European Securities and Markets Authority

ESMA Risk Dashboard

No. 1, 2013

12 February 2013 | ESMA/2013/213

ESMA Risk Dashboard, No. 1, 2013

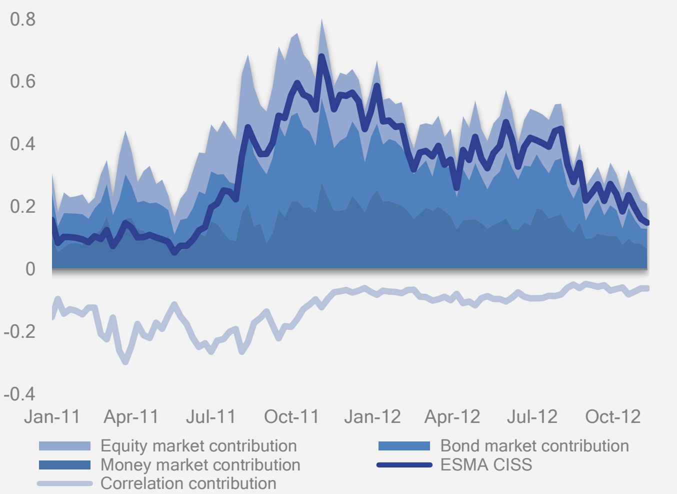
Preparation: Economic Research and Financial Stability Unit
Authorisation: This Report has been reviewed by ESMA's Committee for Economic and Market Analysis (CEMA) and has been approved by the Authority's Board of Supervisors. ESMA thanks the members of CEMA for contributions and valuable comments.

 Cut-off date for data used in this Report is 31 December 2012 unless indicated otherwise. Legal reference of this Report: Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC, Article 32 "Assessment of market developments", 1. "The Authority shall monitor and assess market developments in the area of its competence and, where necessary, inform the European Supervisory Authority (European Banking Authority), and the European Supervisory Authority (European Insurance and Occupational Pensions Authority), the ESRB and the European Parliament, the Council and the Commission about the relevant micro-prudential trends, potential risks and vulnerabilities. The Authority shall include in its assessments an economic analysis of the markets in which financial market participants operate, and an assessment of the impact of potential market developments on such financial market participants."

European Securities and Markets Authority (ESMA)
Economics and Financial Stability Unit
103, Rue de Grenelle
FR–75007 Paris
Telephone: +33 1 5836 5150
financialstability@esma.europa.eu

ESMA Risk Dashboard

Stress in EU markets eased in the second half of 2012 R.01



Note: ESMA version of the ECB-CISS indicator measuring systemic stress on securities markets. A detailed explanation is provided in the technical annex to the Risk Dashboard.
Sources: ECB, ESMA.

Main risks: Sources R.02

Risk	Change since 1Q12
European sovereign debt crisis	→
Market clustering	↑
Funding risk	↗
Low interest rate environment	↗
Market functioning	↗

Note: Assessment of risk main sources for markets under ESMA remit, change since the last assessment.

Main risks: Categories R.03

Risk category	Change since 3Q12	Outlook for 1Q13	Systemic risk
Liquidity risk	→	→	●
Market risk	↘	→	●
Contagion risk	→	→	●
Credit risk	↗	↗	●

Note: Assessment of main risk categories for markets under ESMA remit since past quarter and outlook for current quarter. Systemic risk assessment based on categorisation of ESA Systemic Risk Heat Map, green=low, yellow=moderate, orange=high, red=very high.

