192
Q4	- 4,217	- 4,551	- 8,639	+ 2,676	+ 9,035	- 1,539	- 3,592	+ 769	+ 864	+ 38,089	+ 3,064
2022 Q1	- 1,716	- 5,053	- 4,636	+ 2,257	+ 7,972	- 3,304	- 1,720	+ 949	+ 1,234	+ 37,216	- 1,260
Q2	- 7,258	- 1,607	- 12,055	+ 2,874	+ 6,058	- 1,919	- 2,735	+ 948	+ 320	+ 19,595	- 3,796
Q3	- 21,443	- 4,758	- 18,583	+ 1,729	+ 5,162	- 3,180	- 3,619	+ 986	- 175	+ 36,868	- 1,553
2021 Dec.	+ 1,490	- 2,272	- 766	+ 915	+ 3,125	- 72	- 301	+ 302	+ 364	+ 13,840	+ 3,932
2022 Jan.	- 338	- 1,741	- 1,141	+ 894	+ 2,714	- 1,340	- 458	+ 311	+ 437	+ 13,094	- 405
Feb.	+ 765	- 1,490	- 1,249	+ 714	+ 2,773	- 875	- 232	+ 322	+ 434	+ 10,426	- 415
Mar.	- 2,144	- 1,822	- 2,246	+ 649	+ 2,485	- 1,089	- 1,030	+ 316	+ 362	+ 13,697	- 439
Apr.	- 1,170	- 805	- 2,247	+ 912	+ 2,189	- 1,203	- 707	+ 288	+ 68	+ 11,054	- 625
May	- 2,570	- 576	- 3,777	+ 847	+ 1,854	- 718	- 1,028	+ 303	+ 102	+ 3,546	- 2,414
June	- 3,519	- 226	- 6,032	+ 1,115	+ 2,015	+ 1	- 1,000	+ 357	+ 150	+ 12,087	- 756
July	- 7,195	- 1,092	- 5,781	+ 532	+ 1,414	- 1,354	- 1,335	+ 323	- 79	+ 12,167	- 493
Aug.	- 8,939	- 2,501	- 7,049	+ 622	+ 1,388	- 719	- 1,281	+ 314	- 48	+ 13,273	- 547
Sep.	- 5,308	- 1,165	- 5,753	+ 575	+ 2,360	- 1,107	- 1,004	+ 350	- 48	+ 11,427	- 513
Oct. P	- 6,531	- 557	- 8,511	+ 376	+ 2,090	- 923	+ 178	+ 330	+ 238	+ 11,685	- 616

¹ Since 2001 the sample results of a household survey have been used on the expenditure side. ² Domestic public authorities' receipts from and expenditure on services, not included elsewhere; including the receipts from foreign military bases.

³ Includes, inter alia, taxes on leasing, production and imports transferred to the EU as well as subsidies received from the EU.

