

■ Financial markets

■ Financial market setting

Financial markets influenced by announcement of monetary policy measures

Market participants in the international financial markets had a perceptibly stronger appetite for risk in the autumn and winter of months 2012-13, their sentiment being buoyed chiefly by the somewhat brighter economic outlook for the current year and by the crisis management measures taken by the central banks in the major currency areas. In the euro area, the potentially unlimited bond purchase programme referred to as Outright Monetary Transactions (OMT) – so far unused – gave a particular boost to financial market prices. The ECOFIN agreement to establish the Single Supervisory Mechanism (SSM) for banks under the aegis of the European Central Bank and the conclusion of a debt buy-back operation which cleared the way for further financial assistance for Greece also bolstered the markets. Investors likewise were relieved when policymakers in the United States reached a partial agreement in their budget dispute. Meanwhile, negative factors, such as the political difficulties that some euro-area countries are experiencing in implementing the necessary reform and consolidation measures, faded into the background somewhat. The increased optimism among financial market participants primarily benefited risky assets, with sovereign bonds of peripheral countries and equities alike posting notable gains. On the foreign exchange markets, the euro appreciated significantly during the period under review, particularly so against the yen.

TARGET2 balances contract ...

Balances in the TARGET2 payments system contracted markedly in recent months. At €617 billion, the Bundesbank's TARGET2 claims at the end of January 2013 stood €134½ billion below the corresponding figure at the end of August 2012. Countries particularly hard hit by the financial crisis have likewise all recorded a decline in their TARGET2 liabilities since autumn 2012. For one thing, this development is attributable to the general easing of tensions in the

financial markets. For another, it is linked to assistance measures provided by partner countries as well as the early repayment of funds obtained from the first three-year tender. The current relaxation in the financial markets and reduced TARGET2 balances should not, however, serve to conceal the fact that substantial structural adjustments are still needed in many countries.

... but still considerable need for adjustment

■ Exchange rates

Since the beginning of the fourth quarter of 2012, the euro has appreciated on a broad basis, including against the US dollar. Up to mid-November, however, it had remained under pressure owing to the uncertainty as to whether Greece would persevere with its reform agenda, although, following the US elections, market participants were more focused on the political wrangle in Washington about appropriate measures to forestall the drastic cuts to the US government budget ("fiscal cliff") that would automatically be triggered by the end of the year. This gave the euro a boost against the US dollar, as did the publication of the minutes of a Federal Open Market Committee meeting which signalled imminent decisions concerning further quantitative monetary policy easing. The euro's appreciation was bolstered by a gradual easing of tensions in the euro-area financial markets, reflected in declining risk premiums on government bonds issued by peripheral euro-area countries.

Euro appreciates against the US dollar

At year-end 2012, the euro posted an exchange rate of US\$1.32, immediately after which policymakers in the United States agreed on a short-term compromise in their budget dispute. In a further development, the minutes of another Federal Reserve meeting revealed the wish of several committee members to slacken or even terminate the US bond purchase programme in the course of 2013. Both events

Exchange rate of the euro

Daily data; log scale



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.

contributed to a temporary partial erosion of the euro's gain in value. The currency nevertheless continued its upward trajectory. This followed a decision by the Governing Council of the ECB in its January meeting against additional monetary policy easing measures due to its very confident assessment of economic prospects in the euro area, thus confounding the expectations of a number of market participants. Latterly, the euro was trading at US\$1.33, which is 3% above its level at the end of September 2012.

The euro has been gaining considerably against the yen since the middle of November, largely driven by developments in Japan itself. In the same month, a sharp decline in Japan's GDP was recorded for the third quarter of 2012, coupled with an unexpectedly high trade deficit. Also in November, the Japanese prime minister dissolved parliament, setting the stage for a general election. The opposition, which came to power in mid-December with a sweeping majority, put great pressure on the Bank of Japan to further ease its monetary policy in an aggressive fashion. In so doing, the newly elected government also openly brought into question the central bank's independence. The central bank refrained from undertaking any further immediately effective direct easing measures in January, having topped up its securities purchase programme one month earlier. However, a dramatic 24% gain in value from the end of September 2012 onwards ultimately led to a euro rate of ¥124 as this report went to press.

