Financial markets

Financial market setting

Financial markets influenced by announcement of monetary policy measures

Since the middle of the year, the international financial markets have been torn between economic concerns and the sovereign debt crisis on the one hand and the announcement of further monetary policy measures on the other. On the bond markets, yields of government bonds mostly declined overall, a trend that was driven, not least, by expectations that central bank interest rates would remain persistently low and by the bond purchase programmes run by several central banks. By contrast, market participants' concerns about the sustainability of government finances in some countries and about the nexus between government and bank risks receded, although urgent problems, such as the "fiscal cliff" in the United States and Greece's acute financial needs, still need to be resolved. Against the backdrop of unfavourable company reports and growth prospects that remain gloomy in spite of the monetary stimuli, the international equity markets have moved unevenly since the middle of the year. While share prices lost a little ground in Japan and the United States, they increased on the European equity markets. The effective euro exchange rate experienced some fluctuation during the period under review but remained largely unchanged against its rate at the end of June.

Exchange rates

Euro rises against the US dollar on balance …

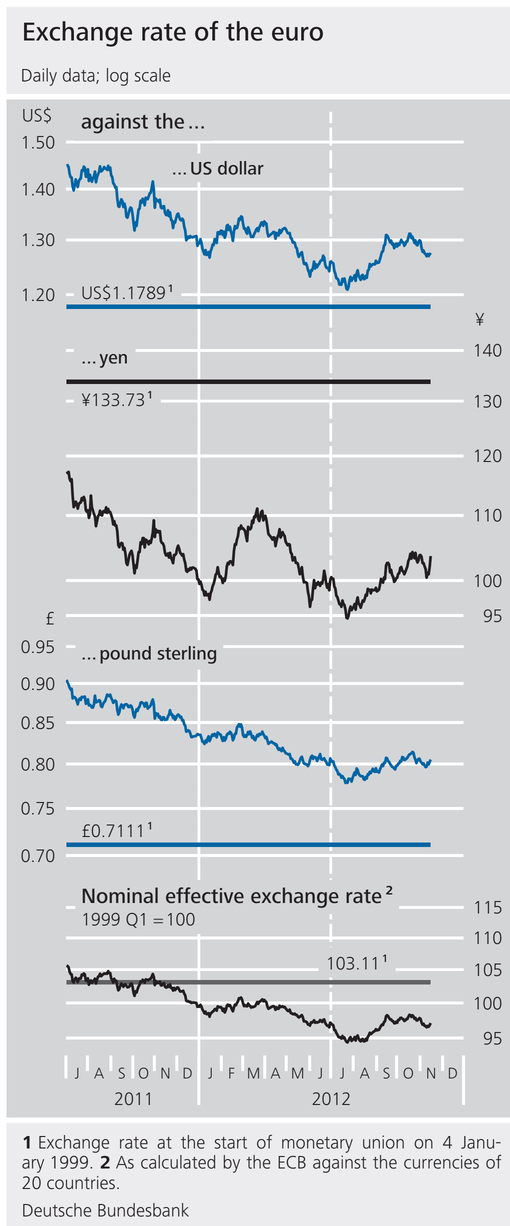
The euro's bilateral performance against other key currencies was somewhat mixed in the summer months. At the beginning of the third quarter, the single currency initially continued the downward path it had followed in the preceding months; during July, the euro dropped to just under US$1.21, its lowest level against the dollar since June 2010. During this period, the smouldering sovereign debt crisis in the euro area and the closely related strong aversion to risk among market participants put pressure on the euro, benefiting the dollar as a widely respected investment currency.

… but first hits a two-year low …

Added to this, the reduction in the main financing rate to a record low made the euro area less attractive than other international markets in the eyes of foreign investors. Furthermore, the announcement, expected among market players, that the US Federal Reserve would launch further expansionary measures initially failed to materialise, thereby placing further pressure on the euro.