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

€ million

Zeit	Secondary income						Capital account			
	Total	General government			All sectors excluding general government ²			Total	Non-produced non-financial assets	Capital transfers
		Total	of which:		Total	of which:				
		Current international cooperation ¹	Current taxes on income, wealth, etc.		Personal transfers between resident and non-resident households ³	of which: Workers' remittances				
2017	- 51,673	- 23,191	- 9,851	+ 9,665	- 28,482	.	+ 4,613	- 2,936	+ 926	- 3,863
2018	- 50,338	- 28,710	- 10,186	+ 10,230	- 21,627	.	+ 5,142	+ 580	+ 3,349	- 2,769
2019	- 49,811	- 28,986	- 10,728	+ 11,742	- 20,825	.	+ 5,431	- 887	+ 3,028	- 3,915
2020	- 52,727	- 34,127	- 12,239	+ 10,929	- 18,600	.	+ 5,908	- 5,829	+ 380	- 6,209
2021	- 55,044	- 37,607	- 8,072	+ 11,423	- 17,437	.	+ 6,170	- 588	+ 3,191	- 3,779
2021 Q1	- 17,302	- 12,044	+ 281	+ 2,172	- 5,257	.	+ 1,543	- 322	+ 123	- 445
Q2	- 8,332	- 4,756	- 1,240	+ 5,207	- 3,577	.	+ 1,543	- 1,755	- 1,578	- 177
Q3	- 14,214	- 9,993	- 3,036	+ 2,056	- 4,221	.	+ 1,543	+ 1,890	+ 2,918	- 1,028
Q4	- 15,196	- 10,814	- 4,077	+ 1,987	- 4,382	.	+ 1,543	+ 401	+ 1,728	- 2,129
2022 Q1	- 16,836	- 10,543	- 2,803	+ 2,458	- 6,293	.	+ 1,598	- 1,459	- 1,892	+ 433
Q2	- 11,313	- 5,184	- 2,465	+ 7,315	- 6,129	+ 1,603	+ 1,598	- 3,775	- 3,027	- 748
Q3	- 16,368	- 10,996	- 3,163	+ 2,112	- 5,372	+ 1,603	+ 1,598	- 4,672	- 3,593	- 1,080
2021 Dec.	- 4,396	- 3,055	- 3,081	+ 1,262	- 1,342	.	+ 514	+ 237	+ 1,455	- 1,217
2022 Jan.	- 6,072	- 4,338	- 1,399	+ 454	- 1,734	.	+ 533	- 106	- 291	+ 186
Feb.	- 5,432	- 3,940	- 836	+ 940	- 1,492	.	+ 533	- 1,295	- 1,257	+ 38
Mar.	- 5,332	- 2,266	- 568	+ 1,065	- 3,067	.	+ 533	- 58	- 343	+ 285
Apr.	- 4,684	- 2,757	- 420	+ 1,117	- 1,928	+ 534	+ 533	- 1,272	- 790	- 482
May	- 1,016	+ 1,344	- 458	+ 4,973	- 2,361	+ 534	+ 533	- 2,772	- 2,363	- 409
June	- 5,612	- 3,772	- 1,587	+ 1,225	- 1,840	+ 535	+ 533	+ 269	+ 126	+ 142
July	- 6,587	- 4,578	- 1,697	+ 432	- 2,008	+ 535	+ 533	- 2,149	- 1,653	- 496
Aug.	- 5,763	- 4,094	- 1,196	+ 418	- 1,669	+ 534	+ 533	- 947	- 716	- 231
Sep.	- 4,018	- 2,324	- 270	+ 1,262	- 1,694	+ 534	+ 533	- 1,576	- 1,223	- 353
Oct. P	- 5,317	- 3,643	- 1,544	+ 475	- 1,673	+ 534	+ 533	- 1,870	- 1,258	- 612

¹ Excluding capital transfers, where identifiable. Includes current international cooperation and other current transfers. ² Includes insurance premiums and claims

(excluding life insurance policies). ³ Transfers between resident and non-resident households.