Main risks: Summary assessment R.04

Risk category	Summary
Liquidity risk	Liquidity risk remained stable over the last quarter. Its dispersion across market segments and regions remained high. The evidence below indicates that recent reactions by policy makers and market participants have reduced liquidity risks in some segments. However, liquidity conditions deteriorated in other segments. Accordingly, markets remain cautious with regard to liquidity risk.
Market risk	In 3Q12 both equity and bond markets showed some signs of relaxation. In particular, riskier bond market segments were rewarded with reduced investor aversion. Even so, investments by the fund industry into European asset markets continued to

The overall level of systemic risk in EU securities markets decreased in 2012 as conditions in equity and bond markets improved, especially since July. The decline is linked to the announcement of Outright Monetary Transactions (OMT) by the ECB in early August, which alleviated the pressure on Euro area sovereign bond markets and reduced uncertainty among market participants. However, risk indicators remain at high levels and increased again in the last two months of 2012. The main sources of risk are the on-going European sovereign debt and banking crisis, market clustering, funding risk, the low interest rate environment and obstacles to orderly market functioning.

Systemic stress: The indicator of aggregate risk in securities markets fell, moving back to levels reached in June 2011 but remaining high. This trend is mirrored in equity markets, where adjusted price-earnings ratios increased for Europe but were still below their long-term average.

Among the various risks that ESMA monitors, the following are of particular importance at the current juncture:

European sovereign debt crisis: The European sovereign debt crisis continues to weigh on the stability of financial markets, despite significant improvement since July 2012. In particular, current sovereign yields remain high for some euro area countries, affecting market participants with significant exposures to sovereigns, such as banks.

Market clustering: Within the EU single market, increasing clustering of financial assets in investors' risk assessment has been observed. Also referred to as market fragmentation, this realignment of risk assessments is evidenced by the dispersion in sovereign yields, their liquidity and volatility, but also by the dispersion of national indices in equity markets. On the one hand, such market clustering can lower contagion risk as market participants are able to disentangle individual country risks from general factors, further reflecting domestic economic conditions. However, market clustering has fragmented the market into two broad clusters, increased contagion among countries in the same cluster. This is indicated by higher correlation among distressed sovereigns.

Funding risk: Activity in unsecured markets continued to be subdued, as financial institutions faced difficulties in attracting investors and had to rely on the secured funding market, putting further pressure on collateral demand. In spite of the alleviating effects of recent ECB measures (OMT, LTRO) in the short run, low bond issuance, coupled with significant bank redemptions in the next three years, due especially to maturing LTRO funds, and a decrease in debt maturity may give rise to significant funding risks in the future when financial institutions need to roll over their debt. Refinancing risks are not limited to banks, as corporates and sovereigns will also have significant rollover requirements in the next few years

Low interest rate environment: Exceptional actions taken by central banks allowed a reduction of stress in the financial system. The resulting low-interest-rate environment is changing behavioural patterns in the financial markets. While low interest rates have provided banks cheap funding, they have made it more difficult for money market funds to attract investors due to the low returns. Unsecured markets remain impaired despite policy actions. Amid high counterparty risk in the financial system,

	decline. Overall, market risks appear to have decreased slightly compared to 2Q12.
Contagion risk	In 3Q12 conditions in the market segment currently most exposed to contagion risks revealed a continued trend to clustering of European markets. The main drivers were a general reduction in CDS exposures and increasing awareness of idiosyncratic risks by investors. Both reactions tend to curb contagion risks. In addition, investors assessed the idiosyncratic risks of the most vulnerable segments as being lower than in the previous quarter. Contagion risks remain high in exactly that group of markets. Contagion risks are unchanged compared to 2Q12.
Credit risk	In the last quarter securities markets in the EU witnessed increasing issuance volumes, concentrated mainly on asset classes with higher risk. At the same time sovereign debt maturity at issuance continued to decline, in particular for countries with distressed sovereign bond markets. Similarly, the concentration of outstanding debt at shorter maturities held by banks has increased. Despite European debt issuers' recent successful refinancing operations and narrowing spreads, there remain substantial credit risks for the future.