Dramatic appreciation of euro against yen

On balance, in the final quarter of 2012, the exchange rate of the euro against the pound sterling remained virtually unchanged. In the new year, however, this currency pair also saw an appreciation of the euro, thanks to the somewhat more optimistic frame of mind concerning the economic outlook in the euro area. The pound sterling was subsequently put under additional pressure by the discussion surrounding the present government's plans to hold a referendum in 2017 on the United Kingdom's

Euro posts gains against pound sterling, too ...

continued membership of the European Union as well as by an array of unfavourable economic reports which culminated in news of an unexpectedly sharp fall in UK GDP in the final quarter of 2012. Most recently, the euro stood at £0.86, which was 7½% higher than at the end of September 2012.

... as well as in effective terms

In effective terms, the euro has appreciated by 4% against the currencies of 20 major trading partners since the beginning of the fourth quarter of 2012. This was not just attributable to the euro's previously mentioned gains against the US dollar, yen and pound sterling. Rather, the upward trend was very broadly based, as demonstrated by the euro's rise against the Swiss franc, on balance, to temporarily trade at CHF1.25, after hovering slightly above the minimum exchange rate CHF1.20 set by the Swiss National Bank throughout 2012.

Joint statement by G7 finance ministers and central bank governors

The finance ministers and central bank governors of the seven leading industrial economies (G7) reaffirmed their shared concern that marked exchange rate fluctuations could endanger economic and financial stability in the countries concerned. Moreover, they reiterated their belief that exchange rates should evolve on a market-driven basis, along with their intention only to intervene in the foreign exchange markets following close consultation.

Securities markets and portfolio transactions

International bond markets

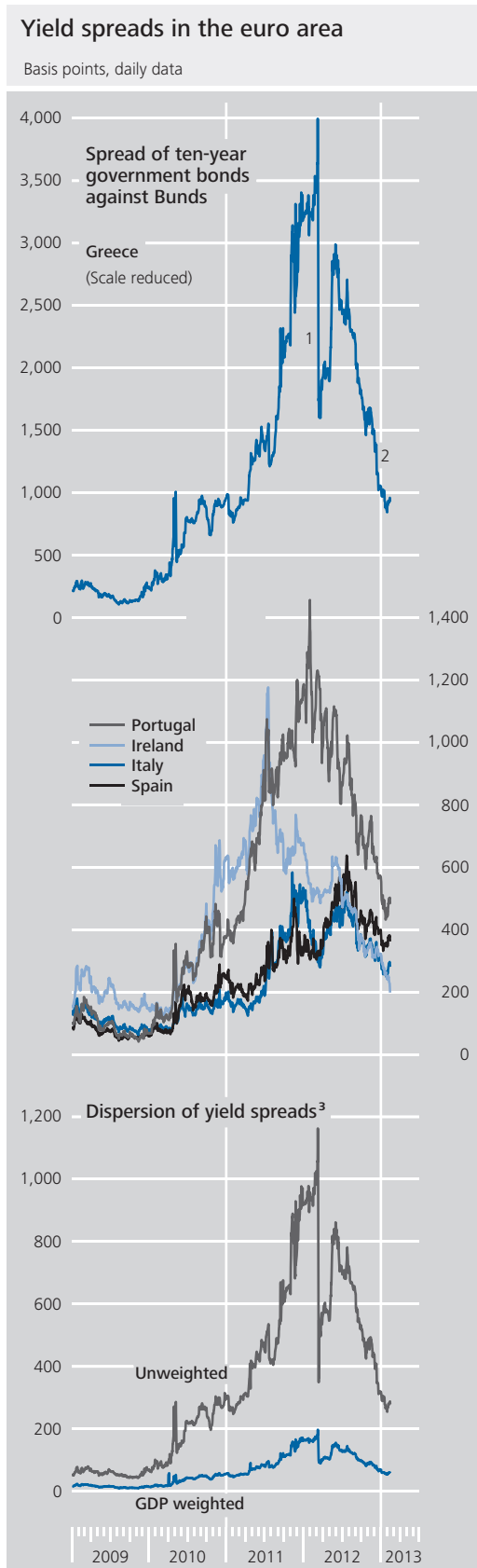
The increased risk appetite evident among market participants has also left an impact on the international bond markets. For instance, the waning uncertainty about the future development of market prices assessed on the basis of implied volatility suggests an easing of tensions on the debt securities markets. In addition to the broadly positive flow of daily news, measures taken by a number of key central banks had a decisive impact. With effect from the beginning of the year the US Federal Reserve undertook to purchase government bonds

