Financial markets

Financial market setting

Financial market developments shaped by economic downside risks

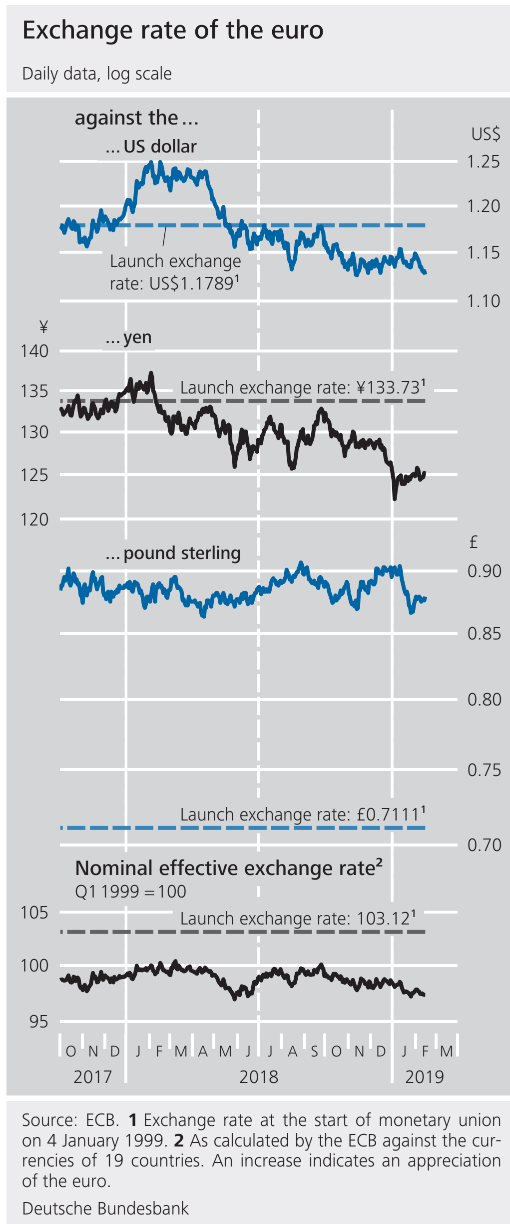
In global financial markets, market participants' attention in the fourth quarter of 2018 and at the beginning of 2019 focused on possible downside risks to the global economy. The unresolved trade disputes between the United States and China and the still unclear exit procedure of the United Kingdom from the European Union contributed to these risks at times. Therefore, markets increasingly assumed that monetary policy in the major currency areas would turn out to be looser than previously expected. This was especially the case for the United States, where expectations of further policy rate increases by the Federal Reserve System (Fed) have now all but evaporated. Following the termination of net purchases under the expanded asset purchase programme (APP) at the end of 2018, a first interest rate hike in the euro area is now expected to take place later than previously anticipated. Additionally, financial analysts reduced their expectations for future corporate profits on both sides of the Atlantic more strongly than the growth forecasts. In equity markets, which react particularly sensitively to changes in expectations and shifting risk assessments, prices fell significantly on balance compared to the end of September. By contrast, and as is often the case in periods of heightened uncertainty, demand for safe government bonds increased, and the yields on these securities declined worldwide as a result. The developments described here had a remarkably minor impact on events in foreign exchange markets. Exchange rate volatility between the major currencies thus remained relatively low. The exchange rate of the euro against the US dollar, for example, mainly hovered within a comparatively narrow band of between US$1.13 and US$1.15 as of mid-October. Overall, on a weighted average against the currencies of 19 major trading partners, the euro slipped slightly on balance compared with the end of September.

Exchange rates

Euro down against the US dollar, …

The euro fell to US$1.13 in the first half of November, its lowest level since June 2017, and subsequently fluctuated for a time with no discernible trend. It then appreciated slightly for a somewhat longer spell as of mid-December. Although the interest rate hike carried out at this time by the Fed had already been largely priced into market participants' expectations before the meeting of the Federal Open Market Committee (FOMC), the wording at the press conference on possible further policy rate hikes was more cautious than before. This and the budget freeze in the United States weighed on the US dollar on a broad basis. In addition, the euro was buoyed when the European Commission's looming excessive deficit procedure against Italy was averted.