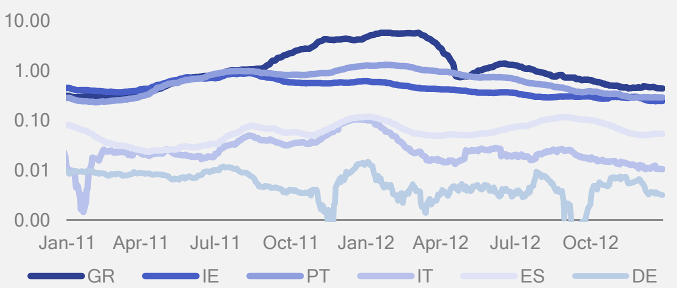
Note: Qualitative summary of assessment of main risk categories for markets under ESMA remit.

liquidity injections by central banks have been used as substitutes for market funding rather than as complementary funding tools. In the long run, low interest rates may also imply risks of distortions in capital allocation and foster search-for-yield strategies generating flows into high-yield and, by implication, more risky assets.

Market functioning: Recent investigations into alleged misconduct in interbank rate-setting have raised concerns about the reliability of benchmarks in financial markets. On secondary equity markets, 2012 events outside the EU, such as the cancellation of BATS IPO, the Knight event in the US and a recent sharp drop in Indian stock market prices over a very short time frame, have raised concerns over high-frequency trading. In times of financial market stress, the flow of funds from repo markets via prime brokers to hedge funds (and the reverse flow of collateral) is exposed to a potential hoarding of collateral by prime brokers which impairs the functioning of the entire chain.

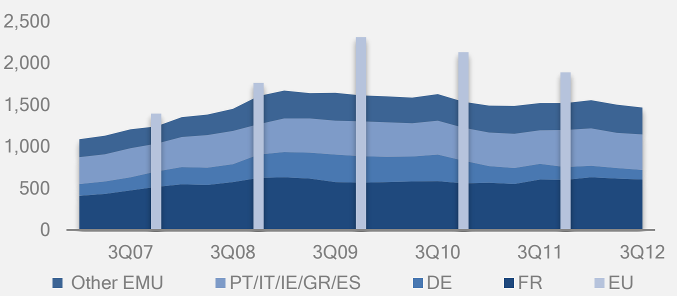
Liquidity risk

Liquidity increased across range of markets R.05



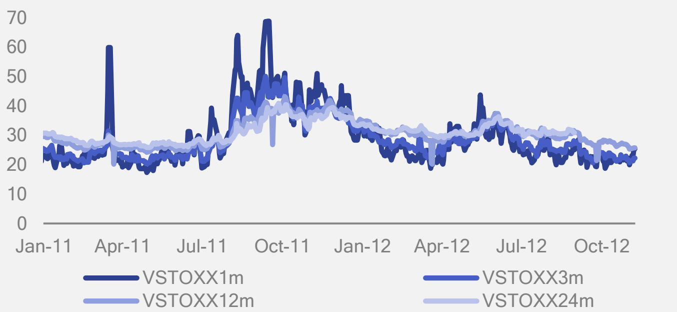
Note: Euro zone sovereign bid-ask spread in percentage points (logarithmic scale). 30D moving average.
Sources: Thomson Reuters Eikon, ESMA.

Slight decrease in supply to money markets R.06



Note: Volume of short-term securities issued, EU, EUR bn. Germany issued only Euro papers since 2011. Only yearly data available for non-EMU countries, stacked data.
Sources: ECB, ESMA.

Decline in volatility expectations, but dispersion compressed R.07



Note: Stoxx50 implied volatilities measured as indices, %.
Sources: Thomson Reuters Eikon, ESMA.

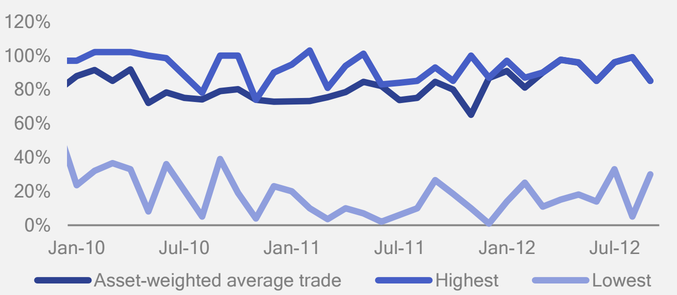
Liquidity risk remained stable over the last quarter. Its dispersion across market segments and regions remained high. The evidence below indicates that recent reactions by policy makers and market participants have reduced liquidity risks in some segments. However, other segments displayed deterioration in liquidity conditions. Markets therefore remain cautious on liquidity risks.

