

Financial markets

Financial market setting

Financial markets influenced by pandemic again, especially in Europe

The strong economic recovery also shaped the international financial markets in the third quarter of 2020. In the United States, above all, but also in Europe, (expected) monetary and fiscal assistance measures and favourable economic signals fuelled optimism among financial market participants. However, renewed significant growth in the number of infections since the autumn and the associated expected and, in some cases, already adopted restrictions resulted in a marked correction, especially in Europe. Equity markets in the euro area came under pressure as market participants flocked towards safe havens, tending to avoid risky investments and preferring lower-risk securities, such as government bonds. Towards the end of the reporting period, however, hopes that a vaccine might soon be available effected a resurgence in confidence. On balance, equity prices have risen since the end of June, while the average yield on long-term government bonds in the euro area has declined.

By contrast, the US financial markets have remained comparatively robust in the face of the current infection rates. Buoyed by predominantly good quarterly corporate earnings and improved corporate earnings expectations, US equity prices rose significantly overall, even reaching an all-time high at one point. The Federal Reserve's new strategy of average inflation targeting is likely to have boosted yields on US Treasuries through higher term premiums. In a speech, Jerome Powell, Chair of the Federal Reserve, explained amongst other things that the Federal Reserve might consider inflation rates of just over 2% appropriate at times in future, following prolonged periods when inflation has remained below the 2% mark. Market participants' expectations that US fiscal policy could become even more expansionary with infection numbers rising also had a positive impact on yields, which rose significantly on bal-

ance. Changes in infection rates and the ensuing responses by policymakers were also partly reflected in the foreign exchange markets. On balance, the euro appreciated slightly.

Exchange rates

Since the beginning of July 2020, the euro has recorded marked gains against the US dollar on balance. The spread of the coronavirus in the United States weighed heavily on the US currency at the start of the third quarter. The temporary containment of the number of infections in the United States in August caused the euro/US dollar exchange rate to stabilise somewhat initially. However, after the Federal Reserve announced the aforementioned adjustment of its monetary policy strategy, the euro continued to appreciate and climbed to a two-year high against the US dollar at the beginning of September (US\$1.20).

Euro up markedly against the US dollar

The upward trend of the euro did not continue over the remainder of September. Against the backdrop of the renewed rise in the number of infections in the euro area and the resulting expectations of further containment measures, investor demand shifted in favour of the US dollar. In October, too, market activity was influenced by changes in investors' risk appetite. For instance, the euro/US dollar exchange rate fluctuated in response to the frequently changing prospects of a further fiscal package in the United States. As a result, the intensification of the pandemic and the prospect of further monetary policy easing in the euro area weighed on the single currency before it regained ground following the US presidential election in early November. As this report went to press, the euro stood at US\$1.18 on balance, which was 5.3% higher than at the end of the second quarter.

Euro also appreciates against the yen, ...