XII. External sector

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

€ million

Item	2019	2020	2021	2022					
				Q1	Q2	Q3	August	September	October p
I. Net domestic investment abroad (increase: +)	+ 251,072	+ 739,081	+ 844,810	+ 204,882	+ 114,464	+ 147,678	+ 171,286	+ 18,831	- 11,243
1. Direct investment	+ 139,279	+ 119,458	+ 163,651	+ 44,793	+ 53,963	+ 52,192	+ 54,178	- 3,107	+ 19,793
Equity	+ 116,157	+ 90,170	+ 113,012	+ 29,186	+ 24,419	+ 11,793	+ 9,395	- 3,172	+ 23,524
of which:									
Reinvestment of earnings ¹	+ 40,785	+ 21,039	+ 55,475	+ 20,797	+ 13,306	+ 11,488	+ 6,933	+ 2,410	+ 7,503
Debt instruments	+ 23,122	+ 29,288	+ 50,638	+ 15,607	+ 29,545	+ 40,398	+ 44,783	+ 65	- 3,732
2. Portfolio investment	+ 134,961	+ 191,740	+ 221,477	+ 59,730	+ 1,603	- 25,544	- 8,785	- 7,551	- 3,893
Shares ²	+ 13,672	+ 65,214	+ 56,007	+ 7,228	+ 4,986	- 8,210	- 2,112	- 1,209	- 3,855
Investment fund shares ³	+ 53,708	+ 62,585	+ 103,434	+ 3,970	+ 1,293	- 56	+ 597	- 1,172	+ 981
Short-term ⁴									
debt securities	+ 7,424	+ 3,852	- 6,256	+ 1,329	- 2,152	- 1,546	- 345	+ 938	- 2,429
Long-term ⁵									
debt securities	+ 60,157	+ 60,089	+ 68,292	+ 47,202	- 2,523	- 15,731	- 6,925	- 6,108	+ 1,410
3. Financial derivatives and employee stock options ⁶	+ 24,544	+ 96,276	+ 60,977	+ 10,566	+ 10,694	+ 15,231	+ 720	+ 10,522	+ 5,212
4. Other investment ⁷	- 47,168	+ 331,659	+ 366,813	+ 87,593	+ 47,606	+ 105,014	+ 125,092	+ 17,779	- 33,026
MFIs ⁸	+ 9,256	- 4,522	+ 112,866	+ 139,954	- 19,411	+ 42,205	+ 20,663	+ 15,562	+ 13,063
Short-term	- 8,901	+ 3,526	+ 99,548	+ 131,275	- 7,349	+ 20,786	+ 12,130	+ 13,005	+ 14,621
Long-term	+ 18,157	- 8,048	+ 13,318	+ 8,679	- 12,061	+ 21,411	+ 8,536	+ 2,552	- 1,558
Enterprises and households ⁹	+ 14,348	+ 90,994	+ 138,858	+ 45,131	+ 30,105	+ 22,423	+ 29,374	- 12,758	- 12,341
Short-term	+ 793	+ 45,448	+ 124,088	+ 43,566	+ 24,008	+ 16,274	+ 27,634	- 14,416	- 14,905
Long-term	+ 13,555	+ 45,545	+ 14,770	+ 1,565	+ 6,097	- 1,414	- 93	- 801	+ 234
General government	+ 144	+ 2,076	- 8,305	- 5,842	- 10,764	.	- 3,701	.	+ 3,644
Short-term	+ 3,357	+ 3,461	- 7,502	- 5,362	- 10,180	.	- 3,683	.	+ 3,661
Long-term	- 3,213	- 1,385	- 803	- 480	- 584	- 635	- 83	- 115	- 19
Bundesbank	- 70,915	+ 243,112	+ 123,394	- 91,650	+ 47,675	+ 49,090	+ 78,756	+ 23,079	- 37,393
5. Reserve assets	- 544	- 51	+ 31,892	+ 2,200	+ 597	+ 784	+ 81	+ 1,187	+ 672
II. Net foreign investment in the reporting country (increase: +)	+ 64,756	+ 522,566	+ 530,060	+ 110,879	+ 58,590	+ 141,858	+ 143,266	+ 26,045	- 35,132
1. Direct investment	+ 63,683	+ 122,929	+ 61,833	+ 40,074	+ 13,168	+ 22,626	+ 41,162	- 5,593	+ 8,991
Equity	+ 23,492	+ 43,862	+ 36,972	+ 4,684	+ 5,410	+ 954	+ 416	+ 2,658	+ 1,059
of which:									
Reinvestment of earnings ¹	- 492	+ 1,880	+ 4,787	+ 3,284	+ 1,347	- 2,134	- 677	+ 1,174	+ 1,431
Debt instruments	+ 40,192	+ 79,068	+ 24,861	+ 35,390	+ 7,758	+ 21,673	+ 40,746	- 8,251	+ 7,932
2. Portfolio investment	+ 65,309	+ 148,877	- 33,617	+ 21,283	- 15,738	+ 999	+ 15,599	+ 3	- 19,256
Shares ²	- 7,275	- 15,982	- 3,703	- 9,199	- 5,940	+ 6,438	- 2,654	+ 10,855	+ 2,428
Investment fund shares ³	- 4,519	+ 1,862	- 2,760	- 2,211	+ 1,352	- 1,625	- 31	+ 152	- 756
Short-term ⁴									
debt securities	+ 14,400	+ 83,707	+ 25,027	- 5,244	- 7,004	- 6,833	- 4,687	+ 3,720	- 17,895
Long-term ⁵									
debt securities	+ 62,704	+ 79,290	- 52,181	+ 37,937	- 4,145	+ 3,017	+ 22,968	- 14,724	- 3,034
3. Other investment ⁷	- 64,237	+ 250,760	+ 501,843	+ 49,522	+ 61,159	+ 118,233	+ 86,505	+ 31,635	- 24,867
MFIs ⁸	- 10,214	+ 108,323	+ 159,384	+ 266,244	+ 6,112	+ 68,326	+ 18,718	+ 50,155	+ 17,100
Short-term	- 20,978	+ 74,805	+ 115,401	+ 290,964	+ 2,551	+ 48,862	+ 9,042	+ 42,052	+ 15,194
Long-term	+ 10,764	+ 33,517	+ 43,984	- 24,720	+ 3,561	+ 19,463	+ 9,676	+ 8,102	+ 1,906
Enterprises and households ⁹	+ 43,978	+ 39,313	+ 120,200	- 14,909	+ 39,341	+ 45,732	+ 37,749	- 6,570	- 25,367
Short-term	+ 11,681	+ 18,361	+ 115,536	- 17,519	+ 37,724	+ 45,489	+ 37,183	- 7,357	- 32,022
Long-term	+ 32,297	+ 20,952	+ 4,663	+ 2,610	+ 1,618	- 587	+ 196	+ 529	+ 6,408
General government	+ 1,620	- 7,817	- 4,537	- 641	- 641	.	- 1,528	+ 1,928	.
Short-term	+ 1,424	- 7,664	- 2,186	+ 2,078	- 760	+ 2,649	- 1,532	+ 1,925	+ 837
Long-term	+ 196	- 153	- 2,351	- 2,719	+ 119	.	+ 4	+ 3	.
Bundesbank	- 99,621	+ 110,941	+ 226,796	- 201,172	+ 16,347	+ 1,528	+ 31,566	- 13,877	- 17,432
III. Net financial account (net lending: +/net borrowing: -)	+ 186,317	+ 216,515	+ 314,750	+ 94,003	+ 55,875	+ 5,820	+ 28,020	- 7,215	+ 23,890

