Financial markets

Financial market setting

Financial markets focusing on high inflation rates and expected tightening of monetary policy

On both sides of the Atlantic, the record inflation rates together with the continued tightening of monetary policy held sway over the international financial markets. Yields in government bond markets rose significantly, especially as key central banks signalled their willingness to raise interest rates further in order to fulfil their mandate. The Federal Reserve raised the key interest rate by 75 basis points in July, September and November to a target range now of between 3.75% and 4%; since July, the Eurosystem has increased key interest rates by a total of 200 basis points. Moreover, market participants are expecting the Eurosystem to stop reinvesting maturing bonds soon. At the same time, the risks of an expansionary fiscal policy in times of a necessary tightening of monetary policy became a topic of greater concern in the financial markets. In the United Kingdom, unfunded tax cuts, which were initially announced and later withdrawn, led to an abrupt increase in government bond yields. This was perceived by the Bank of England as a threat to financial stability and forced it to deviate from its course of monetary policy tightening to initiate temporary purchases of domestic government bonds and further support measures. The stock markets rebounded following the steep price losses in the previous quarters. Although the higher interest rates and entrenched doubts about the economy continued to dampen prices, reports of sizeable liquid gas deliveries and high gas storage levels revived investors' risk appetite and economic optimism as of the fourth quarter, especially in Europe. Driven mainly by the monetary policy tightening actions of the Eurosystem and the Federal Reserve, the euro initially depreciated markedly against the US dollar, but subsequently recouped most of these losses. In effective terms, by contrast, the euro appreciated.

Exchange rates

Euro virtually unchanged on balance against the US dollar

On balance, the euro remained virtually unchanged against the US dollar compared with the beginning of the third quarter of 2022. However, up until the beginning of November, the European single currency had been trading markedly weaker against the US dollar. This was mainly because the Eurosystem's monetary policy tightening actions continued to fall short of those of the Federal Reserve in the eyes of the foreign exchange markets, with the result that monetary policy weakened the euro, on balance. Moreover, uncertainty in the foreign exchange markets remained elevated in the light of a number of headwinds, such as Russia's war against Ukraine and the deteriorating and rather uncertain global economic outlook. This was also reflected in high volatility in the foreign exchange markets. Such periods of pronounced global uncertainty favour capital flows to the United States, which had likely put the European single currency under additional pressure against the US dollar. In addition, the energy crisis, which hit the euro area countries particularly hard, drove the euro down further against the US dollar. However, the recently improved situation in the gas market, the resulting reduction in energy risks with regard to the winter months and the associated increase in risk appetite counteracted the downward pressure on the euro.

Shifts in exchange rates driven mainly by monetary policy stances of the United States and the euro area

The impact of the different monetary policy stance of the United States and the euro area on the euro-US dollar exchange rate can be clearly observed from developments on a few selected dates. For example, the euro fell below parity with the US dollar at the end of August, i.e. around the time when Jerome Powell, Chair of the Federal Reserve, emphasised at the annual meeting of central bankers in Jackson Hole with surprising clarity for the markets that a continued restrictive monetary policy was necessary for the United States. On 28 September

Exchange rate of the euro

Daily data, log scale

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

2022, after the Fed had once again sharply raised policy rates in the United States, the euro fell to a 20-year low of US$0.96. The euro has rebounded since the beginning of November following the publication of lower than expected inflation figures for the United States, which raised expectations among market participants that the Fed would tighten monetary policy more slowly than previously assumed. At the end of the reporting period, the euro was trading at US$1.04, down a mere 0.2% from its level at the end of June.

Euro appreciates against the pound sterling ...

Amid considerable exchange rate volatility, the euro appreciated on balance against the pound sterling compared with the beginning of the second half of the year. During this time, the Bank of England raised its policy rate by a total of 175 basis points to 3%. Despite this tightening, inflation in the United Kingdom continued to rise. At the same time, there was a marked deterioration in the UK economic outlook in late summer, which led to a gradual appreciation of the euro against the pound sterling.

