Box 4

RECENT DEVELOPMENTS IN SPREADS ON CORPORATE BONDS ISSUED BY EURO AREA NON-FINANCIAL CORPORATIONS

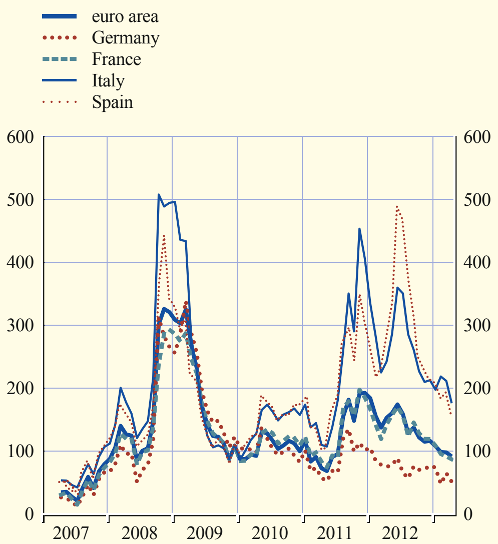
Monitoring corporate bond spreads is important for monetary policy transmission because such spreads affect the link between the central bank's policy rates and the corporate sector's cost of funds. Since mid-2012 euro area corporate bond spreads – defined as the difference between the yields on bonds issued by euro area non-financial corporations and the corresponding swap rates – have followed a downward trend. However, this is masking heterogeneous developments in corporate bond spreads across the individual euro area countries, as they remain significantly higher in the distressed countries. This box provides an analysis of these developments.

Downward trend in corporate bond spreads and slight reduction in heterogeneity across euro area countries

Following the two three-year longer-term refinancing operations (LTROs), corporate bond spreads declined sharply as of the end of 2011, before rebounding to high levels in the second quarter of 2012. Since the announcement of Outright Monetary Transactions (OMTs), these spreads have followed a continuous downward trend. For instance, from July 2012 spreads on investment grade corporate bonds (see Chart A) fell by 70 basis points, while spreads on high-yield corporate bonds (see Chart B) decreased by around 300 basis points. At the end of

Chart A Spreads on investment grade non-financial corporate bonds in the euro area and selected euro area countries

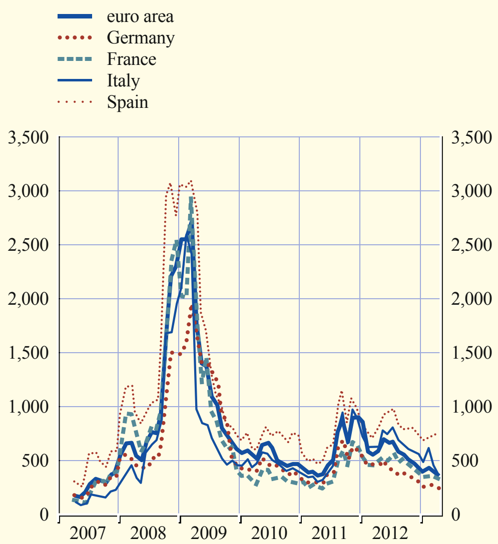
(basis points)



Sources: Merrill Lynch and ECB calculations.
Notes: The latest observation is for April 2013. Spreads are calculated against swap rates, taking into account maturity adjustment. Average remaining time to maturity is between three and six years.

Chart B Spreads on high-yield non-financial corporate bonds in the euro area and selected euro area countries

(basis points)



Sources: Merrill Lynch and ECB calculations.
Notes: The latest observation is for April 2013. Spreads are calculated against swap rates, taking into account maturity adjustment. Average remaining time to maturity is between three and six years.

April 2013, for the euro area as a whole, the average spread on non-financial corporate bonds was close to 350 basis points for the non-investment grade segment and 90 basis points for the investment grade segment. These spreads are relatively close to the historically low levels witnessed in 2007[1], when the spread on non-investment grade debt was around 280 basis points and that on investment grade debt stood at 45 basis points.

At the country level, there is still significant heterogeneity between the distressed and non-distressed countries. For instance, in Germany and France, spreads on investment grade corporate bonds have almost returned to the levels seen in 2007, but in Spain and Italy, they are still much higher than they were in 2007, although they have decreased significantly since September 2012. Overall, the heterogeneity in corporate bond spreads across the euro area, for example according to the standard deviation calculated for a selection of euro area countries,[2] started to decline in September 2012 following the announcement of OMTs, but nevertheless remains at a high level.

Greater issuance and reduced price discrimination among ratings

The spread compression on euro area corporate debt may be a sign that investors' attitude towards risk is changing in terms of both risk perception and risk aversion. This is reflected in the greater issuance of low-rated debt and reduced price discrimination with regard to the debt issued by corporates with different credit ratings. First, total issuance of euro area corporate debt was high in 2012 and even hit record levels for the high-yield segment in 2012 and the months up to June in 2013 (see Chart C). In addition, the share of high-yield debt in the total issuance of debt by euro area non-financial corporations reached 31% in the first quarter 2013, which is well above its long-term average of 13% since 1999. While part of the increase in the issuance of high-yield debt may reflect a greater willingness among investors to take on more risk, it may also reflect a composition effect stemming from a rise in corporate downgrades, as well as the substitution of bank-based financing for market-based financing, similar to that observed during the period 2009-10. Second, the changing attitude towards credit risk is evident in reduced price discrimination with regard to the debt issued by corporates with lower credit ratings. For instance, the gap between spreads on investment grade bonds and those on high-yield corporate bonds was 270 basis points in April 2013, down from a peak of 700 basis points in November 2011. Nevertheless, the spread compression across rating categories was even more pronounced prior to the crisis, with the gap amounting to only 120 basis points in May 2007. This suggests that investors are still discriminating more between different risk categories than they were before the crisis.