… before appreciating significantly thanks to easing tensions and monetary policy measures

At the end of July, however, the euro embarked on a clear upward trend, prompted by ECB President Mario Draghi's remarks that the ECB would do whatever it takes to preserve the euro. Furthermore, Italy's Prime Minister Mario Monti won another confidence vote in the Italian parliament. This alleviated the acute concerns evident in the financial markets. The resulting drop in risk aversion boosted the price of the single currency. Weaker-than-expected economic data for the euro area only briefly interrupted the upswing. The decision by the Governing Council of the ECB to engage in bond purchases that are, in principle, unlimited (outright monetary transactions, or OMTs) gave the euro further impetus. Moreover, following the publication of the minutes of a US Federal Reserve meeting, the number of market participants who anticipated a further easing in US monetary policy increased again. The US central bank indeed decided to launch a third bond purchase programme (QE3) in mid-September; it also extended its pledge to keep interest rates at a record low until the middle of 2015. By this time, the euro had appreciated by almost 8½% compared to the two-year low recorded in July. The euro-dollar rate then moved sideways initially, hovering around the US$1.30 per euro mark. Uncertainty as to whether, and if so, in what form, Spain would seek assistance from the ESM impacted on the



1 Exchange rate at the start of monetary union on 4 January 1999. 2 As calculated by the ECB against the currencies of 20 countries.
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value of the euro, but this was counteracted by growing concerns over the fallout of the "fiscal cliff" looming in the United States. The debate over further austerity measures in Greece recently caused the markets to again focus more strongly on the sovereign debt crisis in the euro area, and thus renewed the pressure on the single currency. As this report went to press, the euro stood at US$1.28, 1½% up on its level at the end of the second quarter.

Euro also appreciated against the yen, which came under additional pressure from the conflict between Japan and China …

The euro's gains against the yen during the summer months were slightly more pronounced. As a "safe haven" currency, the yen had presumably previously benefited from the sovereign debt crisis in the euro area to an even greater extent than the dollar. The euro received a boost against the yen from growing signs of an economic slowdown in Japan, greater market expectations of monetary policy easing and of further interventions on the foreign exchange markets by the Bank of Japan to temper the value of the yen. In addition, the conflict between Japan and China that had begun as a dispute over a group of islands came to a head and risked becoming a trade war. At the end of the period under review, the euro stood at ¥104, which was around 3½% up on its level at the end of June.

… but remained virtually unchanged against the pound …

As this report went to press, the euro was virtually unchanged against the pound sterling compared with the end of the second quarter. Countervailing factors balanced each other out: the British currency, too, was hit by dwindling "safe haven" inflows but it was buoyed by the announcement of better-than-expected growth figures for the UK. The pound is also likely to have benefited from shifts in the Swiss National Bank's foreign reserve asset portfolio. Latterly, the euro was trading at £0.81 against the pound.

… and in effective terms

Despite marked fluctuation during the summer months, the euro's effective external value against the currencies of the euro area's 20 largest trading partners is virtually unchanged, on balance, compared with the end of June. At last count, the single currency was around 2½% down on the beginning of the year and 6% below its level at the launch of monetary union. In real terms, ie taking account of the simultaneous inflation differentials between the euro area and its major trading partners, the effective euro exchange rate was roughly at its long-term average when this report went to press. This indicates that the price competitiveness of euro-area exporters is broadly neutral in historical terms.

Securities markets and portfolio transactions

International bond markets

Sandwiched between economic risks, the tension emanating from the sovereign debt crisis and supportive monetary policy, the yields of US, German and Japanese ten-year government bonds have been rather volatile since mid-year. The US Federal Reserve, with its third round of quantitative easing (QE3), and the Bank of Japan, which expanded its bond purchase programme yet again, sought to stimulate the economy – in the US through portfolio balance effects based on purchases of mortgage-backed securities, and in Japan through the acquisition of government and corporate bonds. By contrast, the Eurosystem's outright monetary transactions, which have not yet been put to use, aim to combat disruptions in the monetary transmission mechanism caused by divergent yield trends in the euro area.

Monetary policy measures contain flight to safety …

While uncertainty over economic and financial market developments in the summer drove investors into what was regarded as the "safe haven" of liquid US and German government bonds, thus diminishing their yields, fears about the sustainability of government finances in some euro-area countries caused yields on these countries' sovereign debt to jump significantly. The monetary policy measures taken kept "safe haven" inflows in check and, for a period, sent long-term interest rates higher for core euro-area debt and US Treasuries alike. On balance, yields of US, German and Japanese ten-year government bonds in mid-November were between five (United States) and 20 basis points (Germany) lower than at the end of June.