Measures taken by the central banks ...

amounting – for the time being – to a value of US\$45 billion monthly until further notice – in addition to its existing monthly commitment to purchase mortgage-backed securities to the tune of US\$40 billion, as decided in September. At the same time, the Federal Open Market Committee announced that it would leave the Fed's policy rate at 0.25% for as long as the US unemployment rate remained above 6.5% and the country's expected inflation rate did not exceed 2.5%. On this side of the Atlantic, the Eurosystem's operational but yet to be activated programme for Outright Monetary Transactions (OMTs) served to calm the debt markets. This positive climate was reinforced by the successful efforts of the US Congress at the turn of the year to ward off an automatic tightening of fiscal policy which was broadly considered to be too abrupt. Against this backdrop, investors evidently opted to unwind safe benchmark positions and focus more heavily on riskier, somewhat higher-yielding investments. As a consequence, yields on paper considered to be particularly liquid and safe, such as US, UK and German government bonds, rose significantly. Moreover, the global economic outlook has brightened up a little of late, which in itself would also point to a rise in yields. Overall, since the end of September 2012, yields on German public debt securities with a ten-year maturity have climbed by 20 basis points to 1.6% at last count, while those on US and UK bonds of the same kind have increased by over 30 and over 50 basis points to 2.0% and 2.2% respectively. Only in Japan did ten-year government bonds remain virtually unchanged at 0.8%.

Portfolio shifts into riskier bonds were also discernible in the euro area. Compared with the end of the third quarter of 2012, both the interest rate dispersion of long-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. At 270 and 205 basis points respectively, they stood significantly below their level at the end of Septem-

... narrow yield spreads in the euro area



Sources: Thomson Reuters and Bundesbank calculations.
1 Haircut of 9 March 2012. **2** Announcement of conditions for the Greek debt buyback programme on 11 December 2012.
3 Standard deviation of yield spreads of euro-area government bonds.

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ber. Given the aforementioned support measures taken by central banks and the international community, for example the transfer of ESM paper to the Spanish Fund for Orderly Bank Restructuring (*Fondo de Reestructuración Ordenada Bancaria* – FROB) and the disbursement of further instalments of financial assistance to Greece – France’s downgrading by a rating agency made few waves, not least because the move had already been broadly anticipated. Despite the generally positive sentiment prevailing in the euro-area bond markets, investors continued to discriminate between issuers, as evidenced by their need for a higher yield on Spanish bonds than for Italian ones. Indeed, for a time, the yield spread between these two countries during the period under review exceeded 100 basis points, largely in reflection of the fundamentals underlying the tenuous situation in Spain. Such yield differentials send an important signal to decision-makers not to ease up in their efforts to institute reforms.

The factors described above impacted on the entire maturity spectrum of the German yield curve, as estimated on the basis of Federal securities. Amid fluctuations, this yield curve has, on balance, been trending upwards since the end of September 2012. Here, a notable development was the upturn in the near money market segment of the curve which returned to being clearly positive. Latterly, investments with, for example, a two-year maturity had a yield of more than 15 basis points, prior to which investors had still been paying premiums of up to 10 basis points to invest funds in short-term Federal bonds. The increase in question was also fostered by a readiness on the part of banks to repay a larger amount of funds than had originally been expected, thus fuelling expectations that excess liquidity would continue to decline and in so doing possibly lead to an improvement in the functioning of the inter-bank money market. As a result, the anticipated money market rates rose.

German yield curve sees shift upwards

Break-even inflation rates slightly above 2%

Five-to-ten year break-even inflation rate (BEIR) expectations, derived from financial market prices, for the European Harmonised Index of Consumer Prices excluding tobacco, stood at slightly above 2%. While the BEIR, which is derived from a comparison of German and French inflation-linked and nominal government bonds, fell slightly to 2.2% in the period under review, the break-even inflation rate for inflation swaps – which is less sensitive to technical market movements – went up to 2.4%.