At the beginning of January, the negative sales figures reported by a US technology company and a surprisingly clear decline in the ISM Purchasing Managers' Index further weakened the US currency initially. Furthermore, the minutes of the aforementioned meeting of the FOMC bolstered expectations of a comparatively slow pace of interest rate hikes. However, in the second week of January, after the publication of unexpectedly upbeat US labour market figures, sentiment in foreign exchange markets temporarily shifted back in favour of the US dollar, especially as a raft of economic data released for the euro area at the same time – including consumer confidence figures and a business climate index – fell short of market participants' expectations. After the latest meeting of the FOMC at the end of January, the euro initially appreciated once more against the US dollar. This was primarily driven by comments made by Fed Chairman Jerome Powell, which were interpreted by markets as indicating more of a wait-and-see monetary policy stance and heralded a more flexible balance sheet policy. However, after the publication of



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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new, surprisingly weak economic data from the euro area, the euro relinquished the gains it had made. At the end of the reporting period, it was trading at US$1.13, down 2.7% on its level at the end of September.

... against the Japanese yen ...

Following no more than minor fluctuations in the exchange rate between the euro and the yen in the first part of the reporting period, the euro began to depreciate markedly as of mid-December in connection with the aforementioned mounting economic concerns worldwide. This should be seen in light of the yen's traditional role as a debt currency for carry trades, which tend to be unwound in times of growing uncertainty. The end of the year brought fresh momentum to the exchange rate as data on Japanese industrial production turned out better than expected. At the beginning of January, amid thin trading, the aforementioned sales warning by a US technology company led to an abrupt appreciation of the yen on a broad basis. Following the announcement by the Japanese government that it would, where necessary, take measures in foreign exchange markets if the yen appreciated in deviation from the fundamentals, the euro was able to make up some of the ground it had previously lost. As this report went to press, the euro was trading at ¥125, down 4.7% on its value at the start of the fourth quarter of 2018.

... and against 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 the general conditions for the United Kingdom's planned withdrawal from the EU. The euro appreciated markedly against the pound sterling up until the turn of the year. Increasing doubts as to whether the UK Parliament would approve the withdrawal agreement negotiated with the EU, following postponement of the vote from December to January, evidently intensified concerns in this period about a no-deal Brexit and the severe burdens this could place on the UK economy, and weakened the pound sterling on a broad basis. When, in January, it became increasingly clear that no majority in Parliament could be found for the withdrawal agreement that had been negotiated with the EU and that a no-deal Brexit was not wanted either, there was a reversal of sentiment in foreign exchange markets, which saw the euro fall markedly against the British pound. As this report went to press, the euro stood at £0.88, down 0.9% on its level at the end of September.

Effective euro exchange rate weaker

On a weighted average against the currencies of 19 major trading partners, the euro depreciated on balance by 1.7% in this period. The price competitiveness of euro area suppliers improved somewhat as a result of the euro's de-

preciation, but in terms of the long-term average their competitive position can currently still be regarded as neutral.

Securities markets and portfolio investment

Yields down around the world in response to US monetary policy and increased risk aversion

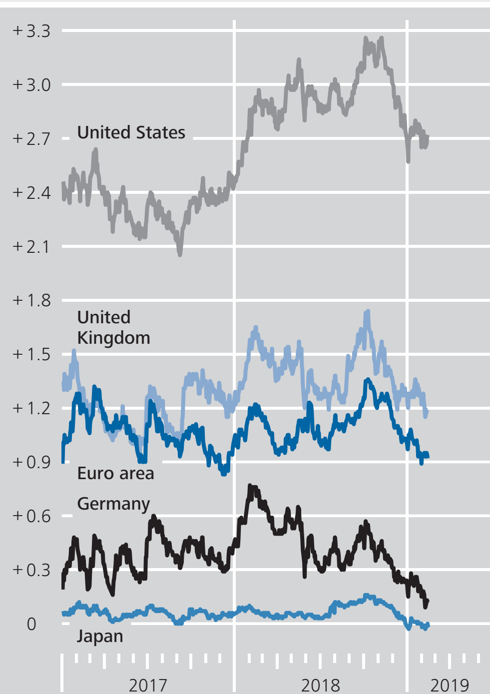
Yields on government bonds fell considerably in the various currency areas during the period under review. In the United States, the yield on US Treasuries with a residual maturity of ten years fell on balance by 41 basis points to 2.7%. While the Fed increased the target federal funds range in December 2018 as expected by 25 basis points to 2.25% to 2.5%, expectations of further interest rate rises have since weakened considerably. The change in the Fed's language led to both revised analyst surveys and a fall in the yield on two-year US Treasuries, which due to their short maturity provide a fairly direct reflection of expected monetary policy. Currently, such short-dated bonds are yielding 2.5%, which is at the upper end of the target range, in an indication that the market is pricing in a very flat path for policy rates. In December, the interest rates on two-year bonds were, by contrast, still at a ten-year high of just under 3%. The safe haven flows into assets with steady and reliable disbursement profiles induced by the increased uncertainty are also evident from the lower term premium in ten-year US yields.[1]

