



Monthly Report

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Abbreviations and symbols

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	Data unknown, not to be published or not meaningful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

Discrepancies in the totals are due to rounding.

■ Commentaries

■ Economic conditions

Underlying trends

German economic output likely to decline again in Q1 2023, albeit less sharply than in previous quarter

The German economy recovered only slowly at the beginning of 2023 following the broad-based and strong setback in December of last year. Industry and construction saw another sharp increase in output in January, even exceeding the previous quarter's average, but exports of goods rallied only partially in price-adjusted terms. Moreover, consumer-related sectors continue to suffer from the persistently high inflation and the associated reluctance on the part of consumers. In the retail sector, sales remained at the depressed level of the previous month in price-adjusted terms and were thus significantly below the previous quarter's average. Although the GfK consumer climate recovered slightly of late, it stayed at a very low level. According to the ifo surveys, the same applies to enterprises' business expectations, which are still mostly pessimistic despite brightening further in February. The assessment of the business situation even deteriorated somewhat. All in all, German economic activity is likely to fall again in the current quarter. However, the decline is likely to be smaller than in the final quarter of 2022 in which economic output fell by 0.4%, according to revised data published by the Federal Statistical Office.

fore increased clearly and the production of capital goods was also marginally expanded. A stronger improvement was offset by a fairly marked decline in the production of motor vehicles and motor vehicle parts. By contrast, according to data from the German Association of the Automotive Industry (VDA), the number of passenger cars produced rose markedly in January and even edged up further in February. Consumer goods output fell distinctly, however, driven by a considerable slump in the manufacture of pharmaceutical products.

At the beginning of the year, seasonally adjusted industrial orders expanded markedly in real terms compared with both the previous month (+1%) and the previous quarter (+1¾%). Excluding large orders, the increase was even more significant (+3%) compared with December. Orders from Germany climbed marginally on the quarter, while those from non-euro area countries even showed a marked rise. By contrast, orders from the euro area were down. In sectoral terms, the increase is driven mainly by transport equipment manufacturing. However, in most other sectors orders declined significantly in some cases. Broken down by main category, capital goods producers were those recording higher orders, while there was a significant fall among producers of intermediate and consumer goods.

Renewed pickup in demand for industrial products

Industry

Industrial output recovered markedly in January; energy-intensive sectors up significantly

After seasonal adjustment, industrial output increased markedly. In January 2023 both on the previous month and on the fourth quarter (+2% and +1% respectively).¹ In particular, there are signs of some bottoming-out in energy-intensive sectors, with seasonally adjusted output in these areas even rising significantly compared with the previous quarter.² Production of intermediate goods, which encompasses most of the energy-intensive industrial sectors, there-

After seasonal adjustment, nominal industrial sales experienced a significant month-on-month increase in January 2023 (+1¼%) and were also up on the previous quarter (+1%). Domestic sales, in particular, rose markedly compared with the previous quarter while ex-

Nominal industrial sales and goods exports up clearly in January

¹ Seasonal adjustment here and in the remainder of this text also includes adjustment for calendar variations, provided they can be verified and quantified.

² Energy-intensive sectors include the manufacture of chemicals and chemical products, the manufacture of basic metals, the manufacture of coke and refined petroleum products, the manufacture of other non-metallic mineral products and the manufacture of paper and paperboard.

Economic conditions in Germany*

Seasonally and calendar adjusted

Period	Orders received (volume); 2015 = 100			
	Industry			Main construction
	Total	of which: Domestic	Foreign	
2022 Q2	106.2	102.2	109.1	110.4
Q3	104.9	97.3	110.7	107.9
Q4	100.8	96.4	104.2	107.0
Nov.	98.2	94.6	101.0	104.3
Dec.	101.5	99.6	103.0	106.2
2023 Jan.	102.5	94.3	108.7	...
	Output; 2015 = 100			
	Industry			Construction
	Total	of which: Intermediate goods	Capital goods	
2022 Q2	95.7	101.1	89.7	113.2
Q3	96.2	99.0	92.5	111.0
Q4	96.4	95.0	96.4	109.2
Nov.	97.1	97.2	96.4	111.3
Dec.	95.6	91.5	97.3	102.9
2023 Jan.	97.4	97.8	96.7	115.9
	Foreign trade; € billion			Memo item: Current account balance in € billion
	Exports	Imports	Balance	
2022 Q2	393.69	378.27	15.41	39.17
Q3	401.17	394.24	6.92	22.47
Q4	400.15	372.04	28.13	47.24
Nov.	136.46	124.97	11.49	18.65
Dec.	127.91	117.92	10.00	15.94
2023 Jan.	131.38	115.42	15.97	18.65
	Labour market			
	Employment	Vacancies ¹	Unemployment	Unemployment rate %
	Number in thousands			
2022 Q2	45,553	867	2,337	5.1
Q3	45,595	847	2,491	5.5
Q4	45,711	815	2,522	5.5
Dec.	45,744	809	2,519	5.5
2023 Jan.	45,808	810	2,507	5.5
Feb.	...	806	2,509	5.5
	Prices; 2015 = 100			
	Import prices	Producer prices of industrial products	Construction prices ²	Harmonised consumer prices
2022 Q2	139.3	146.9	147.9	117.5
Q3	146.8	165.7	151.7	120.0
Q4	141.1	160.9	155.4	123.1
Dec.	137.4	158.4	.	122.1
2023 Jan.	135.4	156.2	.	123.5
Feb.	...	...	.	124.3

* 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.

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port sales roughly stagnated. Broken down by main category, capital goods producers saw quite a significant rise in turnover. Mechanical engineering revenue, in particular, was markedly higher than the previous quarter's average. By contrast, sales of consumer goods stagnated and producers of intermediate goods recorded a decline in sales. After seasonal adjustment, nominal exports of goods rose markedly in January compared with the sharply depressed level of the previous month, but were still down significantly on the average of the previous quarter. Owing to falling export prices, however, the decline compared with the previous quarter was only slight in real terms (-½%). The growth of exports to euro area countries counteracted the marked decrease in exports to non-euro area countries. Nominal imports of goods were down steeply again in January (-2%) and even showed a very considerable decline (-7%) compared with the previous quarter. In real terms, however, this figure is significantly smaller (-3%), as import prices for energy plummeted. Real imports of goods from both the euro area and non-euro area countries decreased to roughly the same extent.

Construction

In January 2023, seasonally adjusted construction output was considerably higher following a weak December (+12½%). Both the main construction sector and the finishing trades saw strong growth. Construction output was likewise up significantly compared with the fourth quarter of last year (+6%), with the improvement likely first and foremost a counter-reaction to the slump in December, which had also been intensified by the unfavourable weather conditions. The favourable weather in January boosted this effect further. In the light of the existing order backlog, the continued easing of labour and material shortages is also likely to have provided support. This is indicated by the ifo Institute's survey results. Construction activity remains generally subdued, however. Higher construction prices and inter-

Construction output benefits from weather

est rates weighed on demand for construction work. New orders in the main construction sector rose slightly in December – the most recent month for which data are available – but were still considerably lower than the highs of the fourth quarter of 2021. The number of building permits also went up again after some decreases in December, but is still at a comparatively low level. On an average of January and February, the reach of the order books remained roughly at the level of the fourth quarter of 2022 according to ifo Institute surveys.

Labour market

Employment up significantly in January; outlook still slightly positive

Despite the current weak economy, labour market developments remained slightly positive. In seasonally adjusted terms, employment rose significantly in January 2023. The total number of persons in employment grew by 64,000 compared with December of last year. At the end of 2022 (disaggregated data are not yet available for January), the favourable employment developments were mainly attributable to employment subject to social security contributions, but also to exclusively low-paid part-time employment. Employment rose, above all, in a number of services sectors more geared towards meeting domestic demand. Professional, scientific, technical and other business-related services, the IT sector and the hotel and restaurant sector stand out in particular. By contrast, there was no employment growth in the manufacturing sector, which is subject to strong international competitive pressure. Instead, the moderate increase in short-time work for economic reasons at the end of the year was concentrated on the manufacturing sector. However, at the beginning of 2023, notifications of short-time work also declined again. The other leading indicators of employment growth remained largely stable in expansionary territory in February. This development in employment – which is quite positive in view of the economic situation – could therefore continue in the coming months.

In February, seasonally adjusted registered unemployment remained virtually unchanged at its previous month's level of 2.51 million people. The unemployment rate thus continued to hold steady at 5.5%. There were likewise only minimal shifts between the statutory insurance and basic welfare allowance schemes. Total underemployment, which also includes persons in labour market policy measures as well as language and integration courses, rose slightly in February. This can probably mainly be attributed to courses offered to Ukrainian refugees. Managers of the regional employment agencies are largely positive about the development of registered unemployment over the next few months. The IAB's unemployment barometer even improved slightly of late. Unemployment is therefore likely to fall slightly in the coming months.

No change in unemployment

Prices

As in the previous months, global energy prices fell in February and early March, albeit less sharply. As this report went to press, the European gas price (TTF) stood at €44 per MWh, which was around 25% lower than at the end of January. The price of crude oil (Brent) also fell, standing at US\$74 per barrel at the end of the period under review. The high level of seaborne Russian crude oil exports dampened the price. Concerns about demand also resurfaced recently. Forward quotations indicate slightly lower prices over the medium term. By contrast, estimates by the International Energy Agency for the second half of 2023 suggest that the global oil market is significantly under-supplied and that prices may thus rise again.

Further decline in energy prices recently

Price developments at the upstream stages of the economy were mixed in January 2023 (latest available data). The above-mentioned easing in global energy markets caused both domestic and foreign prices to fall at the producer

Mixed price developments at upstream stages of economy

Impact of the new HICP/CPI weights on inflation developments in Germany

In January 2023, the national consumer price index (CPI) was rebased on the year 2020. A new base year is usually introduced every five years, entailing both an update to the CPI weighting scheme and methodological changes to the measurement of prices. Until now, updates to the CPI weighting scheme have been based mainly on consumption pattern data taken from the sample survey of income and expenditure and the continuous household budget surveys.¹ Starting from the most recent base year changeover, however, consumption pattern data from the national accounts will play a greater role in the derivation of the new weighting shares.² According to figures from the Federal Statistical Office, this new approach to deriving the weights explains the majority of the shifts in the CPI weights.³ The fact that the coronavirus pandemic occurred during the calculation period for the CPI weights was probably also a factor.⁴ Overall, the shift in the CPI weights was greater than usual.

Unlike the CPI weights, the weights of the Harmonised Index of Consumer Prices (HICP) are adjusted annually in an effort to reflect the consumption patterns of the previous year as closely as possible.⁵ The weights of the CPI base year provide the starting point for the Federal Statistical Office's calculations. These weights are updated using the available detailed national accounts data on consumption expenditure and a price extrapolation.⁶ Because the CPI weights underwent an unusually significant change following the most recent adjustment to the base year, the HICP weights also shifted more sharply than usual. Expenditure shares for services increased somewhat compared with 2022, while the weight of goods decreased overall. In particular, the share of energy and food declined, while the share

of non-energy industrial goods rose slightly. Looking in detail at the goods and services recorded in the HICP, a number of especially large weight adjustments become apparent. Most noticeably, rents and gas showed a sharp decline, with the former's weight falling by just over four percentage points to 7.3% and that of the latter roughly halving to 1.4%. By contrast, the weight of package holidays (up by 2.3 percentage points to 3.5%) and restaurants (up by 2.1 percentage points to 4.9%) rose particularly strongly.

When the CPI is adapted to a new base year, it is usually revised backwards as far as the new base year. The overall extent of the revision to the CPI depends first on the scale of the changes to the weights that are used to weigh together the individual CPI sub-indices. Second, methodological changes to the measurement of prices for certain goods and services can lead to different de-

¹ See Federal Statistical Office (2023a).

² These methodological changes mainly affect the weights of the upper classification levels. The weights at the lower levels are still calculated using the results of the sample survey of income and expenditure and the continuous household budget surveys.

³ See Federal Statistical Office (2023a), pp. 10 ff. Overall, the adjustment of the weights was determined by changes in consumption volume and prices and the modification of the international approach to deriving the weights.

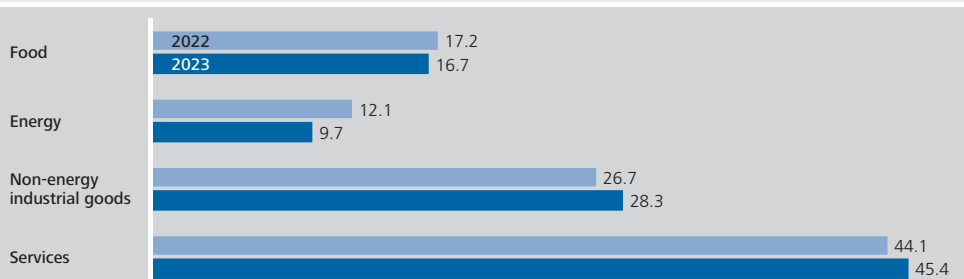
⁴ This time, in order to mitigate the impact of the coronavirus pandemic on the CPI weighting, an average value for the consumption pattern between 2019 and 2021 was used rather than the consumption pattern for the base year as is normally the case.

⁵ Unlike the CPI, the HICP is therefore a chain-linked index.

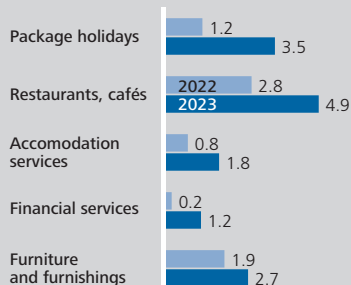
⁶ Until 2020, it was standard practice to use national accounts data from two years earlier to update the weightings. Owing to the coronavirus pandemic, since 2021, the weights have been derived on the basis of the most recent data possible for the previous year. These include preliminary figures from the national accounts as well as information from the continuous household budget surveys and other data sources such as retail trade sales/turnover, service revenues, and figures from transport (passengers), tourism or energy statistics. See Federal Statistical Office (2023b).

Change in weights of selected HICP components between 2022 and 2023

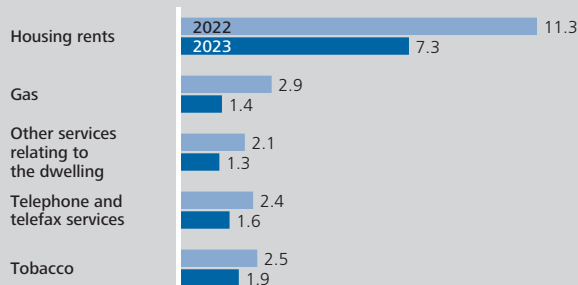
Weights in %



Components with the largest increase in weight¹



Components with the largest decrease in weight¹



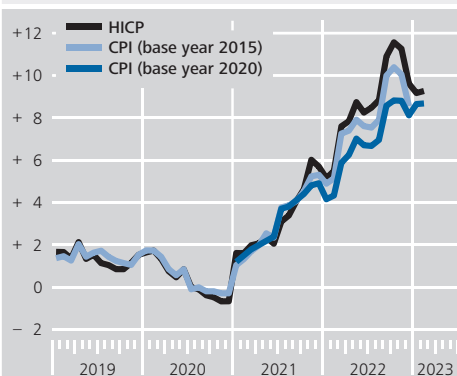
Source: Federal Statistical Office. ¹ Based on a breakdown of the HICP basket into 94 components at 4-digit level.
Deutsche Bundesbank

developments in the sub-indices and thus also in the overall index.⁷ This time, the sharp decrease in the weight of energy, in particular, led to a significantly lower contribution from energy and thus to a steep downward revision of the CPI rate overall, especially in 2022. In line with this, the annual average rate of change for 2022 now stands at 6.9% instead of 7.9%. Nonetheless, this is still an exceptionally high figure that has not been seen since 1974. Following the revision, the inflation rate in December 2022 came to just 8.1% (instead of 8.6% as calculated using the base year 2015). It thus remained lower than in November, mainly

because the reporting of the immediate assistance for gas and district heating bills had a price-lowering effect. In January, the annual CPI rate then rose again by 0.6 percentage point to 8.7% because the immediate assistance was a one-off factor that applied to December only and the new gas

Consumer prices in Germany: HICP and revised CPI

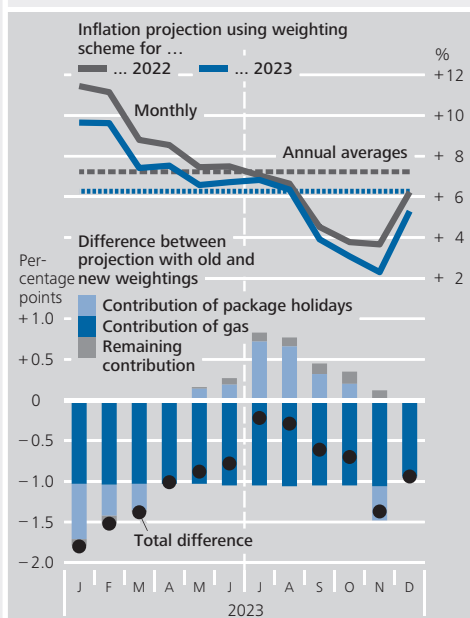
Year-on-year percentage change



Source: Federal Statistical Office.
Deutsche Bundesbank

⁷ This time, major methodological changes with a marked impact on the affected CPI sub-indices for package holidays and air transport were made. Package holiday prices are now recorded using transaction data rather than offer prices, and greater market coverage has been achieved. The latter applies to air transport prices as well. Changes in the CPI sub-indices are usually also reflected in the HICP sub-indices, as the prices recorded for the CPI also form the basis for the HICP.

Revision of the December 2022 HICP forecast for 2023 owing to weight changes*



* Bundesbank December 2022 forecast used HICP weights from 2022 for the year 2023.
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and electricity price brake⁸ probably had less of a dampening effect on consumer prices. In February, the rate stayed at 8.7%.

The HICP, on the other hand, is only revised in exceptional, very narrowly defined cases.⁹ Unlike the CPI rate, HICP inflation unexpectedly fell by a further 0.4 percentage point to 9.2% in January. By contrast, in December 2022, inflation had been projected to rise in January in line with market expectations and the movement of the CPI. The fact that the HICP rate nevertheless fell in January, resulting in a significant downward surprise, is largely explained by the annual adjustment to the HICP weighting scheme.

In the December projection, the forecast for 2023 was still based on the HICP weighting scheme for 2022.¹⁰ Besides this, consumer prices for gas were projected to continue rising at perceptibly higher than average rates despite the gas price brake. If the new, significantly lower weight for gas is

used for 2023 instead, headline inflation is dampened by around 1 percentage point in all months as well as on an annual average. The contribution of package holiday prices to the HICP rate is also affected by the change in the weighting. However, owing to the pronounced seasonal pattern of this sub-index, the weight effect here varies considerably over the course of the year, unlike in the case of gas prices. For example, the contribution of package holidays to the forecast error is markedly negative in the first few months of the year, standing at -0.7 percentage point in January.¹¹ It then turns positive by the summer months, reaching a maximum of +0.7 per-

⁸ Although the brakes will not take effect until March, they will already be captured in the price statistics as of January on account of the reimbursements for January and February. For more information on this topic and on the assumed impact of gas and electricity prices, see the December 2022 projection: Deutsche Bundesbank (2022).

⁹ See Eurostat (2018), p. 31: "HICPs are in principle revisable, but only in limited circumstances." These include errors and – very rarely – recalculations as a result of improved data sources and methods, provided they are approved by Eurostat. One such exception was the revision of HICP package holidays when the CPI was rebased to 2015 in 2019. As a special case, the HICP was revised up to January 2015, the start of the base year, owing to the significant methodological change in the recording of package holidays. However, the chain-linking of the index series led to a marked upward bias in the monthly year-on-year rates of the revised HICP in 2015. See Deutsche Bundesbank (2019b).

¹⁰ For the December 2022 projection, see Deutsche Bundesbank (2022). The weighting scheme for 2023 was not yet known when the projection was published.

¹¹ It is worth noting that the contribution is negative even though package holiday prices were higher than the year before. Counterintuitive contribution effects such as these are the result of the HICP's construction as a chain-linked index. Generally speaking, the contribution of a HICP component to the inflation rate in the current year stems not only from price movements and the weight of the current year, but also from price movements in the previous year. In December 2022, package holiday prices reached their usual seasonal high before returning to normal at the beginning of the new year. Owing to the increased share of package holidays, the price decline between December 2022 and January 2023 is now weighted more strongly than the price increase between January 2022 and December 2022. Counterintuitive contributions of this kind have been seen before in previous years. See, for example, Deutsche Bundesbank (2019, 2021) and European Central Bank (2019).

centage point in July. On an annual average, the one-off effects at the start of the year and in mid-year will more or less balance out, meaning that the forecast for the average inflation rate in 2023 ultimately remains unaffected by the adjustment to the weight of package holidays.

Overall, almost 2 percentage points of the significant downward revision of the HICP rate in January compared with the December projection can be explained by the change in the weight of package holidays and gas. In February, the significance of the new weights for the forecast error declined slightly owing to the changed dynamics for package holidays, but still remained high. The core rate was somewhat lower in January than in the December projection, but was broadly in line with it in February, although the weight effect for package holidays also had a marked dampening influence here. Had the weights remained un-

changed, the core rate would even have surprised to the upside in both January and February. Overall, it remains at a record high of 5.4%.

level.³ Year-on-year rates also declined, to 6.6% for imports and 17.6% for domestic products, although these price decreases were solely due to the energy component. Excluding energy, however, prices for imports rose by a seasonally adjusted 0.4% on December and for domestic products by as much as 1.2%, with price pressures up again in the case of intermediate, capital and consumer goods after they had eased previously.

volatile energy and food prices. By contrast, the rise in energy prices virtually came to a standstill recently. Headline inflation stood at 9.3%⁴ in February 2023 and thus 0.1 percentage point higher than in January. Core inflation rose by 0.3 percentage point to 5.4%, once again reaching the all-time high of December 2022. This is all the more remarkable given that the update to the HICP weight applied to package holidays is still dampening the core rate.⁵

Inflation rate temporarily up again somewhat in February, ...

As measured by the harmonised Index of Consumer Prices (HICP), consumer prices in February showed a somewhat weaker rise on the month than previously (0.6% in seasonally adjusted terms). The persistently high level of consumer price inflation was primarily driven by unprocessed food and, in particular, vegetables, where prices soared recently. In addition, prices for services increased at a faster pace again. Together with a persistently high inflation rate for industrial goods, this continued to fuel core inflation, which excludes

³ Results provided by the Federal Statistical Office are provisional. This is due to the electricity and gas price brake, which will apply from January 2023 but will not take effect until March 2023. For the reporting months of January and February, the brakes are not included in the calculations, as the reporting units do not yet have access to electricity and gas prices that take the brakes into account. With the publication of the results on March 2023, the figures for January and February will be revised.

⁴ The consumer price index (CPI), calculated for national purposes, rose somewhat less sharply (8.7%).

⁵ For more information on the impact of the new HICP/CPI weights on inflation developments in 2023, see the box on pp. 8 ff.

... but likely to decline significantly in March; underlying price pressures are likely to remain high

Inflation in Germany is likely to decline significantly in March owing to a base effect. Energy prices had soared in March 2022 as a result of the Russian invasion of Ukraine. This has so far been reflected in a significantly higher year-on-year inflation rate. By contrast, from March onwards, the higher price level will form the basis for calculating the inflation rate, resulting in a lower overall rate. Nonetheless, core inflation is proving to be extremely persistent. It could even increase somewhat in mid-2023, partly owing to the adjustments to HICP weights.

■ Public finances⁶

Statutory health insurance scheme

2022: significant surplus for SHI scheme

The statutory health insurance (SHI) scheme (comprising the health insurance institutions and the health fund) finished 2022 with a significant surplus, exceeding expectations and improving considerably on the previous year. According to preliminary figures, the surplus amounted to just over €4½ billion, following a deficit of €5½ billion in 2021.⁷ The results were chiefly driven by additional central government funds and unexpectedly strong contribution receipts.

Health insurance fund tops up reserves substantially

At almost €4½ billion, the lion's share of the surplus was generated by the health fund (2021: €1½ billion). At the end of the year, the fund's reserves stood at €12 billion, €8 billion above the statutory lower limit. The health insurance institutions posted a small surplus of €½ billion. Last year, they had still been running a deficit of €7 billion. The institutions' reserves were consequently up somewhat, to €10 billion at the end of 2022. For the health insurance institutions as a whole, the reserves were thus €5½ billion above the statutory lower limit.

The SHI scheme's revenue was up by 9% on the year, not least because of much higher central government payments. Central government issued a supplementary grant of €14 bil-

lion (2021: €5 billion). In addition, its refunds for pandemic-related special expenditure increased by just over €4 billion. Contribution receipts grew steeply, by 5%. Somewhat higher supplementary contribution rates – up by 0.1 percentage point on average – contributed around ½ percentage point to this. Excluding the special payments from central government and the higher supplementary contribution rates, revenue rose by just over 4% overall.

The SHI scheme's expenditure grew by 5½%. The health fund incurred €21 billion for pandemic-related benefits, up €4 billion on the year. In particular, expenditure on coronavirus tests for the general public rose to a total of €10 billion. In addition, the fund paid out financial assistance to hospitals (€7 billion) and took on a share of vaccination costs (€3½ billion). It also made special payments of €½ billion to nursing staff providing long-term care. Health insurance institutions' spending on benefits climbed by 4%. Spending on hospital treatment, a particularly large expenditure item, rose by 2%.⁸ Growth in medical treatments and pharmaceuticals was noticeably stronger (just over 4½% in each case). A substantial rise in pension provisions pushed up administrative expenditure by 7% (+2½% after adjustment for this factor).

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

Expenditure up significantly: pandemic-related spending higher again

The health fund is set to record a large deficit for the current year. The fund passes on the expected contribution receipts and the lower central government grants⁹ to the health insurance institutions. In addition, it transfers funds

2023: large deficit anticipated for health fund – using up disposable reserves, according to group of estimators' forecast

⁶ In the short commentaries on public finances, the emphasis is on recent outturns. The quarterly editions of the Monthly Report (published in February, May, August and November), by contrast, contain an in-depth description of public finance developments during the preceding quarter. For detailed data on budgetary developments and public debt, see the statistical section of this report.

⁷ Preliminary accounting figures for 2022 compared with the final annual outturn for 2021 (see the table on p. 13). By contrast, the chart on p. 14 shows preliminary outturns for 2021 as well.

⁸ When combined with financial assistance from the health fund, payments to hospitals thus increased by 4%.

⁹ Instead of the special grant of €14 billion that was paid in 2022, central government is providing an additional grant of €2 billion this year. Furthermore, it will issue a loan of €1 billion, which is to be repaid by the end of 2026.

Statutory health insurance scheme Overview of finances for the scheme as a whole

€ billion

Revenue	2021 ¹	2022 ²	Expenditure	2021 ¹	2022 ²
Health fund (HF)					
Contributions	229.0	239.5	Transfers to HIIIs ³	274.6	285.6
Supplementary contributions	19.6	21.8	Administration	0.1	0.1
Central government grants including coronavirus funds	36.8	50.0	Coronavirus measures	17.4	21.4
Capital levy	8.0	–			
Other revenue	0.0	0.0			
Deficit	–	–	Surplus	1.4	4.3
Total	293.4	311.3	Total	293.4	311.3
Health insurance institutions (HIIs)					
Transfers from HF ³	274.6	285.6	Spending on benefits	262.2	272.9
Other contributions	1.1	1.1	Administration	11.7	12.6
Central government grants to AHIIIs ⁵	0.1	0.2	Other expenditure ⁴	3.3	3.7
Other revenue ⁶	2.6	2.8	Capital levy	8.0	–
Deficit	6.7	–	Surplus	–	0.5
Total	285.1	289.7	Total	285.1	289.7
Statutory health insurance (SHI) scheme					
Contributions	249.7	262.4	Spending on benefits	262.2	272.9
Central government grants including coronavirus funds	37.0	50.2	Administration	11.7	12.6
Other revenue	2.6	2.8	Coronavirus measures	17.4	21.4
Capital levy	8.0	–	Other expenditure	3.3	3.7
Deficit	5.3	–	Capital levy	8.0	–
Total	302.6	315.4	Surplus	–	4.7
			Total	302.6	315.4

¹ Final annual figures (KJ1). ² Preliminary quarterly figures (KV45). ³ Including transfers to the innovation and structural funds as well as additional funds stemming from the capital levy that are transferred back to the health insurance institutions via the health fund. ⁴ Including transfers to the innovation fund. ⁵ Agricultural health insurance institutions. ⁶ Including the difference compared with the transfers recorded by the health fund as well as the difference between claims and liabilities.

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from its liquidity reserve (putting it in deficit) – providing the health insurance institutions with:

in a deficit of just over €6 billion in the health fund overall.

- for the last time, compensation for losses caused by the reduction of SHI contributions on occupational pensions since 2020 (€½ billion);
- owing to a special rule, a grant of €4½ billion – the amount by which the group of SHI estimators expected the liquidity reserve to be above its limit at the end of 2022 in their assessment from autumn of that year;¹⁰
- a transfer of just over €½ billion to the innovation and structural funds;
- additional funds for improvements in the areas of obstetrics and paediatrics (€½ billion).

A deficit is likewise on the cards for the health insurance institutions. Based on the results of the group of SHI estimators and the Federal Ministry of Health's estimate that the average supplementary contribution rate will rise to 1.6% (+0.3 percentage point), the deficit is forecast to amount to around €2 billion. Health insurance institutions' spending is projected to rise by 4½% compared with expectations for 2022. Lower central government funds will weigh on revenue. Special injections from the health fund's liquidity reserve only partially offset these cuts.

Overall, this would result in a deficit of €8 billion for the SHI scheme as a whole. From today's perspective, however, the outturn is likely

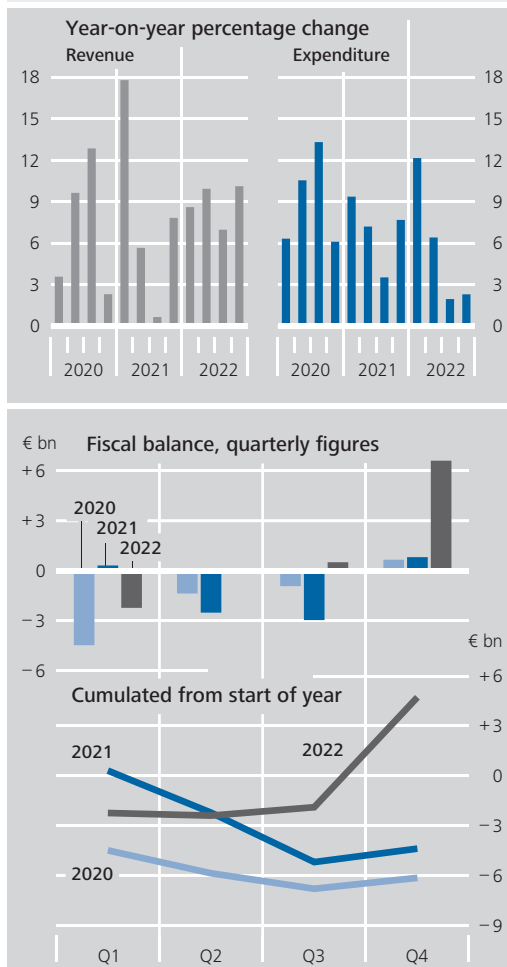
Marked deficit expected for health insurance institutions, too

However, outturn for 2023 could actually be much better

Based on the assumptions used by the group of SHI estimators in autumn 2022, this results

¹⁰ The relevant ceiling was lowered by 50% to 0.25 times the scheme's monthly expenditure with effect from 2023.

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.
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to be much more favourable. Last year's results were far better than projected. These provide the starting point and are expected to continue to have an effect in the current year. Furthermore, contribution receipts will probably be higher than assumed, even though the actual average supplementary contribution rate is just under 0.1 percentage point lower than estimated. All in all, the deficit could thus remain below €5 billion. This would ease the strain on the reserves.

As things stand, the provision of additional central government funds will have come to an end in 2024. The reserves will also have been

more or less used up. Pressures on the supplementary contribution rates will then increase going forward. However, the Federal Ministry of Health is planning fundamental reforms. These are to cover both the financing and expenditure sides (with a particular focus on hospitals). A draft law has been announced for the middle of the year.

Increasing expenditure pressure – fundamental reform announced

Public long-term care insurance scheme

The public long-term care insurance scheme recorded a deficit of just over €2 billion in 2022,¹¹ a deterioration of €1 billion compared with the previous year.¹² This is mainly due to burdens arising from last year's reform of long-term care. These were much higher than the declining burdens from pandemic-related special payments (–€1½ billion). Liquid funds shrank to €4½ billion at the end of 2022, falling short of their minimum target. As liquidity was tight, central government granted a loan of €1 billion to run beyond the end of the year.

Considerable deficit due to reform of long-term care – central government issues loan

Revenue saw a steep rise of 10%, primarily due to payments from central government. Since 2022, central government has provided a regular grant of €1 billion each year to cover part of the burdens resulting from the latest reform of long-term care. The long-term care insurance scheme also received higher pandemic-related special grants¹³ in order to compensate in part for burdens arising from the pandemic. Contribution receipts increased by 5½%. Under the reform of long-term care, the contribution rate for childless persons increased by 0.1 percent-

Contribution receipts rose steeply; high additional funds from central government, especially for pandemic-related costs

¹¹ In the core budget, i.e. excluding the long-term care 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. At the end of 2022, these accumulated reserves amounted to €11 billion.

¹² Preliminary accounting figures for 2022 compared with the final annual outturn for 2021. By contrast, the chart on p. 15 shows preliminary annual outturns.

¹³ Excluding the central government loan, the special grants amounted to €2½ billion, just over €1½ billion more than in 2021.

age point to 3.4% at the start of the year. However, this increase accounted for only a minor share of the growth in contribution receipts.

Expenditure grew even more strongly, yet pandemic-related expenditure remained stable

At 11%, expenditure growth was even somewhat stronger than growth in revenue. Pandemic-related special payments amounted to €5 billion, similar to the previous year.¹⁴ The long-term care insurance scheme's expenditure on benefits rose by 12%. This high growth is mainly attributable to spending on residential care (+24%), and this is due to the reform of long-term care. Since the beginning of 2022, 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.¹⁵ In the draft law, the Federal Government projected additional expenditure of €2½ billion for this purpose. However, the actual costs are likely to have been much higher. Cash benefits continued to grow by a substantial 7%, even though benefit rates remained unchanged.

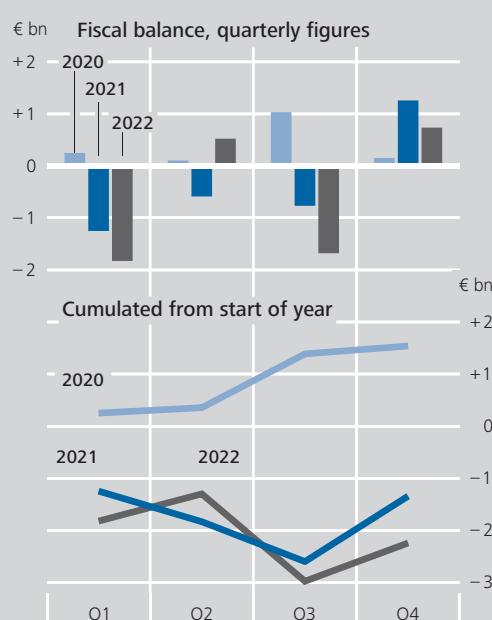
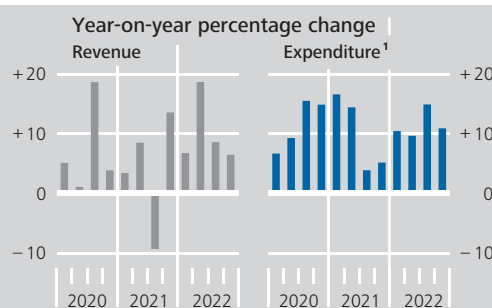
2023: announced reform of long-term care shapes financial situation – significant surplus foreseeable

The financial situation of the long-term care insurance scheme is likely to be far better this year. For one, there will no longer be any net burdens from special coronavirus-related payments. In addition, a further reform of long-term care has been announced that will ameliorate the financial situation at first. According to press reports, the planned measures (in particular raising contribution rates and postponing transfers to the long-term care provident fund) will significantly improve the financial situation of the long-term care insurance scheme. This will temporarily mask the underlying trend of a deteriorating financial situation.

Reform of long-term care: contribution rate likely to rise, transfers to long-term care provident fund and loan repayment to be postponed

In concrete terms, the first stage of the announced reform of long-term care appears to involve sharply raising the contribution rate of 3.05% in mid-2023 by 0.35 percentage point (additional revenue of around €3 billion in 2023). In addition, the Federal Ministry of Health is to implement a decision by the Federal Constitutional Court ruling that, as of August 2023 at the latest, the relevant factor for

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. ¹ Including transfers to the long-term care provident fund.

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determining the contribution rate should no longer simply be whether contribution payers have children. Instead, the contributions to be

¹⁴ The long-term care insurance scheme reimbursed non-residential and (semi-)residential long-term care facilities for coronavirus testing costs (€2 billion). 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. Overall, the compensation for additional expenditure and revenue shortfalls amounted to almost €2½ billion. In addition, bonuses of €½ billion were paid to nursing staff providing long-term care.

¹⁵ The co-contribution rate of long-term care recipients drops to 30% after a three-year period of residence. However, the limitation on residents' co-contribution does not apply to fees for accommodation, food and investment.

paid must be differentiated according to the number of children they have. For the contribution rate of 3.4%, which is to be applied for persons with one child, contributions are apparently to be divided evenly between enterprises and contribution payers. Any supplements or reductions according to the number of children a contribution payer has affect the long-term care insurance scheme members alone and not employers. The supplement to the general contribution rate paid by childless persons is set to rise to 0.60 percentage point. Persons with more than one child are to be granted a reduction of 0.15 percentage point per child. However, as of the fifth child, the contribution rate would remain at 2.80% (1.1% for contribution payers, 1.7% for employers). Furthermore, the plans envisage suspending the long-term care insurance scheme's repayment of central government's 2022 loan of €1 billion until the end of 2028. Transfers to the long-term care provident fund for 2023 are not scheduled for payment until next year (just over €1½ billion). Overall, the reform would improve the long-term care insurance scheme's finances by a little more than €5½ billion this year.

Reform of long-term care: benefit expansions and adjustments in the following years

Benefits are set to expand substantially in the coming year. The long-term care insurance scheme is to reimburse care recipients in long-term care homes a larger share of costs. Co-contribution is to be cut further, by up to 10 percentage points. In addition, it should become easier to use replacement care and short-term care services. The long-term care allowance and non-residential non-cash care benefits are earmarked to rise by 5%. These were last adjusted with the 2017 reform of long-term care. All in all, additional expenditure is estimated to amount to just over €2 billion in 2024. It is unclear to what extent this already reflects the impact of rising prices for services in care homes. In addition, postponing transfers to the long-term care provident fund for this year will result in a one-off additional burden of just over €1½ billion. A further increase of 5% in the aforementioned benefit rates is

scheduled for 2025 (€1 billion in additional expenditure). In the case of residential long-term care, by contrast, the effects of limiting co-contribution will be felt. The continued rise in prices for services in care homes is likely to lead to considerable additional expenditure next year, as is already currently the case.

All in all, however, the additional revenue generated by the higher contribution rate is expected to exceed the additional expenditure next year, too. Nevertheless, the further dynamic adjustment of benefits as well as demographic developments will continue to put increasing pressure on the long-term care insurance scheme. Without a fundamental reform of financing and benefits, contribution rates will have to be raised time and time again.

Mounting demographic pressure and higher contribution rates going forward

■ Securities markets

Bond market

At €129.6 billion, gross issuance in the German bond market in January 2023 was significantly up on the previous month's figure of €80.4 billion. After taking account of increased redemptions and changes in issuers' holdings of their own debt securities, the outstanding volume of domestic bonds rose by €25.0 billion, following a drop of €31.4 billion in December 2022. The outstanding volume of foreign debt securities in the German market grew by €30.6 billion, which meant that the outstanding volume of domestic and foreign debt securities in Germany increased by €55.5 billion on balance in January.

High net issuance of German debt securities in January 2023

Domestic credit institutions issued bonds totaling €17.3 billion net in January, following net redemptions of €15.5 billion in the previous month. Mortgage Pfandbriefe (€7.9 billion) accounted for the largest share of issues, followed by other bank debt securities that can be structured flexibly (€5.3 billion) and debt securities issued by specialised credit institutions (€4.3 billion).

Net issuance by credit institutions

Enterprises' capital market debt higher

Domestic enterprises expanded their capital market debt by €4.3 billion in January, following net redemptions of €6.1 billion in December. The bulk of this net issuance was attributable to non-financial corporations.

Low net public sector issuance

The public sector issued bonds worth €3.3 billion net in the reporting month. Central government increased its capital market debt by €7.0 billion. It chiefly issued ten-year Federal bonds (Bunds) (€7.6 billion), five-year Federal notes (Bobl) (€6.2 billion) and two-year Federal Treasury notes (Schätze) (€5.4 billion). By contrast, it redeemed Treasury discount paper (Bubills) worth €12.5 billion. State and local governments redeemed bonds with a net value of €3.7 billion.

Purchases of debt securities

Domestic non-banks were the strongest group of buyers in January. They added bonds totalling €22.2 billion net to their portfolios, most of which took the form of foreign securities. Non-resident investors purchased domestic debt securities for a net €15.0 billion. Domestic credit institutions acquired bonds worth €10.5 billion net. These were all foreign securities, on balance. The Bundesbank acquired debt securities amounting to €7.8 billion net, predominantly under the Eurosystem's asset purchase programmes. The vast majority of those purchases involved domestic paper issued by the public sector.

Equity market

Hardly any net issuance of German equities

In the reporting month, domestic enterprises raised fresh capital resources of €0.1 billion on balance by placing new shares in the German equity market. Net issuance of foreign equities in Germany totalled €5.3 billion. Domestic credit institutions and domestic non-banks were the main buyers, purchasing shares amounting to €2.9 billion and €2.2 billion net, respectively.

Sales and purchases of debt securities

€ billion

Item	2022		2023
	Jan.	Dec.	Jan.
Sales	25.4	– 31.4	25.0
Domestic debt securities ¹			
of which:			
Bank debt securities	10.0	– 15.5	17.3
Public debt securities	8.9	– 9.9	3.3
Foreign debt securities ²	– 9.5	4.0	30.6
Purchases			
Residents	6.5	11.2	40.5
Credit institutions ³	– 2.9	– 18.6	10.5
Deutsche Bundesbank	15.0	– 6.0	7.8
Other sectors ⁴	– 5.7	35.8	22.2
of which:			
Domestic debt securities	1.6	20.4	7.0
Non-residents ²	9.5	– 38.7	15.0
Total sales/purchases	15.9	– 27.4	55.5

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

Domestic mutual funds recorded inflows of €8.0 billion in January, compared with €11.9 billion in December. The main beneficiaries were specialised funds reserved for institutional investors (€5.5 billion). Of the various asset classes, equity funds (€2.5 billion), mixed securities funds (€2.1 billion), open-end real estate funds (€1.9 billion) and bond funds (€1.6 billion) attracted the most investment. Foreign mutual funds placed shares worth €4.9 billion in the German market in January. On balance, domestic non-banks were virtually the only purchasers of mutual fund shares in the reporting month (€16.8 billion). Foreign investors purchased German mutual fund shares worth a net €0.2 billion, while domestic credit institutions scaled back their investment in funds by €4.1 billion on balance.

Inflows to mutual funds

Major items of the balance of payments

€ billion

Item	2022 ^r		2023
	Jan.	Dec.	Jan.P
I. Current account	+ 16.7	+ 25.6	+ 16.2
1. Goods	+ 7.0	+ 10.8	+ 9.9
Receipts	109.7	123.4	121.0
Expenditure	102.7	112.5	111.1
Memo item:			
Foreign trade ¹	+ 5.4	+ 9.7	+ 10.8
Exports	111.7	124.4	125.2
Imports	106.3	114.7	114.4
2. Services	+ 1.7	+ 1.4	- 1.4
Receipts	32.2	41.7	30.8
Expenditure	30.5	40.3	32.2
3. Primary income	+ 14.2	+ 21.2	+ 12.8
Receipts	22.7	33.1	25.8
Expenditure	8.6	12.0	13.0
4. Secondary income	- 6.2	- 7.8	- 5.1
II. Capital account	- 0.4	- 0.6	- 4.7
III. Financial account (increase: +)	+ 29.4	+ 63.6	+ 16.9
1. Direct investment	+ 2.9	+ 26.4	+ 14.5
Domestic investment abroad	+ 22.0	- 5.7	- 7.4
Foreign investment in the reporting country	+ 19.1	- 32.1	- 21.9
2. Portfolio investment	- 3.9	+ 52.5	+ 24.3
Domestic investment in foreign securities	+ 2.6	+ 13.6	+ 39.8
Shares ²	+ 5.1	- 3.0	+ 4.3
Investment fund shares ³	+ 7.0	+ 12.6	+ 4.9
Short-term debt securities ⁴	+ 1.8	+ 3.4	+ 6.1
Long-term debt securities ⁵	- 11.3	+ 0.6	+ 24.5
Foreign investment in domestic securities	+ 6.5	- 38.9	+ 15.5
Shares ²	- 3.6	- 1.4	+ 0.3
Investment fund shares	+ 0.6	+ 1.2	+ 0.2
Short-term debt securities ⁴	- 4.4	- 17.4	- 8.0
Long-term debt securities ⁵	+ 13.9	- 21.2	+ 23.0
3. Financial derivatives ⁶	+ 13.0	- 10.1	+ 8.3
4. Other investment ⁷	+ 17.1	- 4.9	- 29.9
Monetary financial institutions ⁸	- 98.5	+ 67.8	- 68.4
of which:			
Short-term	- 113.3	+ 61.5	- 61.8
Enterprises and households ⁹	+ 20.3	- 9.9	+ 18.2
General government	+ 5.9	+ 4.7	+ 9.1
Bundesbank	+ 89.4	- 67.5	+ 11.2
5. Reserve assets	+ 0.3	- 0.3	- 0.3
IV. Errors and omissions ¹⁰	+ 13.2	+ 38.6	+ 5.4

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

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Balance of payments

Germany's current account recorded a surplus of €16.2 billion in January 2023, down €9.4 billion on the previous month's level. This was attributable to a decline in the goods account surplus and in the invisible current transactions balance, in particular, which comprises services as well as primary and secondary income.

Sharp decrease in current account surplus

In January, the surplus in the goods account fell by €1.0 billion to €9.9 billion because receipts recorded a sharper decline than expenditure.

Goods account surplus down

The surplus in invisible current transactions decreased by €8.5 billion to €6.3 billion. This was mainly because net receipts in primary income contracted by €8.4 billion to €12.8 billion. Lower revenue following the payment of the EU's agricultural subsidies to Germany in December 2022 made a particular contribution to this decrease. In addition, receipts from investment income fell. The surplus of €1.4 billion in the services account in December 2022 turned into a deficit of the same amount in the reporting month. Receipts fell more sharply than expenditure, mainly in the area of charges for the use of intellectual property, computer services and other business services. By contrast, the deficit in the secondary income account narrowed by €2.7 billion to €5.1 billion. Although receipts declined, expenditure fell more sharply, with lower general government expenditure on current transfers relating to international co-operation playing a particular role.

Invisible current transactions lower on balance, mainly due to a contraction in primary income

In January 2023, financial markets showed an increasing appetite for risk owing to the brighter economic outlook. Germany's cross-border portfolio investment generated net capital exports of €24.3 billion (December: €52.5 billion). German investors increased their holdings of foreign securities by €39.8 billion, purchasing bonds (€24.5 billion), money market paper (€6.1 billion), mutual fund shares (€4.9 billion) and shares (€4.3 billion). Conversely, foreign investors purchased German securities on balance (€15.5 billion). They added bonds

Portfolio investment sees net capital exports

(€23.0 billion) and a small volume of shares (€0.3 billion) and mutual fund shares (€0.2 billion) to their portfolios, but sold money market paper (€8.0 billion).

In January, transactions in financial derivatives recorded outflows of €8.3 billion (December: inflows of €10.1 billion).

*Direct investment records
capital outflows*

Direct investment recorded net capital exports of €14.5 billion in January (December: €26.4 billion). Foreign enterprises decreased their direct investment in Germany by €21.9 billion. This was attributable to net redemptions in intra-group lending (€25.4 billion), predominantly in financial loans. By contrast, foreign companies injected their affiliates in Germany with additional equity capital (€3.5 billion), with reinvested earnings playing an important role. In the opposite direction, German enterprises likewise scaled back their foreign direct investment by €7.4 billion, reducing the volume of both trade credits (€9.7 billion) and financial loans (€3.6 billion) to business units abroad. By

comparison, they stepped up their equity capital in affiliates abroad by €5.9 billion, almost exclusively by reinvesting earnings.

Other statistically recorded investment – which comprises loans and trade credits (where these do not constitute direct investment), bank deposits and other investments – registered net inflows of capital amounting to €29.9 billion in January (December: €4.9 billion). The net external claims of monetary financial institutions excluding the Bundesbank fell by €68.4 billion, while those of the Bundesbank increased by €11.2 billion. TARGET2 claims on the ECB fell by €106.7 billion. At the same time, however, deposits – mainly from non-euro area residents – also decreased. Enterprises and households (€18.2 billion) and general government (€9.1 billion) also recorded net capital exports.

*Net capital
imports in other
investment*

The Bundesbank's reserve assets went down – at transaction values – by €0.3 billion in January.

Reserve assets

■ List of references

Deutsche Bundesbank (2022), Outlook for the German economy for 2023 to 2025, Monthly Report, December 2022, pp. 17-44, <https://www.bundesbank.de/resource/blob/901990/90afad2737f689d42ac53510149cc0de/mL/2022-12-prognose-data.pdf>

Deutsche Bundesbank (2021), One-off effects relating to COVID-19 in the HICP in 2021, Monthly Report, February 2021, pp. 63-66, <https://www.bundesbank.de/resource/blob/859462/41fba7dda05361197e47a0887d53fae/mL/2021-02-monatsbericht-data.pdf>

Deutsche Bundesbank (2019a), Dampening special effect in the HICP in July 2019, Monthly Report, August 2019, pp. 57-59, <https://www.bundesbank.de/resource/blob/803744/e0c9f420c93a9b4ae6c4b738e42556da/mL/2019-08-monatsbericht-data.pdf>

Deutsche Bundesbank (2019b), The revision of the sub-index for package holidays and its impact on the HICP and core inflation, Monthly Report, March 2019, pp. 8-9, <https://www.bundesbank.de/resource/blob/781634/839a94e123af8f63da11bf0ae9d37425/mL/2019-03-monatsbericht-data.pdf>

European Central Bank (2019), A new method for the package holiday price index in Germany and its impact on HICP inflation rates, box, Economic Bulletin 2/2019, pp. 56-59, <https://www.ecb.europa.eu/pub/pdf/ecbu/eb201902~a070c3a338.en.pdf>

Eurostat (2018), Harmonised Index of Consumer Prices (HICP) Methodological Manual, Luxembourg: Publications Office of the European Union, November 2018, <https://ec.europa.eu/eurostat/documents/3859598/9479325/KS-GQ-17-015-EN-N.pdf/d5e63427-c588-479f-9b19-f4b4d698f2a2>

Federal Statistical Office (2023a), Hintergrundpapier zur Revision des Verbraucherpreisindex für Deutschland 2023, https://www.destatis.de/DE/Themen/Wirtschaft/Preise/Verbraucherpreisindex/Methoden/Downloads/Hintergrundpapier-VPI-Revision_2020.pdf?__blob=publicationFile

Federal Statistical Office (2023b), Compilation of the HICP weighting pattern for the year 2023 (price base Dec 2022), https://www.destatis.de/EN/Themes/Economy/Prices/Consumer-Price-Index/Methods/Downloads/hicp-weightin.pdf?__blob=publicationFile

■ German balance of payments in 2022

In 2022, the German economy's current account surplus decreased by 3½ percentage points to 4¼% of nominal gross domestic product (GDP). This represents the largest decline since German reunification and the lowest figure for the balance since 2003. The main driver of this was the considerable decline in the surplus on the goods account, which was a result of the massive deterioration in the terms of trade. This was caused by the sharp rises in the prices of energy and other imported commodities. The German services account likewise deteriorated. Here, a contribution was made by cross-border travel expenditure, which rose back to its level from before the COVID-19 pandemic. The balance of primary and secondary income remained more or less unchanged. Aggregate net lending/net borrowing fell relative to GDP, as there was a sharp reduction in aggregate savings. The reason for this was the decline in the saving ratios of households and non-financial corporations, which had risen during the pandemic. The general government deficit decreased somewhat. On the one hand, many of the fiscal measures related to the COVID-19 pandemic came to an end. On the other hand, however, extensive new support measures were introduced in response to the energy crisis and high inflation.

Russia's war of aggression against Ukraine as well as the high rates of inflation and the monetary policy response to inflation were also reflected in Germany's capital flows with other countries. In the financial markets, the more difficult environment led to lower turnover and a greater desire for safety among investors. All in all, Germany's net external assets rose by €220 billion last year resulting from transactions.

Significant changes were observed, above all, in German portfolio investment. Cross-border demand for shares and mutual fund shares declined markedly in both directions. In net terms, German investors sold off foreign shares and non-residents also parted with German shares. By contrast, bonds again attracted greater mutual interest. In addition to lower risk, higher yields are likely to have played a role here. Tighter monetary policy on both sides of the Atlantic had a major impact on these developments. For example, the Eurosystem discontinued net purchases under its asset purchase programmes, which had a direct impact on German portfolio transactions.

Last year, it was confirmed once again that direct investment does not respond to burdens as quickly as portfolio investment. Cross-border exposures involving German investors were remarkably robust in this segment. By contrast, the other investment account partly reflected the major changes in securities: the considerable decline in new investment in securities was offset to a not insignificant degree by higher net claims on non-residents.

■ Current account

Underlying trends in the current account

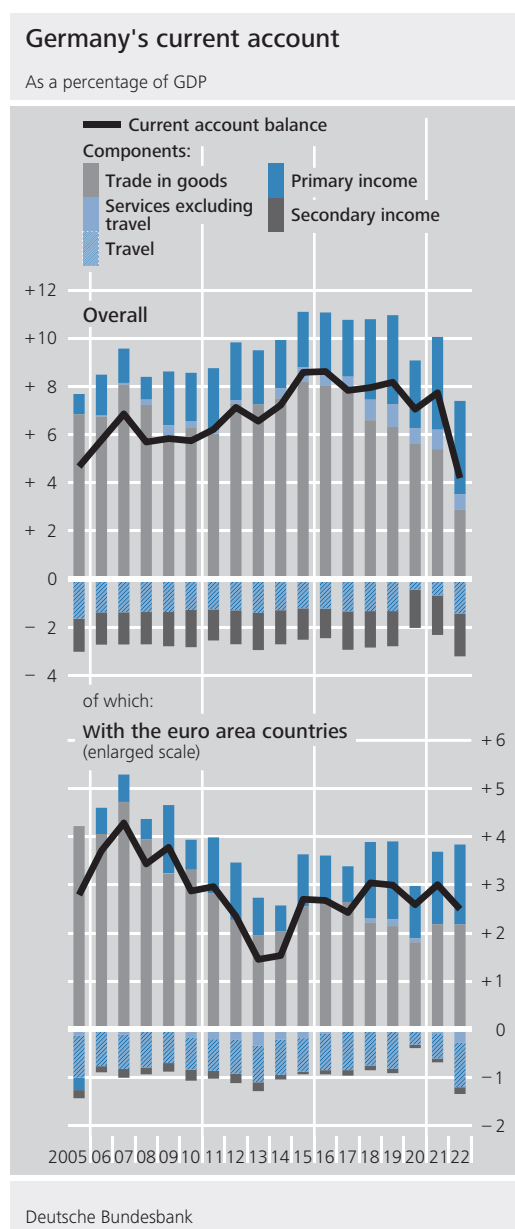
Current account surplus down considerably ...

The German current account surplus declined considerably in 2022. It fell by €116½ billion to €162 billion. At 3½ percentage points, this also represented the largest decrease in relation to nominal GDP since German reunification. As a result, the balance stood at 4¼% of GDP, which is the lowest value since 2003. Over the course of the year, changes in energy prices related to the war against Ukraine led to exceptionally strong fluctuations in Germany's current ac-

count. In the third quarter, as a result of the energy price shock, the current account surplus plummeted to 2¼% of GDP in seasonally adjusted terms, after having stood at 6½% at the end of the previous year. In the fourth quarter, however, the balance rose rapidly again to more than 4¾% of GDP.

In 2022, the main driver of developments in the German current account was the considerable decline in the goods trade balance. This was a result of the massive deterioration in the terms of trade caused by the sharp rises in the prices of energy and other imported commodities. The services balance likewise deteriorated. This was attributable to the normalisation of German residents' cross-border travel following two years of low activity due to the COVID-19 pandemic. Combined, the balance of primary and secondary income remained more or less unchanged.

... due to energy price-related decline in goods trade balance and normalised services balance



In 2022, German enterprises were faced with a turbulent global environment. The high rates of inflation and tighter monetary policy in many regions, the Russian war of aggression against Ukraine, and some persistent effects of the COVID-19 pandemic all weighed on global economic developments. Developments in global trade were rather muted, owing especially to the weak contributions from emerging market economies. Furthermore, in Germany, the rise in energy prices was comparatively sharp. The prices of imports to Germany increased due, in particular, to the relatively strong depreciation of the euro.¹ From a macroeconomic perspective, this depreciation improved German price competitiveness to some extent. However, energy-intensive enterprises are likely to have suffered significantly in terms of price competitiveness, as they are affected by the energy price shock to a greater degree.

Unfavourable global environment in light of subdued demand and large rises in energy costs

¹ On average over 2022, the euro's nominal effective exchange rate against the currencies of the euro area's 41 most important trading partners was 3½% lower than in the previous year. The euro depreciated against the US dollar, the Chinese renminbi, and the Swiss franc in particular, whilst it appreciated against the Japanese yen.

Price effects significantly reduce German foreign trade surplus

Germany's foreign trade surplus declined significantly. This was mainly due to strong, negative price effects, which were only marginally offset by positive volume effects. The lower foreign trade balance was therefore a result of sharply higher import prices. In terms of volume, imports decreased to a somewhat greater extent than exports. The German terms of trade fell by around 9¼% on the year, as import prices rose significantly more sharply than export prices (+26% compared with +14½%).

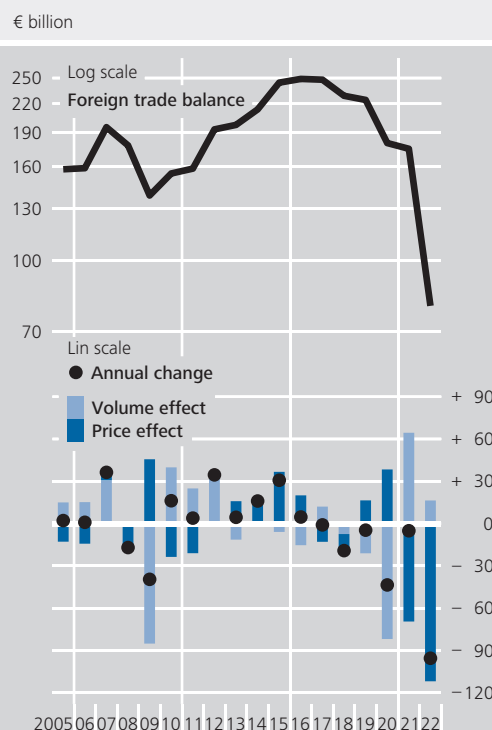
Surplus position in decline, especially vis-à-vis non-euro area countries

In regional terms, the current account surplus declined particularly vis-à-vis non-euro area countries, falling by 3 percentage points to 1¾% of GDP. This was chiefly attributable to the smaller surplus on the goods account. The high import prices for energy were a major factor in this context. In addition, the decline in the services balance also contributed to this result. This reflects the strong increase in travel vis-à-vis both the rest of the euro area and the rest of the world.

Significant declines in saving among households and non-financial corporations

From the perspective of savings and investment, aggregate net lending/net borrowing fell considerably, in line with the current account balance. In this context, net investment relative to GDP increased only marginally. Enterprises' investment in machinery and equipment continued to see robust growth in 2022 as a result of catch-up effects. Housing investment likewise grew substantially in nominal terms due to the sharp rises in construction costs. A more significant factor behind the decline in net lending/net borrowing was the strong decrease in domestic saving. With households needing to compensate for their loss of purchasing power and with the normalisation of previously subdued consumption, the household saving ratio returned roughly to its pre-pandemic level. Corporate saving declined as well. This was attributable partly to higher distributions and partly to lower transfers received. In 2022, the government started to wind down its assistance measures related to the COVID-19 pandemic. Over the course of the year, comprehensive new support measures were gradually

Price and volume effects on the German foreign trade balance*



Source of unadjusted figures: Federal Statistical Office.
* Decomposed using the Shapley-Siegel index.
Deutsche Bundesbank

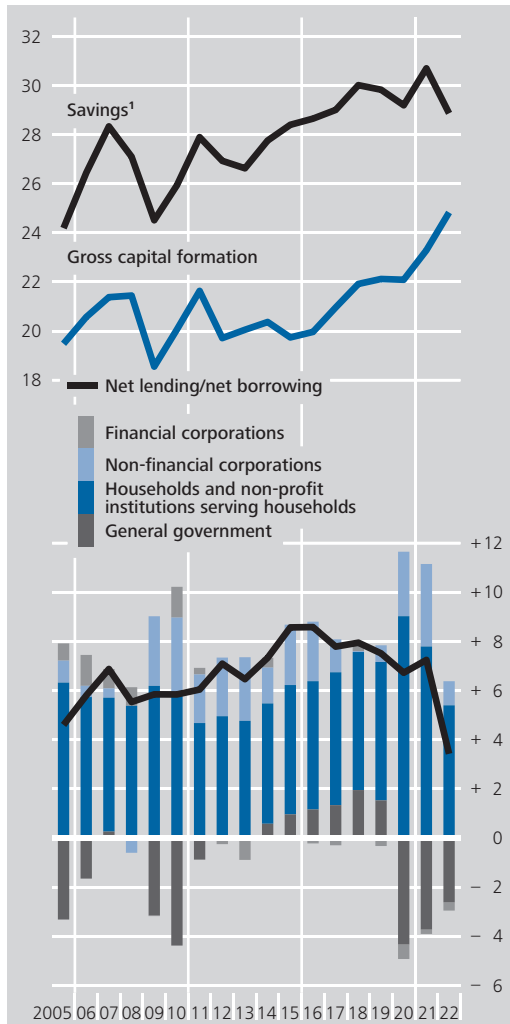
introduced in response to the energy crisis and the high rates of inflation, but, on the whole, these measures were smaller in scale than those of previous years. Overall, net lending/net borrowing among households and non-financial corporations fell quite sharply, while general government's deficit position decreased. Compared with pre-pandemic levels, aggregate net lending/net borrowing relative to GDP was lower in 2022. This is attributable primarily to general government posting a deficit while households and enterprises made a broadly similar contribution to what they had in 2019.

Goods flows and balance of trade

In 2022, exports saw very strong year-on-year growth in terms of value, but imports grew considerably more sharply. Particularly for imports, a role was played by the massive rises in

Savings and investment in the German economy

As a percentage of GDP



¹ Including consumption of fixed capital.
Deutsche Bundesbank

On annual average, foreign trade activity subdued in real terms but massively increased in nominal terms due to price rises

the prices of energy products. As a result, the foreign trade surplus narrowed by €95½ billion to €79½ billion. In price-adjusted terms, however, exports were down ½% on the previous year and imports saw a somewhat stronger dip of 1¾% on the year.²

Export revenue from euro area countries rose as sharply as that from non-euro area sales regions

In regional terms, nominal exports to the euro area countries grew almost as strongly as those to non-euro area countries. Sales to the United States saw very significant expansion. This was supported by the depreciation of the euro against the US dollar. In addition, German exporters recorded very sharp rises in revenues from major sales regions in South and East Asia

as well as Europe. However, business with China, which had been particularly booming in many of the preceding years, saw below average growth. This was due to the relatively moderate growth of the Chinese economy, which had also felt the impact of the stringent measures taken to contain the COVID-19 pandemic. Deliveries to Russia collapsed as a result of EU sanctions and behavioural adjustments in response to Russia's war against Ukraine, amongst other reasons. Exports to Ukraine also declined significantly. This was partly offset by the goods delivered in connection with the war.³ However, accounting for only 0.3%, exports to Ukraine were of minimal significance to German exporters in 2022.

Export developments were highly heterogeneous across various product categories. In price-adjusted terms, there was significant growth in deliveries of consumer goods. Here, exports of pharmaceutical products saw especially strong expansion. Exports of motor vehicles and motor vehicle parts also rose very sharply. Motor vehicle production in Germany stalled at times in March following the outbreak of Russia's war against Ukraine, given the absence of deliveries of motor vehicle parts from Ukraine. However, as these and other pre-existing global supply bottlenecks abated, domestic motor vehicle production, and subsequently exports, picked up considerable momentum. There were marked declines in exports of chemical products as well as metals and fabricated metal products. The energy-intensive production of these goods was burdened by the large rises in energy prices. In

Exports of consumer goods and motor vehicles up, but exports of intermediate goods and energy down

² Contrary to the foreign trade statistics, real goods exports rose by 1½% and goods imports by 2¾% when calculated using the national accounts approach. One reason for these divergent developments is that the foreign trade price indices weight goods according to their shares in the base year of 2015. In the national accounts, however, price changes for imported and exported goods are weighted using the goods' current shares. During periods that exhibit highly heterogeneous price increases for individual goods, such as 2022, there can be marked differences in the shares used for each of the two calculation methods.

³ These deliveries included military goods, dual-use goods, and relief aid totalling €2 billion; see Federal Government (2023).

addition, exports of energy products decreased significantly. This was attributable to declining exports of gas, which was also due to a drop in foreign demand for gas.⁴ By contrast, there was growth in deliveries of refined petroleum products and electricity.⁵

Imports of wide range of products up sharply ...

The revenue of foreign manufacturers from goods deliveries to Germany rose very sharply for a broad range of products. Imports of motor vehicles and motor vehicle parts increased considerably in price-adjusted terms. In this context, a role was played by the fact that purchases were brought forward seeing as government subsidies for purchases of electric vehicles were scaled back at the end of 2022. Deliveries of machinery likewise recorded strong expansion. The sharp increase in imports of intermediate goods benefited from easing supply bottlenecks. This also affected electronic and electrical equipment. Imports of chemical products, which were still stagnating in the previous year, saw massive growth. One reason for these imports was probably to substitute for domestic production, which was throttled due to energy prices. Deliveries of consumer goods were also up considerably.

... but lower energy imports in price-adjusted terms

By contrast, energy imports fell very sharply in price-adjusted terms owing to a very substantial decrease in gas imports. This was attributable to the decline in energy consumption in Germany as a result of hugely increased energy prices. The drop in consumption was connected with both energy savings as well as production cutbacks in individual sectors.⁶ By contrast, coal imports were expanded, also for use in power stations. In addition, more crude oil was delivered to Germany. However, the additional imports of these energy sources only

⁴ See Federal Network Agency (2023). These gas exports are predominantly transit imports.

⁵ A role was also played by increased deliveries of electricity to France, where the nuclear power stations needed to generate electricity reduced their output due to repair work and the low water levels of inland waterways required to cool them.

⁶ In addition, consumption was depressed by the comparatively mild weather. See Working Group on Energy Balances e. V. (2022).