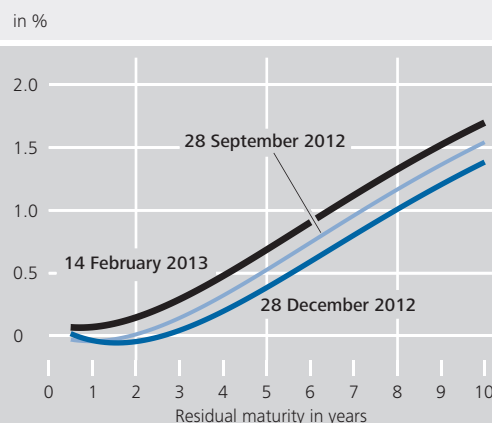
Improvement in financing conditions for enterprises

Financing conditions for European enterprises active in the capital market have likewise improved since the end of the third quarter of 2012. At last count, BBB-rated corporate bonds with a residual maturity of seven to ten years issued by European financial enterprises and by enterprises which are part of the real economy were yielding 5.0% and 3.2% respectively,¹ thus trading well below their respective five-year averages. Financial enterprises recorded a particularly marked decline of 80 basis points. With yields on German government bonds picking up at the same time, this meant a significant narrowing of yield spreads over government bonds. This contraction in spreads, which mirrors a reduction in investors' risk aversion, was consistent with the parallel narrowing of credit default swap premiums (iTraxx) and reduced stock market uncertainty. Enterprises took advantage of the favourable financing conditions to substantially step up their issuance activity. Indeed, according to commercial data providers' figures, gross issuance in the euro area between October and January was considerably higher than in the prior-year period.²

High level of issuance activity in the bond market

By contrast, gross issuance figures in the German bond market fell slightly in the final quarter of 2012. Overall, German borrowers issued paper worth €329 billion, compared with €343½ billion in the previous three months. If the extremely high redemptions and changes in issuers' holdings are taken into account, domestic issuers reduced their capital market borrowing, however, by €34½ billion. In the fourth

Yield curve on the German bond market*



* Interest rates for (hypothetical) zero-coupon bonds (Svensson method), based on listed Federal securities.
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Inflation expectations based on financial market prices

% pa, daily data



Sources: BGC Partners, Bloomberg, EuroMTS and Bundesbank calculations. **1** Excluding tobacco. **2** Derived from the fixed leg 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.

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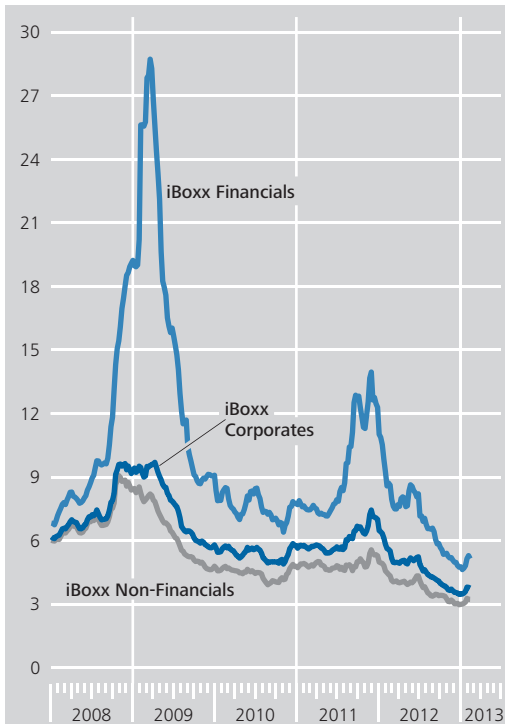
quarter, foreign debt instruments totalling a net €20 billion were sold in the German bond market. On balance, the total outstanding vol-

¹ This is based on yields on corporate bonds included in the iBoxx bond indices.

² Analysis of Bloomberg and Dealogic issuance data.

Corporate bond yields in the euro area*

% , weekly averages



Source: Markit. * BBB-rated bonds with a residual maturity of seven to ten years.

