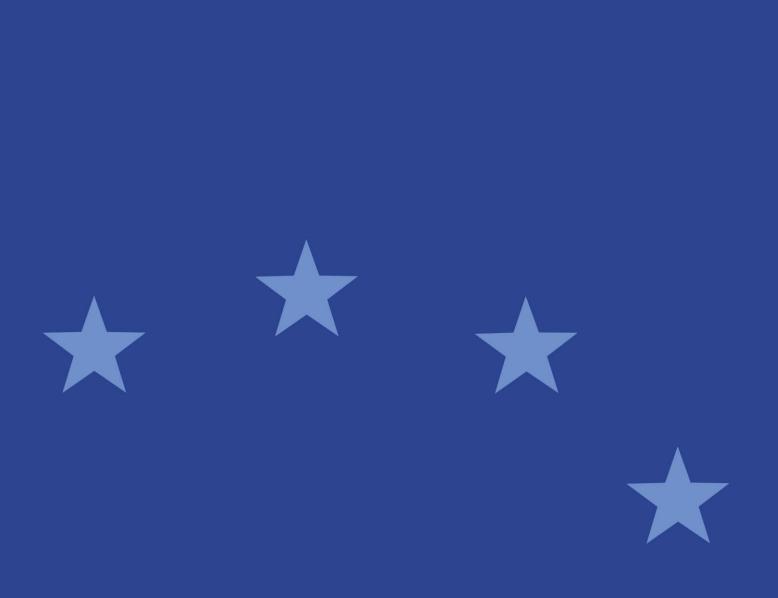


# **ESMA Risk Dashboard**

No. 1, 2015



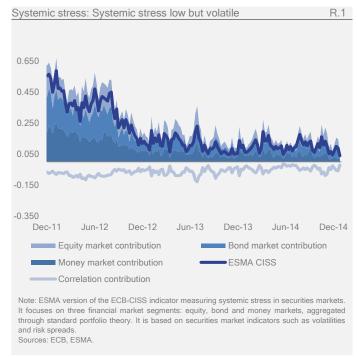
ESMA Risk Dashboard, No. 1, 2015

ESMA Economics and Financial Stability Unit

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## ESMA Risk Dashboard





Main risks: Categor	ies		R.3
Risk category	Risk level	Change since 3Q14	Outlook for 1Q15
Liquidity risk		77	<b>→</b>
Market risk		7	<b>→</b>
Contagion risk		<b>→</b>	<b>→</b>
Credit risk		<b>→</b>	4
Note: Assessment of main risk categories for markets under ESMA's remit since last quarter and outlook for the following quarter. Risk Heat Map measures current risk intensity. Upward arrows indicate a risk increase; downward arrows indicate a risk decrease. Risk assessment based on categorisation of ESMA Risk Heat Map.   green=low, yellow=moderate, orange=high, red=very high.			

arrows indicate a decrease in the contribution to risks

In 4Q14, EU systemic stress increased slightly, showing higher volatility than in the previous period. Contagion risk remained broadly stable at sustained levels. Liquidity and market risk held persistently high levels, with market risk partially materialising in the reporting period. The release of lower-than-expected macroeconomic data at the beginning of 4Q14 was followed by significant price swings and increased volatility in both EU and US markets. Increasing risk perception raised the pressure on market liquidity in the EU. Credit risk is high but may ease in the near future as major steps to ensure and increase soundness and stability in the banking system were taken in 2014 with the AQR and stress test exercise.

Systemic stress: Following its 3Q14 increase, systemic stress displayed higher volatility than in the previous reporting period, though remaining at relatively low levels, in line with continued monetary support. The rise in volatility was due mainly to equity markets first falling in October and then recovering at the end of the year. At the beginning of the quarter increased implied volatilities, the downturn in equity prices and lower P/E ratios signalled that valuation concerns were beginning to materialise in the markets, although they continued to fluctuate over the quarter. In fixed income markets prices remained high, even if they did differ more across asset classes, while risk premia were low, pointing to persistent valuation risks. The higher implied fixed income volatilities suggest that the potential for market corrections is Drivers possibly include weaker-than-expected economic recovery, persisting downside influences including geopolitical tensions, local pockets of stress in debt markets, expectations of divergent monetary policies, commodity price and exchange rate dynamics, and the increasing emergence of vulnerabilities in market functioning.