Foreign trade by region

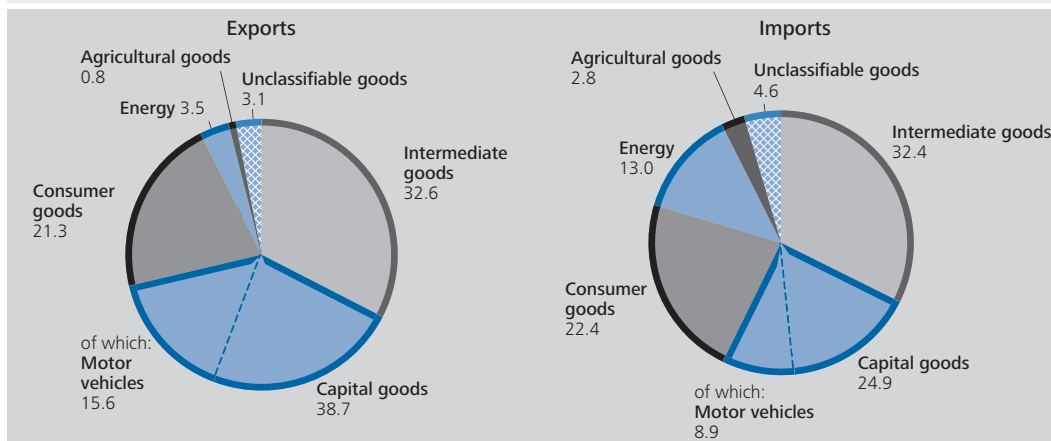
%

Country/ group of countries	Per- cent- age share	Annual percentage change			
		2022	2020	2021	2022
Exports					
Euro area ¹	38.1	– 10.2	18.1	15.0	
Other countries	61.9	– 8.5	12.1	13.7	
of which:					
United Kingdom	4.7	– 15.3	– 3.1	13.0	
Central and eastern European EU countries ²	13.2	– 6.0	19.5	13.9	
Switzerland	4.5	– 0.1	7.8	16.4	
Russia	0.9	– 13.0	15.3	– 45.2	
United States	9.9	– 12.8	17.9	27.9	
Japan	1.3	– 15.8	4.9	12.4	
Newly industrial- ised economies in Asia ³	3.0	– 1.5	8.4	14.1	
China	6.8	– 0.1	8.1	3.1	
South and east Asian emerging market economies ⁴	2.2	– 17.4	15.5	14.1	
OPEC	1.4	– 13.6	2.2	10.4	
All countries	100.0	– 9.1	14.3	14.2	
Imports					
Euro area ¹	34.0	– 9.4	18.1	16.1	
Other countries	66.0	– 5.6	16.9	28.8	
of which:					
United Kingdom	2.5	– 8.8	– 7.9	16.4	
Central and eastern European EU countries ²	13.1	– 4.2	13.8	15.0	
Switzerland	3.7	– 0.6	8.1	12.1	
Russia	2.4	– 31.3	54.2	6.5	
United States	6.1	– 5.1	6.8	26.8	
Japan	1.7	– 10.4	9.6	7.4	
Newly industrial- ised economies in Asia ³	2.6	– 7.4	11.6	25.6	
China	12.8	6.7	21.8	33.6	
South and east Asian emerging market economies ⁴	4.1	– 2.9	15.8	31.9	
OPEC	1.0	– 48.3	58.3	73.6	
All countries	100.0	– 7.0	17.3	24.2	

¹ Excluding Croatia. ² Bulgaria, Croatia, Czech Republic, Hungary, Poland, Romania. ³ Hong Kong, Singapore, South Korea, Taiwan. ⁴ India, Indonesia, Malaysia, Philippines, Thailand, Vietnam.

Foreign trade by selected categories of goods in 2022

Percentage share



Source of unadjusted figures: Federal Statistical Office. May not add up to 100% due to rounding.

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offset the decline in gas volumes to some extent.

Much greater nominal growth in deliveries from non-euro area countries than from euro area

Broken down by region, almost all major trading partners recorded very sharp growth in revenues from their deliveries to Germany. In this context, nominal imports from non-euro area countries increased by almost twice as much as those from euro area countries. First, non-euro area countries benefited from greater demand for their specific product mix. They offer a relatively wide selection of electronic and electrical equipment as well as clothing. Second, the prices of energy products, which make up a larger share of these countries' product ranges, went up particularly sharply. The rise in the prices of energy products was also a key factor in the growth in Russian revenue from Germany. By contrast, the volume of energy imports from Russia plummeted.

Merchanting trade and supplementary trade items bolstered goods trade on balance

The other components of trade in goods – which include the supplementary trade items, net goods exports in merchanting trade, and trade in non-monetary gold – mitigated the decline in the foreign trade balance overall.⁷ As a result, the surplus on the goods account fell by €82½ billion in 2022, which was much smaller than the decline in the foreign trade surplus.

Invisible current transactions

The balance of the cross-border services account was deep into negative territory in 2022. Having been positive in each of the two preceding years of the pandemic, the balance reached a deficit of €31 billion in the reporting year. On the one hand, receipts went up by 18% on the year to almost €408 billion in 2022, with revenue growth in the transportation sector playing an important role. On the other hand, however, expenditure rose significantly more strongly, climbing by just under 29%. This was due mainly to the increase in travel expenditure, which returned to pre-pandemic levels, as well as to considerably higher transport expenditure.

Very large deficit in cross-border services account ...

At €55 billion, the sub-account for cross-border travel posted the highest nominal deficit in its

⁷ This was primarily attributable to the sharp rise in net receipts from merchanting trade, which grew by €8 billion, as sales rose more sharply than purchases overall. A significant contribution to this was made by transactions in the automotive industry, which generally comprise a large proportion of such business. In addition, the supplementary trade items increased by €5 billion on balance. In this context, a role was also played by the strong rise in imports for contract processing in Germany. Furthermore, there was a sharp rise in the c.i.f. charges for imports, amongst others; these comprise the costs of freight and insurance from the border of the supplier's country to the German border. By contrast, net expenditure for trade in non-monetary gold remained virtually unchanged.

... due to further massive increase in travel expenditure

existence. Travel receipts – which Germany generates largely through travel for trade fairs, events and business trips – continued to fall significantly short of pre-pandemic levels. By contrast, increasing numbers of individuals resident in Germany were travelling abroad again as many pandemic-related restrictions were lifted. Travel expenditure doubled compared with the year before. The main beneficiaries were the Mediterranean and Alpine countries. However, spending on long-distance travel remained significantly below pre-pandemic levels. It was not until partway through 2022 that travel to Asia, in particular, was again possible on a larger scale.

Considerable growth in sales in transport services, deficit up only slightly

The sub-account for cross-border transport services had already expanded by around 40% back in 2021, mainly owing to the increased freight prices in international goods transport caused by higher energy prices. Starting from this elevated level, the reporting year saw further sales increases of more than one-third on both sides of the balance sheet for fees from sea, air and ground transport as well as pipeline and electricity transmission. On balance, the deficit in this sub-account rose moderately, climbing by €2 billion to €8½ billion for Germany. Other components of the services account related to the goods trade, such as manufacturing, maintenance and repair services, experienced only marginal changes in their balances compared with 2021.

Hardly any reduction in one-off effect on revenue from charges for use of intellectual property

In the reporting year, too, there was a one-off effect on the revenue side under the item “Charges for the use of intellectual property”. As in the previous year, this was related to licensing following the development of vaccines. This effect was once again evident and at just a slightly reduced level, meaning that the surplus of €31½ billion in the sub-account was only marginally lower than in the previous year.

In the year under review, receipts and expenditure for other knowledge-based and business services rose fairly sharply. The resulting deficit

Major items of the balance of payments

€ billion

Item	2020 ^r	2021 ^r	2022 ^r
I. Current account	+ 240.2	+ 278.7	+ 162.3
1. Goods	+ 191.0	+ 194.4	+ 111.9
Receipts	1,189.3	1,365.2	1,550.8
Expenditure	998.2	1,170.8	1,438.9
Memo item:			
Foreign trade ¹	+ 180.4	+ 175.3	+ 79.7
Exports	1,206.9	1,379.3	1,574.5
Imports	1,026.5	1,204.0	1,494.8
2. Services	+ 7.4	+ 4.8	– 30.8
of which:			
Travel	– 14.7	– 24.3	– 55.0
3. Primary income	+ 96.0	+ 138.5	+ 150.0
of which:			
Investment income	+ 94.2	+ 137.9	+ 152.9
4. Secondary income	– 54.2	– 59.0	– 68.8
II. Capital account	– 9.1	– 1.2	– 18.6
III. Financial account ²	+ 191.5	+ 248.6	+ 219.8
1. Direct investment	– 4.9	+ 100.4	+ 125.3
2. Portfolio investment	+ 16.4	+ 203.5	+ 24.3
3. Financial derivatives ³	+ 94.6	+ 60.2	+ 42.7
4. Other investment ⁴	+ 85.4	– 147.4	+ 23.1
5. Reserve assets	– 0.1	+ 31.9	+ 4.4
IV. Errors and omissions ⁵	– 39.6	– 29.0	+ 76.2

¹ Special trade according to the official foreign trade statistics (source: Federal Statistical Office). ² Increase in net external position: + / decrease in net external position: –. ³ Balance of transactions arising from options and financial futures contracts as well as employee stock options. ⁴ Includes, in particular, loans and trade credits as well as currency and deposits. ⁵ Statistical errors and omissions resulting from the difference between the balance on the financial account and the balances on the current account and the capital account.

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Other knowledge-based and business services recorded larger deficit

of €21½ billion was attributable in around equal part to cross-border telecommunications and information services as well as other business services, with the former accounting for a larger share of year-on-year deficit growth. The latter services comprise research and development, professional, technical and commercial services, and management consultancy services. The other components of the services account remained virtually unchanged in terms of both sales and balances.

Net primary income makes largest contribution to current account surplus in 2022 ...

Following its massive increase in 2021, the primary income surplus also grew significantly in the reporting year. Given the sharp decline in the goods surplus, net primary income, at just under 4% of GDP in 2022 (€150 billion), unusually made up the largest share of the current account surplus. Combined, cross-border compensation of employees and other primary income recorded a small deficit.

... though increased surplus attributable to investment income

The surplus in primary income was mainly attributable to net investment income. According to the Bundesbank's preliminary calculations, income for domestic investors and capital donors from cross-border investment grew by one-sixth. This increase is heavily attributable to the upturn in receipts from direct investment, which also includes reinvested earnings. Income from non-euro area investments increased not only because of high corporate profits abroad but also because of the weaker euro exchange rate. In addition, the turnaround in interest rates had an impact on banks' revenue. Interest income doubled, albeit from a low level. Payments by domestic actors to foreign financiers rose by one-quarter in 2022 compared with the previous year. This was driven mainly by dividend payments on portfolio investments and other investment expenditure from the financial sector due to higher interest rates. Owing to the considerable net external assets of residents in Germany, it was despite the unusually sharp increase in expenditure that, for Germany, net income rose by €15 billion on the year to €153 billion in absolute terms.

The traditional deficit in the cross-border secondary income account widened significantly last year. The increase of €10 billion to €69 billion was due primarily to higher expenditure. Half of the deterioration in the account balance was attributable to unilateral non-government cross-border payments. Growing remittances from immigrants to their countries of origin played a certain role in this context. Cash and non-cash donations made by households to Ukraine were another factor, though. Government payments to non-residents rose markedly, while receipts remained broadly unchanged. On the revenue side, EU coronavirus assistance decreased considerably in 2022. This gap was partly plugged by increasing receipts from income and wealth taxes on non-residents. Meanwhile, government expenditure went up, for example as a result of Germany's contributions to the EU budget based on gross national income as well as government assistance to Ukraine.

Deficit in secondary income account widened significantly

■ Capital movements

Underlying trends in capital movements

Reflecting the decline in the current account surplus, the balance of the financial account, at €220 billion, was also significantly lower than in the previous year (€248½ billion).⁸ In 2022, Russia's war of aggression against Ukraine, high inflation and the global tightening of monetary policy impacted the international financial markets by leading to falling prices in the equity and bond markets. At the same time, the high level of uncertainty dampened investors' risk appetite, meaning that domestic fixed income securities were more in demand than equities, despite the price losses in the bond markets.

⁸ The difference between the current account and financial account balances is primarily attributable to statistical errors and omissions (€86 billion).

German capital flows shaped by war against Ukraine and tightening of monetary policy

As early as the beginning of the year, the international financial markets were already being affected by rising inflationary risks, which stemmed largely from the fact that global growth was increasing whilst at the same time supply-side constraints continued to exist. Russia's attack on Ukraine at the end of February then led to massive increases in commodity and food prices and sharply intensified price pressures, which also impacted inflation expectations in the medium term. As a result, major central banks moved more quickly towards monetary policy normalisation. The Eurosystem therefore decided in March 2022 to scale back net purchases under the asset purchase programme (APP) more rapidly over the course of the second quarter than it had envisaged in December 2021. In addition, the Governing Council of the ECB began raising its key interest rates in its July 2022 meeting and had increased them by a total of 250 basis points by the end of the year; at its final meeting of 2022, it made clear that it would continue to raise interest rates.

Low risk appetite leads to rebalancing

The aforementioned factors were also reflected in the behaviour of portfolio investors with an international focus. Their risk appetite, i.e. their willingness to invest in comparatively risky assets such as mutual fund shares or shares, declined markedly. Instead, domestic and US bonds were in fairly strong demand, with their risk/return profiles improving over the course of the year relative to an investment in shares. Direct investment tends to be based more on long-term considerations, which means that it takes longer for the effect of current negative factors to feed through. In this respect, the outward direct investment of German enterprises was only slightly below the previous year's level. Foreign enterprises, too, expanded their direct investment in Germany, but less so than in the year before. Other investment partly mirrored developments in portfolio investment: as, on balance, German investors sought significantly fewer foreign portfolio securities, German excess savings were increasingly reflected in net exports in other investment.

Key indicators of the cross-border investment income balance



1 Direct, portfolio and other investment and reserve assets. Excluding financial derivatives. **2** Yields shown in terms of investment income/expenditure as a percentage of the annual average levels of foreign assets and liabilities. IIP as at the end of Q3 2022.

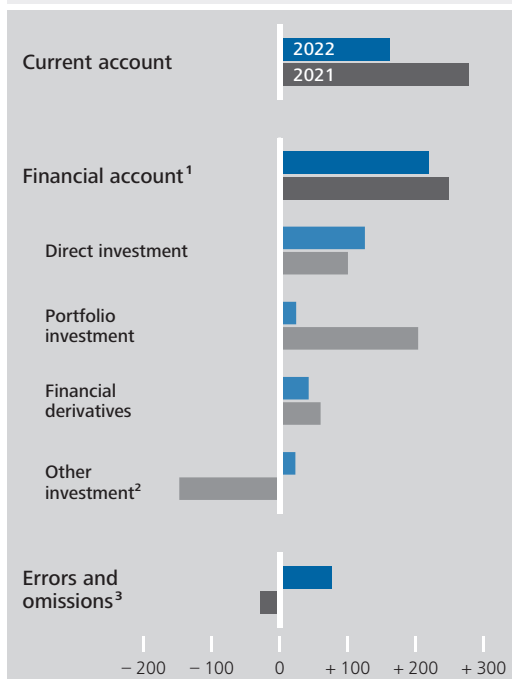
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The Bundesbank's TARGET2 claims on the ECB exceeded the previous year's figure by €8½ billion, thus reaching a new peak. Transactions in the TARGET2 payment instrument are based on individual decisions made by a wide range of participants. These individual decisions, for their part, are determined by the general macroeconomic environment but potentially also by specific characteristics of individual banks participating in TARGET2. A Bundesbank study presented on pp. 35 ff. examines the extent to which the balances of the national central banks resulting from individual decisions are determined by the bank-specific characteristics. It concludes that these individual factors

Internal study shows TARGET2 balances have little reaction to microeconomic factors

Major items of the German balance of payments

Balances in € billion



¹ Net capital exports: +. ² Includes, in particular, loans and trade credits as well as currency and deposits. ³ Statistical errors and omissions.

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billion on balance. This is the lowest this figure has been since 2008. In 2021, German investors had added foreign securities worth €175 billion to their portfolios. Interest in foreign mutual fund shares, in particular, declined in the reporting year. Net purchases of this instrument amounted to €33½ billion in 2022, which was well below the previous year's figure (€116½ billion). In view of the significant price losses, investors appear to have been holding back on investing in this instrument.

Domestic investors purchased fewer mutual fund shares in net terms

Purchases of foreign debt securities were balanced out by sales and redemptions. Although German investors sold bonds worth €12½ billion on balance, they purchased money market paper worth the same amount. Over the course of 2022 as a whole, German investors added US bonds to their portfolios, amongst other things. In addition to the interest rate advantage of these debt securities, investors opting for a safe haven in connection with the war of aggression against Ukraine is likely to have played a role here. There was also high demand for interest-bearing instruments from Canada and Ireland.

Purchases of debt securities balanced out by sales and redemptions

have played only a minor role in the rise in German TARGET2 claims over the past few years.

Portfolio investment

Lower flows in portfolio investment

Portfolio investment generated relatively low net capital exports of €24½ billion in 2022 (previous year: €203½ billion) amidst a significant drop in trading volumes. One major reason for this decline is likely to have been the high level of uncertainty in the markets as a result of high inflation and Russia's war of aggression against Ukraine. This uncertainty was reflected in reduced risk appetite, meaning that investors, on the whole, were reluctant to make investment decisions regarding securities. Similarly sharp declines occurred in 2020 (coronavirus pandemic) and 2011 (European sovereign debt crisis).

Decreased risk appetite and investor caution is even more evident in the equities segment. On balance, resident investors sold shares of foreign enterprises for a net amount of €16½ billion. In the previous year, they had expanded their portfolios by €47 billion. In the first quarter, German investors offloaded European shares, in particular. This behaviour is consistent with the especially sharp drop in European equity indices following Russia's attack on Ukraine.⁹ However, this trend reversed as the year progressed. Over the course of 2022 as a whole, German investors sold shares from France, Switzerland and the United Kingdom in particular. By contrast, they acquired a large volume of equities from the United States, Canada and Australia.

Shares were sold

Against this backdrop, portfolio investment abroad by German investors rose by only €16½

⁹ See Deutsche Bundesbank (2022a).

Foreign investors sold shares and mutual fund shares ...

Foreign portfolio investment in Germany generated net capital exports of €7½ billion in 2022 (previous year: €28½ billion). Over the year, foreign investors sold shares of German enterprises (€4½ billion) and mutual fund shares (€3 billion). This was in line with the price losses in the German equity market, especially in the first half of the year. Towards the middle of the year, pressure to sell eased and investors returned to the German market. Equities benefited from improving sentiment in the euro area and from reports of the first deliveries of liquefied gas being made and high gas storage levels, which pushed concerns about an energy crisis into the background. Sellers were located in the Netherlands, Luxembourg and the United States, in particular. By contrast, investors from the United Kingdom, Spain and Switzerland were some of the main buyers of German shares on balance.

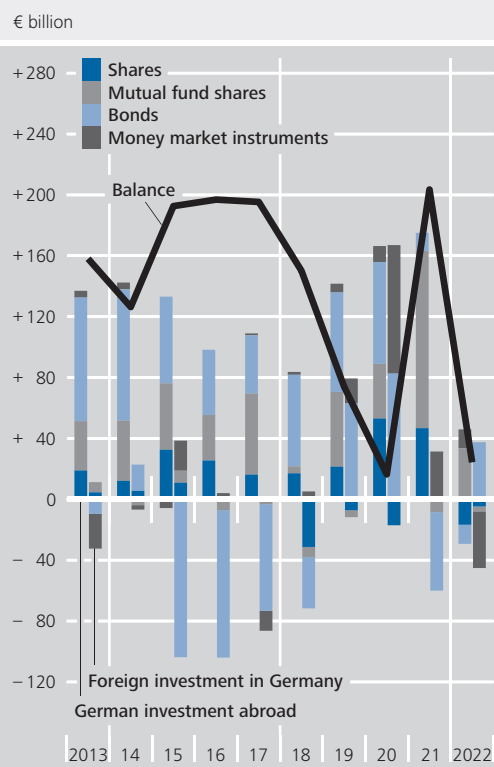
... and shifted away from money market paper to bonds

Non-resident investors acquired debt securities to the tune of €½ billion. At the same time, they offloaded money market paper (€37 billion). This is likely to have been due in part to the declining outstanding volume of German short-term debt securities. In view of rising interest rates, it became more attractive for domestic market participants to raise funding via secured loans (repo transactions). At the same time, foreign investors sought bonds issued by enterprises, the public sector and banks – worth a combined €37½ billion. Net purchases of the first two instruments were made by the Eurosystem under the pandemic emergency purchase programme (PEPP) until March 2022 and under the APP until June 2022. In the past, net asset purchases for monetary policy purposes were a major reason why, on balance, foreign investors sold domestic debt securities. With the expiry of the purchase programmes, a dominant domestic buyer has now exited the market.

Financial derivatives see outflows

Financial derivatives (which are aggregated to form a single item in the balance of payments) recorded net capital exports of €42½ billion in 2022, a clear decline from the year before (€60

Portfolio investment in the German balance of payments



Deutsche Bundesbank

billion). Forward and futures contracts relating to electricity and gas bucked this general trend, however. Amid the turbulence in the energy markets, net capital exports were recorded. In the previous year, trading in this segment had still yielded German net capital imports.

Direct investment

The large number of events and developments that fuelled global uncertainty in 2022 also affected global direct investment. The United Nations Conference on Trade and Development (UNCTAD) observed a marked decline in new investment projects after the first quarter of 2022 and the start of the Russian war of aggression against Ukraine. This included greenfield project announcements as well as international project finance deals and cross-border mergers and acquisitions (M&As). Nevertheless, according to UNCTAD's estimate, the number of greenfield project announcements was

Global direct investment flows characterised by major uncertainty

Financial account

€ billion

Item	2020 ^r	2021 ^r	2022 ^r
Financial account balance ¹	+ 191.5	+ 248.6	+ 219.8
1. Direct investment	– 4.9	+ 100.4	+ 125.3
Domestic investment abroad ²	+ 134.0	+ 180.9	+ 169.0
Foreign investment in the reporting country ²	+ 138.9	+ 80.5	+ 43.7
2. Portfolio investment	+ 16.4	+ 203.5	+ 24.3
Domestic investment in foreign securities ²	+ 166.4	+ 175.0	+ 16.7
Shares ³	+ 53.1	+ 46.8	– 16.7
Investment fund shares ⁴	+ 35.9	+ 116.4	+ 33.6
Short-term debt securities ⁵	+ 10.5	– 0.1	+ 12.3
Long-term debt securities ⁶	+ 66.9	+ 11.9	– 12.6
Foreign investment in domestic securities ²	+ 150.0	– 28.6	– 7.6
Shares ³	– 17.0	+ 2.1	– 4.7
Investment fund shares	+ 1.0	– 8.4	– 3.2
Short-term debt securities ⁵	+ 84.5	+ 29.3	– 37.2
Long-term debt securities ⁶	+ 81.6	– 51.6	+ 37.5
3. Financial derivatives ⁷	+ 94.6	+ 60.2	+ 42.7
4. Other investment ⁸	+ 85.4	– 147.4	+ 23.1
Monetary financial institutions ⁹	– 112.7	– 48.4	– 93.5
Short-term	– 71.2	– 15.9	– 125.9
Long-term	– 41.6	– 32.8	+ 32.4
Enterprises and households ¹⁰	+ 56.1	+ 7.7	+ 31.8
Short-term	+ 29.2	+ 13.4	+ 25.2
Long-term	+ 8.8	– 26.3	– 16.5
General government	+ 9.9	– 3.4	– 20.0
Short-term	+ 11.0	– 5.1	– 21.0
Long-term	– 2.2	+ 0.3	– 0.4
Bundesbank	+ 132.2	– 103.4	+ 104.9
5. Reserve assets	– 0.1	+ 31.9	+ 4.4

¹ Increase in net external position: + / decrease in net external position: –. ² Increase: +. ³ Including participation certificates. ⁴ Including reinvestment of earnings. ⁵ Short-term: original maturity of up to one year. ⁶ Long-term: original maturity of more than one year or unlimited. ⁷ Balance of transactions arising from options and financial futures contracts as well as employee stock options. ⁸ Includes, in particular, loans and trade credits as well as currency and deposits. ⁹ Excluding the Bundesbank. ¹⁰ Includes the following sectors: financial corporations (excluding monetary financial institutions) as well as non-financial corporations, households and non-profit institutions serving households.

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around 6% higher for 2022 as a whole than in the previous year. By contrast, cross-border M&A transactions were reported to be around 6% lower than the previous year's figure. When examined in detail, the figures aggregated across all countries and regions were driven by fairly different developments.¹⁰

German enterprises operating internationally also faced particular challenges in 2022. The coronavirus pandemic and the war in Ukraine, as well as their far-reaching economic consequences, significantly hampered cross-border business for many enterprises and also influenced their investment decisions.¹¹ An environment with more risks and greater uncertainty – including for business conditions – makes it harder to calculate cross-border exposures. However, direct investment is generally longer-term in nature. It is affected less immediately by acute events than other forms of investment that instead pursue short-term returns.¹² German inward and outward direct investment therefore proved to be quite robust in 2022 despite the particularly difficult economic environment. It recorded net capital exports of €125½ billion – a new peak from a long-term perspective, even exceeding the particularly high figure of €100½ billion the previous year. This was partly due to the fact that German outward investment once again grew very strongly, while foreign investment in Germany was noticeably weaker than in the previous

Net capital exports due to German investment abroad

¹⁰ See United Nations Conference on Trade and Development (2023). First estimates for the global direct investment flows of the past year are usually published by UNCTAD in January as part of the Investment Trends Monitor. The data for 2022 will be included in the World Investment Report 2023.

¹¹ See German Chamber of Industry and Commerce (2022a, 2022b, 2022c, 2022d).

¹² Direct investment is usually more long-term in nature, and adjustments are also more likely to take place over the longer term. Nevertheless, shorter-term arrangements between affiliated enterprises also affect cross-border direct investment flows. For example, this may be the case when an entity in one country provides certain cross-border financial services to entities in other countries. In recent years, this sort of cross-border relocation of business activity has been observed in the context of the United Kingdom's withdrawal from the European Union, which is also reflected time and again in direct investment flows to and from Germany.

year. It was probably to the advantage of German direct investment that Germany's direct capital links with Russia – despite its strong dependency in some sensitive areas – were already limited before the latter's invasion of Ukraine. At the end of 2021, for example, these direct investment stocks accounted for only around 1% of Germany's total direct investment stocks abroad. In addition, the large-scale withdrawal of some German enterprises from business with Russia was balanced out by the increased focus placed on future projects with other partner countries.

German enterprises again expanded both their equity investments ...

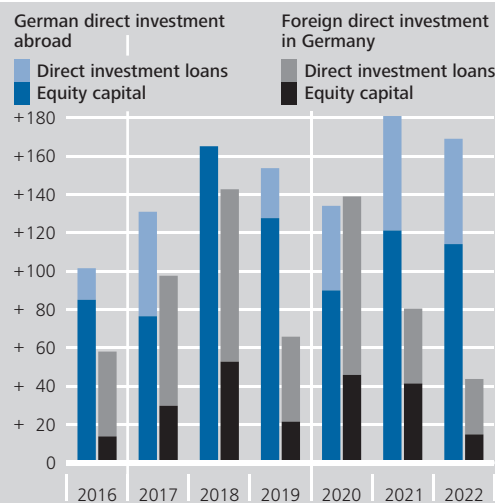
Enterprises domiciled in Germany invested €169 billion abroad in 2022, only slightly less than in the previous year (€181 billion). They once again strongly expanded their equity investments in foreign affiliates in particular (€114 billion). Reinvested profits accounted for more than half of these funds. This meant that these played a greater role last year than equity capital in the narrower sense, determined as the balance of new investment and liquidation in direct investment. Comparatively high cross-border transaction values were recorded for enterprises specialised in providing financial and insurance services.¹³ In terms of volume, cross-border corporate takeovers by firms based in Germany also played a certain role last year – but to a much lesser extent than in previous years, in line with the subdued global trend.¹⁴

... and the volume of loans to affiliated enterprises

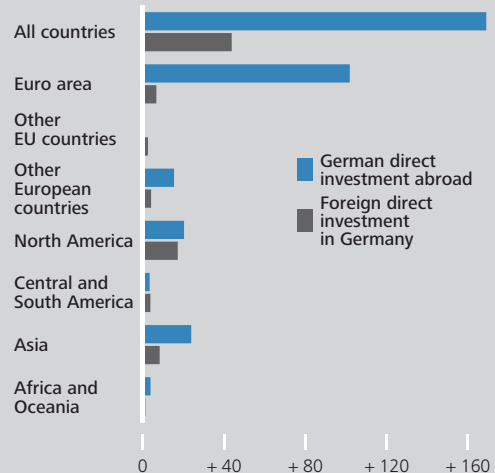
In 2022, enterprises domiciled in Germany also issued a considerable amount – €55 billion – to affiliated enterprises abroad via intra-group credit transactions, which was only slightly less than in the previous year (€59½ billion). German firms mainly granted short-term loans and trade credits to subsidiaries and affiliated enterprises abroad. Comparatively more favourable financing conditions are likely to have played a role here. By contrast, for subsidiaries domiciled in Germany, repayments of loans previously granted to their parent enterprises abroad dominated.

Direct investment

€ billion



By region (2022)



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German enterprises engage in direct investment in many countries all over the globe. A large proportion (around 70%) of those investments in 2022 were in European countries. Around 60% of all German direct investment

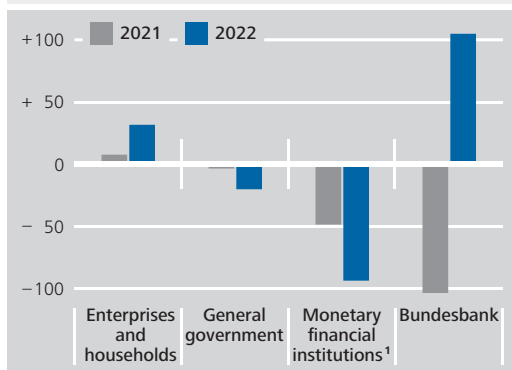
Europe and the United States key destinations for German direct investment

¹³ The data refer only to decipherable net transfers used to augment equity capital.

¹⁴ Takeovers of firms domiciled abroad and previously under foreign ownership – and a German stake of at least 10% after the transaction – accounted for around €12 billion in 2022. This was noticeably less than in 2021, when the value of the takeovers was reported at around €53 billion (data based on Refinitiv Eikon). The time at which mergers and acquisitions are captured in the balance of payments can, however, differ from that recorded by Refinitiv, meaning that the reported figures are not directly comparable.

Other investment* broken down by sector

Balances in € billion

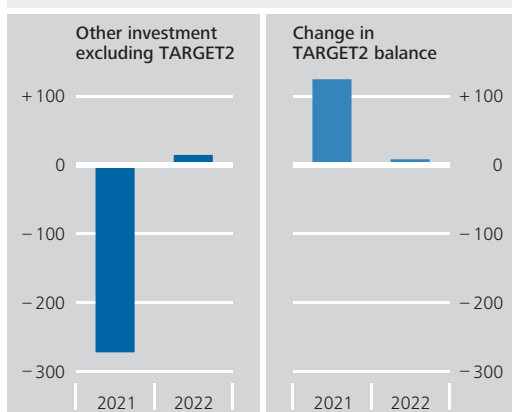


* Includes, in particular, loans and trade credits as well as currency and deposits; net capital exports: +. ¹ Excluding the Bundesbank.

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TARGET2 and other investment excluding TARGET2*

€ billion



* Net capital exports: +.
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was made in other euro area countries on balance. Particularly large amounts flowed into Luxembourg (€29½ billion) and the Netherlands (€19 billion), both of which have been significant holding company locations for years. German enterprises also made major net investments in France (€15 billion) and Spain (€13 billion). In the rest of Europe, the United Kingdom in particular attracted funds from affiliated enterprises (€10½ billion). Outside Europe, the United States (€19 billion) and China (€11½ billion) were targets of large-scale German direct investment. Sweden, by contrast, was the source of larger net return flows of funds to Germany in 2022 (€16 billion).

Foreign enterprises provided domestic enterprises with direct investment funds totalling €43½ billion in 2022. This was significantly less than in the previous year (€80½ billion). Foreign enterprises provided these funds mainly through intra-group lending (€29 billion), with loans making up more than two-thirds thereof. Loans granted by foreign subsidiaries to their German parent companies were the dominant factor here. As regards these reverse flows, last year parent enterprises in Germany redeemed long-term loans that had previously been granted to them by subsidiaries domiciled abroad. In return, they received significantly more short-term credit. On balance, foreign investors increased their equity investment in affiliated enterprises in Germany by €15 billion.

Inflows of funds from abroad via intra-group lending and equity investment

Direct investment in Germany by firms from the United States (€17½ billion), Ireland (€13½ billion) and France (€11 billion) was particularly high in 2022. This was dominated by intra-group lending. By contrast, there were larger return flows of funds to Luxembourg (€25 billion).

Extensive funding from the United States and Europe

Other investment

Other investment, comprising loans and trade credits (where these do not constitute direct investment) as well as bank deposits and other assets, saw net capital exports of €23 billion in 2022. In 2021, other investment had given rise to net capital imports of €147½ billion. The balance of other investment often sees volatility – including changes in sign – but the reversal of trend in 2022 was particularly large. This was mainly due to net capital exports of €11½ billion in the banking system, which had recorded net capital imports of €152 billion in 2021. On balance, both claims and liabilities falling under “other investment” increased significantly less in 2022 than in the previous year.

Net capital exports in other investment

Bundesbank accounts recorded net capital exports of €105 billion, following net capital imports of almost the same amount in 2021. All

Bundesbank accounts record net capital exports

Do bank-specific factors affect net cross-border transactions in TARGET2?*

At the onset of the global financial crisis, TARGET2 claims on the ECB began to accumulate on the Bundesbank's balance sheet. In the years that followed, periods characterised by growing balances alternated with phases of temporary declines. The Bundesbank regularly comments on the development of TARGET2 balances in the Eurosystem in its Monthly Reports as well as in its Annual Report.¹ These analyses are based on macroeconomic interrelationships and, as of 2015, on the evaluation of asset purchases made by the Eurosystem under the asset purchase programme (APP).

By contrast, the present analysis focuses on microeconomic factors, looking at the bilateral payments of individual banks in TARGET2. The analysis differentiates between customer payments, interbank payments, intragroup payments of banks connected to the system, transactions related to the settlement of ancillary systems, and transactions involving at least one (domestic or foreign) central bank. The study is based on transaction data from the German

component of the Eurosystem's TARGET2 settlement system (TARGET2-Bundesbank) covering the period from January 2009 to December 2021. The micro data enable relationships to be identified not only at the country level but also for individual credit institutions. These micro data are linked to the yearly data on the balance sheets and profit and loss accounts of domestic and foreign banks provided by BankFocus (Bureau van Dijk). In the empirical analysis, these serve as explanatory variables for the TARGET2 transactions.

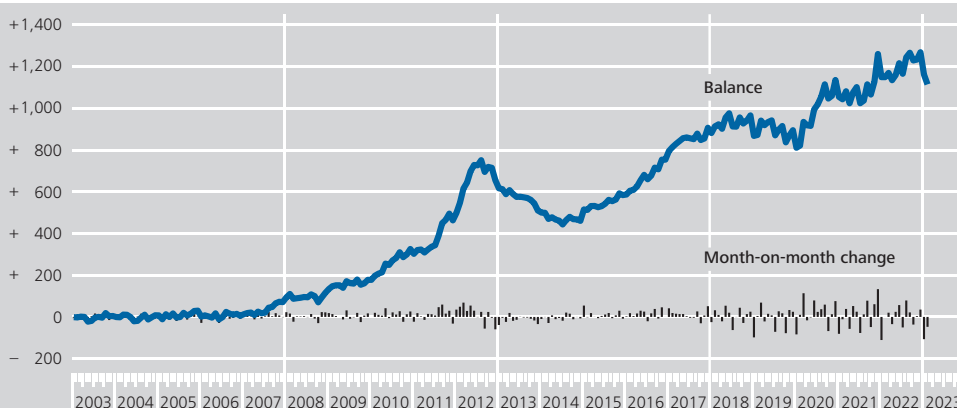
The chart below shows end-of-month values of the German TARGET2 balance from January 2003 to February 2023. TARGET2 claims increased sharply during three time periods: between the onset of the global financial market crisis in 2008 and the peak of the European sovereign debt crisis in mid-2012, upon the launch of the public sector purchase programme (PSPP) in early

* This analysis is based on Drott et al. (2022).

¹ See Deutsche Bundesbank (2017, 2019, 2020).

Bundesbank's TARGET2 balance

€ billion



Deutsche Bundesbank

2015, and upon the outbreak of the coronavirus pandemic and subsequent implementation of the pandemic emergency purchase programme (PEPP) in 2020.

In the analysis presented here, we investigate the extent to which individual characteristics of the commercial banks participating in TARGET2 also influence the development of TARGET2 balances alongside the macroeconomic relationships that have already been examined. To study this aspect, we use transaction data from TARGET2-Bundesbank relating to individual bank accounts. The raw data comprise bilateral pairs: a sender and a recipient of euro payments. Either the sender or the recipient has to be a bank holding an account in TARGET2-Bundesbank. By contrast, the partner bank must be connected to TARGET2 abroad, as domestic transactions have no impact on Germany's TARGET2 balance. The analysis assigns a bank to a

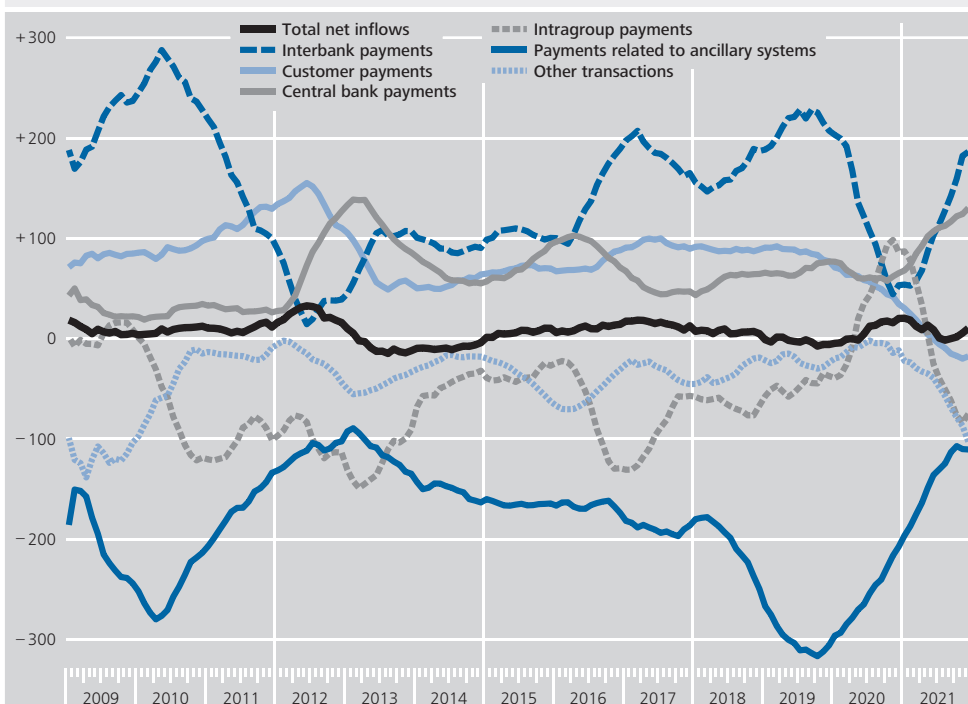
specific country according to the TARGET2 component in which the account is held.

The TARGET2 transaction data contain information about the type of payment. This is derived from the corresponding text field of the SWIFT message that is used.² The chart below shows the 12-month moving average of total net cross-border flows to German banks for the period from January 2009 to December 2021 and compares the overall development of net flows to German banks with the development of the following categories of transaction: customer payments, interbank payments, intragroup payments of connected banks, central bank payments, payments related to

² SWIFT (Society for Worldwide Interbank Financial Telecommunication) is a cooperative institution established by banks that operates a network for the exchange of electronic messages, especially payment messages. A SWIFT payment message is merely a payment instruction; the payment is settled via a payment system or correspondent banking connection.

Total net cross-border inflows to German banks via TARGET2 by transaction category

€ billion, 12-month moving averages



ancillary systems, and other transactions (rest). In general, the developments in each category vary strongly depending on the specific type of transaction. Customer payments, interbank payments and central bank payments in particular tend to increase Germany's overall TARGET2 claims.³

The positive balance (inflows minus outflows) of customer payments corresponds to Germany's current account surpluses during the observation period. However, individual customer payments are not necessarily linked to current account transactions, since they may also reflect transactions made on behalf of customers, such as securities purchases or other forms of investment. The positive net flows in interbank payments may reflect different financing conditions among commercial banks in the euro area. For example, German banks may generally find it relatively easy to obtain liquidity from private markets, whereas banks in other countries in some cases rely more heavily on open market operations with the central bank. This might favour payment flows towards Germany. Finally, central bank payments also continually increased Germany's TARGET2 balance.

Other types of transaction have a negative impact on German TARGET2 claims, namely intragroup payments and transactions related to the settlement of ancillary systems.⁴ One possible interpretation of the negative intragroup balance is that German banks, which hold a large part of the Eurosystem's excess liquidity, provide loans to their foreign branches and subsidiaries. The negative balance of ancillary system transactions is large but difficult to interpret from an economic perspective, as information on the underlying transactions is not available.⁵ This also applies to the residual "other transactions" category, as it predominantly contains transactions conducted more for tech-

nical reasons as a result of the way that TARGET2 is designed. Liquidity transfers to and from TARGET2-Securities (T2S) are one of the key factors here.⁶

The present analysis examines potential determinants among German and foreign banks that are able to explain the development of the German TARGET2 balance. The following equation is calculated using an ordinary least squares estimation and various fixed effects:

$$\begin{aligned} Net\ flows_{gft} = & \beta Factors_{gt-1} \\ & + \gamma Factors_{ft-1} \\ & + \pi_{gf} + \sigma_{ct} + \varepsilon_{gft}, \end{aligned}$$

where $Net\ flows_{gft}$ are the net flows, defined as inflows minus outflows, to Germany in TARGET2 to German bank g from foreign bank f in year t . These flows are normalised by dividing them by the total assets of the German bank in the previous year $t-1$. $Factors_{gt-1}$ and $Factors_{ft-1}$ describe the individual factors of the German bank g and foreign bank f , respectively, in the previous year $t-1$. They include the following variables: profits, claims on central

³ The only period in which customer payments were lower than the overall development was during the coronavirus pandemic. During this time, a negative global shock hit the world economy.

⁴ Payments related to ancillary systems include transactions that are initially settled via alternative private payment systems such as Euro1. The existence of independent ancillary systems leads to cross-border transactions that are based not solely on the discretion of TARGET2 participants. They arise, in part, for technical reasons given the legal and technical design of TARGET2.

⁵ In TARGET2, ancillary systems can use standardised access and settlement procedures and settle transactions directly in central bank money. In principle, payments can be settled on any account in a real-time gross settlement (RTGS) system. Ancillary systems include, for example, securities settlement, large-value and retail payment systems.

⁶ These liquidity transfers can serve a variety of purposes such as conducting transactions on the T2S securities platform.

banks,⁷ customer deposits, bank deposits, equity, and liquidity, in each case for German and foreign banks, respectively. Analogously to the treatment of net flows, all German or foreign factors are normalised by dividing them by the total assets of the German or foreign bank in the previous year $t-1$. π_{gft} denotes German and foreign bank bilateral fixed effects, which absorb specific, time-invariant relationships between the institutions. Since German banks interact with multiple banks in a given country, the estimation also controls for any country–time-varying fixed effects σ_{ct} . These completely absorb macroeconomic country-specific effects on the German TARGET2 balance. ε_{gft} is the statistical error term.⁸ The parameter vectors β and γ indicate whether and to what extent individual factors of German banks or foreign banks matter for the (relative) net flows to Germany in TARGET2. The estimates are carried out in the aggregate for all transaction categories as well as separately for the individual transaction categories.

The table on p. 39 presents the estimation results.⁹ Column 1 shows the estimates for German net inflows in aggregate terms across all transaction categories. An increase in the liquidity ratio of German banks in the previous period of 1 percentage point leads to a statistically significant rise in inflows via TARGET2 of 0.14 percentage point. All other German and foreign determinants are insignificant. At first glance, this result appears to contradict the economic intuition that German banks with abundant liquidity have an incentive to invest these liquid assets abroad. However, this does not seem to be the key factor. Rather, such banks appear to be especially attractive for foreign counterparties such that the latter provide them with additional liquidity. Column 2 shows the estimates for German net inflows via customer payments.

It appears that only German bank factors make a significant contribution: claims on central banks weakly reduce net flows to Germany. Customer deposits, bank deposits and the general liquidity ratio increase the central bank liquidity of German commercial banks. Customer payments on behalf of non-financial corporations mainly accrue to credit institutions that engage heavily in retail banking and the interbank market. As a result, these banks receive more liquidity in the customer payments category via TARGET2. In quantitative terms, however, the effects are rather minor. Column 3 presents the estimates for German net inflows via the interbank market. According to these results, only German banks' profits have a (weak) positive effect. All other coefficients are insignificant. Column 4 shows the estimates for German net inflows via intragroup payments. German bank factors do not play any role here. Higher equity of foreign banks increases net flows to Germany. Column 5 presents the estimates for German net inflows via central bank payments. They provide mixed results. German banks with higher claims on central banks receive lower additional net flows from abroad. These banks clearly do not need additional liquidity. Net flows from abroad are higher if both the German and the foreign bank have higher liquidity. Similar to other transaction categories, overall liquidity and claims on central banks work in the opposite direction. According to the esti-

⁷ The majority of each bank's claims are likely to be on the respective national central bank. However, this balance sheet item may also include claims on central banks from other countries.

⁸ The standard errors are clustered over two groups. The group of German banks and the group of foreign banks take into account that the data within each group are not independent. The analysis clusters all standard errors across these two groups.

⁹ The data set excludes all observations if one of the German or foreign factors exhibits a missing value. Some factors are not included in the estimates because the clustering across German and foreign banks does not produce standard errors in some cases.

The impact of bank factors on German TARGET2 net flows

	1	2	3	4	5	6
	Total	Customers	Interbank	Intragroup	Central bank	Ancillary systems
Factors of German banks						
Profits _{gt-1}	4.046 (3.860)	-0.045 (0.071)	0.584* (0.334)	-1.174 (1.866)	0.081 (0.099)	237.4 (188.0)
Claims on central banks _{gt-1}	-0.368 (0.236)	-0.065* (0.034)	-0.076 (0.119)	-0.129 (0.226)	-0.055** (0.022)	-3.322 (3.171)
Customer deposits _{gt-1}	.	0.054** (0.024)	0.090 (0.104)	.	.	-5.807* (3.451)
Bank deposits _{gt-1}	0.032 (0.052)	0.048** (0.021)	0.112 (0.105)	-0.461 (0.627)	.	1.973 (4.115)
Equity _{gt-1}	0.422 (0.447)	0.029 (0.024)	0.274 (0.194)	-1.537 (1.244)	0.037 (0.057)	-18.77** (9.386)
Liquidity _{gt-1}	0.141** (0.068)	0.034** (0.015)	0.039 (0.057)	-0.186 (0.303)	0.065** (0.033)	12.79 (10.99)
Factors of foreign banks						
Profits _{ft-1}	-0.383 (0.286)	0.016 (0.037)	-0.092 (0.185)	-3.453 (2.136)	-0.068* (0.041)	-14.93 (24.48)
Claims on central banks _{ft-1}	0.063 (0.115)	-0.001 (0.012)	0.019 (0.031)	0.692 (0.776)	-0.017 (0.012)	-3.156 (3.324)
Customer deposits _{ft-1}	.	0.027 (0.024)	0.027 (0.045)	.	.	.
Bank deposits _{ft-1}	0.012 (0.054)	-0.009 (0.008)	-0.002 (0.031)	0.287 (0.175)	.	-1.696 (2.518)
Equity _{ft-1}	0.001 (0.167)	-0.086 (0.078)	0.067 (0.065)	3.573** (1.559)	0.011 (0.019)	-14.98 (14.13)
Liquidity _{ft-1}	0.057 (0.066)	0.009 (0.006)	-0.073 (0.055)	0.776 (0.593)	0.007*** (0.002)	-0.533 (2.037)
Number of German banks	279	231	201	161	143	97
Number of foreign banks	740	636	605	552	397	173
Number of observations	246,411	226,732	108,986	23,705	6,694	2,851
Adjusted coefficient of determination R^2	0.585	0.442	0.421	0.020	0.239	0.594

*** Significance at the 1% level, ** significance at the 5% level, * significance at the 10% level. The dependent variable is the German TARGET2 net inflows relative to total assets. The period covers 2009 to 2021 at an annual frequency. German bank-foreign bank-specific and country-time-specific fixed effects are included but not reported. Robust standard errors (clustered by German bank and foreign bank) are shown in parentheses.

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mates, only existing central bank liquidity impedes additional financial inflows. In addition, higher profits at foreign banks are associated with lower net flows to Germany.¹⁰ Column 6 presents the estimates for German net inflows via ancillary system transactions. Some of the coefficients are statistically significant. However, owing to the different types of ancillary systems and the lack of information on the underlying transactions, the results cannot be interpreted from an economic perspective.

The aim of this study is to examine whether individual characteristics of German and foreign banks can explain the German TARGET2 balance. Individual bank characteristics provide only limited additional explanatory power. On balance, it appears that macroeconomic effects and time-invariant relationships between German

¹⁰ It should be noted that only cross-border transactions between German and foreign institutions are examined. This excludes transactions between a central bank and a commercial bank in the same country, which means that the bulk of the Eurosystem's standard open market operations are not included in our regressions.

and foreign banks are responsible for most of the development of cross-border flows of central bank liquidity in TARGET2. At the microeconomic level, German bank characteristics play a more important role than characteristics of foreign banks. According to the estimates, a German bank with relatively large claims on central banks receives less additional central bank liquidity from abroad than a German bank with comparatively small central bank claims. However, higher overall liquidity of a German credit institution leads to stronger net inflows. Foreign bank characteristics are only relevant for central bank payments and intragroup payments.

In addition, descriptive analyses reveal differences between different transaction categories in TARGET2. While customer payments, interbank payments and central bank payments increased net capital flows

to Germany overall, intragroup payments and transactions related to the settlement of ancillary systems led to net outflows.

else being equal, the Bundesbank's claims arising from currency and deposits rose by €14 billion. Of this amount, €8½ billion was attributable to the increase in the Bundesbank's TARGET2 balance compared with the previous year; in 2021, the increase was significantly higher, at €125 billion. By contrast, the Bundesbank's liabilities to non-residents arising from currency and deposits fell by €90½ billion in 2022. The bulk of the decline was driven by lower deposits from non-euro area residents compared with the end of December 2021. At that time, the Bundesbank's counterparties from non-euro area countries had temporarily increased their deposits particularly sharply at the end of the year.¹⁵ The Bundesbank's liabilities arising from the allocation of euro banknotes within the Eurosystem went up by €9 billion last year.

2022. They amounted to €93½ billion, which meant that they were nearly twice as high as in 2021. This was primarily down to higher deposits by foreign institutions, almost half of which were group-affiliated banks. However, deposits by foreign enterprises and households also rose significantly. On the assets side, MFIs domiciled in Germany (excluding the Bundesbank) increased their deposits with foreign institutions. They also issued more loans to foreign non-banks. On balance, their claims on foreign enterprises and households increased more strongly than their claims on foreign banks.

The cross-border activities of non-banks led to net capital exports of €11½ billion in other investment, overtaking 2021 (€4½ billion). This was helped along by enterprises' and households' transactions producing net capital exports of €32 billion. They primarily issued short-

Net capital exports via non-banks' transactions

Other MFIs recorded net capital imports

Transactions via the accounts of monetary financial institutions (MFIs) excluding the Bundesbank resulted in net capital imports in

¹⁵ See Deutsche Bundesbank (2022b).

term loans to foreign counterparties and, in turn, repaid foreign loans, which were also predominantly short-term. Conversely, their cross-border claims arising from currency and deposits declined. In comparison, transactions by general government gave rise to net capital imports of €20 billion in 2022.

Reserve assets

Reserve assets increased on account of transactions

The Bundesbank's reserve assets increased by €4½ billion in 2022 on account of transactions. This was due to an increase in other reserve assets, special drawing rights and the reserve position in the International Monetary Fund.

The international reserve holdings are also influenced by balance sheet adjustments which, in compliance with internationally agreed accounting standards, are not recognised in the balance of payments. The end-of-year revaluation of the reserve assets resulted in an increase of just over €10½ billion in 2022. This was due chiefly to an increase in gold prices compared to the previous year. On the reporting date of 31 December 2022, the value of Germany's reserve assets stood at €276½ billion.

Balance sheet value increase additionally due to market price effects

List of references

Deutsche Bundesbank (2022a), The current economic situation in Germany, Financial markets, Monthly Report, May 2022, pp. 47 f.

Deutsche Bundesbank (2022b), German balance of payments in 2021, Monthly Report, March 2022, pp. 54 f.

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

Deutsche Bundesbank (2019), Germany's TARGET2 claims in 2018, Annual Report 2018, pp. 16 f.

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

Drott, C., S. Goldbach and A. Jochem (2022), Determinants of TARGET2 transactions of European banks based on micro-data, Deutsche Bundesbank Discussion Paper, No 40/2022.

Federal Government (2023), Military support for Ukraine, <https://www.bundesregierung.de/breg-en/news/military-support-ukraine-2054992>, accessed on 15 March 2023.

Federal Network Agency (2023), Federal Network Agency publishes gas supply figures for 2022, press release, 6 January 2023.

German Chamber of Commerce and Industry (2022a), Going International – Experiences and prospects of German business in foreign business, March 2022.

German Chamber of Commerce and Industry (2022b), Impact of the Russian invasion of Ukraine on the German economy, March 2022.

German Chamber of Commerce and Industry (2022c), World Business Outlook Spring 2022, May 2022.

German Chamber of Commerce and Industry (2022d), World Business Outlook Fall 2022, November 2022.

United Nations Conference on Trade and Development (2023), Global Investment Trends Monitor, No 44, January 2023.

Working Group on Energy Balances e.V. (2022), Energy consumption in 2022 falls to lowest level since reunification, Press Service, 20 December 2022.

The impact of digitalisation on labour productivity growth

The evolution of labour productivity is a key determinant of economic growth and prosperity. Over the past few decades, productivity growth in many industrial countries has been low in spite of the rapid diffusion of digital technologies, which is generally credited with having the potential to sustainably increase labour productivity. The question therefore arises as to what extent digitalisation actually leads to productivity gains.

Digital transformation can influence labour productivity through various channels. A frequently studied transmission channel focuses on investment in digital goods. Another transmission channel, which has received less attention to date, is that of digital intermediate inputs, which feed into numerous goods via production linkages. A multi-sector model shows that this channel plays an important role, and that the contribution of digital transformation to labour productivity growth is greatly underestimated if digital intermediate inputs are excluded. In addition, the analysis finds that efficiency gains in the digital sectors – measured in terms of the evolution of total factor productivity – are of key importance. Without these gains, labour productivity growth would have been significantly lower in several of the larger euro area countries, with productivity even stagnating, in some cases.

Nevertheless, it should be noted that the efficiency gains resulting from digital transformation have tended to decline over time. It remains to be seen whether the notable increase in the use and diffusion of digital technologies during the coronavirus pandemic marks a turning point in this regard. Surveys of firms, at least, arrive at a rather optimistic assessment of the situation.

Motivation

Question of the macroeconomic importance of digitalisation ...

Similarly to the advent of electrification at the beginning of the 20th century, digitalisation can be regarded as the driving force behind a fundamental economic structural change. Digital transformation processes, such as the increasing automation of production processes and the growing use of robots and digital platforms, can trigger significant changes at the firm and industry levels. However, the actual macroeconomic impact of digitalisation is still being studied intensively (for more on this, see the box on pp. 48 f.). A key issue is the importance of digital transformation for labour productivity growth.¹

... against a backdrop of declining productivity growth in the industrial countries

Given the increasing diffusion of digital technologies, it may seem surprising that labour productivity growth has been declining for some time now in many advanced economies, including the large euro area economies. On the one hand, there are a number of structural factors, such as demographic change and institutional and regulatory barriers, that may be hindering the potential efficiency gains of digital transformation.² Furthermore, there is evidence of measurement problems that could potentially lead to an underestimation of the productivity gains resulting from digitalisation.³ On the other hand, however, there is also a

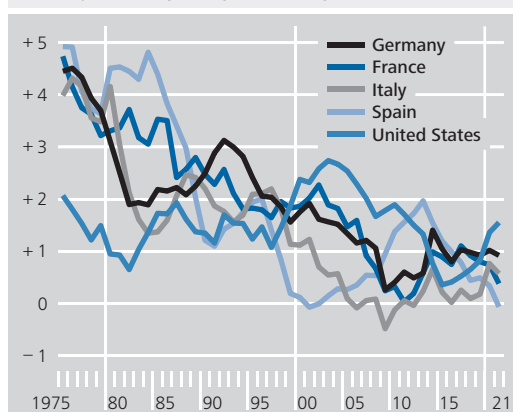
group of “techno-pessimists”, who regard digital technologies as being less transformative than generally assumed. In their opinion, digital technologies do not have the same potential to cause major leaps in productivity as previous waves of innovation, triggered, for example, by the development of the steam engine or electrification.⁴ They also see signs that the development of digital innovations is becoming increasingly costly and therefore ever more difficult to achieve.⁵ Additionally, in their view, it should be borne in mind that innovations do not enhance productivity until they are implemented. If new technologies – such as artificial intelligence or quantum computing – are not widely used, their productivity-enhancing potential will only be able to unfold to a limited extent.⁶ Indeed, there are indications of a widening productivity gap between highly productive and less productive firms. This is also interpreted as a sign of weakening technology diffusion.⁷

This article studies the importance of the production and use of digital goods for the evolution of aggregate labour productivity in the four largest euro area countries compared with the situation in the United States. To this end, structural macroeconomic models depicting key transmission channels are used. In particular, production networks are modelled, as the impact of digitalisation on productivity can also arise from input-output linkages. First of all, however, the challenge of adequately capturing digitalisation must be addressed.

Focus is on the importance of digitalisation for labour productivity growth in the four largest euro area countries

Hourly labour productivity growth in selected industrial countries since 1975

%, five-year moving average of annual growth rates



Sources: OECD and Bundesbank calculations.
Deutsche Bundesbank

¹ Labour productivity is defined as the ratio of production to labour input. Labour productivity trends can provide insights into economies' growth potential. Owing to its close link to per capita income, labour productivity is often also interpreted as a measure of prosperity. See also Deutsche Bundesbank (2021a).

² See Deutsche Bundesbank (2021a).

³ See, inter alia, Byrne et al. (2017a, 2017b).

⁴ See, inter alia, Gordon (2016).

⁵ See Brynjolfsson et al. (2019) and Bloom et al. (2020).

⁶ See Brynjolfsson et al. (2019) and OECD (2020a).

⁷ See, inter alia, Berlingieri et al. (2020) and Deutsche Bundesbank (2021a).

Measurement and development of digitalisation

No clear-cut measure for degree of digitalisation

To quantify the macroeconomic effects of digital transformation, a delineation of digitalisation is needed. However, there is no clear-cut definition of digital transformation. Interpreted narrowly, digitalisation is the collection, storage and processing of information.⁸ Broader definitions describe digitalisation as a range of new applications of information and communication technology (ICT) in business models and products.⁹ Various indicators are therefore used to measure an economy's degree of digitalisation. In addition to findings on the diffusion and application of digital technologies among households, firms and the public sector, these indicators comprise investment expenditure on digital goods as well as output and efficiency gains in those sectors that predominantly provide digital goods and services. Although they do not necessarily produce a consistent picture, they do provide initial indications of the macroeconomic importance of digitalisation. Furthermore, a closer inspection of these indicators reveals key aspects that need to be taken into account when interpreting model-based analyses. This concerns, for example, measurement problems, which can limit the informative value of cross-sectional comparisons between countries.

Indicators on the diffusion and application of digital technologies

Indicators on the diffusion and application of digital technologies ...

The European Commission uses the Digital Economy and Society Index (DESI) to capture the diffusion and use of digital technologies in the EU Member States.¹⁰ This indicator, which is largely based on survey data, consists of four equally weighted components that assess the spread of digitalisation in terms of infrastructure ("connectivity"), the corporate sector ("integration of digital technology"), public administration ("digital public services") and the public's digital skills ("human capital").¹¹ As a result

of conceptual revisions, the current version of the DESI is only available for the years 2017 to 2022.¹²

According to the DESI, the use of digital technologies in the EU has been increasing in recent years. This is particularly evident in the case of digital public services and connectivity. A comparison across countries produces a mixed picture, however. A clear discrepancy can be seen between the frontrunners, such as Finland, Denmark and the Netherlands, and countries with the lowest indicator values, such as Greece, Bulgaria and Romania.¹³ While there has also been marked progress in the past few years among the countries that are lagging behind, the divide between them and the EU countries with the highest indicator values has widened.¹⁴

The four largest euro area countries are hovering around the EU average, with Spain most recently performing the best and Italy the worst. In all four countries, at times considerable progress has been made over time.¹⁵ Particularly in the COVID-19 years, marked improvements were seen. The increase in the use of mobile

... show an increase for the EU as a whole ...

... and the four largest euro area countries

⁸ See, inter alia, Byrne (2022).

⁹ See, inter alia, International Monetary Fund (2018).

¹⁰ The indicator was developed in the context of the Digital Single Market Strategy. See European Commission (2015).

¹¹ The "connectivity" component refers to the coverage of fixed and mobile broadband connections in an EU Member State and the corresponding prices. The use of digital solutions in the corporate sector – such as social media, electronic communication and accounting systems, artificial intelligence, cloud services and big data analytics – form part of the "integration of digital technology" component. The "digital public services" component captures the extent to which the services of public administrations are provided in a digital format. The "human capital" component incorporates the number of university graduates in ICT as well as ICT training measures. For a detailed description of the DESI, see European Commission (2022a).

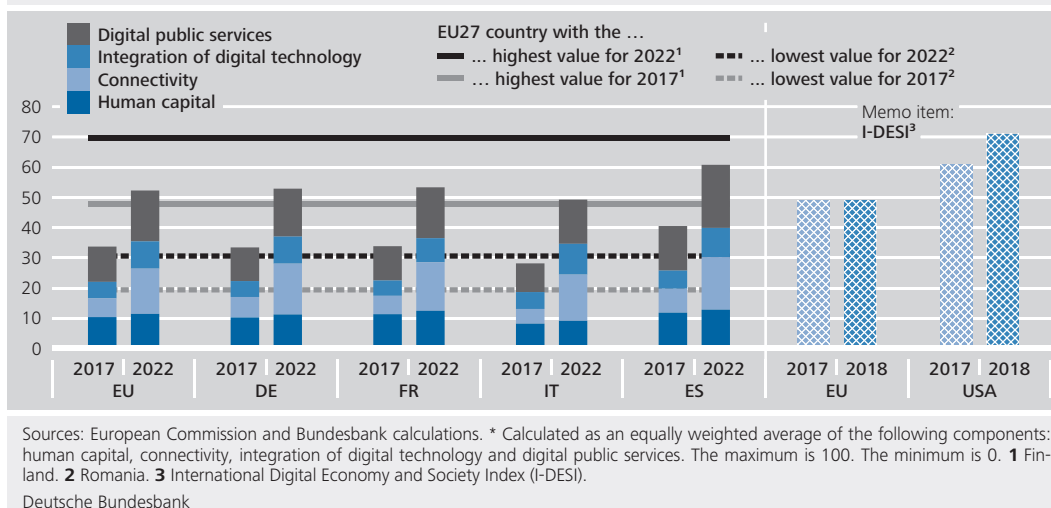
¹² The indicator largely uses data from the previous year. The main reference period for the DESI 2022 is therefore 2021.

¹³ See also European Commission (2022b).

¹⁴ Compared with the DESI 2017, the difference between the average of the three EU countries with the lowest indicator values and that of the three with the highest indicator values rose by 30% according to the DESI 2022.

¹⁵ During this period, the indicator rose by approximately 50% in Spain, by almost 60% in Germany and France and by as much as around 75% in Italy.

Digital Economy and Society Index (DESI)*



internet and the integration of digital technologies by small and medium-sized enterprises was especially striking.

Diffusion of digital technologies in the United States has progressed further than in the EU

The International Digital Economy and Society Index (I-DESI), also published by the European Commission, makes it possible to assess the progress of digitalisation in the EU in a global context.¹⁶ The latest published results show that the United States is well ahead of the EU in this respect. There are also indications that digitalisation in the United States is progressing more dynamically compared with the EU.

Investment expenditure on digital goods

Investment in ICT capital can also provide indications of the degree of digitalisation

Another approach to capturing digitalisation looks at investment expenditure in the area of ICT as recorded in the national accounts.¹⁷ ICT investment is considered to be a key transmission channel through which digitalisation can have a productivity-enhancing effect. This is achieved, on the one hand, by equipping more workplaces with ICT capital.¹⁸ Moreover, the quality of the capital stock may improve. In this context, a number of studies stress the importance of capital-embodied technological progress that is only unleashed by investment.¹⁹

In the EU, ICT investment expenditure increased markedly in relation to total gross fixed capital formation between 1999 and 2020. However, this masks diverging developments. The share of investment in software and databases increased significantly, whilst investment in telecommunications equipment and computer hardware decreased markedly relative to total investment. In terms of individual countries, the picture is indeed mixed. While the share of ICT investment in gross fixed capital formation in France, Italy and Spain increased significantly in some cases between 1999 and 2020, it fell markedly in Germany. The relative importance of the individual categories of fixed ICT assets also differs between the four largest euro area countries. Investment in software and data-

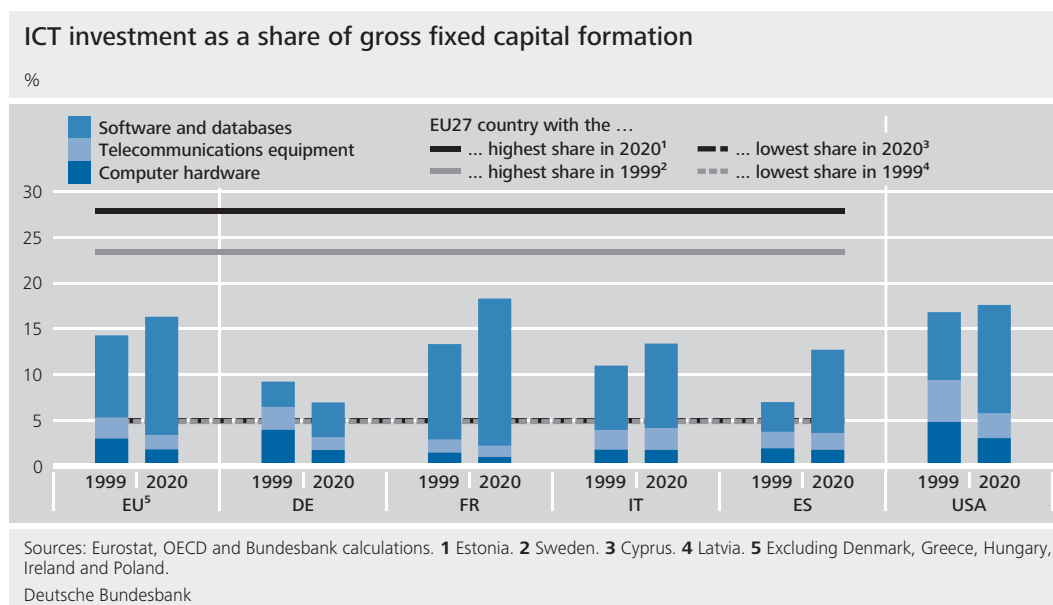
Marked increase in ICT investment in the EU

¹⁶ The I-DESI, which is only partially comparable to the DESI due to methodological differences, covers the EU27 Member States, the EU as a whole and the United States, inter alia. See also Foley et al. (2020). The I-DESI additionally contains the component "internet use by the general public", which also comprises the use of social media, on-line banking and video calling. Furthermore, the weighting of the main components differs between the two indicators. The I-DESI was last published in 2020 and is based on data up to 2018. For information on the methodology used for the DESI and the I-DESI, see European Commission (2020a, 2020b, 2022a).