… and narrow yield spreads in the euro area

Spreads between ten-year government bonds within the euro area narrowed considerably compared to the end of the second quarter of 2012. Both the interest rate dispersion of longer-dated government bonds in the euro area and the GDP-weighted yield spread of government bonds of other euro-area countries over German Bunds with matched maturities were down by 226 and 87 basis points respectively on mid-2012. However, at 485 and 285 basis points respectively, they were still significantly above their five-year average. Once OMTs were announced, capital market participants accepted lower yields for bonds of peripheral countries, much as they had in the wake of the long-term refinancing operations (LTROs) with a maturity of 36 months. Ultimately, however, the significant spreads that still exist between countries such as Germany, the Netherlands and Finland on the one hand and Greece, Portugal and Spain on the other not only indicate a structural divergence in terms of competitiveness but doubtless also reflect the markets' perception of each country's willingness to enforce a prudent revenue and expenditure policy.

Investment activity in the German securities markets

€ billion

Item	2011 Q3	2012 Q2	2012 Q3
Debt securities			
Residents	− 4.6	− 19.5	13.5
Credit institutions	− 34.0	− 21.6	− 4.9
of which			
Foreign debt securities	− 18.3	− 14.8	− 5.7
Deutsche Bundesbank	21.5	− 1.2	− 0.6
Other sectors	7.9	3.3	19.0
of which			
Domestic debt securities	10.2	− 14.5	− 4.7
Non-residents	18.0	18.9	− 2.8
Shares			
Residents	− 7.9	− 14.2	5.0
Credit institutions	− 12.0	− 11.4	7.9
of which			
Domestic shares	− 7.1	− 11.9	5.0
Non-banks	4.1	− 2.9	− 2.9
of which			
Domestic shares	12.2	4.2	− 4.0
Non-residents	− 4.7	9.2	0.6
Mutual fund shares			
Investment in specialised funds	5.6	15.8	21.1
Investment in funds open to the general public	0.2	− 0.4	0.0
of which			
Share-based funds	0.7	− 1.4	− 0.5

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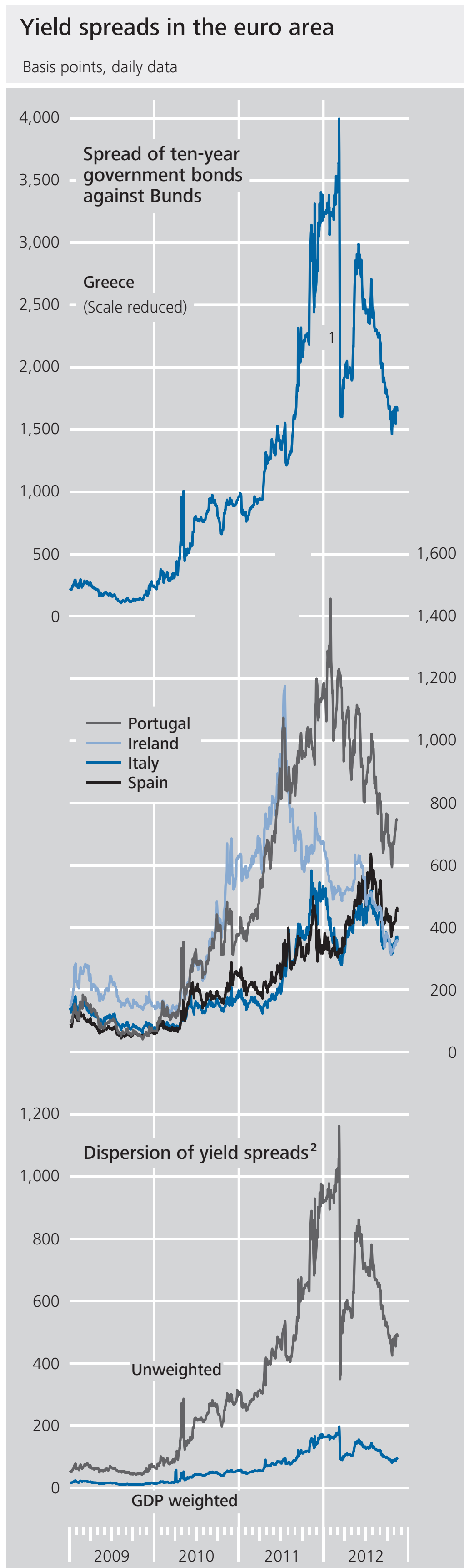
German yield curve flatter

The German yield curve, which is estimated using Federal securities, flattened slightly in the fourth quarter and shifted downwards again.