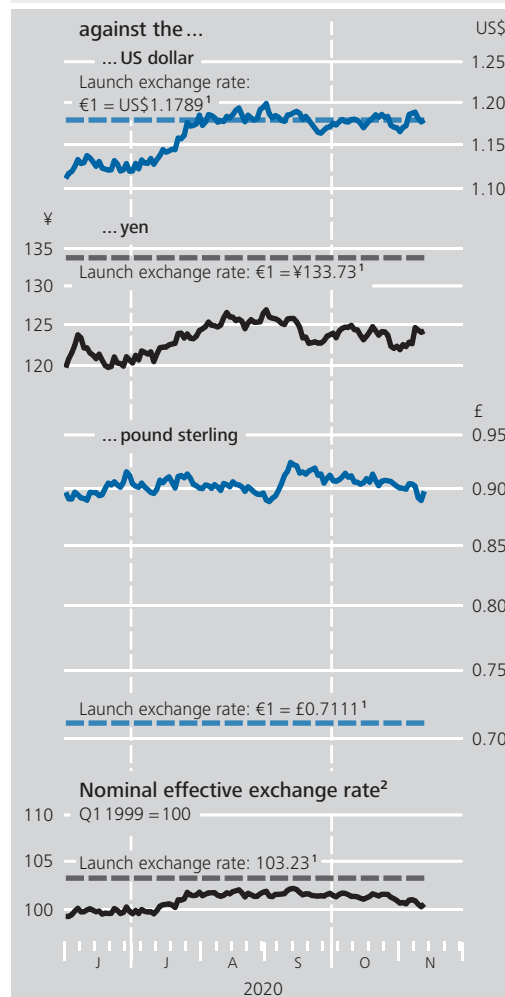
The euro also recorded gains against the yen. This continued until the end of August in view of a temporary decline in risk aversion. The single currency was only burdened temporarily by weak economic figures from the euro area and by Prime Minister Shinzo Abe's announcement of his resignation due to health reasons. Uncertainty about whether his successor would provide political support for continued monetary policy easing strengthened the yen. Over the course of September, sentiment turned increasingly in the Japanese currency's favour, which is tending to benefit from net capital inflows in the wake of increased risk aversion. For example, the course of the pandemic and the dispute regarding further US fiscal stimulus measures dampened risk appetite in the foreign exchange market and, as a result, repeatedly caused co-movement of the yen and the US dollar against the euro. As this report went to press, however, the announcement of progress in the development of a vaccine weighed on the Japanese currency. The euro stood at around 124 yen at the end of the reporting period, meaning that the currency has gained 3.0% since the end of June 2020.

... but records exchange rate losses against the pound sterling

The exchange rate developments of the euro against the pound sterling during the reporting period were driven by market participants' shifting assessments of whether a trade agreement would be reached between the United Kingdom and the European Union. For instance, the euro appreciated markedly following Prime Minister Boris Johnson's announcement that he would proceed with the controversial Internal Market Bill despite protests from Brussels. The Bill stipulates that the United Kingdom may unilaterally renege on commitments previously made in the EU Withdrawal Agreement, and this – in the eyes of market participants – called into question the success of the negotiations with the EU. Subsequently, however, the impression that a trade agreement could be reached by the end of the year was increasingly strengthened. A growing interest rate differential between British and German long-term government bonds also

Exchange rate of the euro

Daily data, log scale



Source: ECB. **1** Exchange rate at the start of monetary union on 4 January 1999. **2** As calculated by the ECB against the currencies of 19 countries. An increase indicates an appreciation of the euro.

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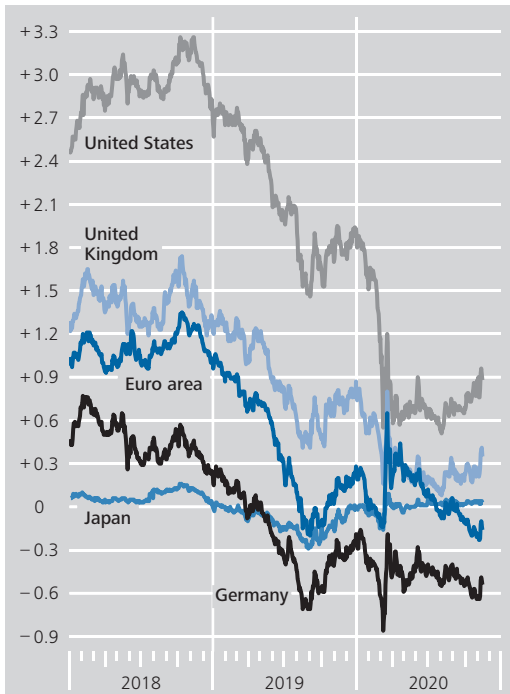
favoured the pound, and the euro relinquished its gains in the autumn months. At the end of the reporting period, the euro was trading at £0.90 – 1.6% lower than in mid-2020.