Sovereign bonds: In 3Q12 the bid-ask spreads of euro area sovereign bonds declined for several key countries, while holding roughly stable or increasing for others. However, there is considerable dispersion in levels across sovereigns. While some countries not yet using IMF and EU bailout funds still face lower market depth than other EU countries, in the first weeks of 4Q12 their markets improved in terms of the bid-ask-spreads. The continued volatility of German bid-ask spreads signals the presence of general doubts about market liquidity within the euro area.

Short-term securities: In 3Q12, the outstanding volume of short-term securities, which is the maximum liquidity available to money markets, fell slightly. In particular, the German market continued to contract, while in euro area economies with distressed sovereign debt markets volumes did not follow up on their previous growth, although they remain high. On the other hand, in France (the largest issuer in the euro area) and in the aggregate of all other euro area economies volumes recently grew or stabilized. In general, there is no evidence that money markets are seriously hampering the provision of liquidity within the euro area. Taken in conjunction with low interest rates, this indicates that the driving factor for the squeeze in the supply of capital to businesses is not a lack of liquidity, but rather the lack of intermediaries' willingness to extend credit because of the greater perceived risk.

Volatility: In 3Q12 implied volatilities on equity continued to decrease. A regular volatility index term structure existed until early November 2012, when compression in dispersion of the term structure began to increase again. Looking back at 2Q12, this constellation very probably heralds a reversal of the term structure in the near future. In this case, short-term risk expectations exceed long-term expectations. Equity markets would therefore expect a negative development in the near future, which is usually followed by

Price index for hedge fund shares on secondary markets R.08



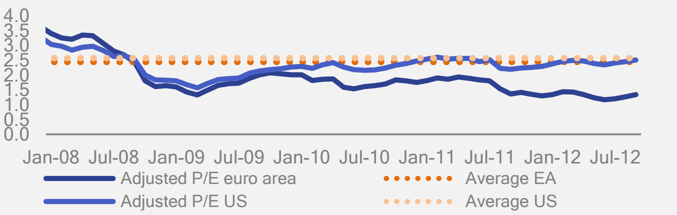
Note: Monthly price index for hedge fund shares on secondary markets, computed as the asset-weighted average trade in percent of the net asset value.
Sources: Hedgebay, ESMA.

a rise in implied volatilities. However, the current level of implied volatilities is comparatively low.

Liquidity premium: The liquidity premium required by investors to acquire hedge fund shares remains positive but declined on average over the last quarter. Meanwhile, variability in liquidity premia became more pronounced, while their dispersion decreased. Consequently, hedge funds performed better and the associated risks decreased. Funds with market directional strategies are reported to have underperformed in recent quarters, contributing to the high variation observed in returns. The improvements noted above thus imply that the impact of macroeconomic risks on the hedge fund sector's liquidity has recently declined.

Market risk

Adjusted price-earning ratios for euro area and US equities R.09

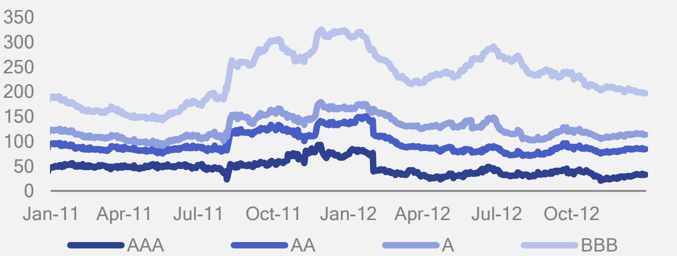


Note: Monthly earnings adjusted by a Kalman filter methodology which eliminates trends and cyclical factors based on OECD leading indicator, units of standard deviation. Averages computed over 2M73-11M12.
Sources: Thomson Reuters Datastream, ESMA.

