# Financial markets

### Financial market setting

Financial markets influenced by high inflation rates and a gloomy economic outlook Global financial markets were influenced by rising inflation numbers and mounting economic concerns in the reporting period. With inflation still surprisingly high in many economies, government bond yields rose significantly around the world until mid-June. Against this backdrop, market participants priced in an increasingly contractionary monetary policy stance by key central banks, amongst other things. The UK and US central banks tightened their monetary policy by repeatedly raising their policy rates: August saw the Bank of England lift its base rate to 1.75%, its sixth policy rate hike since last December, and the US Federal Reserve increased its policy rate with two straight 75-basis-point hikes in June and July to a new target range of 2.25% to 2.5%. In addition, following on from the Bank of England, the Federal Reserve also began to reduce its holdings of securities acquired under monetary policy purchase programmes. By comparison, the Eurosystem adopted more of a wait-and-see approach, but with the end of net purchases under the asset purchase programme (APP) and a subsequent first key interest rate hike, it has now taken major steps in the process of monetary policy normalisation. At the same time, however, economic concerns became more entrenched in the reporting period. In Europe, they were fuelled by restrictions on natural gas deliveries from Russia, amongst other things. From around mid-June, market participants gradually rowed back on their expectations of monetary policy tightening in the current cycle, which dampened the preceding increase in yields. In this environment, price developments in equity markets remained negative, like in the first quarter. In addition to the net rise in risk-free interest rates, the bleaker medium-term earnings growth outlook had a dampening effect on prices. Monetary policy played an important role in foreign exchange markets, too. The brisker pace of US monetary policy normalisation, coupled with the Eurosystem's comparatively cautious stance, caused the euro to depreciate, especially against the US dollar. On top of this, a declining risk appetite among foreign exchange market participants weighed on the single currency relative to the US dollar.

### Exchange rates

From the start of the second quarter of 2022, the euro's exchange rate against the US dollar depreciated markedly on balance. One major reason for this was the continued acceleration of the inflationary process in the United States, which prompted the Federal Reserve to press ahead forcefully on its monetary policy path. Furthermore, it signalled that by making further interest rate moves it was also willing to accept a marked weakening of economic activity in order to keep inflation pressures under control. Inflation dynamics gained momentum in the euro area, too, and the ECB Governing Council consequently ended the zero interest rate policy of recent years. However, overall, the pace of monetary policy normalisation in the euro area lagged noticeably behind that of the Federal Reserve, thus weakening the euro against the US dollar.

In addition, the euro experienced downward pressure as a result of a diminishing risk appetite in financial markets. It is often the case that bouts of heightened global uncertainty lead to growing capital flows to the United States and strengthen the external value of the US dollar. Over the summer, the focus was initially on the possible consequences of extended pandemic containment measures in China. Increasingly, though, it was concerns surrounding the security of European energy supplies and regarding the global growth outlook that weighed on investors' risk appetite. Under these pressures, the euro depreciated repeatedly between early

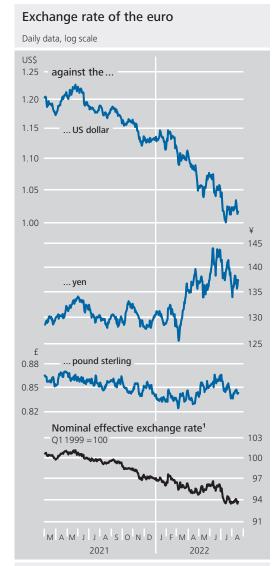
Euro down markedly against US dollar, ... and mid-July, hitting a new 19-year low, during which it touched US\$1.00 at times, and has since traded close to parity with the US currency. At the end of the reporting period, it was trading at US\$1.02, down 8.3% on its level at the end of March.

... almost unchanged against pound sterling, ...

