

Credit risk in corporate spreads during the financial crisis of 2008: A regime-switching approach

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Corporate bonds are an important part of the asset mix in the majority of pension plans and life insurers portfolios. The risks embedded in these fixed-income securities could have a significant impact on the insurance industry and should be analyzed thoroughly. To this end, a flexible firm-specific credit risk model is designed to capture desired empirical facts. First, it includes a regime-switching variable that accommodates behavioural changes during financial turmoils. Second, the negative relationship between credit ratings and recovery rates is modelled with an endogenous random recovery rate that depends on a firm's financial health.

Using an estimation method tailored for the issue at hand and the term structure of credit default swap premiums for 225 firms, corporate credit spreads are investigated before, during and after the financial crisis of 2008. The recovery uncertainty has a major impact on mid- and long-term credit spreads. The proportion of the spread explained by credit risk decreases during the crisis; for instance, the explained proportion of 15-year BBB spot spreads decreases from 67% in the pre-crisis era to 42% during the crisis, on average. Liquidity risk plays a significant role in explaining this gap throughout the financial turmoil and persists thereafter.

Keywords: Credit spread, Credit default swap, Crisis, Credit risk, Liquidity risk.

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