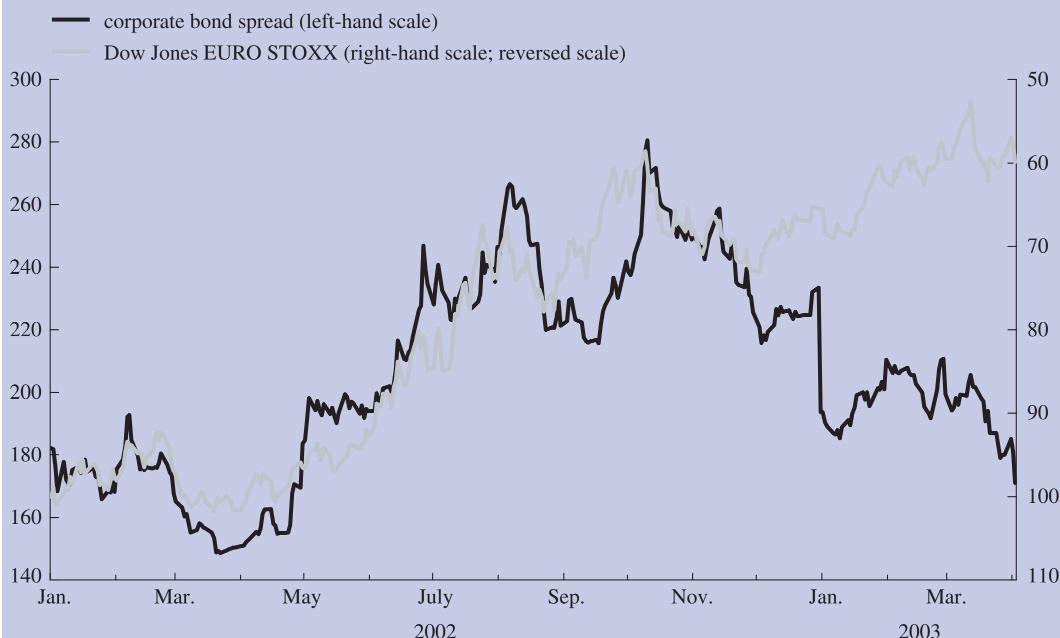
Box 2

Recent movements in corporate bond spreads and stock prices

The spreads of long-term corporate bond yields over government bond yields narrowed considerably between early October 2002 and 2 April 2003. Compared with the peak reached on 10 October 2002, the differential between the yields on long-term bonds issued by BBB-rated corporations and government bond yields in the euro area narrowed by 110 basis points by 2 April 2003. Between early October and late November 2002, this narrowing of spreads mirrored a rebound in the stock market. Subsequently, however, stock prices and corporate bond spreads started to de-couple (see Chart A). In December, while spreads continued to narrow, euro area stock prices resumed their downward trend with the broad Dow Jones EURO STOXX index declining by 18% overall between end-November 2002 and 2 April 2003. These developments took place in an environment in which macroeconomic data releases gave mixed signals, some corporate earnings forecasts were revised downwards, and geopolitical tensions intensified, contributing to the continued downward pressure on stock prices. This box examines some determinants of corporate bond spreads and attempts to identify factors that may have led to their recent de-coupling from stock prices.

Chart A: Corporate bond spreads of BBB-rated bonds versus stock prices in the euro area

(left-hand scale in basis points, right-hand reversed scale in index points; daily data)



Sources: Bloomberg, Reuters, ECB calculations.