There was little change in the euro's exchange rate against the pound sterling. The Bank of England initiated rates lift-off in the United Kingdom back at the end of last year, making it one of the first major central banks to do so. Even so, inflation accelerated there, too. This fuelled market participants' doubts as to whether central bankers in the United Kingdom would be able to effectively combat price increases without burdening the economic outlook with further interest rate moves. This caused the euro to appreciate into June. July, however, saw the euro relinquish its gains against the pound sterling as concerns mounted over the energy supply in continental Europe, as mentioned above. At the end of the period under review, the euro stood at £0.84, which was 0.2% lower than at the end of the first quarter.

... but stronger against yen

The euro was stronger against the yen. In Japan, inflation is relatively low by international standards. Against this backdrop, the central bank repeatedly ruled out an imminent policy rate rise, bucking the global trend. In addition, the Bank of Japan reaffirmed its intention of wanting to stabilise long-term government bond yields by offering unlimited bond buying at an unchanged low level. By further widening the spread relative to the rising bond interest rates in the euro area, this weakened the yen against the euro all the way into June. Early July, however, saw the yen benefit from emerging uncertainty among financial market participants about the global growth outlook and appreciate markedly again relative to the euro. Overall, the euro has recorded a gain of 1.5% since the end of March and was trading at ¥137 at the end of the reporting period.

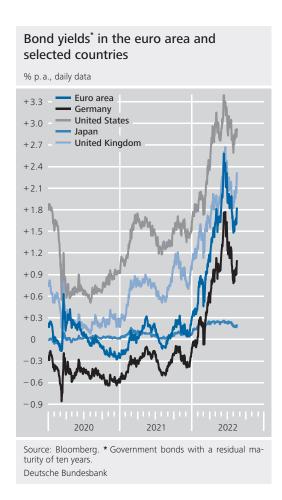


Sources: ECB and Bundesbank calculations. 1 Calculated against the currencies of 19 countries. A rise in values indicates an appreciation of the euro.

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Measured as a weighted average against the currencies of 19 major trading partners, the euro depreciated (-2.4%) on balance, largely due to the losses against the US dollar. The euro was also weaker against the Swiss franc (-5.7%) which, like the US dollar and the yen, often benefits from a decreasing risk appetite in foreign exchange markets. Meanwhile, the euro recorded gains against the currencies of some central and eastern European countries, such as the forint (+9.6%) and the złoty (+1.5%). The central banks of Hungary and Poland raised their policy rates multiple times – sometimes sharply – during the period under review, but increasing burdens on the economy

In effective terms, euro weaker on balance



and government finances resulting from Russia's invasion of Ukraine weighed on their currencies.

# Securities markets and portfolio investment

#### **Bond market**

Ten-year government bond yields up globally From the end of the first quarter of 2022, nominal government bond yields rose on balance in the major currency areas. This was the government bond markets' response to inflation figures remaining high, market participants' increased inflation expectations and the rates lift-off initiated by monetary policymakers. Moreover, uncertainty in bond markets increased significantly in a reflection of the conflicting forces at play in bond markets. On the one side, market participants were expecting the high inflation pressures in the near term to prompt a correspondingly resolute monetary

response. For instance, the Federal Reserve contributed significantly to higher yields, particularly in the US bond market, by repeatedly responding to inflation with considerable monetary policy tightening measures. On the other side, there were growing concerns regarding the broader economic outlook. The ECB Governing Council's ad hoc meeting and the Federal Reserve's routine meeting in mid-June marked a turning point for yields. The ECB Governing Council's announcement that it would design an anti-fragmentation instrument (the Transmission Protection Instrument, or TPI) had a dampening effect on European yields and spreads. The Federal Reserve meeting signalled that the US central bank could lower policy rates again at a potentially faster pace than previously expected in the medium term owing to the braking effect of previous interest rate hikes on the economy. Since then, interest rates have therefore responded particularly sensitively to US macro news regarding the US labour market, for instance, as this provides indications of future economic developments and about the interest rate path. On balance, the yields on ten-year US Treasuries rose by 55 basis points to 2.9%.