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Investment activity in the German securities markets

€ billion

Item	2011		2012	
	Q4	Q3	Q3	Q4
Debt securities				
Residents	- 9.4	9.2	- 26.1	
Credit institutions	- 31.9	- 4.9	- 17.3	
of which				
Foreign debt securities	- 22.7	- 5.7	0.3	
Deutsche Bundesbank	13.8	- 0.6	- 2.4	
Other sectors	8.6	14.7	- 6.4	
of which				
Domestic debt securities	- 0.2	- 9.3	- 27.6	
Non-residents	- 35.8	1.8	11.9	
Shares				
Residents	15.2	5.0	20.2	
Credit institutions	7.2	7.9	8.3	
of which				
Domestic shares	2.5	4.7	0.4	
Non-banks	8.0	- 2.9	11.9	
of which				
Domestic shares	5.2	- 3.9	0.6	
Non-residents	- 5.6	0.8	- 0.3	
Mutual fund shares				
Investment in specialised funds	22.6	21.1	29.4	
Investment in retail funds	- 2.7	0.0	3.0	
of which				
Equity funds	0.8	- 0.5	0.7	

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ume of bonds in Germany thus shrank by €14½ billion in the quarter under review.

In the final quarter of 2012, domestic credit institutions – which had gone back to experiencing outflows abroad and declining deposits due not least to the increase in investor confidence in banks in the peripheral countries generated by European EFSF/ESM support measures – reduced their capital market debt by €24 billion. In the main, public Pfandbriefe – which German institutions have been issuing fewer of for years, for structural reasons – were redeemed (€10 billion). The outstanding volume of debt securities issued by specialised credit institutions (€6 billion), mortgage Pfandbriefe (€5 billion) and other bank debt securities which can be structured flexibly (€3 billion) also fell.

Reduction in credit institutions' capital market debt

Public sector capital market debt was reduced by €15 billion in the final quarter of 2012.³ Central government's positive cash balance allowed it to contain its financing needs. It issued Treasury discount paper (Bubills) worth €7 billion as well as 10-year and 30-year Federal bonds (Bunds) worth €6½ billion and €2 billion respectively. In parallel with this, it redeemed five-year Bobls (€3½ billion) and two-year Schätze (€2 billion). The Federal states tapped the bond market for €5½ billion net in the months October to December 2012.

Redemption of public sector debt securities

With effect from January 2013, all bonds issued by Germany's Federal Government have included a collective action clause (CAC) which allows attendees at a meeting of bondholders to approve by majority decision changes to the terms of a bond which are then binding for all bondholders. Since the beginning of the year, the clause in question has applied to all euro-area debt instruments with a maturity of more than 12 months (see explanatory notes on pages 42 and 43).

Collective action clause included in all debt securities as of January 2013

³ This was due primarily to the content of a late report detailing redemptions by the resolution agency classified as part of central government.

Net sales of corporate bonds

Domestic enterprises issued debt securities during the reporting period worth €4½ billion, which on balance consisted solely of bonds with a maturity of more than one year. This figure excludes any net sales of bonds issued via foreign financing subsidiaries.

Debt securities purchased exclusively by foreign investors

During the final quarter of 2012, debt securities were purchased exclusively by foreign investors who added bonds worth €12 billion net to their portfolios. By contrast, domestic credit institutions and domestic non-banks disposed of fixed-income securities worth €17½ billion and €6½ billion respectively. In both cases, they mainly parted with domestic bonds.

Appreciable price gains since mid-November

Around the beginning of the fourth quarter of 2012, international equity markets initially continued to feel some strain before going on to benefit from the considerably improved sentiment which occurred in mid-November. The sense of relief about the partial compromise in the US budget dispute coupled with the additional expansionary measures being taken by the US and Japanese central banks undoubtedly played a part in this development, as did the moderately improved economic outlook. Added to this, the agreement reached on setting up a single supervisory mechanism for banks in the euro area is likely to have had a stabilising effect on the European banking sector. The successful bond issues of European credit institutions also led to positive confidence effects. Toward the end of the reporting period, surprisingly favourable quarterly results reported by US enterprises helped to fuel investor optimism. On balance, since the end of September the CDAX has risen by 7.2%, with the Euro Stoxx and the S&P500 up by 8.6% and 5.6% respectively. Meanwhile, Japanese shares have gained 27.5% in value based on the Nikkei index. At 18.3%, European bank stocks posted a much more substantial rise in value than that for the market as whole, which was largely attributable to Irish and Italian credit institutions.