Underlying economic factors of corporate bond spreads

Corporate bond spreads compensate investors for both the expected default losses (i.e. the product of the probability of default and the expected loss given default) and for their aversion towards uncertainty about such losses. In addition, they may contain compensation for a number of non-credit risks, such as a liquidity risk premium, i.e. the additional compensation that investors require for bearing the risk that they may not always be able to sell their claim except at a substantial discount. Since the end of 2011 developments in corporate bond spreads have been

1 This period was characterised by the compression of spreads coupled with the search for higher returns, which tended to lead to a greater appetite for risk among investors. Therefore, caution is required when interpreting this period as a benchmark in terms of risk pricing.
2 Owing to data availability, standard deviations are calculated on the basis of the following countries: Germany, France, Spain, Italy, the Netherlands and Belgium.

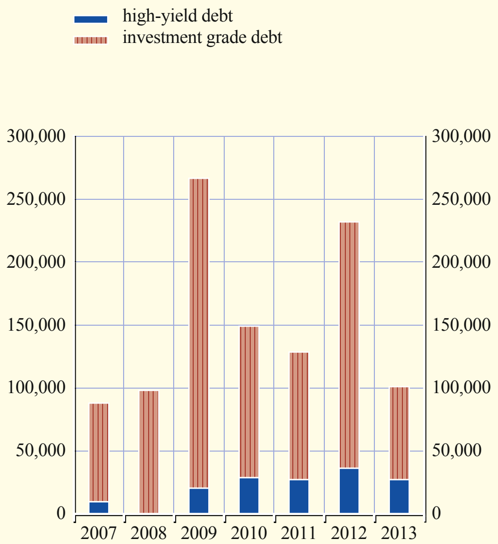
driven by several of these factors in an environment that has also been impacted by a number of policy measures, such as the three-year LTROs and the announcement of OMTs.

First, the renewed increase in spreads in the run-up to July 2012 can be explained by the deterioration in macroeconomic conditions which led to a pick-up in expected default losses, as partially reflected by the rise in expected default frequencies of listed euro area non-financial corporations (see Chart D). After the announcement of OMTs in September 2012, which triggered a decline in the perception of risk associated with euro-denominated assets, expected default frequencies started to decline gradually, alongside corporate bond spreads. However, expected default frequencies at the euro area level remain comparatively high by historical standards and relative to corporate bond spreads. While the level of expected default frequencies for euro area non-financial corporations was, on average, 0.1% in 2007, it stood at 0.9% in March 2013, amid the subdued economic outlook.[3] This suggests a potential misalignment between corporate bond spreads and the probability of default. With regard to the cross-country heterogeneity observed in spreads (see Chart A), it can be explained by the significant heterogeneity in expected default frequencies among the euro area countries (see Chart D).

Second, the low interest rate environment and exceptional monetary policy measures taken around the globe spurred investors to search for investment opportunities that offered higher returns. This triggered a rally in more risky assets, such as corporate bonds. Investor demand

Chart C Issuance of non-financial corporate debt in the euro area

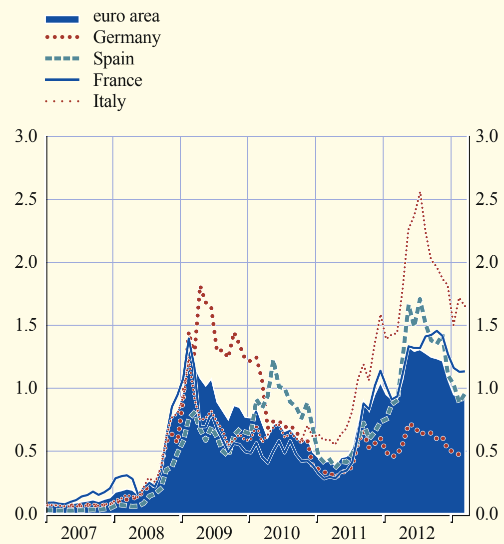
(annual data; EUR millions)



Sources: Dealogic and ECB calculations.
Note: The data for 2013 cover the months from January to May.

Chart D Expected default frequencies of listed euro area non-financial corporations

(percentages)



Sources: Moody's KMV and ECB calculations.
Notes: Expected default frequency is defined as the probability that a firm's asset value will fall below the default point one year ahead. For each country and the euro area, the calculation is based on the average of individual expected default frequencies, weighted by total assets. The latest observation is for March 2013.

3 However, when comparing expected default frequencies with corporate bond spreads, it should be kept in mind that the various indices do not necessarily cover the same corporates.

shifted first towards high-rated corporate bonds and then down the credit spectrum towards low-rated corporate bonds.

Third, the above-mentioned increase in issuance activity indicates that liquidity conditions in the corporate bond market have improved, which may have reduced the liquidity premium embedded in the spreads.

To sum up, although, in absolute terms, yields on euro area non-financial corporate bonds have reached a historical low, spreads remain somewhat above the levels witnessed in 2007. Moreover, issuance volumes rose considerably in 2012, in particular for low-rated debt. Overall, this points to a normalisation in market conditions, which is facilitating the transmission of monetary policy. At the same time, the possibility that, in some market segments, the appreciation of actual risks may not be sufficient warrants close monitoring.