... amid unusually high volatility

In the second half of September, the pound sterling experienced an episode of unusually high volatility in the foreign exchange market. The main reason for this was the announcement of unfunded tax cuts by the new UK government. This fuelled doubts among market participants about the sustainability of UK government debt. Moreover, it was clearly perceived that the Bank of England and the UK government had taken policy measures whose effect on price stability went in different directions. This caused massive tensions in the UK financial market, which led to a sharp depreciation of the pound. At the end of September, the euro stood at more than £0.90. In order to avert the associated "material risk to UK financial stability", the Bank of England intervened swiftly with a number of measures (see p. 42). At the same time, the Bank of England reaffirmed its intention to raise policy rates without delay for as long as necessary to achieve the inflation target sustainably. As a result, the pound sterling partly recouped its previous losses against the euro. The subsequent U-turn in UK tax policy contributed to this development. At the end of the period under review, the euro stood at £0.87, which was 1.4% higher than at the end of the second quarter.

Euro records gains against yen

The euro made considerable gains against the yen. Much like in the United States, the differences in the monetary policy stances between the major currency areas is also a key factor in this development. For example, the Japanese central bank's adherence to its loose monetary policy means that the yield differential between the United States and the euro area, on the one hand, and Japan, on the other, increased

further. To counter the resulting downward pressure on the yen – especially against the US dollar – the Japanese government intervened unilaterally in the foreign exchange market in both September and October for the first time since 1998. However, the impact of the foreign exchange market interventions on the euro-yen exchange rate was only short-lived. Overall, the euro recorded a gain of 2.5% compared to the end of June of this year and was trading at ¥145 at the end of the reporting period.

Euro stronger in effective terms

On a weighted average against the currencies of 19 major trading partners, the euro appreciated by 1.5% on balance. In addition to the aforementioned strengthening of the euro against the pound sterling and the yen, the euro's appreciation was driven above all by significant gains against the renminbi. These gains were made in the context of weaker growth in the Chinese economy, which is being weighed down by the rigorous COVID restrictions and declining global demand.

Implied volatility in the financial markets

%, daily data

Sources: Bloomberg and Thomson Reuters. **1** Calculated using the prices of index options with a maturity of 30 days. **2** Implied volatility of currency options with a maturity of three months. **3** Implied volatility of options on the Bund future (Germany) and T-Note future (United States) for a three-month horizon.

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Securities markets and portfolio transactions