Yield spreads in the euro area

Basis points, daily data



Sources: Thomson Reuters and Bundesbank calculations. **1** Greek bond exchange (PSI) on 9 March 2012. **2** Standard deviation of yield spreads of euro-area government bonds.

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In the near money market one-year segment, yields on German sovereign debt were back in negative territory recently (-4 basis points). At their current level of 1.3%, long-term yields on German government bonds are also slightly down on the end of the first half of the year. Inflation expectations for the European Harmonised Index of Consumer Prices excluding tobacco, which are derived from a comparison of inflation-linked and nominal bonds, rose sharply in July and August before falling back again. As this report went to press, the break-even forward inflation rate from five years to ten years stood at 2.1%, which is slightly down on its level at the end of June. The forward inflation rate extracted from inflation swaps for five to ten years on the same price index showed a similar trend.

Probability distribution of expected inflation rates

Forward and break-even inflation rates reflect the inflation expectations of players on the bond and swap markets overall. They also show changes in the liquidity and risk premiums contained in financial market instruments. Breaking down the aggregate expectations, ie the mean value, by way of a probability distribution across various expected inflation rates allows conclusions to be drawn about how uncertain market participants are about future inflation rate outturns. The probability distribution is derived from market-traded inflation options with different strike prices, assuming risk neutrality.[1] For the time horizon of the next five years, the probability mass was seen to shift into expected inflation outturns of more than 1% in the reporting period. Added to this, expectations of deflation scenarios materialising in this period declined sharply. Increased expectations that inflation rates would exceed 2% per year were also observed, although at a probability level of a third, they were not dominant; moreover, they were concentrated just above the 2% mark. When interpreting the changes, account should be taken of the fact

1 See D Breeden and R Litzenberger (1978), Prices of state-contingent claims implicit in option prices, Journal of Business, Vol 51, p 621ff.

that inflation option prices are subject to the same fluctuations that financial market prices generally show. Nonetheless, it would appear to be useful and necessary to continue to carefully observe measures that offer an insight into market participants' inflation expectations on a disaggregated level as well, since the discerned shift in probability distribution occurred during a period in which growth expectations tended to diminish somewhat.

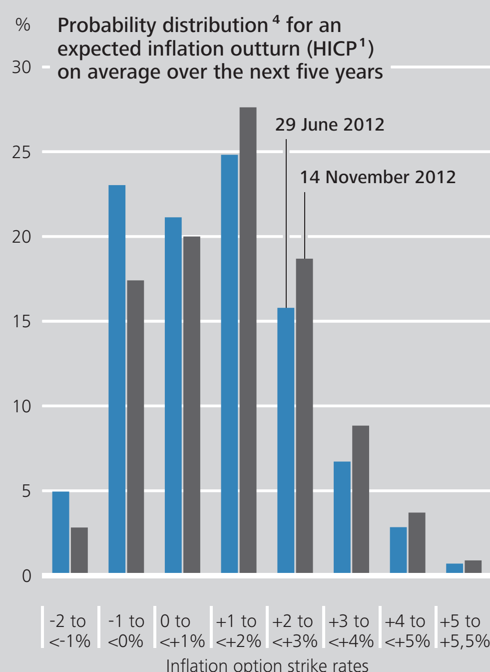
Financing conditions for enterprises improved

Yields on investment-grade European corporate bonds were down on the end of the second quarter of 2012. At last count, corporate bonds with a residual maturity of seven to ten years and a BBB rating were yielding 5.2% for financial corporations and 3.1% for industrial enterprises, and were thus well below their respective five-year averages.[2] The corporate bond spread over German Bunds narrowed, as did credit default swap premiums (iTraxx). In this setting, larger European enterprises, in particular, raised funding on the capital markets via new issues. Commercial data providers reported that the gross issuance volume in the euro area between August and October was more than twice as high as in the prior-year period.[3]

Despite declining yields, capital-raising on the German bond market remained subdued in the third quarter, however. The gross issuance volume amounted to €343½ billion, which was slightly up on the figure for the previous quarter. After deducting the higher redemptions and taking account of changes in issuers' holdings of their own bonds, however, net redemptions of debt securities came to €7 billion. Foreign borrowers, meanwhile, placed debt securities worth €17½ billion on the German market. Thus, funds totalling €10½ billion were raised on the German bond market in the reporting period.