### **Economic environment**

Macroeconomic conditions: The release of lower-than-expected macroeconomic data at the beginning of 4Q14 was followed by significant price swings and increases in volatility in both EU and US markets. The persisting economic weakness and low inflation outlook in EU, uncertainty over the commitment to further structural reforms by some Member States and subdued global economic growth have raised concerns in financial markets, with valuations in riskier assets softening while increasing for safer assets. External risk factors stemming from emerging markets, including Russia, Ukraine and China, further complicated the macroeconomic context for markets. Yet in November, better-than-expected performance statistics released on the two largest EU economies contributed to a recovery in EU financial markets.

Interest-rate environment: Monetary policy support remained strong, as interest rates persisted at record lows, having crossed the zero bound, and the ECB decided on additional measures to bolster credit, namely TLTRO, ABS and covered bond purchases by the central bank. Within the sustained low-interest rate environment there were signs of search-for-yield behaviour slowing amid a revived appetite for safer assets, and yield compression in government and corporate bond markets came to a halt. This is potentially associated with heightened uncertainty surrounding the future economic outlook and interest rate expectations across major economic areas.

# Main risks: Summary assessment Risk category Summary

## Liquidity risk

Intensified pressures on market liquidity were observed in 4Q14, with growing risk perception a significant driver. Even if liquidity was still ample, signs of augmented market stress were observed, especially at shorter maturities. Increased equity and bond price fluctuations were evident, with greater divergence across countries, related to recent economic developments as well as uncertainty surrounding national reforms. Implied interest rate volatility remained mounting confirming uncertainties regarding future macroeconomic risks and the effectiveness of policy measures. These cyclical changes were accompanied by growing market concerns over a structural deterioration in market liquidity.

#### Market risk

Market risk partially materialised in 4Q14. heightened market uncertainty was reflected in volatile stock market performance and increased dispersion in corporate bond spreads, with spreads for higher-rated bonds narrowing while those for lower-rated bonds partially increased. Aggregate equity PE ratios fell further below their long-term average, as stock valuations in the EU largely fluctuated in 4Q14. Heightened risk perceptions, especially for short-term maturities, as observed in increased implied volatilities, may explain the divergence in yields across rating classes, indicating a revival in demand for safer assets. As in previous quarters, high-yield issuance remained subdued in 4Q14 and continued to shrink, as concerns regarding EU and global growth perspectives grew. Market outflows continued in US and global markets focused on bond funds as well as in EU equity funds.

## Contagion risk

In 4Q14, contagion risk remained broadly stable at high levels, with several countries facing increasing sovereign bond spreads. Improvements for some vulnerable countries were reflected in declining CDS exposures. However, a few larger sovereigns saw their exposure increase, indicating an increase in demand for insurance against default risk. Dispersion in sovereign bond markets rose, mirroring risk repricing in the light of the current macroeconomic uncertainty. Conversely, corporate-sovereign bond yield correlations remained stable at high levels, signalling low dispersion within countries.

#### Credit risk

Credit risk remained high in 4Q14 but may start to recede. Major steps to ensure and reinforce soundness and stability in the banking system were taken during 2014. These include the AQR and stress test exercise in the banking sector and the launch of SSM in November 2014. Net sovereign debt issuance declined in most countries, due partly to seasonality, but increased in two large economies. More activity is seen in the MBS segment, driven mainly by one big economy. Debt maturity remained broadly constant across sectors, with a reduction observed in the industrial sector in peripheral countries and in the banking sector in both peripheral and core countries. Developments in redemption profiles were varied, increasing in the short to medium term for banks while decreasing for financials.

Note: Qualitative summary of assessment of main risk categories in markets under ESMA's remit.