In the United Kingdom, the yields on ten-year gilts also rose (+70 basis points to 2.3%). The Bank of England continued to tighten its monetary policy in response to persistent surprisingly high inflation rates. By contrast, the Bank of Japan stuck to its highly accommodative monetary policy stance and its ten-year government bond yield target within a range of 25 basis points either side of 0%. It ran counter to the international interest rate trend by announcing the option of unlimited bond buying. Yields on ten-year Japanese bonds therefore remained virtually unchanged at 0.2%, the upper end of the target range.

Yields on ten-year Bunds rose by 55 basis points to 1.1% on balance from the end of the first quarter. By mid-June, they had even reached a value (1.8%) last seen in early 2014, i.e. before the launch of the APP. A model

Government bond yields up in the United Kingdom, almost unchanged in Japan

Higher yield on ten-year Federal securities

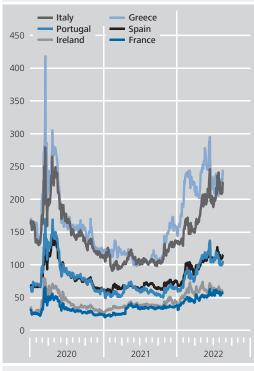
breakdown of the yield curve of Federal securities suggests that two factors contributed to the rise in yields. The first was an increase in the forward premia that investors demand as compensation for assuming price risks when purchasing long-term bonds. To some extent, this is likely to have been a consequence of the Eurosystem's discontinued net asset purchases. The second factor was that market participants were expecting higher policy rates in response to the further rise in inflation rates. However, amid mounting scepticism about the economy, they gradually rowed back on their expectations that monetary policy would be tightened in the current cycle from mid-June, which reduced yields again somewhat following the preceding increase.

Widening of yield spreads in euro area

The yield spread between ten-year Bunds and ten-year government bonds of other euro area countries (GDP-weighted average) widened by 29 basis points to 1.1 percentage point from the end of the first quarter. This left the spread above its five-year average (0.8 percentage point), this five-year analysis covering an entire period in which the Eurosystem was active in bond markets.1 The widened spread reflected the fact that, given the expected normalisation of monetary policy, the relative prices of bonds with different ratings also returned to normal. Hence, the yield spreads of euro area Member States with a poorer rating widened somewhat more substantially. Euro area spreads narrowed again when the ECB Governing Council announced the introduction of the TPI. This instrument is an addition to the Governing Council's toolkit. It can be activated during a period of monetary policy normalisation in particular to counter disorderly market dynamics that pose a threat to the transmission of monetary policy across the euro area and are not warranted by country-specific fundamentals. Sound and sustainable fiscal and macroeconomic policies are one of the criteria for intervening in the market process. The TPI can therefore only be used in exceptional circumstances and under strict conditionality. Market liquidity indicators did not point to any pro-

# Spreads of ten-year government bonds over German Federal bonds

Basis points, daily data



Sources: Bloomberg and Bundesbank calculations.

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nounced tightness in the market for euro area government bonds during the period under review.

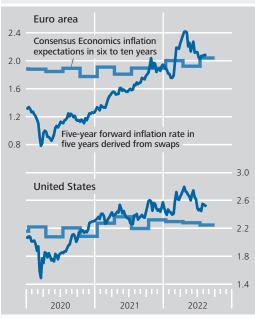
At the end of the reporting period, market-based short-term inflation expectations for the euro area derived from inflation swaps were still very significantly above the 2% definition of price stability over a two-year horizon. Market participants were expecting inflation to peak at 10.2% in December 2022. The renewed rise in expectations in the second quarter was probably driven primarily by the impact on prices of restrictions on natural gas deliveries from Russia, which some fear may go as far as a gas embargo. Market participants are expecting inflation to decline again during the

Market participants expect a sharp rise in inflation rates in the short term

<sup>1</sup> In the environment of generally low interest rates this created, private investors were more willing to purchase bonds with low ratings in order to earn a somewhat higher interest rate ("search for yield"). Between January and October 2019, the Eurosystem did not make any net purchases under the APP, though it did fully reinvest the principal payments from maturing securities.