2 This is based on yields on corporate bonds included in the different rating grades of the iBoxx bond indices.
3 Analysis of Bloomberg and Dealogic issuance data.

Inflation expectations based on financial market prices



Sources: BGC Partners, Bloomberg, EuroMTS and Bundesbank calculations. **1** Excluding tobacco. **2** Derived from the fixed interest rate of inflation swaps that is exchanged for the annual realised inflation rates of the next five or ten years. **3** Derived from separately estimated yield curves of German and French inflation-linked and maturity-matched nominal bonds which are subsequently aggregated using GDP weights. **4** The method used to extract and interpret the probability distribution is discussed in D Breeden and R Litzenberger (1978), Prices of state-contingent claims implicit in option prices, Journal of Business, Vol 51, p 621 ff, and in T Smith (2012), Option-implied probability distributions for future inflation, Bank of England, Quarterly Bulletin 2012Q3, p 224 ff. No data are available for strike rates above or below the values shown here.

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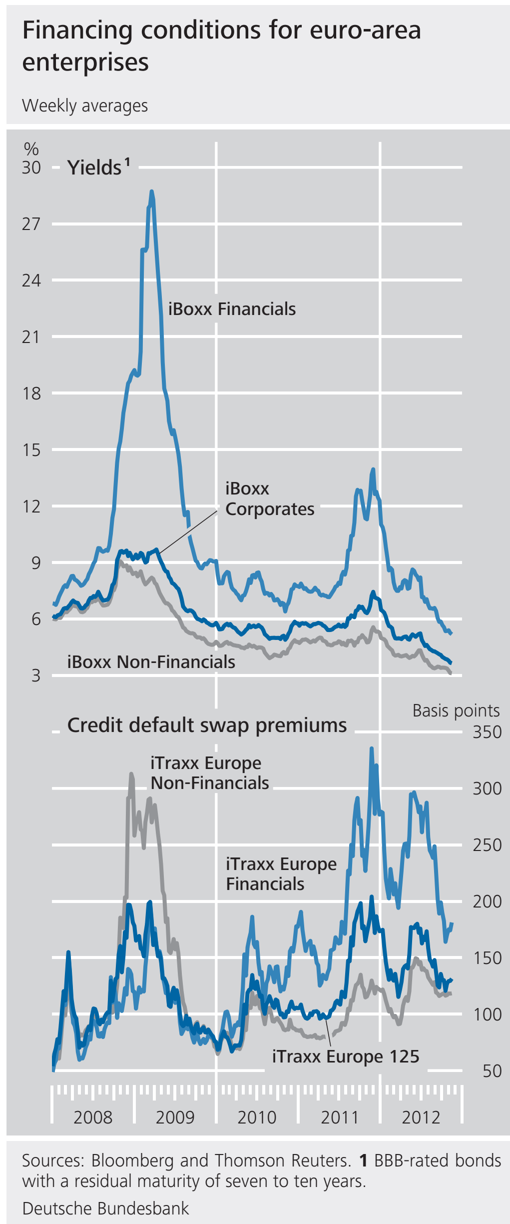

Financing conditions for euro-area enterprises

Weekly averages

Sources: Bloomberg and Thomson Reuters. **1** BBB-rated bonds with a residual maturity of seven to ten years.
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Public sector borrowing

The public sector raised €14½ billion on the bond market in the third quarter of 2012, compared with €23 billion in the preceding three-month period. Central government (including the resolution agency ascribed to it for statistical purposes) issued debt securities worth €13½ billion in net terms. Central government itself issued mainly five-year Federal notes (Bobls) (€13½ billion), and to a lesser extent 30-year Federal bonds (Bunds) (€3 billion). This contrasted with net redemptions of ten-year Bunds totalling €14 billion. On a smaller scale, two-year Federal Treasury notes (Schätze) as well as Federal Treasury discount paper (Bubills) were redeemed in the amount of €4 billion and €3 billion respectively. The German state governments tapped the capital market for €1 billion net in the quarter under review.