Market functioning: Risk summary

## Risk Summary

### Bench-

#### Benchmarks

Investigations into potential benchmark manipulations continued. They extended to foreign exchange fixing, oil and precious metal indices. In 4Q14, the European Parliament continued its work on amendments to the benchmark rules in response to the manipulation of interest rate benchmarks. The continuity of interest rate benchmarks remains a concern: one bank left the Euribor panel, which remained roughly stable at 25 banks. IOSCO published a review of the implementation of the IOSCO Principles for Financial Benchmarks for foreign exchange rates alongside a FSB report on foreign exchange benchmarks.

## Market infrastructures

No major events threatening operational stability have been observed so far in 4Q14 in the EU. The market structure continued to evolve, partly in response to regulation. Risks are carefully monitored, including with respect to interest rate volatility and potential resultant liquidity constraints and collateral scarcity. Scrutiny on cyber security, jointly from supervisors and the industry, has been intensified, as cyber attacks are becoming one of the principal concerns for the financial services industry.

## Conduct

Risks stemming from inappropriate business conduct and business practices are growing, as evidenced by more frequent fines, increases in redress costs and growing regulatory awareness. In November six major banks were fined a total of USD 4.3bn over their role in foreign exchange rate manipulation.

Note: Qualitative summary of assessment of main risks to the functioning of markets under

Sovereign-bank nexus: The AQR and stress-test results were published in 4Q14. The EBA EU-wide stress test saw 24 banks out of 123 falling below the required capital thresholds, with a total capital shortfall of EUR 24.6bn. During 2014, important actions were taken on capital, reducing capital requirements to EUR 9.5bn and the number of banks with a shortfall to 14. The Joint Supervisors Team will supervise plans to address the capital shortfalls identified. Major steps were thus taken in 2014 in the banking sector to ensure and increase soundness and stability in the system and reduce the risks of spill-overs from the real economy and sovereigns to the banks.

#### **Conditions in securities markets**

Risks in EU sovereign debt markets: The recent negative economic news and mounting uncertainty concerning the effectiveness of policy measures depressed market confidence and was reflected in increased yields and higher variability, particularly in some more vulnerable economies. Pricing of risk remained low, as reflected by the still relatively high sovereign bond valuation, although this became increasingly volatile and fluctuated sharply, especially for two more vulnerable countries, signalling increasing market uncertainty.

**Market clustering:** Bond yield correlation between sovereigns and corporates in the same jurisdiction continued to be broadly stable at high levels. Correlation among sovereigns declined a little, especially for some weaker economies, within a higher-dispersion context.

**Funding risk:** Short-term funding requirements appear to have fallen across sectors (cf. R.21), with maturities remaining broadly constant. The important supervisory changes characterising the banking sector could improve the stability and soundness of the system. It should be noted, however, that liquidity risks may arise from country-specific differences, potential market imbalances and reduced incentives for market-makers in providing liquidity.

**Valuation risk:** Low interest rates persisted in the EU, with yields lingering at very low levels. However, risk perception increased. Potential drivers include increasing concerns surrounding economic growth and the risk of low inflation in EU as well as increased global uncertainty – uncertainty over US future monetary policy stance, worsened global economic outlook, low oil price and more volatile exchange rate dynamics. The sudden stock and bond price swings observed at the beginning of 4Q14 seemed to reflect a materialisation of market risk, expected to remain high in the light of persistent uncertainty regarding economic fundamentals.

Market functioning: Issues around financial market abuse, including benchmark manipulation and conduct risk, continued to be a concern. Important steps have been taken across jurisdictions to reduce vulnerabilities in market functioning and restore confidence and trust in the market. Moves include increasing transparency and putting in place supervisory practices and tools to better assess and identify conduct risk and risks affecting market structure, including benchmark manipulation and predatory trading strategies. For a more detailed summary risk assessment see textbox R.5.

## Liquidity risk

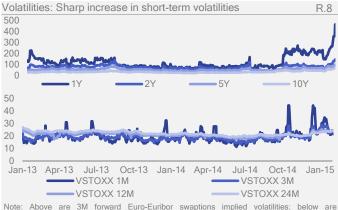


Note: 10Y EA sovereign bond bid-ask spread in percentage points; logarithmic scale, 30D moving average.