¹⁷ Here, ICT investment comprises telecommunications equipment and computer hardware as well as software and databases.

¹⁸ See also Deutsche Bundesbank (2002).

¹⁹ See, inter alia, Solow (1960), Greenwood et al. (1997), Hercowitz (1998), Cooper et al. (1999) and Greenwood and Jovanovic (2001).



bases accounts for a much larger share of gross fixed capital formation in France, Italy and Spain than in Germany.²⁰

for price-adjusted gross fixed capital formation as a whole.

High importance of investment in software and databases in the EU and the United States

In the United States, too, software and databases account for the bulk of ICT investment. Similarly to the development in the EU, their share in gross fixed capital formation increased significantly between 1999 and 2020, while the share of telecommunications equipment, computers and hardware decreased. The share of ICT investment as a whole increased slightly over the period under review.

Nominal perspective informative only to a limited extent

When looking at the share of ICT investment, it should be noted that there are specific price trends behind expenditure developments. These can differ considerably across categories of fixed assets. According to the official figures, the quality-adjusted price of ICT products in the United States halved between 1999 and 2020, while the deflator of total gross fixed capital formation increased by almost one-third. This implies that ICT investment grew by around 7% per year in real terms. By contrast, price-adjusted gross fixed capital formation as a whole rose by an average of around 2% per year. Qualitatively comparable developments are also evident for the EU, where real ICT investment rose by an average of 4% per year compared with an average growth rate of 1%

In these comparisons, it should also be noted that the national accounts metrics are fraught with a number of measurement problems, which hinder comparisons between countries. Digital goods are classified differently in some cases. Moreover, a meaningful cross-country comparison is made more difficult by the fact that statistical methods for measuring ICT investment are not fully harmonised. This is all the more important as the quantification of ICT investment poses particular challenges. For example, technical progress is often expressed in the form of quality improvements. In the case of ICT goods, however, these are, in some cases, insufficiently recorded in official statistics – as shown by a number of studies.²¹ Finally, for several years now the recorded statistics for investment, particularly in intellectual property (which includes software and databases) have, in some countries, been greatly distorted by

Measurement problems hinder comparisons between countries

²⁰ The low share of investment in software and databases in Germany shown by official statistics is striking. It is not clear why it is so small.

²¹ See, inter alia, Byrne et al. (2016) and Byrne et al. (2017a, 2017b).

A comparison of online and offline prices in Germany

In the course of increasing digitalisation, trade via online stores and digital marketplaces has been growing more important, which can potentially affect price-setting behaviour. Everyday experience and academic studies show that the prices of many goods undergo only infrequent adjustments.¹ However, the rate of change of those prices that are adjusted is typically high when compared with the average inflation rate.

Against this background, the question arises as to whether increasing digitalisation has affected price setting, and if so, how. It is conceivable that online prices might adjust more frequently but less sharply owing to a lower cost of changing prices and greater transparency.²

This analysis is based on microdata which enter the German Consumer Price Index (CPI) and have been recently made available for research purposes.³ The dataset comprises around 14.5 million price spells for the years 2015 to 2019. A distinction is made between eight outlet types, including internet trade.⁴ There are online and offline markets for some 290 product groups, such as women's sports shoes. These product

¹ See, for example, Dhyne et al. (2006) and Gautier et al. (2022).

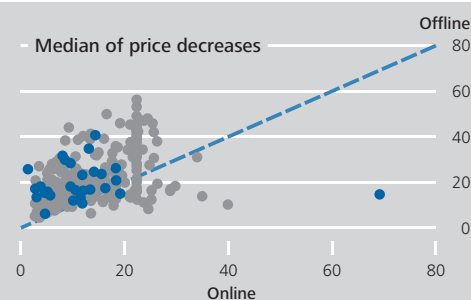
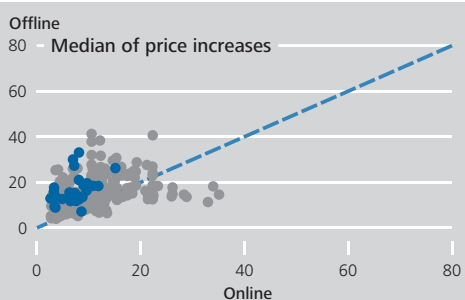
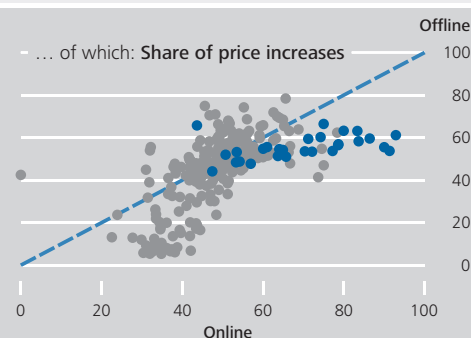
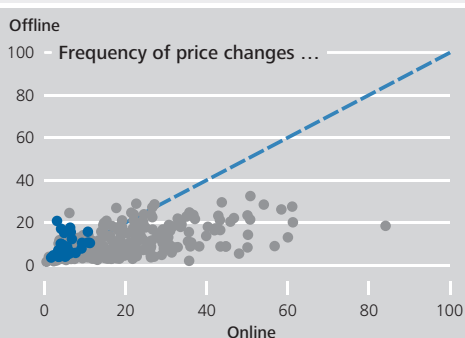
² For an overview of studies on differences in price setting between offline and online markets, see, for example, European Central Bank (2021). Cavallo (2017) finds no major differences in pricing behaviours by marketplace among multi-channel traders, while Gorodnichenko et al. (2018) report that online retailers change prices more frequently.

³ These findings are based on Bundesbank work within the ESCB research network "Price-setting Microdata Analysis Network" (PRISMA). See, inter alia, Strasser et al. (2023).

⁴ See Sandhop (2012).

Frequency and size of price changes in the German CPI*

% ● Industrial goods (non-energy) ● Processed food



Sources: Bundesbank calculations based on German CPI microdata. * Average values of monthly price spells for the 2015 to 2019 period for 288 product types (COICOP ten-digit level of the CPI). Points above (below) the 45° line indicate a higher (lower) value for a given offline product relative to its online counterpart.

Deutsche Bundesbank

groups make up approximately 16% of the consumer basket covered by the German CPI, mainly industrial goods, but also some processed food products such as frozen food and alcoholic beverages.⁵ The price changes are calculated at the individual product level in a given store and subsequently aggregated.⁶

In fact, the data show that, overall, online prices are changed more frequently than offline prices (17% per month on average, compared with 11%), especially for industrial goods. By contrast, prices of processed food products are changed somewhat more frequently offline. Price changes due to sales are one reason for this. If sales are excluded, the prices of industrial goods are still adjusted more frequently online, and the frequency of processed food price adjustments becomes more similar between online and offline markets.

Concerning the direction of price changes (share of price increases or decreases), there are no clear differences between online and offline products. Only in the “processed food” category is the share of price increases higher for online trade. With regard to the size of price changes, as expected, they turn out to be, on average, smaller in online stores than in offline stores – for both directions.

Overall, more frequent but smaller price changes are consistent with lower menu costs for online markets. As online trade gains a greater share of the market in the wake of increasing digitalisation, this could result in a higher degree of price flexibility.

⁵ The “processed food” category includes online shops as well as home delivery services for frozen food.

⁶ See Gautier et al. (2022).

the strategic activities of multinational enterprises.²²

Production of digital goods

Evidence for the macroeconomic importance of digitalisation can also be found on the supply side of the national accounts. One standard indicator is the gross value added share of the digital sectors.²³ These economic sectors are characterised by a high concentration of digital goods producers.²⁴ However, their definition is generally not particularly clear-cut.²⁵ In addition, the industry composition may differ between countries. This, too, limits the informative value of comparative analyses.²⁶ When studying shares of value added, it should also be noted that these do not fully capture the economic significance of the digital sectors. For example, the output of digital goods producers feeds into a wide range of goods and services via intermediate products.

In the EU, digital sectors accounted for around 7% of total gross value added in 2020. Their share was thus roughly as high as 20 years earlier. In Germany, the share of value added in the digital sectors was, in some cases, significantly higher than in the other three largest euro area countries. It also increased slightly in Germany

Share of digital sectors in gross value added broadly unchanged in the EU, ...

Shares in gross value added of the digital sectors

²² Level shifts and jumps in macroeconomic time series due to relocation of intellectual property rights – for example, licences – are likely to affect small economies in particular. Difficulties in conducting economic analyses can also arise for larger economic regions, however. See also Deutsche Bundesbank (2018).

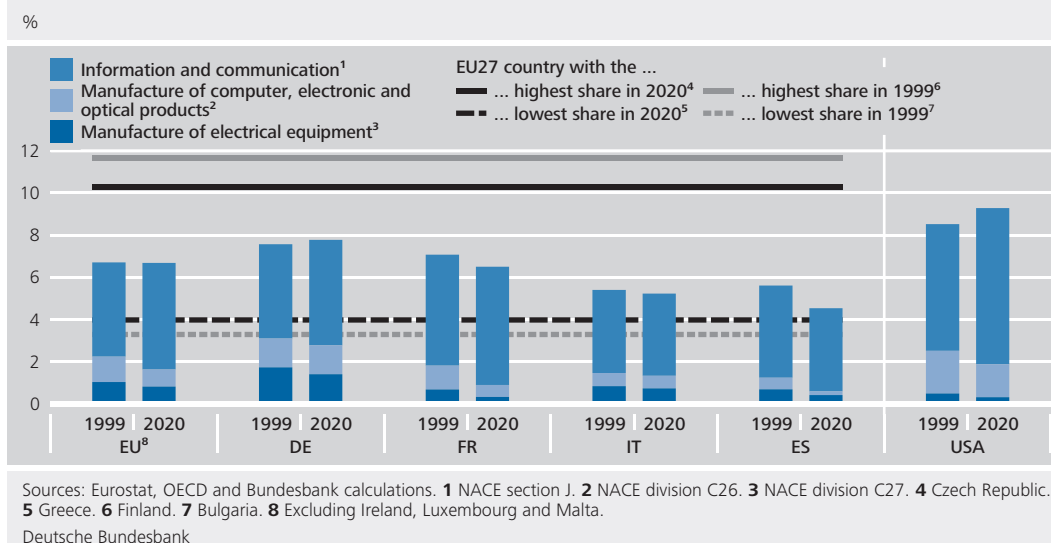
²³ See, inter alia, International Monetary Fund (2018), European Central Bank (2020a) and OECD (2020b).

²⁴ In the following analyses, the digital sectors comprise the economic sectors “Manufacture of computer, electronic and optical products” (NACE division C26), “Manufacture of electrical equipment” (NACE division C27) and “Information and communication” (NACE section J). See also Anderton et al. (2020) and European Central Bank (2021).

²⁵ Fintech activities, for example, are not explicitly mentioned in the classification of economic sectors still used today (NACE Rev. 2), and statistical registers assign the majority of fintech firms to the IT sector. See also von Kalckreuth and Wilson (2020).

²⁶ See also European Central Bank (2021).

Shares of digital sectors in total gross value added



between 1999 and 2020, whilst declining, at times distinctly, in France, Italy and Spain.

... but marked increase in the United States

In contrast to the EU as a whole, the value added share of digital sectors in the United States increased markedly between 1999 and 2020. This is all the more remarkable given that producer prices for digital goods fell by around 40% in this period. Real gross value added growth in the digital sectors was correspondingly strong. While total gross value added rose by an average of 2% per year in price-adjusted terms, this figure was 7% for the digital sectors.

Measures of efficiency

Conclusions on macroeconomic significance of digitalisation based on efficiency measures

The indicators presented above provide initial insights into the evolution and extent of digitalisation. However, the metrics do not deliver any direct conclusions on the implications of digital transformation for developments in aggregate labour productivity. These ultimately result from efficiency gains that are made possible by digitalisation.²⁷ Such efficiency gains cannot be observed directly. However, there are ways to measure them indirectly. Indicators for this include, for example, the relative price of investment in ICT and total factor productivity (TFP) in the digital sectors.

The relative price of ICT investment is often measured by the ratio between the price index for ICT capital goods and that for consumer goods. A declining relative price is interpreted as an indicator of investment-specific technological progress, based on the idea that technological progress on the supply side leads to a decline in output prices. The development of prices for computer hardware is a fairly illustrative example of this. Relative to the consumption deflator, the price index for computer hardware, which also takes into account improvements in quality, fell around 190-fold in the United States between 1980 and 2021. A falling relative price stimulates demand for capital goods and thus enables technological progress to exert its productivity-enhancing effect via investment.

Changes in the relative price of investment ...

In the four largest euro area countries, the relative price of ICT investment has fallen, in some cases sharply, in recent decades.²⁸ This is particularly evident in Germany. By contrast, the decline in relative prices of ICT investment in France, Italy and Spain was considerably weaker. Nevertheless, in most of these coun-

... as a measure of investment-specific technological progress

²⁷ Cost savings play a key role here. See Goldfarb and Tucker (2019).

²⁸ ICT investment comprises telecommunications equipment and computer hardware as well as software and databases.

tries, this decline was, for the most part, still significantly more pronounced than for the rest of gross fixed capital formation (excluding construction investment).²⁹ Accordingly, investment-specific technological progress in the field of ICT would have been quite pronounced in the countries under review, especially in Germany.

Distortions caused by measurement problems

However, the differences between countries should also be interpreted with caution here, as the measurement of prices for ICT goods poses particular challenges and is not fully harmonised.³⁰ This should also be taken into account when comparing the relative price trend of ICT investment with that of the United States, where relative prices fell particularly sharply.

Developments in the four largest euro area countries and the United States have recently flattened

These restrictions aside, however, a noticeable flattening in the relative price decline of ICT capital goods can be identified in all countries under review in recent years. This suggests a slowdown in investment-specific technological progress in ICT goods across these countries.

Evolution of TFP in digital sectors ...

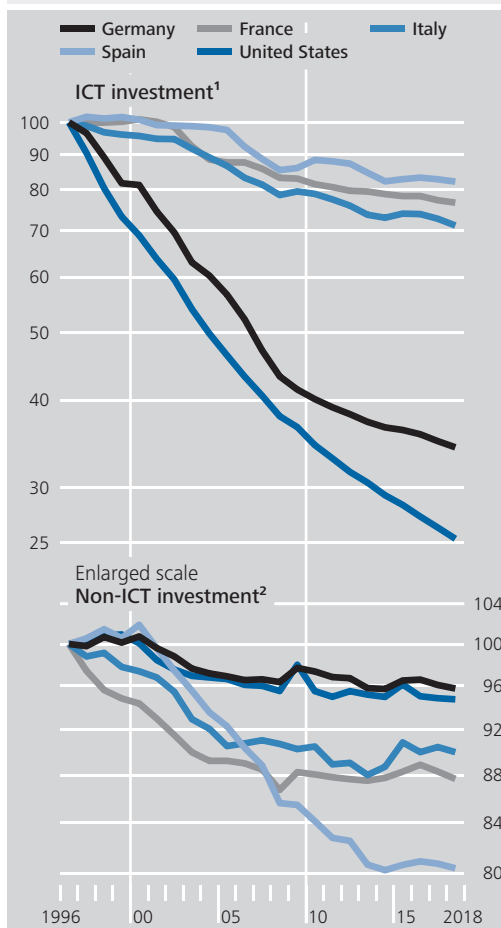
The evolution of TFP captures the part of output growth that cannot be explained by a change in labour or capital input. TFP thus represents a key indicator for the efficiency of production processes.³¹ However, it cannot be observed directly; rather, it must be estimated (see also the box on pp. 52 ff.).³² This can be done at the firm or industry level as well as for the entire economy.

... also signals a weakening of efficiency gains

Such estimates show that TFP growth in the digital sectors of the four largest euro area Member States has tended to flatten out over time.³³ Compared with the first five years after the establishment of the euro area, average TFP growth in the digital sectors was 3 percentage points lower in Germany and France and 4 percentage points lower in Italy between 2014 and 2018.³⁴ Only in Spain did TFP growth pick up slightly during this period, by 1 percentage point. In the United States, TFP growth has recently gained momentum, but has not come close to the strong rates seen at the start

Relative price of ICT and non-ICT investment*

1996=100, log scale



Sources: EU KLEMS, Haver Analytics and Bundesbank calculations. * Investment deflator relative to consumption deflator. ¹ ICT investment comprises computing equipment, communications equipment and software and databases. ² Non-ICT investment comprises gross fixed capital formation excluding ICT investment and construction.

Deutsche Bundesbank

of the 2000s. Nevertheless, on average, TFP growth was still considerably larger in the

²⁹ With the exception of Spain, the relative price of investment in construction even increased between 1999 and 2019 in the group of countries under consideration, indicating efficiency losses in this area. See also Abdel-Wahab and Vogel (2011) and Sveikauskas et al. (2016).

³⁰ See, inter alia, Federal Statistical Office (2018).

³¹ See also Deutsche Bundesbank (2021a).

³² These TFP estimates are based on data from the EU KLEMS database (<https://euklems-intanprod-llee.luiss.it/>). The estimation period covers the years 1997 to 2017 (Italy), 1997 to 2018 (Germany, France, Spain) and 1998 to 2018 (United States).

³³ The noticeably weak dynamics in Italy from 2010 onwards can be attributed to developments in its telecommunications sector (for more on this, see the box on pp. 52 ff.).

³⁴ The figure for Italy relates to the period 2013 to 2017, as no data are available for 2018.

Total factor productivity growth in digital sectors

Total factor productivity (TFP) is a key measure of the efficiency of production processes and a main driver of labour productivity. This box focuses on the evolution of TFP in the “digital sectors”, i.e. industries that produce digital goods and services. Specifically, it looks at four sectors: the industry for computer, electronic and optical products as well as electronic equipment; the sector for the production and distribution of media products (publishing activities; motion picture, video and television programme production, sound recording and music publishing activities; programming and broadcasting activities); the telecommunications sector; and, finally, the sector covering computer programming, consultancy and related activities as well as information service activities.¹

A standard approach is to measure TFP growth by decomposing the growth rate of gross value added into the contributions of the primary production factors, labour and capital, as well as a residual component.² The latter, also known as the Solow residual, is interpreted as a measure of TFP growth. To obtain the most precise estimate of TFP possible, a two-step approach is used which extends the standard procedure by additionally controlling for the degree of utilisation of the factors of production.³

In a first step, the Solow residual (Δs_{it}) is calculated in sector i in year t as the difference between the growth rate of price-adjusted gross value added (Δy_{it}) and the annual growth rates of capital input (Δk_{it}) and labour input (Δl_{it}) weighted by the respective production elasticities:⁴

$$\Delta s_{it} = \Delta y_{it} - (1 - \alpha_{it})\Delta k_{it} - \alpha_{it}\Delta l_{it}.$$

In a second step, the Solow residuals of several economic sectors are regressed on the

change in the average degree of capacity utilisation (Δu_{it}) and a sector-specific indicator variable (c_i):⁵

$$\Delta s_{it} = c_i + \beta \Delta u_{it} + \varepsilon_{it},$$

where ε_{it} is an error term. The estimations include data for 23 economic sectors in the four major euro area Member States and the United States for the years 1997 to 2018.⁶ The sectoral data are taken from the

¹ A proper alignment of efficiency changes with digitalisation trends requires a suitable classification of digital activities. Where such activities are innovative, the respective classification systems are naturally outdated. There is next to no explicit mention of fintech activities, for example, in the classification of economic sectors still used today (NACE Rev. 2 – 2008), and statistical registers classify the majority of fintech firms as IT firms. For Germany, see von Kalckreuth and Wilson (2020).

² See Solow (1957).

³ If capacity utilisation is neglected, factor inputs and thus the TFP series may be recorded inaccurately. See Basu et al. (2006), Comin et al. (2020) and Deutsche Bundesbank (2021a).

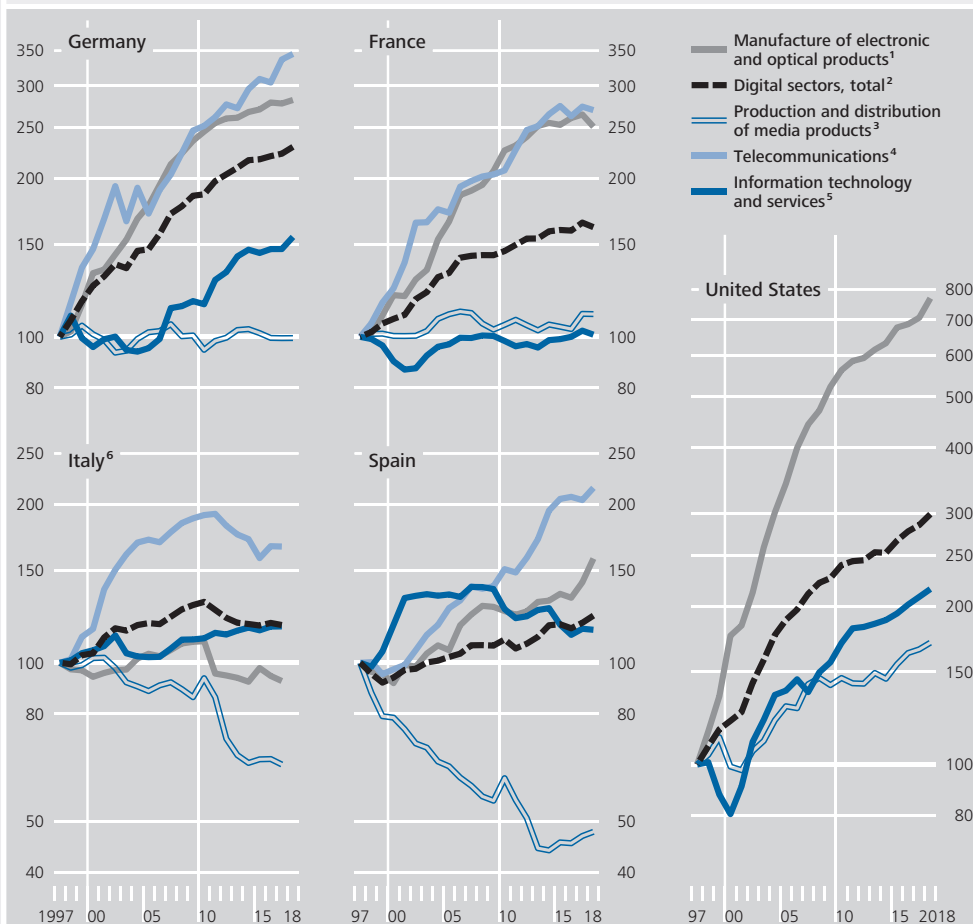
⁴ The decomposition is based on a Cobb-Douglas production function with constant returns to scale. Assuming perfect competition on the factor and product markets, cost minimisation by firms implies that the factors of production are remunerated according to their marginal products. Labour elasticity (α_{it}) can therefore be determined by the ratio of the wage bill to gross value added, while the elasticity of capital is equal to $1 - \alpha_{it}$. See Hulten (2010) and Deutsche Bundesbank (2012, 2021a).

⁵ See Basu et al. (2006), Comin et al. (2020) and Deutsche Bundesbank (2021a).

⁶ The model is estimated separately as a panel for each country and three sub-sectors. The latter comprise non-durable manufacturing (NACE divisions C10-C12, C13-C15, C16-C18, C20-C21 and C22-C23 and sections D and E), durable manufacturing (NACE divisions C24-C25, C26-C27, C28, C29-C30, C31-C33) and other economic sectors (NACE sections F, G, H, I, J, K, M, N and R-S); see Deutsche Bundesbank (2021a). In order to consider the digital sectors separately, NACE divisions J58-J60, J61 and J62-J63 are entered individually. Due to a lack of data, utilisation data for J62-J63 are used for divisions J58-J60 and J61 in Germany. The series for Italy end in 2017. Based on EU KLEMS data, TFP growth rates for the United States can only be obtained from 1998 onwards. In addition, for the United States, no data are available for NACE divisions J61 and C21, and sectors D and E are entered as one sector (D-E).

Total factor productivity in the digital sectors*

1997 = 100, log scale



Sources: EU KLEMS, European Commission and Bundesbank calculations. * Calculated using a prototypical Solow decomposition and an econometric model to adjust for changes in the degree of capacity utilisation. 1 NACE divisions C26-C27. 2 NACE divisions C26-C27 and NACE section J. 3 NACE divisions J58-J60. 4 NACE division J61 (not available for the United States). 5 NACE divisions J62-J63. 6 Series for Italy end in 2017.

Deutsche Bundesbank

EU KLEMS database.⁷ Data on capacity utilisation are derived from the European Commission's business surveys.⁸

As capacity utilisation itself can also react to TFP, an instrumental variables method is used to estimate the panel models. Economic variables which correlate with capacity utilisation but not with TFP serve as instrumental variables. These are an oil price shock, an international financial market shock and a macroeconomic uncertainty shock series.⁹ Utilisation-adjusted TFP growth of an economic sector is then computed as the difference between the Solow residual

⁷ The data are available at <https://euklems-intanprod-lee.luiss.it>

⁸ The utilisation data are available for manufacturing from 1985 onwards and for services sectors from mid-2011 onwards (Italy from mid-2010); see European Commission (2020c). For the years prior to 2011 (for Italy prior to 2010), the capacity measures for the services sectors are extended backwards by using the growth rate of average capacity utilisation in the manufacturing sector; see Comin et al. (2020). For the United States, average hours worked are used as an indicator of the degree of utilisation; see Basu et al. (2006).

⁹ The oil price shock is based on movements in the Brent oil price; see Basu et al. (2006). The uncertainty shocks stem from macroeconomic models; see Jurado et al. (2015) and Meinen and Röhe (2017). The financial market shock is based on the indicator introduced by Gilchrist and Zakrajšek (2012) for the non-predictable component of risk premia on US corporate bonds. Statistical tests certify that the instruments are sufficiently correlated with the change in capacity utilisation.

and the impact of changes in capacity utilisation:¹⁰

$$\widehat{\Delta t f p_{it}} = \Delta s_{it} - \hat{\beta} \Delta u_{it}.$$

The estimates show important similarities for the four largest euro area Member States, but also significant differences. The greatest efficiency gains occurred in telecommunications. On an average over the period from 1997 to 2018, TFP rose by around 2% per year in Italy and by 4% in Spain, 5% in France and as much as 6% in Germany.¹¹ The low average growth rate in Italy can be explained in part by the significant decline in TFP in the wake of the European sovereign debt crisis. TFP growth in the manufacture of electronic and optical products is similar to that recorded for telecommunications in the case of Germany and France. In Spain and Italy, however, growth was considerably weaker. Italy, in particular, saw hardly any efficiency gains in this sector. There are also marked differences between the euro area Member States under review in the area of information service activities, which includes software development, programming and data processing, amongst other things. Only in Germany have there been noticeable efficiency gains since 2007. In Spain, TFP in this sector decreased at the end of the observation period following initial increases. In the economic sector focused on the production and distribution of media products, efficiency is estimated to have remained broadly unchanged in Germany and France, while in Spain and Italy it even declined markedly.

In the United States, TFP developments were broadly similar in the sectors under review, although the country recorded greater progress overall.¹² This applies in particular to the manufacture of electronic and optical products, which saw exceptionally strong TFP growth of almost 10% per year. Remarkably, there were also significant

productivity gains in the United States in the print, film and audio media sector.

Combining the various digital areas yields a clear grading. Whereas efficiency gains in the United States are very large, Germany posts somewhat smaller growth. Growth in France comes in slightly further behind, while TFP advances in digital sectors are significantly weaker in Italy and Spain. However, this cross-country analysis is subject to the caveat that measurement problems may restrict the comparability of TFP series (see also pp. 49 ff.).

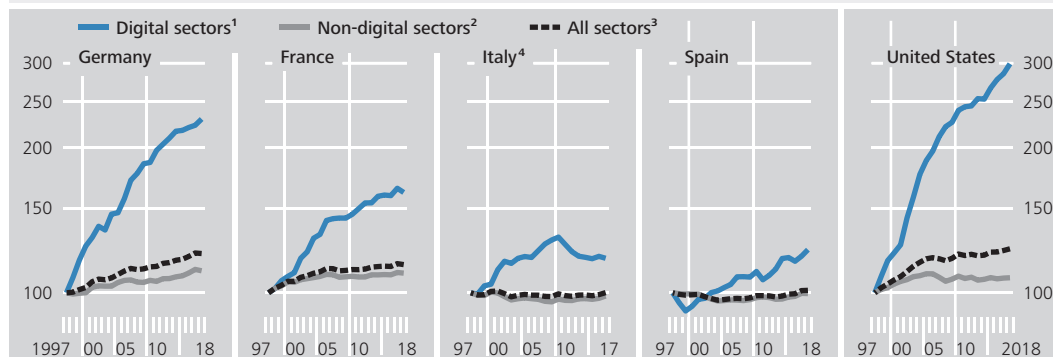
¹⁰ Capacity utilisation is only taken into account if $\hat{\beta}$ is significant at the 90% level.

¹¹ The data for Italy cover the years 1997 to 2017. The relatively fierce competition between service providers is a potential driver of TFP growth in the telecommunications sector. However, the government's influence in this area can still be pronounced. See Federal Statistical Office (2018).

¹² Due to the lack of data, no conclusions can be drawn for the telecommunications sector (J61). This is the result of differences in the classification of economic sectors. There is no exact equivalent for NACE division J60 in the NAICS classification used in the United States. There are also slight differences for NACE division J60.

Total factor productivity between 1997 and 2018*

1997 = 100, log scale



Sources: EU KLEMS, European Commission and Bundesbank calculations. * Total factor productivity was calculated using a prototypical Solow decomposition and an econometric model to adjust for changes in the degree of capacity utilisation. **1** NACE divisions C26-C27 (manufacture of computer, electronic and optical products as well as electrical equipment) and NACE section J (information and communication). **2** NACE sections D, E, F, G, H, I, K, M, N, R-S and NACE section C (excluding divisions C26-C27 and C19). **3** Digital sectors and non-digital sectors. **4** Series for Italy end in 2017.

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digital sectors of the group of countries under review than in the other sectors of the economy. This is consistent with the picture obtained when looking at relative prices.

Digitalisation and labour productivity

Importance of digitalisation for labour productivity from the perspective of macroeconomic models

The various indicators considered here suggest, in part, a rapid pace of digitalisation. This is particularly true of the two presented measures of efficiency, although their development has, in some cases, weakened over time. The implications of this for the course of macroeconomic labour productivity can be examined using structural macroeconomic models. Traditional approaches focus mainly on the role of investments;³⁵ meanwhile, the importance of digital intermediate inputs is neglected. Recent studies suggest, however, that production linkages play a key role in the diffusion of technologies.³⁶

Traditional analytical approaches

Traditional approaches focus on investment

Dynamic stochastic general equilibrium (DSGE) models are one tool that can be used to grasp the macroeconomic role of investment-specific

technological progress.³⁷ Amongst other things, they make it possible to assess the contribution of this progress to trend growth in labour productivity.³⁸ A neoclassical baseline model³⁹ which takes into account various types of capital, including ICT capital, serves as the basis for this. Besides the evolution of TFP, investment-specific technological progress associated with the respective capital types is a key driver of the model.⁴⁰

The total contribution of investment-specific technological progress to labour productivity growth is equal to the weighted sum of the technological progress associated with each of

³⁵ See, inter alia, Byrne et al. (2013), Cetto et al. (2015) and European Central Bank (2021).

³⁶ See, inter alia, Foerster et al. (2022) and vom Lehn and Winberry (2022).

³⁷ See, inter alia, Justiniano et al. (2011), Schmitt-Grohé and Uribe (2011) and Díaz and Franjo (2016).

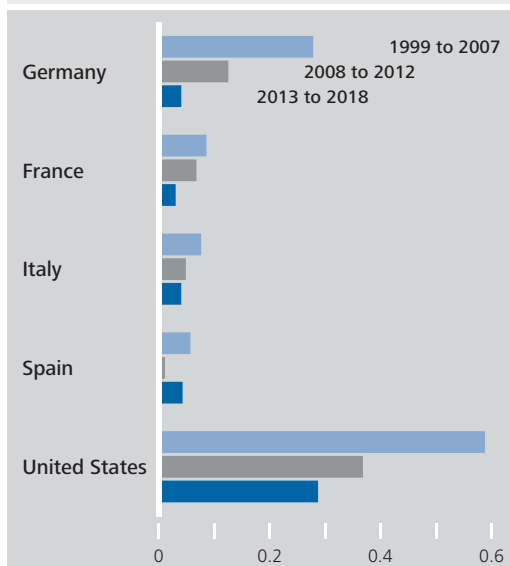
³⁸ See, inter alia, Greenwood et al. (1997), Bakhshi and Larsen (2005) and Rodríguez-López and Torres (2012).

³⁹ A detailed description of this model framework can be found in Acemoglu (2009).

⁴⁰ One particular feature of the model specification chosen here is the assumption of time-varying production elasticities. The calculation follows the approach in Eden and Gaggli (2018). In the above DSGE approach, exogenous stochastic shocks are implemented to capture the time-varying production elasticities. For more information, see Young (2004), Rios-Rull and Santaeulària-Llopis (2010) and Lansing (2015).

Contribution of capital-embodied technical progress in ICT to labour productivity growth*

Percentage points



Sources: EU KLEMS, Haver Analytics and Bundesbank calculations. * Contributions of capital-embodied technical progress in ICT to average annual productivity growth per total number of hours worked derived from a DSGE model. The ICT capital stock comprises investment capital in the areas of computer equipment, communications equipment, and software and databases.

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Weight and dynamics of investment-specific technological progress determine its growth contribution

the respective types of capital.⁴¹ Investment-specific technological progress can be approximated on the basis of the relative price path of the relevant categories of capital goods.⁴² However, its importance for productivity growth is also determined by the relative weight of the corresponding type of capital in the production process.⁴³

Declining growth contributions of investment-specific technological progress in ICT

According to this approach, the contributions of investment-specific technological progress in ICT to aggregate productivity growth in the four largest euro area countries has been lower in recent years than before the global financial and economic crisis. A similar picture emerges for the United States. This development is largely being driven by the flattening of the relative price paths of ICT investment. With regard to the size of growth contributions, note that the relative weight of ICT capital was comparatively small.⁴⁴ By this yardstick, the growth contributions of ICT-specific technological progress to aggregate labour productivity are quite

high.⁴⁵ For example, in France and the United States, they were around 12 times higher in the period from 2013 to 2018 than the average contributions of technological progress associated with non-ICT investment (excluding construction). In Germany and Spain, the contributions of ICT-specific technological change were at least as high as the contributions made by technological progress in non-ICT investment. According to the model decomposition, the positive impulse from ICT in Italy was even counteracted by a negative contribution to labour productivity growth from non-ICT investment between 2013 and 2018.

Consideration of input-output linkages

However, digital products are entered into production processes not only as capital goods but also as intermediate inputs. This transmission channel is rarely taken into account in conventional macroeconomic models. Yet digital goods, in particular, are used to a large extent as an intermediate input. The multi-sector dynamic stochastic general equilibrium (DSGE) model MuSe developed at the Bundesbank captures sectoral production linkages and thus enables the analysis of their macroeconomic

Little attention paid to the role of input-output linkages thus far

⁴¹ It is assumed here that the exogenous investment-specific technological progress can be described by a stochastic trend. See Schmitt-Grohé and Uribe (2011).

⁴² The model analysis assumes that there is an inverse relationship between relative price paths and investment-specific technological progress. See also Schmitt-Grohé and Uribe (2011).

⁴³ Assuming a Cobb-Douglas production function with constant returns to scale, the weight is given by the ratio of the respective capital income to total labour income.

⁴⁴ Average ICT capital income shares range between 2% (Germany, Italy, Spain) and 5% (United States) over the total reference period. By contrast, capital income shares for non-ICT assets vary from 9% (Spain) to 13% (Germany).

⁴⁵ Several simplifying assumptions need to be made in model-based growth accounting. These include, in addition to the basic principles of the standard neoclassical model, the assumption of a closed economy and of labour being a homogeneous factor of production. The model furthermore presumes the existence of a direct inverse relationship between investment-specific technological progress and the relative price of the respective investment goods.

implications.⁴⁶ In the model, sectoral output is used not only for consumption or investment purposes but also as an intermediate input in various sectors of the economy.⁴⁷ It is assumed that different intermediate inputs can only be substituted to a limited extent. Furthermore, the intermediate input bundle can vary among the economic sectors. The model specification used here covers 19 economic sectors and was specified for each of the four largest euro area economies as well as the United States.^{48,49}

TFP growth in digital sectors as a key driver

In this model framework, digital transformation is triggered by TFP growth in digital sectors. An increase in TFP lowers marginal costs, as production can now take place with smaller factor inputs.⁵⁰ The prices of digital goods fall as a result. This, in turn, stimulates demand for these goods, both for consumption and investment purposes and as an intermediate input. As far as is possible, products from non-digital sectors are replaced by the comparatively cheaper digital goods. However, demand for other goods also increases due to complementarities. The growth in production in non-digital sectors calls for increased use of factors of production, which, when viewed in isolation, drives up factor payments, marginal costs and prices.

⁴⁶ MuSe is a variant of the environmental multi-sector DSGE model EMuSe that does not include an environmental module. A detailed description can be found in Hinterlang et al. (2021, 2022, 2023).

⁴⁷ The MuSe model is therefore an extension of prototypical models. In the latter, production is usually used only for consumption or investment purposes, as capital and labour are the only factors of production. See, inter alia, Cristiano et al. (2018).

⁴⁸ The model bundles NACE divisions C26-C27 (manufacture of computer, electronic and optical products and electrical equipment) and NACE section J (information and communication) into one sector. NACE divisions C10-C12, C13-C15, C16-C18, C20-C21, C22-C23, C24-C25, C28, C29-C30, C31-C33 as well as sections D-E, F, G, H, I, K, M, N, R-S are also depicted as separate economic sectors. For a detailed description of the NACE classification, see Eurostat (2008).

⁴⁹ External trade links are excluded for the purposes of simplification. The production structure of the countries under review is modelled using country-specific datasets from the World Input-Output Database (WIOD). For more information on the WIOD, see Timmer et al. (2015).

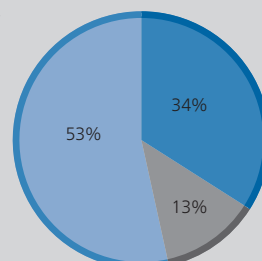
⁵⁰ The transmission channel of TFP growth in digital sectors described here is transferable to the other sectors depicted in the model.

Use of digital goods*

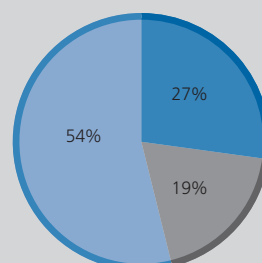
%

■ Consumption ■ Investment ■ Intermediate inputs

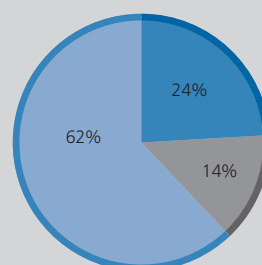
Germany



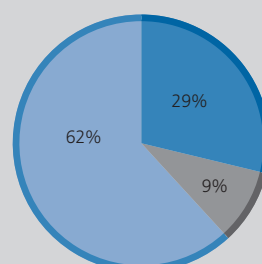
France



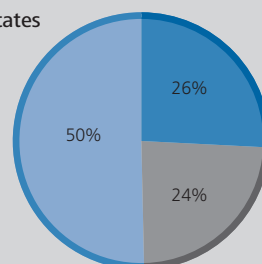
Italy



Spain



United States



Sources: World Input-Output Database and Bundesbank calculations. * Digital goods comprise products from NACE divisions C26-C27 and NACE section J. Overall, NACE sections D-E, F, G, H, I, J, K, M, N, R-S and the divisions of NACE section C (excluding C19) in the year 2000 are considered.

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Assessing the role of digitalisation using a counterfactual analysis

In order to quantify the contribution of digitalisation to labour productivity, sectoral TFP paths, which were estimated separately (see also the box on pp. 52 ff.), are fed into the MuSe model. Specifically, two scenarios are compared here. In the reference scenario, the TFP paths for all sectors are considered.⁵¹ In the counterfactual scenario, by contrast, it is assumed that TFP in digital sectors is constant and remains at its initial level. The differences between the two scenarios can then be used to assess the contribution to labour productivity growth made by digital sectors.

Overall accurate description of the actual path of labour productivity

The MuSe model quite accurately reproduces the actual path of labour productivity in the countries under review, with the exception of Spain.⁵² This is also noteworthy given that labour productivity developments in this group of countries vary widely in some cases. Labour productivity in the United States rose considerably more strongly than in the euro area countries under review. Within this group, there was a marked difference between Germany and France, on the one hand, and Italy and Spain, on the other.

Predominantly large contribution of digital sectors to labour productivity growth ...

If the changes in TFP in digital sectors are factored out of the simulation, the picture changes significantly. Labour productivity growth would be considerably weaker. For the United States, around seven-tenths of productivity growth would be lost, despite digital sectors accounting for a relatively small share of aggregate gross value added. The loss would be substantial in Germany and France, too, at roughly one-half and four-tenths respectively. According to this calculation, aggregate labour productivity in Italy would have stagnated. By contrast, differences compared with the reference scenario do not appear until the end of the simulation period for Spain. In accordance with this, there would have been only comparatively weak macroeconomic impetus coming from digital sectors in Spain in the years prior to 2012. Overall, the simulation results show the key importance of TFP growth in digital sectors for the developments of labour productivity. In

line with this, less dynamic TFP growth in digital sectors – amid continuously weak impetus stemming from the other economic sectors – would have significant consequences.

In order to show the specific importance of input-output linkages for the transmission of digitalisation, a further scenario assumes that digital goods are used exclusively for consumption or investment purposes and not as intermediate inputs.⁵³ The simulation results suggest that digital intermediate inputs play a key role in aggregate productivity growth, since productivity gains were mostly significantly lower when digital intermediate inputs were excluded.⁵⁴ This is particularly evident for the United States, Germany and France. However, this transmission channel was also important in Italy. In Spain, on the other hand, relatively weak TFP growth in digital sectors also implies that the importance of digital intermediate inputs for labour productivity growth was lower.

For simplicity, this analysis looked at a closed economy. Digital goods are in fact also exported and imported.⁵⁵ However, it should be emphasised that the model incorporates the actual country-specific TFP paths, which also reflect external developments. A number of studies show that TFP progress is markedly in-

... with input-output linkages representing an important transmission channel

Role of international linkages

⁵¹ The simulation results are driven exclusively by the interplay between TFP paths in the individual sectors.

⁵² In Spain, labour productivity increased considerably as a result of the disproportionately large reduction in labour input in the wake of the global financial and economic crisis and the subsequent sovereign debt crisis. However, this dramatic development is not triggered by TFP adjusted for capacity utilisation and cannot therefore be inferred from the model. See also Deutsche Bundesbank (2021a).

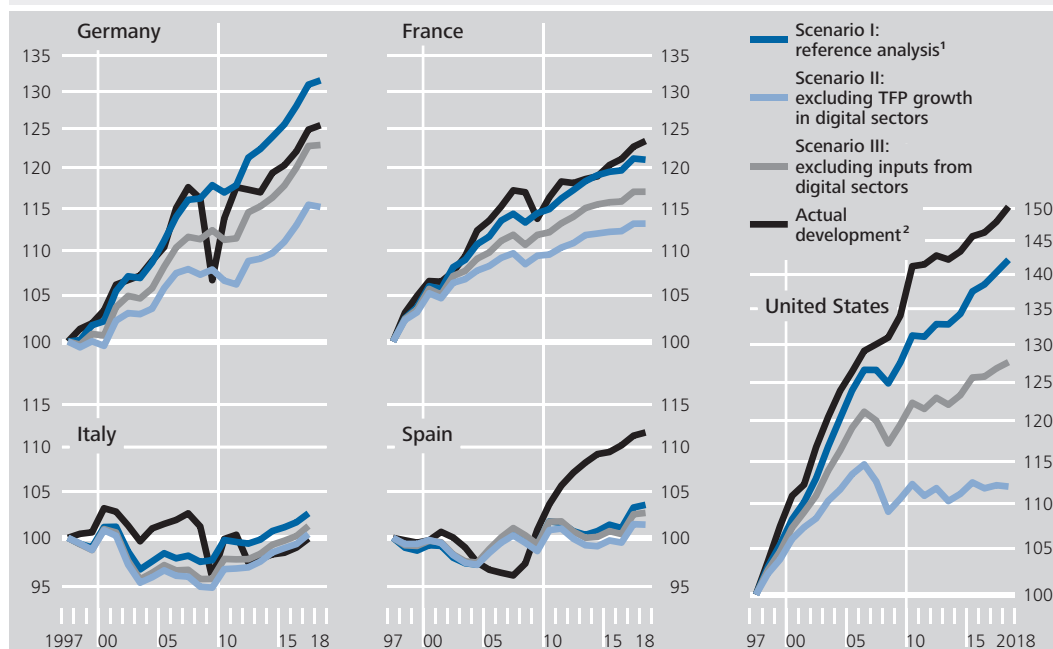
⁵³ To this end, digital goods are excluded from the intermediate input bundles of all sectors.

⁵⁴ For a more detailed discussion of the prominent role of input-output linkages, see, inter alia, Foerster et al. (2022) and vom Lehn and Winberry (2022).

⁵⁵ According to WIOD data for 2014, the share of imported digital intermediate inputs in total intermediate inputs was recently around 3% in Germany, 2% in France and Italy and 1% in Spain and the United States. The share of imported digital consumer goods stood at around 1% in all countries under review. The share of imported digital capital goods in total gross fixed capital formation was close to 7% for Germany, while this share was 5% for Spain, 4% for the United States and 3% for France and Italy.

Importance of digital sectors for aggregate labour productivity*

1997 = 100, log scale



Sources: EU KLEMS, World Input-Output Database and Bundesbank calculations. * The simulations are based on a multi-sector DSGE model. The simulation period covers the years 1997 to 2018 for Germany, France, Spain and the United States and 1997 to 2017 for Italy. The digital sector comprises NACE divisions C26-C27 (manufacture of computer, electronic and optical products and electronic equipment) and NACE section J (information and communication). NACE sections C (excluding divisions C26-C27 and C19), D-E, F, G, H, I, K, M, N, R-S are also covered. ¹ Depicts labour productivity developments based on the sectoral TFP paths and a model version with 19 sectors. ² Aggregate hourly labour productivity of the 19 sectors the reference analysis is based on.

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fluenced by international research and development, especially in open economies.⁵⁶ Foreign direct investment and imports of intermediate goods can also have an impact on a country's TFP growth.⁵⁷

■ Summary and outlook

Digitalisation affects aggregate labour productivity developments in a variety of ways. Standard analytical approaches typically focus on the importance of digital capital goods. By contrast, the role of digital intermediate inputs is often neglected. Analyses using a macroeconomic multi-sector model show the key importance of digital intermediate inputs. If sectoral interlinkages are neglected, production growth resulting from digitalisation is often significantly underestimated. Furthermore, it can be seen that efficiency gains in digital sectors have a decisive impact on labour productivity developments. Without progress in digital sec-

tors, productivity growth in the largest euro area countries would have been considerably lower or productivity would have even stagnated. The same applies to the United States. Here, too, labour productivity developments are driven largely by TFP growth in digital sectors.

Nonetheless, it becomes apparent that the efficiency gains resulting from digitalisation have tended to decline over time. Whether a turning point will be reached in view of recent developments is a matter of dispute.⁵⁸ The European Commission's indicators on the application and diffusion of digital technologies indicate a significant increase during the coronavirus pandemic. This suggests that changes in the framework conditions can have significant incentive

... but
diminishing
impetus from
digitalisation
over time

Important role
of digital
intermediate
inputs ...

⁵⁶ See, inter alia, Coe and Helpman (1995) and Coe et al. (2009).

⁵⁷ See, inter alia, Borensztein et al. (1998) and Acharya and Keller (2009).

⁵⁸ See, inter alia, van Ark et al. (2021).

effects. It is not yet possible to gauge the extent to which this leads to measurable efficiency gains. However, surveys of firms arrive at a rather optimistic assessment of the situation.⁵⁹

⁵⁹ In an ECB survey, more than 35% of the surveyed enterprises reported that they expected an acceleration of digitisation in their enterprise in the long term as a result of the coronavirus pandemic; see European Central Bank (2020b). Survey results suggest a digitalisation boost in Germany, especially for large enterprises; see Deutsche Bundesbank (2022). The majority of German enterprises surveyed are also hoping for productivity gains from the increased use of remote working; see Deutsche Bundesbank (2021b).

■ List of references

Abdel-Wahab, M. and B. Vogl (2011), Trends of productivity growth in the construction industry across Europe, US and Japan, *Construction Management and Economics*, Vol. 29 (6), pp. 635-644.

Acemoglu, D. (2009), *Introduction to Modern Economic Growth*, Princeton University Press.

Acharya, R. C. and W. Keller (2009), Technology transfer through imports, *Canadian Journal of Economics*, Vol. 42 (4), pp. 1411-1448.

Anderton, R., V. Jarvis, V. Labhard, J. Morgan, F. Petroulakis, and L. Vivian (2020), Virtually everywhere? Digitalisation and the euro area and EU economies, *ECB Occasional Paper Series*, No 244.

Bakhshi, H. and J. Larsen (2005), ICT-specific technological progress in the United Kingdom, *Journal of Macroeconomics*, Vol. 27 (4), pp. 648-669.

Basu, S., J. G. Fernald and M. S. Kimball (2006), Are Technology Improvements Contractionary?, *American Economic Review*, Vol. 96 (5), pp. 1418-1448.

Berlingieri, G., S. Calligaris, C. Criscuolo and R. Verlhac (2020), Laggard firms, technology diffusion and its structural and policy determinants, *OECD Science, Technology and Industry Policy Papers*, No 86.

Bloom, N., C. I. Jones, J. Van Reenen and M. Webb (2020), Are Ideas Getting Harder to Find?, *American Economic Review*, Vol. 110 (4), pp. 1104-1144.

Borensztein, E., J. De Gregorio and J.-W. Lee (1998), How does foreign direct investment affect economic growth?, *Journal of International Economics*, Vol. 45 (1), pp. 115-135.

Brynjolfsson, E., D. Rock and C. Syverson (2019), Artificial Intelligence and the Modern Productivity Paradox: A Clash of Expectations and Statistics, in Agrawal, A., J. Gans and A. Goldfarb (eds., 2019), *The Economics of Artificial Intelligence: An Agenda*, pp. 23-60.

Byrne, D. M. (2022), *The Digital Economy and Productivity*, Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series, No 2022-038.

Byrne, D. M., J. G. Fernald and M. B. Reinsdorf (2017a), Does Growing Mismeasurement Explain Disappointing Growth?, *Federal Reserve Bank of San Francisco, Economic Letter*, No 2017-4.

Byrne, D. M., S. D. Oliner and D. E. Sichel (2017b), Prices of high-tech products, mismeasurement, and the pace of innovation, *Business Economics*, Vol. 52 (2), pp. 103-113.

Byrne, D. M., J. G. Fernald and M. B. Reinsdorf (2016), Does the United States Have a Productivity Slowdown or a Measurement Problem?, *Brookings Papers on Economic Activity*, pp. 109-157.

Byrne, D. M., S. D. Oliner and D. E. Sichel (2013), Is the Information Technology Revolution Over?, *International Productivity Monitor*, Vol. 25, pp. 20-36.

Cavallo, A. (2017), Are Online and Offline Prices Similar? Evidence from Large Multi-Channel Retailers, *American Economic Review*, Vol. 107 (1), pp. 283-303.

Cette, G., C. Clerc and L. Bresson (2015), Contribution of ICT Diffusion to Labour Productivity Growth: The United States, Canada, the Eurozone, and the United Kingdom, 1970-2013, *International Productivity Monitor*, Vol. 28, pp. 81-88.

Christiano, L. J., M. S. Eichenbaum and M. Trabandt (2018), On DSGE Models, *Journal of Economic Perspectives*, Vol. 32 (3), pp. 113-140.

Coe, D. T., E. Helpman and A. W. Hoffmaister (2009), International R&D spillovers and institutions, *European Economic Review*, Vol. 53 (7), pp. 723-741.

Coe, D. T. and E. Helpman (1995), International R&D spillovers, *European Economic Review*, Vol. 39 (5), pp. 859-887.

Comin, D., J. Q. Gonzalez, T. G. Schmitz and A. Trigari (2020), A New Measure of Utilization-adjusted TFP Growth for Europe and the United States, *NBER Working Paper*, No 28008.

Cooper, R., J. Haltiwanger and L. Power (1999), Machine Replacement and the Business Cycle: Lumps and Bumps, *American Economic Review*, Vol. 89 (4), pp. 921-946.

Deutsche Bundesbank (2022), Digitalisation in the German corporate sector since the onset of the coronavirus pandemic, *Monthly Report*, September 2022, pp. 54-55.

Deutsche Bundesbank (2021a), The slowdown in euro area productivity growth, *Monthly Report*, January 2021, pp. 15-46.

Deutsche Bundesbank (2021b), Remote working and its impact on labour productivity, *Monthly Report*, October 2021, pp. 58-59.

Deutsche Bundesbank (2018), Activities of multinational enterprise groups and national economic statistics, *Monthly Report*, October 2018, pp. 65-78.

Deutsche Bundesbank (2012), On the technical relationship between the trend rate of hourly productivity, the trend growth of total factor productivity and capital deepening, *Monthly Report*, April 2012, pp. 24-25.

Deutsche Bundesbank (2002), Productivity developments in Germany, Monthly Report, September 2002, pp. 47-61.

Dhyne, E., L. J. Álvarez, H. Le Bihan, G. Veronese, D. Dias, J. Hoffmann, N. Jonker, P. Lünneemann, F. Ruml and J. Vilmunen (2006), Price Changes in the Euro Area and the United States: Some Facts from Individual Consumer Price Data, *Journal of Economic Perspectives*, Vol. 20 (2), pp. 171-192.

Díaz, A. and L. Franjo (2016), Capital goods, measured TFP and growth: The case of Spain, *European Economic Review*, Vol. 83, pp. 19-39.

Eden, M. and P. Gaggl (2018), On the welfare implications of automation, *Review of Economic Dynamics*, Vol. 29, pp. 15-43.

European Central Bank (2021), Digitalisation: channels, impacts and implications for monetary policy in the euro area, *Occasional Paper Series*, No 266.

European Central Bank (2020a), The digital economy and the euro area, *Economic Bulletin*, Issue 8/2020, pp. 128-150.

European Central Bank (2020b), The long-term effects of the pandemic: insights from a survey of leading companies, *Economic Bulletin* Issue 8/2020, pp. 72-75.

European Commission (2022a), Digital Economy and Society Index (DESI) 2022 – Methodological note, July 2022.

European Commission (2022b), Digital Economy and Society Index (DESI) 2022 – Thematic chapters, July 2022.

European Commission (2020a), International Digital Economy and Society Index – Final report, SMART 2019/0087.

European Commission (2020b), Digital Economy and Society Index (DESI) 2020: Questions and Answers, June 2020 (Digital Economy and Society Index (DESI) 2020: Q&A (europa.eu)).

European Commission (2020c), The Joint Harmonised EU Programme of Business and Consumer Surveys – User Guide.

European Commission (2015), Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, the Committee of the Regions “A Digital Single Market Strategy for Europe”, COM(2015) 192 final.

Eurostat (2008), NACE Rev. 2 – Statistical classification of economic activities in the European Community, *Methodologies and Working Papers*.

Federal Statistical Office (2018), Erzeugerpreise für Dienstleistungen: Information zum Preisindex Telekommunikation (WZ 2008:61), DESTATIS, Strukturerhebung im Dienstleistungsbereich – Fachbericht Rechts- und Steuerberatung.

Foerster, A. T., A. Hornstein, P.-D. G. Sarte and M. W. Watson (2022), Aggregate Implications of Changing Sectoral Trends, *Journal of Political Economy*, Vol. 130 (12), pp. 3286-3333.

Foley, P., D. Sutton, R. Potter, S. Patel and A. Gemmell (2020), *International Digital Economy and Society Index 2020 – SMART 2019/0087*, Publications Office of the European Union.

Gautier, E., C. Conflitti, R. Faber, B. Fabo, L. Fadejeva, V. Jouvanceau, J.-O. Menz, T. Messner, P. Petroulas, P. Roldan-Blanco, F. Rumler, S. Santoro, E. Wieland and H. Zimmer (2022), New facts on consumer price rigidity in the euro area, *ECB Working Paper*, No 2669.

Gilchrist, S. and E. Zakrajšek (2012), Credit Spreads and Business Cycle Fluctuations, *American Economic Review*, Vol. 102 (4), pp. 1692-1720.

Goldfarb, A. and C. Tucker (2019), Digital Economics, *Journal of Economic Literature*, Vol. 57 (1), pp. 3-43.

Gordon, R. J. (2016), *The Rise and Fall of American Growth: The US Standard of Living since the Civil War*, Princeton University Press.

Gorodnichenko, Y., V. Sheremirov and O. Talavera (2018), Price Setting in Online Markets: Does IT Click?, *Journal of the European Economic Association*, Vol. 16 (6), pp. 1764-1811.

Greenwood, J. and B. Jovanovic, Accounting For Growth, in C. R. Hulten, E. R. Dean and M. J. Harper (eds., 2001), *New Developments in Productivity Analysis*, University of Chicago Press, pp. 179-224.

Greenwood, J., Z. Hercowitz and P. Krusell (1997), Long-Run Implications of Investment-Specific Technological Change, *American Economic Review*, Vol. 87 (3), pp. 342-362.

Hercowitz, Z. (1998), The “embodiment” controversy: A review essay, *Journal of Monetary Economics*, Vol. 41 (1), pp. 217-224.

Hinterlang, N., S. Moyen, O. Röhe and N. Stähler (2023), Gauging the effects of the German COVID-19 fiscal stimulus package, *European Economic Review*, 104407.

Hinterlang, N., A. Martin, O. Röhe, N. Stähler and J. Strobel (2022), Using energy and emissions taxation to finance labor tax reductions in a multi-sector economy, *Energy Economics*, Vol. 115 (106381).

Hinterlang, N., A. Martin, O. Röhe, N. Stähler and J. Strobel (2021), Using energy and emissions taxation to finance labor tax reductions in a multi-sector economy: An assessment with EMuSe, *Deutsche Bundesbank Discussion Paper*, No 50/2021.

Hulten, C. R., Growth Accounting, in B. H. Hall, and N. Rosenberg (eds., 2010), *Handbook of the Economics of Innovation*, Ed. 1, Vol. 2, pp. 987-1031.

International Monetary Fund (2018), *Measuring the Digital Economy*, IMF Staff Report, February 2018.

Jurado, K., S. C. Ludvigson and S. Ng (2015), Measuring Uncertainty, *American Economic Review*, Vol. 105 (3), pp. 1177-1216.

Justiniano, A., G. E. Primiceri and A. Tambalotti (2011), Investment shocks and the relative price of investment, *Review of Economic Dynamics*, Vol. 14 (1), pp. 102-121.

Lansing, K. J. (2015), Asset Pricing with Concentrated Ownership of Capital and Distribution Shocks, *American Economic Journal: Macroeconomics*, Vol. 7 (4), pp. 67-103.

Meinen, P. and O. Röhe (2017), On measuring uncertainty and its impact on investment: Cross-country evidence from the euro area, *European Economic Review*, Vol. 92, pp. 161-179.

OECD (2020a), Artificial intelligence, digital technology and advanced production, in *The Digitalisation of Science, Technology and Innovation: Key Developments and Policies*.

OECD (2020b), A roadmap toward a common framework for measuring the Digital Economy – Report for the G20 Digital Economy Task Force.

Ríos-Rull, J.-V. and R. Santaeuilàlia-Llopis (2010), Redistributive shocks and productivity shocks, *Journal of Monetary Economics*, Vol. 57 (8), pp. 931-948.

Rodríguez-López, J. and J. Torres (2012), Technological Sources of Productivity Growth in Germany, Japan, and the United States, *Macroeconomic Dynamics*, Vol. 16 (1), pp. 133-150.

Sandhop, K. (2012), Geschäftstypengewichtung im Verbraucherpreisindex – Wirtschaft und Statistik, March 2012, pp. 266-271.

Schmitt-Grohé, S. and M. Uribe (2011), Business cycles with a common trend in neutral and investment-specific productivity, *Review of Economic Dynamics*, Vol. 14 (1), pp. 122-135.

Solow, R. M., Investment and Technical Progress (1960), in K. J. Arrow, S. Karlin and P. Suppes (eds., 1960), *Mathematical Methods in the Social Sciences*, Stanford University Press, pp. 89-104.

Solow, R. M. (1957), Technical Change and the Aggregate Production Function, *Review of Economics and Statistics*, Vol. 39 (3), pp. 312-320.

Strasser, G., E. Wieland, P. Macias, A. Błażejowska, K. Szafranek, D. Wittekopf, J. Franke, L. Henkel and C. Osbat (2023), E-commerce and Price Setting: Evidence from Europe, *ECB Occasional Paper Series*, forthcoming.

Sveikauskas, L., S. Rowe, J. Mildenberger, J. Price and A. Young (2016), Productivity Growth in Construction, *Journal of Construction Engineering and Management*, Vol. 142 (10).

Timmer, M. P., E. Dietzenbacher, B. Los, R. Stehrer and G. J. de Vries (2015), An Illustrated User Guide to the World Input-Output Database: the Case of Global Automotive Production, *Review of International Economics*, Vol. 23 (3), pp. 575-605.

van Ark, B., K. de Vries and A. Erumban (2021), How to not miss a productivity revival once again?, National Institute Economic Review, Vol. 255 (1), pp. 9-24.

vom Lehn, C. and T. Winberry (2022), The Investment Network, Sectoral Comovement, and the Changing U. S. Business Cycle, The Quarterly Journal of Economics, Vol. 137 (1), pp. 387-433.

von Kalckreuth, U. and N. Wilson (2020), Fintech and statistics – the challenge of classifying something that hasn't existed before, Irving Fisher Committee on Central Bank Statistics, IFC Report No 12: Towards monitoring financial innovation in central bank statistics, Bank for International Settlements, pp. 126-139.

Young, A. T. (2004), Labor's share fluctuations, biased technical change, and the business cycle, Review of Economic Dynamics, Vol. 7 (4), pp. 916-931.

German enterprises' profitability and financing in 2021

The profitability of non-financial enterprises in 2021 was marked by the economy recovering from the pandemic-induced slump in business activity experienced the previous year. Revenues expanded at an above-average pace, driven by catch-up effects. Price increases also played a very important role in this regard, with enterprises' pre-tax profit margin rising to a historically high 5.1%. The long-term debt ratio came back down again. By contrast, enterprises' preference for liquidity eased only slightly. On the cost side, spending on materials rose considerably, fuelled by a sharp rise in prices for intermediate goods and industrial raw materials. Increased costs were largely passed on to consumers but, for the most part, relief in other areas was not. As a result, enterprises expanded their margins substantially during the economic recovery in the reporting year. On balance, the profit situation in 2021 was extremely favourable in virtually all sectors.

While the annual financial statements we have on file are for the year before the Russian war of aggression against Ukraine and the resulting intensification of the energy crisis, they nevertheless reveal how the corporate sector and, in particular, the energy-intensive sectors were faring when the 2022 crisis hit. Liquidity and stability were both relatively high in the corporate sector. The corresponding ratios exceeded those recorded for years immediately preceding earlier recessions or crises, including the coronavirus pandemic. On average, the energy-intensive sectors were no worse off in terms of their profitability and financing than other sectors. Overall, they are therefore likely to be able to withstand the immediate effects of the energy price shock, partly on account of the gas and electricity price brakes and, more recently, lower energy prices.

Given the continuing, albeit somewhat weaker, economic growth, non-financial enterprises are likely to have seen their business activity expand again in 2022. However, the sharply increased energy costs will probably have had a significant impact, especially on annual financial statements in energy-intensive sectors. Cost-side pressures increased across all sectors. On balance, enterprises' profit margin is therefore likely to have been somewhat lower in 2022 than in the reporting year.

■ Underlying trends

2021: German economy recovered from slump at beginning of coronavirus crisis

2021 saw the German economy claw back from the slump into which it was plunged by the outbreak of the coronavirus crisis, aided in no small part by the gradual easing of protective measures to combat the pandemic at home and abroad. Driven by catch-up effects, real gross domestic product expanded by 2.6% on the year. German exporters benefited from growing foreign demand as global economic activity picked up. Easing pandemic-related restrictions boosted private consumption considerably. Business investment also shot up. However, construction investment stagnated on the back of the sharply increased construction prices. Fiscal policy, which was still strongly expansionary as a result of the extensive temporary coronavirus support measures, had a stabilising effect. The recovery would have been even more pronounced if, in particular, industry had not been hampered by global supply bottlenecks for intermediate inputs and sharp rises in commodity prices. Although growth in output was well above potential growth, medium-term aggregate production capacity remained significantly underutilised.

Pre-tax profit margin up sharply

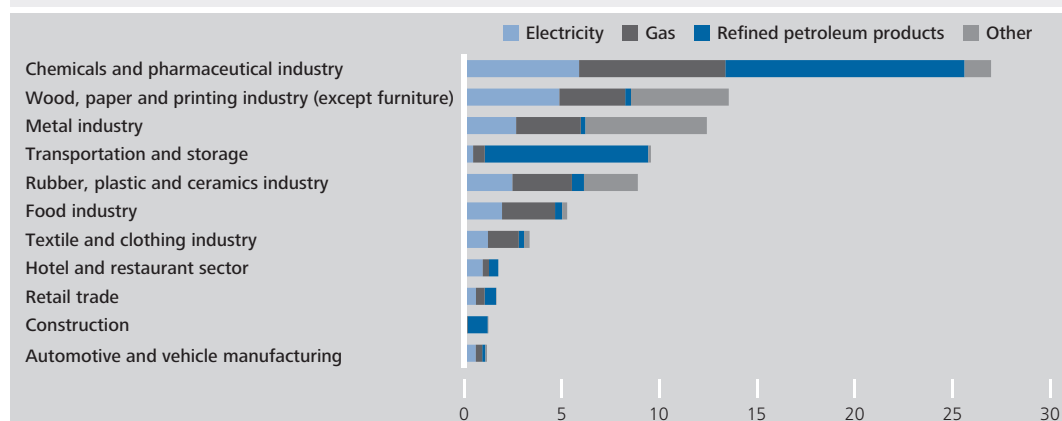
The pre-tax profit margin improved sharply in 2021. At 5.1% – based on the annual financial statements we currently have on file – it

reached its highest level since 2007.¹ In 2020, it barely registered a decline, despite the coronavirus pandemic being in full swing. The sharp price increases for intermediate goods and industrial raw materials significantly pushed up the cost of materials in 2021. However, these cost increases were largely passed on to consumers. By contrast, this was not always the case for falling costs for other items. Savings here instead bolstered or boosted enterprises' margins. Amongst other things, reported personnel expenses as a share of gross revenue declined. Thus, while consumers mostly had to bear the strain of cost increases, they were largely denied the relief afforded in other areas. As a result, enterprises expanded their margins substantially during the economic recovery in the reporting year. On the earnings side, other operating income also climbed steeply, likely in part as a result of government financial assistance measures during the coronavirus crisis. In line with this, the number of corporate insolvencies continued to decline in almost all sectors in 2021. Even after the temporary suspension of the obligation to file for insolvency, which was tied to certain conditions, had been phased out in 2021, insolvency applications did

¹ The analysis for 2021 is based on some 23,000 corporate annual financial statements, which were roughly extrapolated based on the evaluation of aggregate revenue data from the business register.