Yield on ten-year Bunds also down

The yield on ten-year Federal bonds (Bunds) fell by a similar magnitude since the end of September, taking it to the lowest level since the fourth quarter of 2016 (-37 basis points to 0.1%). The changed monetary policy expectations for the euro area also contributed to this development, but to a slightly weaker degree than in the United States. The point in time at which the first interest rate hike is expected has thus been pushed back. Meanwhile, the decision by the ECB Governing Council to discontinue the net asset purchases under the APP and to continue fully reinvesting the principal payments from maturing securities until further notice had been largely expected and thus did not have any perceptible impact on yields. The downside risks to the economy that came into sharper focus – also in the euro area – and the aforementioned political imponderables also led to safe haven flows into Federal securities and put pressure on long-term yields, as in the United States. Furthermore, the scarcity and liquidity premia of Bunds increased, thus widening the spread between yields on ten-year Bunds and those on comparably safe bonds from the Kreditanstalt für Wiederaufbau (KfW). At the end of the period under review, the interest rate spread between US and German government bonds in the ten-year maturity category remained virtually unchanged overall against its value at the end of September at roughly 260 basis points.

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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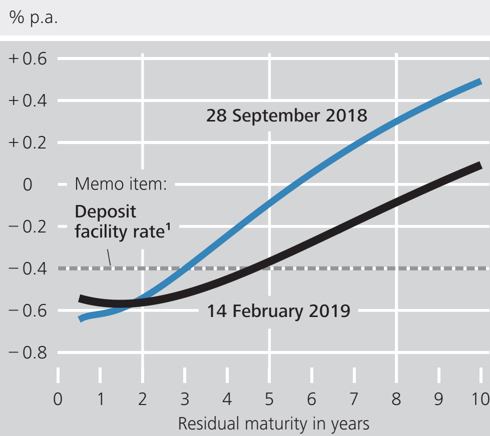
1 Market participants receive this premium in exchange for holding securities with longer rather than shorter maturities in their portfolios.

Yield curve in the German bond market*

% p.a.



* Interest rates for (hypothetical) zero coupon bonds (Svensson method), based on listed Federal securities. 1 Current interest rate on the deposit facility in place since 15 March 2016.

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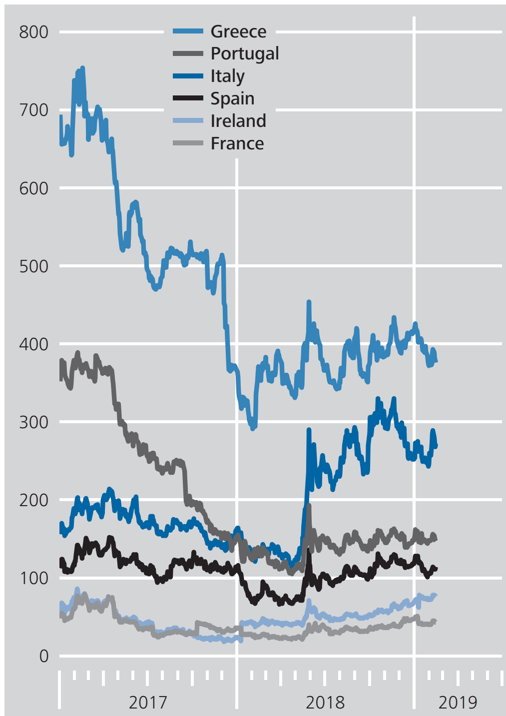
Spreads of ten-year government bonds over German Bunds

Basis points, daily data



Sources: Bloomberg and Bundesbank calculations.