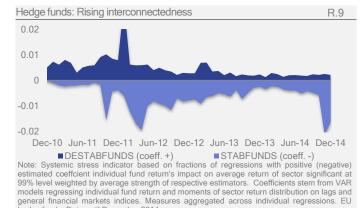
Sources: Thomson Reuters Eikon, ESMA.



Note: Composite indicator of liquidity in the equity market for the Eurostoxx50 constituents, computed by applying the principal component methodology to six input liquidity measures (Amihud illiquidity coefficient; bid-ask spread, Hui-Heubel ratio, turnover value, inverse turnover ratio, MEC). The indicator range is between 0 (higher liquidity) and 1 (lower liquidity). Sources: Datastream. ESMA.



Note: Above are 3M forward Euro-Euribor swaptions implied volatilities; below are Eurostoxx50 implied volatilities measured as indices; %. Sources: Thomson Reuters Datastream, ESMA.



hedge funds. Data until December 2014

Sources: Barclayhedge, Eurekahedge, TASS, HFR, ESMA.

Intensified pressures on market liquidity were observed in 4Q14, with increasing risk perception acting as a significant driver. Even if liquidity did remain ample, signs of augmented market stress surfaced, especially at shorter maturities. Increased equity and bond price fluctuations were observed, with greater divergence across countries, related to more recent economic developments and uncertainty surrounding national reforms. Implied interest rate volatility remained high, confirming mounting uncertainties regarding future macroeconomic risks and the effectiveness of policy measures. These cyclical changes were accompanied by growing market concerns over structural deterioration in market liquidity.

**Sovereign bond bid-ask spreads:** In 4Q14, the narrowing in bid-ask spreads came to an end, particularly for more vulnerable countries. Lingering market uncertainty and heightened risk perception negatively affected market confidence and resulted in wider fluctuations, especially in one more vulnerable country, while holding generally stable for core economies. Even though the more recent monetary policy measures continued to support liquidity, divergence in liquidity conditions across countries persisted. This may reflect increasing market attention to country-specific differences related in particular to the on-going uncertainty surrounding the latest economic developments and the effectiveness of national reforms. Thin liquidity is also of growing concern, as structural market changes may have modified costs and incentives for market makers in the provision of liquidity services.

**Equity illiquidity index:** Tensions in equity markets during 4Q14 were reflected in fluctutations in the equity illiquidity index which, after easing briefly end-November, rose again in December. The liquidity components driving this increase were those that measure the width and depth of market liquidity, namely the bid-ask spread and Hui-Heubel liquidity ratio, and the Amihud price impact measure associated with stock price and volatility movements.

Volatility: Implied interest rate volatility at short maturities continued to increase, followed by abrupt movements in the equity market, as VSTOXX1M jumped to record highs. Such developments mirror a broad increase in market uncertainty and tensions across market segments, as observed in sudden price swings in both equity and bond prices as well as recent oil prices and exchange rate dynamics. The current high implied volatilities of interest rates at short horizons can be explained by the combined effect of different forces, including a low interest rate environment causing even slight changes in prices to have a huge impact on volatility, and rising concerns over the near-term economic outlook, along with commodity prices and exchange rate dynamics, as well as inflation dynamics, particularly in the EU.

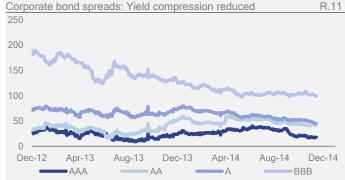
**Hedge funds:** In 2H14 rising interconnectivity within the hedge fund sector, albeit starting from a moderate level, called for cautious monitoring. Intra-sectoral contagion risks heightened. The degree to which funds followed sector trends fluctuated along a declining trend, while funds hedged against sector trends remained well insulated. The unusual negative impact of individual fund profitability on inter-sectoral return dispersion observed since late 2013 remained present, implying some form of risk hedging by hedge funds. This coincided with a strong increase in observed market volatility.