Energy intensity in selected sectors in Germany*

Ratio of energy use in terajoules to value added in € million



Source: Federal Statistical Office. * Sectors other than energy production and processing, for which energy intensity exceeds the value 1 in 2019.

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Impact of higher energy costs on the profitability of German industrial enterprises

Soaring energy prices are placing a burden on the German corporate sector. High energy costs weigh on firms' profitability if they are unable to pass the increased costs on or sufficiently improve their energy efficiency. The vulnerability of German enterprises' profitability to the sharp rises in energy costs can be measured using simulations which draw on extrapolated data from the Bundesbank's corporate financial statement statistics. The calculations are based on the accounting relationships in the profit and loss (P&L) account, into which rises in energy costs are fed. These data can be used to compute hypothetical energy price-related changes in the gross profit margin.¹

However, the simulations do not shed any light on actual developments in enterprises' profitability, as the design of the calculations means that only the cost of materials changes, while all other P&L positions are left unchanged. Additional burdens, such as reduced sales revenue due to energy savings or losses in households' purchasing power, or higher personnel expenses caused by rising wages, are not reflected in the calculations. Nor do they take account of adjustments made by enterprises, such as passing on costs or taking measures to improve energy efficiency, which mitigate the burdens caused by rising energy prices. Moreover, the results merely illustrate the direct impact on the profit situation and do not provide any insight into the medium-term repercussions for German enterprises.²

The analysis focuses on the manufacturing sector, which is particularly affected by energy price increases because of its high average energy intensity. Based on the sector-specific ratio of energy inputs to total inputs, the firms' cost of materials is increased in the calculations in accordance with the price rises for electricity, gas and

oil.³ The price increases for electricity (+28%) and gas (+109%) are based on the latest year-on-year figures from the Federal Statistical Office for the first half of 2022. The rise in oil prices (+81%) is based on the world market price for Brent oil, converted into euro. The profitability results are compared with their figure for 2019 without a change in energy costs.⁴

The results show that the rise in energy prices places a particularly strong drag on gross profit margins in the chemicals industry, in the glass and ceramics industry, in the manufacture of basic metals and in the paper industry. In the manufacture of fabricated metal products, the textile and clothing industry, the rubber and plastic industry, the food industry and the printing industry, profitability appears to be less vulnerable to higher energy costs than is the case on average in the industrial sectors. The manufacture of machinery and equipment, the electrical engineering industry, the wood industry and the pharmaceutical industry – the latter not being energy-intensive any-

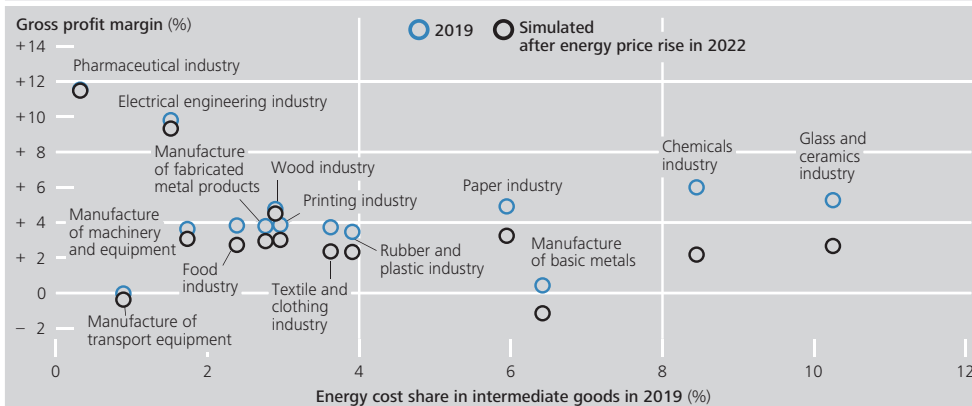
¹ See German Council of Economic Experts (2022) for similar simulations for manufacturing firms using individual data.

² The P&L data in the calculations primarily correspond to domestic business activity. First, the calculations relate to the individual financial statements of German enterprises, without data from consolidated financial statements. Second, the sales figures in the extrapolated data from the Bundesbank's corporate financial statement statistics are consistent with the Federal Statistical Office's figures on gross output in Germany.

³ The ratio of energy expenditure to total expenditure on materials was calculated using the data on sector-specific inputs from the Federal Statistical Office's input-output tables for 2019. It was assumed that the sector-specific shares of expenditure on electricity, gas or oil in total energy expenditure correspond to the shares of electricity, gas or oil consumption in total energy consumption according to data from the Federal Statistical Office. This is a simplified assumption, as the price per kilowatt hour typically also varies according to the energy source.

⁴ A comparison with 2020 would be confounded by the exceptionally weak corporate profits in that year. Detailed sectoral data are not yet available for 2021.

Gross profit margin by energy cost share*



Sources: Federal Statistical Office and Bundesbank calculations. * Extrapolated results from the corporate financial statement statistics.
Deutsche Bundesbank

way – appear to be broadly resilient. Given that profit margins are estimated to be positive in most sectors despite the sharp rise in energy prices, the direct profit losses in the manufacturing sector appear manageable. However, the picture is somewhat more critical for the manufacture of basic metals and also for the manufacture of transport equipment, as profitability in these sectors had already been below-average previously.⁵

When interpreting the results, it is important to note that energy prices had already risen sharply before the end of 2021. This primarily reflected the recovery of global demand from the impact of the pandemic. Considering only the energy price increases since the second half of 2021, which was shortly before war broke out in Ukraine, gross profit margins fell by only around half as much in each case.

One important factor in the macroeconomic impact of the higher energy costs – which, to some extent, are likely to persist – is the high global competitive pressure that many manufacturing sectors face.⁶ This limits the scope for price adjustments if foreign competitors are less affected by higher energy prices. In that case, it could be more advantageous for firms to wind down their business activities in Germany than to con-

tinue producing. Among those sectors most exposed to surging energy prices, this is especially true of the manufacture of basic metals, the chemicals industry and the paper industry. These sectors are likely to have difficulty passing higher energy costs on to their customers to a sufficient extent. However, the high level of competition also means that the products made by these sectors – some of which are important intermediate goods for other sectors – can be fairly easily replaced by imported goods. Some key intermediate goods at the beginning of the domestic value chain could therefore, in principle, be substituted in part by imports. This would mitigate any spill-overs from production cuts to downstream sectors. Nevertheless, there could be a negative impact on employment, as the manufacturing sectors most affected by this account for a substantial share of employment.

⁵ These results depend mainly on the sector-specific share of energy in total expenditure on materials and less so on price increases broken down by energy source.

⁶ International competitiveness can be approximated at the sectoral level using a measure of sector-specific import substitutability. It is defined as the ratio of inputs in Germany to the sum of imports and exports of the world's 43 largest economies according to the World Input-Output Database (WIOD). See Mertens and Müller (2022) for a more differentiated measure at the product level.

not rise above the level prior to the outbreak of the coronavirus pandemic.

Energy-intensive sectors on sound financial footing before outbreak of energy crisis

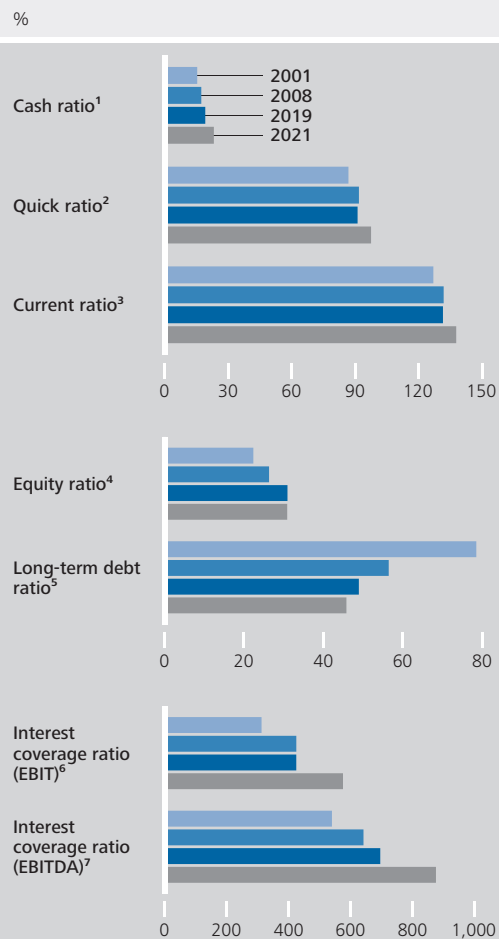
Energy-intensive enterprises with high financing needs last year, ...

The energy price shock triggered by the Russian war of aggression against Ukraine left the energy-intensive sectors facing major challenges last year. Soaring prices for gas, electricity and crude oil have put pressure on manufacturers of metals, chemicals, glass, ceramics and paper, in particular – industries characterised by high gas, electricity and oil intensity levels. Construction, in and of itself, is not a particularly energy-intensive sector. However, it likewise has rather high exposure to the energy crisis, indirectly via energy-intensive construction materials. Besides the manufacturing sector, levels of energy consumption are also high in the transportation sector, which is almost exclusively fuelled by refined petroleum products. The energy price shock intensified both the pressure on firms to adjust their production processes as well as production and sales losses, resulting in high needs for short and medium-term financing. The annual financial statements we have on file are for the year before the energy crisis. However, they can be used to assess the liquidity and stability of energy-intensive sectors, individual sectors and the corporate sector as a whole prior to the crisis.

... but financing conditions and capital structure in corporate sector sound prior to energy crisis ...

Compared with the years preceding the economic downturns of 2002-03 and 2009 – and even the coronavirus pandemic – non-financial enterprises were more robust in terms of their financing conditions and capital structure in 2021. These metrics were thus left virtually untouched by the coronavirus crisis. However, the impact of measures to preserve liquidity and stability, implemented in the wake of the coronavirus pandemic by government or by enterprises themselves, continued to be felt. On

German enterprises' liquidity and stability ratios*



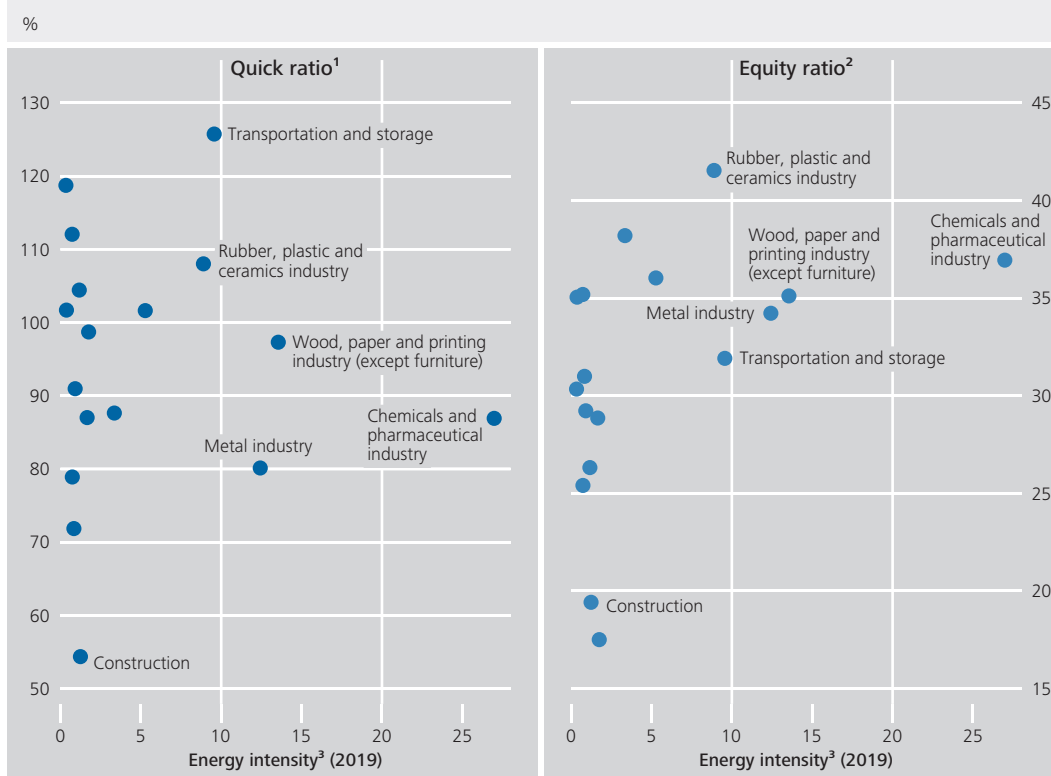
* Extrapolated results from corporate financial statement statistics. **1** (Cash + short-term securities) / short-term liabilities. **2** (Cash + short-term securities + short-term receivables) / short-term liabilities. **3** (Cash + short-term securities + short-term receivables + inventories) / short-term liabilities. **4** Equity / total assets. **5** Long-term liabilities / equity. **6** EBIT / interest expense. **7** EBITDA / interest expense.

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balance, liquidity levels in the corporate sector in 2021 were very good by historical standards. A similar picture emerges with regard to stability ratios. The long-term debt ratio (long-term liabilities to equity) was lower and the equity base stronger than before previous economic downturns and at least roughly as high as before the outbreak of the coronavirus pandemic. The aggregate interest coverage ratio was also extremely high in 2021 in view of favourable profitability levels and the ongoing low interest rate environment.

At the sectoral level, there are differences in enterprises' structural liquidity and stability

German enterprises' liquidity and stability ratios in 2021 by sector*



Source: Federal Statistical Office. * Extrapolated results from corporate financial statement statistics. **1** (Cash + short-term securities + short-term receivables) / short-term liabilities. **2** Equity / total assets. **3** Ratio of energy use in terajoules to value added in € million.
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... in energy-intensive economic sectors, too, despite larger sectoral differences

ratios as well as their profit situation. On average, however, energy-intensive sectors were no worse off than non-energy-intensive ones in terms of their profitability and financing. Their liquidity levels and equity ratios even tended to be above average. On average, the gross profit margin was similarly high. While liquidity levels and equity ratios were lower in the construction sector than in other sectors, given the construction boom in previous years, this sector was much more solidly positioned than in the past. The energy-intensive sectors are therefore likely to be able to withstand the immediate financial impact of the energy price shock for the time being. Profit losses in the manufacturing sector as a result of higher energy costs also appear to be manageable from today's perspective (see the box on pp. 69 f.). The recent fall in energy prices as well as the gas and electricity price brakes for enterprises will also provide a helping hand in this regard this and next year. Nevertheless, as higher energy costs look likely to be here to stay, these and the as-

sociated necessary adjustment of production processes will probably weigh on the German corporate sector and potential output in the medium term.²

Sales and income

The economic recovery in the reporting year drove sales up considerably. Revenue growth averaged 12%, following a decline of 3.7% in the previous year. The catch-up effect after the crisis year of 2020 consequently led to the largest increase in sales since data collection started in 1997. Higher prices are likely to have been a greater factor in the increase in sales revenues than volume growth, as the prices of goods and services rose particularly sharply. As enterprises also expanded their inventories sharply, production outpaced sales in value terms. Other operating income rose less than in the

Strong sales growth, mainly due to price effects

² See Deutsche Bundesbank (2022).

previous year, but remained at a high level relative to sales, in part because of the ongoing use of crisis assistance measures.

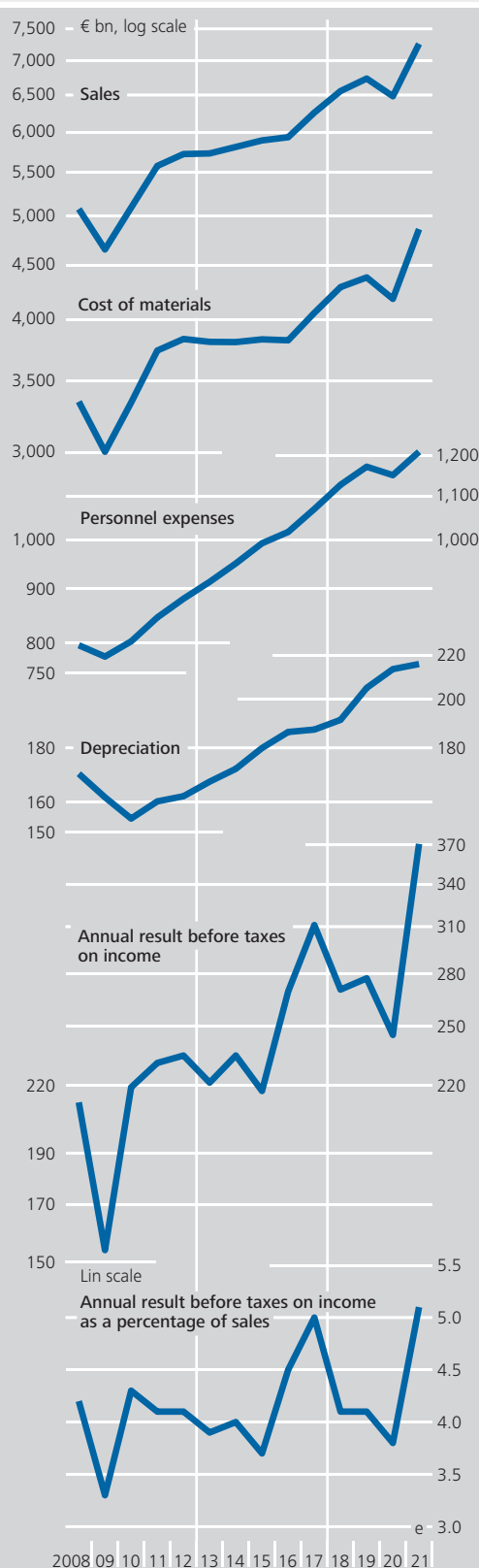
Sales growth in most sectors; decline in construction sector due to strong stockpiling

Sales rose sharply in almost all sectors. The strongest sales growth was recorded by energy companies, partly because energy prices rose considerably, even in 2021. The high increases in the prices of intermediate goods are also likely to have contributed to the above-average rates of sales growth for intermediate goods producers in the metal and wood industries as well as in the chemicals and pharmaceutical sectors. Looking at service providers, sales grew most strongly in the transportation and storage sector, particularly in water and air transport, mainly owing to catch-up effects following the crisis year of 2020 and a sharp rise in the prices of these services. As restrictions designed to contain the pandemic were still in place in 2021, sales in the hotel and restaurant sector, by contrast, did not yet recover following the sharp decline in the previous year. Sales also stagnated in the food industry. However, unlike in the hotel and restaurant sector, for example, sales there had not plummeted in the preceding year. Only the construction sector recorded a drop in sales, though this sector did see an exceptionally sharp rise in the stock of finished and unfinished products.

Large rise in expenditure mainly due to higher cost of materials but also to increase in personnel costs

Non-financial enterprises boosted their profits significantly again in 2021 and more than offset the slight decline in profits in the preceding year. As overall expenditure did not climb as fast as income, the annual result before tax rose by around half. The sharp rise in commodity prices in particular, but also heightened demand for intermediate goods, contributed to the nonetheless large increase in expenses. Viewed in isolation, personnel expenses and other expenses also picked up as a result of the rise in employment, the partial recovery in working hours due to the reduced use of short-time work arrangements, and significant wage increases. The profitability of non-financial enterprises increased in virtually all sectors. In many sectors, the gross profit margin was not

Indicators from German enterprises' income statement*



* Extrapolated results from corporate financial statement statistics.

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Enterprises' income statement*

Item	2019	2020	2021 ^e	Year-on-year change	
				2020	2021 ^e
Income	€ billion			%	
Sales	6,735.7	6,483.3	7,261.4	– 3.7	12.0
Change in finished goods ¹	42.9	7.9	91.1	– 81.5	1,046.4
Gross revenue	6,778.6	6,491.3	7,352.5	– 4.2	13.3
Interest and similar income	19.2	17.6	18.2	– 8.1	3.3
Other income ²	250.6	282.0	309.2	12.5	9.6
of which: from long-term equity investments	56.7	58.6	59.0	3.3	0.8
Total income	7,048.4	6,790.9	7,679.9	– 3.7	13.1
Expenses					
Cost of materials	4,381.2	4,182.7	4,863.7	– 4.5	16.3
Personnel expenses	1,171.5	1,150.3	1,209.9	– 1.8	5.2
Depreciation	204.9	213.4	215.8	4.1	1.1
of tangible fixed assets ³	185.4	192.3	194.3	3.7	1.0
Other ⁴	19.5	21.2	21.5	8.6	1.7
Interest and similar expenses	68.5	70.6	64.8	3.1	– 8.2
Operating taxes	4.6	4.6	5.2	0.4	12.8
Other expenses ⁵	940.5	924.0	949.7	– 1.8	2.8
Total expenses before taxes on income	6,771.1	6,545.6	7,309.1	– 3.3	11.7
Annual result before taxes on income	277.2	245.3	370.8	– 11.5	51.2
Taxes on income ⁶	60.1	58.8	79.7	– 2.1	35.4
Annual result	217.1	186.4	291.1	– 14.1	56.1
Memo items:					
Cash flow ⁷	455.8	448.4	587.6	– 1.6	31.0
Net interest paid	49.3	53.0	46.6	7.5	– 12.0
	As a percentage of sales			Percentage points	
Gross income ⁸	35.6	35.6	34.3	0.0	– 1.3
Annual result	3.2	2.9	4.0	– 0.3	1.1
Annual result before taxes on income	4.1	3.8	5.1	– 0.3	1.3
Net interest paid	0.7	0.8	0.6	0.1	– 0.2

* Extrapolated results; differences in the figures due to rounding. ¹ Including other own work capitalised. ² Excluding income from profit transfers (parent company) and loss transfers (subsidiary). ³ Including write-downs of intangible fixed assets. ⁴ Predominantly write-downs of receivables, securities and other long-term equity investments. ⁵ Excluding cost of loss transfers (parent company) and profit transfers (subsidiary). ⁶ In the case of partnerships and sole proprietorships, trade earnings tax only. ⁷ Annual result, depreciation, and changes in provisions, in the special tax-allowable reserve and in prepaid expenses and deferred income. ⁸ Gross revenue less cost of materials.

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far off the highs of the past two decades. The sectors trade, business services, construction and the chemicals and pharmaceutical industries even exceeded these peaks.

Sources and uses of funds

As the economy recovered, enterprises' sources and uses of funds rose exceptionally sharply. On the revenue side, the additional funds were sourced internally and externally in roughly equal parts. Internal financing rose, with increased transfers to provisions, mainly as a result of retained profits. The increase in external

financing was driven by significantly higher short-term liabilities, while long-term liabilities were scaled back. On the expenditure side, non-financial asset formation doubled as the stock of finished and unfinished goods rose sharply. The increase in tangible fixed assets recovered somewhat, but remained below the pre-crisis level of 2019. Financial asset formation rose sharply on the back of significantly higher short-term receivables. The build-up of liquidity in the form of cash remained at an elevated level.

Sources and uses of funds rose exceptionally sharply

Enterprises' sources and uses of funds*

€ billion

Item	2019	2020	2021 ^e	Year-on-year change	
				2020	2021 ^e
Sources of funds					
Capital increase from profits and contributions to the capital of non-corporations ¹	26.4	22.4	115.1	– 4.0	92.7
Depreciation (total)	204.9	213.4	215.8	8.5	2.3
Increase in provisions ²	33.7	48.7	80.8	14.9	32.2
Internal funds	265.0	284.5	411.7	19.5	127.2
Increase in capital of corporations ³	29.7	34.3	27.2	4.6	– 7.0
Change in liabilities	77.3	80.1	234.0	2.8	153.8
Short-term	73.8	– 1.6	275.8	– 75.4	277.4
Long-term	3.5	81.7	– 41.9	78.2	– 123.6
External funds	107.0	114.4	261.2	7.4	146.8
Total	372.1	398.9	672.9	26.9	273.9
Uses of funds					
Increase in tangible fixed assets (gross)	239.2	213.6	230.5	– 25.6	17.0
Increase in tangible fixed assets (net) ⁴	53.7	21.3	36.3	– 32.5	15.0
Depreciation of tangible fixed assets	185.4	192.3	194.3	6.8	2.0
Change in inventories	29.1	– 27.9	136.0	– 57.0	163.8
Non-financial asset formation (gross investments)	268.3	185.7	366.5	– 82.6	180.8
Change in cash	– 3.6	81.3	51.5	84.9	– 29.8
Change in receivables ⁵	52.8	48.0	193.9	– 4.9	146.0
Short-term	27.6	52.4	211.0	24.8	158.6
Long-term	25.3	– 4.4	– 17.0	– 29.7	– 12.6
Acquisition of securities	– 1.2	12.0	4.0	13.2	– 7.9
Acquisition of other long-term equity investments ⁶	55.7	72.0	56.9	16.3	– 15.1
Financial asset formation	103.7	213.2	306.4	109.5	93.1
Total	372.1	398.9	672.9	26.9	273.9
Memo item:					
Internal funds as a percentage of gross investments	98.8	153.2	112.3	.	.

* Extrapolated results; differences in the figures due to rounding. ¹ Including "GmbH und Co. KG" and similar legal forms. ² Including change in the balance of prepaid expenses and deferred income. ³ Increase in nominal capital through the issue of shares and transfers to capital reserves. ⁴ Change in tangible fixed assets (including intangible assets but excluding goodwill). ⁵ Including unusual write-downs of current assets. ⁶ Including change in goodwill.

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Balance sheet developments

Share of financial assets in total assets stable; ongoing shift from long-term to short-term receivables

In line with the high sales growth, the total assets of non-financial enterprises expanded considerably in 2021. As with sales, the 8.6% increase was the highest since records began, driven by rebound effects after the crisis year of 2020. On the assets side, the share of financial assets in total assets remained broadly unchanged. On balance, the shift from long-term to short-term receivables continued. The decline in long-term receivables was more pronounced than in the previous year and was again due to the reduction in receivables from affiliated enterprises. Short-term receivables

also rose significantly more strongly than in the previous year. As in the preceding year, the desire to preserve liquidity was still a factor in some cases. In the energy sector, cash resources were stocked up considerably, by operators of power grids for example, possibly with a view to future investments in network expansion. While the recession had resulted in a drop in trade receivables in 2020, they expanded considerably in the reporting year in line with the high growth in sales. In addition, there was also an exceptionally large increase in other receivables and assets. This was, in large part, due to the strong expansion of energy sup-

Enterprises' balance sheet*

				Year-on-year change	
Item	2019	2020	2021 ^e	2020	2021 ^e
Assets	€ billion			%	
Intangible fixed assets ¹	76.8	83.3	84.5	8.4	1.4
Tangible fixed assets	1,214.0	1,228.8	1,263.9	1.2	2.9
Inventories	817.1	789.3	925.2	– 3.4	17.2
Non-financial assets	2,107.9	2,101.3	2,273.6	– 0.3	8.2
Cash	353.7	435.0	486.5	23.0	11.8
Receivables	1,654.3	1,695.8	1,883.5	2.5	11.1
of which:					
Trade receivables	457.0	438.8	519.4	– 4.0	18.4
Receivables from affiliated companies	1,008.0	1,054.2	1,103.4	4.6	4.7
Securities	105.4	117.3	121.3	11.3	3.4
Other long-term equity investments ²	1,036.5	1,093.8	1,135.4	5.5	3.8
Prepaid expenses	27.3	26.8	40.0	– 1.7	49.1
Financial assets	3,177.1	3,368.7	3,666.7	6.0	8.8
Total assets ³	5,285.0	5,470.0	5,940.3	3.5	8.6
Capital					
Equity ³	1,637.0	1,693.6	1,835.9	3.5	8.4
Liabilities	2,827.7	2,907.8	3,141.8	2.8	8.0
of which:					
to banks	583.4	599.0	592.3	2.7	– 1.1
Trade payables	362.6	345.7	414.2	– 4.7	19.8
to affiliated companies	1,251.7	1,310.5	1,363.7	4.7	4.1
Payments received on account of orders	302.0	290.2	347.7	– 3.9	19.8
Provisions	775.2	821.4	901.5	6.0	9.7
of which:					
Provisions for pensions	278.7	299.6	316.8	7.5	5.7
Deferred income	45.2	47.2	61.1	4.3	29.5
Liabilities and provisions	3,648.1	3,776.4	4,104.4	3.5	8.7
Total capital ³	5,285.0	5,470.0	5,940.3	3.5	8.6
Memo items:					
Sales	6,735.7	6,483.3	7,261.4	– 3.7	12.0
Sales as a percentage of total assets	127.4	118.5	122.2	.	.

* Extrapolated results; differences in the figures due to rounding. 1 Excluding goodwill. 2 Including shares in affiliated companies and goodwill. 3 Less adjustments to equity.

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pliers' business activities, especially in energy trading.

Non-financial assets rose in 2021, mainly because inventories expanded exceptionally sharply. In the previous year, they had been scaled back in a bid to conserve liquidity, in part in response to the crisis. Stockpiling was broadly spread across sectors. In addition to the impact of the economic recovery, this could be due, in part, to the desire, sparked by supply bottlenecks, to ensure that value-added chains are more resilient. Tangible fixed assets also grew markedly again. By contrast, intangible fixed assets, which had grown sharply in the

pandemic year of 2020 in the information and communication sector, amongst others, displayed no particular momentum in 2021.

The equity ratio of non-financial enterprises remained stable at a high level in 2021 despite the headwinds of the pandemic and a degree of energy price inflation. The increase in equity, which was high in absolute terms, was spread broadly across sectors. Growth in equity was above average in the services sectors (except the wholesale trade) and in the construction sector.

Equity ratio remains stable at high level

Non-financial assets increased sharply due to stockpiling

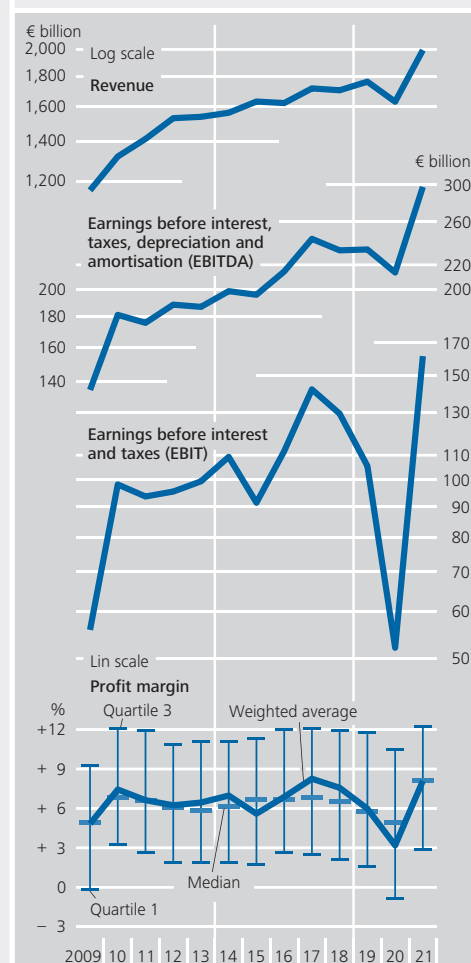
Profitability and financial position of German listed groups in 2021 and an outlook for 2022

In 2021, German non-financial listed groups rapidly recovered from the setbacks of 2020 – a year dominated by the pandemic.¹ Their revenues and profits reached new highs, while rising energy prices already had a clear impact on energy suppliers. Estimates for 2022 suggest that earnings increased substantially across all economic sectors as a result of price and exchange rate effects. Owing to the accelerated growth in expenditure, profits are likely to have risen less sharply, particularly for energy suppliers.

Revenues grew by 20% in 2021.² This is mainly due to the base effect of the low figures in 2020 and price effects. The latter were a key factor in the doubling of energy suppliers' revenues. Overall, earnings before interest, taxes, depreciation and amortisation (EBITDA) rose by 38% on the year, while earnings before interest and taxes (EBIT) tripled. As a result, the weighted average profit margin rose sharply.³ It increased by 5.0 percentage points to 8.1%, just shy of the peak seen in 2017. In contrast to 2017, the strong growth in 2021 was carried by the vast majority of groups. Accordingly, the distribution of the profit margin shifted significantly toward higher values. The profit margin of groups that

previously had low profits recovered to a greater extent than that of groups with high profits. Furthermore, the profits of large groups with higher revenues rose more strongly than those of smaller groups. At the sector level, the profit margin in both the services sector and the production sector (excluding energy) reached new highs. Despite energy price-dependent revenue increases, energy suppliers were unable to improve their profits in 2021, as operating expenses increased by the same magnitude.

Revenue, earnings and profit margin of German non-financial groups

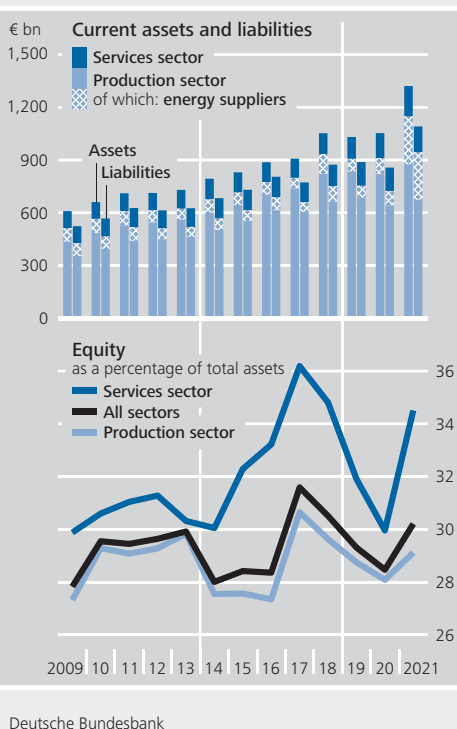


¹ The reporting population comprises around 230 non-financial groups (excluding real estate activities) that are admitted to the Frankfurt Stock Exchange's Prime Standard segment and which publish IFRS consolidated financial statements on a quarterly or half-yearly basis and make a significant contribution to value added in Germany. For information on the profitability and financial structure of non-financial listed groups from other European countries, see the publications of the Working Group on European Records of IFRS Consolidated Accounts (ERICA WG) at <https://www.eccbso.org/wba/publications#listEl2>

² The rates of change for the profit margin, revenue, EBITDA and EBIT are published with reporting and consolidation basis adjustments.

³ Defined as the revenue-weighted ratio of EBIT to revenue.

Assets and financing of German non-financial groups



On the asset side, current assets grew by more than 25%, with more than two-thirds of this being attributable to energy suppliers. This was largely the result of valuation effects of derivatives held for hedging purposes. Inventories rose by 12% across all groups, partly reflecting developments in commodity prices. Cash holdings, which had already grown sharply in 2020, increased by 9% in 2021 on account of high inflows from current operations. Among non-current assets, intangible assets increased by 12%. The telecommunications sector made a significant contribution to this through the acquisition of licenses. Property, plant and equipment grew by 6% on a broad basis across groups. The 10% increase in financial assets was mainly attributable to growth in car manufacturers' financial services business and their acquisition of equity interests, and to derivatives positions of energy suppliers.

On the financing side, equity went up by 23%, partly on account of the high profits for the year. A large contribution was also made by the differences arising from currency translation and the remeasurements of defined benefit pension plans. The equity ratio climbed by 1.7 percentage point to 30.2%. It grew significantly more strongly in the services sector than in the production sector, where the aggregate equity ratio was dampened by the strong balance sheet growth among energy suppliers.

A considerable 27% rise in current liabilities set the tone for the debt position overall. This increase was largely due to changes in the valuation of energy price-dependent derivatives positions of energy suppliers. By contrast, the remainder of the production sector and service providers reduced their financial liabilities. Across all sectors, trade payables increased by 21%, which is likely to be due to both rising output and price changes. Non-current liabilities remained more or less stable. Low growth in long-term borrowings was almost entirely offset by the decline in pension obligations.

In the first half of 2022, revenue increased by around one-quarter compared with the first half of 2021. This development is estimated to have continued in the second half of 2022, partly as a result of price effects and the weaker euro, which increased group revenues generated in foreign currency and translated into euro. Owing to the further rise in energy prices, energy suppliers are likely to record the largest revenue increase in 2022, as was the case in the previous year.

The slight normalisation of groups' profit margin⁴ in 2022 was due to pre-tax profits not increasing to the same extent as rev-

⁴ Profit margin is defined here as the revenue-weighted ratio of the annual result before taxes on income to revenue.

enues. This development was strongly influenced by energy suppliers, which – despite high revenue growth – recorded lower pre-tax profits on account of rising expenditure. In addition, pre-tax profits were weighed down by the direct consequences of the war in Ukraine. Several groups discontinued their production and distribution in Russia and Belarus, triggering impairments of group assets.

Compared with individual enterprises covered by the corporate financial statement statistics, the profitability of groups increased more strongly in 2021, albeit after having fallen more sharply in 2020. This is because – unlike single-entity financial statements, which mainly reflect business in Germany – the profitability of groups largely reflects global economic developments and the domestic conditions prevailing in the countries where the subsidiaries are located.⁵

Annual result before taxes on income

As a percentage of sales



1 Seasonally and calendar-adjusted average, Q1 to Q3 2022.
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5 Furthermore, the metrics derived from the financial statements are shaped materially by differences between the accounting standards applied (German GAAP for the corporate financial statement statistics, IFRS for the consolidated financial statement statistics).

Strong growth in liabilities; scaling back of long-term liabilities

Growth in liabilities was significantly stronger in the reporting year than in the previous year. The shift from short-term to long-term liabilities in the pandemic year of 2020 reversed in the reporting year. As business activity picked up again, trade payables and advance payments received rose sharply. Short-term liabilities to affiliated enterprises also expanded significantly. By contrast, short-term liabilities to credit institutions were virtually unchanged. Long-term liabilities were scaled back mainly to affiliated enterprises, but also to credit institutions. By contrast, more bonds were issued on balance. Provisions were also larger in 2021 than a year earlier. This was mainly attributable to other provisions, which were set aside in line with positive business developments. However, provisions for pensions and tax also continued to rise.

Trends for 2022

With economic growth higher year on year, non-financial enterprises are likely to have further expanded their business activities again in 2022. However, the business situation deteriorated over the course of the year, in particular owing to the sharp rise in energy prices as a result of Russia's war of aggression against Ukraine and the gradual end of reopening effects after measures to contain the pandemic were lifted. The loss of purchasing power associated with high inflation weighed on private consumption. The slowdown in the global economy and ongoing supply chain issues dampened German exporters' sales. Real government consumption grew less strongly as pandemic-related spending came to an end. High energy costs will probably have had a significant impact, especially on the annual financial statements in energy-intensive sectors. The decline in housing investment as a result of sharply higher construction costs and increased

Further rise in business activities likely in 2022, with a slight decline in the profit margin

Enterprises' balance sheet ratios*

Item	2019	2020	2021 ^e
	As a percentage of total assets ¹		
Intangible fixed assets ²	1.5	1.5	1.4
Tangible fixed assets	23.0	22.5	21.3
Inventories	15.5	14.4	15.6
Short-term receivables	27.6	27.5	28.8
Long-term equity and liabilities ³	51.4	52.6	50.4
of which:			
Equity ¹	31.0	31.0	30.9
Long-term liabilities	15.2	16.1	14.2
Short-term liabilities	38.3	37.0	38.7
	As a percentage of tangible fixed assets ⁴		
Equity ¹	126.8	129.1	136.2
Long-term equity and liabilities ³	210.5	219.3	222.1
	As a percentage of fixed assets ⁵		
Long-term equity and liabilities ³	104.8	107.8	109.7
	As a percentage of short-term liabilities		
Cash resources ⁶ and short-term receivables	91.2	98.1	97.6
	As a percentage of liabilities and provisions ⁷		
Cash flow ⁸	13.8	13.4	16.2

* Extrapolated results; differences in the figures due to rounding.

¹ Less adjustments to equity. ² Excluding goodwill. ³ Equity, provisions for pensions, long-term liabilities and the special tax-allowable reserve. ⁴ Including intangible fixed assets (excluding goodwill). ⁵ Tangible fixed assets, intangible fixed assets, other long-term equity investments, long-term receivables and long-term securities. ⁶ Cash and short-term securities. ⁷ Liabilities, provisions, deferred income and proportionate special tax-allowable reserve less cash. ⁸ Annual result, depreciation, and changes in provisions, in the special tax-allowable reserve and in prepaid expenses and deferred income.

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financing costs is likely to have hurt the construction sector. The services sector, meanwhile, is likely to have fared better thanks to catch-up effects after measures taken to contain the pandemic were lifted. On the cost side, enterprises experienced pressure from strong increases in the prices of intermediate goods and industrial raw materials as well as from higher wage growth. On balance, enterprises' profit margin is likely to be somewhat lower in 2022 than the exceptionally high profit margin in the reporting year.

Long series with extrapolated results from the corporate financial statement statistics are available at <https://www.bundesbank.de/en/statistics/enterprises-and-households/-/corporate-financial-statements-796226>

■ List of references

Deutsche Bundesbank (2022), Impact of permanently higher energy costs on German potential output, Monthly Report, December 2022, pp. 29 f.

Deutsche Bundesbank (2011), Financial statements statistics with broader sectoral coverage and a new basis of extrapolation, Monthly Report, December 2011, pp. 32 f.

German Council of Economic Experts (2022), Managing the energy crisis in solidarity, shaping the new reality, Annual Report 2022/23.

Mertens, M. and S. Müller (2022), Wirtschaftliche Folgen des Gaspreisanstiegs für die deutsche Industrie, IWH Policy Notes 2/2022.

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I. Key economic data for the euro area

1. Monetary developments and interest rates

Period	Money stock in various definitions 1,2				Determinants of the money stock 1			Interest rates	
	M1	M2	M3 3		MFI lending, total	MFI lending to enterprises and households	Monetary capital formation 4	€STR 5,6	Yield on European government bonds outstanding 7
				3-month moving average (centred)					
Annual percentage change								% p.a. as a monthly average	
2021 June	11.7	8.2	8.3	8.3	6.0	3.3	- 0.6	- 0.56	0.2
July	11.0	7.6	7.8	8.1	5.8	3.1	- 0.5	- 0.57	0.0
Aug.	11.1	7.8	8.0	7.8	5.5	2.8	- 0.8	- 0.57	- 0.1
Sep.	11.1	7.6	7.5	7.8	5.6	3.3	- 0.7	- 0.57	0.1
Oct.	10.7	7.5	7.7	7.5	5.6	3.6	- 0.3	- 0.57	0.2
Nov.	10.1	7.1	7.4	7.3	5.8	3.7	- 0.5	- 0.57	0.2
Dec.	9.8	6.9	6.9	6.9	6.1	3.9	- 0.5	- 0.58	0.1
2022 Jan.	9.1	6.8	6.5	6.6	6.2	4.3	- 0.3	- 0.58	0.4
Feb.	9.1	6.7	6.4	6.4	6.2	4.4	- 0.6	- 0.58	0.8
Mar.	8.8	6.6	6.3	6.2	6.1	4.4	- 0.7	- 0.58	0.9
Apr.	8.2	6.3	6.1	6.1	6.4	5.0	- 0.1	- 0.58	1.4
May	7.9	6.1	5.8	5.9	6.2	5.1	0.0	- 0.59	1.7
June	7.2	6.0	5.8	5.8	6.3	5.4	- 0.0	- 0.58	2.2
July	6.8	5.9	5.7	5.9	5.9	5.4	- 0.1	- 0.51	1.9
Aug.	6.8	6.3	6.1	6.0	5.7	5.7	- 0.1	- 0.09	1.8
Sep.	5.6	6.2	6.3	5.8	5.5	5.7	- 0.1	0.36	2.6
Oct.	3.8	5.2	5.1	5.4	5.1	5.3	- 0.4	0.66	3.0
Nov.	2.4	4.6	4.8	4.7	4.8	5.2	0.2	1.37	2.7
Dec.	0.6	3.7	4.1	4.1	3.9	4.4	0.7	1.57	2.8
2023 Jan.	- 0.7	3.0	3.5	...	3.1	3.8	1.5	1.90	2.9
Feb.	...	...	...	...	...	...	...	2.28	3.0

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

Short-Term Rate. 6 See also footnotes to Table VI.3, p. 43. 7 GDP-weighted yield on ten-year government bonds. Countries included: DE, FR, NL, BE, AT, FI, IE, PT, ES, IT, GR, SK, CY, SI.

2. External transactions and positions *

Period	Selected items of the euro area balance of payments								Euro exchange rates 1		
	Current account				Financial account				Reference rate vis-à-vis the US dollar	Effective exchange rate 3	
	Balance	of which: Goods	Balance	Direct investment	Portfolio investment	Financial derivatives 2	Other investment	Reserve assets		Nominal	Real 4
	€ million								EUR 1 = USD ...	Q1 1999 = 100	
2021 June	+ 30,929	+ 31,423	+ 67,526	- 11,569	+ 44,284	- 2,680	+ 32,294	+ 5,198	1.2047	100.3	93.8
July	+ 36,184	+ 34,230	+ 27,732	+ 46,148	- 8,774	+ 18,412	- 27,716	- 337	1.1822	99.7	93.5
Aug.	+ 20,453	+ 17,141	+ 30,743	+ 61,459	+ 12,932	+ 2,203	- 167,932	+ 122,082	1.1772	99.4	93.2
Sep.	+ 33,113	+ 22,270	+ 14,640	+ 13,409	+ 14,477	+ 2,664	- 17,314	+ 1,404	1.1770	99.5	93.3
Oct.	+ 6,509	+ 12,929	+ 16,507	+ 28,579	+ 20,476	+ 13,355	- 49,072	+ 3,170	1.1601	98.5	92.4
Nov.	+ 13,798	+ 14,908	- 3,655	+ 4,881	+ 56,566	+ 25,649	- 91,292	+ 540	1.1414	97.6	91.7
Dec.	+ 21,918	+ 9,975	+ 13,623	+ 25,582	+ 5,571	+ 1,183	- 17,890	- 822	1.1304	97.1	91.2
2022 Jan.	- 9,368	- 9,807	+ 9,160	- 16,757	+ 86,510	+ 3,703	- 61,974	- 2,320	1.1314	96.6	91.1
Feb.	- 764	+ 3,533	+ 4,907	+ 26,530	- 25,164	- 2,785	+ 4,800	+ 1,527	1.1342	96.9	91.6
Mar.	+ 5,422	+ 4,220	- 20,555	+ 4,465	- 109,688	- 2,488	+ 87,250	- 95	1.1019	95.9	91.4
Apr.	- 16,578	- 11,525	- 43,946	+ 3,614	+ 18,095	+ 27,513	- 92,461	- 707	1.0819	95.2	90.0
May	- 29,900	- 5,063	+ 40,312	+ 114,016	+ 6,577	+ 1,532	- 83,024	+ 1,211	1.0579	95.6	90.4
June	- 4,416	- 5,973	+ 28,343	- 5,306	- 65,951	- 144	+ 97,929	+ 1,815	1.0566	95.9	90.6
July	- 20,764	- 13,084	+ 7,802	- 12,876	+ 36,528	+ 11,603	- 29,091	+ 1,638	1.0179	94.1	89.1
Aug.	- 31,641	- 27,420	- 7,980	- 30,019	- 60,878	+ 14,903	+ 65,850	+ 2,164	1.0128	93.6	88.8
Sep.	- 22,025	- 10,296	- 49,979	+ 24,899	- 154,050	+ 17,624	+ 57,955	+ 3,592	0.9904	94.2	p 89.8
Oct.	- 4,706	- 2,027	+ 13,562	+ 7,444	- 47,486	+ 7,165	+ 42,664	+ 3,775	0.9826	94.8	p 91.1
Nov.	+ 12,720	+ 9,669	- 22,003	+ 4,278	- 16,780	+ 3,522	- 13,532	+ 509	1.0201	96.0	p 91.9
Dec.	+ 28,898	+ 11,661	+ 62,375	+ 21,327	+ 90,284	- 12,674	- 41,167	+ 4,606	1.0589	97.0	p 92.3
2023 Jan.	...	...	...	...	...	...	...	...	1.0769	97.3	p 92.5
Feb.	...	...	...	...	...	...	...	...	1.0715	97.3	p 92.5

* Source: ECB, according to the international standards of the International Monetary Fund's Balance of Payments Manual (sixth edition). 1 Monthly averages, see also Tables XII. 9 and 11, pp. 82/83. 2 Including employee stock options. 3 Bundesbank cal-

culution. Vis-à-vis the currencies of the extended EER group of trading partners (fixed composition). 4 Based on consumer price indices.

I. Key economic data for the euro area

3. General economic indicators

Period	Euro area	Belgium	Germany	Estonia	Finland	France	Greece	Ireland	Italy	Croatia	Latvia
Real gross domestic product ¹											
Annual percentage change											
2020	- 6.1	- 5.4	- 3.7	- 0.6	- 2.4	- 7.8	- 9.0	6.2	- 9.0	- 8.6	- 2.2
2021	5.4	6.1	2.6	8.0	3.0	6.8	8.4	13.6	7.0	13.1	4.1
2022	3.5	3.1	1.8	- 1.3	2.1	2.6	5.9	12.0	3.7	6.3	2.0
2021 Q3	4.0	4.8	1.8	8.4	3.1	3.7	12.4	10.4	5.0	16.7	4.4
Q4	4.9	6.1	1.2	7.4	3.1	4.8	8.2	13.8	6.3	12.2	2.5
2022 Q1	5.5	5.2	3.9	2.9	4.2	4.9	8.5	11.7	6.4	7.8	5.5
Q2	4.4	4.0	1.7	- 0.3	3.2	4.4	7.4	12.6	5.1	8.7	2.5
Q3	2.5	1.9	1.3	- 2.9	1.6	1.0	3.9	11.6	2.4	5.2	0.2
Q4	1.9	1.5	0.3	- 4.1	- 0.4	0.2	4.5	12.0	1.0	4.0	0.3
Industrial production ²											
Annual percentage change											
2020	- 7.6	- 3.8	- 9.6	- 2.8	- 3.2	- 10.9	- 2.1	14.5	- 11.4	- 3.4	- 1.8
2021	8.9	16.8	4.7	12.8	4.2	5.9	10.4	16.4	12.2	6.4	6.5
2022	2.2	- 0.8	p - 0.5	- 2.3	3.9	- 0.1	2.4	2.9	0.4	1.6	0.8
2021 Q3	6.9	19.4	2.5	12.7	4.6	2.5	9.9	27.6	4.9	3.1	6.3
Q4	2.5	11.2	- 1.2	11.8	7.5	- 0.5	11.9	- 18.2	4.6	4.0	3.5
2022 Q1	1.6	6.4	- 1.2	4.3	4.6	- 0.2	4.9	- 15.0	1.5	3.0	4.0
Q2	2.0	- 5.1	- 1.3	2.5	8.0	- 0.2	3.1	- 7.3	2.1	2.5	3.6
Q3	3.3	- 3.6	1.6	- 5.0	3.8	0.2	3.6	4.0	0.0	2.4	- 2.7
Q4	2.1	- 0.3	p - 0.9	- 10.4	- 0.3	- 0.2	- 1.8	32.4	- 2.2	- 1.5	- 1.2
Capacity utilisation in industry ³											
As a percentage of full capacity											
2020	74.5	75.5	77.3	67.7	76.9	73.8	71.0	69.1	53.4	67.8	72.1
2021	81.4	80.1	84.9	78.1	81.2	81.1	75.6	78.0	76.5	75.3	75.3
2022	82.2	79.1	85.2	71.7	81.0	81.8	75.9	79.8	78.4	77.2	75.0
2021 Q4	82.7	81.1	85.4	85.2	82.6	82.0	77.3	81.0	77.8	76.3	76.7
2022 Q1	82.4	80.0	86.0	71.7	82.0	82.7	76.8	79.1	78.6	77.9	75.5
Q2	82.5	80.1	84.9	69.7	80.3	82.2	76.7	81.2	78.5	79.9	75.6
Q3	82.3	78.9	85.0	73.8	80.7	81.7	74.6	79.2	78.5	75.9	75.7
Q4	81.4	77.2	84.9	71.5	80.8	80.6	75.5	79.8	77.9	74.3	73.3
2023 Q1	80.9	76.7	84.6	71.5	79.1	80.2	74.8	79.2	77.8	77.6	72.6
Standardised unemployment rate ⁴											
As a percentage of civilian labour force											
2020	e 7.8	e 5.6	e 3.6	e 7.0	e 7.8	e 7.8	e 16.3	e 5.6	e 9.2	e 7.6	e 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 7.7	e 7.6
2022	e 6.7	e 5.5	p 3.1	e 5.6	e 6.8	e 7.3	e 12.5	e 4.5	e 8.1	e 6.8	e 6.9
2022 Sep.	6.7	5.4	3.1	5.2	7.3	7.1	11.9	4.4	7.9	6.8	7.0
Oct.	6.6	5.6	3.1	5.4	6.4	7.2	11.5	4.5	7.9	6.8	6.9
Nov.	6.7	5.7	3.0	5.6	6.7	7.1	11.4	4.5	7.8	6.8	6.9
Dec.	6.7	5.8	3.0	5.5	7.3	7.2	12.4	4.4	7.8	6.7	6.8
2023 Jan.	6.6	5.8	3.0	5.2	7.1	7.1	10.8	4.4	7.9	6.5	6.8
Feb.	...	...	...	...	...	...	...	4.3	...	...	...
Harmonised Index of Consumer Prices											
Annual percentage change											
2020	0.3	0.4	⁵ 0.4	- 0.6	0.4	0.5	- 1.3	- 0.5	- 0.1	0.0	0.1
2021	2.6	3.2	⁵ 3.2	4.5	2.1	2.1	0.6	2.4	1.9	2.7	3.2
2022	8.4	10.3	8.7	19.4	7.2	5.9	9.3	8.1	8.7	10.7	17.2
2022 Sep.	9.9	12.1	10.9	24.1	8.4	6.2	12.1	8.6	9.4	12.6	22.0
Oct.	10.6	13.1	11.6	22.5	8.4	7.1	9.5	9.4	12.6	12.7	21.7
Nov.	10.1	10.5	11.3	21.4	9.1	7.1	8.8	9.0	12.6	13.0	21.7
Dec.	9.2	10.2	9.6	17.5	8.8	6.7	7.6	8.2	12.3	12.7	20.7
2023 Jan.	⁶ 8.6	7.4	9.2	18.6	7.9	7.0	7.3	7.5	10.7	12.5	21.4
Feb.	e 8.5	5.4	9.3	e 17.8	8.0	7.3	6.5	8.1	e 9.9	11.7	20.1
General government financial balance ⁷											
As a percentage of GDP											
2020	- 7.0	- 9.0	- 4.3	- 5.5	- 5.5	- 9.0	- 9.9	- 5.0	- 9.5	- 7.3	- 4.3
2021	- 5.1	- 5.6	- 3.7	- 2.4	- 2.7	- 6.5	- 7.5	- 1.7	- 7.2	- 2.6	- 7.0
2022	...	...	- 2.6	...	...	...	...	...	...	...	...
General government debt ⁷											
As a percentage of GDP											
2019	83.9	97.6	58.9	8.5	64.9	97.4	180.6	57.0	134.1	71.0	36.5
2020	97.0	112.0	68.0	18.5	74.8	115.0	206.3	58.4	154.9	87.0	42.0
2021	95.4	109.2	68.6	17.6	72.4	112.8	194.5	55.4	150.3	78.4	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										
- 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	11.8	4.9	4.6	5.5	3.0	8.2	5.5	6.6	2021
1.9	...	6.9	4.5	5.0	6.7	1.7	5.4	5.5	5.6	2022
5.6	2.0	15.9	5.4	5.4	5.3	1.4	5.1	4.2	8.2	2021 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	8.2	6.7	9.4	11.4	2.9	10.2	6.8	6.7	2022 Q1
1.7	1.6	9.4	5.2	6.4	7.8	1.3	8.6	6.8	5.9	Q2
1.8	2.9	5.3	3.1	2.1	5.1	1.4	3.3	5.1	5.5	Q3
- 0.4	...	4.7	3.0	2.6	3.2	1.2	0.2	3.4	4.6	Q4
Industrial production ²										
Annual percentage change										
- 1.9	- 10.8	- 0.3	- 3.9	- 5.9	- 7.3	- 8.1	- 5.2	- 9.8	- 7.3	2020
20.2	8.4	- 0.2	5.0	11.4	3.5	10.3	10.2	7.5	6.4	2021
9.4	- 1.2	2.9	2.5	7.4	0.0	- 3.6	1.6	3.0	1.2	2022
17.6	3.7	- 0.0	6.8	9.2	- 3.8	0.9	6.2	1.9	4.5	2021 Q3
24.2	2.9	- 5.4	4.4	10.5	- 1.7	3.4	7.9	1.8	1.0	Q4
23.5	0.0	- 2.4	1.9	11.3	- 2.9	- 2.6	6.4	1.7	3.3	2022 Q1
9.2	- 1.6	- 5.9	4.8	10.0	2.0	- 3.0	3.0	5.0	3.1	Q2
10.0	- 0.1	9.7	2.2	6.7	1.3	- 1.7	2.3	4.6	- 0.7	Q3
- 2.5	- 3.1	11.0	1.3	2.5	- 0.2	- 7.0	- 5.0	0.8	- 0.5	Q4
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	78.4	74.4	51.5	2020
76.7	82.0	76.8	82.4	87.1	79.2	82.5	84.5	77.8	51.3	2021
77.3	80.8	64.7	83.7	87.7	81.9	83.3	84.9	78.7	58.2	2022
78.6	81.8	75.2	83.7	88.7	80.2	82.1	85.3	79.2	55.0	2021 Q4
78.3	81.9	62.9	84.0	88.4	81.8	82.8	86.5	78.8	55.5	2022 Q1
78.2	79.9	64.6	84.2	88.9	82.5	83.9	85.2	80.0	58.5	Q2
76.7	81.4	67.6	83.9	87.9	81.5	83.5	84.0	78.9	58.5	Q3
76.0	79.8	63.6	82.6	85.6	81.6	83.0	84.0	77.2	60.4	Q4
69.9	74.3	65.7	83.0	87.1	81.5	80.2	83.1	77.1	59.9	2023 Q1
Standardised unemployment rate ⁴										
As a percentage of civilian labour force										
e 8.6	e 6.8	e 4.4	e 3.9	e 5.4	e 6.9	e 6.7	e 5.0	e 15.5	e 7.6	2020
e 7.1	e 5.4	e 3.4	e 4.2	e 6.2	e 6.6	e 6.9	e 4.8	e 14.8	e 7.5	2021
e 5.9	e 4.5	e 2.9	e 3.6	e 4.8	e 6.1	e 6.2	e 4.0	e 13.0	e 6.8	2022
6.1	4.6	2.9	3.8	5.2	6.0	6.0	3.8	12.9	6.8	2022 Sep.
6.1	4.7	2.9	3.7	4.6	6.0	6.0	3.7	12.9	6.9	Oct.
6.1	4.7	2.9	3.6	5.5	6.5	6.1	3.6	13.0	7.3	Nov.
6.1	4.7	2.9	3.5	4.9	6.8	6.1	3.4	13.0	7.4	Dec.
6.4	4.8	3.0	3.6	5.1	7.1	6.0	3.2	13.0	7.4	2023 Jan.
...	...	...	...	...	...	...	...	...	...	Feb.
Harmonised Index of Consumer Prices										
Annual percentage change										
1.1	0.0	0.8	1.1	1.4	- 0.1	2.0	- 0.3	- 0.3	- 1.1	2020
4.6	3.5	0.7	2.8	2.8	0.9	2.8	2.0	3.0	2.3	2021
18.9	8.2	6.1	11.6	8.6	8.1	12.1	9.3	8.3	8.1	2022
22.5	8.8	7.4	17.1	11.0	9.8	13.6	10.6	9.0	9.0	2022 Sep.
22.1	8.8	7.4	16.8	11.6	10.6	14.5	10.3	7.3	8.6	Oct.
21.4	7.3	7.2	11.3	11.2	10.2	15.1	10.8	6.7	8.1	Nov.
20.0	6.2	7.3	11.0	10.5	9.8	15.0	10.8	5.5	7.6	Dec.
18.5	5.8	6.8	8.4	11.5	8.6	15.1	9.9	5.9	6.8	2023 Jan.
17.2	4.8	7.0	8.9	11.0	8.6	15.4	9.4	6.0	6.7	Feb.
General government financial balance ⁷										
As a percentage of GDP										
- 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
...	...	...	...	...	...	...	...	...	...	2022
General government debt ⁷										
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 Including Croatia from 2023 onwards.
7 According to Maastricht Treaty definition. Euro area aggregate excluding Croatia.

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 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	- 3.7	66.8	67.5	- 26.6	14.9	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	- 205.4	- 149.0	4.5	18.0	- 0.8	- 25.0	12.2		
2022 Jan.	166.1	90.9	- 10.2	75.3	64.7	1.2	136.6	135.4	- 19.2	- 14.8	- 0.1	9.3	- 13.6		
Feb.	109.5	43.1	2.0	66.5	73.8	- 11.8	82.9	94.6	- 21.4	- 12.6	- 0.4	- 3.5	- 5.0		
Mar.	158.4	113.2	26.5	45.3	36.0	- 1.9	- 20.8	- 18.9	0.3	2.8	- 0.7	- 21.8	20.0		
Apr.	111.8	96.6	20.2	15.2	5.2	- 99.1	- 79.1	20.0	8.7	- 10.5	- 0.2	1.4	17.9		
May	107.2	65.1	- 18.8	42.1	49.5	- 58.3	40.3	98.6	- 16.1	3.1	- 3.2	- 21.2	5.3		
June	116.3	83.7	- 8.9	32.6	33.5	102.8	- 25.8	- 128.6	23.2	- 4.8	- 0.4	1.0	27.3		
July	30.1	58.8	- 3.0	- 28.8	- 28.8	- 11.6	63.7	75.4	0.5	- 11.7	- 0.4	- 3.6	16.1		
Aug.	- 11.1	25.7	- 18.8	- 36.8	- 31.2	46.9	69.4	22.5	- 10.5	- 22.1	0.8	1.9	8.9		
Sep.	86.2	82.7	- 0.0	3.4	2.2	- 53.0	- 199.9	- 146.8	17.6	- 16.4	- 0.4	3.6	30.8		
Oct.	- 12.0	0.1	- 6.1	- 12.1	- 9.2	- 0.6	169.5	170.2	- 11.3	- 14.7	0.0	11.5	- 8.1		
Nov.	93.1	84.1	31.0	9.0	14.3	14.4	- 40.5	- 54.9	33.5	1.7	- 0.1	34.6	- 2.6		
Dec.	- 122.7	- 89.5	- 0.9	- 33.1	- 41.2	0.2	- 257.0	- 257.2	44.2	10.0	- 0.1	0.6	33.7		
2023 Jan.	- 10.3	- 0.1	- 17.1	- 10.2	- 2.2	2.8	118.6	115.8	29.0	- 6.0	1.8	53.6	- 20.4		

b) German contribution

Period	I. Lending to non-banks (non-MFIs) in the euro area					II. Net claims on non-euro area residents			III. Monetary capital formation at monetary financial institutions (MFIs) in the euro area				
		Enterprises and households		General government									
	Total	Total	of which: Securities	Total	of which: Securities	Total	Claims on non-euro area residents	Liabilities to non-euro area residents	Total	Deposits with an agreed maturity of over 2 years	Deposits at agreed notice of over 3 months	Debt securities with maturities of over 2 years (net) ²	Capital and reserves ³
2021 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.	12.8	10.5	- 0.2	2.3	1.9	45.1	20.4	- 24.7	- 7.6	- 1.2	0.2	3.2	- 9.8
Nov.	25.4	26.2	1.4	- 0.9	0.8	38.0	8.9	- 29.1	9.8	1.9	0.2	7.1	0.6
Dec.	- 28.8	- 19.6	- 2.4	- 9.3	- 8.2	- 37.1	- 71.9	- 34.8	- 0.5	- 3.7	0.4	- 1.9	4.8
2023 Jan.	27.4	16.8	- 0.3	10.6	8.9	55.8	23.2	- 32.6	- 14.4	2.7	1.0	3.4	- 21.5

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

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

II. Overall monetary survey in the euro area

a) Euro area ¹

IV. Deposits of central governments	V. Other factors		VI. Money stock M3 (balance I plus II less III less IV less V)											Period
	Total 4	of which: Intra-Eurosystem liability/claim related to banknote issue	Total	Money stock M2							Repo transactions	Money market fund shares (net) 2,7,8	Debt securities with maturities of up to 2 years (incl. money market paper) (net) 2,7	
				Total	Money stock M1			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 circulation	Overnight deposits 5							
16.8	– 4.3	0.0	65.4	79.5	111.5	10.5	101.1	– 34.4	2.3	– 2.2	– 8.4	– 4.6	2021 June	
0.4	– 55.8	0.0	159.9	122.2	111.7	14.6	97.1	10.7	– 0.3	8.7	22.6	7.4	July	
26.6	– 10.5	0.0	27.6	32.7	32.2	1.7	30.5	– 3.1	3.6	– 11.6	5.3	– 6.2	Aug.	
6.5	– 0.8	0.0	29.0	58.2	73.7	5.3	68.4	– 16.3	0.8	14.8	– 31.1	2.9	Sep.	
– 2.4	– 72.9	0.0	137.6	86.4	73.0	6.8	66.2	18.3	– 5.0	11.5	31.5	7.5	Oct.	
– 48.5	84.8	0.0	96.3	84.3	102.0	6.0	95.9	– 18.3	0.7	– 5.0	26.2	– 5.2	Nov.	
– 44.5	– 22.2	0.0	76.2	106.0	104.7	20.6	84.1	– 2.3	3.6	– 33.4	– 6.7	– 7.0	Dec.	
68.1	91.9	0.0	– 15.1	– 17.5	– 53.4	1.0	– 54.4	23.3	12.6	57.2	– 23.2	8.6	2022 Jan.	
44.6	32.3	0.0	41.7	70.3	76.1	9.1	67.0	– 13.8	8.0	9.4	– 37.2	– 0.3	Feb.	
13.7	51.4	0.0	94.5	108.9	88.6	22.5	66.1	16.3	4.0	– 17.6	– 3.4	– 2.1	Mar.	
– 22.1	– 96.1	0.0	99.6	61.7	60.5	11.2	49.3	– 1.1	2.3	25.1	20.2	16.5	Apr.	
– 28.9	48.1	0.0	52.6	62.4	66.3	7.8	58.6	– 15.9	11.9	4.7	– 10.1	– 5.2	May	
69.6	72.4	0.0	69.1	75.4	48.2	6.6	41.6	24.1	3.1	– 32.5	– 1.0	11.1	June	
– 31.2	– 112.6	0.0	155.1	122.2	70.4	8.6	61.8	46.7	5.1	23.7	– 2.0	18.0	July	
– 80.3	56.1	0.0	86.3	78.8	27.5	– 4.6	32.1	41.3	10.0	– 22.6	6.8	7.4	Aug.	
7.3	– 41.8	0.0	59.7	56.4	– 42.8	– 1.4	– 41.3	99.8	– 0.6	– 19.5	– 8.4	21.7	Sep.	
– 5.4	65.3	0.0	– 57.7	– 77.1	– 157.5	– 0.4	– 157.1	85.3	– 5.0	4.4	36.7	– 25.3	Oct.	
– 10.4	– 3.1	0.0	71.2	21.8	– 29.0	– 3.5	– 25.5	59.1	– 8.3	27.4	22.3	16.6	Nov.	
– 84.4	– 62.7	0.0	4.1	13.5	– 61.1	11.6	– 72.7	59.8	14.8	– 46.5	2.8	10.9	Dec.	
– 38.7	109.6	0.0	– 125.3	– 143.6	– 219.7	– 13.4	– 206.4	75.2	0.9	35.1	9.4	– 8.5	2023 Jan.	