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German yield curve flatter

The yield curve derived from yields on Federal securities became flatter as of the end of September under the impact of the aforementioned monetary and real economic influences. While yields in the short-term maturity segment changed little on balance, they fell in the medium-term and long-term maturity segments. As this report went to press, bonds with a residual maturity of up to eight years were thus once again negative-yielding and those with a maturity of up to four years were yielding below the deposit facility rate.

Yield spreads over Bunds in euro area predominantly wider

The yield spread between ten-year Bunds and ten-year government bonds of other euro area countries (GDP-weighted average) widened by 9 basis points overall to 115 basis points by the end of the period under review, amid substantial volatility at times. The dispute between the European Commission and the Italian government over Italy's budget deficit and the downgrading of Italy's sovereign credit rating by the rating agencies Moody's and Standard & Poor's initially led to a significant widening of the yield spread of ten-year Italian bonds over Federal securities with the same maturity up to mid-November. With the compromise that emerged in December, the yield spread narrowed temporarily, but widened again recently in light of domestic discussions about the institutional role of the Italian central bank. At the end of the period under review, the yield differential of Italian government bonds remained virtually unchanged overall on its level at the end of September at around 270 basis points. In the other euro area countries, the fall in ten-year yields was less pronounced than in Germany, leading to a slight widening of the respective yield spreads.[2] In France, higher government spending in response to the protests by the "yellow vest" movement is likely to have weighed on French government bonds, with the spread widening by 10 basis points to 43 basis points. At the end of January, after the situation in financial markets had eased somewhat, Greece issued a five-year bond for the first time since the conclusion of the third assistance programme, placing a total volume of €2.5 billion via a consortium of banks.

2 In addition, a change in benchmark bonds played a decisive role in the widening spread in a number of smaller countries.

Yields down in the United Kingdom and Japan

The yield on ten-year UK gilts followed the international trend and, at last count, was just over 43 basis points down on the end of September at 1.2%. Market participants' assessments as to the prospective course of the withdrawal negotiations between the United Kingdom and the EU only sporadically affected the prices of UK debt securities. The yield on ten-year Japanese government bonds, meanwhile, dropped by 15 basis points to just under 0%. This meant that it stayed within a corridor the boundaries of which the Bank of Japan has not made public but that market participants estimate as lying roughly between -0.2% and 0.2%.

Forward inflation rate down while survey-based inflation expectations steady

Amid falling crude oil prices, euro area forward inflation rates derived from inflation swaps for a period of five years starting in five years' time decreased by 27 basis points to 1.4%. Both market-based and survey-based deflation probabilities for the coming years remain low, however. The forward inflation rates referred to above did not react in any systematic way to predominantly negative inflation surprises during the reporting period. This indicates that, against the backdrop of safe haven flows in the bond market, the decline in medium-term forward inflation rates was driven more by scarcity and liquidity premia than by inflation expectations and inflation risk premia.[3] Long-term inflation expectations derived from Consensus Economics surveys remained largely unchanged at just over 1.9%.

Corporate bond yields somewhat lower

On balance, yields on European corporate bonds have fallen slightly since the end of the third quarter. Bonds issued by BBB-rated financial corporations with a residual maturity of between seven and ten years were yielding 2.6% as this report went to press. Yields on non-financial corporate bonds of equivalent maturity dipped slightly to 1.8%. There was more substantial movement in yield spreads over Bunds, however, with those of both financial and non-financial corporations increasing overall by around 30 basis points each, peaking at one point at a multi-year high. The fall in Bund yields brought about by the safe haven flows was a dominant factor in this outcome, while credit risk as measured by CDS spreads barely changed (ten-year iTraxx 125: +6 basis points). In absolute terms, against the backdrop of the low risk-free interest rate, financing conditions for European enterprises can still be termed relatively favourable.