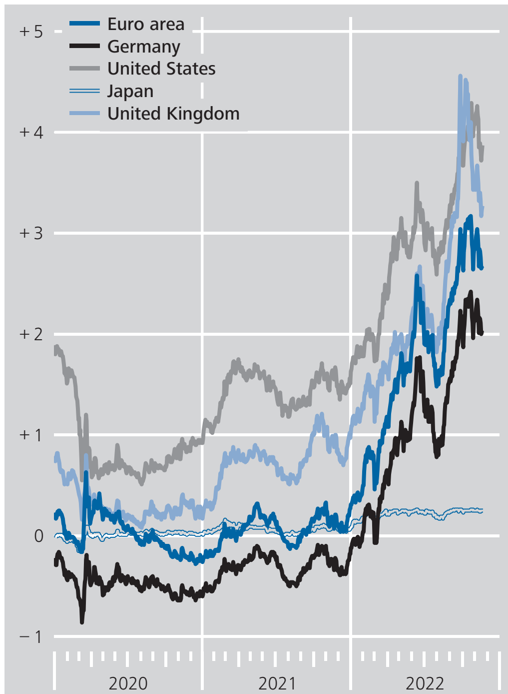
Bond market

Ten-year government bond yields up globally

From the end of the second quarter, nominal government bond yields rose significantly in the major currency areas. Despite growing concerns about the economic outlook, persistently high inflation and expectations of a corresponding tightening of monetary policy dominated developments in the financial markets. In addition to the measures already adopted by central banks, particular attention was paid to their forward guidance. As with exchange rates, central banks also acted as a clear catalyst for bonds. For example, market participants interpreted the press release following the ECB Governing Council meeting in October as meaning that the Eurosystem would tighten somewhat more slowly in future, as considerable progress had already been made in withdrawing monetary policy accommodation. On the other side of the Atlantic, by contrast, following the monetary policy decisions at the beginning of November, Fed Chairman Jerome Powell made clear that further interest rate hikes were needed to reach the 2% inflation target, which ultimately resulted in a steepening of the short-term interest rate path. Unexpectedly low US inflation figures published towards the end of the period under review dampened ten-year US yields again markedly. Overall, however, they rose by 83 basis points to 3.9% in the reporting period. The interest rate differential between US Treasury yields and the euro area GDP-weighted yield increased by 21 basis points to 1.2%.

Bond yields* in the euro area and selected countries

% p. a., daily data



Source: Bloomberg. * Government bonds with a residual maturity of ten years.
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Government bond yields in the United Kingdom volatile and higher on balance …

On balance, ten-year government bond yields in the United Kingdom rose more strongly than in the United States and the euro area (+103 basis points to 3.3%). The Bank of England responded to the continued high inflation rates by raising policy rates by 50 basis points in both August and September and by 75 basis points in November. In the interim, the UK government bond markets had experienced turmoil. At the end of September, the new UK government announced unfunded tax cut plans, leading yields to rise abruptly to 4.6%. The Bank of England perceived this sharp rise in yields as a threat to financial stability. Despite its stance of monetary policy tightening, it responded by initiating temporary purchases of long-dated domestic government bonds and further support measures. It also postponed the beginning of its planned sale of government bonds from its monetary policy portfolio. These measures, together with the government's subsequent withdrawal of its original tax cut plans, helped calm the market and bring yields back down.

… and virtually unchanged in Japan

By contrast, the Bank of Japan stuck to its highly accommodative monetary policy stance. The yield on ten-year Japanese bonds remained at the upper end of the target range of 0% +/-25 basis points. However, the announced option of unlimited bond purchases, together with the Bank of Japan's already large holdings, increasingly weighed on the liquidity of Japanese government bonds and led to tensions in the foreign exchange markets, as outlined above.

Higher ten-year Bund yield

On balance, yields on ten-year Bunds rose by 67 basis points to 2.0% following the end of the second quarter. In mid-October they even climbed to over 2.4%, reaching their highest level in more than ten years. A model breakdown of the yield curve of Federal securities suggests that two factors made similar contributions to driving up yields. First, given the persistently high inflation rates, market participants expected a tighter monetary policy and thus a steeper interest rate path. Second, there was an increase in the term premia that investors demand as compensation for assuming price risk when purchasing long-term bonds.

Determinants of term premia

One reason for the higher term premia could be the termination of the Eurosystem's net asset purchases in June. Moreover, market participants expect the reinvestment of maturing bonds to be discontinued soon as well, which would mean that duration risk, which has been borne by the Eurosystem to date, would be handed back to the market. In addition, the inflation risk premium in the longer maturity segment has increased.

Implied volatility of options on futures contracts fell following latest ECB Governing Council decision

On balance, the implied volatility of options on futures contracts for Bunds – a metric that reflects uncertainty about future interest rate developments – barely changed, thus remaining well above its five-year average. However, it fell significantly after the most recent Governing Council meeting, which is striking. This, together with the observation that the expected monetary policy path fell immediately after the Governing Council meeting in October, re-

flected the greater certainty with which market participants expected a less pronounced tightening. Given the high inflation rates, the current inflation outlook and the risk of a de-anchoring of long-term inflation expectations, this is a development that does not sufficiently take into account the likelihood of monetary policy on both sides of the Atlantic having to move interest rates even into restrictive territory.

Liquidity premium down

The yield spread between ten-year Bunds and maturity-matched bonds issued by the Kreditanstalt für Wiederaufbau (KfW) continued to increase from an already high level until the beginning of October, before subsequently narrowing to 0.7 percentage point at the end of the reporting period, slightly lower than at the end of June. The yield spread reflects the premium that market participants pay for the particularly high liquidity of Federal securities. One reason for the temporary increase in the liquidity premium was the higher demand from market participants for safe securities, for example to meet margin requirements on futures exchanges.