Equity market



Sources: Thomson Reuters and Bundesbank calculations.
1 End-of-month levels; derived from a three-stage dividend discount model using three to five-year IBES earnings growth expectations. **2** Expected future volatility, calculated from prices of options on the Euro Stoxx.
 Deutsche Bundesbank

In tandem with these gains, uncertainty about future price developments on the equity market receded significantly and – measured in terms of the implied volatility of equity options – was well below its five-year average as this report went to press. At the same time, the price-earnings ratio rose amid dissipating risk aversion on the part of investors. The implied equity risk premium demanded by investors, which can be calculated using a dividend discount model and analysts' (IBES) earnings estimates, fell by just over ½ percentage point for the European market as a whole (Euro Stoxx), with the premium for European bank stocks declining by around 1 percentage point. Not-

Risk aversion and price uncertainty reduced

The introduction of collective action clauses in the terms and conditions of public sector bonds

At the beginning of February 2012, the member states of the Economic and Monetary Union signed the intergovernmental Treaty Establishing the European Stability Mechanism (ESM). This treaty states *inter alia* that collective action clauses (CACs) are to be included in all euro-area government securities with a maturity of more than one year issued on or after 1 January 2013. The contents of the CACs, which have been coordinated and agreed upon with the respective national debt management institutions, have a standardised form. In the case of Germany, these CACs were transposed into national law by amending the Federal Government Debt Management Act (*Bundesschuldenwesengesetz*).

The CACs govern how the terms and conditions of euro-area government securities can be modified in the event of payment difficulties. A key role in this respect is played by what are known as modifications of “reserved matters”, which are amendments to bond conditions that might place bondholders in a less favourable position. These include *inter alia* changes to the dates on which amounts are payable, the reduction of interest payments, or changes to certain core legal terms of the bond in question (eg termination rights or the place of jurisdiction). Any modifications to terms and conditions require the approval of the issuer as well as a majority of bondholders. A meeting of bondholders held to approve reserved matter modifications constitutes a quorum if at least 66⅔% of the outstanding principal amount in an issue is represented. Resolutions are legally binding for all bondholders if an affirmative vote is given by at least 75% of the principal amount represented at the meeting of bondholders. In the most extreme case,

therefore, bondholders representing 50% of the aggregate principal amount can pass a resolution. Resolutions concerning reserved matter modifications for more than one series of bonds (“cross-series modifications”) require the affirmative vote of 75% of the outstanding principal amounts of all the debt securities represented at the bondholder meeting and, additionally, the affirmative vote of 66⅔% of the outstanding principal amounts in each series of debt securities represented at separate duly called meetings of the respective bondholders that would be affected by the proposed modification. Reserved matter modifications can also be approved by an action in writing. Generally speaking, the CACs set out the provisions under which debtor countries and creditors negotiate the conditions of a debt restructuring agreement.

From the perspective of sovereign issuers, CACs are a means of modifying the payment conditions of their bonds by way of a contractual provision enabling a majority vote by creditors without the need for a statutory or judicial instrument. This can help to overrule efforts by individual bondholders who may have bought the issue at a discount and now try to maximise their profit by enforcing full payment under the original, unaltered payment conditions and hence refuse their consent to any change thereto (“hold out”). CACs may also include elements of collective enforcement proceedings, thereby preventing individual bondholders from taking legal action in order to secure preferential, and potentially full satisfaction of their particular claims and thus setting off a “rush to the courthouse”.

In essence, CACs therefore help to mitigate coordination problems among bondhold-

ers, thus reducing the costs involved in a default.