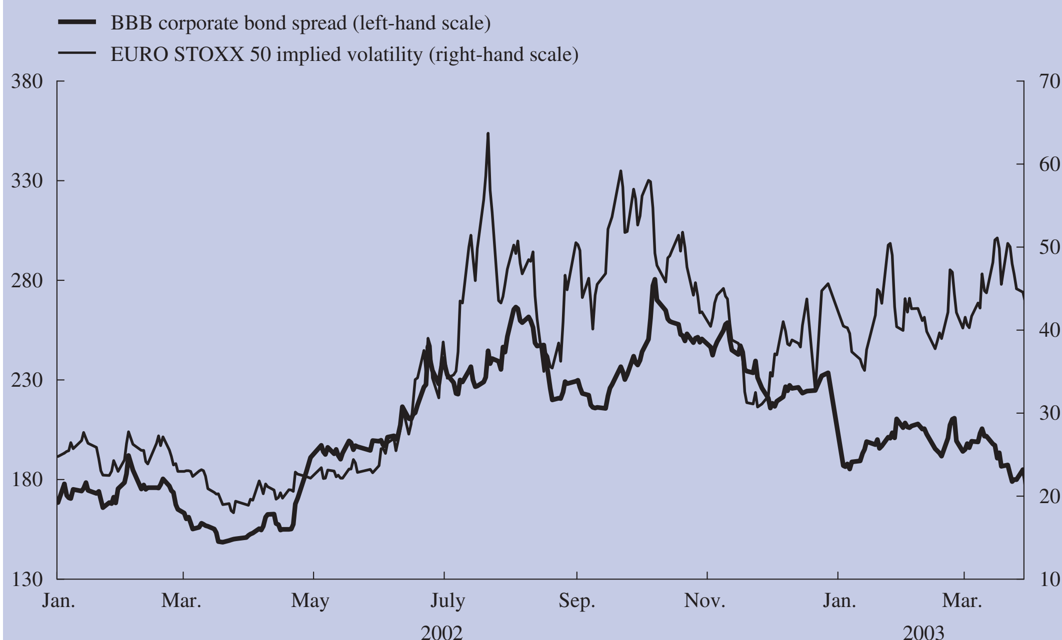
One of the main components of corporate bond spreads is the issuer's perceived risk of default. If market participants expect a firm's earnings prospects to deteriorate, they will demand a higher return to compensate for the higher risk of the corporation not being able to repay its debt. Thus, if a company is likely to default on its debt, bondholders will demand additional compensation for holding such a debt. Since default rates tend to rise as the pace of economic activity slows, rising credit risk will tend to cause corporate bond spreads to widen in cyclical downturns. Therefore, the expectation is that stock prices and corporate bond spreads are negatively correlated if earnings expectations are the main factor driving stock prices.

Corporate bond spreads also depend on the volatility of the value of corporations. The higher the volatility, the greater the risk of default at some point in time. The market's estimate of the volatility of the value of a corporation is the implied volatility of its stock price. The implied volatility extracted from options on the

Dow Jones EURO STOXX 50 index increased by 10 percentage points between end-November 2002 and 2 April 2003 (see Chart B). Hence the link between corporate bond spreads and implied stock market volatility does not seem to explain the de-coupling of corporate bond spreads from stock prices.

Chart B: Corporate bond spread and implied stock market volatility in the euro area

(left-hand scale in basis points, right-hand scale in percentages per annum; daily data)



Source: Bloomberg.

This would suggest that other factors were at work in bringing corporate bond spreads down. First, market participants may have become more confident that corporations with high leverage (or debt-to-equity) ratios have made efforts to restructure their balance sheets. Such de-leveraging could be suggested, for instance, by the slowdown in the pace of debt financing during 2002 (see page 19 of the March 2003 issue of the ECB's Monthly Bulletin). With lower leverage ratios, corporate bond investors would expect lower default probabilities. Second, the de-coupling could be merely a correction of the historically high levels of corporate bond spreads in 2002. Indeed, the levels reached in 2002 were the highest recorded since January 1999 and were significantly above long-term averages. Third, part of the decline since October 2002 can be attributed to the technical nature of the composition of the index. At the end of 2002 the composition of the BBB index was changed as some companies were downgraded, resulting in a one-off decrease in the measured yield spread for BBB-rated issues. Finally, in some countries pension funds and life insurance companies have recently moved out of equity holdings, partly for regulatory reasons. In addition, other investors are reported to have shifted their portfolio assets from equities to bonds. In searching for alternative instruments, investors may have found corporate bonds to be an attractive alternative to government bonds, due to the higher yields on corporate bonds.