Net redemptions of corporate bonds

Domestic enterprises redeemed domestically issued debt securities for €2 billion net between July and September. The net redemptions were attributable exclusively to non-monetary financial intermediaries while non-financial corporations capitalised on the favourable financial market conditions by selling debt securities (€7 billion net).

Net redemptions by credit institutions

Domestic credit institutions likewise took advantage of their positive financial situation and further curtailed their capital market debt in the third quarter of 2012, paying down €19½ billion. Above all, they redeemed “other bank bonds” (€14 billion) as well as public Pfandbriefe (€5 billion) and debt securities of specialised credit institutions (€2 billion). These redemptions were partly offset by net issuance of mortgage Pfandbriefe amounting to €2 billion.

Purchase of debt securities

Only domestic non-banks were active as buyers between July and September, adding debt instruments totalling €19 billion to their portfolios. These were exclusively foreign debt securities on balance. By contrast, domestic credit institutions and foreign investors disposed of debt securities amounting to €5 billion and €3 billion respectively.

Developments in equity markets mixed

The international equity markets have seen mixed developments since the middle of the year. Shares initially benefited from the announcement of further monetary easing by a number of central banks. Combined with the expected portfolio effects of the central banks’ actual securities purchases, the Fed’s monetary policy signal that it would keep key interest rates low over the medium term might well have played a significant role here. However, unfavourable company reports and gloomy growth expectations for 2013 increasingly placed a strain on the equity markets. On balance, since the end of June the CDAX has risen by 9.5% and the Euro Stoxx by 7.4%. By contrast, the Nikkei

and the S&P 500 had lost 2.0% and 0.6% respectively by the time this report went to press.

Euro-area share prices determined by bank shares

Share prices in Europe were once again driven by bank shares, which have gained by 16% since the end of June, thus performing more than twice as well as the market as a whole (7.4%). This most likely reflects market players' expectations that the decline in yields on sovereign bonds issued by peripheral countries will ultimately provide balance sheet relief for banks with extensive investments in this kind of paper. A glance at bank share prices shows that investors nonetheless made a distinction between the individual countries: shares of Spanish banks, some of which had been downgraded and hit hard by the recessionary backdrop, recovered less strongly than the euro-area average.

Risk aversion and price uncertainty on downward path in the euro area

Risk aversion among investors declined, mirroring the price gains on the European equity markets and the increased price-earnings ratio. Between June and October, the implied equity risk premium for investments in European shares dropped by around one percentage point; as this report went to press, it thus stood at its lowest level since April of this year. Price uncertainty on the equity market – measured in terms of the implied volatility of stock options – also headed downwards, returning to its level in the second quarter. However, implied equity risk premiums are still relatively high from a longer-term perspective, indicating that equity market participants are continuing to exercise caution.

Low level of stock market funding

Issuing activity on the German equity market was once again rather muted in the third quarter. Domestic enterprises issued €1½ billion worth of new shares, the majority of which were listed equities. The volume of foreign shares on the German market rose by €4 billion in the same period. Equities were bought almost entirely by domestic credit institutions (€8 billion), which were primarily net buyers of domestic stocks. Foreign portfolio investors purchased domestic equities worth €½ billion while resident non-banks offloaded shares in the amount of €3 billion.

Equity market

Weekly averages

Sources: Thomson Reuters and Bundesbank calculations. **1** End-of-month levels; measure of the risk premium demanded by investors. Calculated from three-stage dividend discount model using three to five-year IBES expectations of profit growth and long-term GDP growth expectations (consensus forecast). **2** Expected future volatility, calculated from prices of options on the Euro Stoxx.