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:		Total	Components of the money stock							
		Intra- Eurosystem liability/ claim related to banknote issue ^{9,11}	Currency in circu- lation		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		
6.0	– 14.0	3.1	2.3	– 1.2	7.1	– 8.0	– 0.4	– 0.2	0.1	0.3	2021 June	
– 12.0	75.2	4.2	3.7	17.4	21.2	– 4.1	– 0.3	0.6	– 0.1	0.1	July	
0.7	– 13.2	2.9	0.2	21.0	20.4	– 1.6	– 0.3	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	0.1	Sep.	
– 3.9	53.7	3.3	1.6	16.4	3.9	13.0	– 0.4	– 0.4	– 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	1.4	Nov.	
27.8	– 135.3	5.3	4.5	– 0.4	– 12.8	9.1	1.6	– 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.	
5.1	65.9	– 0.1	0.1	– 5.4	– 32.1	36.8	– 3.3	– 0.2	0.1	– 6.7	Oct.	
22.6	13.6	– 0.0	0.3	17.3	12.6	4.3	– 5.5	3.2	0.0	2.7	Nov.	
– 16.3	– 24.6	2.1	2.4	– 24.6	– 37.6	19.0	– 4.1	– 2.0	0.1	0.0	Dec.	
– 42.9	141.6	2.3	– 5.1	– 1.1	– 32.4	38.4	– 11.5	– 0.1	– 0.2	4.8	2023 Jan.	

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	Assets										
	Total assets or liabilities	Lending to non-banks (non-MFIs) in the euro area							Claims on non-euro area residents	Other assets	
		Enterprises and households				General government					
		Total	Total	Loans	Debt securities 2	Shares and other equities	Total	Loans	Debt securities 3		
Euro area (€ billion) ¹											
2020 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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
Oct.	31,778.8	21,201.7	14,817.7	12,379.4	1,548.1	890.3	6,384.0	987.7	5,396.3	6,825.2	
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	
Dec.	31,777.5	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	
2022 Jan.	32,405.0	21,564.6	15,039.6	12,601.8	1,553.2	884.6	6,525.0	999.2	5,525.8	6,909.7	
Feb.	32,588.9	21,620.3	15,067.0	12,636.7	1,553.7	876.6	6,553.3	991.8	5,561.5	7,007.2	
Mar.	32,936.2	21,736.9	15,175.9	12,721.7	1,587.5	866.7	6,561.0	1,001.4	5,559.6	6,994.9	
Apr.	33,568.9	21,763.8	15,253.7	12,805.0	1,597.7	851.1	6,510.1	1,011.3	5,498.8	7,062.0	
May	33,481.3	21,815.8	15,304.1	12,877.8	1,568.2	858.1	6,511.7	1,003.9	5,507.7	7,012.0	
June	33,885.3	21,885.4	15,373.0	12,972.8	1,569.1	831.1	6,512.4	1,003.0	5,509.4	7,063.5	
July	33,878.3	21,984.3	15,451.3	13,043.4	1,578.6	829.2	6,533.1	1,003.0	5,530.1	7,216.9	
Aug.	34,343.4	21,871.8	15,458.8	13,079.4	1,553.8	825.7	6,412.9	996.9	5,416.1	7,301.6	
Sep.	34,619.6	21,900.3	15,557.0	13,190.3	1,545.0	821.7	6,343.3	998.1	5,345.2	7,241.7	
Oct.	34,552.1	21,890.6	15,552.1	13,189.6	1,533.0	829.6	6,338.5	995.2	5,343.3	7,336.9	
Nov.	34,232.3	22,011.6	15,627.4	13,227.8	1,559.1	840.4	6,384.2	990.2	5,394.0	7,207.8	
Dec.	33,873.1	21,792.9	15,515.7	13,124.6	1,555.4	835.7	6,277.2	998.9	5,278.3	6,873.3	
2023 Jan.	33,963.8	21,883.2	15,553.5	13,175.0	1,542.7	835.9	6,329.7	997.5	5,332.2	6,977.3	
German contribution (€ billion)											
2020 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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
Oct.	8,826.7	5,366.0	4,163.6	3,634.6	245.9	283.1	1,202.4	284.8	917.5	1,509.0	
Nov.	8,653.9	5,402.0	4,189.2	3,656.3	249.8	283.1	1,212.8	283.4	929.4	1,502.4	
Dec.	8,626.1	5,345.2	4,165.8	3,636.7	245.9	283.2	1,179.4	283.2	896.1	1,417.3	
2023 Jan.	8,685.7	5,377.1	4,178.3	3,652.6	246.0	279.7	1,198.8	285.0	913.9	1,437.3	

* 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											
Currency in circulation ⁴	Deposits of non-banks (non-MFIs) in the euro area										
	Total	of which: in euro ⁵	Enterprises and households							End of month	
			Total	Overnight	With agreed maturities of			At agreed notice of ⁶			
					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											
1,370.7	14,766.3	13,614.0	13,722.2	8,459.4	765.5	176.9	1,877.6	2,404.2	38.5	2020 Dec.	
1,373.3	14,872.0	13,629.3	13,750.9	8,505.4	742.0	173.8	1,870.6	2,421.0	38.1	2021 Jan.	
1,380.6	14,956.2	13,676.9	13,806.2	8,569.5	732.1	169.2	1,865.1	2,432.5	37.7	Feb.	
1,391.1	15,069.4	13,750.1	13,906.8	8,650.5	751.0	164.3	1,858.8	2,444.8	37.4	Mar.	
1,399.6	15,059.6	13,774.0	13,934.7	8,726.8	730.6	159.5	1,827.5	2,453.0	37.3	Apr.	
1,412.8	15,146.7	13,870.1	14,017.4	8,810.9	724.0	155.5	1,826.2	2,463.6	37.1	May	
1,423.2	15,232.5	13,934.1	14,082.1	8,909.3	697.4	150.4	1,822.0	2,466.2	36.8	June	
1,437.6	15,334.8	14,016.7	14,185.1	9,006.8	705.3	153.6	1,817.0	2,466.2	36.3	July	
1,439.2	15,385.0	14,038.0	14,195.4	9,029.8	706.2	151.2	1,809.9	2,462.4	35.9	Aug.	
1,444.5	15,439.0	14,071.8	14,236.3	9,090.4	700.2	140.0	1,806.7	2,463.3	35.6	Sep.	
1,450.3	15,502.7	14,137.6	14,310.5	9,166.1	707.1	148.0	1,795.5	2,458.8	34.9	Oct.	
1,456.3	15,517.2	14,187.3	14,344.1	9,223.4	697.0	143.3	1,786.3	2,459.8	34.3	Nov.	
1,477.0	15,569.9	14,300.4	14,454.8	9,316.4	704.9	131.3	1,805.2	2,463.5	33.6	Dec.	
1,477.9	15,632.9	14,273.0	14,465.7	9,292.5	706.6	135.3	1,820.2	2,479.2	31.8	2022 Jan.	
1,487.0	15,728.2	14,320.4	14,502.8	9,353.5	688.4	134.3	1,807.7	2,487.3	31.6	Feb.	
1,509.6	15,832.7	14,407.9	14,592.2	9,432.1	703.7	123.5	1,809.6	2,492.1	31.2	Mar.	
1,520.7	15,872.4	14,460.5	14,650.2	9,493.9	705.4	123.5	1,802.0	2,494.3	31.0	Apr.	
1,528.5	15,887.5	14,506.5	14,677.9	9,535.0	684.9	120.2	1,803.2	2,506.6	27.9	May	
1,535.1	16,033.5	14,566.7	14,743.4	9,576.9	704.8	123.4	1,800.3	2,510.4	27.5	June	
1,543.7	16,115.9	14,669.9	14,869.0	9,667.1	740.9	127.1	1,791.0	2,515.8	27.1	July	
1,539.1	16,100.9	14,732.1	14,924.4	9,693.1	781.5	125.9	1,770.0	2,526.0	28.0	Aug.	
1,537.7	16,196.6	14,782.4	15,033.5	9,685.1	913.3	125.5	1,756.3	2,525.7	27.6	Sep.	
1,537.2	16,092.6	14,704.9	14,933.5	9,518.5	993.0	130.3	1,741.7	2,522.3	27.6	Oct.	
1,533.7	16,083.0	14,720.6	14,915.5	9,454.9	1,042.8	134.6	1,741.1	2,514.5	27.6	Nov.	
1,545.3	16,003.0	14,768.8	14,935.3	9,395.0	1,099.4	133.9	1,749.5	2,530.0	27.6	Dec.	
1,533.3	15,886.9	14,674.4	14,854.8	9,238.8	1,162.9	146.0	1,746.6	2,531.8	28.7	2023 Jan.	
German contribution (€ billion)											
312.2	4,228.5	3,954.1	3,801.5	2,500.9	160.3	31.0	548.8	533.1	27.3	2020 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	4,546.8	4,270.2	4,140.4	2,804.0	233.2	31.6	529.3	519.8	22.4	Oct.	
371.5	4,578.7	4,283.7	4,146.3	2,806.0	240.1	32.1	531.0	514.4	22.6	Nov.	
374.0	4,534.2	4,260.8	4,119.2	2,764.3	260.2	34.1	527.1	510.4	23.0	Dec.	
368.9	4,489.0	4,257.4	4,125.7	2,749.6	286.6	36.9	529.6	499.1	24.0	2023 Jan.	

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)										Repo transactions with non-banks in the euro area		Money market fund shares (net) ³	Debt securities								
General government																					
End of month	Other general government									Total	of which: Enterprises and households		Total	of which: Denominated in euro							
	Central government	Total	Overnight	With agreed maturities of			At agreed notice of ²														
				up to 1 year	over 1 year and up to 2 years	over 2 years	up to 3 months	over 3 months													
Euro area (€ billion) ¹																					
2020 Dec.	604.8	439.3	294.7	60.3	17.2	44.8	19.0	3.3	228.0	227.9	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	253.5	253.5	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	256.3	256.2	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	243.5	243.4	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	252.5	252.4	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	247.4	247.4	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	245.8	245.8	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	254.6	254.5	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	243.0	243.0	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	260.8	260.7	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	272.2	272.2	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	267.7	267.6	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	234.3	233.1	647.7	2,019.9	1,346.8								
2022 Jan.	711.0	456.2	306.6	67.4	19.6	41.2	17.6	3.8	291.8	291.6	624.5	2,049.0	1,351.2								
Feb.	755.6	469.9	314.1	73.5	19.8	41.3	17.6	3.7	301.3	301.1	587.2	2,044.7	1,358.6								
Mar.	769.7	470.9	304.7	82.5	20.5	42.4	17.3	3.4	283.8	283.6	583.8	2,026.7	1,358.5								
Apr.	747.7	474.5	306.7	83.4	21.2	42.6	17.2	3.4	310.1	309.9	604.0	2,073.8	1,362.7								
May	718.8	490.8	316.7	88.4	22.3	43.3	16.8	3.3	313.0	312.9	593.9	2,038.0	1,337.6								
June	788.4	501.8	325.2	90.9	22.9	43.3	16.2	3.2	281.2	281.1	592.9	2,069.3	1,360.9								
July	757.2	489.8	302.8	100.4	24.2	42.9	16.2	3.3	306.0	305.9	590.8	2,090.9	1,361.0								
Aug.	676.9	499.6	309.1	104.6	24.0	42.5	16.1	3.2	283.8	283.7	597.5	2,113.5	1,375.0								
Sep.	684.3	478.8	281.7	111.2	24.5	42.3	16.0	3.2	264.8	264.7	589.1	2,153.6	1,415.1								
Oct.	679.0	480.2	287.2	109.2	24.3	41.5	14.7	3.2	268.8	268.8	625.8	2,130.8	1,416.5								
Nov.	668.9	498.6	306.2	109.2	25.1	40.8	14.2	3.2	295.4	295.4	648.0	2,159.2	1,441.3								
Dec.	584.2	483.5	296.0	103.6	27.2	40.2	13.5	3.0	248.3	248.3	650.9	2,159.8	1,470.5								
2023 Jan.	551.4	480.7	283.1	113.0	27.5	40.6	12.8	3.7	284.0	284.0	660.3	2,195.8	1,502.3								
German contribution (€ billion)																					
2020 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.	152.5	253.9	108.1	93.1	20.5	30.1	2.1	0.1	5.2	5.2	2.5	633.9	398.1								
Nov.	175.5	256.9	114.7	88.9	21.5	29.8	1.9	0.1	8.3	8.3	2.5	634.2	402.6								
Dec.	159.2	255.8	117.3	83.2	23.9	29.6	1.8	0.1	6.3	6.3	2.6	631.2	409.3								
2023 Jan.	116.4	246.9	99.4	92.2	23.8	29.8	1.6	0.1	6.1	6.1	2.4	639.2	417.9								

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

										Memo item:		Monetary liabilities of central governments (Post Office, Treasury) ¹⁴	End of month					
issued (net) ³			Liabilities to non-euro area residents ⁵	Capital and reserves ⁶	Excess of inter-MFI liabilities	Other liability items		Monetary aggregates ⁷ (from 2002 German contribution excludes currency in circulation)			Monetary capital formation ¹³							
With maturities of						Total ⁸	of which: Intra-Eurosystem-liability/claim related to banknote issue ⁹	M1 ¹⁰	M2 ¹¹	M3 ¹²								
up to 1 year ⁴	over 1 year and up to 2 years	over 2 years																
Euro area (€ billion) ¹																		
- 4.6	16.9	1,983.2	4,671.6	3,020.5	- 11.3	3,771.5	0.0	10,278.7	13,743.9	14,473.5	6,967.9	176.0	2020 Dec.					
1.9	15.7	1,973.3	4,821.4	2,998.4	- 10.2	3,700.0	0.0	10,326.2	13,783.0	14,549.2	6,928.3	177.5	2021 Jan.					
13.8	16.4	1,974.2	4,872.9	2,953.0	- 10.8	3,520.1	0.0	10,398.6	13,849.5	14,602.6	6,877.6	176.8	Feb.					
- 0.7	16.9	1,989.3	4,944.3	2,967.6	15.9	3,580.6	0.0	10,485.9	13,957.5	14,692.1	6,899.9	173.1	Mar.					
6.5	16.6	1,968.5	4,989.3	2,948.0	10.5	3,484.0	0.0	10,569.8	14,020.5	14,779.7	6,827.9	173.5	Apr.					
14.8	15.9	1,950.0	4,995.9	2,968.5	53.4	3,476.5	0.0	10,684.1	14,133.9	14,886.4	6,827.9	176.1	May					
10.6	16.1	1,957.6	4,964.4	2,979.9	57.4	3,503.6	0.0	10,802.7	14,222.4	14,961.9	6,841.7	180.3	June					
16.9	17.1	1,965.4	5,051.0	3,024.8	38.9	3,550.3	0.0	10,915.0	14,344.9	15,122.0	6,888.9	180.9	July					
11.9	16.3	1,960.4	5,201.1	3,024.5	29.8	3,499.0	0.0	10,956.4	14,379.2	15,151.6	6,876.1	182.3	Aug.					
14.0	17.9	1,979.8	5,226.5	2,997.6	16.1	3,480.9	0.0	11,032.9	14,441.4	15,188.3	6,864.3	187.4	Sep.					
21.2	17.8	1,999.5	5,426.3	2,999.7	- 22.8	3,483.7	0.0	11,103.9	14,525.7	15,323.3	6,874.5	188.2	Oct.					
19.3	17.8	2,009.6	5,510.3	3,037.4	21.6	3,681.3	0.0	11,195.2	14,606.3	15,419.8	6,912.5	189.7	Nov.					
12.5	18.0	1,989.4	5,375.7	3,024.4	54.2	3,374.4	0.0	11,299.6	14,712.2	15,496.3	6,896.8	195.0	Dec.					
22.2	18.0	2,008.7	5,548.8	2,999.9	62.3	3,717.9	0.0	11,249.5	14,698.8	15,486.8	6,905.6	196.0	2022 Jan.					
33.6	5.4	2,005.7	5,634.3	2,995.4	55.2	3,755.5	0.0	11,327.9	14,770.5	15,528.6	6,885.4	195.0	Feb.					
30.7	6.2	1,989.8	5,624.2	3,006.9	81.4	3,987.0	0.0	11,417.9	14,881.1	15,625.0	6,883.3	195.1	Mar.					
39.0	16.2	2,018.6	5,759.4	2,986.3	46.6	4,395.5	0.0	11,494.6	14,963.6	15,748.3	6,883.9	197.2	Apr.					
34.0	15.6	1,988.4	5,813.4	2,924.7	59.4	4,322.9	0.0	11,555.4	15,018.5	15,792.5	6,790.8	199.0	May					
47.8	14.4	2,007.0	5,734.2	2,916.7	77.3	4,645.2	0.0	11,612.1	15,105.2	15,875.0	6,798.1	199.4	June					
15.1	16.4	2,059.4	5,862.8	2,978.5	76.2	4,313.3	0.0	11,693.5	15,242.1	15,997.1	6,902.2	203.9	July					
16.7	19.0	2,077.8	5,914.8	2,903.3	95.3	4,795.3	0.0	11,714.4	15,316.1	16,075.7	6,824.8	196.7	Aug.					
35.0	19.5	2,099.1	5,898.6	2,862.6	19.0	5,097.7	0.0	11,678.2	15,416.4	16,176.8	6,791.1	195.9	Sep.					
3.9	24.0	2,102.8	6,038.2	2,836.4	42.5	4,979.8	0.0	11,516.3	15,332.8	16,111.0	6,753.3	196.0	Oct.					
23.9	22.9	2,112.5	5,881.0	2,872.2	68.8	4,690.9	0.0	11,472.5	15,334.9	16,163.8	6,797.3	199.7	Nov.					
32.3	23.3	2,104.2	5,552.9	2,832.9	60.6	4,819.4	0.0	11,402.5	15,336.0	16,152.9	6,757.5	192.2	Dec.					
19.8	27.8	2,148.2	5,637.0	2,878.5	77.4	4,810.5	0.0	11,226.7	15,241.8	16,078.2	6,846.3	192.7	2023 Jan.					
German contribution (€ billion)																		
9.0	6.6	487.7	985.7	787.5	- 1,192.0	1,844.9	473.1	2,632.8	3,426.1	3,456.4	1,888.4	0.0	2020 Dec.					
7.8	6.8	488.7	1,026.4	778.3	- 1,113.3	1,796.5	474.2	2,678.2	3,458.5	3,483.9	1,878.3	0.0	2021 Jan.					
7.4	7.5	495.1	1,007.6	756.3	- 1,095.7	1,750.3	476.5	2,698.6	3,471.7	3,494.9	1,860.6	0.0	Feb.					
8.1	6.8	508.4	1,080.1	754.4	- 1,144.4	1,742.0	479.0	2,724.1	3,497.0	3,525.7	1,868.2	0.0	Mar.					
7.8	6.6	510.0	1,029.5	759.2	- 1,074.2	1,717.0	479.7	2,736.8	3,505.0	3,529.7	1,871.8	0.0	Apr.					
9.6	6.7	501.7	1,051.5	768.2	- 1,126.5	1,696.6	482.8	2,764.3	3,535.8	3,563.5	1,869.6	0.0	May					
9.8	6.9	498.8	1,088.8	775.4	- 1,149.4	1,724.5	485.9	2,772.3	3,535.7	3,563.7	1,870.2	0.0	June					
9.8	7.0	501.5	1,031.5	795.8	- 1,075.6	1,767.0	490.0	2,793.9	3,552.6	3,581.2	1,891.2	0.0	July					
12.7	6.5	503.2	1,068.1	793.5	- 1,088.4	1,754.6	492.9	2,814.8	3,571.7	3,602.8	1,889.9	0.0	Aug.					
13.1	7.0	510.1	1,165.5	781.6	- 1,156.2	1,723.6	497.5	2,820.3	3,575.1	3,608.5	1,881.9	0.0	Sep.					
13.3	7.2	527.5	1,165.8	783.9	- 1,110.5	1,706.6	500.8	2,824.1	3,591.6	3,625.0	1,902.8	0.0	Oct.					
14.5	7.4	534.6	1,227.7	803.0	- 1,154.8	1,744.2	504.5	2,866.1	3,621.4	3,651.2	1,928.3	0.0	Nov.					
16.1	7.5	524.0	1,205.6	796.1	- 1,297.0	1,690.3	509.8	2,853.4	3,619.4	3,651.0	1,919.7	0.0	Dec.					
13.6	7.7	541.5	1,271.1	778.4	- 1,169.6	1,919.3	511.1	2,876.4	3,652.3	3,680.4	1,917.7	0.0	2022 Jan.					
14.7	7.5	550.4	1,275.8	774.8	- 1,172.9	1,969.0	514.2	2,900.0	3,677.2	3,707.4	1,921.4	0.0	Feb.					
14.8	7.3	559.5	1,299.3	781.2	- 1,190.8	2,076.2	520.0	2,892.9	3,677.0	3,707.8	1,934.7	0.0	Mar.					
14.6	7.1	574.8	1,284.0	769.2	- 1,168.1	2,325.6	523.3	2,892.4	3,686.8	3,715.1	1,935.2	0.0	Apr.					
14.9	7.3	574.6	1,307.0	748.6	- 1,199.2	2,289.8	526.8	2,914.0	3,699.5	3,728.9	1,911.8	0.0	May					
18.7	6.6	578.9	1,317.0	743.1	- 1,255.4	2,479.8	530.5	2,934.8	3,726.6	3,759.7	1,907.5	0.0	June					
21.2	6.8	585.8	1,287.5	779.7	- 1,189.6	2,276.7	525.2	2,941.9	3,757.1	3,797.3	1,949.2	0.0	July					
21.8	7.6	596.2	1,349.3	739.6	- 1,271.6	2,540.1	513.5	2,999.5	3,826.5	3,866.3	1,919.1	0.0	Aug.					
27.5	8.1	604.3	1,385.2	711.9	- 1,287.1	2,858.3	516.8	2,944.0	3,811.2	3,854.6	1,899.2	0.0	Sep.					
19.1	9.7	605.0	1,355.1	693.8	- 1,215.2	2,804.7	516.8	2,912.1	3,812.3	3,848.8	1,880.8	0.0	Oct.					
20.8	11.2	602.2	1,310.2	714.6	- 1,191.2	2,596.7	516.8	2,920.8	3,819.7	3,862.5	1,900.3	0.0	Nov.					
20.2	11.7	599.3	1,265.7	690.1	- 1,230.4	2,726.5	518.9	2,881.6	3,795.1	3,835.9	1,869.2	0.0	Dec.					
23.6	13.0	602.6	1,227.2	688.6	- 1,123.0	2,756.3	521.2	2,849.0	3,789.1	3,834.3	1,874.7	0.0	2023 Jan.					

actually issued by the Bundesbank and the amount disclosed in accordance with the accounting regime chosen by the Eurosystem (see also footnote 2 on banknote circulation in Table III.2). **10** Overnight deposits (excluding central governments' deposits), and (for the euro area) currency in circulation, central governments' overnight monetary liabilities, which are not included in the consolidated balance sheet. **11** M1 plus deposits with agreed maturities of up to two years and at agreed

notice of up to three months (excluding central governments' deposits) and (for the euro area) central governments' monetary liabilities with such maturities. **12** M2 plus repo transactions, money market fund shares, money market paper and debt securities up to two years. **13** Deposits with agreed maturities of over two years and at agreed notice of over three months, debt securities with maturities of over two years, capital and reserves. **14** Non-existent in Germany.

II. Overall monetary survey in the euro area

3. Banking systems liquidity position * Stocks

€ billion; period averages of daily positions

Reserve maintenance period ending in 1	Liquidity-providing factors						Liquidity-absorbing factors					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						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	Deposit facility	Other liquidity-absorbing operations 4						
Eurosystem 2													
2021 Feb.													
Mar.	834.9	0.4	1,792.4	0.0	3,825.1	598.0	0.0	1,433.4	595.8	667.9	3,157.7	5,189.1	
Apr.	816.7	0.3	2,054.6	0.0	3,951.4	676.4	0.0	1,447.7	644.5	633.4	3,421.1	5,545.2	
May													
June	809.8	0.2	2,107.0	0.0	4,092.7	706.5	0.0	1,465.8	586.7	659.1	3,591.7	5,763.9	
July	821.7	0.1	2,196.0	0.0	4,244.5	736.6	0.0	1,485.8	652.3	734.5	3,653.1	5,875.5	
Aug.													
Sep.	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	
Oct.													
Nov.	835.1	0.2	2,209.9	0.0	4,512.3	738.5	0.0	1,507.4	671.3	833.7	3,806.5	6,052.4	
Dec.	839.2	0.2	2,208.8	0.0	4,655.6	745.0	0.0	1,521.4	628.3	965.7	3,843.3	6,109.7	
2022 Jan.													
Feb.	877.7	0.3	2,201.5	0.0	4,750.2	734.2	0.0	1,540.6	582.0	1,160.5	3,812.3	6,087.1	
Mar.	887.2	0.3	2,201.3	0.0	4,842.0	746.0	0.0	1,550.6	642.6	1,091.1	3,900.8	6,197.3	
Apr.	913.2	0.4	2,199.8	0.0	4,889.2	714.9	0.0	1,575.9	667.8	1,116.7	3,927.3	6,218.1	
May													
June	934.2	0.5	2,198.8	0.0	4,939.1	681.3	0.0	1,591.5	624.1	1,129.1	4,046.1	6,319.0	
July	943.7	1.0	2,149.4	0.0	4,958.8	678.7	0.0	1,604.0	667.6	1,158.0	3,943.3	6,226.0	
Aug.													
Sep.	950.1	1.7	2,124.9	0.0	4,954.8	707.0	0.0	1,585.3	553.9	1,249.2	3,936.1	6,228.5	
Oct.													
Nov.	955.8	4.0	2,118.8	0.0	4,948.3	4,490.0	0.0	1,563.7	536.7	1,104.4	332.0	6,385.7	
Dec.	960.4	1.9	1,947.1	0.0	4,946.1	4,521.5	0.0	1,560.8	492.5	1,066.9	213.8	6,296.2	
2023 Jan.													
Feb.	940.4	1.2	1,303.3	0.1	4,942.1	4,051.6	0.0	1,565.6	372.8	1,001.6	195.6	5,812.7	
Deutsche Bundesbank													
2021 Feb.													
Mar.	205.3	0.1	341.0	0.0	816.9	177.5	0.0	348.3	172.7	− 298.0	962.8	1,488.6	
Apr.	198.0	0.0	407.3	0.0	845.8	203.0	0.0	351.7	187.4	− 300.4	1,008.9	1,563.5	
May													
June	194.3	0.0	420.5	0.0	884.3	208.5	0.0	356.8	187.3	− 301.9	1,046.7	1,612.0	
July	197.4	0.0	434.3	0.0	918.5	204.2	0.0	362.0	206.8	− 270.8	1,046.2	1,612.4	
Aug.													
Sep.	199.0	0.1	436.7	0.0	950.8	210.7	0.0	365.0	204.3	− 240.8	1,045.3	1,621.0	
Oct.													
Nov.	200.3	0.1	439.1	0.0	978.5	204.4	0.0	367.4	217.7	− 235.2	1,061.6	1,633.3	
Dec.	201.3	0.0	440.3	0.0	1,015.8	206.4	0.0	370.9	220.4	− 219.4	1,077.1	1,654.4	
2022 Jan.													
Feb.	212.4	0.3	421.7	0.0	1,034.0	204.5	0.0	374.6	205.6	− 165.1	1,048.8	1,627.9	
Mar.	215.6	0.1	421.7	0.0	1,057.9	211.8	0.0	378.1	191.1	− 193.7	1,108.0	1,698.0	
Apr.	223.9	0.1	420.8	0.0	1,068.7	197.7	0.0	384.9	196.7	− 189.1	1,123.3	1,705.9	
May													
June	230.4	0.1	420.2	0.0	1,087.4	189.9	0.0	388.0	196.9	− 183.1	1,147.4	1,725.3	
July	231.7	0.3	409.1	0.0	1,084.3	185.8	0.0	390.3	214.9	− 175.4	1,109.7	1,685.8	
Aug.													
Sep.	232.1	0.3	403.6	0.0	1,076.8	228.5	0.0	379.5	157.9	− 161.8	1,108.8	1,716.8	
Oct.													
Nov.	231.7	0.8	400.5	0.0	1,071.5	1,304.0	0.0	379.0	127.2	− 231.4	125.9	1,808.8	
Dec.	232.4	0.5	352.5	0.0	1,079.2	1,346.6	0.0	378.8	121.0	− 242.4	60.5	1,785.9	
2023 Jan.													
Feb.	229.8	0.4	231.9	0.1	1,076.8	1,234.6	0.0	377.2	77.8	− 205.4	54.8	1,666.7	

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						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	Deposit facility	Other liquidity-absorbing operations ⁴							
Eurosystem ²													
- 13.7	+ 0.1	- 0.2	± 0.0	+ 112.2	+ 11.1	± 0.0	+ 4.0	+ 65.5	- 110.5	+ 128.3	+ 143.4	2021 Feb. Mar.	
- 18.2	- 0.1	+ 262.2	± 0.0	+ 126.3	+ 78.4	± 0.0	+ 14.3	+ 48.7	- 34.5	+ 263.4	+ 356.1	Apr. May June	
- 6.9	- 0.1	+ 52.4	± 0.0	+ 141.3	+ 30.1	± 0.0	+ 18.1	- 57.8	+ 25.7	+ 170.6	+ 218.7	July Aug. Sep.	
+ 11.9	- 0.1	+ 89.0	± 0.0	+ 151.8	+ 30.1	± 0.0	+ 20.0	+ 65.6	+ 75.4	+ 61.4	+ 111.6	Oct. Nov. Dec.	
+ 5.0	+ 0.1	+ 17.2	± 0.0	+ 134.4	+ 30.0	± 0.0	+ 14.1	- 16.6	+ 55.9	+ 73.1	+ 117.3	2022 Jan. Feb. Mar.	
+ 8.4	± 0.0	- 3.3	± 0.0	+ 133.4	- 28.1	± 0.0	+ 7.5	+ 35.6	+ 43.3	+ 80.3	+ 59.6	Apr. May June	
+ 4.1	± 0.0	- 1.1	± 0.0	+ 143.3	+ 6.5	± 0.0	+ 14.0	- 43.0	+ 132.0	+ 36.8	+ 57.3	July Aug. Sep.	
+ 38.5	+ 0.1	- 7.3	± 0.0	+ 94.6	- 10.8	± 0.0	+ 19.2	- 46.3	+ 194.8	- 31.0	- 22.6	Oct. Nov. Dec.	
+ 9.5	± 0.0	- 0.2	± 0.0	+ 91.8	+ 11.8	± 0.0	+ 10.0	+ 60.6	- 69.4	+ 88.5	+ 110.2	2023 Jan. 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. Apr. May June	
+ 21.0	+ 0.1	- 1.0	± 0.0	+ 49.9	- 33.6	± 0.0	+ 15.6	- 43.7	+ 12.4	+ 118.8	+ 100.9	July Aug. Sep.	
+ 9.5	+ 0.5	- 49.4	± 0.0	+ 19.7	- 2.6	± 0.0	+ 12.5	+ 43.5	+ 28.9	- 102.8	- 93.0	Oct. Nov. Dec.	
+ 6.4	+ 0.7	- 24.5	± 0.0	- 4.0	+ 28.3	± 0.0	- 18.7	- 113.7	+ 91.2	- 7.2	+ 2.5	2023 Jan. Feb.	
+ 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	Deutsche Bundesbank	
+ 4.6	- 2.1	- 171.7	± 0.0	- 2.2	+ 31.5	± 0.0	- 2.9	- 44.2	- 37.5	- 118.2	- 89.5		
- 20.0	- 0.7	- 643.8	+ 0.1	- 4.0	- 469.9	± 0.0	+ 4.8	- 119.7	- 65.3	- 18.2	- 483.5		
- 3.0	- 0.0	- 0.1	- 0.0	+ 25.6	- 1.4	± 0.0	+ 1.0	- 16.7	- 45.2	+ 84.8	+ 84.4	2021 Feb. Mar.	
- 7.3	- 0.1	+ 66.3	+ 0.0	+ 28.8	+ 25.5	± 0.0	+ 3.4	+ 14.7	- 2.4	+ 46.0	+ 74.9	Apr. May June	
- 3.7	+ 0.0	+ 13.2	+ 0.0	+ 38.6	+ 5.5	± 0.0	+ 5.1	- 0.1	- 1.5	+ 37.9	+ 48.5	July Aug. Sep.	
+ 3.1	- 0.0	+ 13.8	- 0.0	+ 34.2	- 4.3	± 0.0	+ 5.2	+ 19.4	+ 31.1	- 0.5	+ 0.4	Oct. Nov. Dec.	
+ 1.6	+ 0.1	+ 2.4	+ 0.0	+ 32.3	+ 6.5	± 0.0	+ 3.0	- 2.5	+ 29.9	- 0.9	+ 8.6	2022 Jan. Feb. Mar.	
+ 1.3	+ 0.0	+ 2.4	- 0.0	+ 27.8	- 6.4	± 0.0	+ 2.4	+ 13.4	+ 5.7	+ 16.3	+ 12.3	Apr. May June	
+ 1.0	- 0.1	+ 1.2	- 0.0	+ 37.3	+ 2.1	± 0.0	+ 3.5	+ 2.7	+ 15.7	+ 15.6	+ 21.1	July Aug. Sep.	
+ 11.1	+ 0.2	- 18.6	+ 0.0	+ 18.2	- 2.0	± 0.0	+ 3.7	- 14.7	+ 54.3	- 28.3	- 26.6	Oct. Nov. Dec.	
+ 3.2	- 0.1	- 0.0	+ 0.0	+ 23.9	+ 7.4	± 0.0	+ 3.5	- 14.5	- 28.6	+ 59.2	+ 70.1	2023 Jan. 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. Apr. May June	
+ 6.6	+ 0.1	- 0.6	- 0.0	+ 18.7	- 7.7	± 0.0	+ 3.0	+ 0.2	+ 6.0	+ 24.1	+ 19.4	July Aug. Sep.	
+ 1.3	+ 0.2	- 11.1	- 0.0	- 3.1	- 4.1	± 0.0	+ 2.4	+ 18.0	+ 7.7	- 37.7	- 39.5	Oct. Nov. Dec.	
+ 0.4	+ 0.0	- 5.5	- 0.0	- 7.5	+ 42.7	± 0.0	- 10.8	- 57.1	+ 13.5	- 0.9	+ 31.0	2023 Jan. Feb.	
- 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		
+ 0.7	- 0.4	- 48.0	+ 0.0	+ 7.7	+ 42.7	± 0.0	- 0.1	- 6.2	- 11.0	- 65.4	- 22.9		
- 2.5	- 0.1	- 120.6	+ 0.1	- 2.4	- 112.0	± 0.0	- 1.6	- 43.2	+ 37.0	- 5.6	- 119.3		

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			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 Aug.	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	—
	9	8,480.2	592.9	552.1	238.5	313.6	23.4	11.2	11.2	—
	16	8,477.2	592.9	551.5	238.3	313.2	23.3	11.1	11.1	—
	23	7,985.5	592.9	552.2	239.2	313.0	23.8	14.1	14.1	—
	30	7,955.8	592.9	523.2	228.5	294.7	20.4	14.1	14.1	—
2023 Jan.	6	7,968.0	593.0	526.0	229.7	296.3	20.6	11.9	11.9	—
	13	7,972.1	593.0	525.6	229.7	295.9	20.9	12.5	12.5	—
	20	7,959.2	593.0	523.3	230.0	293.3	19.4	12.4	12.4	—
	27	7,894.0	593.0	519.5	229.9	289.6	18.5	12.1	12.1	—
Feb.	3	7,875.4	593.0	511.1	230.0	281.1	16.9	12.0	12.0	—
	10	7,872.2	593.0	503.7	230.2	273.5	17.1	12.3	12.3	—
	17	7,873.6	593.0	505.3	230.2	275.0	16.6	12.3	12.3	—
	24	7,839.4	593.0	507.8	230.5	277.3	15.6	12.4	12.4	—
Mar.	3	7,830.8	593.0	507.6	230.5	277.1	15.1	12.1	12.1	—
Deutsche Bundesbank										
2022 Aug.	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	—	—	—
	9	2,968.1	184.0	98.3	60.5	37.8	0.0	—	—	—
	16	2,971.8	184.0	98.2	60.5	37.7	0.0	—	—	—
	23	2,875.6	184.0	98.1	60.8	37.3	0.0	2.9	2.9	—
	30	2,905.7	184.0	92.5	58.0	34.4	0.0	3.4	3.4	—
2023 Jan.	6	2,836.4	184.0	92.2	58.0	34.2	0.0	—	—	—
	13	2,817.4	184.0	92.2	58.1	34.2	0.0	0.1	0.1	—
	20	2,787.2	184.0	92.4	58.1	34.4	0.0	—	—	—
	27	2,765.8	184.0	92.2	58.0	34.2	0.0	0.1	0.1	—
Feb.	3	2,791.4	184.0	92.0	58.1	34.0	0.0	—	—	—
	10	2,772.5	184.0	92.1	58.1	34.0	0.0	—	—	—
	17	2,760.1	184.0	91.8	58.1	33.7	0.0	—	—	—
	24	2,709.2	184.0	92.9	58.1	34.9	0.0	—	—	—
Mar.	3	2,736.1	184.0	92.3	58.1	34.2	0.0	—	—	—

* 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													
2,125.6	0.9	2,124.7	–	–	0.0	–	15.5	5,119.7	4,953.4	166.4	21.7	303.7	2022 Aug. 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
1,821.6	1.4	1,820.2	–	–	–	–	18.8	5,118.2	4,952.3	165.9	21.7	320.3	9
1,821.7	1.5	1,820.2	–	–	–	–	29.1	5,106.2	4,940.8	165.4	21.7	319.8	16
1,322.9	1.3	1,321.4	–	–	0.2	–	26.6	5,109.3	4,944.1	165.3	21.7	322.1	23
1,324.3	2.4	1,321.4	–	–	0.5	–	31.1	5,102.2	4,937.2	165.0	21.6	325.9	30
1,322.5	1.1	1,321.4	–	–	–	–	31.8	5,123.7	4,942.3	181.5	21.6	316.8	2023 Jan. 6
1,322.4	1.0	1,321.4	–	–	–	–	24.8	5,129.3	4,949.7	179.6	21.6	322.0	13
1,322.3	0.8	1,321.4	–	–	–	–	28.8	5,116.8	4,938.4	178.5	21.6	321.6	20
1,259.2	1.2	1,258.0	–	–	0.0	–	28.6	5,123.4	4,945.1	178.3	21.6	318.1	27
1,258.8	0.8	1,258.0	–	–	0.0	–	25.8	5,116.6	4,940.6	176.0	21.5	319.6	Feb. 3
1,259.0	1.0	1,258.0	–	–	0.1	–	27.6	5,121.5	4,945.2	176.3	21.5	316.5	10
1,258.8	0.8	1,258.0	–	–	0.0	–	35.4	5,119.0	4,942.6	176.5	21.5	311.6	17
1,222.2	1.2	1,220.9	–	–	0.0	–	36.2	5,121.0	4,942.9	178.2	21.5	309.7	24
1,221.8	0.8	1,220.9	–	–	0.0	–	29.5	5,116.0	4,937.6	178.3	21.5	314.1	Mar. 3
Deutsche Bundesbank													
403.8	0.2	403.6	–	–	0.0	–	0.2	1,078.5	1,078.5	–	4.4	1,257.4	2022 Aug. 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
317.6	0.2	317.4	–	–	0.0	–	3.1	1,082.8	1,082.8	–	4.4	1,277.7	9
317.6	0.1	317.4	–	–	0.0	–	3.7	1,072.9	1,072.9	–	4.4	1,290.8	16
236.4	0.4	235.9	–	–	0.2	–	4.9	1,073.8	1,073.8	–	4.4	1,270.9	23
237.5	1.1	235.9	–	–	0.5	–	8.3	1,073.0	1,073.0	–	4.4	1,302.6	30
236.1	0.2	235.9	–	–	0.0	–	4.5	1,074.5	1,074.5	–	4.4	1,240.6	2023 Jan. 6
236.0	0.2	235.9	–	–	0.0	–	3.7	1,077.5	1,077.5	–	4.4	1,219.4	13
236.0	0.2	235.9	–	–	0.0	–	4.4	1,077.1	1,077.1	–	4.4	1,188.8	20
222.6	0.5	222.1	–	–	0.0	–	5.2	1,080.2	1,080.2	–	4.4	1,177.1	27
222.3	0.2	222.1	–	–	0.0	–	4.9	1,081.5	1,081.5	–	4.4	1,202.1	Feb. 3
222.5	0.4	222.1	–	–	0.1	–	7.7	1,084.1	1,084.1	–	4.4	1,177.6	10
222.4	0.3	222.1	–	–	0.0	–	7.8	1,078.1	1,078.1	–	4.4	1,171.5	17
208.9	0.7	208.2	–	–	0.0	–	7.8	1,075.4	1,075.4	–	4.4	1,135.7	24
208.6	0.4	208.2	–	–	0.0	–	9.2	1,077.8	1,077.8	–	4.4	1,159.8	Mar. 3

III. Consolidated financial statement of the Eurosystem

2. Liabilities *

€ billion

As at reporting date		Total liabilities	Banknotes in circulation ¹	Liabilities to euro area credit institutions related to monetary policy operations denominated in euro						Other liabilities to euro area credit institutions denominated in euro	Debt certificates issued	Liabilities to other euro area residents denominated in euro		
				Total	Current accounts (covering the minimum reserve system)	Deposit facility	Fixed-term deposits	Fine-tuning reverse operations	Deposits related to margin calls			Total	General government	Other liabilities
Eurosystem ³														
2022 Aug.	12	8,747.8	1,591.9	4,642.2	3,975.0	665.5	–	–	1.7	52.9	–	738.6	543.6	194.9
	19	8,750.7	1,584.0	4,598.5	3,941.0	655.6	–	–	1.8	49.4	–	784.5	583.8	200.7
	26	8,750.0	1,578.0	4,572.8	3,922.3	648.6	–	–	1.8	47.9	–	813.3	595.6	217.7
Sep.	2	8,756.8	1,575.5	4,707.9	4,035.2	670.7	–	–	2.0	51.5	–	692.8	504.8	187.9
	9	8,759.1	1,573.6	4,803.0	3,806.8	994.3	–	–	1.8	55.9	–	626.9	472.8	154.1
	16	8,756.9	1,569.3	4,816.5	548.1	4,266.6	–	–	1.8	72.2	–	655.8	518.1	137.7
	23	8,777.4	1,564.9	4,810.4	403.4	4,405.2	–	–	1.8	63.4	–	678.5	543.1	135.4
	30	8,810.1	1,566.0	4,698.7	318.3	4,378.2	–	–	2.3	76.4	–	768.0	557.2	210.7
Oct.	7	8,772.0	1,562.4	4,880.3	251.4	4,626.7	–	–	2.1	62.3	–	618.0	483.8	134.2
	14	8,778.1	1,561.9	4,854.2	232.2	4,619.7	–	–	2.3	54.1	–	668.3	541.1	127.2
	21	8,774.8	1,559.8	4,841.5	215.6	4,623.0	–	–	2.9	59.7	–	676.4	551.0	125.4
	28	8,770.7	1,562.9	4,801.3	231.0	4,567.5	–	–	2.8	53.7	–	706.8	578.0	128.8
Nov.	4	8,761.7	1,562.5	4,859.1	240.2	4,616.1	–	–	2.8	49.0	–	626.1	499.6	126.5
	11	8,764.7	1,560.1	4,909.8	215.0	4,692.0	–	–	2.8	48.5	–	623.3	502.4	120.8
	18	8,769.1	1,558.2	4,853.3	211.5	4,638.9	–	–	2.8	49.0	–	681.5	568.4	113.1
	25	8,471.4	1,557.7	4,553.5	203.4	4,348.5	–	–	1.6	45.6	–	675.3	558.8	116.5
Dec.	2	8,470.9	1,560.1	4,665.7	190.2	4,474.0	–	–	1.6	43.1	–	577.6	450.8	126.8
	9	8,480.2	1,563.4	4,675.6	197.9	4,476.1	–	–	1.6	48.9	–	558.4	431.2	127.2
	16	8,477.2	1,564.9	4,647.4	203.8	4,441.9	–	–	1.6	47.5	–	547.5	427.8	119.7
	23	7,985.5	1,571.6	4,198.7	193.1	4,004.4	–	–	1.2	58.4	–	484.4	371.4	113.0
	30	7,955.8	1,572.0	3,998.9	218.9	3,778.8	–	–	1.2	78.3	–	564.6	436.8	127.8
2023 Jan.	6	7,968.0	1,572.5	4,288.8	202.3	4,085.3	–	–	1.2	53.7	–	433.6	327.0	106.6
	13	7,972.1	1,566.2	4,300.0	172.5	4,126.2	–	–	1.2	57.5	–	472.5	369.3	103.2
	20	7,959.2	1,561.5	4,337.7	175.1	4,161.3	–	–	1.3	45.1	–	471.7	367.7	104.0
	27	7,894.0	1,559.0	4,268.9	176.0	4,091.7	–	–	1.3	39.0	–	497.7	398.1	99.6
Feb.	3	7,875.4	1,557.6	4,282.8	202.2	4,079.3	–	–	1.3	39.2	–	454.3	353.4	100.8
	10	7,872.2	1,555.7	4,320.4	180.6	4,138.6	–	–	1.3	34.4	–	452.5	356.1	96.4
	17	7,873.6	1,554.2	4,333.7	165.0	4,167.4	–	–	1.3	32.6	–	466.6	372.5	94.1
	24	7,839.4	1,553.8	4,285.3	172.0	4,112.0	–	–	1.3	29.5	–	496.1	402.5	93.6
Mar.	3	7,830.8	1,554.0	4,310.5	170.7	4,138.5	–	–	1.3	37.1	–	455.8	361.6	94.2
Deutsche Bundesbank														
2022 Aug.	12	3,024.8	379.7	1,340.9	1,116.0	223.2	–	–	1.7	23.0	–	232.2	161.9	70.2
	19	3,028.6	373.2	1,317.7	1,101.0	214.9	–	–	1.7	19.8	–	262.1	183.1	79.0
	26	3,060.0	370.7	1,348.4	1,133.9	212.7	–	–	1.8	22.3	–	253.3	153.5	99.8
Sep.	2	3,042.0	382.4	1,381.1	1,148.7	230.5	–	–	1.8	22.8	–	218.4	140.3	78.2
	9	3,020.3	382.1	1,392.6	1,101.0	289.9	–	–	1.8	29.1	–	191.7	121.5	70.2
	16	3,036.5	381.5	1,406.2	254.0	1,150.5	–	–	1.8	30.5	–	212.1	140.1	72.0
	23	3,014.7	380.6	1,402.6	174.9	1,225.9	–	–	1.8	23.3	–	181.8	116.0	65.8
	30	3,064.3	379.8	1,424.3	107.7	1,314.7	–	–	1.9	21.8	–	196.3	129.9	66.4
Oct.	7	3,057.7	377.2	1,473.7	79.0	1,392.9	–	–	1.8	23.7	–	161.1	101.0	60.0
	14	3,060.7	377.6	1,450.5	67.8	1,380.8	–	–	2.0	17.1	–	192.6	138.0	54.6
	21	3,026.3	377.4	1,437.9	55.4	1,379.7	–	–	2.8	18.9	–	176.1	124.7	51.4
	28	3,037.7	379.1	1,432.3	59.4	1,370.1	–	–	2.8	19.7	–	190.7	139.7	51.0
Nov.	4	3,053.2	378.9	1,436.8	74.0	1,360.0	–	–	2.8	13.7	–	182.4	132.3	50.1
	11	3,053.5	378.1	1,472.4	55.0	1,414.6	–	–	2.8	15.9	–	168.3	124.3	43.9
	18	3,045.4	377.6	1,433.2	53.9	1,376.5	–	–	2.7	16.1	–	199.0	155.1	43.9
	25	2,959.7	377.5	1,366.1	55.9	1,308.6	–	–	1.6	14.1	–	177.5	131.1	46.4
Dec.	2	2,950.5	378.8	1,394.0	50.6	1,341.8	–	–	1.6	13.1	–	155.2	102.0	53.1
	9	2,968.1	380.1	1,403.8	59.2	1,343.1	–	–	1.6	17.8	–	143.9	91.3	52.6
	16	2,971.8	381.6	1,359.1	59.3	1,298.2	–	–	1.6	13.9	–	161.1	111.3	49.9
	23	2,875.6	383.9	1,283.1	53.2	1,228.8	–	–	1.1	12.8	–	138.9	94.5	44.4
	30	2,905.7	381.3	1,200.1	66.6	1,132.3	–	–	1.2	21.3	–	177.6	132.5	45.1
2023 Jan.	6	2,836.4	377.2	1,287.0	64.7	1,221.1	–	–	1.2	14.3	–	102.6	66.8	35.8
	13	2,817.4	375.9	1,292.0	45.3	1,245.4	–	–	1.2	21.0	–	114.3	81.8	32.5
	20	2,787.2	374.7	1,312.9	45.4	1,266.3	–	–	1.2	13.9	–	85.0	53.8	31.3
	27	2,765.8	374.3	1,289.8	44.4	1,244.2	–	–	1.2	12.7	–	101.0	72.4	28.6
Feb.	3	2,791.4	374.9	1,322.2	64.9	1,256.0	–	–	1.3	13.6	–	91.1	61.0	30.2
	10	2,772.5	375.0	1,340.8	52.9	1,286.6	–	–	1.3	9.2	–	79.0	52.2	26.8
	17	2,760.1	374.8	1,325.5	44.6	1,279.6	–	–	1.3	9.5	–	98.9	72.2	26.6
	24	2,709.2	374.7	1,301.2	45.3	1,254.6	–	–	1.3	8.6	–	92.0	66.5	25.5
Mar.	3	2,736.1	374.2	1,318.6	45.9	1,271.5	–	–	1.3	13.2	–	94.8	70.6	24.2

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

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

III. Consolidated financial statement of the Eurosystem

Liabilities to non-euro area residents denominated in euro	Liabilities to euro area residents in foreign currency	Liabilities to non-euro area residents denominated in foreign currency			Counterpart of special drawing rights allocated by the IMF	Other liabilities 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										
473.7	11.1	5.8	5.8	–	184.9	323.3	–	608.5	114.8	2022 Aug. 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
379.9	12.2	5.9	5.9	–	189.9	319.7	–	611.7	114.6	9
413.6	12.6	5.3	5.3	–	189.9	322.2	–	611.7	114.6	16
430.2	12.5	5.1	5.1	–	189.9	308.5	–	611.7	114.6	23
540.7	11.7	4.7	4.7	–	181.1	302.7	–	586.4	114.6	30
424.8	11.0	4.8	4.8	–	182.4	292.5	–	588.7	115.3	2023 Jan. 6
378.3	11.0	4.8	4.8	–	182.4	295.0	–	588.7	115.8	13
342.6	11.4	4.6	4.6	–	182.4	297.8	–	588.7	115.8	20
328.3	11.3	5.0	5.0	–	182.4	297.4	–	588.7	116.4	27
339.0	11.0	4.8	4.8	–	182.4	298.7	–	589.1	116.4	Feb. 3
311.5	10.9	5.1	5.1	–	182.4	293.7	–	589.1	116.4	10
289.6	10.9	5.0	5.0	–	182.4	293.0	–	589.1	116.4	17
278.8	10.8	6.1	6.1	–	182.4	290.9	–	589.1	116.4	24
280.7	10.3	5.6	5.6	–	182.4	284.6	–	589.1	120.7	Mar. 3
Deutsche Bundesbank										
240.8	0.4	–0.0	–0.0	–	48.0	41.8	525.2	187.1	5.7	2022 Aug. 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
223.4	0.6	–0.0	–0.0	–	49.3	41.0	516.8	185.6	5.7	9
257.2	0.6	–0.0	–0.0	–	49.3	40.9	516.8	185.6	5.7	16
260.4	0.1	–0.0	–0.0	–	49.3	39.0	516.8	185.6	5.7	23
333.6	0.1	–	–	–	47.0	38.5	518.9	181.7	5.7	30
261.3	0.1	0.0	0.0	–	47.0	37.8	521.6	181.7	5.7	2023 Jan. 6
220.7	0.1	0.0	0.0	–	47.0	37.3	521.6	181.7	5.7	13
207.3	0.3	0.0	0.0	–	47.0	37.0	521.6	181.7	5.7	20
195.1	0.3	0.1	0.1	–	47.0	34.1	523.8	181.7	5.7	27
198.2	0.3	0.0	0.0	–	47.0	35.5	521.2	181.7	5.7	Feb. 3
177.2	0.2	0.1	0.1	–	47.0	35.3	521.2	181.7	5.7	10
160.3	0.2	–0.0	–0.0	–	47.0	35.3	521.2	181.7	5.7	17
141.3	0.2	0.9	0.9	–	47.0	34.7	521.2	181.7	5.7	24
141.9	0.0	0.5	0.5	–	47.0	36.4	522.2	181.7	5.5	Mar. 3

euro banknote issue". The remaining 92% of the value of the euro banknotes in circulation is allocated, likewise on an monthly basis, to the NCBs, with each NCB showing in its balance sheet the share of the euro banknotes issued corresponding to its paid-up share in the ECB's capital. The difference between the value of the euro

banknotes allocated to the NCB according to the aforementioned accounting procedure and the value of euro banknotes put into circulation is also disclosed as an "Intra-Eurosystem claim/liability related to banknote issue". ² For the Deutsche Bundesbank: including DEM banknotes still in circulation. ³ Source: ECB.

IV. Banks

euro area										Claims on non-euro area residents		Other assets ¹	Period		
to non-banks in other Member States															
General government				Total	Enterprises and households		General government			Total	of which: Loans				
Securities	Total	Loans	Securities ²		Total	of which: Loans	Total	Loans	Securities						
End of year or month															
262.3	585.8	339.2	246.6	392.3	267.6	144.6	124.6	27.8	96.9	921.2	690.5	849.7	2013		
276.4	578.2	327.9	250.4	415.0	270.0	142.7	145.0	31.9	113.2	1,050.1	805.0	1,055.8	2014		
287.4	575.1	324.5	250.6	417.5	276.0	146.4	141.5	29.4	112.1	1,006.5	746.3	905.6	2015		
293.6	538.9	312.2	226.7	418.4	281.7	159.5	136.7	28.5	108.2	1,058.2	802.3	844.1	2016		
308.7	481.9	284.3	197.6	401.0	271.8	158.3	129.1	29.8	99.3	991.9	745.3	668.9	2017		
297.2	433.9	263.4	170.5	405.8	286.7	176.5	119.2	28.6	90.6	1,033.2	778.5	650.2	2018		
303.8	416.2	254.7	161.6	435.2	312.6	199.0	122.6	29.4	93.2	1,035.8	777.5	981.5	2019		
303.9	412.8	252.3	160.5	469.8	327.5	222.2	142.3	29.7	112.7	1,003.2	751.2	1,090.3	2020		
321.2	391.6	245.1	146.5	490.1	362.7	244.0	127.4	28.4	99.0	1,094.2	853.3	888.3	2021		
337.5	376.4	248.0	128.4	505.3	384.9	270.2	120.4	30.8	89.6	1,137.2	882.9	1,841.0	2022		
310.2	409.9	251.0	158.9	479.5	339.8	232.3	139.7	30.3	109.4	1,122.5	876.2	930.3	2021 Apr.		
313.5	409.5	250.6	158.9	473.2	339.1	231.9	134.1	28.4	105.7	1,108.3	862.4	902.3	May		
313.8	401.4	249.1	152.3	481.7	339.4	231.8	142.3	28.8	113.5	1,111.0	864.8	922.5	June		
314.2	402.2	251.3	150.8	482.0	344.2	236.6	137.8	28.6	109.2	1,097.1	849.1	964.3	July		
315.4	398.9	248.0	150.9	484.0	346.1	238.8	137.9	28.3	109.6	1,084.8	839.7	954.2	Aug.		
316.0	402.4	248.3	154.1	490.7	352.5	241.7	138.2	27.9	110.3	1,087.9	840.8	934.8	Sep.		
319.9	395.1	249.7	145.4	489.5	356.0	244.3	133.4	30.3	103.2	1,134.6	889.6	910.9	Oct.		
320.9	396.5	247.8	148.8	495.7	361.6	249.6	134.1	28.5	105.6	1,137.3	892.4	950.0	Nov.		
321.2	391.6	245.1	146.5	490.1	362.7	244.0	127.4	28.4	99.0	1,094.2	853.3	888.3	Dec.		
322.4	390.6	246.9	143.6	502.7	377.7	260.4	125.0	28.5	96.5	1,171.3	925.2	1,090.8	2022 Jan.		
322.8	384.8	244.7	140.0	507.2	381.4	262.7	125.8	28.6	97.2	1,190.1	939.6	1,125.9	Feb.		
322.3	390.0	245.2	144.8	510.4	379.5	259.4	130.9	29.0	101.9	1,169.2	921.9	1,249.9	Mar.		
322.5	382.9	246.5	136.4	505.4	378.8	257.8	126.7	32.2	94.4	1,174.5	926.0	1,496.5	Apr.		
322.7	382.1	244.5	137.7	510.9	383.7	260.7	127.1	31.4	95.7	1,166.1	917.3	1,458.8	May		
320.9	379.9	244.9	135.0	524.9	388.1	268.4	136.8	33.2	103.6	1,182.4	925.1	1,603.8	June		
334.3	380.3	245.8	134.5	520.2	383.8	266.0	136.4	33.4	103.0	1,199.9	941.5	1,411.5	July		
333.3	374.8	243.4	131.4	516.2	387.1	268.6	129.1	33.7	95.4	1,211.7	952.6	1,670.0	Aug.		
333.9	372.2	244.5	127.7	522.4	390.5	273.1	132.0	35.4	96.6	1,220.9	961.0	1,973.8	Sep.		
333.8	378.1	246.0	132.1	513.3	385.7	268.4	127.6	34.4	93.2	1,234.2	975.7	1,930.8	Oct.		
335.9	374.2	246.3	127.9	521.1	394.0	276.5	127.1	32.7	94.4	1,224.6	963.4	1,728.1	Nov.		
337.5	376.4	248.0	128.4	505.3	384.9	270.2	120.4	30.8	89.6	1,137.2	882.9	1,841.0	Dec.		
333.8	374.0	250.3	123.7	520.1	393.6	280.2	126.6	30.2	96.4	1,155.3	897.5	1,850.1	2023 Jan.		
Changes ³															
15.5	- 12.3	- 15.1	2.9	15.1	0.4	- 4.0	14.6	0.9	13.8	83.6	72.0	194.0	2014		
11.5	- 3.9	- 4.2	0.3	0.7	4.4	1.8	- 3.7	- 1.0	- 2.8	- 88.3	- 101.0	- 150.1	2015		
7.8	- 35.4	- 12.1	- 23.3	4.0	8.2	14.6	- 4.2	- 0.9	- 3.3	51.4	55.0	- 51.4	2016		
13.7	- 51.3	- 22.8	- 28.5	- 12.2	- 3.4	4.0	- 8.7	0.1	- 8.9	- 12.3	- 6.7	- 173.1	2017		
- 9.8	- 46.2	- 19.1	- 27.0	6.8	18.2	18.6	- 11.4	- 1.5	- 9.9	29.0	18.9	14.8	2018		
7.3	- 17.7	- 8.6	- 9.1	31.3	29.5	26.9	1.7	0.0	1.7	- 32.1	- 33.3	330.3	2019		
0.2	- 2.4	- 1.7	- 0.7	31.0	30.6	20.9	0.3	- 0.4	0.7	- 9.7	- 8.2	108.8	2020		
17.8	- 19.1	- 6.1	- 13.1	21.1	35.5	22.6	- 14.3	- 1.1	- 13.2	71.7	84.9	- 203.7	2021		
16.9	- 14.4	1.9	- 16.3	19.3	20.7	24.4	- 1.4	2.6	- 3.9	15.0	- 0.8	793.3	2022		
2.7	0.4	- 0.3	0.7	- 5.6	- 0.1	0.3	- 5.5	- 1.9	- 3.6	- 11.4	- 11.4	- 28.0	2021 May		
0.8	- 8.1	- 1.4	- 6.7	7.8	- 0.4	- 0.6	8.2	0.4	7.7	- 5.7	- 5.3	19.9	June		
0.4	0.7	2.3	- 1.5	1.0	5.6	4.8	- 4.7	- 0.2	- 4.5	- 15.0	- 16.5	38.7	July		
1.2	- 3.4	- 3.5	0.1	1.9	1.8	2.2	0.1	- 0.3	0.4	- 13.1	- 10.0	- 10.8	Aug.		
0.6	3.6	0.3	3.2	6.8	6.3	2.9	0.5	- 0.4	0.9	0.1	- 1.5	- 17.4	Sep.		
3.9	- 7.4	1.2	- 8.7	- 1.4	3.5	2.6	- 4.8	2.3	- 7.2	47.6	49.5	- 24.6	Oct.		
1.1	3.0	- 0.9	4.0	5.5	4.8	4.4	0.6	- 1.6	2.2	- 4.5	- 3.6	42.4	Nov.		
0.3	- 4.7	- 2.6	- 2.2	- 5.6	0.9	- 5.3	- 6.5	- 0.1	- 6.3	- 45.9	- 41.0	- 62.3	Dec.		
1.3	- 0.8	1.8	- 2.6	12.7	14.8	16.0	- 2.1	0.2	- 2.2	72.3	66.7	3.3	2022 Jan.		
0.5	- 5.5	- 2.1	- 3.4	4.6	3.7	2.5	0.9	0.1	0.8	20.6	15.8	34.9	Feb.		
- 0.4	5.5	0.5	5.0	3.8	- 1.7	- 3.3	5.5	0.4	5.1	- 22.2	- 19.2	123.7	Mar.		
0.2	- 6.8	1.4	- 8.2	- 5.3	- 1.6	- 2.7	- 3.7	3.2	- 6.9	- 13.8	- 14.2	246.6	Apr.		
0.3	- 0.4	- 2.0	1.6	6.2	5.4	3.3	0.8	- 0.8	1.7	- 1.0	- 2.0	- 36.6	May		
- 1.7	- 2.1	0.4	- 2.5	13.0	3.0	6.1	10.0	1.9	8.1	- 10.0	- 18.2	182.3	June		
13.4	0.0	0.9	- 0.8	- 6.3	- 5.2	- 2.9	- 1.1	0.1	- 1.3	7.8	8.0	- 193.2	July		
- 1.0	- 5.1	- 2.3	- 2.8	- 3.3	3.4	2.5	- 6.7	0.4	- 7.0	7.2	6.5	258.9	Aug.		
0.8	- 2.4	1.1	- 3.5	9.9	3.3	4.0	6.6	1.7	4.8	0.7	0.1	303.7	Sep.		
- 0.3	5.9	1.4	4.4	- 8.7	- 4.4	- 4.6	- 4.3	- 1.0	- 3.3	19.7	20.4	- 44.0	Oct.		
2.0	- 4.1	0.0	- 4.1	8.4	9.2	9.6	- 0.8	- 1.7	0.9	8.8	4.8	- 199.3	Nov.		
1.8	1.5	0.9	0.6	- 15.6	- 9.3	- 6.2	- 6.4	- 1.9	- 4.5	- 75.0	- 69.5	112.9	Dec.		
- 0.0	- 1.7	2.3	- 4.0	16.0	9.2	9.8	6.8	- 0.6	7.4	21.1	16.1	9.0	2023 Jan.		