German yield curve clearly positive across the entire maturity range

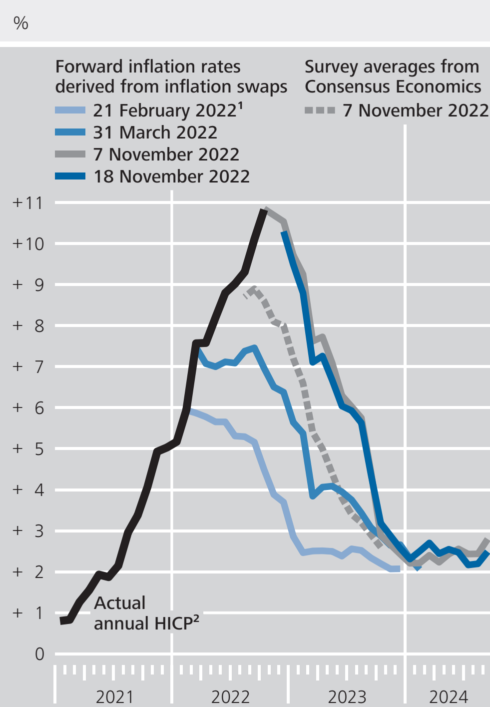
The yield curve derived from Bund yields shifted upwards significantly and flattened slightly during the period under review. For example, at just over 2%, yields on bonds with a residual maturity of one year are higher than at any time since the end of 2008.

Slight narrowing of yield spreads in euro area

The yield spread between ten-year Bunds and ten-year government bonds issued by other euro area countries (GDP-weighted average) narrowed slightly from the end of the second quarter (-7 basis points to 0.9 percentage point). This left the spread still moderately above its five-year average (0.8 percentage point). The five-year window covers a period in which the Eurosystem purchased bonds and private investors were more willing to buy bonds with lower ratings in their "search for yield".[1] It was noteworthy that the turmoil in the UK government bond market hardly impacted lower-quality euro area bonds and that

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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liquidity in these market segments remained stable throughout. Italian government bond spreads widened moderately for a time. Political uncertainty surrounding the new Italian government's policies is likely to have contributed to this. Market liquidity indicators did not point to any tightness in the market for euro area government bonds during the period under review.

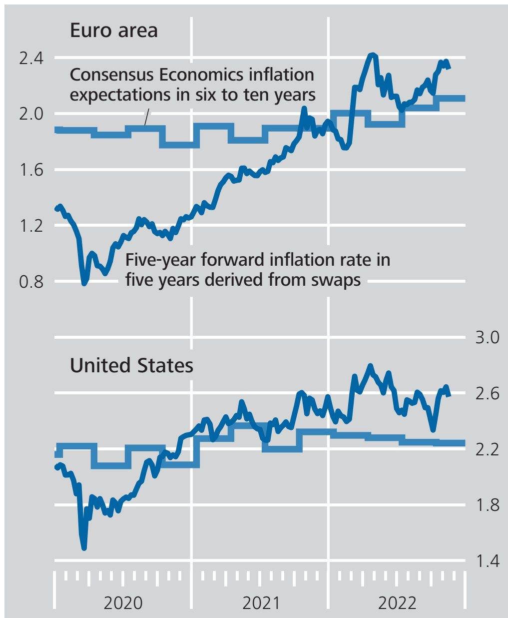
Market participants expected a sharp rise in inflation rates in the short term

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. Compared with the end of the

1 Between January 2019 and October 2019, the Eurosystem did not make any net purchases under the asset purchase programme (APP) but fully reinvested the principal payments from maturing securities. Net purchases under the pandemic emergency purchase programme (PEPP) were discontinued at the end of March 2022 and no further net purchases have been made under the APP since July 2022. However, maturing securities will continue to be reinvested in full.