In 3Q12 both equity and bond markets showed some signs of relaxation. Most particularly, riskier bond market segments' ability to generate yields was rewarded by ebbing investor aversion. Nonetheless, investments by the fund industry into European markets continued to decline. In total, market risks decreased slightly on 2Q12.

Equities: Despite an increase in 3Q12, the price-earnings ratios of equities in the euro area continued to underperform their long-term averages. Meanwhile, US equities continued the rebound that had persisted since summer 2011 interrupted only by a temporary dip. The recently widening gap between euro area and US price-earnings ratios has remained stable; hence the difference in the perception of macroeconomic conditions and prospects between the US and the euro area remains unchanged.

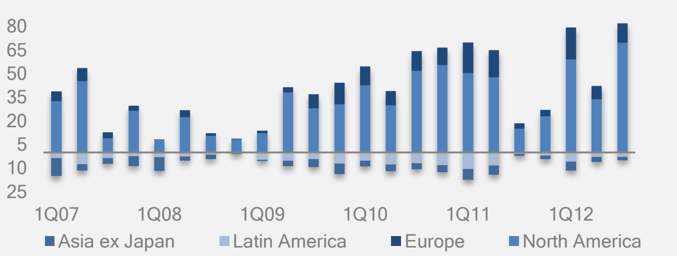
Recent rise in risk spreads slows again R.10



Note: Non-financial corporate bond spreads by rating grades, EMU, basis points.
Sources: Thomson Reuters Datastream, ESMA.

Bond Spreads: Bond spreads of investment grade non-financial corporations in the euro area reflect the macroeconomic uncertainty. In general, risk spreads in the last three months narrowed moderately. However, the decline was non-monotonic, displaying some volatility in perceived macroeconomic risks. Over the last month the decline in risk spreads gathered some momentum. This fall in levels might have been encouraged by macroeconomic policy actions, which began to restore some confidence in European debt markets. On the other hand, continuing outflows from Western European funds indicate that the situation is still uncertain.

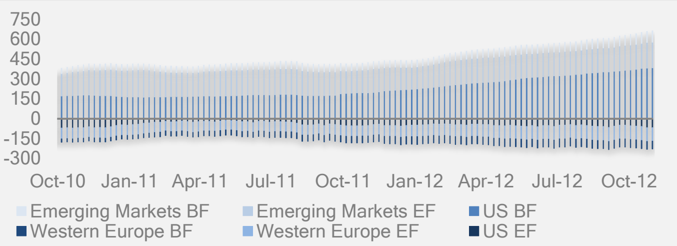
High-yield corporate bond issuance R.11



Note: Quarterly data on high-yield corporate bond issuance by issuer region, EUR bn.
Sources: Dealogic, ESMA.

Bond Issuance: Issuance of high-yield corporate bonds rose again sharply in 3Q12, with increases in both Europe and North America. The high volatility in issuance observed since mid-2011 persisted. Both effects can be traced back to loose monetary policies, still-high macroeconomic uncertainties around the world and investors' highly elastic risk premia.

Investments into funds follow investors' risk perceptions R.12

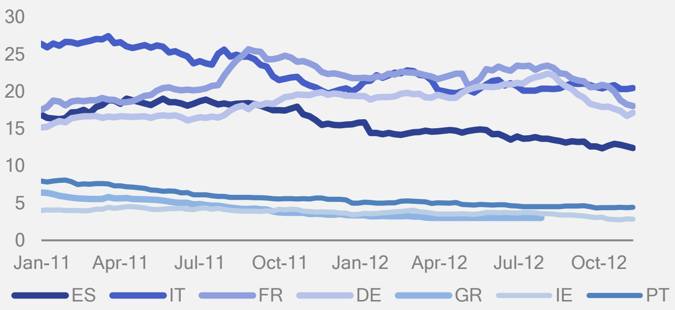


Note: Cumulative netflows into bond and equity funds (BF and EF, respectively) by regional investment focus, USD bn.
Sources: EPFR, ESMA.