On a weighted average against the currencies of 19 major trading partners, the euro appreciated by 0.7% on balance. Furthermore, outside this group, the euro appreciated against the currencies of some emerging market economies hard hit by the pandemic, such as the rouble (+14.6%), the Brazilian real (+4.1%) and the Indian rupee (+4.1%). The euro also recorded marked gains against the Turkish lira once again (+18.8%). The Turkish lira continued

Euro appreciates in effective terms

Bond yields* in the euro area and selected countries

% p. a., daily data



Source: Bloomberg. * Government bonds with a residual maturity of ten years.
 Deutsche Bundesbank

points to 0.9% from the end of June 2020. A contributing factor was the prospect that a further, comprehensive economic stimulus package could be adopted in the United States in response to the coronavirus crisis. Furthermore, according to some market observers, the increase in yields was supported by the Federal Reserve's new monetary policy strategy that was announced in August. Long-term inflation expectations, which form part of the nominal yields, rose markedly on balance. Given the largely unchanged expectation of a low policy rate over the longer term, yield movements of ten-year government bonds in the United States were dominated by higher term premiums.

Yields have fluctuated significantly in the euro area since the end of June. On balance, yields on ten-year Federal bonds fell by 9 basis points to -0.5%. Following a calm summer, increasing infection rates constituted a driving force in October, making the economic outlook more uncertain overall. This brought the role of Federal securities as a safe haven into focus, which is usually associated with falling interest rates. Moreover, market participants expected that the Eurosystem might potentially recalibrate its monetary policy stance in the face of increasing risks, which also contributed to a decline in yields. However, a countermovement set in most recently following positive news about an effective vaccine.

Falling yields in euro area bond markets

its downward trend against the euro in an environment of high inflation rates, persistent current account deficits, dwindling foreign reserve assets and increasing political strains. Monetary policy tightening measures taken in September failed to halt the exchange rate losses, and new diplomatic tensions with France and the United States caused the Turkish currency to reach an all-time low against the euro at the beginning of November. The lira was only recently able to recoup some of the losses it had previously sustained.

Securities markets and portfolio investment

Bond market

Government bond yields in the major currency areas showed mixed developments during the period under review. In the United States, yields on ten-year US Treasuries rose by 22 basis

The yield curve derived from yields on Federal securities shifted downwards slightly under the impact of the aforementioned influences. As this report went to press, the interest rate was below the deposit facility rate of -0.5% up to a maturity of 10 years. All outstanding Federal securities recorded negative yields. Despite steepening slightly, the slope of the yield curve between ten-year and two-year maturities remained at a low level. The interest rate fluctuations in the ten-year maturity segment were mainly driven by a lower term premium. The expected short-term interest rates on Federal securities fluctuated to a lesser extent. These

Downward shift in the yield curve

Ten-year US Treasury yields up

rates reflect not only monetary policy expectations but also scarcity premiums – measured by the yield spread between Federal securities and EONIA swap rates with the same maturity – as well as liquidity premiums.

Narrowing of yield spreads in the euro area

Yield spreads between ten-year Federal bonds and government bonds with the same maturity issued by other euro area countries (GDP-weighted average excluding Germany) fell by 21 basis points to 54 basis points in the reporting period and were therefore close to their historical low. The spread tightening was supported by the decision to launch an EU recovery fund as well as the Eurosystem’s asset purchases. The surge in infection rates at the end of the reporting period affected yield spreads only slightly. Furthermore, indicators of market functionality, such as order book illiquidity (see the upper chart on p. 42), did not indicate tension in the government bond markets.

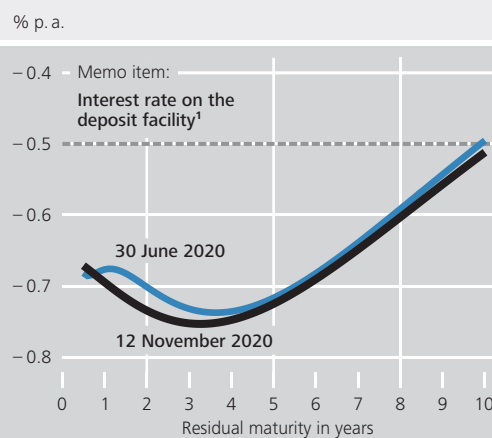
Mixed yields in the UK and Japan

Since the end of June, yields on ten-year government bonds in the United Kingdom have shown an upward trend on balance (0.4%, +18 basis points), albeit with quite considerable fluctuations. Alongside uncertainty surrounding the pandemic, these fluctuations also reflected uncertainty about the form of the United Kingdom’s future trade relations with the EU once the transitional arrangement expires at the end of the year. In Japan, yields on ten-year government bonds remained within a narrow corridor around the 0.0% mark and thus within what market participants believe to be the Bank of Japan’s target range for interest rates. Changing assessments of the political and economic environment made no discernible impression on Japanese yields.