¹ Estimated on the basis of the figures on the level of direct investment stocks abroad and in the Federal Republic of Germany (see Statistical series, direct investment statistics). ² Including participation certificates. ³ Including reinvestment of earnings. ⁴ Short-term: original maturity up to one year. ⁵ Up to and including 2012 without accrued interest. Long-term: original maturity of more than one year or unlimited.

⁶ Balance of transactions arising from options and financial futures contracts as well as employee stock options. ⁷ Includes in particular loans, trade credits as well as currency and deposits. ⁸ Excluding Bundesbank. ⁹ Includes the following sectors: financial corporations (excluding monetary financial institutions) as well as non-financial corporations, households and non-profit institutions serving households.

XII. External sector

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
2010	1.4423	1.3651	8.9712	7.4473	116.24	8.0043	9.5373	1.3803	0.85784	1.3257
2011	1.3484	1.3761	8.9960	7.4506	110.96	7.7934	9.0298	1.2326	0.86788	1.3920
2012	1.2407	1.2842	8.1052	7.4437	102.49	7.4751	8.7041	1.2053	0.81087	1.2848
2013	1.3777	1.3684	8.1646	7.4579	129.66	7.8067	8.6515	1.2311	0.84926	1.3281
2014	1.4719	1.4661	8.1857	7.4548	140.31	8.3544	9.0985	1.2146	0.80612	1.3285
2015	1.4777	1.4186	6.9733	7.4587	134.31	8.9496	9.3535	1.0679	0.72584	1.1095
2016	1.4883	1.4659	7.3522	7.4452	120.20	9.2906	9.4689	1.0902	0.81948	1.1069
2017	1.4732	1.4647	7.6290	7.4386	126.71	9.3270	9.6351	1.1117	0.87667	1.1297
2018	1.5797	1.5294	7.8081	7.4532	130.40	9.5975	10.2583	1.1550	0.88471	1.1810
2019	1.6109	1.4855	7.7355	7.4661	122.01	9.8511	10.5891	1.1124	0.87777	1.1195
2020	1.6549	1.5300	7.8747	7.4542	121.85	10.7228	10.4848	1.0705	0.88970	1.1422
2021	1.5749	1.4826	7.6282	7.4370	129.88	10.1633	10.1465	1.0811	0.85960	1.1827
2021 July	1.5926	1.4806	7.6536	7.4373	130.35	10.3767	10.1979	1.0856	0.85613	1.1822
Aug.	1.6118	1.4827	7.6237	7.4369	129.28	10.4195	10.2157	1.0762	0.85287	1.1772
Sep.	1.6087	1.4910	7.6007	7.4361	129.66	10.1861	10.1710	1.0857	0.85683	1.1770
Oct.	1.5669	1.4436	7.4500	7.4398	131.21	9.8143	10.0557	1.0708	0.84694	1.1601
Nov.	1.5615	1.4339	7.2927	7.4373	130.12	9.9661	10.0459	1.0522	0.84786	1.1414
Dec.	1.5781	1.4463	7.1993	7.4362	128.80	10.1308	10.2726	1.0408	0.84875	1.1304
2022 Jan.	1.5770	1.4282	7.1922	7.4411	130.01	10.0070	10.3579	1.0401	0.83503	1.1314
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