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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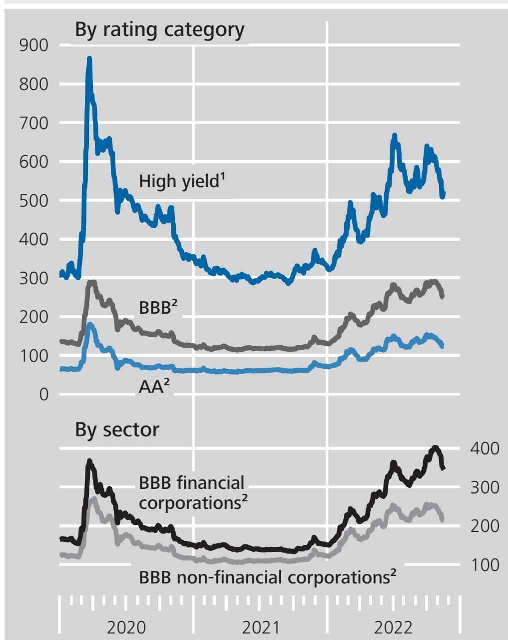
Yield spreads of corporate bonds in the euro area*

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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second quarter, market participants once again revised their inflation expectations until the end of 2023 upwards. From the markets' perspective, the inflation rate peaked at just under 11% in October 2022. As an annual average, market participants are expecting an inflation rate of 8.6% for 2022 and 5.8% for 2023. The expected rate of inflation even rises to 2.5% by the end of 2024. A period in which high inflation expectations become entrenched increases the risk that households and enterprises will align their wage and price-setting decisions with inflation expectations that are no longer oriented to the definition of price stability.

Rise in longer-term inflation expectations, too

Longer-term inflation expectations have also increased. The five-year forward inflation rate five years ahead, which is derived from inflation swaps, stood at 2.3% at last count, up 23 basis points from the end of June. The quarterly survey-based inflation expectations calculated by Consensus Economics for the euro area six to ten years ahead also rose in October to 2.1%, compared with 2.0% in July 2022. Consequently, the difference between market-based and survey-based long-term inflation expectations widened. This difference is often seen as a risk premium and indicates that market participants are increasingly concerned about very high inflation rates over the longer term.

Increase in longer-term inflation expectations in the United States, as well

Five-year market-based US forward inflation rates in five years likewise rose by 8 basis points to 2.5%, while survey-based inflation expectations calculated by Consensus Economics remained unchanged at 2.2%. The inflation risk premium as the difference between market-based and survey-based inflation expectations is also positive in the United States and has risen.

Corporate bond yields higher

Yields on BBB-rated European corporate bonds with residual maturities of between seven and ten years have gone up since the end of the second quarter. At 50 basis points, the increase in yields for bonds issued by financial corporations – which tend to be more highly lever-

aged – was greater than that recorded for non-financial corporate bonds (+30 basis points). Since the yields on matched-maturity Bunds increased more strongly on balance, the spreads of financial and non-financial corporate bonds over Bunds narrowed by 20 and 40 basis points, respectively. The spreads on high-yield bonds, which had risen sharply in the first half of the year, have fallen even more considerably since the end of June (-117 basis points). Together with the implied volatility in the equity markets, which is likewise declining, this points to an increased risk appetite on the part of investors and to diminished concerns regarding the debt sustainability of enterprises with lower credit ratings, in particular. In line with this, the credit default premia for enterprises without an investment-grade rating also declined (iTraxx Crossover, five years; -107 basis points). Measured by yield spreads, financing costs for European enterprises across all rating categories were nevertheless still significantly above their respective five-year averages.

Net issuance of German debt securities

At €438 billion, gross issuance in the German bond market in the third quarter of 2022 exceeded the previous quarter's figure (€404 billion). After deducting redemptions and taking account of changes in issuers' holdings of their own bonds, net sales remained relatively high at €28 billion. The outstanding volume of foreign debt securities in Germany fell by €18½ billion over the same period. Thus, funds totalling a net €9½ billion were raised in the German bond market in the period under review.