Forward inflation rates unchanged in the euro area and significantly increased in the US

Five-year forward inflation rates five years ahead derived from inflation swaps remained virtually unchanged at 1.2% (+5 basis points). They were thus well above the 0.72% mark recorded in March. As a consequence of the first wave of infections, liquidity had deteriorated significantly in some cases at that point in time – even in markets that are otherwise very broad

Yield curve in the German bond market*

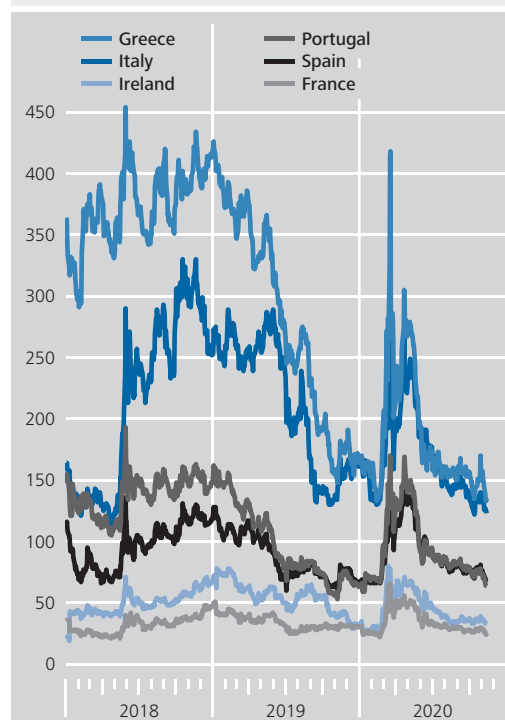


* Interest rates for (hypothetical) zero coupon bonds (Svensson method), based on listed Federal securities. ¹ In place since 18 September 2019.

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Spreads of ten-year government bonds over Federal bonds

Basis points, daily data



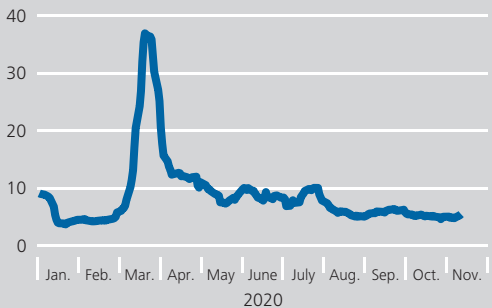
Sources: Bloomberg and Bundesbank calculations.

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and deep – which partly contributed to the trough. The inflation expectations for the euro area six to ten years ahead, as calculated by Consensus Economics on the basis of surveys, dipped slightly to 1.8%. Inflation risk and liquidity premiums appeared to be largely responsible for the disparity between market and

Order book illiquidity*

10-day moving averages



Sources: MTS and Bundesbank calculations. * Quotient of the width (average bid-ask spread of the three closest buy and sell orders in the order book) and the depth of the order book liquidity (sum of the volumes offered at these three bid and ask prices in the order book) scaled by a factor of 10⁹. The four largest euro area countries (DE, FR, ES, IT, GDP-weighted) were considered.

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

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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survey-based expectations. In the United States, five-year market-based forward inflation rates in five years rose by 32 basis points to 2.1%. Contributing factors included the anticipated fiscal package and the change in monetary policy strategy.