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Sales and purchases of mutual fund shares

During the reporting period, domestic mutual funds recorded net inflows of €21 billion, as against €15½ billion in the previous three months. On balance, the inflows were channelled exclusively to specialised funds reserved for institutional investors (€21 billion). Among funds open to the general public, only open-end real estate funds were able to attract new subscriptions to the value of €1 billion. Conversely, fund units were mostly redeemed by equity and money market funds (€½ billion in each case). Mutual funds distributed by foreign companies on the German market recorded net inflows totalling €6½ billion. Domestic non-banks proved to be the main net buyers,

Major items of the balance of payments

€ billion

Item	2011 Q3	2012 Q2	2012 Q3
I Current account[1, 2]	+ 33.4	+ 37.6	+ 40.5
Foreign trade[1, 3]	r + 39.6	r + 48.0	+ 50.0
Services[1]	− 6.8	− 0.1	− 6.9
Income[1]	+ 16.4	+ 5.5	+ 14.9
Current transfers[1]	− 9.6	− 6.7	− 9.4
II Capital transfers[1, 4]	+ 0.1	+ 0.4	+ 0.1
III Financial account[1] (Net capital exports: –)	− 16.2	− 58.3	− 56.7
1 Direct investment	+ 3.7	− 5.4	− 10.3
German investment abroad	− 6.1	− 9.4	− 7.0
Foreign investment in Germany	+ 9.7	+ 4.0	− 3.2
2 Portfolio investment	+ 32.0	+ 26.2	− 29.7
German investment abroad	+ 14.3	+ 0.4	− 26.4
Shares	+ 11.5	− 1.4	− 2.4
Mutual fund shares	+ 3.9	+ 3.4	− 6.4
Debt securities	− 1.1	− 1.6	− 17.6
Bonds and notes[5]	+ 3.0	− 3.3	− 17.4
of which Euro-denominated bonds and notes	+ 4.3	− 4.1	− 15.6
Money market instruments	− 4.1	+ 1.7	− 0.2
Foreign investment in Germany	+ 17.7	+ 25.8	− 3.3
Shares	− 4.2	+ 9.3	+ 0.6
Mutual fund shares	+ 3.9	− 2.4	− 1.1
Debt securities	+ 18.0	+ 18.9	− 2.8
Bonds and notes[5]	+ 4.7	+ 12.0	+ 11.9
of which Public bonds and notes	+ 9.1	+ 23.1	+ 12.3
Money market instruments	+ 13.2	+ 6.9	− 14.7
3 Financial derivatives[6]	− 7.7	− 7.6	− 3.5
4 Other investment[7]	− 43.5	− 70.8	− 13.2
Monetary financial institutions[8]	+ 56.2	− 12.7	− 36.4
of which short-term	+ 66.6	− 16.7	− 43.2
Enterprises and households	− 6.4	− 1.3	− 8.2
of which short-term	− 5.8	− 2.4	− 3.3
General government	+ 16.7	− 11.0	− 12.6
of which short-term	+ 15.4	− 11.9	− 14.1
Bundesbank	− 110.0	− 45.7	+ 44.0
5 Change in reserve assets at transaction values (increase: –)[9]	− 0.6	− 0.8	− 0.1
IV Errors and omissions	− 17.3	+ 20.3	+ 16.2

1 Balance. **2** Including supplementary trade items. **3** Special trade according to the official foreign trade statistics (source: Federal Statistical Office). **4** Including the acquisition/disposal of non-produced non-financial assets. **5** Original maturity of more than one year. **6** Securitised and non-securitised options as well as financial futures contracts. **7** Includes financial and trade credits, bank deposits and other assets. **8** Excluding the Bundesbank. **9** Excluding allocation of SDRs and excluding changes due to value adjustments.

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adding €27½ billion worth of mutual fund shares to their portfolios. Domestic credit institutions acquired fund units worth €1½ billion net. Both groups were interested primarily in German mutual fund shares. Foreign investors, meanwhile, shed German fund units amounting to €1 billion.

Direct investment

Direct investment records outflows

As with cross-border portfolio investment, which saw net outflows amounting to €29½ billion in the third quarter of 2012, there were also net capital exports in the direct investment account. At €10½ billion, they were roughly double the size of prior-quarter net capital exports (€5½ billion).