# Forward inflation rates\* and expectations in the euro area and the United States

% p.a., weekly averages

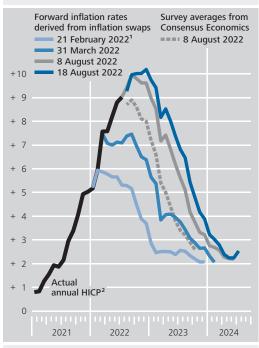


Sources: Bloomberg, Thomson Reuters, Consensus Economics and Bundesbank calculations. \* Derived from the fixed cash flow arising from inflation swaps which is swapped for the actual annual inflation rates (HICP excluding tobacco for the euro area and CPI Urban Consumers for the United States) realised over the next five or ten years.

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## Short-term HICP paths for the euro area

%



Sources: Fenics Market Data, Consensus Economics, Eurostat and Bundesbank calculations. **1** On 21 February 2022, Russia recognised the independence of parts of the Donetsk and Luhansk regions within Ukrainian territory. **2** HICP excluding tobacco.

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course of 2023 from high levels at the end of 2022 and to be close to 2% in mid-2024. Economic concerns are probably also reflected in the steeper downward trajectory of short-term inflation expectations compared with the end of March. As an annual average, market participants are expecting an inflation rate of 8.5% for 2022 and of 6.9% for 2023. A period in which high inflation expectations become entrenched increases the risk that households and enterprises will align their wage and pricesetting decisions with inflation expectations that are no longer oriented to the definition of price stability.

Longer-term inflation expectations have declined since the end of the first quarter. The five-year forward inflation rate five years ahead, which is likewise derived from inflation swaps, stood at 2.1% at the end of the period under review, down 12 basis points. By contrast, the quarterly survey-based inflation expectations calculated by Consensus Economics for the euro area six to ten years ahead rose in July to 2.0%, compared with 1.9% in April 2022.

Longer-term market-based inflation expectations still above 2%

Long-term market-based inflation expectations in the euro area thus remained above survey expectations and Eurosystem projections, albeit to a lesser extent than previously. The risk premium, i.e. the gap between market expectations and survey data, continued to be positive, indicating that market participants are still anticipating upside risks to inflation. However, the risk premium was down on March, which points to a weakening of market participants' concerns about very high inflation rates over the longer term. This is largely attributable to the monetary policy measures that have been implemented and growing apprehension about the economy.

Market-based five-year US forward inflation rates five years ahead fell to a similar extent as those in the euro area (by 11 basis points to 2.6%). This meant that market-based indicators were higher than survey expectations for the

United States, too. According to Consensus

Market-based inflation expectations impacted by risk premia

Decline in longer-term inflation expectations in the United States Economics, survey-based US inflation expectations in six to ten years stood at 2.2% in July.

Corporate bond yield spreads wider

Since the end of the first quarter, yields on European corporate bonds with a residual maturity between seven and ten years have risen even more sharply than those on Federal securities with the same maturity. The close association between the risk premia on corporate bonds and the interest rate level on Federal securities is striking here. On balance, the spreads of BBB-rated European financial and non-financial corporate bonds over Bunds widened by 101 and 56 basis points, respectively. Yields and risk premia on high-yield bonds rose particularly sharply. In line with this, the credit default premia for debtors with poor creditworthiness increased substantially (iTraxx Crossover (five years), +154 basis points). By significantly marking down bond prices, especially those issued by highly indebted enterprises with a lower credit rating, investors were reacting primarily to the normalisation of monetary policy. Market participants were concerned about enterprises' debt sustainability in the face of rising interest rates and a deteriorating economic outlook. Measured by yield spreads, funding conditions for European enterprises across all rating categories were significantly above their five-year average. Spreads have narrowed again recently.