## **Market risk**

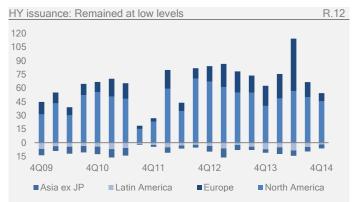


Note: Monthly earnings adjusted for trends and cyclical factors via Kalman filter methodology based on OECD leading indicators; units of standard deviation; averages computed from 8Y. Data available until the end of November.

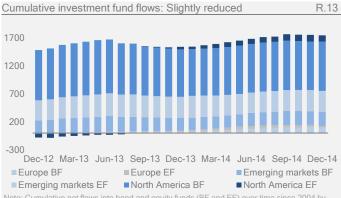
Sources: Thomson Reuters Datastream, ESMA.



Note: Non-financial corporate bond spreads by rating grades between iBoxx non-financial corporate yields and ICAP Euro Euribor swap rates at maturities 5-7 years; EA, basis points. AAA-rated bonds data available since December 2012. Sources: Thomson Reuters Datastream. ESMA.



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



Note: Cumulative net flows into bond and equity funds (BF and EF) over time since 2004 by regional investment focus; USD bn.
Sources: Thomson Reuters Lipper, ESMA

Market risk partially materialised in 4Q14. Increased market uncertainty was reflected in volatile stock market performance and in greater dispersion in corporate bond spreads, with spreads for higher-rated bonds narrowing while some of those for lower-rated bonds increased. Aggregate equity PE ratios dipped further below their longterm average, as stock valuations in the EU largely fluctuated in 4Q14. Heightened risk perceptions, especially for short-term maturities, as observed in increased implied volatilities, may explain the divergence in yields across rating classes, indicating revived demand for safer assets. As in previous quarters, high-yield issuance remained subdued in 4Q14 and continued to decrease as concerns regarding EU and global growth perspectives grew. Market outflows continued in US and global markets-focused bond funds as well as in EU equity funds.

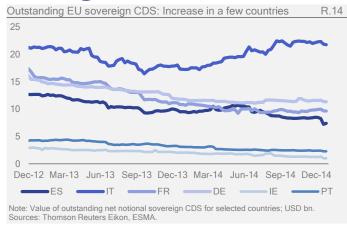
Adjusted equity PE ratios: The reduction in PE ratios in the EA already seen at the end of the previous quarter continued as equity prices largely fluctuated in 4Q14. Stock market performance was weak across countries in October, with stronger economies also experiencing significant declines in price valuations, but then recovered later on in the quarter. Noteworthy is the subdued performance across different commodity markets since the first half of the year, as reflected in the poor performance of composite commodity indices, and related currency dynamics. Concerns about persisting economic weakness and the low inflation outlook in the EU as well as subdued global economic growth seem to have partially materialised, impacting market confidence and pushing volatility upwards.

Corporate bond spreads: In 4Q14, yield compression in corporate bonds was reduced. Spreads for higher rated bonds narrowed and lower rated bond spreads marginally widened. This reversal had already begun at the end of 3Q14, reflecting intensified uncertainty and heightened risk perceptions among investors. While investors continued to look for profitable opportunities in a persistently low interest environment, the recent weaker macroeconomic growth prospects together with deflationary concerns may have increased the appetite for low-risk investment opportunities and safer assets.

**High-yield corporate bond issuance:** High-yield corporate bond issuance in the EU, already low in 3Q14, declined further. High-yield debt issuance in the EU fell by 60% in 4Q14 compared to 4Q13. Even more significant is the drop in issuance in Latin America (-73%). A drop of this magnitude would seem to confirm higher risk sensitivity across markets. By way of contrast, in the US the level of High-yield issuance was broadly in line with same period of 2013.