Capital flows of funds: Risk perceptions also dominate the direction in which investments in fund companies flow. This behaviour continued in 3Q12. Due to the high macroeconomic risks investors perceived within the euro area, investments concentrated on markets and asset classes currently regarded as offering sustainable positive returns: emerging market bond and equity funds and US bond funds. A similar pattern applies within the euro area, where investments are channelled into funds focused on German bond and equity markets. In general, this flow pattern is supported by the evidence from adjusted price-earnings ratios.

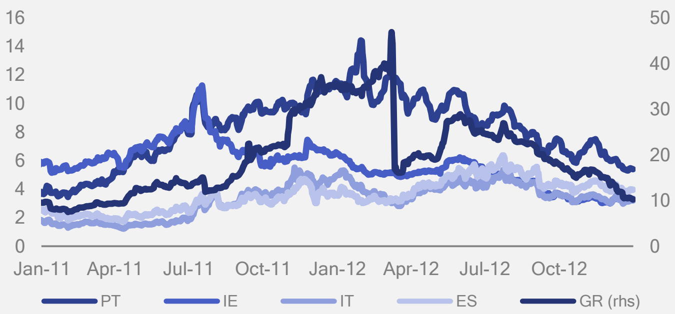
Contagion risk

European Sovereign CDS net notional amounts R.13



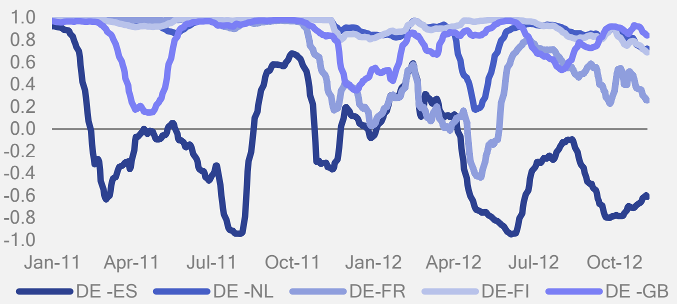
Note: USD bn.
Sources: Thomson Reuters Eikon, ESMA.

Sovereign risk premia improved, but remain high R.14



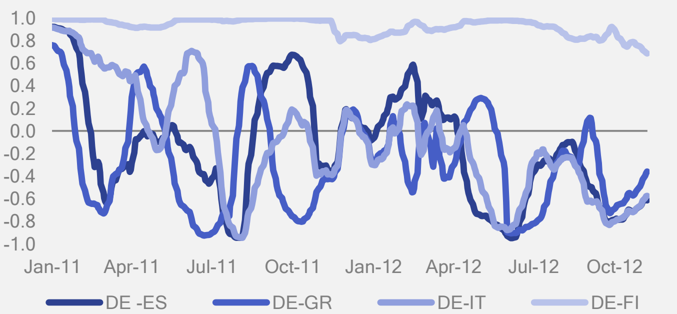
Note: Selected 10Y euro sov. bond risk premia (vs. German bond), percentage points.
Sources: Thomson Reuters Datastream, ESMA.

Distressed markets decoupled from other EU economies R.15



Note: Correlations over 60D rolling windows of 10Y sovereign bond redemption yields, EU.
Sources: Thomson Reuters Datastream, ESMA.

Markets with sovereign stress converge R.16



Note: Correlations over 60D rolling windows of 10Y sovereign bond redemption yields, EU.
Sources: Thomson Reuters Datastream, ESMA.