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

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

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

XII. External sector

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

Q1 1999 = 100

Period	Effective exchange rates of the euro vis-à-vis the currencies of the group						Indicators of the German economy's price competitiveness							
	EER-19 ¹				EER-42 ²		Based on the deflators of total sales ³ vis-à-vis					Based on consumer price indices vis-à-vis		
	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	26 selected industrial countries ⁴			37 countries ⁵	26 selected industrial countries ⁴	37 countries ⁵	60 countries ⁶	
							Total	of which:						
						Euro area countries	Non-euro area countries							
1999	96.2	96.2	95.9	96.2	96.6	96.0	97.9	99.6	95.9	97.7	98.3	98.1	97.8	
2000	87.1	86.9	86.0	85.7	88.1	86.1	92.0	97.5	85.5	91.2	93.1	92.3	91.2	
2001	87.6	87.2	86.6	84.5	90.2	86.9	91.8	96.6	86.1	90.5	93.0	91.7	91.0	
2002	89.8	90.2	89.7	88.1	94.5	90.5	92.4	95.7	88.5	91.1	93.5	92.2	91.9	
2003	100.4	101.4	100.7	99.1	106.4	101.5	95.9	94.8	97.6	95.3	97.0	96.7	96.8	
2004	104.2	105.2	103.7	102.3	110.9	105.3	96.2	93.6	100.0	95.6	98.5	98.2	98.4	
2005	102.8	103.9	101.7	100.5	109.0	102.9	94.8	92.0	98.8	93.3	98.4	97.1	96.7	
2006	102.8	103.9	101.1	99.4	109.1	102.2	93.6	90.4	98.2	91.6	98.6	96.7	96.0	
2007	106.3	106.9	103.3	101.1	112.7	104.5	94.5	89.7	102.0	92.0	100.9	98.3	97.3	
2008	110.1	109.7	105.4	104.9	117.4	106.9	94.9	88.4	105.1	91.3	102.4	98.4	97.5	
2009	111.6	110.6	106.6	108.5	120.5	108.0	95.2	89.2	104.6	92.0	101.9	98.6	97.9	
2010	104.4	102.9	98.4	101.1	111.9	99.0	92.5	88.8	98.2	88.1	98.8	94.3	92.5	
2011	104.2	101.9	96.6	99.3	112.7	98.5	92.1	88.5	97.6	87.4	98.2	93.5	91.9	
2012	98.5	96.7	91.1	93.6	107.5	93.7	90.1	88.3	92.5	84.7	95.9	90.5	88.9	
2013	102.0	99.8	94.1	96.5	112.2	96.8	92.3	88.8	97.4	86.6	98.1	92.3	90.9	
2014	102.3	99.1	94.1	96.6	114.5	97.1	92.9	89.6	97.7	87.4	98.2	92.5	91.5	
2015	92.5	89.5	85.5	86.1	106.1	88.6	89.8	90.3	88.9	83.6	94.4	87.8	87.0	
2016	95.2	91.4	87.8	p 87.3	110.1	90.6	90.7	90.7	90.4	84.9	95.0	88.8	88.1	
2017	97.4	93.4	89.0	p 88.1	112.4	91.8	91.9	90.9	93.3	85.7	96.3	89.9	88.9	
2018	99.9	95.5	90.5	p 89.7	117.3	95.0	93.2	91.0	96.4	86.7	97.7	91.2	90.8	
2019	98.1	93.1	88.8	p 87.1	115.4	92.3	92.2	91.2	93.5	85.9	96.4	89.9	89.4	
2020	99.6	93.5	89.4	p 87.8	119.4	93.8	92.4	91.5	93.5	86.4	96.4	90.1	90.2	
2021	99.6	93.4	p 88.7	p 86.0	120.8	94.2	93.5	92.1	95.5	86.8	97.4	90.7	91.0	
2020 June	99.7	93.9			119.1	94.0					97.0	90.8	90.8	
July	100.4	94.4			120.3	94.8					96.0	90.0	90.2	
Aug.	101.5	94.9	90.1	p 88.6	122.4	95.8	92.5	91.1	94.4	86.8	97.0	90.7	91.2	
Sep.	101.5	94.9			122.4	95.7					96.8	90.7	91.1	
Oct.	101.3	94.7			122.4	95.7					96.7	90.6	91.0	
Nov.	100.6	94.3	90.4	p 87.9	121.6	95.1	93.2	91.5	95.6	86.9	96.5	90.1	90.5	
Dec.	101.8	95.2			122.9	95.9					97.0	90.5	90.9	
2021 Jan.	101.3	95.2			122.4	96.0					98.0	91.4	91.7	
Feb.	100.6	94.5	90.1	p 88.0	121.5	95.1	93.4	91.8	95.8	87.1	98.0	91.2	91.5	
Mar.	100.3	94.1			121.2	94.8					97.7	91.1	91.4	
Apr.	100.6	94.3			121.9	95.2					97.9	91.2	91.6	
May	100.8	94.3	89.5	p 86.4	122.3	95.3	93.3	91.5	95.8	86.7	98.0	91.3	91.7	
June	100.2	93.8			121.5	94.6					97.9	91.1	91.5	
July	99.7	93.5			120.8	94.2					97.7	91.0	91.2	
Aug.	99.3	93.1	p 88.6	p 85.7	120.4	93.8	93.8	92.3	95.8	87.1	97.3	90.6	90.9	
Sep.	99.4	93.2			120.4	93.8					97.3	90.6	90.7	
Oct.	98.4	92.3			119.5	93.0					96.7	90.0	90.2	
Nov.	97.6	91.7	p 86.6	p 84.0	118.8	92.6	93.5	92.7	94.6	86.5	96.2	89.5	89.8	
Dec.	97.1	91.2			119.0	92.4					95.7	89.0	89.5	
2022 Jan.	96.6	91.2			118.6	p 92.3					96.0	89.0	p 89.5	
Feb.	96.9	91.6	p 84.8	p 82.5	118.9	p 92.6	92.8	92.3	93.5	85.7	96.1	89.1	p 89.5	
Mar.	95.9	91.3			118.4	p 92.6					96.3	89.5	p 90.0	
Apr.	95.2	90.0			116.4	p 90.2					96.1	89.0	p 88.9	
May	95.6	90.3	p 83.4	p 80.9	116.2	p 90.1	92.1	91.7	92.5	84.9	96.6	89.6	p 89.3	
June	95.9	90.5			116.5	p 90.1					95.7	88.8	p 88.4	
July	94.1	89.1			114.6	p 88.8					94.9	88.0	p 87.6	
Aug.	93.6	88.7	...	...	114.1	p 88.6	p 91.8	92.2	p 91.1	p 84.9	94.5	87.7	p 87.3
Sep.	94.2	p 89.7			114.5	p 89.2					96.0	89.2	p 88.7	
Oct.	94.8	p 91.0			115.4	p 90.5					96.1	p 89.8	p 89.4	
Nov.	95.9	p 92.4	...	...	117.1	p 92.2	...	...	...	...	p 96.9	p 90.5	p 90.3