Yields on European corporate bonds continued to decline in the period under review, following the surge in March resulting from the pandemic. Bonds issued by BBB-rated financial corporations with a residual maturity of between seven and ten years were yielding 1.1% as this report went to press, 67 basis points lower than at the end of June. Yields on non-financial corporate bonds of equivalent maturity fell by 56 basis points to 0.6%. A look at country-specific corporate bond yields reveals that yields in the euro area mainly declined to an equal extent. Yields on high-yield bonds issued by enterprises with poorer credit ratings have fallen by 106 basis points to 3.6% since the end of June, and therefore to a greater extent than in the BBB segment. Monetary and fiscal policy support measures undoubtedly made a key contribution to declining corporate bond yields, as – alongside the fall in risk-free interest rates – the decline in yields reflected that investors required less compensation for default risks in the bond market, despite the renewed increase in infection rates. This was also demonstrated by lower CDS premiums. Moreover, there were indications of improved liquidity in the market for corporate bonds.¹

Yields on European corporate bonds in continued decline

The substantial economic risks resulting from the pandemic and the heightened uncertainty in the stock market had no visible impact on spreads. However, with risk-free interest rates down, BBB-rated corporate bond spreads over Bunds narrowed by less than the drop in corporate bond yields. At the end of the period under observation, spreads on BBB-rated corporate bonds consequently remained below their respective five-year means, which points

¹ This is indicated by lower bid-ask spreads for BBB-rated corporate bonds in the reporting period.

to a relatively high valuation. Comparing corporate bonds' performance with developments in a model-theoretical replicating portfolio composed of shares in enterprises and risk-free bonds (Merton model) provides further evidence of the relative valuation level of corporate bonds.² Such a comparison also suggests that corporate bonds are relatively highly valued.

Net issuance in the bond market remains high

Issuance in the German bond market remained very high in the third quarter of 2020. Gross issuance totalled €499 billion, only slightly lower than the figure for the previous quarter, in which the issue volume was also very strong (€518½ billion), but well above the figure for the same quarter a year earlier (€356 billion). After deducting redemptions and taking into account changes in issuers' holdings of their own bonds, net bond issuance was €176 billion. By contrast, the volume of foreign paper in circulation in Germany fell by €2 billion. The total volume in the German bond market therefore rose by €174 billion in the period under review.

Rise in public sector capital market debt

The public sector issued bonds amounting to €104½ billion net in the third quarter, compared with €16 billion in the same quarter of the previous year. The significantly higher net issuance served not only to cover higher ongoing financing needs resulting from the COVID-19 pandemic – public sector agencies also considerably upped their cash holdings. Germany's central government, in particular, issued bonds of its own to the value of €96½ billion net in the quarter under review. These mainly consisted of Treasury discount paper, or Bubills (€46 billion). Looking at Federal bonds, the 7-year and 15-year maturity segments, which were newly introduced this year, were further expanded (€15 billion and €10 billion respectively). The government also issued five-year Federal notes (Bobl) to the tune of €8 billion and €7 billion worth of 30-year Bunds. State and local government issued bonds worth €8 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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In September, the Federal Government placed its first-ever green bond over €6½ billion (gross). Revenue from the issue will be used to finance “expenditure that is recognised as green” – irrespective of the basic principle of universality for public budgets.³ In November, a green five-year Federal note with a gross issuance volume of €5 billion followed. Further issues of green Federal securities in the 2-year and 30-year segments are planned. Each green Federal security has the same characteristics and maturity as an existing conventional bond, known as its twin, for which the green bonds can be exchanged at any time. This is intended to ensure high market liquidity and make it easy to compare green and conventional

First green Bund issued

2 For more on the approach of comparing the performance of corporate bonds with a replicating portfolio composed of equities and risk-free bonds, see Deutsche Bundesbank (2017).

3 “Expenditure recognised as green” means government expenditure that is defined as “green” under the Green Bond Framework. For more details, see Federal Ministry of Finance (2020).

Investment activity in the German securities markets			
€ billion			
Item	2019	2020	
	Q3	Q2	Q3
Debt securities			
Residents	29.7	117.7	38.5
Credit institutions	10.6	24.5	- 21.4
of which:			
Foreign debt securities	11.2	8.5	- 18.9
Deutsche Bundesbank	- 3.1	78.6	65.8
Other sectors	22.3	14.6	- 5.9
of which:			
Domestic debt securities	20.3	- 1.2	- 22.4
Non-residents	- 0.1	66.2	135.6
Shares			
Residents	7.0	26.5	61.0
Credit institutions	- 3.4	1.6	1.9
of which:			
Domestic shares	- 0.4	1.7	0.2
Non-banks	10.3	24.9	59.1
of which:			
Domestic shares	- 0.5	9.6	40.4
Non-residents	1.1	- 9.1	- 14.8
Mutual fund shares			
Investment in specialised funds	20.7	1.2	18.9
Investment in retail funds	4.3	7.5	4.9
of which:			
Equity funds	- 0.8	4.8	3.4

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bonds. In the first few weeks, the green bonds traded at a yield which was a few basis points shy of their conventional counterparts' yield. Investors therefore accepted a yield discount for this financial market product.