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

IV. Banks

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

€ billion

End of month	Number of reporting institutions	Balance sheet total ¹	Cash in hand and credit balances with central banks	Lending to banks (MFIs)			Lending to non-banks (non-MFIs)					Participating interests	Other assets ¹
				Total	of which:		Total	of which:					
					Balances and loans	Securities issued by banks		Loans		Bills	Securities issued by non-banks		
								for up to and including 1 year	for more than 1 year				
All categories of banks													
2022 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	3,888.9	3,402.1	482.0	4,945.2	486.2	3,754.6	0.3	687.4	96.4	2,061.0
Nov.	1,390	10,826.0	108.4	3,798.1	3,314.4	479.3	4,964.5	494.3	3,762.5	0.2	691.3	96.2	1,858.8
Dec.	1,386	10,581.5	88.0	3,498.3	3,028.0	467.6	4,929.3	466.5	3,762.8	0.2	682.2	96.2	1,969.7
2023 Jan.	1,384	10,651.6	109.2	3,638.9	3,161.1	474.0	4,957.2	489.5	3,766.4	0.2	676.6	95.7	1,850.7
Commercial banks ⁶													
2022 Dec.	241	4,848.3	34.3	1,618.6	1,540.6	77.4	1,561.6	308.1	1,023.8	0.2	220.3	31.1	1,602.7
2023 Jan.	241	4,848.5	65.2	1,675.4	1,593.9	80.9	1,587.2	324.9	1,023.7	0.1	222.8	30.8	1,489.9
Big banks ⁷													
2022 Dec.	3	2,496.5	12.0	659.8	631.3	28.5	720.9	139.9	454.4	0.1	121.8	25.9	1,077.8
2023 Jan.	3	2,458.5	48.9	664.0	634.0	30.0	722.3	148.8	453.7	0.0	113.7	25.7	997.6
Regional banks and other commercial banks													
2022 Dec.	133	1,870.8	17.4	635.4	587.4	47.5	700.3	119.9	484.5	0.1	92.2	4.5	513.2
2023 Jan.	133	1,903.2	12.3	681.7	631.7	49.6	724.8	128.2	485.1	0.1	102.7	4.5	479.9
Branches of foreign banks													
2022 Dec.	105	481.1	4.9	323.4	321.8	1.4	140.4	48.3	84.9	0.0	6.4	0.7	11.7
2023 Jan.	105	486.8	4.0	329.6	328.2	1.3	140.1	47.9	84.9	–	6.4	0.7	12.5
Landesbanken													
2022 Dec.	6	890.6	2.2	317.1	267.4	49.5	426.7	41.7	345.6	0.0	34.8	9.4	135.2
2023 Jan.	6	970.8	2.4	399.2	346.9	52.1	430.7	45.3	346.2	0.0	34.1	9.5	129.0
Savings banks													
2022 Dec.	362	1,570.9	25.8	291.2	172.8	118.2	1,214.4	51.5	988.3	–	174.3	15.7	23.8
2023 Jan.	360	1,558.2	21.2	283.9	165.9	117.9	1,211.4	53.5	988.0	–	169.6	15.9	25.9
Credit cooperatives													
2022 Dec.	733	1,172.8	19.7	225.2	112.8	111.8	879.8	33.2	721.7	0.0	124.9	19.6	28.5
2023 Jan.	733	1,164.4	14.0	222.6	111.6	110.3	878.5	33.3	722.7	0.0	122.5	19.7	29.6
Mortgage banks													
2022 Dec.	8	223.4	0.2	19.7	13.2	6.4	198.0	3.0	180.4	–	14.6	0.1	5.3
2023 Jan.	8	224.9	0.1	21.0	14.5	6.4	198.2	2.9	180.7	–	14.5	0.1	5.4
Building and loan associations													
2022 Dec.	18	259.7	0.4	45.6	30.2	15.4	209.6	1.3	185.4	.	22.9	0.3	3.9
2023 Jan.	18	260.0	0.5	46.0	30.7	15.3	209.6	1.4	185.3	.	22.8	0.3	3.6
Banks with special, development and other central support tasks													
2022 Dec.	18	1,615.7	5.4	980.8	890.9	88.8	439.1	27.6	317.6	–	90.4	20.0	170.3
2023 Jan.	18	1,624.7	5.8	990.8	897.7	91.1	441.7	28.0	319.8	–	90.3	19.3	167.1
Memo item: Foreign banks ⁸													
2022 Dec.	138	2,404.1	16.1	875.1	843.2	31.4	668.4	157.0	404.7	0.1	99.5	3.6	840.9
2023 Jan.	138	2,422.0	11.9	925.3	890.8	34.1	694.6	167.7	404.9	0.1	110.6	3.6	786.5
of which: Banks majority-owned by foreign banks ⁹													
2022 Dec.	33	1,923.0	11.3	551.7	521.3	30.0	528.0	108.7	319.8	0.1	93.2	2.9	829.2
2023 Jan.	33	1,935.2	7.9	595.8	562.6	32.8	554.5	119.7	320.0	0.1	104.1	2.9	774.0

* Assets and liabilities of monetary financial institutions (MFIs) in Germany. The assets and liabilities of foreign branches, of money market funds (which are also classified as MFIs) and of the Bundesbank are not included. For the definitions of the respective items, see the footnotes to Table IV.3. ¹ Owing to the Act Modernising Accounting Law (Gesetz zur Modernisierung des Bilanzrechts) of 25 May 2009, derivative financial instruments in the trading portfolio (trading portfolio derivatives) within the meaning of

Section 340e (3) sentence 1 of the German Commercial Code (Handelsgesetzbuch) read in conjunction with Section 35 (1) number 1a of the Credit Institution Accounting Regulation (Verordnung über die Rechnungslegung der Kreditinstitute) are classified under "Other assets and liabilities" as of the December 2010 reporting date. Trading portfolio derivatives are listed separately in 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:										
	Sight deposits	Time deposits		Sight deposits	Time deposits ²		Memo item: Liabilities arising from repos ³	Savings deposits ⁴		Bank savings bonds				
					for up to and including 1 year	for more than 1 year ²		Total	of which: At 3 months' notice					
All categories of banks														
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	2022 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.
2,495.8	747.5	1,748.3	4,619.6	3,003.0	395.9	646.8	68.4	542.2	519.3	31.7	1,291.9	590.1	1,828.5	Nov.
2,230.1	616.9	1,613.1	4,532.2	2,916.6	394.4	647.9	48.6	538.5	515.1	34.9	1,269.4	591.1	1,958.7	Dec.
2,321.7	744.8	1,576.9	4,604.7	2,936.3	448.4	651.3	71.7	527.9	503.5	40.9	1,287.5	592.6	1,845.0	2023 Jan.
Commercial banks ⁶														
1,152.0	461.6	690.3	1,786.9	1,216.8	230.5	234.6	45.8	93.3	89.8	11.7	191.3	201.6	1,516.6	2022 Dec.
1,210.5	557.2	653.3	1,816.2	1,228.4	250.6	235.2	70.7	88.6	84.6	13.4	197.5	203.8	1,420.5	2023 Jan.
Big banks ⁷														
422.3	156.2	266.1	850.2	562.7	131.0	76.1	21.2	79.4	76.5	1.1	143.5	73.6	1,006.9	2022 Dec.
444.5	185.0	259.5	866.1	570.0	144.0	75.9	36.0	75.2	71.8	1.1	147.5	73.5	926.8	2023 Jan.
Regional banks and other commercial banks														
451.5	158.9	292.5	762.8	530.9	71.5	136.2	24.7	13.6	13.0	10.6	47.3	112.6	496.6	2022 Dec.
486.2	225.7	260.4	771.3	533.1	76.5	136.3	34.7	13.1	12.5	12.3	49.5	114.9	481.4	2023 Jan.
Branches of foreign banks														
278.2	146.5	131.7	173.9	123.2	28.0	22.3	–	0.3	0.3	0.1	0.5	15.3	13.1	2022 Dec.
279.8	146.4	133.4	178.8	125.4	30.1	23.0	–	0.3	0.3	0.1	0.5	15.4	12.3	2023 Jan.
Landesbanken														
250.1	29.6	220.5	263.9	137.3	51.4	69.7	0.3	5.3	5.2	0.3	189.0	43.2	144.3	2022 Dec.
282.5	56.1	226.4	313.8	159.3	78.8	70.1	1.0	5.2	5.2	0.4	194.2	42.9	137.5	2023 Jan.
Savings banks														
177.3	3.2	174.1	1,185.3	865.8	23.1	14.2	–	265.7	250.0	16.6	16.7	137.4	54.3	2022 Dec.
179.6	5.7	173.9	1,174.0	849.0	28.4	14.4	–	262.4	246.6	19.8	17.6	137.4	49.7	2023 Jan.
Credit cooperatives														
165.3	3.3	162.0	861.0	625.4	36.5	19.5	–	173.7	169.6	5.9	8.6	101.7	36.2	2022 Dec.
165.4	3.0	162.4	855.2	615.1	41.3	20.8	–	171.2	166.7	7.0	8.6	101.7	33.5	2023 Jan.
Mortgage banks														
51.2	3.8	47.4	53.1	2.3	5.0	45.8	0.1	–	–	–	102.9	9.5	6.7	2022 Dec.
49.9	3.6	46.2	53.8	2.2	5.3	46.3	0.0	–	–	–	105.5	8.9	6.9	2023 Jan.
Building and loan associations														
38.6	2.7	36.0	194.6	3.8	1.4	188.8	–	0.5	0.5	0.1	5.2	12.3	9.0	2022 Dec.
38.0	3.2	34.8	195.1	3.8	1.6	189.2	–	0.5	0.5	0.1	5.6	12.4	8.7	2023 Jan.
Banks with special, development and other central support tasks														
395.5	112.8	282.7	187.3	65.3	46.5	75.2	2.4	–	–	–	755.7	85.6	191.5	2022 Dec.
395.9	116.0	279.9	196.5	78.5	42.3	75.4	0.0	–	–	–	758.5	85.6	188.2	2023 Jan.
Memo item: Foreign banks ⁸														
699.2	304.9	394.2	733.9	520.8	97.5	95.1	25.7	15.8	15.5	4.6	45.3	95.4	830.3	2022 Dec.
737.4	374.1	363.2	746.2	524.1	105.3	95.7	37.0	15.1	14.8	6.0	47.6	97.6	793.2	2023 Jan.
of which: Banks majority-owned by foreign banks ⁹														
421.0	158.4	262.6	560.0	397.6	69.6	72.8	25.7	15.5	15.2	4.6	44.8	80.1	817.2	2022 Dec.
457.6	227.7	229.8	567.4	398.7	75.2	72.7	37.0	14.8	14.6	6.0	47.2	82.2	780.9	2023 Jan.

and loan contracts (see Table IV.12). **3** Included in time deposits. **4** Excluding deposits under savings and loan contracts (see also footnote 2). **5** Including subordinated negotiable bearer debt securities; excluding non-negotiable bearer debt securities. **6** Commercial banks comprise the sub-groups "Big banks", "Regional banks and other commercial banks" and "Branches of foreign banks". **7** Deutsche Bank AG, Dresdner Bank AG (up to Nov. 2009), Commerzbank AG, UniCredit Bank AG (formerly Bayerische Hypo- und Vereinsbank AG), Deutsche Postbank AG (from December 2004 up to April

2018) and DB Privat- und Firmenkundenbank AG (from May 2018) (see the explanatory notes in the Statistical Series Banking statistics, Table I.3, banking group "Big banks"). **8** Sum of the banks majority-owned by foreign banks and included in other categories of banks and the category "Branches (with dependent legal status) of foreign banks". **9** Separate presentation of the banks majority-owned by foreign banks included in other banking categories.

IV. Banks

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

€ billion

Period	Cash in hand (euro area banknotes and coins)	Credit balances with the Bundesbank	Lending to domestic banks (MFIs)						Lending to domestic non-banks (non-MFIs)					
			Total	Credit balances and loans	Bills	Negotiable money market paper issued by banks	Securities issued by banks	Memo item: Fiduciary loans	Total	Loans	Bills	Treasury bills and negotiable money market paper issued by non-banks	Securities issued by non-banks ¹	
End of year or month *														
2013	18.5	85.6	1,545.6	1,153.1	0.0	1.7	390.8	2.2	3,131.6	2,692.6	0.5	1.2	437.2	
2014	18.9	81.3	1,425.9	1,065.6	0.0	2.1	358.2	1.7	3,167.3	2,712.2	0.4	0.7	454.0	
2015	19.2	155.0	1,346.6	1,062.6	0.0	1.7	282.2	1.7	3,233.9	2,764.0	0.4	0.4	469.0	
2016	25.8	284.0	1,364.9	1,099.8	0.0	0.8	264.3	2.0	3,274.3	2,823.8	0.3	0.4	449.8	
2017	31.9	392.5	1,407.5	1,163.4	0.0	0.7	243.4	1.9	3,332.6	2,894.0	0.4	0.7	437.5	
2018	40.4	416.1	1,323.5	1,083.8	0.0	0.8	239.0	5.9	3,394.5	2,990.2	0.2	0.2	403.9	
2019	43.2	476.6	1,254.7	1,016.2	0.0	0.7	237.9	4.5	3,521.5	3,119.2	0.3	3.3	398.7	
2020	47.2	792.9	1,367.9	1,119.7	0.0	0.7	247.5	8.8	3,647.0	3,245.1	0.2	4.0	397.7	
2021	49.4	905.0	1,409.6	1,163.7	–	0.5	245.3	10.3	3,798.1	3,392.4	0.3	2.6	402.8	
2022	19.8	67.3	2,347.0	2,101.4	–	1.0	244.6	12.1	4,015.6	3,613.1	0.2	2.7	399.6	
2021 Aug.	46.5	1,015.2	1,425.2	1,172.4	0.0	0.8	252.1	10.3	3,736.4	3,332.8	0.1	5.7	397.8	
Sep.	47.1	1,054.9	1,399.9	1,147.7	0.0	0.7	251.5	10.3	3,749.8	3,341.9	0.1	4.4	403.3	
Oct.	47.6	1,052.4	1,419.3	1,167.7	0.0	0.7	250.9	10.3	3,770.2	3,366.9	0.2	5.0	398.0	
Nov.	47.9	1,068.7	1,432.2	1,183.6	–	0.7	248.0	10.0	3,794.0	3,386.4	0.2	5.6	401.9	
Dec.	49.4	905.0	1,409.6	1,163.7	–	0.5	245.3	10.3	3,798.1	3,392.4	0.3	2.6	402.8	
2022 Jan.	47.4	1,066.0	1,439.2	1,191.8	–	0.7	246.7	10.1	3,812.8	3,409.0	0.2	3.1	400.5	
Feb.	47.2	1,094.0	1,453.6	1,204.6	–	0.3	248.7	10.0	3,826.5	3,426.0	0.2	5.0	395.3	
Mar.	49.5	1,086.3	1,442.6	1,195.1	–	0.3	247.3	10.0	3,853.8	3,449.0	0.2	3.3	401.3	
Apr.	50.4	1,200.5	1,360.3	1,112.8	–	0.6	246.9	9.9	3,866.6	3,470.0	0.2	3.5	392.9	
May	49.4	1,122.8	1,452.7	1,202.9	–	0.7	249.1	9.9	3,886.7	3,488.9	0.2	3.2	394.4	
June	51.1	1,090.9	1,462.8	1,214.8	–	0.8	247.2	9.8	3,906.6	3,513.4	0.2	3.7	389.3	
July	41.6	1,084.2	1,454.9	1,206.8	–	0.8	247.2	9.8	3,945.0	3,539.1	0.2	3.6	402.2	
Aug.	23.1	1,126.7	1,480.7	1,232.0	–	1.3	247.5	9.9	3,976.0	3,574.3	0.1	3.9	397.7	
Sep.	20.4	122.4	2,573.9	2,319.2	–	1.4	253.2	9.8	3,993.6	3,595.3	0.2	3.6	394.5	
Oct.	19.7	86.6	2,592.3	2,337.0	–	1.5	253.7	10.0	4,014.1	3,611.6	0.2	4.3	398.0	
Nov.	18.8	88.4	2,524.4	2,271.2	–	1.5	251.7	11.1	4,025.7	3,625.3	0.2	3.6	396.7	
Dec.	19.8	67.3	2,347.0	2,101.4	–	1.0	244.6	12.1	4,015.6	3,613.1	0.2	2.7	399.6	
2023 Jan.	18.0	89.5	2,443.5	2,198.0	–	1.0	244.5	12.7	4,016.2	3,622.4	0.1	4.3	389.4	
Changes *														
2014	+ 0.4	– 4.3	– 119.3	– 87.1	+ 0.0	+ 0.4	– 32.6	+ 0.1	+ 36.7	+ 20.6	– 0.1	– 0.6	+ 16.8	
2015	+ 0.3	+ 73.7	– 80.7	– 4.3	– 0.0	– 0.4	– 75.9	– 0.1	+ 68.9	+ 54.1	– 0.0	– 0.3	+ 15.1	
2016	+ 6.5	+ 129.1	+ 48.1	+ 66.9	–	– 0.9	– 17.9	+ 0.4	+ 43.7	+ 62.8	– 0.1	– 0.1	– 18.9	
2017	+ 6.1	+ 108.4	+ 50.3	+ 70.4	– 0.0	+ 0.0	– 20.1	– 0.1	+ 57.0	+ 70.2	+ 0.0	+ 0.4	– 13.6	
2018	+ 8.5	+ 24.0	– 81.0	– 76.6	+ 0.0	+ 0.1	– 4.4	+ 3.8	+ 71.5	+ 105.4	– 0.1	– 0.5	– 33.2	
2019	+ 2.8	+ 59.7	– 63.0	– 61.1	– 0.0	– 0.2	– 1.6	– 1.4	+ 126.7	+ 129.1	+ 0.1	+ 3.1	– 5.5	
2020	+ 4.1	+ 316.4	+ 201.2	+ 191.6	– 0.0	+ 0.0	+ 9.6	+ 4.3	+ 123.2	+ 123.6	– 0.1	+ 0.7	– 1.0	
2021	+ 2.2	+ 111.8	+ 44.1	+ 46.3	– 0.0	– 0.2	– 2.0	+ 1.5	+ 152.2	+ 147.8	+ 0.0	– 2.2	+ 6.6	
2022	– 29.6	– 836.6	+ 938.0	+ 938.1	–	+ 0.2	– 0.3	+ 1.7	+ 216.7	+ 220.1	– 0.1	+ 0.1	– 3.3	
2021 Aug.	+ 0.2	– 43.8	+ 53.4	+ 54.4	–	+ 0.1	– 1.1	– 0.0	+ 10.9	+ 9.7	– 0.0	– 0.5	+ 1.7	
Sep.	+ 0.6	+ 39.7	– 26.2	– 25.5	+ 0.0	– 0.1	– 0.6	– 0.0	+ 13.5	+ 9.2	+ 0.0	– 1.2	+ 5.4	
Oct.	+ 0.5	– 2.4	+ 19.5	+ 20.0	+ 0.0	– 0.0	– 0.5	– 0.1	+ 20.5	+ 25.1	+ 0.0	+ 0.6	– 5.2	
Nov.	+ 0.3	+ 16.6	+ 12.9	+ 15.9	– 0.0	– 0.0	– 2.9	– 0.3	+ 25.5	+ 20.4	+ 0.0	+ 0.6	+ 4.5	
Dec.	+ 1.6	– 163.6	– 22.4	– 19.6	–	– 0.1	– 2.7	+ 0.3	+ 4.3	+ 6.2	+ 0.1	– 3.0	+ 0.9	
2022 Jan.	– 2.0	+ 161.0	+ 27.8	+ 26.3	–	+ 0.1	+ 1.4	– 0.3	+ 14.7	+ 16.6	– 0.1	+ 0.5	– 2.3	
Feb.	– 0.2	+ 28.0	+ 13.1	+ 11.5	–	– 0.4	+ 2.0	– 0.1	+ 15.1	+ 18.4	+ 0.0	+ 1.9	– 5.2	
Mar.	+ 2.3	– 7.8	– 10.9	– 9.5	–	– 0.0	– 1.4	– 0.0	+ 27.3	+ 23.0	– 0.0	– 1.7	+ 6.0	
Apr.	+ 0.9	+ 114.2	– 82.3	– 82.3	–	+ 0.3	– 0.4	– 0.0	+ 13.1	+ 21.3	+ 0.0	+ 0.2	– 8.4	
May	– 1.0	– 77.7	+ 92.4	+ 90.0	–	+ 0.1	+ 2.3	– 0.0	+ 20.1	+ 18.9	– 0.1	– 0.3	+ 1.5	
June	+ 1.7	– 31.9	+ 10.1	+ 11.9	–	+ 0.1	– 1.9	– 0.1	+ 19.9	+ 24.5	– 0.0	+ 0.5	– 5.1	
July	– 9.5	– 6.8	– 7.5	– 7.6	–	+ 0.1	– 0.0	– 0.1	+ 36.1	+ 23.5	+ 0.0	– 0.1	+ 12.7	
Aug.	– 18.5	+ 42.5	+ 29.0	+ 28.3	–	+ 0.2	+ 0.5	+ 0.1	+ 30.9	+ 35.1	– 0.0	+ 0.3	– 4.5	
Sep.	– 2.7	– 1,004.3	+ 1,092.9	+ 1,087.0	–	+ 0.2	+ 5.7	– 0.0	+ 16.5	+ 19.9	+ 0.1	– 0.3	– 3.2	
Oct.	– 0.7	– 35.8	+ 18.5	+ 17.8	–	+ 0.1	+ 0.6	+ 0.2	+ 20.7	+ 16.6	– 0.0	+ 0.7	+ 3.5	
Nov.	– 0.8	+ 1.8	– 67.6	– 65.5	–	– 0.0	– 2.1	+ 1.1	+ 12.0	+ 13.9	– 0.0	– 0.7	– 1.3	
Dec.	+ 1.0	– 19.9	– 177.4	– 169.9	–	– 0.5	– 7.0	+ 1.0	– 9.6	– 11.7	+ 0.0	– 0.9	+ 2.9	
2023 Jan.	– 1.8	+ 22.2	+ 96.6	+ 96.7	–	+ 0.0	– 0.1	+ 0.6	+ 0.5	+ 9.2	– 0.1	+ 1.6	– 10.3	

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

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

IV. Banks

		Participating interests in domestic banks and enterprises	Deposits of domestic banks (MFIs) ³					Deposits of domestic non-banks (non-MFIs)						Period
Equalisation claims ²	Memo item: Fiduciary loans		Total	Sight deposits ⁴	Time deposits ⁴	Redis-counted bills ⁵	Memo item: Fiduciary loans	Total	Sight deposits	Time deposits ⁶	Savings deposits ⁷	Bank savings bonds ⁸	Memo item: Fiduciary loans	
End of year or month *														
–	31.6	92.3	1,140.3	125.6	1,014.7	0.0	33.2	3,048.7	1,409.9	952.0	610.1	76.6	32.9	2013
–	26.5	94.3	1,111.9	127.8	984.0	0.0	11.7	3,118.2	1,517.8	926.7	607.8	66.0	30.9	2014
–	20.4	89.6	1,065.6	131.1	934.5	0.0	6.1	3,224.7	1,673.7	898.4	596.5	56.1	29.3	2015
–	19.1	91.0	1,032.9	129.5	903.3	0.1	5.6	3,326.7	1,798.2	889.6	588.5	50.4	28.8	2016
–	19.1	88.1	1,048.2	110.7	937.4	0.0	5.1	3,420.9	1,941.0	853.2	582.9	43.7	30.0	2017
–	18.0	90.9	1,020.9	105.5	915.4	0.0	4.7	3,537.6	2,080.1	841.5	578.6	37.3	33.9	2018
–	17.3	90.4	1,010.2	107.2	902.9	0.0	4.4	3,661.0	2,236.3	816.2	575.2	33.2	32.5	2019
–	23.5	78.3	1,236.7	125.0	1,111.6	0.0	13.1	3,885.2	2,513.0	783.3	560.6	28.3	34.4	2020
–	25.7	79.2	1,338.4	117.2	1,221.3	0.0	16.4	3,976.3	2,654.6	736.0	561.2	24.5	34.2	2021
–	25.6	80.3	1,231.6	136.9	1,094.7	0.0	15.7	4,162.0	2,720.6	873.5	533.2	34.6	35.9	2022
–	25.2	78.2	1,364.7	135.3	1,229.4	0.0	16.1	3,971.0	2,656.0	727.8	561.5	25.6	34.3	2021 Aug.
–	25.2	79.0	1,353.8	128.9	1,224.9	0.0	16.2	3,960.3	2,647.9	726.1	560.7	25.5	34.1	2021 Sep.
–	25.1	79.0	1,363.6	132.9	1,230.7	0.0	16.2	3,989.1	2,664.3	739.3	560.1	25.3	33.9	2021 Oct.
–	25.2	79.1	1,373.9	135.2	1,238.6	0.0	16.3	4,002.4	2,685.9	731.8	559.9	24.8	33.6	2021 Nov.
–	25.7	79.2	1,338.4	117.2	1,221.3	0.0	16.4	3,976.3	2,654.6	736.0	561.2	24.5	34.2	2021 Dec.
–	25.7	78.6	1,363.7	137.2	1,226.5	0.0	16.4	4,025.9	2,690.9	750.0	560.8	24.2	33.9	2022 Jan.
–	25.7	78.7	1,369.7	140.5	1,229.2	0.0	16.6	4,037.8	2,704.5	748.5	560.9	23.9	33.8	2022 Feb.
–	25.8	78.7	1,367.7	137.7	1,230.1	0.0	16.5	4,033.7	2,695.6	755.2	559.0	23.9	33.8	2022 Mar.
–	25.9	78.7	1,384.4	140.6	1,243.8	0.0	16.7	4,046.7	2,705.6	759.4	557.9	23.8	33.8	2022 Apr.
–	26.2	78.6	1,393.7	142.7	1,251.0	0.0	17.1	4,056.8	2,724.3	752.1	556.6	23.8	33.6	2022 May
–	26.1	78.8	1,384.7	147.1	1,237.6	0.0	16.9	4,051.8	2,714.4	758.8	554.8	23.8	33.4	2022 June
–	25.9	80.3	1,383.3	134.3	1,249.0	0.0	16.6	4,086.4	2,729.0	780.4	553.0	24.1	33.0	2022 July
–	25.9	79.8	1,403.5	136.0	1,267.5	–	16.5	4,134.3	2,766.8	792.0	550.6	25.0	33.0	2022 Aug.
–	25.8	80.2	1,415.7	149.2	1,266.5	0.0	16.7	4,149.9	2,755.6	823.1	545.2	25.9	33.2	2022 Sep.
–	25.8	80.4	1,419.0	138.1	1,280.9	0.0	16.1	4,168.4	2,748.7	849.3	542.2	28.1	33.6	2022 Oct.
–	25.9	80.2	1,345.0	135.4	1,209.6	0.0	16.1	4,205.6	2,767.9	869.3	536.9	31.5	34.8	2022 Nov.
–	25.6	80.3	1,231.6	136.9	1,094.7	0.0	15.7	4,162.0	2,720.6	873.5	533.2	34.6	35.9	2022 Dec.
–	25.6	80.0	1,232.3	143.6	1,088.6	0.0	15.6	4,199.6	2,722.8	913.5	522.7	40.6	36.9	2023 Jan.
Changes *														
–	– 1.9	+ 2.0	– 29.0	+ 2.2	– 31.2	– 0.0	– 0.6	+ 69.7	+ 107.9	– 25.3	– 2.4	– 10.6	– 2.0	2014
–	– 2.1	– 4.3	– 46.6	+ 3.3	– 50.0	+ 0.0	– 1.3	+ 106.5	+ 156.2	– 28.3	– 11.3	– 10.1	– 1.6	2015
–	– 1.3	+ 1.5	– 1.7	+ 0.3	– 2.0	+ 0.0	– 0.5	+ 104.7	+ 124.5	– 6.9	– 7.9	– 5.0	– 0.5	2016
–	– 0.0	– 1.6	+ 11.0	– 18.4	+ 29.4	– 0.0	– 0.5	+ 103.1	+ 142.8	– 27.5	– 5.6	– 6.7	+ 0.4	2017
–	– 1.0	+ 3.1	– 25.0	– 3.1	– 21.9	+ 0.0	– 0.4	+ 117.7	+ 139.3	– 10.8	– 4.3	– 6.5	+ 3.9	2018
–	– 0.7	+ 0.1	– 8.6	+ 1.6	– 10.2	+ 0.0	– 0.3	+ 122.5	+ 155.8	– 25.7	– 3.4	– 4.1	– 1.4	2019
–	+ 5.7	– 3.3	+ 313.4	+ 23.2	+ 290.2	– 0.0	+ 8.2	+ 221.6	+ 273.7	– 32.7	– 14.5	– 4.9	+ 1.9	2020
–	+ 2.3	+ 1.0	+ 105.2	+ 7.4	+ 112.6	+ 0.0	+ 3.3	+ 95.3	+ 144.3	– 46.2	+ 0.7	– 3.5	+ 0.2	2021
–	– 0.1	+ 1.7	– 104.6	+ 8.8	– 113.4	– 0.0	– 0.6	+ 191.8	+ 65.8	+ 143.4	– 27.5	+ 10.1	+ 1.7	2022
–	+ 0.2	+ 0.1	+ 4.1	– 0.8	+ 4.9	– 0.0	+ 0.2	+ 6.4	+ 10.0	– 2.9	– 0.5	– 0.2	– 0.2	2021 Aug.
–	+ 0.0	+ 0.7	– 10.6	– 6.4	– 4.2	+ 0.0	+ 0.1	– 6.7	– 5.4	– 0.3	– 0.8	– 0.2	– 0.2	2021 Sep.
–	– 0.1	+ 0.1	+ 10.5	+ 4.0	+ 6.5	+ 0.0	+ 0.0	+ 28.8	+ 16.4	+ 13.2	– 0.6	– 0.2	– 0.2	2021 Oct.
–	+ 0.1	+ 0.1	+ 10.2	+ 2.3	+ 7.9	–	+ 0.1	+ 13.3	+ 21.5	– 7.6	– 0.2	– 0.3	– 0.3	2021 Nov.
–	+ 0.5	+ 0.1	– 35.4	– 18.0	– 17.4	– 0.0	+ 0.0	– 25.9	– 31.2	+ 4.1	+ 1.4	– 0.2	+ 0.6	2021 Dec.
–	– 0.0	– 0.6	+ 23.5	+ 18.3	+ 5.2	– 0.0	+ 0.0	+ 49.6	+ 36.3	+ 14.1	– 0.4	– 0.4	– 0.3	2022 Jan.
–	+ 0.0	+ 0.1	+ 6.0	+ 3.3	+ 2.7	– 0.0	+ 0.2	+ 11.9	+ 13.6	– 1.6	+ 0.1	– 0.2	– 0.2	2022 Feb.
–	+ 0.1	+ 0.0	– 1.9	– 2.8	+ 0.8	–	– 0.0	– 4.1	– 9.0	+ 6.6	– 1.8	+ 0.0	–	2022 Mar.
–	+ 0.2	– 0.0	+ 16.7	+ 3.0	+ 13.7	–	+ 0.2	+ 13.0	+ 9.5	+ 4.2	– 0.6	– 0.1	+ 0.0	2022 Apr.
–	+ 0.3	– 0.1	+ 9.4	+ 2.2	+ 7.2	– 0.0	+ 0.3	+ 10.1	+ 18.8	– 7.3	– 1.3	+ 0.0	– 0.2	2022 May
–	– 0.1	+ 0.2	– 9.0	+ 4.4	– 13.4	– 0.0	– 0.2	– 5.0	– 9.9	+ 6.7	– 1.8	– 0.0	– 0.1	2022 June
–	– 0.2	+ 1.5	– 1.1	– 12.4	+ 11.2	–	– 0.3	+ 33.5	+ 14.3	+ 20.7	– 1.8	+ 0.3	– 0.5	2022 July
–	– 0.0	+ 0.1	+ 23.3	+ 1.8	+ 21.6	– 0.0	– 0.1	+ 48.1	+ 37.8	+ 11.8	– 2.4	+ 0.9	+ 0.0	2022 Aug.
–	– 0.0	+ 0.4	+ 12.2	+ 13.2	– 0.9	+ 0.0	+ 0.1	+ 15.6	– 11.4	+ 31.3	– 5.3	+ 0.9	+ 0.2	2022 Sep.
–	– 0.0	+ 0.1	+ 3.5	– 10.9	+ 14.4	+ 0.0	– 0.5	+ 17.4	– 8.0	+ 26.2	– 3.1	+ 2.2	+ 0.4	2022 Oct.
–	+ 0.1	– 0.1	– 73.9	– 2.6	– 71.3	– 0.0	– 0.1	+ 45.3	+ 20.9	+ 26.3	– 5.3	+ 3.4	+ 1.3	2022 Nov.
–	– 0.3	+ 0.1	– 113.2	– 8.5	– 104.7	– 0.0	– 0.4	– 43.4	– 47.1	+ 4.2	– 3.7	+ 3.2	+ 1.1	2022 Dec.
–	– 0.0	– 0.4	+ 0.7	+ 6.8	– 6.1	+ 0.0	– 0.1	+ 37.5	– 3.0	+ 40.0	– 5.5	+ 6.0	+ 1.0	2023 Jan.

including subordinated liabilities. ⁴ Including liabilities arising from monetary policy operations with the Bundesbank. ⁵ Own acceptances and promissory notes outstanding. ⁶ Since the inclusion of building and loan associations in January 1999,

including deposits under savings and loan contracts (see Table IV.12). ⁷ Excluding deposits under savings and loan contracts (see also footnote 8). ⁸ Including liabilities arising from non-negotiable bearer debt securities.

IV. Banks

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

€ billion

Period	Lending to domestic non-banks, total		Short-term lending						Medium- and long-term		
	including negotiable money market paper, securities, equalisation claims	excluding negotiable money market paper, securities, equalisation claims	Total	to enterprises and households			to general government			Total	to enter-
				Total	Loans and bills	Negotiable money market paper	Total	Loans	Treasury bills		
End of year or month *											
2013	3,131.6	2,693.2	269.1	217.7	217.0	0.6	51.4	50.8	0.6	2,862.6	2,328.6
2014	3,167.3	2,712.6	257.5	212.7	212.1	0.6	44.8	44.7	0.1	2,909.8	2,376.8
2015	3,233.9	2,764.4	255.5	207.8	207.6	0.2	47.8	47.5	0.2	2,978.3	2,451.4
2016	3,274.3	2,824.2	248.6	205.7	205.4	0.3	42.9	42.8	0.1	3,025.8	2,530.0
2017	3,332.6	2,894.4	241.7	210.9	210.6	0.3	30.7	30.3	0.4	3,090.9	2,640.0
2018	3,394.5	2,990.4	249.5	228.0	227.6	0.4	21.5	21.7	-0.2	3,145.0	2,732.8
2019	3,521.5	3,119.5	260.4	238.8	238.4	0.4	21.6	18.7	2.9	3,261.1	2,866.9
2020	3,647.0	3,245.3	243.3	221.6	221.2	0.4	21.6	18.0	3.6	3,403.8	3,013.0
2021	3,798.1	3,392.7	249.7	232.2	231.9	0.3	17.5	15.2	2.3	3,548.4	3,174.6
2022	4,015.6	3,613.3	296.4	279.8	279.4	0.4	16.7	14.3	2.3	3,719.2	3,359.9
2021 Aug.	3,736.4	3,332.9	245.0	221.1	220.4	0.7	23.9	18.9	4.9	3,491.5	3,116.8
Sep.	3,749.8	3,342.1	247.8	224.5	223.8	0.7	23.4	19.6	3.7	3,501.9	3,123.2
Oct.	3,770.2	3,367.1	256.5	232.5	231.9	0.6	24.0	19.5	4.4	3,513.7	3,142.9
Nov.	3,794.0	3,386.5	255.6	232.9	232.3	0.6	22.7	17.7	5.0	3,538.4	3,164.9
Dec.	3,798.1	3,392.7	249.7	232.2	231.9	0.3	17.5	15.2	2.3	3,548.4	3,174.6
2022 Jan.	3,812.8	3,409.2	262.6	242.3	241.7	0.6	20.3	17.8	2.5	3,550.2	3,180.4
Feb.	3,826.5	3,426.2	267.4	246.9	246.1	0.8	20.5	16.3	4.2	3,559.1	3,195.3
Mar.	3,853.8	3,449.2	273.6	254.8	254.0	0.8	18.9	16.3	2.5	3,580.1	3,209.5
Apr.	3,866.6	3,470.2	277.5	257.9	257.0	0.9	19.6	17.1	2.5	3,589.1	3,226.2
May	3,886.7	3,489.1	280.1	262.5	261.5	1.0	17.6	15.4	2.2	3,606.6	3,242.6
June	3,906.6	3,513.5	290.8	271.4	270.5	0.9	19.5	16.6	2.8	3,615.7	3,255.8
July	3,945.0	3,539.3	291.4	271.8	270.9	0.8	19.6	16.8	2.8	3,653.7	3,293.5
Aug.	3,976.0	3,574.4	305.0	287.3	286.4	0.8	17.7	14.7	3.1	3,671.0	3,314.3
Sep.	3,993.6	3,595.5	311.0	292.8	292.2	0.6	18.2	15.2	3.0	3,682.6	3,329.1
Oct.	4,014.1	3,611.8	308.7	288.9	288.4	0.5	19.9	16.1	3.8	3,705.3	3,347.5
Nov.	4,025.7	3,625.4	310.7	292.9	292.6	0.4	17.7	14.5	3.2	3,715.0	3,359.0
Dec.	4,015.6	3,613.3	296.4	279.8	279.4	0.4	16.7	14.3	2.3	3,719.2	3,359.9
2023 Jan.	4,016.2	3,622.5	303.2	282.4	281.9	0.5	20.7	17.0	3.8	3,713.0	3,360.2
Changes *											
2014	+ 36.7	+ 20.5	- 11.6	- 4.5	- 4.5	- 0.0	- 7.1	- 6.5	- 0.6	+ 48.3	+ 52.5
2015	+ 68.9	+ 54.1	+ 1.6	- 1.3	- 0.9	- 0.4	+ 2.9	+ 2.8	+ 0.1	+ 67.2	+ 73.9
2016	+ 43.7	+ 62.7	- 5.2	- 0.3	- 0.4	+ 0.1	- 4.9	- 4.8	- 0.2	+ 48.9	+ 79.8
2017	+ 57.0	+ 70.2	- 6.5	+ 5.6	+ 5.6	+ 0.0	- 12.1	- 12.4	+ 0.3	+ 63.5	+ 103.4
2018	+ 71.5	+ 105.3	+ 6.6	+ 15.8	+ 15.7	+ 0.1	- 9.2	- 8.6	- 0.6	+ 65.0	+ 102.0
2019	+ 126.7	+ 129.1	+ 11.7	+ 11.6	+ 11.6	+ 0.0	+ 0.1	- 3.0	+ 3.1	+ 115.0	+ 132.8
2020	+ 123.2	+ 123.6	- 19.6	- 19.8	- 19.8	- 0.0	+ 0.2	- 0.5	+ 0.7	+ 142.8	+ 145.6
2021	+ 152.2	+ 147.8	+ 8.8	+ 13.8	+ 13.8	- 0.1	- 4.9	- 2.8	- 2.1	+ 143.4	+ 157.9
2022	+ 216.7	+ 220.0	+ 47.6	+ 48.5	+ 48.5	+ 0.0	- 0.9	- 0.9	+ 0.0	+ 169.1	+ 184.8
2021 Aug.	+ 10.9	+ 9.7	- 3.2	+ 0.1	+ 0.2	- 0.1	- 3.3	- 2.9	- 0.4	+ 14.1	+ 14.2
Sep.	+ 13.5	+ 9.3	+ 3.3	+ 3.7	+ 3.8	- 0.0	- 0.5	+ 0.7	- 1.2	+ 10.2	+ 6.2
Oct.	+ 20.5	+ 25.1	+ 8.7	+ 8.1	+ 8.2	- 0.1	+ 0.5	- 0.2	+ 0.7	+ 11.8	+ 19.8
Nov.	+ 25.5	+ 20.5	+ 1.2	+ 2.4	+ 2.4	+ 0.0	- 1.2	- 1.8	+ 0.6	+ 24.4	+ 19.9
Dec.	+ 4.3	+ 6.3	- 5.8	- 0.6	- 0.3	- 0.3	- 5.2	- 2.5	- 2.7	+ 10.1	+ 9.8
2022 Jan.	+ 14.7	+ 16.5	+ 12.9	+ 10.1	+ 9.8	+ 0.3	+ 2.8	+ 2.6	+ 0.2	+ 1.8	+ 5.8
Feb.	+ 15.1	+ 18.4	+ 6.2	+ 6.0	+ 5.8	+ 0.2	+ 0.2	- 1.5	+ 1.7	+ 9.0	+ 14.9
Mar.	+ 27.3	+ 23.0	+ 6.2	+ 7.9	+ 7.9	- 0.0	- 1.6	+ 0.1	- 1.7	+ 21.0	+ 14.2
Apr.	+ 13.1	+ 21.4	+ 3.9	+ 3.1	+ 3.0	+ 0.1	+ 0.7	+ 0.7	+ 0.0	+ 9.3	+ 17.0
May	+ 20.1	+ 18.8	+ 2.6	+ 4.6	+ 4.5	+ 0.0	- 2.0	- 1.7	- 0.3	+ 17.5	+ 16.4
June	+ 19.9	+ 24.5	+ 10.8	+ 8.9	+ 9.0	- 0.1	+ 1.9	+ 1.3	+ 0.6	+ 9.1	+ 13.2
July	+ 36.1	+ 23.5	+ 0.2	+ 0.1	+ 0.1	- 0.0	+ 0.1	+ 0.2	- 0.1	+ 35.8	+ 35.6
Aug.	+ 30.9	+ 35.1	+ 13.7	+ 15.5	+ 15.5	+ 0.0	- 1.9	- 2.1	+ 0.3	+ 17.2	+ 20.8
Sep.	+ 16.5	+ 20.0	+ 4.8	+ 4.4	+ 4.6	- 0.2	+ 0.5	+ 0.6	- 0.1	+ 11.7	+ 14.8
Oct.	+ 20.7	+ 16.6	- 2.0	- 3.6	- 3.5	- 0.1	+ 1.6	+ 0.8	+ 0.8	+ 22.7	+ 18.5
Nov.	+ 12.0	+ 13.9	+ 2.2	+ 4.4	+ 4.5	- 0.1	- 2.1	- 1.5	- 0.6	+ 9.7	+ 11.8
Dec.	- 9.6	- 11.7	- 13.9	- 12.8	- 12.7	- 0.0	- 1.1	- 0.2	- 0.9	+ 4.2	+ 1.8
2023 Jan.	+ 0.5	+ 9.1	+ 6.7	+ 2.6	+ 2.4	+ 0.2	+ 4.1	+ 2.6	+ 1.4	- 6.1	+ 0.2

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

1 Excluding debt securities arising from the exchange of equalisation claims (see also footnote 2). 2 Including debt securities arising from the exchange of equalisation claims.

IV. Banks

lending													Period									
prises and households					to general government																	
Loans			Securities	Memo item: Fiduciary loans	Total	Loans			Secur- ities 1	Equal- isation claims 2	Memo item: Fiduciary loans											
Total	Medium- term	Long- term				Total	Medium- term	Long- term														
End of year or month *																						
2,136.9	248.0	1,888.9	191.7	28.9	534.0	288.4	38.8	249.7	245.6	—	2.7	2013										
2,172.7	251.7	1,921.0	204.2	24.4	532.9	283.1	33.5	249.6	249.8	—	2.1	2014										
2,232.4	256.0	1,976.3	219.0	18.3	527.0	277.0	27.9	249.0	250.0	—	2.1	2015										
2,306.5	264.1	2,042.4	223.4	17.3	495.8	269.4	23.9	245.5	226.4	—	1.8	2016										
2,399.5	273.5	2,125.9	240.6	17.4	450.9	254.0	22.5	231.5	196.9	—	1.7	2017										
2,499.4	282.6	2,216.8	233.4	16.5	412.1	241.7	19.7	222.0	170.4	—	1.4	2018										
2,626.4	301.3	2,325.1	240.5	15.7	394.2	235.9	17.2	218.8	158.2	—	1.5	2019										
2,771.8	310.5	2,461.4	241.1	22.4	390.8	234.3	15.7	218.6	156.6	—	1.1	2020										
2,915.7	314.5	2,601.2	258.9	24.7	373.8	229.9	14.3	215.6	143.9	—	1.0	2021										
3,085.9	348.7	2,737.1	274.0	24.6	359.3	233.7	14.1	219.6	125.6	—	1.0	2022										
2,864.5	311.5	2,553.1	252.2	24.2	374.7	229.1	14.7	214.4	145.6	—	1.1	2021 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.										
3,086.6	344.9	2,741.7	272.4	24.8	356.0	231.7	13.9	217.8	124.3	—	1.0	Nov.										
3,085.9	348.7	2,737.1	274.0	24.6	359.3	233.7	14.1	219.6	125.6	—	1.0	Dec.										
3,090.3	349.9	2,740.4	269.9	24.6	352.9	233.4	13.8	219.5	119.5	—	1.0	2023 Jan.										
Changes *																						
+ 39.9	+ 5.6	+ 34.3	+ 12.5	— 1.8	— 4.1	— 8.5	— 5.1	— 3.4	+ 4.3	—	— 0.2	2014										
+ 59.0	+ 4.5	+ 54.6	+ 14.8	— 2.1	— 6.6	— 6.9	— 4.8	— 2.0	+ 0.2	—	+ 0.0	2015										
+ 75.1	+ 9.7	+ 65.4	+ 4.7	— 0.9	— 30.9	— 7.3	— 4.0	— 3.3	— 23.6	—	— 0.4	2016										
+ 87.6	+ 9.4	+ 78.2	+ 15.8	+ 0.1	— 39.9	— 10.6	— 1.3	— 9.3	— 29.4	—	— 0.1	2017										
+ 108.7	+ 19.3	+ 89.4	— 6.7	— 0.9	— 37.1	— 10.5	— 2.7	— 7.8	— 26.6	—	— 0.0	2018										
+ 126.0	+ 18.9	+ 107.2	+ 6.8	— 0.8	— 17.8	— 5.5	— 2.6	— 2.9	— 12.3	—	+ 0.1	2019										
+ 145.0	+ 9.4	+ 135.5	+ 0.6	+ 6.1	— 2.8	— 1.1	— 1.5	+ 0.4	— 1.7	—	— 0.4	2020										
+ 140.1	+ 5.6	+ 134.5	+ 17.8	+ 2.3	— 14.6	— 3.3	— 1.3	— 2.0	— 11.3	—	— 0.0	2021										
+ 169.9	+ 33.5	+ 136.4	+ 14.9	— 0.1	— 15.7	+ 2.5	— 0.7	+ 3.3	— 18.2	—	— 0.0	2022										
+ 13.0	+ 0.8	+ 12.3	+ 1.2	+ 0.2	— 0.1	— 0.6	— 0.1	— 0.4	+ 0.5	—	— 0.0	2021 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.										
+ 9.4	+ 0.1	+ 9.3	+ 2.4	+ 0.0	— 2.1	+ 1.6	+ 0.1	+ 1.4	— 3.6	—	+ 0.0	Nov.										
+ 0.3	+ 4.0	— 3.7	+ 1.6	— 0.3	+ 2.4	+ 1.0	+ 0.2	+ 0.9	+ 1.4	—	— 0.0	Dec.										
+ 4.4	+ 1.1	+ 3.3	— 4.2	+ 0.0	— 6.4	— 0.3	— 0.3	— 0.0	— 6.1	—	— 0.0	2023 Jan.										

IV. Banks

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

billion €

Lending to domestic enterprises and households (excluding holdings of negotiable money market paper and excluding securities portfolios) ¹														
	of which:													
	Mortgage loans, total	Housing loans												
		Total	Mortgage loans secured by residential real estate	Other housing loans	Total	of which: Housing loans	Manufacturing	Electricity, gas and water supply; refuse disposal, mining and quarrying	Construction	Wholesale and retail trade; repair of motor vehicles and motor-cycles	Agriculture, forestry, fishing and aquaculture	Transportation and storage; post and telecommunications	Financial intermediation (excluding MFIs) and insurance companies	
Lending, total														
2,993.0	1,601.8	1,565.6	1,285.1	280.5	1,623.4	443.3	146.7	123.4	82.7	135.8	55.3	59.8	176.0	
3,147.5	1,591.4	1,678.2	1,373.0	305.2	1,701.5	477.2	146.1	128.3	98.0	140.4	55.9	55.6	186.3	
3,204.0	1,613.7	1,701.0	1,391.9	309.0	1,742.4	485.1	150.9	134.3	101.3	145.3	56.3	54.9	193.2	
3,268.7	1,636.4	1,731.4	1,412.8	318.5	1,784.8	494.5	160.2	132.6	104.4	153.4	57.0	56.4	200.2	
3,351.0	1,659.4	1,758.3	1,433.0	325.2	1,845.3	503.1	163.6	147.5	107.3	163.3	56.9	64.9	202.3	
3,365.3	1,676.5	1,773.9	1,448.0	325.8	1,852.2	509.1	160.0	137.7	108.8	155.1	56.3	65.2	211.9	
Short-term lending														
221.2	–	8.0	–	8.0	192.1	4.6	29.0	6.9	16.0	37.0	3.6	6.1	31.6	
231.8	–	6.9	–	6.9	202.7	4.4	31.6	9.1	18.0	36.4	3.3	3.9	35.0	
254.0	–	7.0	–	7.0	224.1	4.5	36.5	14.0	19.5	39.3	3.6	4.1	38.0	
270.5	–	7.0	–	7.0	239.5	4.6	44.7	11.6	20.1	42.2	3.9	4.3	42.2	
292.2	–	7.4	–	7.4	260.7	4.9	46.2	24.4	21.1	45.3	3.6	4.2	42.2	
279.4	–	7.4	–	7.4	248.9	5.0	41.6	12.1	20.8	44.7	3.3	3.8	49.8	
Medium-term lending														
310.5	–	38.5	–	38.5	230.4	18.5	30.2	5.4	14.8	19.3	4.8	15.0	51.4	
314.5	–	40.5	–	40.5	239.5	20.6	28.3	5.4	19.3	20.8	4.3	12.3	52.0	
316.1	–	40.8	–	40.8	242.2	21.0	28.9	5.6	20.0	22.0	4.2	11.7	53.1	
322.2	–	42.0	–	42.0	249.2	22.2	29.1	5.8	21.0	22.3	4.3	13.3	53.7	
339.5	–	43.2	–	43.2	265.9	23.1	30.5	6.0	21.6	23.4	4.3	22.2	54.4	
348.7	–	43.4	–	43.4	275.8	23.5	31.2	6.5	22.2	24.3	4.1	23.0	56.2	
Long-term lending														
2,461.4	1,601.8	1,519.1	1,285.1	234.0	1,201.0	420.2	87.5	111.2	51.8	79.4	47.0	38.7	93.0	
2,601.2	1,591.4	1,630.9	1,373.0	257.8	1,259.3	452.2	86.2	113.8	60.8	83.2	48.3	39.4	99.3	
2,633.9	1,613.7	1,653.1	1,391.9	261.2	1,276.0	459.6	85.5	114.8	61.8	84.0	48.4	39.2	102.1	
2,675.9	1,636.4	1,682.3	1,412.8	269.5	1,296.0	467.7	86.5	115.2	63.4	88.9	48.8	38.8	104.4	
2,719.3	1,659.4	1,707.6	1,433.0	274.6	1,318.6	475.1	86.8	117.1	64.7	94.6	49.0	38.6	105.6	
2,737.1	1,676.5	1,723.1	1,448.0	275.1	1,327.5	480.6	87.2	119.0	65.8	86.1	48.9	38.4	105.9	
Lending, total														
														Change during quarter *
+ 54.1	+ 18.0	+ 28.6	+ 18.9	+ 9.7	+ 34.9	+ 9.0	+ 2.2	+ 5.9	+ 1.5	+ 3.7	– 0.2	– 0.6	+ 3.7	
+ 57.9	+ 17.9	+ 22.0	+ 16.6	+ 5.3	+ 42.0	+ 7.0	+ 4.8	+ 6.3	+ 3.2	+ 4.7	+ 0.4	– 1.1	+ 8.9	
+ 65.0	+ 22.2	+ 29.9	+ 20.5	+ 9.4	+ 42.7	+ 9.1	+ 9.4	– 1.7	+ 3.2	+ 8.2	+ 0.7	+ 1.5	+ 7.1	
+ 79.0	+ 23.4	+ 26.9	+ 20.5	+ 6.4	+ 58.5	+ 8.6	+ 2.5	+ 14.9	+ 2.7	+ 9.6	– 0.1	+ 8.5	+ 2.0	
+ 16.5	+ 17.2	+ 15.4	+ 14.8	+ 0.6	+ 8.9	+ 5.9	– 3.2	– 9.9	+ 1.4	– 2.7	– 0.6	+ 0.3	+ 10.2	
Short-term lending														
+ 10.3	–	– 0.2	–	– 0.2	+ 10.5	+ 0.0	+ 1.1	+ 3.9	+ 1.0	+ 0.9	– 0.6	– 0.2	+ 1.0	
+ 23.5	–	+ 0.1	–	+ 0.1	+ 22.7	+ 0.1	+ 4.9	+ 4.9	+ 1.6	+ 2.9	+ 0.3	+ 0.2	+ 4.4	
+ 16.6	–	+ 0.0	–	+ 0.0	+ 15.4	+ 0.1	+ 8.2	– 2.4	+ 0.6	+ 2.9	+ 0.3	+ 0.2	+ 4.2	
+ 20.2	–	+ 0.3	–	+ 0.3	+ 19.8	+ 0.3	+ 0.7	+ 12.8	+ 0.9	+ 2.8	– 0.3	– 0.2	+ 0.1	
– 11.8	–	– 0.0	–	– 0.0	– 10.8	+ 0.1	– 4.3	– 12.3	– 0.3	– 0.5	– 0.3	– 0.3	+ 7.8	
Medium-term lending														
+ 6.8	–	+ 0.4	–	+ 0.4	+ 8.0	+ 0.5	+ 0.5	+ 0.2	+ 3.5	+ 1.6	– 0.1	+ 0.0	+ 0.5	
+ 1.7	–	+ 0.3	–	+ 0.3	+ 2.7	+ 0.4	+ 0.5	+ 0.3	+ 0.7	+ 1.2	– 0.0	– 0.7	+ 1.2	
+ 6.4	–	+ 1.2	–	+ 1.2	+ 7.3	+ 1.2	+ 0.2	+ 0.2	+ 1.0	+ 0.3	+ 0.1	+ 1.6	+ 0.9	
+ 16.1	–	+ 0.9	–	+ 0.9	+ 16.1	+ 0.9	+ 1.5	+ 0.2	+ 0.5	+ 1.1	– 0.0	+ 8.9	+ 0.8	
+ 9.3	–	+ 0.1	–	+ 0.1	+ 10.0	+ 0.5	+ 0.7	+ 0.5	+ 0.7	+ 0.9	– 0.1	+ 0.8	+ 1.9	
Long-term lending														
+ 37.0	+ 18.0	+ 28.4	+ 18.9	+ 9.5	+ 16.4	+ 8.4	+ 0.6	+ 1.8	– 3.0	+ 1.2	+ 0.6	– 0.5	+ 2.2	
+ 32.7	+ 17.9	+ 21.5	+ 16.6	+ 4.9	+ 16.5	+ 6.5	– 0.7	+ 1.1	+ 0.9	+ 0.7	+ 0.1	– 0.6	+ 3.4	
+ 42.0	+ 22.2	+ 28.7	+ 20.5	+ 8.1	+ 19.9	+ 7.9	+ 1.0	+ 0.4	+ 1.5	+ 4.9	+ 0.3	– 0.3	+ 2.1	
+ 42.7	+ 23.4	+ 25.7	+ 20.5	+ 5.2	+ 22.6	+ 7.4	+ 0.3	+ 1.9	+ 1.3	+ 5.7	+ 0.3	– 0.2	+ 1.2	
+ 19.0	+ 17.2	+ 15.3	+ 14.8	+ 0.5	+ 9.7	+ 5.3	+ 0.3	+ 1.9	+ 1.1	– 3.1	– 0.1	– 0.2	+ 0.5	

* Excluding lending by foreign branches. Breakdown of lending by building and loan associations by areas and sectors estimated. Statistical breaks have been eliminated

from the changes. The figures for the latest date are always to be regarded as provisional; subsequent alterations, which appear in the following Monthly Report,

IV. Banks

														Period	
						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			
Total	of which:			Lending to self-employed persons ²	Lending to craft enterprises			Total	Housing loans	Total			of which:		
	Housing enterprises	Holding companies	Other real estate activities										Instalment loans ³		Debit balances on wage, salary and pension accounts
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		
890.8	308.6	63.8	207.9	483.8	48.3	1,429.3	1,196.6	232.7	184.1	6.9	16.7	4.4	2021 Q4		
906.2	315.6	66.2	209.8	489.1	49.1	1,444.9	1,211.4	233.5	184.4	7.1	16.8	4.4	2022 Q1		
920.4	322.8	68.0	211.5	494.9	49.4	1,467.0	1,232.4	234.6	184.6	7.3	16.9	4.5	Q2		
939.6	329.1	71.2	215.5	500.0	54.1	1,488.6	1,250.6	238.0	187.3	7.5	17.1	4.6	Q3		
957.4	334.0	79.9	218.2	501.7	54.1	1,495.8	1,260.1	235.7	185.9	7.1	17.3	4.6	Q4		
Lending, total															
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		
65.5	14.5	13.0	10.0	19.7	3.8	28.6	2.5	26.1	1.4	6.9	0.5	0.0	2021 Q4		
69.2	15.3	14.0	10.5	20.3	4.4	29.2	2.5	26.7	1.6	7.1	0.7	0.0	2022 Q1		
70.5	15.9	13.7	11.1	20.8	4.5	30.3	2.5	27.9	1.7	7.3	0.7	0.0	Q2		
73.8	15.8	14.9	11.2	20.9	5.3	30.8	2.5	28.3	1.7	7.5	0.6	0.0	Q3		
73.0	16.1	15.6	10.8	20.4	5.0	29.9	2.4	27.5	1.7	7.1	0.6	–	Q4		
Short-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		
97.0	23.1	15.2	27.1	30.0	3.3	74.4	19.8	54.6	50.6	–	0.6	0.1	2021 Q4		
96.8	22.8	15.5	27.2	30.0	3.2	73.4	19.7	53.7	49.6	–	0.5	0.1	2022 Q1		
99.8	24.1	17.1	26.6	29.9	3.2	72.5	19.8	52.7	48.6	–	0.5	0.1	Q2		
103.6	25.2	17.7	27.5	30.4	6.4	73.0	20.1	52.9	48.7	–	0.5	0.1	Q3		
108.2	25.4	20.1	28.4	30.1	6.5	72.3	19.8	52.5	48.0	–	0.6	0.1	Q4		
Medium-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		
728.4	271.1	35.6	170.8	434.1	41.3	1,326.3	1,174.3	152.0	132.1	–	15.6	4.3	2021 Q4		
740.2	277.5	36.8	172.1	438.8	41.4	1,342.3	1,189.2	153.1	133.2	–	15.6	4.4	2022 Q1		
750.0	282.8	37.3	173.8	444.2	41.7	1,364.2	1,210.1	154.1	134.4	–	15.7	4.4	Q2		
762.2	288.0	38.5	176.7	448.7	42.5	1,384.8	1,228.0	156.7	137.0	–	15.9	4.5	Q3		
776.2	292.6	44.2	179.0	451.1	42.6	1,393.5	1,237.9	155.6	136.2	–	16.1	4.6	Q4		
Change during quarter *															
+ 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	2021 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		
+ 13.3	+ 4.9	+ 3.5	+ 2.4	+ 2.1	– 0.1	+ 7.5	+ 9.5	– 2.0	– 1.3	– 0.4	+ 0.2	+ 0.0	Q4		
Short-term lending															
+ 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	2021 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		
– 0.6	+ 0.2	+ 0.7	– 0.3	– 0.1	– 0.2	– 0.9	– 0.1	– 0.8	– 0.0	– 0.4	– 0.1	– 0.0	Q4		
Medium-term lending															
+ 1.7	+ 1.3	+ 1.4	– 0.4	– 0.4	– 0.1	– 1.3	– 0.1	– 1.1	– 1.3	–	+ 0.0	+ 0.0	2021 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		
+ 4.6	+ 0.1	+ 2.4	+ 0.8	+ 0.1	+ 0.1	– 0.7	– 0.3	– 0.4	– 0.6	–	+ 0.0	– 0.0	Q4		
Long-term lending															
+ 13.6	+ 7.2	+ 0.4	+ 2.7	+ 6.2	+ 0.1	+ 20.4	+ 19.9	+ 0.5	+ 1.2	–	+ 0.3	+ 0.1	2021 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		
+ 9.3	+ 4.6	+ 0.5	+ 1.9	+ 2.1	+ 0.1	+ 9.1	+ 9.9	– 0.9	– 0.7	–	+ 0.2	+ 0.1	Q4		

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

IV. Banks

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

€ billion

Period	Deposits, total	Sight deposits	Time deposits 1,2				Savings deposits 3	Bank savings bonds 4	Memo item:										
			Total	for up to and including 1 year	for more than 1 year 2					Fiduciary loans	Subordinated liabilities (excluding negotiable debt securities)	Liabilities arising from repos							
					Total	for up to and including 2 years	for more than 2 years												
Domestic enterprises and households																			
												End of year or month *							
2020	3,655.7	2,432.9	640.3	129.3	511.0	27.0	483.9	557.9	24.6	9.0	12.3	0.1							
2021	3,766.2	2,572.2	614.1	119.0	495.0	25.9	469.2	558.7	21.2	8.4	15.1	0.3							
2022	3,882.2	2,638.1	681.9	208.0	473.9	27.4	446.5	531.2	31.0	8.6	16.6	1.5							
2022 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							
Nov.	3,901.1	2,661.9	676.5	200.0	476.5	26.0	450.5	534.8	27.8	8.3	16.4	2.1							
Dec.	3,882.2	2,638.1	681.9	208.0	473.9	27.4	446.5	531.2	31.0	8.6	16.6	1.5							
2023 Jan.	3,900.2	2,628.3	714.2	236.8	477.4	29.0	448.4	520.9	36.8	9.4	16.7	1.9							
												Changes *							
2021	+ 113.2	+ 140.9	- 25.5	- 9.6	- 15.9	- 1.4	- 14.5	+ 0.9	- 3.1	- 0.6	+ 2.8	+ 0.2							
2022	+ 122.7	+ 65.6	+ 74.2	+ 87.8	- 13.6	+ 1.4	- 15.1	- 27.0	+ 9.8	+ 0.2	+ 1.3	+ 1.3							
2022 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.	+ 19.2	- 8.2	+ 28.3	+ 29.7	- 1.4	+ 0.4	- 1.8	- 3.0	+ 2.1	+ 0.4	+ 0.0	+ 0.5							
Nov.	+ 12.2	+ 1.7	+ 12.4	+ 10.3	+ 2.1	+ 0.3	+ 1.8	- 5.1	+ 3.3	+ 0.4	+ 0.1	+ 0.5							
Dec.	- 18.7	- 23.7	+ 5.4	+ 8.0	- 2.7	+ 1.4	- 4.0	- 3.6	+ 3.2	+ 0.3	+ 0.0	- 0.6							
2023 Jan.	+ 17.9	- 14.9	+ 32.3	+ 28.7	+ 3.6	+ 1.7	+ 1.9	- 5.3	+ 5.8	+ 0.8	+ 0.1	+ 0.3							
of which: Domestic enterprises																			
												End of year or month *							
2020	1,116.1	719.1	381.7	89.2	292.5	15.0	277.5	5.8	9.4	2.3	9.7	0.1							
2021	1,142.7	765.1	364.3	87.4	276.9	15.8	261.1	5.3	8.0	2.3	12.2	0.3							
2022	1,193.5	783.4	397.1	140.8	256.3	16.8	239.5	4.4	8.6	1.9	13.5	1.5							
2022 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							
Nov.	1,223.9	805.3	405.5	144.1	261.4	16.2	245.1	4.7	8.4	1.9	13.3	2.1							
Dec.	1,193.5	783.4	397.1	140.8	256.3	16.8	239.5	4.4	8.6	1.9	13.5	1.5							
2023 Jan.	1,220.2	792.5	414.7	156.8	257.9	17.1	240.8	4.3	8.7	2.0	13.5	1.9							
												Changes *							
2021	+ 28.5	+ 47.1	- 16.8	- 1.2	- 15.7	+ 0.5	- 16.2	- 0.5	- 1.3	+ 0.0	+ 2.6	+ 0.2							
2022	+ 56.2	+ 17.7	+ 38.8	+ 52.1	- 13.3	+ 1.0	- 14.3	- 0.9	+ 0.6	- 0.5	+ 1.0	+ 1.3							
2022 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.	+ 16.0	- 7.6	+ 23.6	+ 25.1	- 1.5	+ 0.1	- 1.5	- 0.1	+ 0.1	+ 0.0	- 0.0	+ 0.5							
Nov.	- 0.5	- 2.3	+ 1.7	+ 0.3	+ 1.4	- 0.3	+ 1.7	- 0.1	+ 0.2	+ 0.0	- 0.0	+ 0.5							
Dec.	- 30.3	- 21.7	- 8.5	- 3.3	- 5.2	+ 0.6	- 5.7	- 0.3	+ 0.2	- 0.1	- 0.0	- 0.6							
2023 Jan.	+ 26.4	+ 9.0	+ 17.4	+ 15.9	+ 1.5	+ 0.3	+ 1.3	- 0.1	+ 0.1	+ 0.1	+ 0.0	+ 0.3							

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

IV. Banks

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

€ billion

Period	Deposits of domestic households and non-profit institutions, total	Sight deposits						Time deposits 1,2					
		Total	by creditor group					Total	by creditor group				
			Domestic households				Domestic non-profit institutions		Domestic households				
			Total	Self-employed persons	Employees	Other individuals			Total	Self-employed persons	Employees	Other individuals	
End of year or month *													
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	2,688.7	1,854.7	1,809.9	307.3	1,342.5	160.1	44.8	284.8	268.7	31.2	200.5	37.1	
2022 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	
Nov.	2,677.2	1,856.7	1,812.3	312.1	1,340.3	159.9	44.4	271.0	256.9	27.4	194.4	35.1	
Dec.	2,688.7	1,854.7	1,809.9	307.3	1,342.5	160.1	44.8	284.8	268.7	31.2	200.5	37.1	
2023 Jan.	2,680.0	1,835.8	1,791.8	305.3	1,329.4	157.1	44.0	299.5	282.9	34.5	210.1	38.3	
Changes *													
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	+ 66.5	+ 48.0	+ 47.8	- 1.5	+ 54.1	- 4.7	+ 0.1	+ 35.4	+ 31.4	+ 12.9	+ 17.2	+ 1.2	
2022 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	
Nov.	+ 12.8	+ 4.0	+ 5.2	- 5.0	+ 10.6	- 0.4	- 1.1	+ 10.6	+ 10.5	+ 4.3	+ 5.7	+ 0.5	
Dec.	+ 11.6	- 2.0	- 2.4	- 4.9	+ 2.3	+ 0.3	+ 0.4	+ 13.8	+ 11.9	+ 3.8	+ 6.8	+ 1.3	
2023 Jan.	- 8.6	- 23.9	- 23.1	- 1.9	- 18.1	- 3.0	- 0.8	+ 14.9	+ 14.2	+ 3.4	+ 9.6	+ 1.2	

* See Table IV.2, footnote *: statistical breaks have been eliminated from the changes. The figures for the latest date are always to be regarded as provisional.

Subsequent revisions, which appear in the following Monthly Report, are not specially marked. ¹ Including 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 *													
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	279.8	66.8	7.9	24.2	34.6	0.1	11.4	53.8	17.1	25.2	10.9	0.5	15.9
2022 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
Nov.	304.5	71.1	14.6	21.3	35.1	0.1	11.5	63.3	24.0	28.5	10.4	0.5	15.0
Dec.	279.8	66.8	7.9	24.2	34.6	0.1	11.4	53.8	17.1	25.2	10.9	0.5	15.9
2023 Jan.	299.4	73.8	15.5	23.7	34.6	0.0	11.4	65.6	22.2	31.3	11.6	0.5	16.1
Changes *													
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	+ 69.1	+ 23.0	+ 3.5	+ 20.9	- 1.4	- 0.0	- 0.3	+ 6.4	- 4.6	+ 11.3	- 0.3	- 0.1	+ 1.8
2022 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
Nov.	+ 33.0	+ 25.8	+ 8.2	+ 12.7	+ 4.9	-	- 0.0	- 3.8	+ 4.6	- 8.3	- 0.1	+ 0.0	+ 0.8
Dec.	- 24.7	- 4.3	- 6.7	+ 2.9	- 0.5	- 0.0	- 0.2	- 9.6	- 6.8	- 3.3	+ 0.6	- 0.0	+ 0.9
2023 Jan.	+ 19.7	+ 6.9	+ 7.5	- 0.6	- 0.0	- 0.0	+ 0.0	+ 11.9	+ 5.1	+ 6.1	+ 0.7	+ 0.0	+ 0.1

* See Table IV.2, footnote *: excluding deposits of the Treuhand agency and its successor organisations, of the Federal Railways, East German Railways and Federal Post Office, and, from 1995, of Deutsche Bahn AG, Deutsche Post AG and Deutsche

Telekom AG, and of publicly owned enterprises, which are included in "Enterprises". Statistical breaks have been eliminated from the changes. The figures for the latest date are always to be regarded as provisional. Subsequent revisions, which appear in

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 *												
13.5	40.1	218.5	12.0	206.5	552.0	545.7	6.3	15.1	6.7	2.7	–	2020
12.0	31.7	218.1	10.1	208.0	553.4	547.2	6.2	13.2	6.1	2.8	–	2021
16.0	67.2	217.5	10.6	206.9	526.8	521.8	5.1	22.4	6.8	3.1	–	2022
13.2	34.5	214.4	8.8	205.6	543.1	537.4	5.7	13.5	5.6	2.9	–	2022 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.
14.1	55.9	215.1	9.8	205.3	530.1	524.8	5.3	19.4	6.4	3.1	–	Nov.
16.0	67.2	217.5	10.6	206.9	526.8	521.8	5.1	22.4	6.8	3.1	–	Dec.
16.6	80.0	219.5	12.0	207.5	516.6	511.7	4.9	28.1	7.4	3.2	–	2023 Jan.
Changes *												
– 1.4	– 8.4	– 0.2	– 1.9	+ 1.6	+ 1.4	+ 1.5	– 0.1	– 1.9	– 0.6	+ 0.2	–	2021
+ 4.0	+ 35.7	– 0.3	+ 0.5	– 0.8	– 26.1	– 25.0	– 1.1	+ 9.2	+ 0.7	+ 0.3	–	2022
+ 0.8	+ 2.2	– 0.2	+ 0.1	– 0.3	– 2.3	– 2.3	– 0.1	+ 0.7	– 0.1	+ 0.0	–	2022 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.
+ 0.2	+ 10.0	+ 0.7	+ 0.5	+ 0.1	– 5.0	– 4.7	– 0.3	+ 3.1	+ 0.4	+ 0.1	–	Nov.
+ 1.9	+ 11.3	+ 2.5	+ 0.8	+ 1.7	– 3.2	– 3.1	– 0.2	+ 3.0	+ 0.4	+ 0.0	–	Dec.
+ 0.7	+ 12.8	+ 2.1	+ 1.4	+ 0.6	– 5.3	– 5.0	– 0.2	+ 5.7	+ 0.7	+ 0.1	–	2023 Jan.

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.

