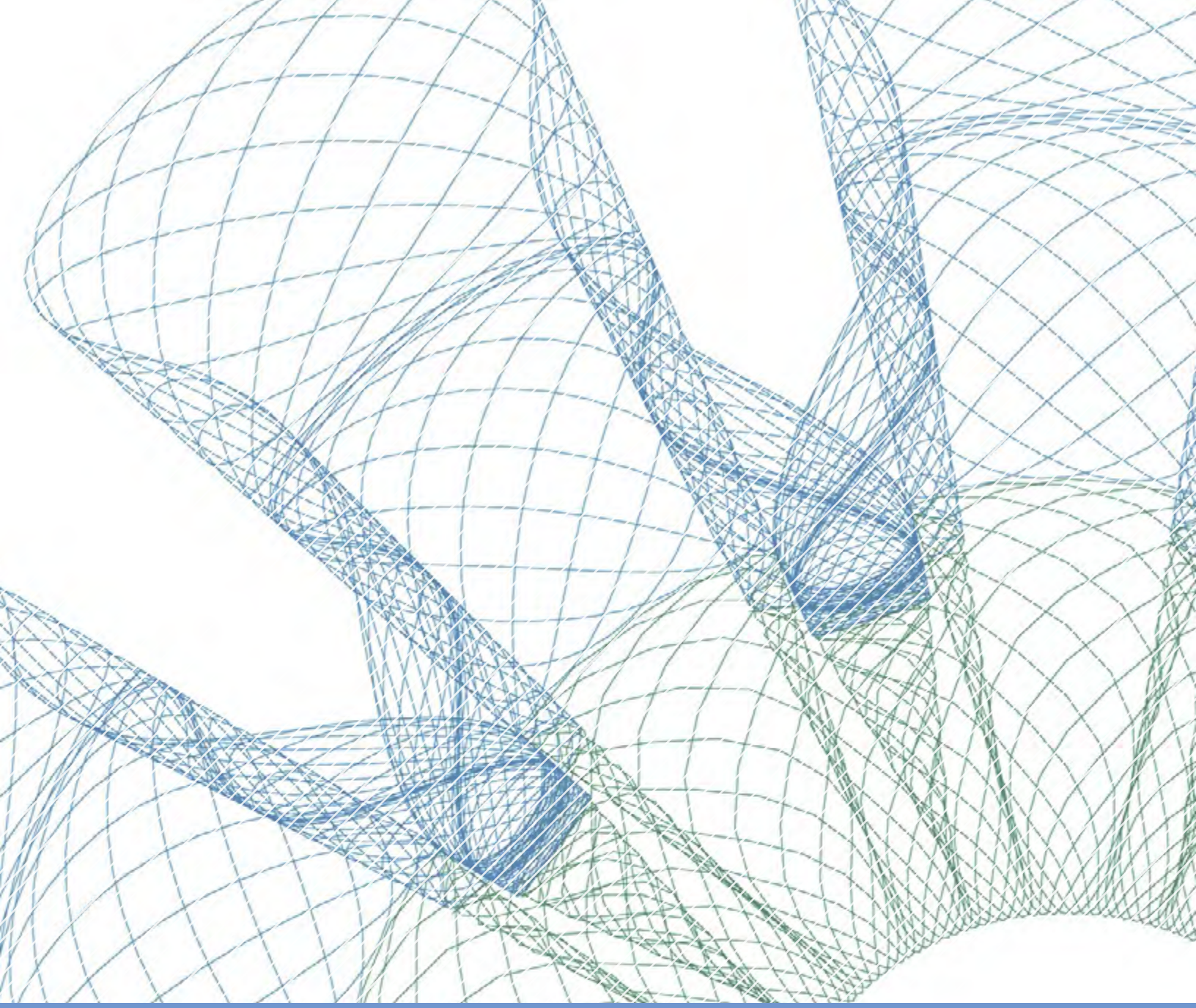


CORNERSTONE RESEARCH

Economic and Financial Consulting and Expert Testimony

Fixed Income Securities and Derivatives

Cornerstone Research works with clients in commercial litigation and regulatory matters spanning the full spectrum of fixed income securities, as well as interest rate and credit derivatives.