Net redemptions of German debt securities

Gross issuance in the German bond market in the fourth quarter of 2018 was well down on the previous quarter. Overall, German borrowers sold paper worth €264½ billion, compared with €310 billion in the previous three-month period. Net of redemptions and changes in issuers' own holdings, domestic issuers reduced their capital market borrowing by €10½ billion. The outstanding volume of foreign debt securities in the German market fell by €8 billion in the fourth quarter. On balance, the total outstanding volume of bonds in Germany thus shrank by €18 billion in the period under review.

Fall in government's capital market debt

The public sector capitalised on its favourable fiscal situation to redeem debt instruments totalling €20 billion net in the final quarter of 2018. In particular, central government (including the resolution agency which is classified as belonging to it) scaled back its capital market debt markedly, redeeming mainly five-year Federal notes (Bobls; €11½ billion), but also two-year Federal Treasury notes (Schätze; €5 billion) and Treasury discount paper (Bubills; €4½ billion). This contrasted with net issuance of ten-year and 30-year Bunds in the amount of €4½ billion and €2 billion, respectively. State and local governments redeemed debt securities worth €3 billion on balance.

Net issuance of corporate bonds

In the quarter under review, domestic enterprises issued bonds worth a net €1½ billion. On balance, this was exclusively long-term paper. There was net issuance of debt secur-

3 Scarcity premia in the bond market can shift to inflation swaps on account of the arbitrage relationship between inflation-indexed bonds and inflation swaps.

Investment activity in the German securities markets

€ billion

Item	2017 Q4	2018 Q3	2018 Q4
Debt securities			
Residents	38.8	39.4	8.4
Credit institutions	– 13.5	0.5	– 12.0
of which:			
Foreign debt securities	– 3.6	8.9	– 2.8
Deutsche Bundesbank	35.6	18.0	10.9
Other sectors	16.7	20.8	9.5
of which:			
Domestic debt securities	11.9	9.3	16.0
Non-residents	– 42.9	– 6.8	– 26.6
Shares			
Residents	19.2	8.4	8.4
Credit institutions	4.8	– 2.1	– 3.4
of which:			
Domestic shares	5.3	0.0	– 2.7
Non-banks	14.4	10.5	11.9
of which:			
Domestic shares	– 4.1	0.7	3.3
Non-residents	0.0	0.3	1.4
Mutual fund shares			
Investment in specialised funds	24.1	16.1	34.1
Investment in retail funds	5.2	3.6	0.6
of which:			
Equity funds	0.8	0.6	– 3.0

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ities by non-financial corporations in particular, but also by insurance companies, albeit on a smaller scale.

Growing capital market debt among credit institutions

The final quarter of 2018 saw domestic credit institutions increase their capital market debt by €8 billion. Other bank securities that can be structured flexibly and mortgage Pfandbriefe accounted for the lion's share of net issuance (€7 billion and €4½ billion, respectively). This contrasted with debt securities of specialised credit institutions and public Pfandbriefe, where redemptions dominated, to the tune of €1½ billion net in each case.

Purchases of debt securities

The Bundesbank was the chief net purchaser of debt securities in the fourth quarter of 2018, acquiring a net total of €11 billion, principally under the Eurosystem's asset purchase programmes. The majority of these debt securities were German government bonds. Domestic non-banks acquired bonds for €9½ billion net. By contrast, foreign investors and domestic credit institutions disposed of fixed-income securities to the tune of €26½ billion and €12 billion net, respectively.

Equity market

Less brisk global economy weighs on equity markets

An earnings outlook dimmed by the prospect of less brisk global growth combined with elevated political and economic risks weighed heavily on equity markets in the fourth quarter of 2018. But as the new year got underway, the view that US monetary policy would respond flexibly and less restrictively to economic developments helped prices to recover again somewhat worldwide. Markets were also buoyed in the fourth quarter by surprisingly upbeat figures for the US labour market and profits of US firms which exceeded expectations in some cases.

In spite of this, at last count, the US S&P 500 was still 5.8% down on the end of September 2018, on balance. The trade disputes between the United States and China took a particular toll on IT hardware firms, and their share prices registered above-average losses (-17.6%). By contrast, the government shutdown in the United States, which lasted almost a month, scarcely affected the US equity market.