												Period
Local government and local government associations (including municipal special-purpose associations)						Social security funds						
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 *												
68.5	43.2	8.0	12.4	4.9	0.0	66.0	10.9	32.9	21.4	0.8	–	2020
70.9	48.5	6.0	12.0	4.4	0.0	48.3	8.0	19.0	20.5	0.8	–	2021
80.0	49.2	12.5	13.8	4.4	0.0	79.2	8.3	44.9	25.5	0.6	–	2022
76.2	48.9	9.1	13.8	4.4	0.0	86.7	18.6	44.7	22.6	0.7	–	2022 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.
75.4	46.1	11.3	13.6	4.5	0.0	94.6	21.4	48.6	24.0	0.6	–	Nov.
80.0	49.2	12.5	13.8	4.4	0.0	79.2	8.3	44.9	25.5	0.6	–	Dec.
71.4	39.5	13.6	13.9	4.4	0.0	88.8	17.3	45.9	24.8	0.7	–	2023 Jan.
Changes *												
+ 2.8	+ 5.6	– 2.0	– 0.2	– 0.5	–	– 16.8	– 2.2	– 13.9	– 0.6	+ 0.1	–	2021
+ 10.2	+ 0.9	+ 7.9	+ 1.3	+ 0.1	–	+ 29.6	+ 0.3	+ 24.5	+ 4.9	– 0.2	–	2022
+ 9.1	+ 7.6	+ 1.4	+ 0.1	+ 0.0	–	+ 5.1	+ 4.7	+ 0.4	+ 0.0	+ 0.0	–	2022 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.
+ 5.4	+ 3.5	+ 1.7	+ 0.1	+ 0.0	–	+ 5.6	+ 2.8	+ 2.3	+ 0.7	– 0.1	–	Nov.
+ 4.5	+ 3.1	+ 1.3	+ 0.2	– 0.1	–	– 15.4	– 13.1	– 3.7	+ 1.5	– 0.0	–	Dec.
– 8.7	– 9.7	+ 1.1	+ 0.0	– 0.0	–	+ 9.5	+ 9.1	+ 1.1	– 0.6	+ 0.0	–	2023 Jan.

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

	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							
Period													
End of year or month *													
2020	566.8	560.6	533.3	288.0	27.3	18.0	6.3	5.7	1.8	30.2	28.3	22.1	1.9
2021	567.1	561.2	537.1	269.0	24.1	14.8	5.9	5.4	1.5	24.7	24.5	19.5	0.2
2022	538.5	533.2	510.3	254.2	22.9	14.2	5.3	4.8	1.4	34.9	34.6	20.8	0.2
2022 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
Nov.	542.2	536.9	514.4	250.4	22.5	13.8	5.3	4.9	0.1	31.7	31.5	20.4	0.2
Dec.	538.5	533.2	510.3	254.2	22.9	14.2	5.3	4.8	0.7	34.9	34.6	20.8	0.2
2023 Jan.	527.9	522.7	498.8	237.1	23.9	15.5	5.2	4.7	0.1	40.9	40.6	21.5	0.3
Changes *													
2021	+ 0.3	+ 0.7	+ 3.9	- 18.5	- 3.2	- 3.2	- 0.4	- 0.3	.	- 5.2	- 3.5	- 2.3	- 1.7
2022	- 28.1	- 27.5	- 26.4	- 14.6	- 1.2	- 0.6	- 0.6	- 0.6	.	+ 10.2	+ 10.1	+ 1.3	+ 0.1
2022 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
Nov.	- 5.4	- 5.3	- 5.4	- 2.0	+ 0.2	+ 0.2	- 0.1	- 0.1	.	+ 3.4	+ 3.4	+ 0.6	+ 0.0
Dec.	- 3.7	- 3.7	- 4.1	+ 3.9	+ 0.4	+ 0.4	- 0.1	- 0.1	.	+ 3.2	+ 3.2	+ 0.4	+ 0.0
2023 Jan.	- 5.6	- 5.5	- 6.5	- 12.6	+ 1.0	+ 1.2	- 0.1	- 0.1	.	+ 6.0	+ 6.0	+ 0.7	+ 0.0

* 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							
		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					
											Total	of which: with maturities of more than 2 years	negotiable debt securities	non-negotiable debt securities
End of year or month [*]														
2020	1,119.0	117.1	12.7	313.6	89.4	94.3	1.5	23.8	3.1	1,000.9	1.1	0.9	34.8	0.4
2021	1,173.6	106.8	13.5	331.4	98.7	106.8	1.9	18.0	4.5	1,048.8	0.9	0.7	34.6	0.1
2022	1,231.5	92.8	15.0	307.8	88.6	98.6	1.4	26.6	3.4	1,106.4	0.8	0.7	37.8	0.1
2022 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
Nov.	1,253.8	93.6	14.8	323.5	95.9	105.3	1.7	26.4	3.7	1,122.0	0.9	0.8	38.1	0.1
Dec.	1,231.5	92.8	15.0	307.8	88.6	98.6	1.4	26.6	3.4	1,106.4	0.8	0.7	37.8	0.1
2023 Jan.	1,249.7	91.3	15.6	305.4	89.9	101.3	1.3	28.4	3.5	1,120.0	0.9	0.8	37.8	0.1
Changes [*]														
2021	+ 54.0	- 10.3	+ 0.8	+ 17.6	+ 9.4	+ 12.6	+ 0.4	- 5.9	+ 1.3	+ 47.3	+ 0.4	+ 0.3	- 0.2	- 0.3
2022	+ 59.1	- 12.7	+ 1.1	- 23.6	- 9.9	- 8.3	- 0.5	+ 8.5	- 1.1	+ 58.9	- 0.1	+ 0.1	+ 3.5	-
2022 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	-
Nov.	- 8.0	- 1.9	- 0.7	- 12.3	- 6.3	- 6.2	- 0.1	+ 1.3	- 0.2	- 3.1	+ 0.0	- 0.0	+ 0.0	-
Dec.	- 22.2	- 0.7	+ 0.2	- 15.6	- 7.3	- 6.8	- 0.3	+ 0.2	- 0.3	- 15.6	- 0.1	- 0.1	- 0.3	-
2023 Jan.	+ 18.2	- 1.6	+ 0.6	- 2.4	+ 1.3	+ 2.8	- 0.1	+ 1.9	+ 0.1	+ 13.6	+ 0.0	+ 0.1	- 0.0	-

* 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																
2022	18	259.7	30.6	0.0	15.4	11.1	135.0	40.5	22.9	2.5	36.1	185.3	9.3	5.2	12.3	91.3
2022 Nov. Dec.	18	259.6	31.0	0.0	15.4	10.9	134.5	40.4	23.2	2.6	36.7	183.8	9.2	5.1	12.1	8.8
	18	259.7	30.6	0.0	15.4	11.1	135.0	40.5	22.9	2.5	36.1	185.3	9.3	5.2	12.3	10.3
2023 Jan.	18	260.0	31.2	0.0	15.3	11.4	134.8	40.5	22.8	2.4	35.6	185.6	9.5	5.6	12.4	9.1
Private building and loan associations																
2022 Nov. Dec.	10	183.1	16.3	–	7.6	7.9	104.6	34.3	9.6	1.5	33.8	119.1	8.8	5.1	8.2	5.8
	10	183.1	16.0	–	7.6	8.0	105.1	34.4	9.4	1.4	33.3	119.9	8.9	5.2	8.3	7.0
2023 Jan.	10	183.3	16.5	0.0	7.7	8.2	104.8	34.5	9.2	1.4	32.9	120.0	9.2	5.6	8.5	6.0
Public building and loan associations																
2022 Nov. Dec.	8	76.5	14.7	0.0	7.8	3.0	29.9	6.1	13.6	1.1	2.9	64.8	0.4	–	3.9	3.0
	8	76.6	14.6	0.0	7.8	3.1	30.0	6.0	13.5	1.1	2.8	65.4	0.4	–	3.9	3.3
2023 Jan.	8	76.6	14.7	0.0	7.7	3.2	30.0	6.1	13.6	1.0	2.7	65.6	0.3	–	3.9	3.1

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 re-ceived ¹³
	Amounts paid into savings and loan ac-counts ¹⁰	Interest credited on deposits under savings and loan con-tracts	Repay-ments of deposits under cancelled savings and loan con-tracts	Total	of which: Net allo-cations ¹²	Total	Allocations				Newly granted interim and bridging loans and other building loans	Total	of which: Under allo-cated con-tracts	Total	of which: Repay-ments during quarter		
							Deposits under savings and loan contracts		Loans under savings and loan contracts ¹⁰								
								of which: Applied to settle-ment of interim and bridging loans		of which: Applied to settle-ment of interim and bridging loans							
	All building and loan associations																
2022	27.5	2.0	8.7	51.5	30.7	48.5	20.2	4.1	5.3	3.8	23.0	16.4	6.7	5.4	4.1	0.2	
2022 Nov.	2.3	0.1	0.6	4.0	3.0	4.1	2.0	0.3	0.5	0.3	1.6	17.2	6.7	0.4		0.0	
2022 Dec.	2.5	1.4	0.6	3.6	2.8	3.9	1.8	0.3	0.5	0.3	1.5	16.4	6.7	0.4	1.0	0.0	
2023 Jan.	2.5	0.0	0.6	3.5	2.8	3.7	1.7	0.3	0.6	0.4	1.3	15.8	6.7	0.4	.	0.0	
	Private building and loan associations																
2022 Nov.	1.5	0.0	0.3	2.7	2.0	2.9	1.3	0.3	0.4	0.3	1.3	12.2	3.6	0.3		0.0	
2022 Dec.	1.6	0.9	0.3	2.6	1.9	2.9	1.3	0.3	0.4	0.3	1.2	11.5	3.6	0.3	0.8	0.0	
2023 Jan.	1.6	0.0	0.3	2.5	2.0	2.7	1.3	0.3	0.4	0.3	1.0	11.0	3.7	0.3	.	0.0	
	Public building and loan associations																
2022 Nov.	0.8	0.0	0.3	1.3	1.0	1.2	0.6	0.1	0.2	0.1	0.4	5.0	3.1	0.1		0.0	
2022 Dec.	0.8	0.5	0.2	1.0	0.9	1.0	0.5	0.1	0.2	0.1	0.3	4.9	3.1	0.1	0.3	0.0	
2023 Jan.	0.8	0.0	0.2	1.0	0.8	0.9	0.5	0.1	0.2	0.1	0.3	4.8	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".

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 Dec.	16,788.9	167.9	168.0	195.6	28.1	0.0
2023 Jan.	.	.	.	...	...	.
Feb. ^p	16,485.3	164.9	164.6	...	...	...

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 Dec.	4,664,630	27.8	46,646	46,512	54,848	8,337	5
2023 Jan.	.	.	.	.	.	.	.
Feb. ^p	4,465,360	27.1	44,654	44,519	...	...	...

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 Dec.	9,814	7,396	3,216	14,465	8,295	117	2,471
2023 Jan.	.	.	.	.	.	.	.
Feb.	9,341	6,898	3,064	13,926	8,356	111	2,343

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 Dec.	3,352,177	12,609	566,227	543,694	116,094
2023 Jan.	.	.	.	.	.
Feb.	3,335,658	15,268	425,253	534,846	106,281

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		Marginal lending facility	Applicable from	Deposit facility	Main refinancing operations		Marginal lending facility	Applicable from	Basic rate of interest as per Civil Code ¹	Applicable from	Basic rate of interest as per Civil Code ¹
		Fixed rate	Minimum bid rate				Fixed rate	Minimum bid rate					
2007 Mar. 14	2.75	–	3.75	4.75	2013 May 8	0.00	0.50	–	1.00	2002 Jan. 1	2.57	2009 Jan. 1	1.62
June 13	3.00	–	4.00	5.00	Nov. 13	0.00	0.25	–	0.75	July 1	2.47	July 1	0.12
2008 July 9	3.25	–	4.25	5.25	2014 June 11	-0.10	0.15	–	0.40	2003 Jan. 1	1.97	2011 July 1	0.37
Oct. 8	2.75	–	3.75	4.75	Sep. 10	-0.20	0.05	–	0.30	July 1	1.22		
Oct. 9	3.25	3.75	–	4.25								2012 Jan. 1	0.12
Nov. 12	2.75	3.25	–	3.75	2015 Dec. 9	-0.30	0.05	–	0.30	2004 Jan. 1	1.14	2013 Jan. 1	-0.13
Dec. 10	2.00	2.50	–	3.00	2016 Mar. 16	-0.40	0.00	–	0.25	July 1	1.13	July 1	-0.38
2009 Jan. 21	1.00	2.00	–	3.00	2019 Sep. 18	-0.50	0.00	–	0.25	2005 Jan. 1	1.21	2014 Jan. 1	-0.63
Mar. 11	0.50	1.50	–	2.50						July 1	1.17	July 1	-0.73
Apr. 8	0.25	1.25	–	2.25	2022 Jul. 27	0.00	0.50	–	0.75	2006 Jan. 1	1.37	2015 Jan. 1	-0.83
May 13	0.25	1.00	–	1.75	Sep. 14	0.75	1.25	–	1.50	July 1	1.95		
2011 Apr. 13	0.50	1.25	–	2.00	Nov. 2	1.50	2.00	–	2.25	2007 Jan. 1	2.70	2016 July 1	-0.88
July 13	0.75	1.50	–	2.25	Dec. 21	2.00	2.50	–	2.75	July 1	3.19	2023 Jan. 1	1.62
Nov. 9	0.50	1.25	–	2.00	2023 Feb. 8	2.50	3.00	–	3.25	2008 Jan. 1	3.32		
Dec. 14	0.25	1.00	–	1.75						July 1	3.19		
2012 July 11	0.00	0.75	–	1.50									

2. Eurosystem monetary policy operations allotted through tenders *

Date of Settlement	Bid amount	Allotment amount	Fixed rate tenders	Variable rate tenders			Running for ... days
			Fixed rate	Minimum bid rate	Marginal rate ¹	Weighted average rate	
	€ million			% per annum			
Main refinancing operations							
2023 Feb. 1	784	784	2.50	-	-	-	7
Feb. 8	978	978	3.00	-	-	-	7
Feb. 15	797	797	3.00	-	-	-	7
Feb. 25	1 223	1 223	3.00	-	-	-	7
Mar. 1	821	821	3.00	-	-	-	7
Mar. 8	851	851	3.00	-	-	-	7
Long-term refinancing operations							
2023 Jan. 26	775	775	2 ...	-	-	-	91
2023 Feb. 23	577	577	2 ...	-	-	-	98

* 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 Aug.	– 0.085	.	.	.	.	.	.
Sep.	0.355	.	.	.	.	.	.
Oct.	0.656	.	.	.	.	.	.
Nov.	1.368	.	.	.	.	.	.
Dec.	1.568	.	.	.	.	.	.
2023 Jan.	1.902	.	.	.	.	.	.
Feb.	2.275	.	.	.	.	.	.

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 EURIBOR data are currently not available.

VI. Interest rates

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

a) Outstanding amounts °

End of month	Households' deposits				Non-financial corporations' deposits			
	with an agreed maturity of							
	up to 2 years		over 2 years		up to 2 years		over 2 years	
	Effective interest rate 1 % p.a.	Volume 2 € million	Effective interest rate 1 % p.a.	Volume 2 € million	Effective interest rate 1 % p.a.	Volume 2 € million	Effective interest rate 1 % p.a.	Volume 2 € million
2022 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	56,389	0.85	217,771	0.76	116,977	1.00	24,179
Nov.	0.94	69,368	0.85	218,426	1.13	121,576	1.00	23,542
Dec.	1.16	84,147	0.86	220,466	1.39	123,678	1.02	22,605
2023 Jan.	1.37	103,036	0.87	221,773	1.67	131,363	1.05	23,299

End of month	Housing loans to households 3						Loans to households for consumption and other purposes 4,5					
	with a maturity of											
	up to 1 year 6		over 1 year and up to 5 years		over 5 years		up to 1 year 6		over 1 year and up to 5 years		over 5 years	
	Effective interest rate 1 % p.a.	Volume 2 € million	Effective interest rate 1 % p.a.	Volume 2 € million	Effective interest rate 1 % p.a.	Volume 2 € million	Effective interest rate 1 % p.a.	Volume 2 € million	Effective interest rate 1 % p.a.	Volume 2 € million	Effective interest rate 1 % p.a.	Volume 2 € million
2022 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	1,528,186	7.39	47,749	3.53	76,686	3.42	333,308
Nov.	3.35	3,604	2.21	27,320	1.73	1,533,123	7.51	47,012	3.60	75,908	3.46	333,366
Dec.	3.66	3,497	2.37	26,984	1.74	1,535,823	7.73	47,250	3.68	76,467	3.49	331,711
2023 Jan.	4.10	3,550	2.52	26,527	1.76	1,534,684	8.18	46,809	3.78	75,964	3.55	332,208

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
	Effective interest rate 1 % p.a.	Volume 2 € million	Effective interest rate 1 % p.a.	Volume 2 € million	Effective interest rate 1 % p.a.	Volume 2 € million
2022 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	209,961	2.26	237,078	1.92	874,758
Nov.	3.49	213,334	2.49	236,253	1.96	879,122
Dec.	3.70	192,635	2.83	240,161	2.01	872,949
2023 Jan.	4.04	199,502	3.07	241,570	2.05	876,315

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

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

VI. Interest rates

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

b) New business +

Reporting period	Households' deposits											
	Overnight		with an agreed maturity of						redeemable at notice ⁸ of			
			up to 1 year		over 1 year and up to 2 years		over 2 years		up to 3 months		over 3 months	
	Effective interest rate ¹ % p.a.	Volume ² € million	Effective interest rate ¹ % p.a.	Volume ⁷ € million	Effective interest rate ¹ % p.a.	Volume ⁷ € million	Effective interest rate ¹ % p.a.	Volume ⁷ € million	Effective interest rate ¹ % p.a.	Volume ² € million	Effective interest rate ¹ % p.a.	Volume ² € million
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	1,853,933	1.06	10,188	1.89	1,332	1.49	1,549	0.11	519,453	0.27	22,383
Nov.	0.02	1,858,811	1.34	17,255	1.99	1,783	1.70	1,958	0.13	514,161	0.33	22,556
Dec.	0.07	1,857,241	1.53	20,197	2.01	1,738	1.52	2,138	0.16	510,188	0.40	22,970
2023 Jan.	0.09	1,839,197	1.68	26,082	2.14	2,941	1.97	2,504	0.20	498,876	0.53	23,945

Reporting period		Non-financial corporations' deposits									
		Overnight		with an agreed maturity of							
				up to 1 year		over 1 year and up to 2 years		over 2 years			
		Effective interest rate ¹ % p.a.	Volume ² € million	Effective interest rate ¹ % p.a.	Volume ⁷ € million	Effective interest rate ¹ % p.a.	Volume ⁷ € million	Effective interest rate ¹ % p.a.	Volume ⁷ € million		
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	.	146		
	Sep.	0.03	615,838	0.62	73,349	1.93	494	2.75	1,111		
	Oct.	0.04	617,742	0.81	99,703	1.34	707	1.89	146		
	Nov.	0.10	612,760	1.43	90,346	2.66	631	1.94	189		
	Dec.	0.11	601,728	1.66	65,813	2.94	734	2.42	252		
2023	Jan.	0.19	595,292	1.96	89,287	2.92	671	2.41	89		

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
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	7,362	7.57	1,339	8.79	366	5.28	2,546	7.43	4,450
Nov.	6.81	6.87	7,913	7.92	1,330	7.51	385	5.37	2,868	7.74	4,659
Dec.	6.62	6.71	7,270	7.69	1,091	7.64	465	5.26	3,083	7.79	3,722
2023 Jan.	7.49	7.54	8,187	8.43	1,608	7.84	432	6.00	2,730	8.34	5,025

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											
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.	3.40	3,728	2.68	1,190	3.06	1,805	4.00	541	3.61	1,382	
Nov.	3.78	3,938	3.28	947	3.52	1,808	4.18	746	3.90	1,384	
Dec.	3.90	5,403	3.43	1,210	3.86	3,026	4.24	762	3.80	1,615	
2023 Jan.	4.09	3,877	3.74	1,286	3.95	2,056	4.57	618	4.07	1,203	
of which: Loans to sole proprietors											
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.	3.44	2,570	.	.	3.05	1,244	4.19	405	3.63	921	
Nov.	3.91	2,684	.	.	3.69	1,175	4.32	563	3.94	946	
Dec.	4.11	3,777	.	.	4.10	2,187	4.51	554	3.89	1,036	
2023 Jan.	4.18	2,830	.	.	4.06	1,489	4.75	465	4.07	876	

Loans to households (cont'd)													
Housing loans ³ with an initial rate fixation of													
Erhebungs- zeitraum	Total (including charges)	Total		of which: Renegotiated loans ⁹		floating rate or up to 1 year ⁹		over 1 year and up to 5 years		over 5 year and up to 10 years		over 10 years	
	Annual percentage rate of charge ¹⁰ % p.a.	Effective interest rate ¹ % p.a.	Volume ⁷ € million	Effective interest rate ¹ % p.a.	Volume ⁷ € million	Effective interest rate ¹ % p.a.	Volume ⁷ € million	Effective interest rate ¹ % p.a.	Volume ⁷ € million	Effective interest rate ¹ % p.a.	Volume ⁷ € million	Effective interest rate ¹ % p.a.	Volume ⁷ € million
Total loans													
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	2.90	2,522	3.23	1,363	3.19	5,433	3.48	5,607
Nov.	3.67	3.60	13,557	3.32	2,689	3.40	2,330	3.75	1,209	3.51	4,846	3.75	5,172
Dec.	3.60	3.52	13,514	3.17	2,756	3.57	2,620	3.74	1,267	3.41	4,837	3.55	4,790
2023 Jan.	3.73	3.66	12,734	3.47	3,076	3.95	2,244	3.80	1,196	3.45	4,530	3.70	4,764
of which: Collateralised loans ¹¹													
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	6,622	.	.	2.78	916	3.20	661	3.10	2,482	3.31	2,563
Nov.	.	3.47	6,083	.	.	3.22	806	3.62	563	3.42	2,402	3.57	2,312
Dec.	.	3.43	5,975	.	.	3.46	923	3.64	554	3.36	2,213	3.42	2,285
2023 Jan.	.	3.51	5,615	.	.	3.85	813	3.66	584	3.38	2,136	3.47	2,082

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		
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		
Nov.	8.44	38,580	8.20	27,368	15.61	6,475	3.74	97,850	3.76	97,371		
Dec.	8.70	38,597	8.53	27,493	15.55	6,515	3.99	94,611	4.01	94,205		
2023 Jan.	9.16	38,116	8.95	27,199	16.34	6,480	4.31	98,206	4.32	97,792		

Reporting period	Loans to non-financial corporations (cont'd)															
	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					
					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	Effective interest rate ¹ % p.a.	Volume ⁷ € million
Total loans																
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	88,486	2.60	25,332	3.12	10,741	4.26	1,591	3.55	989	2.67	64,795	3.83	3,917	3.34	6,453
Nov.	3.14	76,430	3.14	20,220	3.53	10,542	4.71	1,587	3.80	1,046	2.94	51,493	3.51	3,923	3.33	7,839
Dec.	3.45	107,068	3.42	32,607	3.91	11,995	4.98	1,854	3.81	1,138	3.35	75,616	3.55	6,334	3.25	10,131
2023 Jan.	3.58	81,632	3.66	23,420	4.41	10,450	5.10	1,586	3.91	955	3.42	60,491	3.77	2,968	3.24	5,182
of which: Collateralised loans ¹¹																
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	.	.	3.01	572	3.48	95	3.32	261	2.71	7,209	3.43	750	2.82	1,672
Nov.	3.50	9,542	.	.	3.45	462	3.93	93	3.49	269	3.56	6,290	3.81	739	3.12	1,689
Dec.	3.41	17,202	.	.	3.72	588	4.08	126	3.41	291	3.41	10,703	4.20	1,417	3.08	4,077
2023 Jan.	3.81	9,411	.	.	4.00	553	3.72	123	3.33	252	3.92	6,635	4.01	652	3.07	1,196

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										
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
Q3	2,300.4	205.1	377.2	290.5	463.7	767.8	4.0	84.5	41.6	66.2
Life insurance										
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
Q3	1,151.2	112.0	170.5	163.2	107.1	541.0	1.1	12.2	22.4	21.7
Non-life insurance										
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
Q3	663.7	77.4	119.4	70.6	99.9	209.1	0.1	43.4	14.1	29.6
Reinsurance ⁵										
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
Q3	485.6	15.7	87.2	56.6	256.7	17.7	2.7	28.9	5.1	14.9
Pension funds ⁶										
2020 Q1	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	53.3	43.3	12.5	447.6	0.0	12.5	18.5	2.3
Q3	645.4	68.6	52.3	41.0	12.9	436.5	0.0	13.1	18.6	2.4

Sources: The calculations for the insurance sectors are based on supervisory data according to Solvency I and II and for pension funds on IORP supervisory data and own data collections. ¹ Accounts receivable to monetary financial institutions, including registered bonds, borrowers' note loans and registered Pfandbriefe. ² Including deposits retained on assumed reinsurance as well as registered bonds, borrowers' note loans and registered Pfandbriefe. ³ 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.

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										
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	–
Q3	2,300.4	33.9	73.7	538.9	1,513.1	1,268.9	244.2	7.2	133.6	–
Life insurance										
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	–
Q3	1,151.2	3.0	17.0	138.1	942.9	942.9	–	2.9	47.2	–
Non-life insurance										
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	–
Q3	663.7	1.2	10.5	169.7	431.7	308.0	123.7	0.5	50.0	–
Reinsurance ⁵										
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	–
Q3	485.6	29.7	46.2	231.1	138.5	18.0	120.5	3.8	36.4	–
Pension funds ⁶										
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	–	2.0	32.3	555.0	552.2	–	0.1	9.6	88.7
Q2	661.3	–	1.9	32.4	553.4	550.6	–	0.1	9.3	64.0
Q3	645.4	–	2.0	32.3	548.3	545.4	–	0.1	10.0	52.6

Sources: The calculations for the insurance sectors are based on supervisory data according to Solvency I and II and for pension funds on IORP supervisory data and own data collections. 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.

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
2011	33,649	13,575	46,796	850	59,521	20,075	23,876	94,793	36,805	34,112	57,525
2012	51,813	21,419	98,820	8,701	86,103	73,231	3,767	42,017	3,573	41,823	55,581
2013	15,971	101,616	117,187	153	15,415	85,645	16,409	25,778	12,708	54,895	32,379
2014	58,735	31,962	47,404	1,330	16,776	90,697	44,384	12,124	11,951	68,459	14,351
2015	15,219	36,010	65,778	26,762	3,006	51,229	99,225	66,330	121,164	44,391	84,006
2016	68,998	27,429	19,177	18,265	10,012	41,569	161,776	58,012	187,500	32,288	92,778
2017	51,034	11,563	1,096	7,112	3,356	39,471	134,192	71,454	161,012	44,634	83,158
2018	78,657	16,630	33,251	12,433	29,055	62,027	107,155	24,417	67,328	64,244	28,499
2019	139,611	68,536	29,254	32,505	6,778	71,075	60,195	8,059	2,408	49,728	79,416
2020	451,409	374,034	14,462	88,703	270,870	77,374	285,318	18,955	226,887	39,476	166,091
2021	233,453	221,648	31,941	19,754	169,953	11,805	255,702	41,852	245,198	52,356	22,249
2022	155,940	156,159	59,322	35,189	61,648	219	155,609	2,915	49,774	102,920	331
2022 Feb.	39,647	27,557	10,598	3,056	13,902	12,090	33,270	8,057	14,793	10,419	6,377
Mar.	46,986	43,608	23,278	7,972	12,358	3,378	29,509	6,811	10,709	11,989	17,477
Apr.	9,782	2,212	3,140	707	222	7,570	2,561	16,927	13,068	6,420	12,343
May	22,147	23,911	4,066	4,901	14,944	1,763	24,117	5,485	14,400	4,233	1,970
June	16,927	12,731	5,517	1,563	8,777	4,196	8,848	8,471	2,289	2,665	8,079
July	17,525	13,509	7,536	11,041	17,014	4,016	6,403	10,710	13,670	3,443	11,122
Aug.	15,672	22,057	2,780	2,225	17,052	6,385	3,617	10,189	726	7,298	19,289
Sep.	9,558	15,007	32,705	3,897	21,595	5,449	18,638	7,491	3,147	14,294	9,080
Oct.	1,614	3,868	6,143	2,570	4,846	2,254	17,813	4,260	3,619	9,934	19,427
Nov.	45,419	36,891	2,672	5,087	29,133	8,528	13,173	193	4,041	8,940	32,246
Dec.	27,425	31,426	15,450	6,123	9,852	4,001	11,231	18,577	6,015	35,823	38,656
2023 Jan.	55,529	24,954	17,348	4,335	3,271	30,575	40,533	10,523	7,783	22,227	14,996

€ million

Period	Shares						
	Sales = total purchases	Sales		Purchases			
		Domestic shares ⁸	Foreign shares ⁹	Residents			
				Total ¹⁰	Credit insti- tutions ⁵	Other sectors ¹¹	Non- residents ¹²
2011	25,833	21,713	4,120	40,804	670	40,134	14,971
2012	15,061	5,120	9,941	14,405	10,259	4,146	656
2013	20,187	10,106	10,081	17,337	11,991	5,346	2,851
2014	43,488	18,770	24,710	43,930	17,203	26,727	443
2015	56,979	7,668	49,311	46,721	5,421	52,142	10,258
2016	39,133	4,409	34,724	39,265	5,143	44,408	132
2017	52,932	15,570	37,362	51,270	7,031	44,239	1,662
2018	61,400	16,188	45,212	89,624	11,184	100,808	28,224
2019	54,830	9,076	45,754	43,070	1,119	44,189	11,759
2020	72,321	17,771	54,550	105,483	27	105,456	33,162
2021	115,746	49,066	66,681	102,927	10,869	92,058	12,819
2022	14,234	20,624	34,858	7,006	8,262	1,256	7,228
2022 Feb.	2,700	628	3,329	1,783	1,599	184	917
Mar.	396	359	755	5,404	1,736	7,140	5,800
Apr.	926	150	775	7,486	477	7,009	6,560
May	5,101	1,411	3,690	5,756	1,600	4,156	655
June	25,124	894	26,018	23,703	3,308	20,395	1,421
July	2,745	1,374	4,119	2,030	2,145	115	715
Aug.	1,603	87	1,690	1,049	165	884	2,652
Sep.	986	1,166	2,152	12,004	529	11,475	11,018
Oct.	1,785	154	1,939	4,007	1,588	2,419	2,222
Nov.	5,647	247	5,894	8,903	1,414	10,317	3,256
Dec.	14,926	13,758	1,169	16,366	3,089	19,455	1,440
2023 Jan.	5,390	133	5,257	5,123	2,934	2,189	267

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									
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	1,683,265	861,989	66,811	11,929	700,062	83,188	169,680	651,596	
2022 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.	160,306	96,922	10,333	2,847	73,938	9,804	18,913	44,471	
Oct.	172,464	59,445	5,875	1,086	45,698	6,786	11,037	101,982	
Nov.	152,777	70,448	2,969	91	55,905	11,482	20,625	61,705	
Dec.	80,590	49,026	2,329	979	39,181	6,538	11,536	20,028	
2023 Jan.	130,986	72,188	9,797	929	52,888	8,574	14,710	44,088	
of which: Debt securities with maturities of more than four years ⁴									
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	485,287	164,864	41,052	7,139	91,143	25,530	56,491	263,932	
2022 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.	26,950	13,947	2,158	–	10,235	1,555	1,178	11,825	
Sep.	48,333	19,382	7,086	1,821	7,209	3,267	8,100	20,850	
Oct.	85,086	9,230	3,570	77	4,885	697	2,507	73,350	
Nov.	34,411	7,379	1,895	–	2,006	3,478	9,336	17,696	
Dec.	6,561	2,256	54	4	711	1,488	304	4,000	
2023 Jan.	46,309	21,101	4,427	529	14,197	1,949	3,408	21,800	
Net sales ⁵									
2012	–	85,298	–	4,177	–	3,259	–	6,401	21,298
2013	–	140,017	–	17,364	–	4,027	–	1,394	15,479
2014	–	34,020	–	6,313	–	862	–	25,869	12,383
2015	–	65,147	–	9,271	–	2,758	–	74,028	25,300
2016 ³	–	21,951	–	10,792	–	12,979	–	5,327	18,177
2017 ³	–	2,669	–	6,389	–	4,697	–	14,525	6,828
2018	–	2,758	–	19,814	–	6,564	–	5,453	9,738
2019	–	59,719	–	13,098	–	3,728	–	6,885	30,449
2020 ⁶	–	473,795	–	8,661	–	22,067	–	11,398	49,536
2021	–	210,231	–	17,821	–	22,973	–	4,314	35,531
2022	–	135,821	–	23,894	–	15,944	–	6,444	30,639
2022 May	–	24,352	–	685	–	1,967	–	721	3,607
June	–	8,820	–	1,834	–	150	–	474	411
July	–	9,336	–	1,183	–	4,070	–	7,083	390
Aug.	–	14,436	–	4,546	–	1,290	–	778	119
Sep.	–	4,494	–	5,512	–	30	–	19,988	4,293
Oct.	–	44,009	–	3,797	–	1,764	–	9,843	1,187
Nov.	–	37,459	–	2,165	–	944	–	3,488	6,015
Dec.	–	42,480	–	3,643	–	3,697	–	16,193	216
2023 Jan.	–	22,759	–	5,314	–	1,551	–	4,428	3,985

* 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.

IX. Financial accounts

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

€ billion

Item	2019	2020	2021	2021			2022		
				Q2	Q3	Q4	Q1	Q2	Q3
Acquisition of financial assets									
Currency and deposits	146.74	213.31	145.45	53.10	11.94	32.10	11.62	31.99	35.76
Currency	35.26	61.94	59.84	16.47	14.98	15.72	13.47	12.35	13.42
Deposits	111.49	151.36	85.61	36.63	– 3.04	16.38	– 1.85	19.65	22.34
Transferable deposits	111.01	165.34	90.84	37.70	2.69	16.35	– 0.99	23.73	20.48
Time deposits	5.95	1.29	– 5.09	– 1.06	– 3.92	– 0.17	1.21	– 0.48	9.18
Savings deposits (including savings certificates)	– 5.47	– 15.26	– 0.13	– 0.01	– 1.81	0.20	– 2.07	– 3.61	– 7.32
Debt securities	– 1.86	– 5.94	– 5.89	– 1.30	– 1.32	– 0.62	– 2.81	– 4.85	– 5.35
Short-term debt securities	– 0.53	0.08	0.31	0.22	– 0.10	0.03	– 0.02	0.05	0.18
Long-term debt securities	– 1.33	– 6.02	– 6.20	– 1.52	– 1.22	– 0.64	2.83	4.79	5.18
Memo item:									
Debt securities of domestic sectors	– 2.93	– 2.56	– 3.70	– 1.26	– 0.99	– 0.39	2.26	3.77	3.76
Non-financial corporations	0.21	– 1.32	– 0.83	– 0.13	– 0.25	– 0.16	0.08	– 0.02	0.21
Financial corporations	– 2.23	– 1.26	– 2.57	– 1.02	– 0.66	– 0.23	2.34	3.18	2.94
General government	– 0.92	0.02	– 0.30	– 0.11	– 0.08	0.00	– 0.16	0.61	0.61
Debt securities of the rest of the world	1.07	– 3.38	– 2.19	– 0.04	– 0.32	– 0.23	0.55	1.08	1.60
Equity and investment fund shares	49.20	90.18	136.55	31.66	34.68	42.10	30.54	22.10	9.13
Equity	18.92	48.53	31.76	7.28	7.57	14.30	7.82	9.85	3.99
Listed shares of domestic sectors	6.61	16.05	14.21	2.20	2.34	6.29	2.70	5.54	3.36
Non-financial corporations	3.52	11.92	12.64	1.58	1.82	6.12	1.97	3.90	2.68
Financial corporations	3.09	4.14	1.58	0.62	0.52	0.17	0.74	1.64	0.67
Listed shares of the rest of the world	7.45	23.29	10.87	3.55	3.78	5.26	3.48	2.33	– 0.44
Other equity 1	4.86	9.19	6.68	1.54	1.46	2.76	1.64	1.98	1.07
Investment fund shares	30.28	41.65	104.79	24.38	27.11	27.80	22.72	12.25	5.14
Money market fund shares	– 0.32	0.09	0.18	– 0.07	– 0.01	0.18	– 0.02	0.28	0.11
Non-MMF investment fund shares	30.60	41.56	104.61	24.46	27.12	27.62	22.74	11.97	5.03
Non-life insurance technical reserves and provision for calls under standardised guarantees	17.95	18.34	20.31	5.58	3.73	5.60	5.67	5.74	5.77
Life insurance and annuity entitlements	37.76	47.65	51.92	11.14	13.30	11.07	10.16	8.32	7.29
Pension entitlement, claims of pension funds on pension managers, entitlements to non-pension benefits	37.31	33.71	27.36	3.79	7.54	10.57	11.25	7.95	9.27
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	– 10.43	– 0.43	– 2.74	5.08	– 24.42	12.94	– 10.38	– 7.56
Total	272.82	386.82	375.26	101.23	74.96	76.41	84.98	70.57	65.01
External financing									
Loans	82.57	83.92	98.63	27.53	30.68	23.70	20.34	28.10	25.75
Short-term loans	1.02	– 5.61	0.86	0.79	1.21	– 1.61	0.66	1.09	0.74
Long-term loans	81.55	89.52	97.77	26.74	29.46	25.31	19.68	27.01	25.01
Memo item:									
Mortgage loans	68.58	85.69	100.35	26.54	29.34	25.77	19.20	26.81	23.17
Consumer loans	14.42	– 4.29	– 0.89	– 0.09	2.38	– 2.04	0.23	0.91	2.59
Entrepreneurial loans	– 0.43	2.51	– 0.82	1.08	– 1.04	– 0.04	0.91	0.38	– 0.01
Memo item:									
Loans from monetary financial institutions	73.41	83.17	94.32	27.19	28.38	23.91	20.70	27.94	24.46
Loans from financial corporations other than MFIs	9.16	0.75	4.31	0.34	2.30	– 0.21	– 0.37	0.16	1.29
Loans from general government and rest of the world	– 0.00	0.00	0.00	0.00	0.00	0.00	0.01	– 0.01	– 0.00
Financial derivatives	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other accounts payable	0.73	0.01	0.90	0.01	0.25	0.63	– 0.94	0.68	1.10
Total	83.30	83.93	99.53	27.54	30.93	24.33	19.40	28.78	26.85

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

				2021			2022		
Item	2019	2020	2021	Q2	Q3	Q4	Q1	Q2	Q3
Financial assets									
Currency and deposits	2,647.4	2,860.4	3,005.1	2,961.9	2,973.0	3,005.1	3,016.4	3,047.4	3,083.0
Currency	262.6	324.5	384.4	353.7	368.6	384.4	397.8	410.2	423.6
Deposits	2,384.8	2,535.8	2,620.8	2,608.3	2,604.4	2,620.8	2,618.6	2,637.2	2,659.4
Transferable deposits	1,509.1	1,674.1	1,764.4	1,746.0	1,748.1	1,764.4	1,763.5	1,786.7	1,807.3
Time deposits	301.6	302.8	297.6	301.9	297.8	297.6	298.5	298.0	306.9
Savings deposits (including savings certificates)	574.2	558.9	558.8	560.4	558.6	558.8	556.7	552.6	545.3
Debt securities	121.4	113.3	109.6	111.6	110.1	109.6	109.5	107.8	110.4
Short-term debt securities	1.6	1.6	1.8	1.9	1.8	1.8	1.7	1.7	1.9
Long-term debt securities	119.8	111.7	107.8	109.7	108.3	107.8	107.7	106.1	108.4
Memo item:									
Debt securities of domestic sectors	81.5	76.7	75.3	76.5	75.3	75.3	75.2	74.7	76.1
Non-financial corporations	12.4	10.9	9.8	10.5	10.2	9.8	9.4	8.9	8.9
Financial corporations	66.6	63.3	63.2	63.7	62.9	63.2	63.8	63.3	64.2
General government	2.5	2.6	2.2	2.3	2.2	2.2	2.0	2.5	3.0
Debt securities of the rest of the world	40.0	36.6	34.3	35.1	34.8	34.3	34.3	33.1	34.3
Equity and investment fund shares	1,388.2	1,541.0	1,901.6	1,746.3	1,794.3	1,901.6	1,840.4	1,696.6	1,656.6
Equity	708.0	806.5	969.1	904.8	923.8	969.1	926.8	847.5	823.7
Listed shares of domestic sectors	223.9	243.3	296.0	280.0	287.1	296.0	271.0	236.7	223.2
Non-financial corporations	182.3	204.0	250.4	236.9	244.3	250.4	224.7	195.7	183.3
Financial corporations	41.6	39.2	45.6	43.1	42.7	45.6	46.3	41.1	39.9
Listed shares of the rest of the world	136.3	180.6	249.3	216.5	223.3	249.3	241.1	214.1	210.2
Other equity 1	347.8	382.6	423.8	408.3	413.4	423.8	414.7	396.7	390.2
Investment fund shares	680.3	734.6	932.5	841.5	870.5	932.5	913.6	849.1	833.0
Money market fund shares	2.3	2.3	2.5	2.3	2.3	2.5	2.5	2.8	2.9
Non-MMF investment fund shares	678.0	732.2	930.0	839.2	868.2	930.0	911.1	846.3	830.1
Non-life insurance technical reserves and provision for calls under standardised guarantees	393.8	412.2	432.5	423.2	426.9	432.5	438.2	443.9	435.5
Life insurance and annuity entitlements	1,069.1	1,112.1	1,162.2	1,138.7	1,151.6	1,162.2	1,172.5	1,180.0	1,166.0
Pension entitlement, claims of pension funds on pension managers, entitlements to non-pension benefits	924.5	956.8	986.2	966.1	973.6	986.2	993.4	995.4	996.6
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	28.2	28.5	27.5	25.8	27.5	27.3
Total	6,574.2	7,023.7	7,624.7	7,376.0	7,458.0	7,624.7	7,596.2	7,498.5	7,475.5
Liabilities									
Loans	1,837.9	1,924.6	2,023.5	1,969.5	2,000.5	2,023.5	2,041.2	2,069.0	2,097.0
Short-term loans	59.0	53.2	53.0	54.4	55.6	53.0	53.7	54.8	55.8
Long-term loans	1,778.9	1,871.3	1,970.5	1,915.1	1,944.9	1,970.5	1,987.5	2,014.2	2,041.2
Memo item:									
Mortgage loans	1,358.7	1,448.2	1,548.5	1,493.8	1,523.0	1,548.5	1,565.3	1,592.2	1,615.5
Consumer loans	231.4	226.1	224.5	224.4	226.7	224.5	224.9	225.5	228.1
Entrepreneurial loans	247.7	250.2	250.5	251.2	250.8	250.5	251.1	251.4	253.4
Memo item:									
Loans from monetary financial institutions	1,741.6	1,824.6	1,920.3	1,867.3	1,896.1	1,920.3	1,941.0	1,968.8	1,995.3
Loans from financial corporations other than MFIs	96.3	99.9	103.2	102.2	104.4	103.2	100.2	100.2	101.7
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	19.7	20.3	19.4	20.1	21.2
Total	1,857.2	1,944.0	2,043.8	1,988.9	2,020.2	2,043.8	2,060.6	2,089.1	2,118.2

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
	€ billion					As a percentage of GDP				
Deficit/surplus ¹										
2016	+ 36.4	+ 13.7	+ 7.7	+ 6.3	+ 8.7	+ 1.2	+ 0.4	+ 0.2	+ 0.2	+ 0.3
2017	+ 43.7	+ 7.9	+ 13.9	+ 10.7	+ 11.1	+ 1.3	+ 0.2	+ 0.4	+ 0.3	+ 0.3
2018	+ 65.6	+ 21.0	+ 12.0	+ 16.7	+ 16.0	+ 1.9	+ 0.6	+ 0.4	+ 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
2020 p	- 147.6	- 87.4	- 30.9	+ 5.5	- 34.8	- 4.3	- 2.6	- 0.9	+ 0.2	- 1.0
2021 p	- 134.3	- 145.9	+ 2.8	+ 4.6	+ 4.3	- 3.7	- 4.1	+ 0.1	+ 0.1	+ 0.1
2022 pe	- 101.3	- 129.2	+ 12.4	+ 8.8	+ 6.7	- 2.6	- 3.3	+ 0.3	+ 0.2	+ 0.2
2021 H1 p	- 75.6	- 60.7	- 4.0	+ 1.5	- 12.4	- 4.3	- 3.5	- 0.2	+ 0.1	- 0.7
H2 p	- 58.6	- 85.2	+ 6.8	+ 3.1	+ 16.7	- 3.1	- 4.6	+ 0.4	+ 0.2	+ 0.9
2022 H1 pe	- 5.0	- 36.4	+ 18.0	+ 5.9	+ 7.5	- 0.3	- 1.9	+ 1.0	+ 0.3	+ 0.4
H2 pe	- 96.3	- 92.8	- 5.6	+ 3.0	- 0.8	- 4.9	- 4.7	- 0.3	+ 0.1	- 0.0
Debt level ²										
										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
2017	2,111.8	1,349.9	614.9	163.1	0.8	64.6	41.3	18.8	5.0	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
2019 p	2,046.6	1,299.7	610.0	153.6	0.7	58.9	37.4	17.6	4.4	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
2021 p	2,471.6	1,667.2	662.7	156.2	0.4	68.6	46.3	18.4	4.3	0.0
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
Q2 p	2,397.7	1,589.1	667.8	155.6	21.2	68.7	45.5	19.1	4.5	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
Q4 p	2,471.6	1,667.2	662.7	156.2	0.4	68.6	46.3	18.4	4.3	0.0
2022 Q1 p	2,475.7	1,671.9	662.0	155.7	3.1	67.3	45.4	18.0	4.2	0.1
Q2 p	2,514.9	1,710.9	659.8	157.6	3.3	67.1	45.6	17.6	4.2	0.1
Q3 p	2,527.3	1,744.3	641.4	158.4	3.7	66.4	45.8	16.9	4.2	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 con- tributions	Other		Social benefits	Compen- sation of employees	Inter- mediate 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
2022 pe	1,820.8	957.5	665.8	197.5	1,922.1	974.2	306.7	236.9	101.6	26.1	276.5	- 101.3	1,633.3
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
2022 pe	47.1	24.8	17.2	5.1	49.7	25.2	7.9	6.1	2.6	0.7	7.2	- 2.6	42.2
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
2022 pe	+ 6.4	+ 7.9	+ 5.1	+ 3.7	+ 4.1	+ 3.5	+ 4.2	+ 4.3	+ 8.8	+ 25.8	+ 2.7	.	+ 6.8

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								
2016	859.7	705.8	8.8	842.8	251.3	320.8	43.3	48.3	11.7	+ 16.8	601.8	594.8	+ 7.1	1,352.5	1,328.6	+ 23.9	
2017	897.6	734.5	7.7	867.8	261.5	327.2	41.9	51.7	13.8	+ 29.8	631.5	622.0	+ 9.5	1,414.9	1,375.6	+ 39.3	
2018	949.2	776.3	6.0	904.0	272.4	337.3	39.1	55.1	16.1	+ 45.2	656.2	642.5	+ 13.6	1,488.1	1,429.3	+ 58.8	
2019	1,007.7	799.4	11.0	973.9	285.9	348.9	33.5	62.2	16.8	+ 33.7	685.0	676.7	+ 8.3	1,571.2	1,529.2	+ 42.0	
2020	944.3	739.9	13.7	1,109.7	299.4	422.0	25.8	68.6	59.9	− 165.4	719.5	747.8	− 28.3	1,516.2	1,709.9	− 193.7	
2021	1,105.4	833.3	25.3	1,239.9	310.7	530.8	21.0	69.3	26.1	− 134.5	769.2	777.1	− 6.5	1,701.5	1,844.0	− 142.4	
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	215.6	158.1	2.7	275.4	72.2	119.1	8.6	15.4	3.4	− 59.8	175.9	187.0	− 11.1	358.1	429.0	− 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	240.7	185.3	4.3	300.6	75.5	130.8	7.3	11.1	14.6	− 59.9	182.4	196.3	− 13.9	385.2	458.9	− 73.8	
Q2 P	267.0	195.8	7.5	297.1	74.8	122.7	10.7	15.2	10.5	− 30.2	185.9	197.0	− 11.1	414.1	455.3	− 41.2	
Q3 P	270.9	210.7	7.4	290.2	75.8	121.6	− 0.4	16.5	10.4	− 19.3	183.4	191.9	− 8.6	413.5	441.4	− 27.8	
Q4 P	332.9	237.7	6.1	347.8	84.1	148.0	3.1	26.4	− 9.4	− 14.9	197.3	190.4	+ 6.9	492.6	500.6	− 8.0	
2022 Q1 P	278.0	224.0	5.0	279.1	79.6	116.3	5.5	11.9	7.0	− 1.0	193.8	199.8	− 6.0	430.1	437.2	− 7.1	
Q2 P	287.8	224.6	5.1	294.0	77.8	125.9	10.6	15.3	5.9	− 6.2	199.9	196.7	+ 3.2	444.5	447.5	− 3.1	
Q3 P	272.2	207.0	13.3	303.2	78.1	116.5	10.8	17.7	10.8	− 31.0	194.0	197.6	− 3.6	422.9	457.5	− 34.6	

Source: Bundesbank calculations based on Federal Statistical Office data. ¹ Annual figures based on the quarterly figures of the Federal Statistical Office, core budgets and off-budget entities which are assigned to the general government sector. ² The annual figures do not tally with the sum of the quarterly figures, as the latter are all provisional. The quarterly figures for some insurance sectors are estimated. ³ The development of the types of expenditure recorded here is influenced in part by statistical

changeovers. ⁴ Including discrepancies in clearing transactions between central, state and local government. ⁵ On the revenue side, this contains proceeds booked as disposals of equity interests and as loan repayments. On the expenditure side, this contains the acquisition of equity interests and loans granted. ⁶ Excluding central government liquidity assistance to the Federal Employment Agency.

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

€ billion

Period	Central government			State government ^{2,3}			Local government ³		
	Revenue ¹	Expenditure	Deficit/surplus	Revenue	Expenditure	Deficit/surplus	Revenue	Expenditure	Deficit/surplus
2016	344.7	338.4	+ 6.2	380.2	372.0	+ 8.2	247.1	241.7	+ 5.4
2017	357.8	352.8	+ 5.0	396.7	385.5	+ 11.3	258.5	247.7	+ 10.7
2018	374.4	363.5	+ 10.9	419.6	399.8	+ 19.9	270.0	260.1	+ 9.8
2019	382.5	369.2	+ 13.3	436.3	419.3	+ 17.0	282.4	276.7	+ 5.7
2020	341.4	472.1	- 130.7	455.5	489.0	- 33.6	295.2	293.2	+ 2.0
2021	370.3	585.9	- 215.6	509.3	508.7	+ 0.5	308.0	303.4	+ 4.6
2020 Q1	92.3	90.4	+ 1.9	105.6	99.7	+ 5.9	57.9	67.7	- 9.8
Q2	70.8	114.8	- 44.0	108.2	128.0	- 19.8	69.4	69.4	+ 0.1
Q3	83.7	105.4	- 21.7	112.9	113.7	- 0.8	67.5	72.6	- 5.1
Q4	94.5	161.5	- 67.0	127.4	146.3	- 18.9	100.3	83.5	+ 16.8
2021 Q1	75.0	127.5	- 52.5	113.7	120.7	- 7.1	61.1	69.7	- 8.6
Q2	86.4	123.5	- 37.1	122.8	122.0	+ 0.8	74.6	71.7	+ 2.9
Q3	93.9	128.7	- 34.7	125.9	120.2	+ 5.7	74.6	74.9	- 0.3
Q4	115.1	206.3	- 91.2	145.6	144.5	+ 1.2	97.6	87.0	+ 10.6
2022 Q1	94.7	114.0	- 19.3	134.6	122.7	+ 11.9	68.4	73.8	- 5.4
Q2	99.7	123.5	- 23.7	133.2	123.6	+ 9.6	81.0	77.3	+ 3.7
Q3	89.0	127.8	- 38.7	126.1	121.4	+ 4.7	81.1	80.3	+ 0.8

Source: Federal Ministry of Finance, Federal Statistical Office data and Bundesbank calculations. ¹ Any amounts of the Bundesbank's profit distribution exceeding the reference value that were used to repay parts of the debt of central government's

special funds are not included here. ² Including the local authority level of the city states Berlin, Bremen and Hamburg. ³ Data of core budgets and off-budget entities which are assigned to the general government sector.

X. Public finances in Germany

5. Central, state and local government: tax revenue

€ million

Period	Total	Central and state government and European Union				Local government ³	Balance of untransferred tax shares ⁴		Memo item: Amounts deducted in the Federal budget ⁵
		Total	Central government ¹	State government ¹	European Union ²				
2016	705,797	606,965	316,854	260,837	29,273	98,648	+	186	27,836
2017	734,540	629,458	336,730	271,046	21,682	105,158	–	76	27,368
2018	776,314	665,005	349,134	287,282	28,589	111,308	+	1	26,775
2019	799,416	684,491	355,050	298,519	30,921	114,902	+	23	25,998
2020	739,911	632,268	313,381	286,065	32,822	107,916	–	274	30,266
2021	833,337	706,978	342,988	325,768	38,222	125,000	+	1,359	29,321
2022	...	760,321	372,121	349,583	38,617	...	...	...	34,911
2021 Q1	189,316	159,271	72,814	73,137	13,320	19,882	+	10,163	6,887
Q2	191,931	163,158	81,129	74,024	8,005	29,609	–	835	7,438
Q3	211,364	180,378	87,603	84,312	8,464	29,726	+	1,260	7,823
Q4	240,726	204,171	101,442	94,295	8,433	45,784	–	9,229	7,173
2022 Q1	224,006	189,158	92,112	87,240	9,806	24,772	+	10,077	7,261
Q2	224,538	190,982	94,153	86,852	9,977	34,149	–	594	11,576
Q3	205,544	174,232	84,078	80,020	10,133	33,618	–	2,306	7,953
Q4	...	205,950	101,778	95,471	8,702	...	...	...	8,121
2022 Jan.	.	53,484	24,430	25,848	3,205	.	.	.	2,499
2023 Jan.	.	53,826	26,082	25,563	2,181	.	.	.	2,555

Sources: Federal Ministry of Finance, Federal Statistical Office and Bundesbank calculations. ¹ Before deducting or adding supplementary central government transfers, regionalisation funds (local public transport), compensation for the transfer of motor vehicle tax to central government and consolidation assistance, which central government remits to state government. See the last column for the volume of these amounts which are deducted from tax revenue in the Federal budget. ² Customs duties and

shares in VAT and gross national income accruing to the EU from central government tax revenue. ³ Including local government taxes in the city states Berlin, Bremen and Hamburg. Including revenue from offshore wind farms. ⁴ Difference between local government's share in the joint taxes received by the state government cash offices in the period in question (see Table X. 6) and the amounts passed on to local government in the same period. ⁵ Volume of the positions mentioned under footnote 1.

6. Central and state government and European Union: tax revenue, by type

€ million

Period	Total 1	Joint taxes									Central government taxes 9	State government taxes 9	EU customs duties	Memo item: Local government share in joint taxes
		Income taxes 2					Value added taxes (VAT) 7			Local business tax trans-fers 8				
		Total	Wage tax 3	Assessed income tax 4	Corpora-tion tax 5	Invest-ment income tax 6	Total	Domestic VAT	Import VAT					
2016	648,309	291,492	184,826	53,833	27,442	25,391	217,090	165,932	51,157	7,831	104,441	22,342	5,113	41,345
2017	674,598	312,462	195,524	59,428	29,259	28,251	226,355	170,498	55,856	8,580	99,934	22,205	5,063	45,141
2018	713,576	332,141	208,231	60,415	33,425	30,069	234,800	175,437	59,363	9,078	108,586	23,913	5,057	48,571
2019	735,869	344,016	219,660	63,711	32,013	28,632	243,256	183,113	60,143	8,114	109,548	25,850	5,085	51,379
2020	682,376	320,798	209,286	58,982	24,268	28,261	219,484	168,700	50,784	3,954	105,632	27,775	4,734	50,107
2021	760,953	370,296	218,407	72,342	42,124	37,423	250,800	187,631	63,169	4,951	98,171	31,613	5,122	53,976
2022	814,886	390,111	227,205	77,411	46,334	39,161	284,850	198,201	86,649	6,347	96,652	30,097	6,829	54,565
2021 Q1	171,974	86,381	50,854	17,826	10,203	7,498	54,795	45,403	9,392	252	21,712	7,757	1,076	12,703
Q2	175,242	84,505	50,783	14,347	8,860	10,515	57,634	43,399	14,235	1,215	23,210	7,398	1,281	12,085
Q3	193,910	90,619	53,857	17,973	9,853	8,936	69,528	49,052	20,476	1,189	23,469	7,813	1,292	13,532
Q4	219,827	108,791	62,913	22,196	13,208	10,474	68,843	49,777	19,066	2,295	29,780	8,645	1,473	15,656
2022 Q1	203,130	96,245	56,206	20,915	11,178	7,946	73,584	54,234	19,350	615	22,252	8,975	1,459	13,972
Q2	204,740	101,822	60,363	17,194	11,246	13,019	67,763	46,755	21,008	1,521	24,441	7,564	1,630	13,758
Q3	185,552	82,392	43,431	17,598	10,724	10,639	71,164	49,323	21,841	1,471	21,657	7,115	1,753	11,320
Q4	221,464	109,652	67,205	21,704	13,186	7,557	72,339	47,889	24,451	2,740	28,302	6,444	1,987	15,514
2022 Jan.	57,559	26,230	19,945	2,019	1,502	2,764	23,523	17,189	6,333	270	4,292	2,822	422	4,075
2023 Jan.	58,034	25,989	20,778	1,996	860	2,355	24,808	17,242	7,566	348	4,129	2,280	481	4,208

Source: Federal Ministry of Finance and Bundesbank calculations. ¹ This total, unlike that in Table X. 5, does not include the receipts from the equalisation of burdens levies, local business tax (less local business tax transfers to central and state government), real property taxes and other local government taxes, or the balance of untransferred tax shares. ² Respective percentage share of central, state and local government in revenue: wage tax and assessed income tax 42.5:42.5:15, corporation tax and non-assessed taxes on earnings 50:50:–, final withholding tax on interest income and capital gains, non-assessed taxes on earnings 44:44:12. ³ After deducting child benefits and subsidies for supplementary private pension plans. ⁴ After deducting employee

refunds and research grants. ⁵ After deducting research grants. ⁶ Final withholding tax on interest income and capital gains, non-assessed taxes on earnings. ⁷ The allocation of revenue to central, state and local government, which is adjusted at more regular intervals, is regulated in Section 1 of the Revenue Adjustment Act. Respective percentage share of central, state and local government in revenue for 2022: 46.6:50.5:2.8. The EU share is deducted from central government's share. ⁸ Respective percentage share of central and state government for 2022: 41.4:58.6. ⁹ For the breakdown, see Table X. 7.

X. Public finances in Germany

7. Central, state and local government: individual taxes

€ million

Period	Central government taxes 1								State government taxes 1				Local government taxes		
	Energy tax	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
2016	40,091	16,855	14,186	12,763	8,952	6,569	2,070	2,955	12,408	7,006	1,809	1,119	65,319	50,103	13,654
2017	41,022	17,953	14,399	13,269	8,948	6,944	2,094	- 4,695	13,139	6,114	1,837	1,115	68,522	52,899	13,966
2018	40,882	18,927	14,339	13,779	9,047	6,858	2,133	2,622	14,083	6,813	1,894	1,122	71,817	55,904	14,203
2019	40,683	19,646	14,257	14,136	9,372	6,689	2,118	2,648	15,789	6,987	1,975	1,099	71,661	55,527	14,439
2020	37,635	18,676	14,651	14,553	9,526	6,561	2,238	1,792	16,055	8,600	2,044	1,076	61,489	45,471	14,676
2021	37,120	11,028	14,733	14,980	9,546	6,691	2,089	1,984	18,335	9,824	2,333	1,121	77,335	61,251	14,985
2022	33,667	11,978	14,229	15,672	9,499	6,830	2,191	2,585	17,122	9,226	2,569	1,180	...	...	...
2021 Q1	4,126	3,171	2,585	6,776	2,567	1,692	395	400	4,716	2,110	578	353	17,594	13,798	3,503
Q2	8,717	2,546	4,053	2,843	2,469	1,640	528	413	4,231	2,374	538	255	17,904	13,692	4,034
Q3	9,532	2,338	3,636	2,911	2,381	1,618	514	538	4,571	2,457	516	269	18,643	14,215	4,133
Q4	14,745	2,972	4,458	2,449	2,130	1,741	651	633	4,816	2,884	700	244	23,194	19,546	3,316
2022 Q1	4,452	2,840	2,372	7,175	2,594	1,785	531	503	5,061	2,827	701	385	21,492	17,454	3,577
Q2	9,092	3,518	3,648	2,872	2,433	1,722	505	651	4,406	2,238	661	259	21,318	16,839	4,077
Q3	7,103	2,571	3,742	3,059	2,325	1,598	549	710	4,100	2,138	596	281	21,463	16,792	4,249
Q4	13,020	3,049	4,467	2,567	2,147	1,725	606	722	3,555	2,023	611	254	...	...	...
2022 Jan.	391	666	538	818	883	629	177	191	1,588	900	259	75	.	.	.
2023 Jan.	283	678	461	829	872	611	165	229	1,205	764	238	73	.	.	.

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

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

€ million

Period	Revenue 1			Expenditure 1			Deficit/ surplus	Assets 3					Memo item: Adminis- trative assets
	Total	of which:		Total	of which:			Total	Deposits 4	Securities	Equity interests, mortgages and other loans 5	Real estate	
		Contribu- tions 2	Payments from central government		Pension payments	Pen- sioners' health insurance							
2016	286,399	202,249	83,154	288,641	246,118	17,387	– 2,242	34,094	31,524	2,315	203	52	4,147
2017	299,826	211,424	87,502	299,297	255,261	18,028	+ 529	35,366	33,740	1,335	238	53	4,032
2018	312,788	221,572	90,408	308,356	263,338	18,588	+ 4,432	40,345	38,314	1,713	262	56	4,008
2019	327,298	232,014	94,467	325,436	277,282	20,960	+ 1,861	42,963	40,531	2,074	303	56	3,974
2020	335,185	235,988	98,447	339,072	289,284	21,865	– 3,887	39,880	38,196	1,286	344	55	3,901
2021	348,679	245,185	102,772	347,486	296,343	22,734	+ 1,192	42,014	40,320	1,241	400	52	3,807
2022 p	362,939	258,217	104,029	360,029	308,556	23,786	+ 2,911	46,082	44,186	1,399	446	51	3,767
2020 Q1	80,578	55,999	24,436	82,622	70,829	5,346	– 2,045	40,840	38,636	1,848	300	56	3,966
Q2	82,098	57,515	24,413	82,875	70,889	5,346	– 777	39,779	37,975	1,446	304	55	3,949
Q3	82,689	58,109	24,418	86,497	74,054	5,591	– 3,808	36,898	35,197	1,333	313	55	3,925
Q4	88,978	64,375	24,412	86,605	73,879	5,576	+ 2,373	39,847	38,186	1,286	321	55	3,916
2021 Q1	83,066	57,351	25,542	86,048	73,799	5,600	– 2,982	36,888	35,326	1,166	342	54	3,887
Q2	86,386	60,666	25,545	86,486	73,905	5,679	– 100	36,941	35,554	988	345	53	3,871
Q3	85,535	59,941	25,468	87,123	74,453	5,718	– 1,588	36,041	34,670	973	345	53	3,840
Q4	92,818	67,211	25,415	87,385	74,556	5,730	+ 5,432	41,974	40,310	1,241	370	52	3,835
2022 Q1	86,684	60,599	25,937	86,841	74,568	5,734	– 157	41,784	39,952	1,367	399	65	3,783
Q2	90,040	63,978	25,879	87,138	74,644	5,756	+ 2,903	44,425	42,441	1,513	406	65	3,761
Q3	89,284	62,891	26,218	92,606	79,400	6,127	– 3,322	41,548	39,767	1,315	415	51	3,775
Q4	96,931	70,750	25,995	93,444	79,944	6,170	+ 3,487	46,082	44,186	1,399	446	51	3,767

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

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

X. Public finance in Germany

9. Federal Employment Agency: budgetary development *

€ million

Period	Revenue				Expenditure						Deficit/ surplus	Memo item: Deficit- offsetting grant or loan from central government
	Total 1	of which:			Total	of which:						
		Contri- butions	Insolvency compen- sation levy	Government funds		Unemploy- ment benefit 2	Short-time working benefits 3	Job promotion 4	Insolvency benefit payment	Adminis- trative expendi- ture 5		
2016	36,352	31,186	1,114	–	30,889	14,435	749	7,035	595	5,314	+ 5,463	–
2017	37,819	32,501	882	–	31,867	14,055	769	7,043	687	6,444	+ 5,952	–
2018	39,335	34,172	622	–	33,107	13,757	761	6,951	588	8,129	+ 6,228	–
2019	35,285	29,851	638	–	33,154	15,009	772	7,302	842	6,252	+ 2,131	–
2020	33,678	28,236	630	–	61,013	20,617	22,719	7,384	1,214	6,076	– 27,335	6,913
2021	35,830	29,571	1,302	–	57,570	19,460	21,003	7,475	493	6,080	– 21,739	16,935
2022	37,831	31,651	1,062	–	37,530	16,588	3,865	7,125	534	6,256	+ 300	423
2020 Q1	8,123	6,851	153	–	9,301	4,469	392	1,934	235	1,470	– 1,179	–
Q2	7,906	6,691	151	–	17,005	4,869	7,977	1,793	254	1,407	– 9,099	–
Q3	8,350	6,934	153	–	18,619	5,737	8,637	1,701	472	1,414	– 10,269	–
Q4	9,299	7,760	174	–	16,088	5,543	5,712	1,957	251	1,785	– 6,789	6,913
2021 Q1	8,228	6,747	289	–	18,260	5,956	8,006	1,935	184	1,391	– 10,033	–
Q2	8,830	7,301	324	–	16,720	5,029	7,495	1,912	108	1,452	– 7,890	–
Q3	8,791	7,290	330	–	12,042	4,447	3,631	1,744	91	1,452	– 3,251	–
Q4	9,982	8,234	359	–	10,547	4,028	1,871	1,884	110	1,785	– 565	16,935
2022 Q1	8,827	7,374	251	–	10,685	4,424	2,087	1,821	135	1,412	– 1,858	–
Q2	9,327	7,857	262	–	9,457	4,091	1,215	1,794	147	1,450	– 130	–
Q3	9,278	7,740	261	–	8,401	4,056	408	1,621	107	1,506	+ 877	–
Q4	10,398	8,679	289	–	8,987	4,016	156	1,889	145	1,888	+ 1,411	423

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

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

10. Statutory health insurance scheme: budgetary development

€ million

Period	Revenue 1			Expenditure 1								Deficit/ surplus
	Total	of which:		Total	of which:							
		Contri- butions	Central government funds 2		Hospital treatment	Pharma- ceuticals	Medical treatment	Dental treatment 3	Remedies and therapeutic appliances	Sickness benefits	Adminis- trative expendi- ture 4	
2016	223,692	206,830	14,000	222,936	70,450	35,981	37,300	13,790	14,256	11,677	11,032	+ 757
2017	233,814	216,227	14,500	230,773	72,303	37,389	38,792	14,070	14,776	12,281	10,912	+ 3,041
2018	242,360	224,912	14,500	239,706	74,506	38,327	39,968	14,490	15,965	13,090	11,564	+ 2,654
2019	251,295	233,125	14,500	252,440	77,551	40,635	41,541	15,010	17,656	14,402	11,136	– 1,145
2020	269,158	237,588	27,940	275,268	78,531	42,906	44,131	14,967	18,133	15,956	11,864	– 6,110
2021	289,270	249,734	36,977	294,602	82,748	46,199	45,075	16,335	20,163	16,612	11,735	– 5,332
2022 p	315,392	262,379	50,223	310,668	84,453	48,408	47,193	16,801	21,344	17,958	12,611	+ 4,725
2020 Q1	61,949	57,419	3,625	66,438	20,049	11,086	10,806	3,804	4,470	4,061	2,816	– 4,489
Q2	68,108	58,096	9,359	69,487	17,674	10,492	10,908	3,389	3,986	4,143	2,980	– 1,378
Q3	70,130	59,403	10,151	71,063	20,913	10,567	11,642	3,774	4,852	3,829	2,970	– 934
Q4	68,645	62,672	4,805	67,987	19,887	10,729	11,019	3,891	4,725	3,920	3,039	+ 658
2021 Q1	72,970	59,338	13,303	72,660	19,631	11,175	11,564	4,069	4,564	4,287	2,967	+ 310
Q2	71,964	61,819	9,965	74,492	20,287	11,275	11,536	4,219	5,085	4,120	2,850	– 2,529
Q3	70,592	61,899	7,942	73,569	20,748	11,756	10,730	4,060	5,085	4,004	2,849	– 2,977
Q4	74,020	66,678	5,767	73,209	21,340	12,043	11,252	4,062	5,290	4,200	3,109	+ 810
2022 Q1	79,253	62,142	17,049	81,493	20,550	11,891	11,847	4,286	5,216	4,574	3,510	– 2,240
Q2	79,112	64,611	14,280	79,269	21,080	12,053	12,085	4,249	5,335	4,457	2,958	– 158
Q3	75,516	65,242	9,804	75,011	21,164	12,221	11,545	3,956	5,352	4,441	2,996	+ 505
Q4	81,512	70,384	9,091	74,894	21,659	12,242	11,717	4,310	5,442	4,486	3,148	+ 6,617

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

scheme. 2 Federal grant and liquidity assistance. 3 Including dentures. 4 Net, i.e. after deducting reimbursements for expenses for levying contributions incurred by other social security funds.