Cornerstone Research Fixed Income Securities and Derivatives

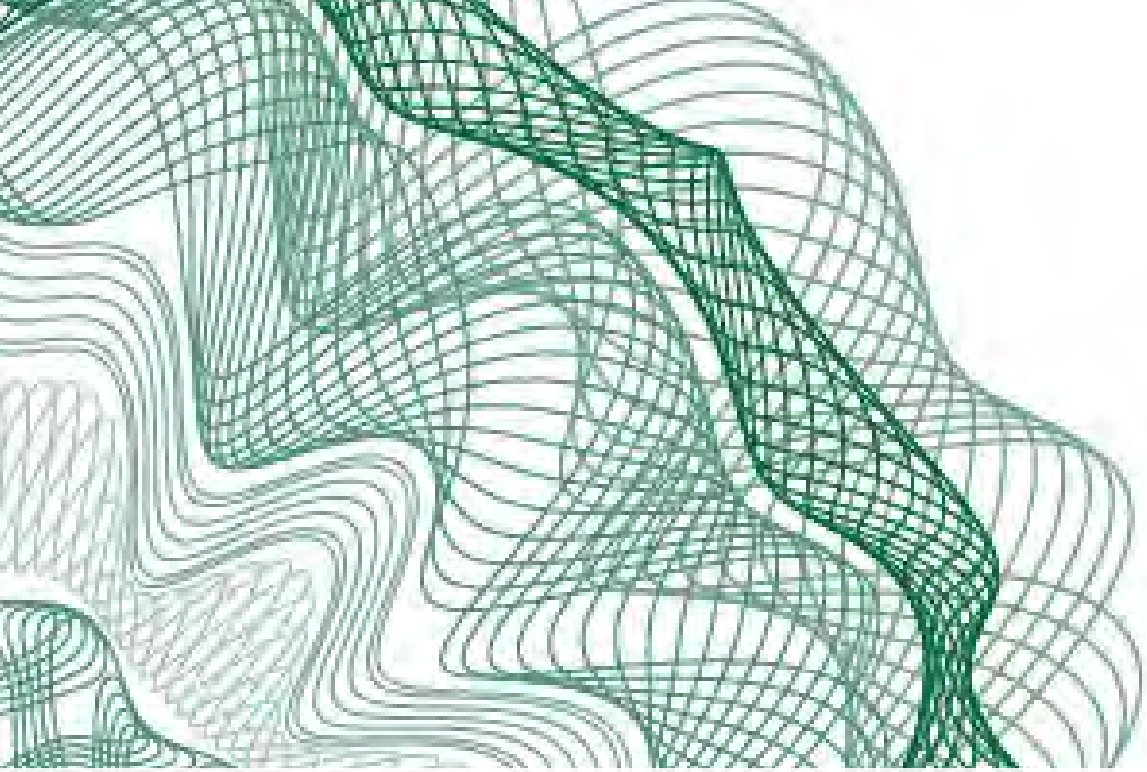
Our experts include faculty at the leading edge of research and industry specialists with expertise in all major transaction types and markets. We also have in-house industry and regulatory expertise.

FIXED INCOME SECURITIES AND DERIVATIVES

Auction Rate Securities	Bond Mutual Funds
Collateralized Debt Obligations	Collateralized Loan Obligations
Corporate Bonds	Corporate Loans
Credit Default Swaps	High Yield Bonds
Interest Rate Derivatives	Interest Rate Swaps
Mortgage-Backed Securities	Municipal Bonds
Structured Bonds	Supra, Sovereign, and Agency Bonds
Treasury Bonds and Futures	Variable Rate Demand Obligations

