How does Climate Information Affect Catastrophe Bond Prices in the Primary and Secondary Markets?

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Abstract

This article employs both the primary and secondary market data to examine how climate cycle indices affect catastrophe (CAT) bond spreads and the link between primary and secondary markets. We use principal component analysis to propose a climate cycle proxy combining a set of six climate indices. Our results show that, CAT bond prices in the secondary market (thicker market) reveal of CAT risk information from the six climate indices and CO2, but not in the primary market (thinner market) with lower price quality. Furthermore, the idiosyncratic risk of the CAT bond price in the primary market significantly affects the spreads of CAT bonds in the secondary market. Therefore, our study in CAT bond markets supports the conjecture of Grossman and Stiglitz (1980) that increasing the number of informed agents can help market prices to reveal private information and improve the quality of market price.

Key Words: Catastrophe bonds, Climate indices, Primary market, Secondary market

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