* The effective exchange rate corresponds to the weighted external value of the currency concerned. The method of calculating the indicators of the German economy's price competitiveness is consistent with the procedure to compute the effective exchange rates of the euro. A decline in the figures implies an increase in competitiveness. The weights are based on trade in manufactured goods and services. For more detailed information on methodology and weighting scale, see the website of the Deutsche Bundesbank (<https://www.bundesbank.de/content/796162>). ¹ The calculations are based on the weighted averages of the changes in the bilateral exchange rates of the euro vis-à-vis the currencies of the following countries: Australia, Bulgaria, Canada, China, Croatia, Czechia, Denmark, Hong Kong, Hungary, Japan, Norway, Poland, Romania, Singapore, South Korea, Sweden, Switzerland, the United Kingdom and the United States. Where current price and wage indices were not available, estimates were used. ² Includes countries belonging to the group EER-19 and additionally Algeria, Argentina, Brazil, Chile, Colombia, Iceland, India, Indonesia, Israel, Malaysia, Mexico,

Morocco, New Zealand, Peru, Philippines, the Russian Federation, Saudi Arabia, South Africa, Taiwan, Thailand, Turkey, Ukraine and United Arab Emirates. The ECB suspends 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) as well as Canada, Denmark, Japan, Norway, Sweden, Switzerland, the United Kingdom and the United States. ⁵ Euro area countries (current composition) and countries belonging to the group EER-19. ⁶ Euro area countries (current composition) and countries belonging to the group EER-42.