Net issuance by credit institutions

Domestic credit institutions increased their capital market debt by €23 billion in the reporting quarter, up from €7½ billion in the second quarter. Specialised credit institutions, in particular, issued debt securities totalling €26½ billion on balance; a portion of the economic policy assistance measures for the German economy is distributed via these (promotional) institutions. Meanwhile, there were net redemptions of mortgage Pfandbriefe (€1½ billion) as well as other bank debt securities that can be structured flexibly and public Pfandbriefe (€1 billion each).

Sharp rise in enterprises' capital market debt

Domestic enterprises issued €48 billion net worth of debt securities in the third quarter following already strong net issuance of €38 bil-

lion in the previous quarter. This was attributable chiefly to other financial institutions, which mainly issued long-term securities. In the second and third quarters of the previous year, enterprises had raised a total of €20½ billion in the German capital market.

In the third quarter, foreign investors were the main buyers in the domestic bond market, adding paper worth a net €135½ billion to their portfolios, the majority of which was issued by the private sector. The Bundesbank acquired debt securities worth €66 billion net, chiefly under the Eurosystem's asset purchase programmes, with the vast majority of this paper constituting domestic bonds issued by the public sector. Domestic credit institutions and non-banks, meanwhile, sold bonds amounting to €21½ billion and €6 billion respectively, in net terms. While credit institutions sold mainly foreign securities, non-banks disposed of domestic paper on balance.

Foreign investors chief buyers of debt securities

Equity market

In the period under review, the international equity markets in particular were torn between hopes of an economic recovery, the economic consequences of the renewed escalation of the coronavirus pandemic and the prospect of a vaccine. Overall, prices rose. At the beginning of the third quarter of 2020, the rally continued worldwide after the pandemic had previously driven prices down sharply. An initial stabilisation in corporate earnings expectations and falling risk-free interest rates were contributing factors. At the same time, some long-simmering problems, such as the trade dispute between the United States and China, took more of a back seat in investors' eyes. Over the remainder of the quarter, however, US and Japanese equities then significantly outperformed European shares. Buoyed by outperforming large tech shares, positive quarterly corporate results and market participants' hopes for a new stimulus package from the US government, the S&P500 even reached a new all-time high at the begin-

Share prices higher overall

ning of September. On the European equity markets, meanwhile, the focus increasingly lay on the renewed steep rise in new coronavirus infections, with new highs being reached in many European countries. In an environment characterised by growing economic doubts, investors increasingly shifted funds from equities into less risky assets (safe haven flows). Towards the end of the reporting period, however, reports that a vaccination could soon be available lifted prices again; in addition, risk aversion also came down somewhat following the US presidential election. On balance, European and German equities, as measured by the EURO STOXX and CDAX, have recorded gains since the beginning of the third quarter (EURO STOXX: 7.8%, CDAX: 4.6%). The UK's FTSE All-Share index rose by 4.7% despite the uncertainty surrounding Brexit. US and Japanese equities proved comparatively robust to rising infection rates and put in a very strong performance all in all. Overall, the US S&P500 gained 14.1% as compared to its level at the end of June, while Japan's Nikkei 225 climbed 14.5%.