Rise in credit institutions' capital market debt

Domestic credit institutions issued their own bonds to the tune of €28½ billion net in the reporting quarter. Alongside an increase in other bank debt securities (€7 billion), primarily debt securities issued by specialised credit institutions and mortgage Pfandbriefe were placed in the market (€12 billion and €10½ billion, respectively) on balance. Meanwhile, net issuance of public Pfandbriefe declined by €1½ billion.

Net issuance of corporate bonds

In the course of the third quarter, domestic enterprises increased their capital market borrowing by €17 billion in net terms (previous quarter: €4 billion). On balance, this was largely attributable to other financial intermediaries.

Fall in net public sector debt

The public sector redeemed its own bonds amounting to €17½ billion net in the quarter under review. Ultimately, this was solely attributable to the governments of the federal states, which reduced their capital market debt by €21½ billion. By contrast, central government mainly issued five-year Federal notes (Bobls; €20½ billion) and 30-year Federal bonds (Bunds; €9 billion). Meanwhile, there were net redemptions of ten-year Bunds totalling €26 billion.

Purchases of debt securities

In the third quarter of 2022, domestic non-banks expanded their bond portfolios in the domestic bond market by €23 billion net, purchasing exclusively domestic paper (€37½ billion) on balance. Domestic credit institutions purchased debt securities for €8 billion net, all of which were also German securities on balance. The Bundesbank reduced its bond holdings by €17½ billion net. Moreover, non-resident investors offloaded domestic bonds with a net value of €4½ billion.

Equity market

International equity markets under pressure from higher interest rates, …

International equity markets were heavily influenced by the anticipated tightening of monetary policy on both sides of the Atlantic. Meanwhile, market participants' concerns about an energy crisis and a global economic downturn took more of a back seat. In some cases, disappointing economic data even boosted equity prices as they fuelled speculation of a slower tightening of monetary policy. By contrast, individual positive economic signals, such as from the US labour market, were interpreted as a sign of more rapid policy rate hikes and thus temporarily caused price losses. However, the most significant burden were higher long-term interest rates, which rose as policy rates were

Investment activity in the German securities markets

€ billion

Item	2021 Q3	2022 Q2	2022 Q3
Debt securities			
Residents	75.8	40.9	13.6
Credit institutions	– 4.5	– 3.0	8.0
of which:			
Foreign debt securities	– 1.5	6.8	– 3.4
Deutsche Bundesbank	60.1	25.2	– 17.5
Other sectors	20.2	18.7	23.1
of which:			
Domestic debt securities	3.1	31.3	37.6
Non-residents	– 7.5	– 11.1	– 4.3
Shares			
Residents	30.5	– 11.1	27.3
Credit institutions	3.5	– 1.2	– 2.5
of which:			
Domestic shares	0.7	– 0.2	– 0.5
Non-banks	27.0	– 9.9	29.8
of which:			
Domestic shares	9.1	8.0	33.9
Non-residents	0.4	– 5.3	6.8
Mutual fund shares			
Investment in specialised funds	14.9	15.6	13.6
Investment in retail funds	10.2	3.3	– 2.5
of which:			
Equity funds	2.4	3.4	– 0.7

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raised and which reduce the present value of future profits via the discount factor effect. The fact that investors also revised their medium-term earnings expectations downwards as a result of their scepticism about the economy exerted additional pressure on prices.

… but with price gains on balance

Since the fourth quarter, however, news of sizeable liquid gas deliveries and high gas storage levels, amongst other things, has strengthened optimism amongst investors in the euro area again. They considered a gas shortage in the winter to be increasingly unlikely. The more positive sentiment among market participants and increased risk appetite resulted in less uncertainty about future price developments, which is reflected in the relevant volatility indices. In addition, they expected more favourable short-term earnings growth for European enterprises, whose profit margins remain high by historical standards. In November, prices were additionally boosted by lower than expected inflation figures for the United States. On balance, the Euro Stoxx and the CDAX recorded marked gains from the end of June, at 10.2% and 9.9%, respectively. The prices of US equities (S&P 500) rose by 4.8%, with companies in the energy sector recording particularly significant price increases. In the United Kingdom, after calm returned to the government bond market, equity prices rose markedly in October and have appreciated on balance since June (FTSE 100: +3.0%); meanwhile, the Japanese Nikkei index climbed by 5.7%.