In 3Q12, conditions in the market segment currently most exposed to contagion risks revealed a continued trend to clustering of European markets along fiscal risk levels. The main drivers were a general reduction in CDS exposures and an increasing perception of idiosyncratic risks by investors. Both reactions tend to curb contagion risks. In addition, investors deemed the idiosyncratic risks of the most vulnerable segments lower than in the previous quarter. Nonetheless, contagion risks remain high within this group. Overall they are therefore unchanged on 2Q12.

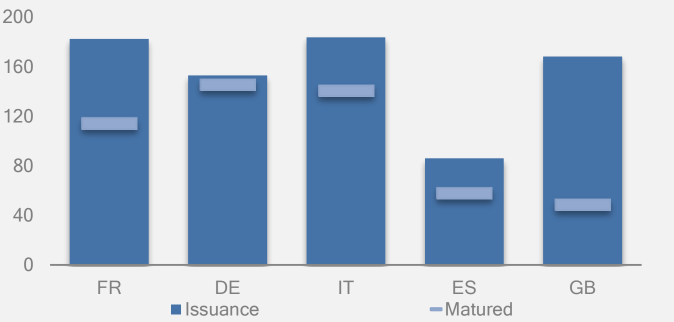
Sovereign CDS: In 3Q12 outstanding CDS net notional amounts continued to decrease for most euro area countries exposed to sovereign risk. Outstanding net notionals also started to fall for several euro area countries not yet associated with exceptionally high sovereign risks. This reflects an increasing reluctance on the part of CDS issuers to offer insurance that exposes them to sovereign debt, as well as lower demand for protection as a result of international investors' reduced activity in those particular asset markets, potentially caused by the entry into force of the Short Selling Regulation. The contagion risks to which the remaining international counterparties are exposed increased for most markets characterized by high sovereign risk. On the other hand, the reduction in overall international exposure to those markets does mitigate the increase in contagion risk to some extent.

Sovereign risk premia: In the last quarter, sovereign risk spreads in several euro area countries exposed to debt problems narrowed significantly. Recently, this trend has been reversed, with sovereign risk spreads for all observed countries starting to widen again. International bond investors still appear very sensitive to any new information on distressed European markets' sovereign debt. However, recent policy actions have relieved some of the market pressure.

Yield correlation: Correlations between the yields on 10-year sovereign benchmark bonds for European economies indicate increasing fragmentation of sovereign bond markets in Europe. While there is still some similarity between most Northern European sovereign bond markets, economies labouring under seriously distressed fiscal conditions saw their yield correlation with the other European sovereign debt markets reduced further in the third quarter of 2012. While this increasing market clustering is a cause for concern from a single market perspective, it also mitigates contagion risk as investors are increasingly using diverging risk levels to distinguish categories of sovereign debt in Europe. Nevertheless, the risk of contagion remains high within the group of countries exposed to sovereign debt problems. The negative correlation pattern between distressed European sovereign debt markets and other EU markets also indicates that investors are increasingly treating the two types of sovereign debt as substitutes in their portfolios. As a result, the issuance of new debt has become more challenging for individual sovereign issuers. Going forward, the associated reduction in maturities is maintaining the market pressure that is currently generating sizeable sovereign spreads, for the future.