Bank shares with volatile performance

Bank shares on both sides of the Atlantic put in a more volatile performance than their respective overall markets, but also recorded net gains (United States: 13.1%, euro area: 7.1%). Several US and European banks reporting favourable quarterly results as well as fresh speculation about mergers in the European banking sector were positive factors. Prices received a further strong boost from recently growing hope of a coronavirus vaccination. Prior to this, bank shares had temporarily come under considerable pressure. A key factor driving prices down is likely to have been relatively pessimistic earnings expectations, which were comparatively weak, especially in the medium term, and have declined further since the end of June. Important reasons for this were, first, concerns on the part of market participants about rising credit defaults, which would require banks to make greater provision for risk and would weigh on profits. Second, in the euro area, the interest rate curve, which market participants believe

will remain flat, put pressure on the expected proceeds from maturity transformation.

On both sides of the Atlantic, market participants' uncertainty about further price developments – as measured by the implied volatilities of equity indices calculated from options – moved mostly sideways at a historically elevated level in the third quarter. With concern about the further course of the pandemic then growing, it rose markedly in October. At last count, it was above its respective five-year averages, but still well below the record figures seen in the spring. Despite the heightened uncertainty, the equity risk premia demanded by market participants, which can be calculated using a dividend discount model, changed only slightly in the reporting period for both the United States and Europe. In the euro area, the model found that weaker medium and long-term earnings expectations, in particular, weighed on prices. Although declining risk-free interest rates, which boost the present value of

Uncertainty higher, but equity risk premia little changed

Major items of the balance of payments

€ billion

Item	2019 ^r	2020	
	Q3	Q2	Q3 ^p
I. Current account	+ 58.9	+ 36.1	+ 64.0
1. Goods ¹	+ 59.8	+ 28.4	+ 57.7
2. Services ²	- 13.0	+ 3.5	- 6.5
3. Primary income	+ 24.5	+ 13.3	+ 22.9
4. Secondary income	- 12.3	- 9.1	- 10.1
II. Capital account	+ 0.2	+ 0.5	- 1.2
III. Financial account (increase: +)	+ 29.6	+ 45.4	+ 60.4
1. Direct investment	- 11.7	+ 3.8	- 13.0
Domestic investment abroad	+ 12.2	+ 5.3	+ 15.1
Foreign investment in the reporting country	+ 23.8	+ 1.5	+ 28.1
2. Portfolio investment	+ 21.9	+ 1.9	- 92.6
Domestic investment in foreign securities	+ 21.7	+ 59.2	+ 44.4
Shares ³	- 0.3	+ 19.0	+ 19.0
Investment fund shares ⁴ of which:	+ 10.7	+ 14.4	+ 27.3
Money market fund shares	- 0.4	+ 0.9	+ 11.7
Short-term debt securities ⁵	- 2.8	+ 2.8	- 1.2
Long-term debt securities ⁶ of which:	+ 14.1	+ 23.0	- 0.6
Denominated in euro ⁷	+ 8.0	+ 18.0	- 18.2
Foreign investment in domestic securities	- 0.2	+ 57.3	+ 137.0
Shares ³	+ 1.2	- 9.1	+ 0.6
Investment fund shares	- 1.3	+ 0.2	+ 0.8
Short-term debt securities ⁵	+ 8.0	+ 31.9	+ 49.7
Long-term debt securities ⁶ of which:	- 8.1	+ 34.2	+ 85.9
Issued by the public sector ⁸	- 7.5	+ 21.1	+ 18.4
3. Financial derivatives ⁹	+ 3.0	+ 31.3	+ 26.5
4. Other investment ¹⁰	+ 16.7	+ 8.2	+ 140.7
Monetary financial institutions ¹¹	+ 9.3	- 45.2	- 13.9
Enterprises and households ¹²	+ 11.6	- 5.3	+ 55.3
General government	+ 1.0	- 0.3	+ 12.0
Bundesbank	- 5.1	+ 59.1	+ 87.4
5. Reserve assets	- 0.3	+ 0.2	- 1.3
IV. Errors and omissions ¹³	- 29.5	+ 8.8	- 2.4

