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PRESS RELEASE

Exploring the CDS-Bond basis

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No-arbitrage assumptions have a key role in the pricing of financial instruments, and in finance theory more generally. As derivative markets for credit risk transfer have experienced tremendous growth over the past decade, it is worthwhile examining to what extent theoretical no-arbitrage relationships have held in this recently established segment of the global finance industry.

It can be shown that, under certain assumptions, investing in a credit risky bond together with buying a fixed-to-floating interest rate swap (combined position known as an asset swap), has the same economic risk profile as selling protection in a credit default swap (CDS). As a result, no-arbitrage arguments imply that the CDS premium should reflect the LIBOR spread on an equivalent asset swap.

The CDS-bond basis is defined as the difference between the CDS premium and the maturity matched par asset swap spread of the same reference entity. If this difference is higher (lower) than zero, it is said that the basis is positive (negative). Although the no-arbitrage assumption between CDS premia and asset swap spreads predicts the basis to be always equal to zero, this relation does not always hold in practice. A basis which diverges from zero might present an arbitrage opportunity.

Fourteen different factors have been detected that determine both the direction and the amplitude of the basis, which is firm-specific and time-dependent. Basis drivers can be ordered across two different axes. First, factors can be grouped according to their expected impact, as they can either cause the basis to become positive or negative, or even have a mixed effect. Second, factors can be grouped according to whether they are more fundamental or technical in nature.

It is shown in the paper that CDS and bond markets are closely related, as CDS premia and par asset swap spreads are mostly cointegrated. Nevertheless, it is found that for the period 2004-2005 the median CDS-bond basis was positive (7.5 basis points). Furthermore, the basis tends to be positively correlated with the level of spreads. Evidence of a basis smile is found across rating buckets. It is shown that the basis for emerging market sovereign entities is significantly higher than for corporate issuers, and that the basis is lowest in the 5-year segment of the CDS curve. Finally, it is argued that the basis for credits denominated in EUR is significantly lower than for contracts denominated in USD.

The interest of this paper is threefold. Firstly, it enables to get an in-depth understanding of the differences between two important, related segments of today's financial markets (credit-risky bonds and credit default swaps). Secondly, it arms the reader/investor to assess apparent arbitrage opportunities that may arise between those two market segments. Thirdly, it bridges between rigorosity of previous academic studies and invaluable hands-on experience of market participants.