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The subprime mortgage crisis is putting structured finance securities to their biggest test so far, and the cycle of adjustable mortgage rate resets, delinquencies, foreclosures, and falling home prices still has a couple of years to run. Whether this will put the United States into a recession is under hot debate. Lax lending standards have been the primary villain, but securitization and the separation of originators from investors that ultimately bear the risk have been contributing factors.

This issue of the journal is divided into three sections: Subprime Mortgages and CDOs, New Products, and Project Finance. Thomas Zimmerman starts with an in-depth look at how the subprime mortgage market developed between 2000 and 2007; the causes of particularly severe losses on the 2006 vintage of subprime residential mortgage backed securities (RMBS); the complexity, lack of transparency, and resulting difficulty in valuing both subprime MBS and the CDOs containing them; losses on those CDOs that we are still likely to see; and the likely parameters of a new subprime mortgage market that will eventually emerge. Stephen Ornstein, Matthew Yoon, David Tallman, Richard Horn, and John Holahan then explain a significant number of federal and state regulations that have already been enacted to curb the mortgage lending practices that caused the problem. As with numerous credit crises in the past, the credit rating agencies have been criticized for not downgrading numerous subprime-laden CDOs sooner. They have been defending their analytical approaches in recent congressional testimony and other venues, explaining among other things that ratings are an estimate of a security's probability of default and the amount of the loss if such a default occurs, but do not address the likelihood of other factors that could affect the market prices and liquidity of such a security. Jian Hu traces the origins and growth of CDOs and how RMBS became the predominant underlying asset class, and explains how Moody's analyzes CDOs. Among the problems have been substantial changes in the types of collateral underlying CDOs over the past few years, making it difficult for rating agency analysts to analyze data over a full credit cycle. Next Arturo Cifuentes and Georgios Katsaros address a technical anomaly known as a "correlation smile" that arises with the frequently used one-factor Gaussian copula method in the valuation of CDOs, which is based largely on the probability of default and default correlation. They as well as Mr. Hu explain why actual default correlation is difficult to determine and asset correlation is therefore used as a proxy. Messrs. Cifuentes and Katsaros proceed to demonstrate the lack of logic in a model that shows different correlation figures for different tranches of a CDO when all of those tranches are based on the same collateral pool.

In our section on new products, we start with two articles on Constant Proportion Debt Obligations (CPDOs), a product introduced in the summer of 2006 with a triple-A credit rating and an amazing coupon of 200 bp over LIBOR. Douglas Lucas, Laurie Goodman, and Frank Fabozzi provide us with a primer along with an analysis that shows losses occur only under extreme conditions. Roman Chuyan takes a different approach with a simulation analysis that shows an investment in CPDOs to be comparable to a high-yield bond portfolio. Then John Ryan describes a possible carbon offset feature for a collateralized loan obligation (CLO) that may be useful as a way for project lending banks to manage the indirect carbon emission footprints of their project loan portfolios in much the same way they are using CLOs today to manage their regulatory capital requirements.

Starting our project finance section, Michel Gendron, Van Son Lai, and Issouf Soumaré use an option pricing model to compare the debt capacity of a project based on whether its lenders have some recourse or no recourse to the project sponsors. Balkisu Saidu then compares the mining tax regimes of two developing countries and shows how they can affect a country's ability to attract foreign direct investment in the mining sector. This is becoming a hot topic as demand from China and other fast-growing economies drives up commodity prices and host countries look for opportunities to raise taxes on mining companies' increasing revenues. Under different economic conditions, countries with reputations for changing the rules in the middle of the game could have difficulty attracting foreign investment. We continue our strong commitment in this journal to project finance as part of the realm of structured finance.

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Editor