Significant losses in European equity markets, too

Measured in terms of the broad EURO STOXX index, European equities have lost 7.1% of their value since the end of September. The banking sector continued to face heavier pressure in European equity markets, with share prices falling by 16.1%. One major factor here was the sustained burden which non-performing loans are placing on banks' balance sheets in some euro area countries. At a loss of 9.9%, the German equity market (CDAX) saw even sharper losses than the EURO STOXX in what appears to be a strong response to potential downside risks to the global economy. The UK equity market shrugged off Parliament's rejection of the proposed deal for the United Kingdom's withdrawal from the EU (FTSE All-Share: -4.7%). Considerable losses were also registered by the

Japanese equity market (Nikkei 225: -12.4%) as the Japanese economy is highly sensitive to uncertainty surrounding world trade.

Downward revision of earnings expectations on both sides of the Atlantic

Overall, the declines in equity prices went hand in hand with a downward revision of earnings expectations on both sides of the Atlantic. Expected company profits over a one-year horizon took a far sharper dip for European enterprises than for their US counterparts, while longer-term earnings growth expectations (over three to five years) fell by a similar degree in both markets. On balance, the price/earnings ratio declined in both markets (meaning that the earnings yield rose), indicating a lower valuation than at the end of the third quarter of 2018.[4] A further indicator that can be used to assess stock market valuation is the implied equity risk premium, which is derived from a dividend discount model. Unlike the price/earnings ratio, this risk premium is a relative measure that takes account of alternative investments in government bonds and can therefore be interpreted as a premium that investors demand for a risky investment over a safe one. The equity risk premium increased for both the EURO STOXX and the S&P 500. As a result, in both markets, it exceeded its respective five-year average. Again, this is not suggestive of an especially high equity market valuation.

Stock market funding

On balance, funding in the German stock market totalled €2 billion in the reporting quarter. The volume of foreign shares in the German market rose by €8 billion over the same period. Domestic non-banks were, on balance, by far the main purchasers of equities (€12 billion), followed some distance behind by foreign investors (€1½ billion). German credit institutions, meanwhile, reduced their equity portfolios by €3½ billion, primarily by offloading domestic paper, on balance.

Domestic investment companies recorded inflows of €34½ billion in the final quarter of

4 The earnings yield is the inverse of the price/earnings ratio.

Equity market

Daily data

Sources: Thomson Reuters and Bundesbank calculations. **1** Calculated using the prices of index options. For the euro area, calculated using options on the EURO STOXX 50.
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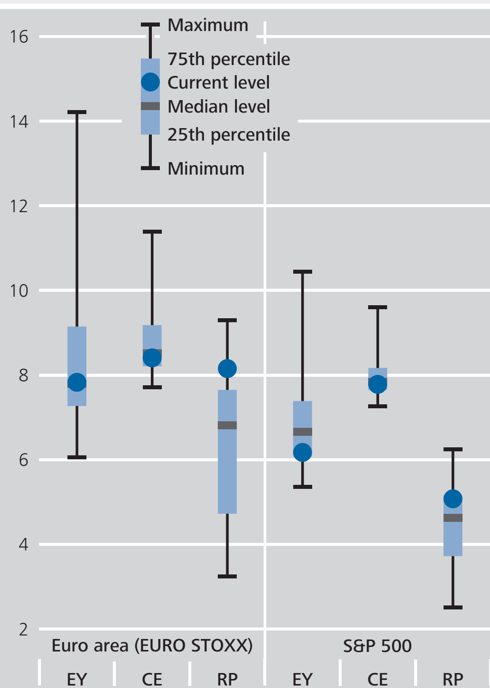
Equity market valuations

% p.a., data since January 2004



Sources: Thomson Reuters I/B/E/S, Bundesbank calculations. Earnings yields (EY) plotted as an inverted price/earnings ratio; implied cost of equity (CE) and equity risk premium (RP) derived from the dividend discount model.
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Major items of the balance of payments