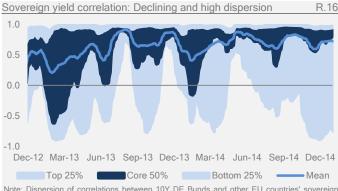
Investment fund flows: In 4Q14, negative flows of EUR -11.3bn and EUR -3bn respectively were observed for bond and equity funds focused on EU. A similar trend was also apparent for funds concentrated on EM (EUR -3bn and EUR -6bn respectively). This may mirror the increased risk sensitivity and intensified investor concerns regarding the macroeconomic outlook in both the EU and globally. Conversely, positive fund flows were registered for US bond-focused funds (EUR 10.8bn).

# **Contagion risk**

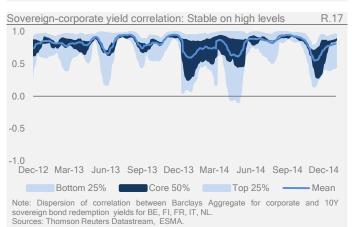




Note: Selected 10Y EA sovereign bond risk premia (vs. DE Bunds); percentage points. For GR spreads above 12 bp before December 2012. Sources: Thomson Reuters Datastream, ESMA.



Note: Dispersion of correlations between 10Y DE Bunds and other EU countries' sovereign bond redemption yields over 60D rolling windows. Sources: Thomson Reuters Datastream, ESMA.



In 4Q14, contagion risk remained broadly stable at high levels, with several countries facing increasing sovereign bond spreads. Improvements for some vulnerable countries were reflected in declining CDS exposures. A few larger sovereigns, however, saw their exposure increase, indicating an increase in demand for insurance against default risk. Dispersion in sovereign bond markets rose, mirroring risk repricing in view of the current macroeconomic uncertainty. Conversely, the corporate-sovereign bond yield correlations remained stable at high levels, signalling low dispersion within countries.

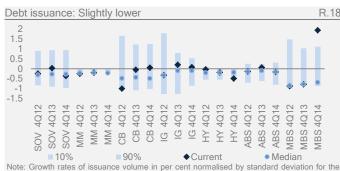
**Outstanding EU sovereign CDS**: Net volumes held stable or decreased for most member states in 4Q14, with the exception of one large country, probably in association with the continued negative economic outlook and increasing concerns over the commitment to additional structural reforms. This was also reflected in increased CDS spreads. Such movements should be closely monitored in an environment of increasing uncertainty and declining market confidence.

**Sovereign spreads**: Spreads of several vulnerable EU sovereigns' 10Y bonds relative to Bunds widened at the start of 4Q14, mirroring greater apprehension in the market, which was also borne out by increased volatility in market valuations. This was particularly marked in the case of one vulnerable sovereign, which saw significant increases in both spreads and volatilities at the beginning of the current quarter. Yield compression seems to have come to a halt, indicating that increased uncertainty and risk repricing are prompting investors to seek safer investment opportunities.

**Sovereign yield correlation**: Sovereign bond yield correlations fluctuated in 4Q14, remaining positive but declining and, indeed, reaching negative territory in two weaker countries that drove dispersion in the bottom 25% of the distribution. Differences like this reflected increasing variance in sovereign bond yields and risk repricing. Possible drivers include the weaker macroeconomic outlook in both the EU and globally, and recent increases in perceived risks for some Member States, particularly with regard to their commitment to pursuing national structural reforms.

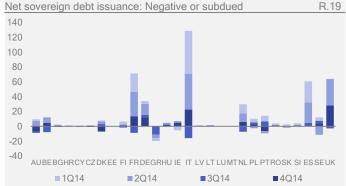
Sovereign-corporate yield correlation: In 4Q14, correlation between corporate bond yields and sovereign yields of the respective jurisdictions remained stable at high levels, with reduced fluctuation among the top 25% of the distribution. Although lower among the bottom 25% driven by two large countries, correlation remained largely positive. However, fluctuations were relatively more subdued compared to the end of 3Q14. As already observed in previous quarters, national differences between corporate and sovereign bond segments remained in check, probably reflecting existing fragmentation along geographical lines but not within countries.