Overview of publications by the Deutsche Bundesbank

This overview provides information about selected recent economic and statistical publications by the Deutsche Bundesbank. Unless otherwise indicated, these publications are available in both English and German, in printed form and on the Bundesbank's website.

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

■ Annual Report

■ Financial Stability Review

■ Monthly Report

A list of the articles published in the period from 2010 to 2021 is available on the Bundesbank's website.

Monthly Report articles

April 2022

- Potential macroeconomic consequences of the war in Ukraine – simulations based on a severe risk scenario
- Development of the debt situation in the euro area private non-financial sector since the outbreak of the COVID-19 pandemic
- Central government's debt brake: options for stability-oriented further development
- Demand for euro banknotes issued by the Bundesbank: current developments

May 2022

- The current economic situation in Germany

June 2022

- Outlook for the German economy for 2022 to 2024
- Pension insurance scheme: long-term scenarios and reform options
- Inflation-induced bracket creep in the income tax scale
- Public finances in the euro area: current developments and challenges
- The Bundesbank's surveys of firms – applications for assessing the financial situation in the corporate sector

July 2022

- Distributional Wealth Accounts for households in Germany – results and use cases
- Factors influencing international portfolio flows
- Cross-border interoperability of central bank digital currency
- Government debt in the euro area: developments in creditor structure

August 2022

- The current economic situation in Germany

September 2022

- Negative interest rate policy period and pandemic as reflected in the Bank Lending Survey
- Productivity effects of reallocation in the corporate sector during the COVID-19 crisis
- The performance of German credit institutions in 2021
- The role of the International Monetary Fund in preventing and managing crises

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

■ 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 2022^{1,2}
- 2 Banking statistics, customer classification, January 2022²

- 3 Aufbau der bankstatistischen Tabellen, July 2013^{1,2} 32/2022
 New facts on consumer price rigidity in the euro area
- 7 Notes on the coding list for the balance of payments statistics, September 2013 33/2022
 Going below zero – How do banks react?

■ Special Publications

- Makro-ökonomisches Mehr-Länder-Modell, November 1996¹ 34/2022
 Global monetary and financial spillovers: Evidence from a new measure of Bundesbank policy shocks

- Europäische Organisationen und Gremien im Bereich von Währung und Wirtschaft, May 1997¹ 35/2022
 Robust real-time estimates of the German output gap based on a multivariate trend-cycle decomposition

- Die Zahlungsbilanz der ehemaligen DDR 1975 bis 1989, August 1999¹ 36/2022
 The impact of natural disasters on banks' impairment flow – Evidence from Germany
- The market for German Federal securities, May 2000 37/2022

- Macro-Econometric Multi-Country Model: MEMMOD, June 2000 38/2022

- Bundesbank Act, September 2002 39/2022
 The effects of sanctions on Russian banks in TARGET2 transactions data

- Die Europäische Union: Grundlagen und Politikbereiche außerhalb der Wirtschafts- und Währungsunion, April 2005¹ 40/2022
 The Eurosystem's asset purchase programmes, securities lending and Bund specialness

- Die Deutsche Bundesbank – Aufgabenfelder, rechtlicher Rahmen, Geschichte, April 2006¹ 41/2022
 Determinants of TARGET2 transactions of European banks based on micro-data

- European economic and monetary union, April 2008 42/2022
 Who creates and who bears flow externalities in mutual funds?

- Weltweite Organisationen und Gremien im Bereich von Währung und Wirtschaft, March 2013¹ 43/2022
 Robust real rate rules

■ Discussion Papers^o

- 31/2022
 A review of some recent developments in the modelling and seasonal adjustment of infra-monthly time series

For footnotes, see p. 88*.

44/2022

Chinese supply chain shocks

45/2022

A nonlinear generalization of the Country-Product-Dummy method

46/2022

What drives inflation? Disentangling demand and supply factors

47/2022

On the macroeconomic effects of reinvestments in asset purchase programmes

48/2022

Real interest rates, bank borrowing, and fragility

49/2022

Estimating the impact of quality adjustment on consumer price inflation

■ 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 2008¹

2a Solvency Regulation and Liquidity Regulation, February 2008²

* 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.

¹ Publication available in German only.

² Available only as a download.