€ billion

Item	2017 Q4	2018 Q3	2018 Q4p
I. Current account	+ 74.4	+ 52.2	+ 61.5
1. Goods[1]	+ 65.2	+ 56.1	+ 51.7
2. Services[2]	− 1.4	− 11.2	− 1.2
3. Primary income	+ 25.1	+ 19.3	+ 26.4
4. Secondary income	− 14.5	− 12.0	− 15.4
II. Capital account	− 1.0	− 1.0	+ 0.7
III. Financial account (increase: +)	+ 85.6	+ 49.0	+ 44.3
1. Direct investment	+ 15.3	+ 9.7	− 13.7
Domestic investment abroad	+ 27.4	+ 24.2	+ 13.4
Foreign investment in the reporting country	+ 12.0	+ 14.5	+ 27.1
2. Portfolio investment	+ 69.9	+ 37.3	+ 18.1
Domestic investment in foreign securities	+ 23.3	+ 28.4	− 8.8
Shares[3]	+ 5.7	+ 3.9	− 0.5
Investment fund shares[4]	+ 14.7	+ 4.1	− 0.4
of which: Money market fund shares	+ 1.8	− 1.6	+ 4.9
Long-term debt securities[5]	+ 7.6	+ 21.1	− 2.2
of which: Denominated in euro[6]	+ 4.3	+ 18.8	+ 2.9
Short-term debt securities[7]	− 4.7	− 0.6	− 5.6
Foreign investment in domestic securities	− 46.6	− 8.8	− 26.9
Shares[3]	− 0.8	− 1.6	+ 0.4
Investment fund shares	− 2.9	− 0.3	− 0.7
Long-term debt securities[5]	− 40.4	− 8.5	− 20.2
of which: Issued by the public sector[8]	− 22.6	− 7.9	− 18.8
Short-term debt securities[7]	− 2.4	+ 1.6	− 6.3
3. Financial derivatives[9]	+ 4.0	+ 10.0	+ 0.5
4. Other investment[10]	− 2.2	− 7.6	+ 38.8
Monetary financial institutions[11]	+ 16.8	− 7.3	+ 110.4
Enterprises and households[12]	− 12.8	+ 6.8	+ 7.1
General government	+ 13.2	− 8.8	+ 5.2
Bundesbank	− 19.4	+ 1.8	− 83.9
5. Reserve assets	− 1.4	− 0.5	+ 0.6
IV. Errors and omissions[13]	+ 12.3	− 2.2	− 17.9

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** Long-term: original maturity of more than one year or unlimited. **6** Including outstanding foreign D-Mark bonds. **7** Short-term: original maturity up to one year. **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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Sales and purchases of mutual fund shares

2018. On balance, the bulk of the fresh funds was channelled to specialised funds reserved for institutional investors (€34 billion). Of the various asset classes, mixed securities funds, in particular, registered significant inflows of capital (€12½ billion), as did, albeit to a lesser extent, bond funds (€8 billion), funds of funds (€7½ billion) and open-end real estate funds (€6 billion). The outstanding volume of foreign mutual fund shares in Germany fell by €½ billion in the period under review. On balance, mutual fund shares were bought exclusively by domestic non-banks, which added paper worth €36½ billion to their portfolios in net terms. Most of this paper was issued by domestic mutual funds. By contrast, German credit institutions and non-resident investors sold paper totalling €2 billion and €½ billion net respectively.

Direct investment

Direct investment sees capital imports

In contrast to cross-border portfolio investment, which saw net outflows totalling €18 billion in the fourth quarter of 2018, direct investment transactions generated net capital imports of €13½ billion.

Capital inflows resulting from transactions by foreign enterprises

Foreign direct investment in Germany came to a net €27 billion. At €19½ billion, intra-group credit transactions accounted for the lion's share of this activity, primarily in the form of reverse flows – financial credits channelled to German parent companies by affiliates domiciled abroad. Foreign enterprises boosted their equity capital in Germany by a further €7½ billion. In terms of the countries of origin of foreign direct investment, the Netherlands (€11½ billion), the United States (€7 billion) and Ireland (€4 billion) were among the principal sources.

Direct investment by German enterprises, too

German enterprises also stepped up their direct investment abroad between October and December 2018, by a net €13½ billion. In the first instance, they significantly increased the equity capital of their foreign affiliates, to the tune of €23½ billion. Conversely, they received funds

totalling €10 billion through the intra-group credit channel. Much of German direct investment abroad went to Ireland (€9 billion), Luxembourg (€4½ billion) and the United States (€3 billion), while German enterprises scaled back their direct investment in the United Kingdom (€5 billion) and the Netherlands (€3½ billion).