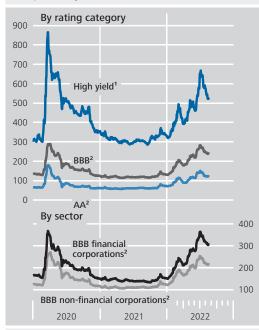
Net issuance of German debt securities At €404 billion, gross issuance in the German bond market in the second quarter of 2022 was down somewhat on the previous quarter's figure (€427½ billion). Net of redemptions and changes in issuers' holdings of their own debt securities, domestic issuers ramped up their capital market borrowing by €34½ billion. The outstanding volume of foreign debt securities in the German market fell slightly in the second quarter, down €5 billion. On balance, the total outstanding volume of bonds in Germany thus climbed by €29½ billion in the quarter under review.

Lower net public sector issuance

In the second quarter of 2022, the public sector issued bonds to the tune of €24 billion net,

# Yield spreads of corporate bonds in the euro area\*

Basis points, daily data



Sources: Thomson Reuters and Bundesbank calculations. \* Compared with Federal securities with a residual maturity of seven to ten years. 1 Merrill Lynch index across all maturities. 2 In each case, iBoxx indices with a residual maturity of seven to ten years.

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# Investment activity in the German securities markets

€ billion

	2021	2022	
Item	Q2	Q1	Q2
Debt securities Residents Credit institutions of which: Foreign debt securities Deutsche Bundesbank Other sectors of which:	88.2 - 20.4 - 5.8 72.2 36.4	112.4 12.0 12.3 40.5 59.9	40.8 - 3.0 6.8 25.2 18.6
Domestic debt securities Non-residents	6.8	24.1 32.7	31.4 - 11.3
Shares Residents Credit institutions of which: Domestic shares Non-banks of which: Domestic shares Non-residents	30.3 1.5 1.5 28.8 6.0 - 0.3	19.4 - 1.3 - 0.7 20.6 11.3 - 9.2	13.9 - 1.2 - 0.2 15.1 8.0 - 5.3
Mutual fund shares Investment in specialised funds Investment in retail funds of which: Equity funds	21.4 9.9 4.3	31.8 3.9 0.0	15.6 3.3 3.4

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following €35 billion in the previous three-month period. The Federal Government (including the resolution agency classified as part of central government) issued mainly ten-year and 30-year Federal bonds (Bunds) (€20½ billion and €16½ billion, respectively). This contrasted with net redemptions of five-year Federal notes (Bobls) totalling €6 billion and Treasury discount paper (Bubills) amounting to €3½ billion. State and local governments redeemed debt securities worth €3 billion on balance.

The quarter under review saw domestic credit institutions slightly increase their capital market debt by €6½ billion, compared to €44 billion in the previous quarter. They primarily issued mortgage Pfandbriefe and other bank debt securities that can be structured flexibly (€3½ billion and €3 billion, respectively). By contrast, debt securities issued by specialised credit institutions were redeemed to the tune of €½ billion.

In the quarter under review, domestic enterprises issued bonds worth €4 billion net, following net issuance amounting to €17½ billion in the previous quarter. On balance, the bulk of this was long-term paper. Non-financial corporations, which issued just under €4 billion worth of bonds, accounted for the largest share.

Net issuance of corporate bonds

In the second quarter of 2022, domestic non-banks expanded their bond portfolios in the domestic bond market by €18½ billion on balance, purchasing exclusively domestic paper. The Bundesbank also acquired debt securities worth €25 billion net, largely under the Eurosystem's asset purchase programmes, with the bulk of these purchases consisting of domestic paper issued by the public sector. By contrast, foreign investors and domestic credit institutions sold debt securities amounting to €11½ billion and €3 billion net, respectively.