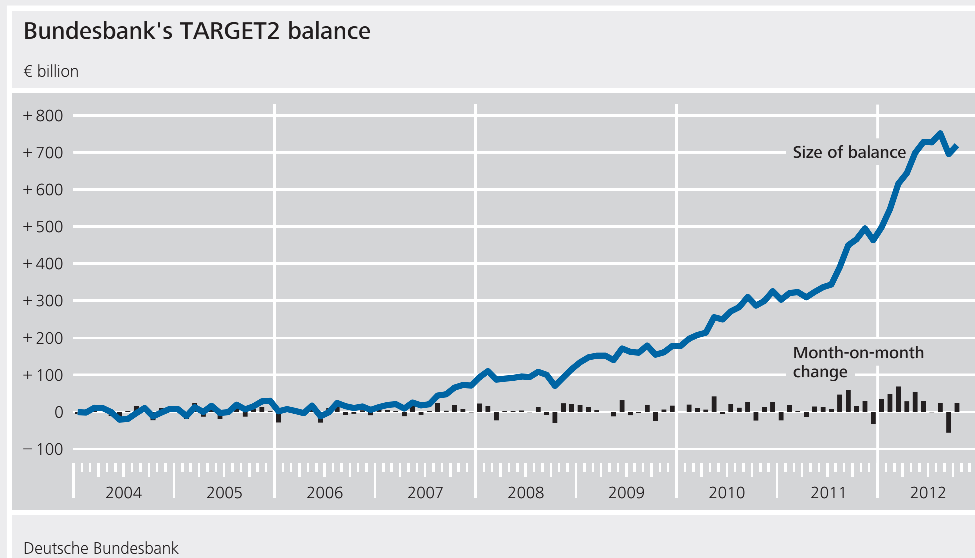
Increased German direct investment abroad

The capital outflows can be attributed mainly to domestic enterprises which made direct investments worth €7 billion outside Germany. They provided their foreign affiliates with considerably more equity capital (€11 billion compared with €1 billion in the second quarter) and reinvested earnings (€4½ billion). By contrast, there were capital inflows worth €9 billion in the form of intra-group credit transactions which related primarily to capital raised via foreign affiliates. Holding companies were particularly active abroad during the reporting period.

Foreign investors withdraw capital from Germany

Foreign direct investors withdrew a net €3 billion in funds from Germany. The redemption of long-term financial loans which domestic affiliates had previously received from their parent companies was a contributory factor here. By contrast, foreign proprietors provided their subsidiaries in Germany with additional equity capital and reinvested a limited volume of earnings (€1 billion together). All in all, the direct investment account recorded outflows worth €9½ billion from Germany to Belgium, while enterprises from the UK and France, in particular, provided funding for their German affiliates in the amount of €2½ billion and €2 billion respectively.

Recent developments with regard to TARGET2 balances



Balances within the European large-value payment system TARGET2 have stabilised in the past few months, after expanding significantly in the first half of 2012 when they rose by more than €200 billion. Since June they have averaged slightly above the amount of €1,000 billion.[1] During the same period, the Bundesbank's claims under the TARGET2 payment system have hovered in the region of approximately €740 billion; at the end of October 2012 they amounted to €719 billion. However, the overall stabilisation observed has, at times, been accompanied by considerable daily fluctuations.

In the course of the financial and sovereign debt crisis there have been several phases when TARGET2 balances temporarily stopped growing or even decreased, for example in 2009 and during the first half of 2011. However, these periods were each followed by a phase of renewed growth. For this reason, not too much importance should be assigned to the sideways motion which has persisted since the middle of 2012. Nevertheless, this development highlights the fact that the additional external funding requirements of peripheral countries, in particular, are no longer primarily being covered by national central banks. Countries receiving financial aid from the assistance programmes, above all, have not recorded any noticeable rises in their (negative) TARGET2 balances for some time now. In fact, the Irish central bank has considerably reduced its liabilities to the ECB since these peaked at the end of 2010. A similar picture holds for other euro-area countries which attracted the attention of the financial markets in the first half of 2012 and greatly contributed to the expanding TARGET2 balances witnessed during this period, but which have seen a contraction of their TARGET2 liabilities of late.

1 This represents the sum of all national central banks' TARGET2 claims on the ECB. These claims correspond to the amount arising from the sum of all TARGET2 liabilities.