

Box 9

CORPORATE BOND SPREADS AND DEFAULT EXPECTATIONS IN THE EURO AREA

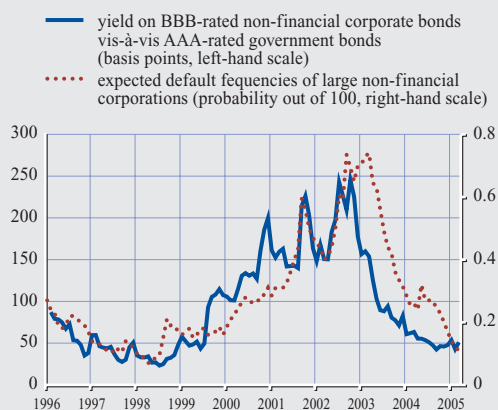
In theory, corporate bond spreads, defined as the difference between yields on corporate and government bonds with similar maturities, should be pricing in default expectations over the entire maturity of the bond. If the pattern in corporate bond spreads begins to suggest that market participants are not taking account of other forms of forward-looking information on default rates, this could be seen as a sign of myopia, and might suggest a risk of misaligned prices in the corporate bond market. This Box addresses the issue of whether prices in the euro area non-financial corporate bond market have become misaligned by examining the relationship between non-financial corporate bond spreads and two other forward-looking indicators for the short-term probability of default, i.e. over the next 12 months.

A direct equity market-based indicator for corporate sector credit risk is the median expected default frequency (EDF) within the following year of the roughly 850 largest stock market-listed euro area non-financial corporations. Assuming that defaults are correlated with the pace of economic activity, an indirect measure of credit risk is the average consensus economics forecast for euro area real GDP growth one year ahead. For instance, in the later stages of an economic upswing, as the pace of economic activity begins to peak, investors – because they are forward-looking – tend to demand higher risk premia, fearing that overinvestment may reduce future returns on capital, and that bankruptcy rates may begin to rise as well.¹

Charts B9.1 and B9.2 plot the corporate bond spread, defined as the spread between the yields on BBB-rated non-financial corporate bonds, the lowest investment-grade rating class, and on AAA-rated government bonds, the highest investment-grade rating class, together with EDFs extracted from the equity market, and the consensus GDP growth expectations for one year ahead. The first chart shows that corporate bond markets were more optimistic than equity markets after corporate bond spreads peaked in 2002, but that pricing became increasingly similar in early 2005, reflecting low volatility in equity markets – a key component in the estimation of EDFs (see Box 13). The second chart shows that corporate bond markets have mostly ignored information about the euro area economic outlook since 2003: while growth

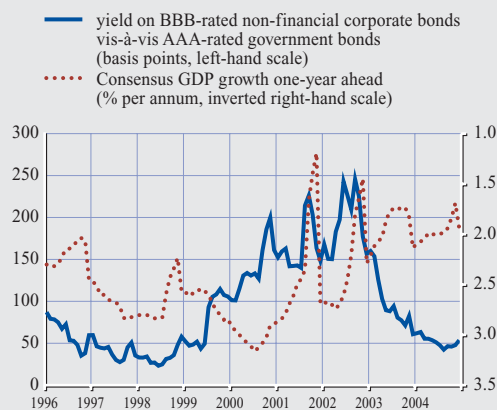
¹ See European Central Bank (2005), “Determinants of the Fall of Corporate Bond Spreads in Recent Years”, Monthly Bulletin, January, pp. 24-25, G. de Bondt (2004), “The Balance Sheet Channel of Monetary Policy: First Empirical Evidence for the Euro Area Corporate Bond Market”, *International Journal of Finance and Economics*, 9, 3, pp. 219-28 and Z. Zhang (2002), “Corporate Bond Spreads and the Business Cycle”, Bank of Canada Working Paper, No 2002-15, June.

Chart B9.1 Non-financial corporate bond spreads and expected default frequencies



Sources: Merrill Lynch, Moody's KMV and ECB calculations.

Chart B9.2 Non-financial corporate bond spreads and consensus one-year ahead real GDP growth



Sources: Consensus Economics, Merrill Lynch and ECB calculations.

forecasts declined, spreads continued to narrow. It should however be noted that the two expected short-term default rate indicators approximate the expected default rates 12 months ahead, whereas corporate bond spreads reflect default rates over the entire maturity of the bonds, which is on average about five years in the euro area.

To conclude, non-financial corporate bond spreads in the euro area have been lower than what might have been expected given patterns in the short-term outlook for economic activity, but their alignment with other indicators of credit risk such as EDFs has become closer. It is notable that bank interest rate spreads on loans to large corporations, which had tracked corporate bond spreads relatively closely in 2003 and 2004, have begun to edge up over the past six months (see Section 4). Hence, some indicators point to risks of misaligned prices in the euro area corporate bond markets. A likely factor explaining this is the hunt for yield, as mentioned in the main text of this review. It cannot, however, be excluded that technical factors such as the possibilities for arbitrage opened up by the development of collateralised debt obligation markets might also have played a role in the (mis)pricing of euro area corporate bonds. Hence, these markets may be vulnerable to a reappraisal of credit risk premia in the period ahead, especially if volatility in equity markets were to return to longer-term historical averages.