Purchases of debt securities

### **Equity market**

Stock prices continued to decline in international equity markets. The higher interest rates, which reduce the present value of future profits via the discount factor effect, put prices under pressure, while the gloomier economic outlook weakened medium-term earnings growth expectations. Persistent material shortages and, above all, the high energy costs continued to rank among the key burdens for enterprises. As a result, energy-intensive sectors such as the basic materials industry and enterprises that would be particularly affected by a halt to supplies of Russian natural gas recorded above-average price falls. By contrast, the share prices of enterprises in the energy sector proved to be relatively robust. Concerns about the supply of energy and gas as well as about economic developments did not, however, translate into a significant decline in risk appetite among equity market participants. This is indicated, inter alia, by the relevant volatility indices, which measure market participants' uncertainty about future price developments and for the most part moved sideways. Towards the

Continued slump in international equity markets

Slight rise in credit institutions' capital market debt

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end of the reporting period, some good quarterly results also caused a moderate upsurge. Nevertheless, on balance, the US S&P500 (-5.4%), the EURO STOXX (-4.3%) and the CDAX (-9.8%) were down significantly on the end of March. Over the same period, stock prices in the United Kingdom rose slightly (FTSE 100: +0.2%). The FTSE index includes many commodity-intensive enterprises, which tend to benefit from high energy and commodity prices. The Japanese Nikkei also recorded gains (+4.0%).

Bank stocks in the euro area fell more than market as a whole Bank stocks registered heavier losses than the total market. Compared with the end of the first quarter, bank shares in the European EURO STOXX fell by 8.1%, while shares of US banks recorded a somewhat greater fall still (-8.4%). The decline in bank share prices was partly attributable to the fact that some big banks reported weaker than expected profits for the second quarter and had to recognise provisions. In addition, European banking supervisors recommended that credit institutions exercise restraint in their distribution policies and increase risk provisioning.

Indicators of valuation level present mixed picture Measured in terms of the earnings yield based on earnings expectations for the next 12 months, European and US equities (EURO STOXX and S&P500, respectively) were valued more favourably at the end of the reporting period than at the end of March. This was mainly because, despite the slump in share prices, analysts actually raised the profit outlook for the year somewhat. The implied cost of equity, which can be calculated as the sum of the risk-free interest rate and the risk premium using a dividend discount model, showed a different picture, declining in both currency areas since the end of the first quarter. According to this indicator, the valuation level thus rose slightly, which was mainly due to the lower risk premium. The medium-term earnings prospects of European and US enterprises, which are fed into the calculation of the implied cost of equity, also declined significantly. However, this does not provide a clear signal of recession, as the

#### Major items of the balance of payments

€ billion

	2021	2022	
Item	Q2	Q1	Q2p
Current account     Goods     Services     Primary income     Secondary income	+ 63.9 + 47.1 + 6.4 + 18.6 - 8.2	+ 52.3 + 34.3 - 2.5 + 36.9 - 16.4	+ 24.8 + 27.4 - 7.1 + 16.2 - 11.6
II. Capital account	- 1.8	- 1.9	- 4.3
III. Capital account  (increase: +)  1. Direct investment	+ 84.6 + 12.6 + 30.3 + 17.7 + 67.9 + 59.0 + 10.3 + 24.7 - 1.4 - 6.2 + 30.2 + 19.7 - 8.9 - 5.0 + 1.0 + 1.9 - 6.8 - 12.2 + 11.5 - 7.5	- 1.9 + 94.0 + 4.7 + 44.8 + 40.1 + 38.4 + 59.7 + 7.2 + 4.0 - 8.7 + 1.3 + 47.2 + 42.3 + 21.3 - 9.2 - 2.2 - 5.2 + 37.9 + 16.8 + 10.6 + 38.1 - 126.3	+ 49.4 + 38.1 + 54.8 + 16.7 + 17.1 + 1.5 + 5.2 + 1.2 - 0.4 - 2.6 - 2.3 + 4.3 - 15.7 - 6.0 + 1.6 - 7.1 - 4.2 - 3.1 + 13.9 - 20.3 - 25.5
households10 General government Bundesbank 5. Reserve assets IV. Errors and omissions11	+ 11.8 - 2.1 - 6.1 + 0.1	+ 60.0 - 5.2 + 109.5 + 2.2 + 43.5	- 16.0 - 10.1 + 31.3 + 0.6