The theory is unclear on how CACs affect public sector borrowing costs. On the one hand, CACs might drive borrowing costs higher if investors fear that a government that has the option of gaining debt relief more easily might be less ambitious in consolidating its budget. Bondholders also face the risk of being outvoted in the event of a default and of thus being placed at a disadvantage to holders of traditional bonds. This risk might be particularly relevant during the introduction of CACs when only a small number of bonds will include CACs, possibly sending premiums for the new issues higher. On the other hand, the reduced risk of a default being postponed and the simplified debt restructuring process suggest that borrowing costs would be lower. Recent empirical studies indicate that the overall impact could tend to diminish yields, which would suggest that the costs involved in the collective coordination problems mentioned above are not insignificant.¹

From an investor's perspective, the introduction of CACs in the prevailing financing environment does not appear to be having any substantial effect on the potential returns on an investment in euro-area government bonds. At least that is what the rather muted development shown by sovereign bond yields in the year to date would suggest. However, following the introduction of the new CACs, sovereigns might conceivably choose to issue some of their debt as money market paper with maturities of up to one year, a segment which is not affected by the CAC regulations. In addition, euro-area member states are also allowed in principle to reopen ("tap") debt issuances without CACs up to certain pre-defined thresholds.

Regardless of such responses, CACs can help to ensure that the "no bail out" principle is complied with, since CACs send out a signal to investors *ex ante* that a sovereign default is possible and that any such default will be settled within an orderly, pre-defined framework. Inasmuch as market participants expect yields to be both appropriate and commensurate with risk, the introduction of CACs would play a role in disciplining government spending, which would also mitigate the risk of systemic contagion effects. Additionally, the international community will come under less pressure to intervene and take the burdens of a default off the original investors' shoulders and redistribute them among other countries and sectors. However, since debt restructuring is still a last resort, implementing structural reforms and restoring the balance between the revenue that a country generates itself and its expenditure remain key elements in resolving a crisis.

A critical view would have to be taken of the Eurosystem's bond holdings in a possible debt restructuring arrangement. If the Eurosystem central banks exercise their voting rights, they might exceed a critical share of voting rights and thereby acquire a *de facto* power of veto. Under these circumstances, efforts to restructure debt voluntarily might be impeded.

¹ See A Bardozzetti and D Dottori, 2013, *Collective Action Clauses: How Do They Weigh On Sovereigns?*, Banca d'Italia Working Paper 897, and M Bradley and G M Gulati, 2012, *Collective Action Clauses for the Eurozone: An Empirical Analysis*, Duke Law Faculty Scholarship Working Paper.

Major items of the balance of payments

€ billion

Item	2011		2012	
	Q4	Q3	Q4	Q3
I Current account ^{1, 2}	+ 46.9	+ 41.5	+ 46.7	+ 41.5
Foreign trade ^{1, 3}	+ 39.6	+ 50.1	+ 44.6	+ 50.1
Services ¹	+ 0.5	- 7.1	+ 0.9	- 7.1
Income ¹	+ 18.7	+ 15.6	+ 15.0	+ 15.6
Current transfers ¹	- 5.7	- 9.4	- 5.9	- 9.4
II Capital transfers ^{1, 4}	- 0.2	+ 0.1	- 0.6	+ 0.1
III Financial account ¹ (Net capital exports: -)	- 29.0	- 56.4	- 84.0	- 56.4
1 Direct investment	+ 5.2	- 14.9	- 5.4	- 14.9
German investment abroad	- 6.3	- 5.8	- 4.3	- 5.8
Foreign investment in Germany	+ 11.5	- 9.1	- 1.1	- 9.1
2 Portfolio investment	- 43.7	- 25.6	- 33.6	- 25.6
German investment abroad	- 3.3	- 26.8	- 45.9	- 26.8
Shares	- 5.7	- 2.4	- 13.3	- 2.4
Mutual fund shares	+ 1.7	- 6.5	- 12.6	- 6.5
Debt securities	+ 0.7	- 17.8	- 20.0	- 17.8
Bonds and notes ⁵	- 9.4	- 17.3	- 23.8	- 17.3
of which				
Euro-denominated bonds and notes	- 11.5	- 15.5	- 16.6	- 15.5
Money market instruments	+ 10.0	- 0.6	+ 3.7	- 0.6
Foreign investment in Germany	- 40.4	+ 1.2	+ 12.3	+ 1.2
Shares	- 5.5	+ 0.5	- 0.2	+ 0.5
Mutual fund shares	+ 0.9	- 1.1	+ 0.6	- 1.1
Debt securities	- 35.8	+ 1.8	+ 11.9	+ 1.8
Bonds and notes ⁵	- 22.1	+ 16.3	+ 10.9	+ 16.3
of which				
Public bonds and notes	+ 5.2	+ 12.4	+ 14.2	+ 12.4
Money market instruments	- 13.7	- 14.5	+ 1.0	- 14.5
3 Financial derivatives ⁶	- 5.1	- 3.6	- 4.3	- 3.6
4 Other investment ⁷	+ 15.0	- 12.3	- 41.3	- 12.3
Monetary financial institutions ⁸	- 50.4	- 36.4	- 69.9	- 36.4
of which short-term	- 34.0	- 43.2	- 79.5	- 43.2
Enterprises and households	+ 48.4	- 7.7	+ 10.8	- 7.7
of which short-term	+ 31.6	- 2.9	+ 11.0	- 2.9
General government	- 1.7	- 12.2	- 32.4	- 12.2
of which short-term	- 2.8	- 14.1	- 15.1	- 14.1
Bundesbank	+ 18.7	+ 44.0	+ 50.2	+ 44.0
5 Change in reserve assets at transaction values (increase: -) ⁹	- 0.4	- 0.1	+ 0.5	- 0.1
IV Errors and omissions	- 17.8	+ 14.7	+ 37.9	+ 14.7