1 Excluding freight and insurance costs of foreign trade. 2 Including freight and insurance costs of foreign trade. 3 Including participation certificates. 4 Including reinvested earnings. 5 Short-term: original maturity of up to one year. 6 Long-term: original maturity of more than one year or unlimited. 7 Including outstanding foreign D-Mark bonds. 8 Including bonds issued by the former Federal Railways, the former Federal Post Office and the former Treuhand agency. 9 Balance of transactions arising from options and financial futures contracts as well as employee stock options. 10 Includes in particular financial and trade credits as well as currency and deposits. 11 Excluding the Bundesbank. 12 Includes the following sectors: financial corporations (excluding monetary financial institutions) as well as non-financial corporations, households and non-profit institutions serving households. 13 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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future dividends, had a supporting effect on prices, they were not ultimately visibly reflected in listings. By contrast, the S&P 500 was buoyed mainly by more favourable earnings expectations, which more than compensated for the depressing effect on prices of recently increased risk-free US interest rates. Both the implied cost of equity and earnings yields were recently close to historical lows on both sides of the Atlantic, thus signalling a comparatively high stock market valuation.

Domestic enterprises issued new equity totalling €25½ billion in the third quarter of 2020. This was mainly attributable to a capital increase by a public limited company in September. The volume of foreign equities circulating in the German market rose by €20½ billion. Domestic non-banks, which also include investment funds and insurance companies, for example, were the main net buyers of equities (€59 billion). Domestic credit institutions purchased equities for €2 billion in net terms, while foreign investors scaled back their equity holdings in Germany by €15 billion net.

Equity issuance and acquisition

Mutual funds

During the quarter under review, domestic investment companies recorded inflows of €24 billion, after raising funds totalling €8½ billion in the previous three-month period. The fresh funds mainly accrued to specialised funds reserved for institutional investors (€19 billion). Looking at the various asset classes, bond-based funds in particular attracted large inflows (€12½ billion). Open-end real estate funds and equity funds were also able to place new shares in the market (€4½ billion and €2½ billion, respectively). Foreign funds distributed in the German market attracted new funds of €27½ billion net in the third quarter of 2020. Domestic non-banks were the main buyers, adding mutual fund shares worth €50½ billion to their portfolios. Foreign investors purchased German mutual fund shares worth a net €1 billion, while domestic credit institutions scaled back

Sales and purchases of mutual fund shares

their investment in funds marginally on balance.

■ Direct investment

Direct investment sees net capital imports

Transactions in cross-border portfolio investment resulted in net capital imports of €92½ billion in the third quarter of 2020. Direct investment, too, led to capital inflows, totalling €13 billion. New intra-group loans were again issued in both directions, after the upsurge in the coronavirus pandemic had resulted in net repayments in this area in the previous quarter.

Foreign direct investment in Germany generates capital inflows

Foreign firms upped their direct investment in Germany by €28 billion between July and September; in the second quarter, the volume of such investment had amounted to just €1½ billion. The increase was driven by the reversal in intra-group credit transactions, which resulted in additional lending of €26 billion. This largely occurred through financial loans, with foreign subsidiaries' lending to their domestic parent companies accounting for two-thirds (reverse investments). German groups appear to have

covered their liquidity requirements – which were probably heightened not least as a result of the pandemic – by tapping the international capital markets, amongst others, via their foreign branches. Foreign financing entities raised the funds by issuing debt securities and then passed the funds on to their German parent companies in the form of financial loans. Inflows of direct investment came primarily from the United States (€14½ billion) and Luxembourg (€11½ billion), while the Netherlands in particular withdrew capital (€9 billion).

Enterprises domiciled in Germany expanded their direct investment abroad by €15 billion in the third quarter (previous quarter: €5½ billion). They increased their equity capital, in particular (€13½ billion). In addition, they granted intra-group loans to their foreign branches (€1½ billion). On balance, they did this mainly through trade credits. Most additional direct investment went to branches in the United States (€6 billion) and Luxembourg (€4½ billion). By contrast, the capital of the Dutch branches was reduced (€6 billion).

German direct investment abroad results in capital exports

■ List of references

Deutsche Bundesbank (2017), The market for corporate bonds in the low-interest-rate environment, Monthly Report, July 2017, pp. 17-32.

Federal Ministry of Finance (2020), Green Bond Framework, August 2020, https://www.deutsche-finanzagentur.de/fileadmin/user_upload/institutionelle-investoren/pdf/GreenBondFramework.pdf