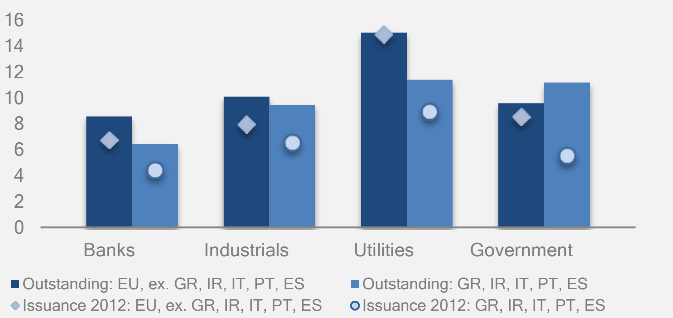
Credit risk

Sovereign stake on additional debt in 2012 R.17



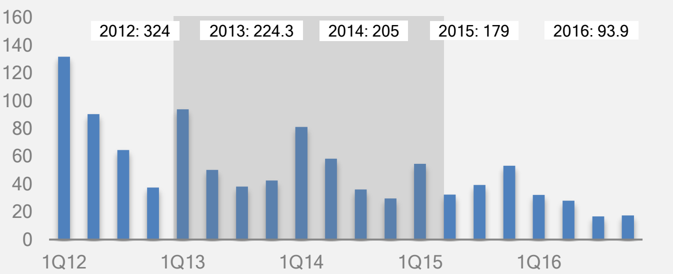
Note: Amounts of issued and matured public debt, selected EU sovereigns, EUR bn. 2012.
Sources: Dealogic, ESMA.

Maturities of outstanding and new debt in the EU by sectors R.18



Note: Maturities of outstanding and new debt (YTD) by sectors, EU, years.
Sources: Dealogic, ESMA.

Future EA banks redemptions imply high refinancing needs R.19



Note: Quarterly euro area banks' redemptions excl. LTRO (variable expiry between Dec-12 to Mar-15), EUR bn. Grey shaded area indicates increased financing needs of about EUR 1,018bn.
Sources: Dealogic, ESMA.

In the last quarter securities markets in the EU witnessed increasing issuance volumes, concentrated mainly on asset classes with higher risk. At the same time sovereign debt maturity at issuance continued to fall, in particular for countries with distressed sovereign bond markets. Similarly, the concentration of outstanding debt at shorter maturities has increased for banks. Despite the recent successful refinancing operations by European debt issuers and narrowing spreads, substantial credit risks remain for the future.

Issuance: In 3Q12, issuance of securities with a maturity of more than 18 months in the EU increased or remained stable in most market segments. The only exception has been lacklustre issuance in asset-backed securities markets. The concentration of increased issuing in market segments with higher risk classes, while issuance in liquid asset classes has remained stable, indicates that raising capital called for substantial risk premia. The temporary peak in non-financial corporate spreads observed in 3Q12 (see R.10) confirms this impression.

Refinancing: In the EU, the main sovereign issuers have successfully rolled over maturing debt. All sovereigns used the previously improved market conditions to issue additional debt. The maturity of the debt newly issued by sovereigns of economies in distress has apparently decreased substantially (see R.18), meaning that in the medium-term funding problems may arise again, especially if the supply of funds to those markets remains low for a prolonged period. Nevertheless, European sovereigns currently face no immediate serious threat to their refinancing capabilities.

Maturities: Newly issued securities meanwhile feature a lower average maturity than current outstanding debt (please note that the data is not controlled for volume), the trend being more pronounced among EU countries directly exposed to high sovereign risk. In particular, issuers normally characterized by longer maturities shortened the maturity of their newly issued securities. The strongest reduction in maturity was observed in sovereign debt issuing in distressed market segments. Since debt turnover has risen at the same time, the amount of postponed credit risk has increased. Moreover, the uniform maturity reduction in the EU banking sector reflects a common pattern in bank behaviour and might therefore imply an additional contagion channel.

Bank redemptions: The maturing debt needing to be refinanced by private euro area banks by the end of 2016 jumped in the last quarter from EUR 826bn to EUR 864bn. Of this total EUR 521bn needs to be refinanced by 1Q15. These refinancing requirements do not include obligations to central banks, which are usually in the form of short-term debt. However, the three-year LTRO facilities provided by the ECB in December 2011 (EUR 489.0bn) and March 2012 (EUR 529.5bn) both have a maturity of three years, with early repayment possible any time after one year. These additional financing requirements of EUR 1,018.5bn push up European banks' refinancing needs to roughly EUR 1.5tn between 4Q12 and 1Q15, meaning the future credit risk remains substantial for Europe's banking sector. However, factors such as deleveraging and restructuring processes and the downsizing of the banking industry may reduce banks' funding needs.

European Securities and
Markets Authority