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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withstanding this circumstance, the implied equity risk premiums were still well above their low recorded at the beginning of 2010.

On balance, despite the positive stock market environment, funding via the German stock market totalled just €½ billion in the reporting quarter. This would indicate that German corporations have limited equity capital requirements. The volume of foreign shares on the German market rose by €19 billion in the same period. Shares were acquired exclusively by domestic investors on balance. Domestic non-banks, which also encompass investment companies and insurance enterprises, added shares worth €12 billion to their portfolios; meanwhile, domestic credit institutions increased their exposure to equities by €8½ billion. In both instances, these investors' interest was focused on foreign stocks. Meanwhile, non-resident investors sold German shares to the value of €½ billion.

Almost no funds raised on the equity market

In the final quarter of 2012, domestic investment companies recorded a net inflow of €32½ billion, compared with €21 billion in the previous quarter. On balance, the new funds went very largely to the specialised funds reserved for institutional investors (€29½ billion). Of the various retail funds, bond funds, in particular, achieved net inflows of capital (€1 billion), as did, albeit to a lesser extent, equity funds, mixed security-based funds, open-end real estate funds and mixed funds (€½ billion each). The outstanding volume of foreign mutual fund shares in Germany rose by €12½ billion in the reporting period. Mutual fund shares were bought almost exclusively by domestic non-banks, which added €44 billion worth of fund shares to their portfolios. For the most part, this related to domestic mutual funds. Non-resident investors and domestic credit institutions acquired mutual fund shares worth €½ billion in each case.

Sales and purchases of mutual fund shares

■ Direct investment

*Capital exports
in direct invest-
ment*

As with cross-border portfolio investment, which saw net outflows amounting to €33½ billion in the final quarter of 2012, there were also net capital exports in the direct investment account. On balance, at a value of €5½ billion, these were well below the prior-quarter figure (€15 billion).

*German direct
investment
abroad subdued
on balance*

Cross-border direct investment by German proprietors was of significant importance (€4½ billion). On the one hand, they provided their foreign affiliates with considerably more equity capital (€14½ billion). On the other, they saw capital inflows worth €11 billion in the form of

intra-group credit transactions. These were due largely to German enterprises obtaining funds from their foreign subsidiaries (€8 billion). During the reporting period, Luxembourg (€9 billion) and the United States (€8 billion) were the prime target countries of German foreign investment.

Foreign investors withdrew a modest volume of capital (€1 billion) from their German affiliates. On balance, this occurred exclusively in the form of intra-group credit transactions. Here again, transactions with Luxembourg accounted for the lion's share (€6½ billion), while there were net inflows of funds from the United States and the Netherlands.

*Foreign direct
investors with-
draw capital
from Germany*