X. Public finances in Germany

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

€ million

Period	Revenue		Expenditure 1						Deficit/ surplus	
	Total	of which:	Total	of which:						
		Contributions		Non-cash care benefits	Inpatient care total 2	Nursing benefit	Contributions to pension insur- ance scheme 3	Administrative expenditure		
2016	32,171	32,100	30,936	4,904	13,539	6,673	983	1,422	+	1,235
2017	36,305	36,248	38,862	6,923	16,034	10,010	1,611	1,606	–	2,557
2018	37,949	37,886	41,265	7,703	16,216	10,809	2,093	1,586	–	3,315
2019	47,228	46,508	44,008	8,257	16,717	11,689	2,392	1,781	+	3,220
2020	50,622	48,003	49,284	8,794	16,459	12,786	2,714	1,946	+	1,338
2021	52,573	49,764	53,903	9,573	16,511	13,865	3,070	2,024	–	1,330
2022 P	57,783	52,451	60,030	10,247	20,478	14,917	3,209	2,148	–	2,247
2020 Q1	11,693	11,473	11,444	2,186	4,214	3,067	633	489	+	249
Q2	11,921	11,732	11,816	2,051	4,015	3,173	664	468	+	105
Q3	13,924	11,938	12,890	2,263	4,087	3,249	682	500	+	1,033
Q4	13,079	12,746	12,927	2,306	4,177	3,403	716	481	+	152
2021 Q1	12,093	11,831	13,344	2,355	3,971	3,387	725	512	–	1,251
Q2	12,933	12,329	13,521	2,287	4,030	3,421	745	510	–	587
Q3	12,624	12,294	13,390	2,393	4,182	3,466	783	509	–	767
Q4	14,853	13,242	13,595	2,475	4,270	3,646	788	503	+	1,258
2022 Q1	12,912	12,412	14,739	2,564	4,974	3,572	775	529	–	1,827
Q2	15,350	12,951	14,827	2,464	5,026	3,698	795	548	+	523
Q3	13,708	13,021	15,387	2,638	5,197	3,755	802	542	–	1,679
Q4	15,813	14,067	15,078	2,581	5,281	3,892	837	528	+	735

Source: Federal Ministry of Health and Bundesbank calculations. * The final annual figures generally differ from the total of the reported provisional quarterly figures as the latter are not revised. ¹ Including transfers to the long-term care provident fund. ² In-

cluding benefits for short-term care and daytime/night-time nursing care, inter alia. ³ For non-professional carers.

12. Maastricht debt by creditor

€ million

Period (end of year or quarter)	Total	Banking system				Domestic non-banks					
		Bundesbank		Domestic MFIs		Other domestic financial corporations		Other domestic creditors			
			of which:		of which:		of which:		of which:		of which:
		Total	Debt securities	Total	Debt securities	Total	Debt securities	Total	Debt securities	Total	Debt securities
2016	2,161,570	205,391	191,880	585,456	223,408	211,514	111,843	48,630	14,181	1,110,578	1,012,274
2017	2,111,751	319,159	305,301	539,181	194,619	180,105	81,126	45,106	10,456	1,028,201	941,749
2018	2,063,571	364,731	350,487	496,314	167,505	186,345	89,793	44,124	8,724	972,057	892,224
2019	2,046,638	366,562	352,025	458,336	158,119	183,669	88,727	48,735	7,224	989,336	908,795
2020	2,315,216	522,392	507,534	493,679	157,829	191,079	99,688	40,605	8,372	1,067,461	996,569
2021	2,471,628	716,004	700,921	485,156	144,646	191,656	103,125	40,621	7,436	1,038,191	969,174
2020 Q1	2,091,520	371,076	356,469	469,822	163,765	185,852	92,853	49,812	7,746	1,014,958	935,552
Q2	2,261,026	424,141	409,393	535,844	172,258	186,264	93,879	49,928	8,600	1,064,848	984,002
Q3	2,334,627	468,723	453,952	508,090	167,755	189,464	97,649	51,771	8,100	1,116,577	1,046,063
Q4	2,315,216	522,392	507,534	493,679	157,829	191,079	99,688	40,605	8,372	1,067,461	996,569
2021 Q1	2,345,586	561,443	546,539	468,094	162,962	190,044	99,241	51,828	8,060	1,074,177	1,010,735
Q2	2,397,710	620,472	605,429	470,564	151,184	189,839	99,581	43,263	7,700	1,073,571	1,008,687
Q3	2,430,788	669,659	654,600	472,510	152,069	191,531	101,702	44,537	8,069	1,052,552	987,778
Q4	2,471,628	716,004	700,921	485,156	144,646	191,656	103,125	40,621	7,436	1,038,191	969,174
2022 Q1 P	2,475,736	737,978	722,843	469,107	143,409	193,909	105,978	39,384	6,959	1,035,357	969,143
Q2 P	2,514,916	759,385	744,213	472,697	134,000	202,461	115,357	43,043	8,086	1,037,329	971,582
Q3 P	2,527,294	741,360	726,147	502,894	126,864	202,421	116,411	41,063	8,986	1,039,556	969,077

Source: Bundesbank calculations based on data from the Federal Statistical Office.

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13. Maastricht debt by instrument

€ million

Period (end of year or quarter)			Debt securities by original maturity		Loans by original maturity		Memo item: 2	
	Total	Currency and deposits ¹	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								
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	2,345,586	12,200	190,021	1,637,515	61,278	444,571	.	.
Q2	2,397,710	12,901	182,659	1,689,922	69,010	443,218	.	.
Q3	2,430,788	13,319	192,480	1,711,739	69,831	443,420	.	.
Q4	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	2,514,916	17,750	161,918	1,811,320	76,663	447,265	.	.
Q3 P	2,527,294	22,567	150,009	1,797,476	81,934	475,308	.	.
Central government								
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	1,538,718	12,200	167,484	1,212,495	29,817	116,722	602	22,947
Q2	1,589,070	12,901	165,373	1,259,206	34,965	116,626	643	29,461
Q3	1,617,263	13,319	170,961	1,280,586	35,919	116,478	687	31,390
Q4	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	1,710,931	17,750	147,674	1,373,617	46,312	125,578	604	10,554
Q3 P	1,744,254	22,567	144,987	1,369,630	54,775	152,296	768	13,205
State government								
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	665,415	–	22,538	429,641	14,933	198,303	10,959	1,998
Q2	667,802	–	17,287	435,726	17,844	196,945	12,466	2,047
Q3	672,433	–	21,521	436,506	17,374	197,033	11,421	2,119
Q4	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	1,777
Q3 P	641,437	–	5,024	433,509	15,043	187,861	14,102	2,207
Local government								
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	154,659	–	–	3,121	17,480	134,058	2,010	320
Q2	155,643	–	–	3,121	18,475	134,048	2,071	313
Q3	154,910	–	–	3,000	17,649	134,261	2,127	306
Q4	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	157,636	–	–	2,902	16,190	138,544	1,823	361
Q3 P	158,350	–	–	2,856	16,181	139,313	2,253	358

For footnotes see end of table.

X. Public finances in Germany

13. Maastricht debt by instrument (cont'd)

€ million

Period (end of year or quarter)	Billion							
	Total	Currency and deposits ¹	Debt securities by original maturity		Loans by original maturity		Memo item: ²	
			Short-term debt securities (up to one year)	Long-term debt securities (more than one year)	Short-term loans (up to one year)	Long-term loans (more than one year)	Debt vis-à-vis other government subsectors	Claims vis-à-vis other government subsectors
	Social security funds							
2016	1,232	—	—	—	562	670	89	3,044
2017	807	—	—	—	262	545	15	3,934
2018	704	—	—	—	388	316	16	4,506
2019	738	—	—	—	375	363	16	4,753
2020 Q1	806	—	—	—	287	519	16	4,328
Q2	1,015	—	—	—	581	433	16	4,284
Q3	4,640	—	—	—	4,210	430	3,956	4,226
Q4	7,480	—	—	—	7,128	352	6,931	4,606
2021 Q1	16,220	—	—	—	15,985	235	15,853	4,160
Q2	21,234	—	—	—	20,995	239	20,860	4,220
Q3	24,288	—	—	—	24,053	235	23,872	4,292
Q4	392	—	—	—	131	261	19	4,729
2022 Q1 P	3,104	—	—	—	2,863	240	2,720	4,181
Q2 P	3,321	—	—	—	3,078	242	2,939	4,124
Q3 P	3,687	—	—	—	3,439	247	3,311	4,665

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.

14. Maastricht debt of central government by instrument and category

€ million

Period (end of year or quarter)	Total 1	Currency and deposits 2		Debt securities									Loans 1
		Total 1	of which: 3 Federal day bond	Total 1	of which: 3								
					Conventional Federal bonds (Bunds)	Conventional Federal notes (Boblis)	Conventional Federal Treasury notes (Schätze) 4	Treasury discount paper (Bubills) 5	Federal savings notes	Green Federal securities	Inflation- linked Federal securities 6	Capital indexation of inflation- linked securities	
2007	987,909	6,675	.	917,584	564,137	173,949	102,083	37,385	10,287	.	13,464	506	63,650
2008	1,019,905	12,466	3,174	928,754	571,913	164,514	105,684	40,795	9,649	.	19,540	1,336	78,685
2009	1,086,173	9,981	2,495	1,013,072	577,798	166,471	113,637	104,409	9,471	.	24,730	1,369	63,121
2010	1,337,160	10,890	1,975	1,084,019	602,624	185,586	126,220	85,867	8,704	.	35,906	2,396	242,251
2011	1,346,869	10,429	2,154	1,121,331	615,200	199,284	130,648	58,297	8,208	.	44,241	3,961	215,109
2012	1,390,377	9,742	1,725	1,177,168	631,425	217,586	117,719	56,222	6,818	.	52,119	5,374	203,467
2013	1,392,735	10,582	1,397	1,192,025	643,200	234,759	110,029	50,004	4,488	.	51,718	4,730	190,127
2014	1,398,472	12,146	1,187	1,206,203	653,823	244,633	103,445	27,951	2,375	.	63,245	5,368	180,123
2015	1,371,933	13,949	1,070	1,188,463	663,296	232,387	96,389	18,536	1,305	.	74,495	5,607	169,521
2016	1,365,579	15,491	1,010	1,179,062	670,245	221,551	95,727	23,609	737	.	66,464	3,602	171,026
2017	1,349,948	14,298	966	1,168,193	693,687	203,899	91,013	10,037	289	.	72,855	4,720	167,457
2018	1,322,907	14,680	921	1,149,386	710,513	182,847	86,009	12,949	48	.	64,647	5,139	158,841
2019	1,299,727	14,449	–	1,140,346	719,747	174,719	89,230	13,487	.	.	69,805	6,021	144,932
2020	1,512,875	14,486	.	1,335,181	801,910	179,560	98,543	113,141	.	9,876	58,279	3,692	163,208
2021	1,667,150	17,743	.	1,476,844	892,464	190,839	103,936	153,978	.	21,627	65,390	6,722	172,562
2020 Q1	1,327,538	11,410	.	1,160,614	721,343	182,095	91,084	23,572	.	.	71,028	5,310	155,514
Q2	1,473,699	13,120	.	1,248,731	774,587	178,329	95,622	79,987	.	.	56,061	3,752	211,849
Q3	1,536,634	11,886	.	1,345,251	790,288	191,388	99,276	127,478	.	6,050	57,144	3,737	179,497
Q4	1,512,875	14,486	.	1,335,181	801,910	179,560	98,543	113,141	.	9,876	58,279	3,692	163,208
2021 Q1	1,538,718	12,200	.	1,379,979	814,864	189,935	103,910	134,800	.	11,026	60,687	3,857	146,538
Q2	1,589,070	12,901	.	1,424,579	861,455	184,413	104,997	139,451	.	16,526	62,569	5,056	151,591
Q3	1,617,263	13,319	.	1,451,547	869,195	198,692	105,398	146,533	.	19,824	63,851	5,456	152,397
Q4	1,667,150	17,743	.	1,476,844	892,464	190,839	103,936	153,978	.	21,627	65,390	6,722	172,562
2022 Q1 P	1,671,870	15,655	.	1,495,459	911,280	204,534	108,702	140,427	.	23,961	67,776	7,809	160,756
Q2 P	1,710,931	17,750	.	1,521,291	937,949	198,472	111,343	138,495	.	29,425	70,217	11,209	171,890
Q3 P	1,744,254	22,567	.	1,514,617	918,838	208,509	111,675	137,740	.	35,527	71,498	12,879	207,070

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 Including medium-term notes issued by the Treuhand agency (expired in 2011). ⁵ Including Federal Treasury financing papers (expired in 2014). ⁶ Excluding inflation-induced indexation of capital.

XI. Economic conditions in Germany

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

Item	2020	2021	2022	2020	2021	2022	2021			2022			
	Index 2015=100						2.Vj.	3.Vj.	4.Vj.	1.Vj.	2.Vj.	3.Vj.	4.Vj.
							Annual percentage change						
At constant prices, chained													
I. Origin of domestic product													
Production sector (excluding construction)	100.4	104.9	104.9	- 7.2	4.5	- 0.0	20.2	2.6	- 1.1	1.1	- 0.1	0.9	- 1.9
Construction	102.1	100.7	97.8	2.0	- 1.4	- 2.9	4.1	2.3	- 6.1	4.5	- 3.4	- 4.6	- 6.2
Wholesale/retail trade, transport and storage, hotel and restaurant services	101.0	103.9	108.0	- 7.5	2.8	4.0	11.5	3.2	4.1	9.1	5.8	2.4	- 0.7
Information and communication	120.8	125.2	129.6	0.1	3.6	3.5	7.0	3.9	2.9	3.4	2.9	4.0	3.7
Financial and insurance activities	98.9	99.1	101.3	3.6	0.3	2.2	- 0.2	- 0.1	0.6	2.3	2.1	2.5	1.8
Real estate activities	102.2	103.1	104.3	0.4	0.9	1.1	3.1	0.2	0.7	1.6	1.2	0.7	1.0
Business services ¹	105.1	109.8	112.7	- 5.0	4.4	2.7	13.0	6.5	4.4	6.5	2.3	1.0	1.1
Public services, education and health	105.4	107.6	110.2	- 1.1	2.0	2.4	8.6	- 0.2	1.6	2.4	0.8	2.8	3.7
Other services	91.2	91.5	97.1	-11.6	0.4	6.1	9.0	1.5	4.3	8.5	8.3	2.3	5.9
Gross value added	102.8	105.6	107.5	- 3.9	2.7	1.8	10.7	2.2	1.2	3.6	1.7	1.4	0.4
Gross domestic product ²	103.2	105.9	107.8	- 3.7	2.6	1.8	10.6	1.8	1.2	3.9	1.7	1.3	0.3
II. Use of domestic product													
Private consumption ³	101.1	101.5	105.9	- 5.7	0.4	4.3	6.5	1.4	3.1	8.5	7.0	2.1	0.4
Government consumption	113.8	118.1	119.5	4.0	3.8	1.2	8.5	2.1	1.4	4.2	- 0.1	0.2	0.5
Machinery and equipment	100.8	104.3	107.7	-11.0	3.5	3.3	20.8	- 2.1	- 2.6	0.7	0.7	8.9	3.1
Premises	112.9	112.9	110.9	3.9	0.0	- 1.7	4.4	0.6	- 3.2	3.4	- 3.4	- 1.7	- 4.9
Other investment ⁴	116.3	117.6	120.0	- 3.3	1.0	2.1	4.1	1.6	0.7	1.7	1.8	2.4	2.5
Changes in inventories ^{5,6}	.	.	.	- 0.3	0.5	0.5	- 0.4	1.0	0.9	- 0.7	0.3	1.2	0.9
Domestic demand	106.1	108.1	111.5	- 3.0	1.9	3.1	7.1	2.3	2.4	5.0	3.6	2.9	1.0
Net exports ⁶	.	.	.	- 0.8	0.8	- 1.2	3.8	- 0.3	- 1.0	- 0.9	- 1.7	- 1.5	- 0.6
Exports	101.0	110.8	113.9	- 9.3	9.7	2.9	28.2	7.4	7.2	3.6	2.4	5.1	0.5
Imports	107.6	117.3	124.3	- 8.5	9.0	6.0	20.6	9.3	11.1	6.3	6.9	9.2	1.9
Gross domestic product ²	103.2	105.9	107.8	- 3.7	2.6	1.8	10.6	1.8	1.2	3.9	1.7	1.3	0.3
At current prices (€ billion)													
III. Use of domestic product													
Private consumption ³	1,713.5	1,773.8	1,978.9	- 5.1	3.5	11.6	8.3	5.3	7.9	13.8	14.1	9.5	9.3
Government consumption	748.0	797.5	848.4	6.4	6.6	6.4	7.9	6.2	6.1	9.1	5.8	5.4	5.3
Machinery and equipment	217.5	229.4	253.7	- 9.8	5.5	10.6	22.6	- 0.3	0.2	6.2	7.6	17.4	11.2
Premises	384.8	416.7	474.6	5.9	8.3	13.9	9.5	12.8	10.3	18.7	14.7	13.3	9.4
Other investment ⁴	133.8	137.7	144.0	- 2.8	2.9	4.6	5.8	3.4	2.9	5.6	5.0	4.9	3.1
Changes in inventories ⁵	16.1	55.1	87.9	.	.	.	.	.	.	.	.	.	.
Domestic use	3,213.8	3,410.2	3,787.5	- 1.9	6.1	11.1	9.3	7.8	9.4	12.8	12.7	11.2	7.9
Net exports	191.7	191.6	79.5	.	.	.	.	.	.	.	.	.	.
Exports	1,464.8	1,693.9	1,946.6	- 9.6	15.6	14.9	33.3	15.1	17.1	15.4	16.4	18.6	9.8
Imports	1,273.1	1,502.4	1,867.1	-10.6	18.0	24.3	30.0	20.3	26.7	25.6	28.3	31.7	13.1
Gross domestic product ²	3,405.4	3,601.8	3,867.1	- 2.0	5.8	7.4	11.5	6.3	6.3	8.9	8.0	6.1	6.5
IV. Prices (2015=100)													
Private consumption	105.7	109.0	116.5	0.6	3.1	6.9	1.7	3.8	4.7	5.0	6.6	7.3	8.8
Gross domestic product	109.1	112.4	118.6	1.8	3.1	5.5	0.9	4.4	5.0	4.9	6.2	4.8	6.2
Terms of trade	102.8	100.1	95.4	2.0	- 2.6	- 4.7	- 3.5	- 2.7	- 4.2	- 5.7	- 5.3	- 6.4	- 1.6
V. Distribution of national income													
Compensation of employees	1,853.9	1,918.0	2,029.8	- 0.1	3.5	5.8	5.1	4.7	4.6	6.6	5.6	4.8	6.3
Entrepreneurial and property income	717.7	825.4	828.7	- 4.6	15.0	0.4	39.9	9.7	10.5	3.6	- 2.7	4.0	- 3.9
National income	2,571.6	2,743.4	2,858.5	- 1.4	6.7	4.2	13.4	6.2	6.1	5.6	3.2	4.5	3.5
Memo item: Gross national income	3,505.7	3,729.5	3,998.9	- 2.4	6.4	7.2	11.9	7.3	6.9	9.2	7.6	6.0	6.3

Source: Federal Statistical Office; figures computed in February 2023. 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 software and entertainment, literary or artistic originals) and cultivated assets. ⁵ Including net increase in valuables. ⁶ Contribution of growth to GDP.

XI. Economic conditions in Germany

2. Output in the production sector *

Adjusted for working-day variations ◦

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 vehicles, trailers and semi- trailers
2015 = 100											
100	14,04	6,37	79,59	29,45	36,98	2.27	10,89	10,31	9,95	12,73	14,16
102.9	112.7	90.4	102.2	101.8	102.6	106.2	101.0	102.8	106.5	103.4	94.9
95.0	116.1	84.4	92.2	94.9	88.2	97.6	97.2	90.6	98.5	89.5	75.9
98.4	114.3	87.1	96.6	102.7	90.5	103.6	99.1	98.9	108.7	95.9	73.9
97.8	112.6	85.1	96.2	99.5	92.1	105.7	99.6	96.4	113.5	96.6	76.4
101.5	124.8	93.5	97.9	98.9	95.1	108.7	102.8	95.9	109.5	102.2	74.3
96.0	98.7	95.2	95.6	103.2	87.4	104.0	100.9	98.7	109.9	90.5	73.2
97.5	114.9	82.5	95.6	102.0	89.5	106.0	97.1	98.1	111.3	94.2	74.5
97.8	116.4	79.2	96.0	99.5	91.4	105.5	99.9	95.9	117.0	96.3	75.0
100.0	120.2	83.6	97.8	93.1	100.1	107.5	100.6	92.8	116.0	105.6	83.1
90.1	82.4	98.5	90.7	100.0	81.4	96.5	95.8	94.1	103.2	81.9	70.4
94.9	97.1	94.5	94.5	101.2	87.9	105.0	96.7	97.5	107.8	89.0	78.5
103.0	116.7	92.6	101.5	108.4	92.9	110.6	110.2	104.4	118.6	100.7	70.6
96.1	112.3	89.2	93.7	101.7	85.8	106.4	95.9	97.5	108.4	89.5	70.7
96.1	113.9	80.8	94.2	101.3	87.4	103.8	95.9	97.5	109.4	91.5	73.1
100.4	118.6	77.4	99.0	102.9	95.3	107.7	99.5	99.4	116.0	101.5	79.6
99.1	120.5	81.9	96.7	102.2	91.7	102.0	97.4	97.6	115.3	95.4	75.5
91.3	110.6	77.6	89.1	95.3	81.4	97.9	96.4	89.9	112.2	89.0	60.2
102.9	118.2	78.0	102.2	101.1	101.2	116.6	105.8	100.1	123.4	104.5	89.3
101.5	122.7	80.4	99.4	100.2	96.7	112.2	104.0	100.5	117.8	98.6	83.8
105.3	124.5	84.5	103.6	100.4	105.5	113.9	104.0	99.8	123.1	105.7	95.4
93.3	113.4	85.8	90.3	78.8	98.2	96.3	93.7	78.1	107.2	112.5	70.0
88.7	81.1	89.8	89.9	95.1	84.4	93.0	93.8	91.4	110.6	84.4	75.1
Annual percentage change											
- 2.3	+ 3.4	- 7.2	- 2.9	- 3.5	- 1.9	± 0.0	- 5.5	- 4.3	- 2.3	- 2.9	- 5.0
- 7.7	+ 3.0	- 6.6	- 9.8	- 6.8	- 14.0	- 8.1	- 3.8	- 11.9	- 7.5	- 13.4	- 20.0
+ 3.6	- 1.6	+ 3.2	+ 4.8	+ 8.2	+ 2.6	+ 6.1	+ 2.0	+ 9.2	+ 10.4	+ 7.2	- 2.6
- 0.6	- 1.5	- 2.3	- 0.4	- 3.1	+ 1.8	+ 2.0	+ 0.5	- 2.5	+ 4.4	+ 0.7	+ 3.4
- 1.8	- 4.6	+ 1.9	- 1.5	+ 0.7	- 4.9	+ 2.1	+ 3.8	+ 0.4	+ 4.0	+ 3.7	- 19.4
- 0.4	+ 4.2	+ 3.1	- 1.5	- 0.8	- 4.6	+ 3.2	+ 5.5	- 1.5	+ 2.4	- 0.8	- 13.7
- 1.5	- 2.7	+ 0.8	- 1.4	- 3.2	- 0.8	+ 2.9	+ 0.6	- 3.4	+ 2.3	- 1.3	- 0.4
+ 0.9	- 2.5	- 1.7	+ 1.9	- 2.7	+ 7.5	+ 3.6	- 1.7	- 2.1	+ 7.3	+ 1.7	+ 21.5
- 1.4	- 3.7	- 10.6	- 0.2	- 5.9	+ 5.3	- 1.2	- 2.1	- 3.2	+ 6.0	+ 3.4	+ 11.8
+ 1.2	+ 9.4	+ 0.8	± 0.0	- 0.3	- 1.3	+ 1.2	+ 4.6	- 0.4	+ 2.8	+ 1.2	- 8.0
+ 2.7	+ 9.7	+ 8.9	+ 1.1	+ 1.8	- 2.0	+ 6.3	+ 8.4	+ 0.9	+ 3.3	+ 0.7	- 6.9
- 4.5	- 3.1	+ 0.1	- 5.1	- 3.6	- 9.5	+ 2.3	+ 3.9	- 4.5	+ 1.2	- 3.5	- 24.4
- 2.7	- 3.3	+ 2.6	- 3.1	- 2.7	- 6.5	+ 4.5	+ 5.0	- 3.6	+ 1.1	- 5.2	- 13.1
- 1.7	- 2.8	- 0.7	- 1.6	- 3.8	± 0.0	+ 3.5	- 0.8	- 2.9	+ 2.1	- 1.4	+ 2.4
- 0.1	- 2.0	+ 0.3	+ 0.3	- 3.0	+ 4.3	+ 0.8	- 2.0	- 3.9	+ 3.7	+ 2.6	+ 11.2
- 1.3	- 2.6	+ 5.3	- 1.4	- 3.2	+ 0.8	- 0.3	- 3.6	- 3.7	+ 5.1	- 2.6	+ 2.6
+ 1.3	- 1.9	- 3.2	+ 2.5	- 2.6	+ 9.3	+ 7.0	- 1.9	- 1.4	+ 7.3	+ 2.9	+ 30.9
+ 2.8	- 3.0	- 6.8	+ 4.7	- 2.4	+ 12.8	+ 4.3	+ 0.3	- 1.1	+ 9.4	+ 4.9	+ 36.1
- 0.6	- 0.9	- 12.7	+ 0.4	- 4.1	+ 5.5	- 0.6	- 2.1	- 1.0	+ 6.6	+ 2.4	+ 14.2
- 0.5	- 2.3	- 9.2	+ 0.6	- 3.9	+ 5.8	- 0.5	- 3.5	- 3.5	+ 8.8	+ 3.8	+ 13.7
- 3.3	- 8.0	- 9.9	- 1.6	- 10.3	+ 4.6	- 2.5	- 0.6	- 5.6	+ 2.2	+ 3.8	+ 6.9
- 1.6	- 1.6	- 8.8	- 0.9	- 4.9	+ 3.7	- 3.6	- 2.1	- 2.9	+ 7.2	+ 3.1	+ 6.7

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:								of which:			
			Intermediate goods		Capital goods		Consumer goods				Durable goods		Non-durable goods	
	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change
Total														
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		
2022	126.1	+ 5.7	138.2	+ 10.9	118.1	+ 1.5	130.4	+ 11.0	163.2	+ 11.4	119.6	+ 10.8		
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	182.7	+ 23.4	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	178.3	+ 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	121.5	– 4.6	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	157.9	+ 16.6	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.	125.5	+ 7.1	133.5	+ 6.9	119.9	+ 6.9	130.1	+ 8.6	175.1	+ 23.4	115.2	+ 2.5		
Nov.	123.4	– 1.5	135.0	+ 1.6	115.4	– 4.5	129.5	+ 4.0	149.0	– 0.4	123.1	+ 5.9		
Dec.	121.2	– 2.0	127.7	+ 6.2	118.4	– 6.8	121.6	– 1.7	139.8	– 6.1	103.7	+ 0.5		
2023 Jan. p	125.7	– 4.2	138.1	– 3.9	118.5	– 4.5	122.2	– 4.2	135.8	– 11.2	117.7	– 1.3		
From the domestic market														
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	114.9	+ 8.9	105.6	+ 10.7		
2022	122.5	+ 6.1	135.2	+ 13.0	112.1	– 0.9	120.0	+ 11.1	123.8	+ 7.7	118.6	+ 12.3		
2022 Jan.	122.2	+ 18.4	137.7	+ 21.0	109.9	+ 15.7	116.5	+ 20.1	106.0	– 4.4	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	136.0	+ 3.6	130.7	+ 28.1		
Apr.	124.8	+ 12.6	139.8	+ 19.3	110.5	+ 3.7	135.2	+ 32.2	133.9	+ 4.4	135.6	+ 45.0		
May	123.2	+ 9.7	136.5	+ 15.0	112.6	+ 3.7	118.5	+ 17.6	142.0	+ 16.9	110.6	+ 17.9		
June	126.8	– 0.7	138.1	+ 10.4	117.1	– 10.3	127.3	+ 2.7	135.2	+ 15.4	124.6	– 1.3		
July	124.5	– 3.3	144.5	+ 14.6	109.6	– 17.0	110.5	– 8.9	123.6	+ 6.6	106.1	– 13.8		
Aug.	109.8	+ 5.1	124.1	+ 11.3	97.8	– 0.6	108.4	+ 2.3	121.2	+ 9.3	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.	119.9	+ 3.7	131.4	+ 6.7	109.7	– 0.3	122.4	+ 10.9	123.5	+ 15.7	122.0	+ 9.2		
Nov.	122.4	+ 2.5	133.8	+ 5.6	112.2	– 1.4	125.4	+ 8.7	125.7	+ 6.9	125.3	+ 9.3		
Dec.	115.5	– 3.0	127.8	+ 14.7	108.5	– 15.0	92.7	– 12.1	99.3	– 2.6	90.4	– 15.3		
2023 Jan. p	120.5	– 1.4	135.4	– 1.7	110.2	+ 0.3	105.0	– 9.9	105.9	– 0.1	104.7	– 12.8		
From abroad														
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		
2022	128.9	+ 5.5	141.5	+ 8.8	121.8	+ 3.1	138.5	+ 11.0	194.9	+ 13.4	120.3	+ 9.8		
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.	129.7	+ 9.5	135.8	+ 7.1	126.1	+ 11.1	136.0	+ 7.1	216.7	+ 27.3	110.0	– 2.7		
Nov.	124.2	– 4.3	136.4	– 2.2	117.4	– 6.1	132.7	+ 0.9	167.7	– 4.4	121.5	+ 3.5		
Dec.	125.6	– 1.2	127.5	– 1.7	124.4	– 1.7	128.1	+ 5.4	172.4	– 7.7	113.9	+ 13.3		
2023 Jan. p	129.6	– 6.2	141.0	– 6.1	123.5	– 6.9	135.5	– 0.4	159.9	– 16.1	127.7	+ 7.8		

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	Adjusted for working day variations												Breakdown by client 1			
	Breakdown by type of construction															
	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	
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
2022	166.8	+ 4.9	161.7	− 1.5	167.7	− 3.8	155.1	− 1.0	166.9	+ 5.2	172.7	+ 12.9	171.9	+ 6.4	160.5	+ 9.4
2021 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
Oct.	161.8	+ 2.0	144.9	− 14.2	148.3	− 12.3	139.8	− 18.6	152.6	− 2.9	181.4	+ 23.6	172.4	+ 0.5	157.9	+ 14.8
Nov.	148.3	+ 2.1	134.8	− 5.7	130.9	− 17.9	127.1	− 4.1	176.3	+ 38.5	164.0	+ 10.8	155.2	− 2.7	150.9	+ 25.3
Dec.	166.1	− 10.4	162.5	− 21.0	154.8	− 21.1	166.0	− 4.4	175.1	− 50.9	170.1	+ 5.3	188.7	+ 1.0	146.9	− 16.9

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	Total				of which:											
					In stores by enterprises main product range										Retail sale via mail order houses or via internet as well as other retail sale 2	
					Food, beverages, tobacco 1		Textiles, clothing, footwear and leather goods		Information and communications equipment		Construction and flooring materials, household appliances, furniture		Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles			
	At current prices		At 2015 prices		At current prices											
	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change	2015 = 100	Annual percentage change
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	124.7	+ 2.7	116.7	+ 0.7	121.7	+ 0.2	78.1	- 4.6	95.4	- 10.8	110.5	- 5.6	135.2	+ 7.8	189.9	+ 12.4
2022 3	134.4	+ 7.8	115.8	- 0.8	128.3	+ 5.4	102.6	+ 31.4	107.4	+ 12.6	123.0	+ 11.3	145.0	+ 7.2	188.5	- 0.7
2022 Jan. 3	120.8	+ 17.6	111.0	+ 13.6	116.2	+ 0.6	71.3	+254.7	111.4	+83.5	111.3	+91.6	138.9	+12.2	181.9	- 1.4
Feb.	118.5	+ 14.1	107.9	+ 9.9	114.8	+ 0.3	72.1	+217.6	96.6	+54.3	112.6	+66.8	131.2	+ 5.5	171.5	- 3.0
Mar.	137.9	+ 6.4	122.6	+ 0.2	132.1	± 0.0	93.3	+ 60.6	101.3	+ 19.7	136.4	+ 11.3	146.1	+ 7.7	192.5	- 5.7
Apr.	132.4	+ 9.8	116.4	+ 2.9	127.0	+ 2.3	101.8	+157.1	93.9	+32.6	131.5	+23.6	139.5	+ 6.1	181.3	- 5.2
May	133.9	+ 6.9	116.0	- 1.1	127.5	+ 0.6	109.2	+ 75.3	89.4	+21.5	129.9	+14.9	140.3	+ 8.1	181.2	- 8.2
June	130.6	+ 0.5	112.5	- 7.7	126.9	+ 4.3	105.2	- 7.1	92.7	- 3.8	119.5	- 5.2	141.5	+ 7.1	174.3	- 4.8
July	135.5	+ 8.0	116.0	- 1.4	130.9	+ 8.5	105.6	+ 2.7	100.1	- 1.0	122.1	+ 0.2	149.0	+ 9.2	181.7	+ 13.8
Aug.	130.1	+ 6.0	110.5	- 4.0	126.2	+ 10.0	98.1	- 2.4	98.4	- 2.5	114.4	- 3.5	142.8	+ 6.6	172.8	+ 4.1
Sep.	133.3	+ 10.6	111.8	- 0.4	125.3	+ 11.9	116.3	+ 16.2	108.6	+ 6.1	119.1	+ 5.0	145.0	+ 10.7	186.4	+ 9.1
Oct.	138.5	+ 6.4	115.0	- 4.6	132.7	+ 11.0	116.0	+ 0.9	111.8	+ 2.4	126.0	+ 0.1	146.0	+ 3.5	192.7	+ 1.3
Nov.	148.2	+ 5.7	123.5	- 4.9	133.6	+ 10.0	116.9	+ 11.2	136.6	+ 1.0	130.2	+ 0.3	157.3	+ 7.0	235.2	+ 0.0
Dec.	152.5	+ 4.8	126.6	- 5.8	146.9	+ 6.8	125.8	+ 28.6	148.2	+ 0.4	122.9	+ 0.7	162.2	+ 4.1	209.9	- 4.5
2023 Jan.	124.4	+ 3.0	103.8	- 6.5	123.3	+ 6.1	83.9	+ 17.7	109.1	- 2.1	109.6	- 1.5	140.5	+ 1.2	171.7	- 5.6

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 2022 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
2015	1,285.5	4.2	863.3	4.0	410.5	4.2	1,273.8	4.0	1,782.3	2.8	179.4	5.1	10.1
2016	1,337.4	4.0	896.3	3.8	426.2	3.8	1,322.5	3.8	1,841.5	3.3	187.8	4.7	10.2
2017	1,395.4	4.3	932.5	4.0	441.8	3.6	1,374.3	3.9	1,905.2	3.5	202.8	8.0	10.6
2018	1,462.7	4.8	976.1	4.7	455.2	3.0	1,431.3	4.1	1,976.6	3.7	223.2	10.1	11.3
2019	1,524.4	4.2	1,022.0	4.7	476.7	4.7	1,498.7	4.7	2,023.6	2.4	218.2	– 2.3	10.8
2020	1,514.9	– 0.6	1,020.0	– 0.2	524.6	10.0	1,544.6	3.1	2,050.1	1.3	336.6	54.3	16.4
2021	1,570.6	3.7	1,062.6	4.2	532.8	1.6	1,595.4	3.3	2,089.9	1.9	316.0	– 6.1	15.1
2022	1,670.0	6.3	1,128.8	6.2	538.5	1.1	1,667.3	4.5	2,233.2	6.9	254.2	– 19.6	11.4
2021 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	388.4	7.3	261.2	6.8	134.2	– 2.6	395.4	3.4	541.4	3.7	78.8	– 31.9	14.5
Q2	400.4	6.2	263.9	5.3	131.1	– 2.8	395.0	2.4	548.0	6.4	57.2	– 32.6	10.4
Q3	412.7	5.0	285.8	5.2	137.5	4.8	423.3	5.1	566.3	8.8	55.9	2.8	9.9
Q4	468.5	6.8	317.9	7.5	135.7	5.2	453.6	6.8	577.5	8.4	62.4	2.0	10.8

Source: Federal Statistical Office; figures computed in February 2023. * Households including non-profit institutions serving households. ¹ Residence concept. ² After deducting the wage tax payable on gross wages and salaries and employees' contributions to the social security funds. ³ Social security benefits in cash from the social security funds, central, state and local government and foreign countries, pension payments (net), private funded social benefits, less social contributions on social benefits, consumption-related taxes and public charges. ⁴ Net wages and salaries plus

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

9. Negotiated pay rates (overall economy)

Period	Index of negotiated wages 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
2015	100.0	2.3	100.0	2.3	100.0	2.3	100.0	2.4	100.0	2.9
2016	102.2	2.2	102.2	2.2	102.2	2.2	102.2	2.2	102.5	2.5
2017	104.4	2.2	104.4	2.2	104.5	2.2	104.6	2.3	105.1	2.6
2018	107.5	3.0	107.5	2.9	107.4	2.8	107.5	2.8	108.4	3.2
2019	110.6	2.9	110.5	2.9	110.1	2.5	110.2	2.5	111.7	3.0
2020	112.9	2.1	112.9	2.1	112.2	1.9	112.3	2.0	111.6	– 0.1
2021	114.6	1.5	114.6	1.6	114.1	1.7	114.1	1.6	115.3	3.3
2022	117.7	2.7	117.6	2.6	116.5	2.1	116.5	2.1	120.7	4.7
2021 Q3	117.7	0.9	117.7	0.9	116.4	1.4	114.2	1.4	115.1	4.0
Q4	127.2	1.6	127.2	1.6	127.2	2.5	114.8	1.8	127.2	3.7
2022 Q1	110.6	4.3	110.5	4.3	107.8	1.6	115.3	1.6	113.2	5.4
Q2	109.7	2.0	109.7	1.9	109.0	2.1	116.3	2.2	116.0	4.3
Q3	120.7	2.5	120.6	2.5	119.3	2.5	116.7	2.2	119.3	3.6
Q4	129.8	2.0	129.8	2.0	129.8	2.0	117.5	2.4	134.2	5.5
2022 July	143.7	3.4	143.7	3.3	139.7	3.2	116.6	2.2	.	.
Aug.	109.2	2.0	109.2	1.9	109.1	2.2	116.7	2.2	.	.
Sep.	109.1	2.0	109.0	2.0	109.1	2.0	116.8	2.1	.	.
Oct.	109.8	0.9	109.7	0.9	109.6	0.8	117.3	2.3	.	.
Nov.	167.5	2.5	167.4	2.5	167.6	2.5	117.4	2.2	.	.
Dec.	112.2	2.4	112.2	2.4	112.1	2.5	117.8	2.6	.	.
2023 Jan.	115.6	6.7	115.5	6.7	110.6	2.6	118.3	2.7	.	.

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 February 2023.

XII. External sector

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

€ million

Item	2020	2021	2022 p	2022					
				Q2	Q3	Q4 p	October r	November r	December p
I. Current Account	+ 188,715	+ 288,681	- 93,122	- 50,894	- 74,430	+ 36,912	- 4,706	+ 12,720	+ 28,898
1. Goods									
Receipts	2,186,895	2,508,334	2,934,151	726,378	745,649	783,350	261,634	272,811	248,905
Expenditure	1,844,858	2,218,075	2,990,261	748,938	796,449	764,047	263,660	263,142	237,245
Balance	+ 342,038	+ 290,259	- 56,112	- 22,561	- 50,800	+ 19,303	- 2,027	+ 9,669	+ 11,661
2. Services									
Receipts	874,787	1,011,875	1,219,776	301,186	323,465	323,409	106,230	102,066	115,113
Expenditure	890,415	920,099	1,103,357	258,163	307,877	293,722	98,281	92,242	103,199
Balance	- 15,628	+ 91,776	+ 116,422	+ 43,023	+ 15,590	+ 29,687	+ 7,949	+ 9,824	+ 11,914
3. Primary income									
Receipts	719,224	825,878	877,738	223,007	212,738	238,234	68,219	74,041	95,974
Expenditure	699,098	760,042	869,910	257,798	209,714	210,918	66,544	66,248	78,126
Balance	+ 20,127	+ 65,840	+ 7,830	- 34,790	+ 3,025	+ 27,316	+ 1,675	+ 7,793	+ 17,848
4. Secondary income									
Receipts	127,112	150,864	153,781	42,172	36,170	39,753	11,774	11,542	16,437
Expenditure	284,932	310,055	315,043	78,739	78,413	79,147	24,077	26,109	28,961
Balance	- 157,820	- 159,191	- 161,262	- 36,567	- 42,243	- 39,394	- 12,303	- 14,567	- 12,524
II. Capital account	+ 3,415	+ 45,816	+ 127,972	+ 104,051	+ 3,222	+ 12,926	+ 1,670	+ 3,457	+ 7,799
III. Financial account ¹	+ 182,731	+ 313,941	+ 21,998	+ 24,709	- 50,157	+ 53,934	+ 13,562	- 22,003	+ 62,375
1. Direct investment	- 197,486	+ 294,689	+ 141,615	+ 112,324	- 17,996	+ 33,049	+ 7,444	+ 4,278	+ 21,327
By resident units abroad									
the euro area	- 116,606	+ 162,013	- 32,027	+ 64,449	+ 68,707	- 221,797	+ 4,801	+ 20,289	- 246,887
By non-resident units of the euro area	+ 80,883	- 132,674	- 173,642	- 47,875	+ 86,702	- 254,846	- 2,643	+ 16,011	- 268,214
2. Portfolio investment	+ 530,060	+ 317,164	- 242,003	- 41,279	- 178,400	+ 26,018	- 47,486	- 16,780	+ 90,284
By resident units abroad									
the euro area	+ 686,301	+ 790,249	- 243,922	- 127,429	- 184,430	+ 85,897	- 10,425	+ 44,708	+ 51,614
Equity and investment fund shares	+ 319,816	+ 369,550	- 207,951	- 61,254	- 107,744	- 22,401	- 18,877	- 3,648	+ 124
Short-term debt securities	+ 120,830	+ 119,474	- 99,237	- 69,520	- 51,570	+ 83,057	+ 12,928	+ 29,577	+ 40,552
Long-term debt securities	+ 245,652	+ 301,229	+ 63,262	+ 3,343	- 25,116	+ 25,240	- 4,476	+ 18,778	+ 10,938
By non-resident units of the euro area	+ 156,239	+ 473,083	- 1,919	- 86,151	- 6,030	+ 59,880	+ 37,062	+ 61,488	- 38,670
Equity and investment fund shares	+ 166,846	+ 667,112	+ 10,927	- 11,141	- 15,974	+ 86,902	+ 69,990	+ 15,522	+ 1,390
Short-term debt securities	+ 114,269	+ 32,178	- 82,913	- 81,013	- 32,430	- 50,763	- 38,073	+ 28,237	- 40,927
Long-term debt securities	- 124,879	- 226,204	+ 70,064	+ 6,002	+ 42,374	+ 23,740	+ 5,144	+ 17,729	+ 867
3. Financial derivatives and employee stock options	+ 18,890	+ 68,591	+ 69,474	+ 28,901	+ 44,130	- 1,987	+ 7,165	+ 3,522	- 12,674
4. Other investment	- 181,927	- 496,562	+ 35,199	- 77,556	+ 94,714	- 12,035	+ 42,664	- 13,532	- 41,167
Eurosysteem	- 206,704	- 444,600	+ 179,400	- 3,005	+ 66,052	- 70,195	+ 45,194	+ 13,928	- 129,317
General government	- 15,761	- 71,715	- 61,462	- 29,299	- 22,437	- 9,574	+ 3,365	- 20,923	+ 7,984
MFIs ²	+ 19,340	- 126,784	- 286,664	- 93,345	- 37,095	+ 77,984	+ 4,324	- 12,197	+ 85,857
Enterprises and households	+ 21,193	+ 146,536	+ 203,928	+ 48,093	+ 88,195	- 10,248	- 10,217	+ 5,661	- 5,692
5. Reserve assets	+ 13,193	+ 130,061	+ 17,715	+ 2,319	+ 7,394	+ 8,890	+ 3,775	+ 509	+ 4,606
IV. Net errors and omissions	- 9,400	- 20,557	- 12,847	- 28,445	+ 21,051	+ 4,096	+ 16,598	- 38,180	+ 25,678

* 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

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	Gouvernement goods and services ²			
2018 r	- 15,806	- 2,044	- 44,543	+ 10,059	+ 17,219	- 7,060	+ 723	+ 3,322	+ 671	+ 112,410	- 692
2019 r	- 13,553	+ 3,607	- 45,947	+ 10,755	+ 18,368	- 9,763	- 2,948	+ 3,489	+ 492	+ 128,990	- 880
2020 r	+ 7,418	- 5,302	- 14,678	+ 10,051	+ 17,665	- 7,770	- 4,426	+ 3,368	+ 3,196	+ 94,205	- 1,387
2021 r	+ 4,802	- 6,635	- 24,323	+ 8,306	+ 32,834	- 8,466	- 9,361	+ 3,531	+ 2,664	+ 137,881	- 1,999
2022 r	- 30,769	- 8,643	- 54,977	+ 9,464	+ 31,406	- 11,241	- 10,085	+ 4,078	+ 1,993	+ 152,926	- 4,902
2021 Q2 r	+ 7,141	- 930	- 2,163	+ 2,461	+ 8,288	- 1,664	- 1,808	+ 921	+ 517	+ 23,548	- 2,900
Q3 r	+ 5,830	- 931	- 13,518	+ 1,084	+ 9,484	- 2,457	- 2,546	+ 953	+ 71	+ 38,996	- 1,189
Q4 r	- 1,604	- 3,073	- 8,636	+ 2,551	+ 9,344	- 1,551	- 3,757	+ 763	+ 824	+ 43,098	+ 3,071
2022 Q1 r	+ 2,953	- 2,849	- 6,117	+ 1,996	+ 11,530	- 3,704	- 1,520	+ 1,063	+ 1,288	+ 40,527	- 1,453
Q2 r	- 5,459	- 187	- 13,270	+ 2,270	+ 7,307	- 2,182	- 2,722	+ 1,062	+ 425	+ 25,841	- 4,007
Q3 r	- 22,661	- 3,727	- 23,112	+ 2,159	+ 5,874	- 3,429	- 3,712	+ 1,100	+ 82	+ 41,295	- 1,705
Q4 r	- 5,603	- 1,880	- 12,478	+ 3,039	+ 6,695	- 1,926	- 2,131	+ 853	+ 362	+ 45,264	+ 2,263
2022 Mar. r	- 842	- 1,203	- 2,531	+ 407	+ 3,191	- 1,235	- 777	+ 423	+ 393	+ 14,621	- 505
Apr. r	- 962	- 164	- 3,132	+ 833	+ 2,647	- 1,270	- 792	+ 291	+ 101	+ 13,017	- 693
May r	- 2,009	- 300	- 4,200	+ 861	+ 2,205	- 824	- 934	+ 307	+ 132	+ 1,524	- 2,490
June r	- 2,488	+ 276	- 5,938	+ 576	+ 2,455	- 88	- 996	+ 463	+ 192	+ 14,348	- 825
July r	- 6,224	- 777	- 6,034	+ 804	+ 1,542	- 1,446	- 1,287	+ 326	- 54	+ 13,614	- 559
Aug. r	- 9,706	- 2,244	- 8,760	+ 676	+ 1,673	- 783	- 1,335	+ 317	- 22	+ 14,668	- 569
Sep. r	- 6,731	- 706	- 8,318	+ 679	+ 2,659	- 1,199	- 1,090	+ 457	- 7	+ 13,013	- 577
Oct. r	- 5,996	- 315	- 8,419	+ 642	+ 2,127	- 1,050	- 108	+ 335	+ 93	+ 13,662	- 680
Nov. r	- 1,016	- 836	- 2,407	+ 956	+ 1,859	- 371	- 1,446	+ 327	+ 74	+ 14,226	- 639
Dec. r	+ 1,409	- 729	- 1,652	+ 1,441	+ 2,710	- 505	- 577	+ 192	+ 194	+ 17,376	+ 3,582
2023 Jan. p	- 1,351	- 682	- 2,326	+ 706	+ 1,917	- 1,332	- 1,031	+ 393	+ 458	+ 12,951	- 644

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					
2018 r	- 50,958	- 33,109	- 10,849	+ 9,753	- 17,848	.	.	+ 5,142	+ 914	+ 3,349	- 2,435	
2019 r	- 50,747	- 30,251	- 11,473	+ 11,591	- 20,496	.	.	+ 5,431	- 3,705	- 298	- 3,407	
2020 r	- 54,224	- 36,074	- 13,498	+ 10,767	- 18,150	.	.	+ 5,908	- 9,120	- 3,418	- 5,702	
2021 r	- 59,046	- 36,974	- 11,303	+ 11,888	- 22,072	.	.	+ 6,170	- 1,179	- 392	- 787	
2022 r	- 68,835	- 41,923	- 17,878	+ 14,041	- 26,913	.	.	+ 7,149	- 18,644	- 14,397	- 4,247	
2021 Q2 r	- 8,897	- 4,221	- 1,592	+ 5,316	- 4,676	.	.	+ 1,543	- 2,336	- 2,458	+ 121	
Q3 r	- 15,527	- 9,973	- 4,119	+ 2,158	- 5,554	.	.	+ 1,543	+ 1,985	+ 1,985	- 1	
Q4 r	- 16,723	- 11,058	- 5,349	+ 2,135	- 5,664	.	.	+ 1,543	+ 7	+ 963	- 956	
2022 Q1 r	- 18,249	- 10,960	- 3,153	+ 2,477	- 7,288	.	.	+ 1,719	- 3,021	- 2,865	- 156	
Q2 r	- 13,513	- 5,957	- 3,247	+ 7,339	- 7,556	+	2,357	+ 1,810	- 4,780	- 3,988	- 792	
Q3 r	- 17,356	- 11,401	- 3,727	+ 2,138	- 5,955	+	1,841	+ 1,810	- 5,860	- 4,533	- 1,326	
Q4 r	- 19,718	- 13,604	- 7,751	+ 2,086	- 6,113	.	.	+ 1,810	- 4,984	- 3,011	- 1,973	
2022 Mar. r	- 6,467	- 2,715	- 1,020	+ 1,071	- 3,752	.	.	+ 573	- 968	- 667	- 300	
Apr. r	- 5,421	- 2,955	- 582	+ 1,125	- 2,466	+	876	+ 603	- 1,556	- 1,124	- 431	
May r	- 1,628	+ 1,154	- 609	+ 4,982	- 2,782	+	741	+ 603	- 2,724	- 2,650	- 73	
June r	- 6,464	- 4,155	- 2,056	+ 1,232	- 2,308	+	741	+ 603	- 501	- 214	- 287	
July r	- 6,912	- 4,701	- 1,865	+ 441	- 2,211	+	614	+ 603	- 2,321	- 1,950	- 371	
Aug. r	- 5,957	- 4,111	- 1,275	+ 426	- 1,847	+	613	+ 603	- 1,261	- 1,028	- 233	
Sep. r	- 4,486	- 2,589	- 587	+ 1,271	- 1,897	+	613	+ 603	- 2,277	- 1,555	- 722	
Oct. r	- 5,447	- 3,509	- 1,505	+ 524	- 1,938	+	610	+ 600	- 2,212	- 1,559	- 653	
Nov. r	- 6,479	- 4,468	- 1,623	+ 417	- 2,010	.	.	+ 600	- 2,129	- 1,846	- 283	
Dec. r	- 7,792	- 5,628	- 4,623	+ 1,145	- 2,165	.	.	+ 611	- 643	+ 394	- 1,037	
2023 Jan. p	- 5,111	- 3,380	- 1,760	+ 652	- 1,731	.	.	+ 603	- 4,699	- 4,151	- 549	

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	2020 r	2021 r	2022 r	2022						2023
				Q2 r	Q3 r	Q4 r	November r	December r	January p	
I. Net domestic investment abroad (increase: +)	+ 724,008	+ 819,754	+ 320,200	+ 111,344	+ 111,380	- 73,938	+ 51,985	- 129,818	+ 28,008	
1. Direct investment	+ 134,017	+ 180,852	+ 169,006	+ 59,242	+ 54,790	+ 10,260	+ 1,836	- 5,707	- 7,428	
Equity	+ 89,898	+ 121,136	+ 114,061	+ 29,926	+ 18,184	+ 32,688	+ 6,966	- 486	+ 5,896	
of which:										
Reinvestment of earnings ¹	+ 17,533	+ 59,185	+ 69,943	+ 17,629	+ 17,110	+ 12,154	+ 6,074	- 2,850	+ 5,419	
Debt instruments	+ 44,119	+ 59,716	+ 54,945	+ 29,316	+ 36,607	- 22,429	- 5,129	- 5,220	- 13,324	
2. Portfolio investment	+ 166,417	+ 174,958	+ 16,697	+ 1,650	- 26,789	+ 23,963	+ 8,023	+ 13,565	+ 39,844	
Shares ²	+ 53,110	+ 46,753	- 16,698	+ 3,233	- 9,893	- 9,357	- 4,051	- 3,017	+ 4,325	
Investment fund shares ³	+ 35,932	+ 116,401	+ 33,614	+ 3,555	- 1,045	+ 18,537	+ 3,546	+ 12,581	+ 4,943	
Short-term ⁴										
debt securities	+ 10,507	- 107	+ 12,340	+ 342	+ 2,183	+ 5,126	+ 1,363	+ 3,366	+ 6,064	
Long-term ⁵										
debt securities	+ 66,867	+ 11,912	- 12,559	- 5,480	- 18,034	+ 9,657	+ 7,165	+ 634	+ 24,511	
3. Financial derivatives and employee stock options ⁶	+ 94,579	+ 60,178	+ 42,677	+ 12,880	+ 14,786	- 2,054	+ 2,868	- 10,114	+ 8,339	
4. Other investment ⁷	+ 329,046	+ 371,874	+ 87,394	+ 36,975	+ 67,808	- 106,951	+ 38,833	- 127,310	- 12,406	
MFIs ⁸	- 4,313	+ 112,903	+ 59,476	- 19,410	+ 42,210	- 103,228	+ 1,784	- 118,099	+ 61,302	
Short-term	+ 3,683	+ 99,380	+ 34,961	- 7,293	+ 20,786	- 109,790	- 7,284	- 117,127	+ 65,869	
Long-term	- 8,021	+ 13,204	+ 24,474	- 12,101	+ 21,411	+ 6,490	+ 9,060	- 1,037	- 4,570	
Enterprises and households ⁹	+ 88,179	+ 143,700	+ 38,708	+ 19,485	- 14,817	- 13,419	+ 32,009	- 47,637	+ 32,167	
Short-term	+ 44,218	+ 113,230	+ 15,881	+ 12,780	- 20,699	- 21,086	+ 29,392	- 49,184	+ 30,480	
Long-term	+ 22,325	- 13,944	- 7,625	- 1,340	- 2,019	- 244	+ 181	- 1,495	+ 52	
General government	+ 2,069	- 8,123	- 24,958	- 10,774	- 8,675	+ 645	+ 825	- 3,803	+ 8,400	
Short-term	+ 3,461	- 7,256	- 23,451	- 10,201	- 8,600	+ 920	+ 1,111	- 3,852	+ 2,265	
Long-term	- 2,485	- 2,327	- 2,883	- 591	- 617	- 274	- 283	+ 50	+ 4,453	
Bundesbank	+ 243,112	+ 123,394	+ 14,167	+ 47,675	+ 49,090	+ 9,051	+ 4,215	+ 42,229	- 114,275	
5. Reserve assets	- 51	+ 31,892	+ 4,426	+ 597	+ 784	+ 845	+ 425	- 252	- 341	
II. Net foreign investment in the reporting country (increase: +)	+ 532,526	+ 571,203	+ 100,381	+ 44,021	+ 141,397	- 177,676	+ 54,148	- 193,379	+ 11,088	
1. Direct investment	+ 138,902	+ 80,483	+ 43,725	+ 6,245	+ 25,215	- 15,589	+ 16,310	- 32,069	- 21,878	
Equity	+ 45,841	+ 41,374	+ 14,811	- 560	+ 3,507	+ 3,618	+ 1,841	+ 1,226	+ 3,518	
of which:										
Reinvestment of earnings ¹	+ 707	+ 7,659	+ 7,123	+ 2,470	- 1,096	+ 1,344	- 104	- 141	+ 2,803	
Debt instruments	+ 93,061	+ 39,109	+ 28,914	+ 6,805	+ 21,708	- 19,207	+ 14,468	- 33,295	- 25,396	
2. Portfolio investment	+ 150,014	- 28,581	- 7,600	- 11,147	+ 4,948	- 23,214	+ 33,527	- 38,894	+ 15,499	
Shares ²	- 17,040	+ 2,101	- 4,695	- 5,911	+ 7,486	+ 2,941	+ 1,951	- 1,441	+ 266	
Investment fund shares ³	+ 962	- 8,433	- 3,235	+ 998	- 1,624	- 318	- 671	+ 1,203	+ 237	
Short-term ⁴										
debt securities	+ 84,459	+ 29,313	- 37,218	- 2,658	- 4,041	- 24,696	+ 10,200	- 17,436	- 7,996	
Long-term ⁵										
debt securities	+ 81,632	- 51,563	+ 37,548	- 3,575	+ 3,128	- 1,142	+ 22,046	- 21,220	+ 22,992	
3. Other investment ⁷	+ 243,611	+ 519,301	+ 64,255	+ 48,923	+ 111,234	- 138,873	+ 4,312	- 122,416	+ 17,467	
MFIs ⁸	+ 108,426	+ 161,287	+ 152,946	+ 6,112	+ 68,279	- 187,546	- 18,763	- 185,932	+ 129,737	
Short-term	+ 74,908	+ 115,265	+ 160,854	+ 2,551	+ 48,862	- 181,523	- 18,051	- 178,666	+ 127,680	
Long-term	+ 33,579	+ 46,044	- 7,910	+ 3,563	+ 19,417	- 6,025	- 712	- 7,267	+ 2,056	
Enterprises and households ⁹	+ 32,084	+ 135,961	+ 6,958	+ 26,702	+ 38,589	- 36,507	+ 22,438	- 37,716	+ 13,918	
Short-term	+ 14,969	+ 99,877	+ 9,271	+ 25,442	+ 37,273	- 46,236	+ 21,648	- 38,647	+ 10,319	
Long-term	+ 13,511	+ 12,382	+ 8,907	- 553	- 398	+ 8,020	+ 407	+ 462	+ 3,209	
General government	- 7,840	- 4,742	- 4,931	- 239	+ 2,837	- 7,399	+ 336	- 8,479	- 721	
Short-term	- 7,557	- 2,134	- 2,478	- 343	+ 2,843	- 7,371	+ 249	- 8,521	- 264	
Long-term	- 280	- 2,605	- 2,451	+ 105	- 6	- 25	+ 91	+ 42	- 457	
Bundesbank	+ 110,941	+ 226,796	- 90,717	+ 16,347	+ 1,528	+ 92,579	+ 301	+ 109,710	- 125,467	
III. Net financial account (net lending: +/net borrowing: -)	+ 191,481	+ 248,551	+ 219,819	+ 67,323	- 30,017	+ 103,737	- 2,163	+ 63,561	+ 16,919	

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 AUD	Canada CAD	China CNY	Denmark DKK	Japan JPY	Norway NOK	Sweden SEK	Switzerland CHF	United Kingdom GBP	United States USD
2011	1.3484	1.3761	8.9960	7.4506	110.96	7.7934	9.0298	1.2326	0.86788	1.3920
2012	1.2407	1.2842	8.1052	7.4437	102.49	7.4751	8.7041	1.2053	0.81087	1.2848
2013	1.3777	1.3684	8.1646	7.4579	129.66	7.8067	8.6515	1.2311	0.84926	1.3281
2014	1.4719	1.4661	8.1857	7.4548	140.31	8.3544	9.0985	1.2146	0.80612	1.3285
2015	1.4777	1.4186	6.9733	7.4587	134.31	8.9496	9.3535	1.0679	0.72584	1.1095
2016	1.4883	1.4659	7.3522	7.4452	120.20	9.2906	9.4689	1.0902	0.81948	1.1069
2017	1.4732	1.4647	7.6290	7.4386	126.71	9.3270	9.6351	1.1117	0.87667	1.1297
2018	1.5797	1.5294	7.8081	7.4532	130.40	9.5975	10.2583	1.1550	0.88471	1.1810
2019	1.6109	1.4855	7.7355	7.4661	122.01	9.8511	10.5891	1.1124	0.87777	1.1195
2020	1.6549	1.5300	7.8747	7.4542	121.85	10.7228	10.4848	1.0705	0.88970	1.1422
2021	1.5749	1.4826	7.6282	7.4370	129.88	10.1633	10.1465	1.0811	0.85960	1.1827
2022	1.5167	1.3695	7.0788	7.4396	138.03	10.1026	10.6296	1.0047	0.85276	1.0530
2021 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
Dec.	1.5685	1.4379	7.3859	7.4377	142.82	10.4480	10.9859	0.9865	0.86950	1.0589
2023 Jan.	1.5523	1.4474	7.3173	7.4383	140.54	10.7149	11.2051	0.9961	0.88212	1.0769
Feb.	1.5514	1.4400	7.3244	7.4447	142.38	10.9529	11.1725	0.9905	0.88550	1.0715

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

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

From	Country	Currency	ISO currency code	EUR 1 = currency units ...
1999 January 1	Austria	Austrian schilling	ATS	13.7603
	Belgium	Belgian franc	BEF	40.3399
	Finland	Finnish markka	FIM	5.94573
	France	French franc	FRF	6.55957
	Germany	Deutsche Mark	DEM	1.95583
	Ireland	Irish pound	IEP	0.787564
	Italy	Italian lira	ITL	1,936.27
	Luxembourg	Luxembourg franc	LUF	40.3399
	Netherlands	Dutch guilder	NLG	2.20371
	Portugal	Portuguese escudo	PTE	200.482
	Spain	Spanish peseta	ESP	166.386
2001 January 1	Greece	Greek drachma	GRD	340.750
2007 January 1	Slovenia	Slovenian tolar	SIT	239.640
2008 January 1	Cyprus	Cyprus pound	CYP	0.585274
	Malta	Maltese lira	MTL	0.429300
2009 January 1	Slovakia	Slovak koruna	SKK	30.1260
2011 January 1	Estonia	Estonian kroon	EEK	15.6466
2014 January 1	Latvia	Latvian lats	LVL	0.702804
2015 January 1	Lithuania	Lithuanian litas	LTL	3.45280
2023 January 1	Croatia	Croatian kuna	HRK	7.53450

Overview of publications by the Deutsche Bundesbank

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

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

■ Annual Report

■ Financial Stability Review

■ Monthly Report

A list of the articles published in the period from 2010 to 2022 is available on the Bundesbank's website.

Monthly Report articles

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

January 2023

- From the monetary pillar to the monetary and financial analysis
- Term structures in economic analysis
- Mobile payment usage in Germany
- Access to cash in Germany: analyses of the spatial availability of cash withdrawal facilities

February 2023

- The current economic situation in Germany

March 2023

- German balance of payments in 2022
- The impact of digitalisation on labour productivity growth
- German enterprises' profitability and financing in 2021

■ 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} | 43/2022
The global financial cycle and macroeconomic tail risks |
| 7 Notes on the coding list for the balance of payments statistics, September 2013 | 44/2022
Chinese supply chain shocks |

■ Special Publications

- | | |
|---|---|
| Makro-ökonomisches Mehr-Länder-Modell, November 1996 ¹ | 45/2022
A nonlinear generalization of the Country-Product-Dummy method |
| Europäische Organisationen und Gremien im Bereich von Währung und Wirtschaft, May 1997 ¹ | 46/2022
What drives inflation? Disentangling demand and supply factors |
| Die Zahlungsbilanz der ehemaligen DDR 1975 bis 1989, August 1999 ¹ | 47/2022
On the macroeconomic effects of reinvestments in asset purchase programmes |
| The market for German Federal securities, May 2000 | 48/2022
Real interest rates, bank borrowing, and fragility |
| Macro-Econometric Multi-Country Model: MEMMOD, June 2000 | 49/2022
Estimating the impact of quality adjustment on consumer price inflation |
| Bundesbank Act, September 2002 | 50/2022
Score-based calibration testing for multivariate forecast distributions |
| Die Europäische Union: Grundlagen und Politikbereiche außerhalb der Wirtschafts- und Währungsunion, April 2005 ¹ | 51/2022
The preferential treatment of green bonds |
| Die Deutsche Bundesbank – Aufgabenfelder, rechtlicher Rahmen, Geschichte, April 2006 ¹ | 52/2022
Bayesian VARs and prior calibration in times of COVID-19 |
| European economic and monetary union, April 2008 | 01/2023
Make-up strategies with incomplete markets and bounded rationality |
| Weltweite Organisationen und Gremien im Bereich von Währung und Wirtschaft, March 2013 ¹ | 02/2023
Households' expectations and regional COVID-19 dynamics |

■ Discussion Papers^o

- 42/2022
Robust real rate rules

03/2023

Inflation expectations in the wake of the war in Ukraine

04/2023

Shocks to transition risk

05/2023

Time-varying shock return correlation, news shocks, and business cycles

06/2023

Asset allocation with recursive parameter updating and macroeconomic regime identifiers

07/2023

The rollout of internal credit risk model: Implications for the novel partial-use philosophy

08/2023

Pricing the Bund term structure with linear regressions – without an observable short rate

■ 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.