D E R I V A T I V E S

Cash-Flow Maturity and Risk Premia in CDS Markets

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Working paper

One of the main determinants of the riskiness of a corporate bond is its maturity. Long-maturity obligations tend to be more sensitive to changes in credit fundamentals and in interest rates than short-maturity bonds. While it has been documented that the higher sensitivity to shifts in interest rates does not translate in proportionally higher expected returns, less is known about the impact of higher sensitivities to credit fundamentals. The author aims to fill this gap by studying the risk adjusted returns of credit default swaps of different maturities.

Credit default swaps (CDS) are derivative contracts that work like insurance on bonds issued by a corporation or sovereign. They have the same sensitivity to default as a corporate bond of similar maturity, but no interest exposure, i.e. they provide a pure credit exposure. Furthermore, while a typical corporation has only a few bond issues outstanding at a time that may differ in terms besides maturity, CDS contracts are homogenous and are available in a grid of standard maturities. Leveraging these two unique features of CDS markets, the author shows that the risk premium earned by assets exposed to long-term credit risk is not sufficiently higher to compensate for their heightened volatility and, as a consequence, short-maturity credit default swaps have higher risk-adjusted returns. The finding is robust: it holds among high-yield and investment grade single-name credit default swaps as well as the more liquid multi-name CDS indexes in Europe and United States.

The author then sheds light on the properties that distinguish short- and long-term CDSs. While on average they have similar correlations to the aggregate credit market, their dynamic is very different. Short-term CDSs have relatively lower correlations to credit markets in calm times, but in stress times like the financial crisis and the early 2000's, they become more correlated. This increase in riskiness at times that investors are more likely to demand higher risk premiums can quantitatively explain the higher risk-adjusted returns of short-term CDSs.

Lastly, the author works out the implications of his findings to economic models used to explain asset prices. He shows that a model in which investors are concerned with short-lived spikes in uncertainty can quantitatively rationalize the higher risk-adjust returns of short-maturity credit default swaps.

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