## **Credit risk**

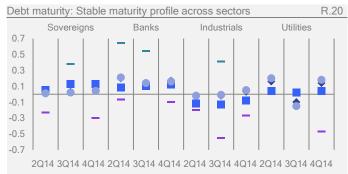


Note: Crowth rates of issuance volume in per cent normalised by standard deviation for the following bond classes: sovereign (Sov); money market (MM); covered bonds (CB); investment grade (IG); high-yield (HY); asset backed securities (ABS); mortgage backed securities (MBS). Percentiles computed from 11Q rolling window. All data include securities with a maturity higher than 18M. Bars denote the range of values between the 10th and 90th percentiles.

Sources: Dealogic, ESMA.

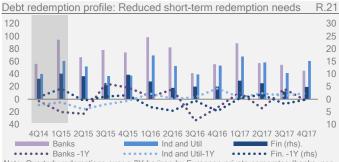


Note: Quarterly net issuance of EU sovereign debt by country, EUR bn. Net issuance calculated as the difference between new issuance over the quarter and outstanding debt maturing over the quarter.
Sources: Dealogic, ESMA.



◆ EU AVG −EU MIN (if on scale) −EU MAX (if on scale) ■ CGIIPS ● Non-CGIIPS Note: Quartely change in maturity of outstanding debt by sector and country groups in the EU, years. CGIIPS include CY, GR, IT, IE, PT and ES. Min and Max may not be displayed where they are out of the scale provided in the graph.

Sources: Dealogic, ESMA.



Note: Quarterly redemptions over a 3Y-horizon by European private corporates (banks, non-bank financials, and industrials and utilities), current and change over last year (dotted lines), EUR bn. Excluding bank redemptions to central banks. Grey-shaded area relates to the ECB's LTRO, which expires in March 2015 and reflects additional financing needs for banks of about EUR 278bn.

Sources: Dealogic, ESMA.

Credit risk remained at high levels in 4Q14 but may start to recede. Major steps to ensure and enhance soundness and stability in the banking system were taken during 2014. These include the AQR and stress test exercise in the banking sector. Net sovereign debt issuance declined in most countries, partly due to seasonality, but increased in two large economies. More activity is seen in the MBS segment, driven mainly by one big economy. Debt maturity remained broadly constant across sectors, with a reduction observed in the industrial sector for peripheral countries and in the banking sector in both peripheral and core countries. Developments in redemption profiles were varied, increasing in the short to medium term for banks while decreasing for financials.

**Debt issuance:** Issuance remained subdued in 4Q14 across market segments, with the exception of MBS, where it increased on a year-on-year basis, reaching EUR 10.3bn in 4Q14, 6.5bn more than in 4Q13, driven chiefly by one large economy. CB issuance also increased, albeit only marginally, standing at around EUR 26.3bn in 4Q14 (against EUR 23.7bn in 4Q13). But more significant changes will probably be observed in the future in the light of recent monetary policy interventions.

**Net sovereign debt issuance:** As in 3Q14 with negative net issuance dominating throughout the EU, net issuance was negative or subdued in 4Q14 with the exception of four large countries. Potential explanations are the deterioration in market sentiment, worsened economic outlook, re-pricing of risks and seasonal patterns, with subdued issuance following higher activity in the first half of the year.

**Debt maturity:** Maturity profiles in 4Q14 remained broadly constant across sectors and countries. Although the maturity profile for industrials remained stable on average, a marked reduction in maturities was observed in peripheral countries, partly mirroring increasing concerns over economic prospects. While the debt maturity profile for utilities remained constant in peripheral countries, it increased significantly in core countries.

**Debt redemption profile:** Redemption activity in 4Q14 was low, confirming the 3Q14 pattern. Compared to last year's bank debt redemption profile, redemption needs were lower at short term maturities while rising for maturities up to 18 months then falling again at the longer end. Industrials and utilities reduced their reliance on medium-term external funding, remaining constant over the longer term. As of end 2014, the outstanding LTRO balance to be repaid by the end of March 2015 stood at EUR 278bn. Another EUR 213bn allotted from the TLTRO facility in the two tranches in September and December 2014 will need to be repaid by September 2016 or 2018, contingent on benchmarks.