Bank stocks outperform market as a whole

Bank shares on both sides of the Atlantic outperformed their respective overall markets. Losses that reflected uncertainty about impending credit defaults and some credit institutions' need for capital increases proved to be temporary. On balance, the prices of bank stocks listed in the US S&P 500 have risen by 11.1% since the end of the second quarter, while European banks have recorded even higher growth (16.9%). An important reason for these gains is that term premia which have risen in line with tighter monetary policy are boosting credit institutions' revenue from maturity transformation. Towards the end of the reporting period, mostly positive quarterly results for some major US banks also sent prices higher.

Indicators of valuation level present mixed picture

Measured by the earnings yield based on the business outlook for the next 12 months, European equity valuations remained virtually unchanged compared with the end of June, while US equity valuations rose slightly. US equities also experienced a drop in the implied cost of equity, which also incorporates the medium-term earnings prospects and the risk-free interest rate and is calculated using a dividend discount model. This therefore supports the finding of higher US equity valuations. There was little change in the implied cost of equity for European shares. This reflects, amongst other things, the fact that earnings expectations rose for the upcoming 12-month period, but weakened over the medium term. The medium-term earnings prospects were thus slightly below their five-year average at last count. From a

long-term perspective, the implied cost of equity continues to point to fairly low European equity valuations and fairly high US equity valuations.

Stock market funding at high level

Domestic enterprises placed new shares worth €40½ billion net in the German equity market in the third quarter of 2022, following €2½ billion in the previous quarter. The comparatively high figure is primarily attributable to an initial public offering. In the same period, the outstanding volume of foreign equities in the German market dropped by €6 billion. On balance, equities were acquired almost exclusively by German non-banks (€30 billion), which also include mutual funds. Foreign investors increased their equity exposure in Germany by €7 billion net, while domestic credit institutions sold equities worth €2½ billion net.

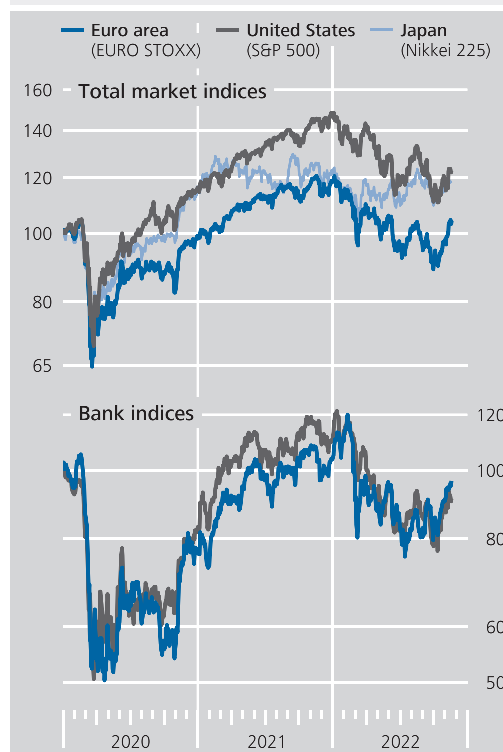
Mutual funds

Sales and purchases of mutual fund shares

During the reporting period, domestic investment companies recorded inflows of €11 billion, after raising funds totalling €19 billion in the second quarter. On balance, all of the fresh funds were channelled to specialised funds reserved for institutional investors (€13½ billion). Among the various asset classes, mixed securities funds and open-end real estate funds were the chief sellers of new fund shares (€6 billion and €4½ billion, respectively). By contrast, bond funds redeemed their own shares to the tune of €3 billion net. Foreign funds distributed in the German market hardly attracted any net inflows in the third quarter of 2022. Domestic non-banks were the main buyers, adding €12½ billion worth of mutual fund shares to their portfolios. Domestic credit institutions acquired shares for €½ billion net, while non-resident investors reduced their fund portfolio in Germany by €1½ billion.