1 Including participation certificates. 2 Including reinvested earnings. 3 Short-term: original maturity of up to one year. 4 Long-term: original maturity of more than one year or unlimited. 5 Including outstanding foreign Deutsche Mark bonds. 6 Including bonds issued by the former Federal Railways, the former Federal Post Office and the former Treuhand agency. 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. 11 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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medium-term earnings expectations fell from record high levels and were still above the five-year average at the end of the period under review. By historical standards, the implied cost of equity continues to point to a rather high valuation of US equities and a rather low valuation of European equities.

Direct investment

Transactions in cross-border portfolio investment resulted in net capital exports of €17 billion in the second quarter of 2022. Direct investment, too, led to net capital outflows (€38 billion).

Direct investment sees net capital exports

German direct

capital exports

abroad results in

investment

Equity market funding

German stock corporations raised €2½ billion in new funds on balance in the reporting quarter (previous quarter: €1½ billion). The volume of foreign shares in the German market rose by €6 billion over the same period. On balance, equities were acquired by domestic non-banks (€15 billion). By contrast, foreign investors and domestic credit institutions pared back their equity portfolios by €5½ billion and €1 billion net, respectively.

Enterprises domiciled in Germany expanded their foreign direct investment by €55 billion from April to June 2022 on balance, compared to €45 billion in the previous quarter. In the process, they boosted the equity capital they provided to foreign affiliates by €28½ billion, with reinvested profits accounting for roughly half of this figure. In addition, firms resident in Germany provided affiliated group entities abroad with additional credit worth €26 billion, relying, on balance, chiefly on loans to do so. The second quarter saw considerable volumes of direct investment flowing from Germany to the Netherlands (€10½ billion), Luxembourg (€8 billion), the United Kingdom (€5½ billion),

Switzerland and the United States (€5 billion

each). Flows of direct investment to Russia

were extremely low in the period under review.

### Mutual funds

Sales and purchases of mutual fund shares

In the second quarter of 2022, domestic investment companies recorded inflows of €19 billion, compared with €35½ billion in the previous quarter. On balance, specialised funds reserved for institutional investors were by far the primary beneficiaries (€15½ billion). Of the various asset classes, mixed securities funds, in particular, registered significant inflows of capital (€7 billion), with open-end real estate funds (€5 billion), equity funds (€3½ billion) and funds of funds (€2 billion) also attracting capital. The outstanding volume of foreign mutual fund shares in Germany rose by €1 billion in the period under review. Mutual fund shares were bought on balance almost exclusively by domestic non-banks, which added fund shares worth €19½ billion net to their portfolios. These consisted almost entirely of domestic mutual fund shares. Non-resident investors expanded their fund portfolios by €1½ billion net.

Foreign enterprises likewise increased their direct investment in Germany between April and June 2022 (€16½ billion, compared with €40 billion in the first quarter of 2022). They boosted their equity capital in German subsidiaries by €6 billion, while €10½ billion flowed to German enterprises via intra-group lending. This was due exclusively to additional loans, as trade credits primarily saw redemptions on balance. Particularly high inflows of direct investment were recorded in the second quarter from the United States (€3½ billion), the Netherlands and France (€3 billion each) and Switzerland (€2½ billion). By contrast, Belgium (€2½ billion) and the United Kingdom (€1½ billion) reduced their direct investment in Germany.

Foreign direct investment in Germany produces capital inflows