Equity market

Beginning of 2020 = 100, log scale, daily data



Sources: Thomson Reuters and Bundesbank calculations.
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Direct investment

Direct investment sees net capital exports

Transactions in cross-border portfolio investment resulted in net capital imports of €27½ billion in the third quarter of 2022. By contrast, direct investment led to capital outflows (€30 billion).

German direct investment abroad results in capital exports

Enterprises domiciled in Germany expanded their direct investment abroad by €51½ billion on balance between July and September 2022, compared with €54 billion in the previous three months. They boosted their equity capital in non-resident subsidiaries by €12½ billion, exclusively by reinvesting earnings, on balance. In addition, enterprises resident in Germany provided affiliated group entities abroad with additional credit worth €39 billion, largely relying on financial loans to do so. The third quarter saw considerable volumes of direct investment funds flowing from Germany to the United Kingdom (€21½ billion), the United States

Major items of the balance of payments

€ billion

Item	2021r Q3	2022r Q2	2022r Q3p
I. Current account	+ 61.7	+ 24.3	+ 22.1
1. Goods	+ 49.1	+ 26.7	+ 24.1
2. Services	− 7.6	− 7.3	− 21.4
3. Primary income	+ 34.4	+ 16.1	+ 36.0
4. Secondary income	− 14.2	− 11.3	− 16.6
II. Capital account	+ 1.9	− 3.8	− 4.3
III. Financial account (increase: +)	+ 36.9	+ 55.9	+ 12.3
1. Direct investment	+ 24.3	+ 40.8	+ 29.9
Domestic investment abroad	+ 43.6	+ 54.0	+ 51.6
Foreign investment in the reporting country	+ 19.3	+ 13.2	+ 21.8
2. Portfolio investment	+ 63.4	+ 17.3	− 27.4
Domestic investment in foreign securities	+ 55.3	+ 1.6	− 26.7
Shares[1]	+ 19.8	+ 5.0	− 8.2
Investment fund shares[2]	+ 22.2	+ 1.3	+ 0.1
of which: Money market fund shares	− 2.3	− 0.3	− 0.8
Short-term debt securities[3]	+ 7.6	− 2.2	− 3.3
Long-term debt securities[4]	+ 5.7	− 2.5	− 15.3
of which: Denominated in euro[5]	− 0.2	+ 3.9	− 5.5
Foreign investment in domestic securities	− 8.2	− 15.7	+ 0.7
Shares[1]	+ 0.4	− 5.9	+ 6.6
Investment fund shares	− 1.1	+ 1.4	− 1.7
Short-term debt securities[3]	+ 9.5	− 7.0	− 7.2
Long-term debt securities[4]	− 17.0	− 4.1	+ 2.9
of which: Issued by the public sector[6]	− 28.7	− 3.2	− 11.3
3. Financial derivatives[7]	+ 10.2	+ 10.7	+ 13.0
4. Other investment[8]	− 92.2	− 13.6	− 4.1
Monetary financial institutions[9]	− 29.1	− 25.5	− 26.2
Enterprises and households[10]	− 2.5	− 9.2	− 14.1
General government	− 0.6	− 10.1	− 11.3
Bundesbank	− 60.0	+ 31.3	+ 47.6
5. Reserve assets	+ 31.2	+ 0.6	+ 0.8
IV. Errors and omissions[11]	− 26.7	+ 35.4	− 5.5

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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(€9½ billion) and Sweden (€8 billion). By contrast, German enterprises scaled back their direct investment in China (€2½ billion) and Russia (€1½ billion).

Foreign direct investment in Germany produces capital inflows

Foreign enterprises increased their direct investment in Germany by €22 billion in the third quarter (compared with €13 billion in the previous quarter), primarily supplying German enterprises with additional intra-group loans worth €21½ billion. Financial loans again made up the bulk of these transactions. Particularly high inflows of direct investment were recorded from the United Kingdom (€12 billion), France (€6 billion) and Ireland (€2½ billion). By contrast, enterprises domiciled in the Netherlands and Belgium reduced their direct investment in Germany (€11½ billion and €4 billion, respectively).