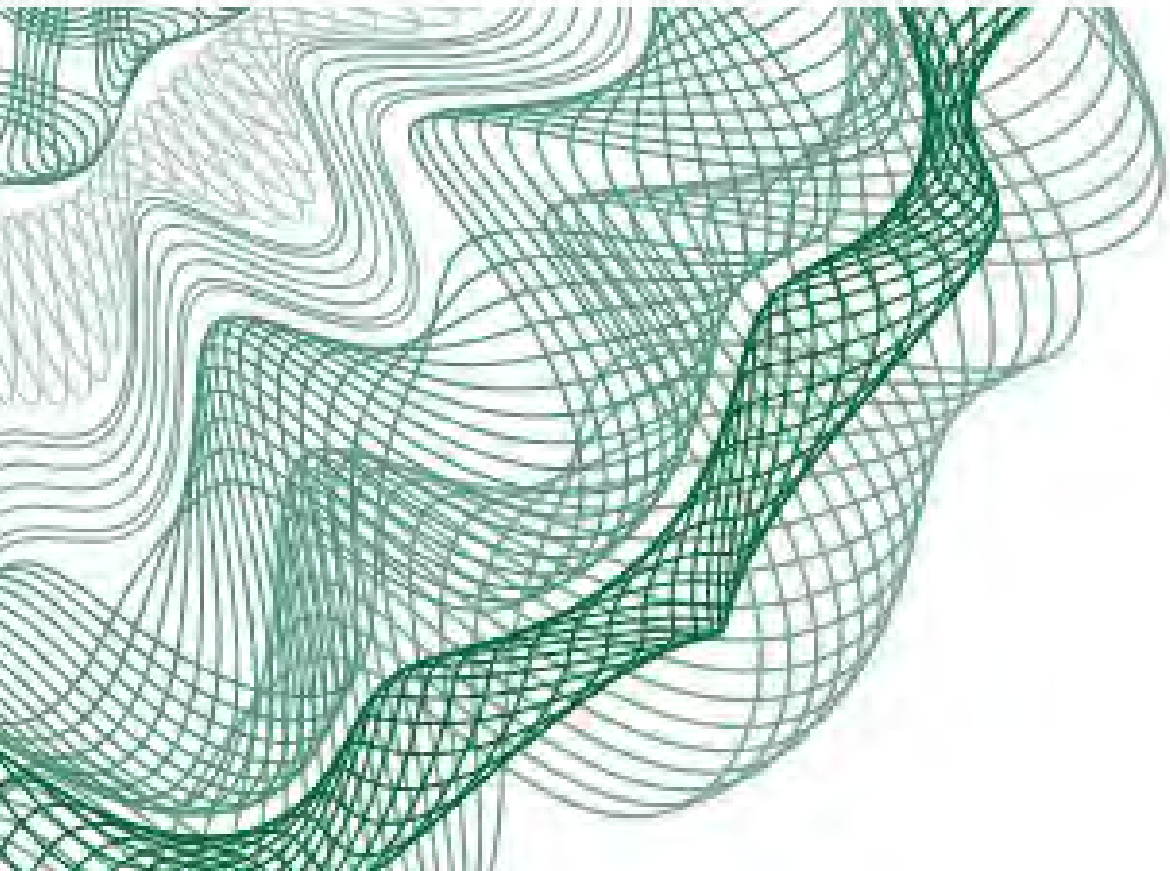
TRANSACTIONS AND MARKETS

Exchange-Traded	Over-the-Counter
Primary Offerings and Syndication	Secondary Trading
Domestic	International



Pricing and Valuation

Our decades of experience have given us a deep understanding of the appropriate methodologies for the pricing and valuation of a variety of illiquid securities, exotic instruments, and hedged portfolios. We use cutting-edge analytical methods, modeling scenarios, and public and private data sources to provide robust yet efficient analyses of complex instruments and portfolios.



Valuation of Illiquid Municipal Bonds

Retained by counsel for the boards of directors of several mutual funds

For an internal investigation on behalf of a large mutual fund complex, Cornerstone Research was retained to assess the fund management company's historical fair-value pricing of illiquid municipal bonds. Based on our analysis of bond characteristics and contemporaneous market data, the fund management company recalculated the fair value of the bonds.

Following this revaluation, we recalculated the net asset values of several mutual funds over a multiyear period. We then determined how these adjustments affected the value of the shares owned by mutual fund investors. Our expert's report formed the basis for restitutionary payments to shareholders.

About Net Asset Value

Net asset value (NAV) is the value per share of a mutual fund on a specific date or at a specific time. The per-share dollar amount of the fund is based on the total value of all the securities in its portfolio, any liabilities the fund has, and the number of fund shares outstanding.

Mortgage-Backed Securities and Collateralized Debt Obligations

Mortgage-backed securities (MBS), asset-backed collateralized debt obligations (CDOs), credit default swaps (CDS), and other related structured finance securities have been at the center of the subprime mortgage litigation wave. For a number of reasons, it can be challenging to value these financial instruments:

- They often trade infrequently and privately, and it can be difficult to observe a market price.
- The potential illiquidity of a particular instrument at a given time can impact its value.
- Values vary with the credit risk, prepayment risk, interest rate sensitivity, and optionality of the underlying loans and bonds.
- Values are highly dependent on, and sensitive to, the valuation models and modeling assumptions used.

Cornerstone Research has consulted on multiple cases involving market dynamics, information sources, and derivative pricing methods relevant to valuing these instruments. For example, we have worked with experts to assess the pricing of bond and loan assets purchased to create CDO pools, as well as the pricing, hedging, and performance of CDOs.

We have also worked with experts to value residential and commercial MBS using various techniques. We have developed cash flow projections for residential and commercial MBS, and valued MBS using discounted cash flow analysis. In addition, we have used Monte Carlo simulations, a statistical technique that generates expected returns for securities.

Investment and Risk Management

In matters that center on investment and risk management practices, we construct alternative investment scenarios—grounded in market realities and empirical data—to demonstrate how other investments may have performed. Our experts are also retained to review management practices and disclosures in the context of industry standards and investor knowledge.

Securities Class Action: Bond Mutual Fund Performance

Retained by Morrison & Foerster and by Quinn Emanuel Urquhart & Sullivan

Defense counsel for a major nationwide broker-dealer retained Cornerstone Research and Christopher James of the University of Florida to analyze factors that led to the decline in the net asset value (NAV) of a proprietary ultrashort bond mutual fund during the financial crisis. Shareholders of the fund filed a securities class action under Sections 11 and 12 of the Securities Act of 1933, alleging that the defendants falsely portrayed the fund as a conservative investment with minimal risks.

Among other allegations, shareholders claimed that the fund invested more than 25 percent of its assets in non-agency mortgage-backed securities (MBS), allegedly exceeding a policy limit on the concentration of assets in any one industry. The plaintiffs claimed that this overconcentration led to the NAV decline when credit and liquidity risks materialized during the financial crisis.

Professor James submitted multiple reports, in which he analyzed the daily composition and performance of individual assets in the fund's portfolio. To determine the effect of the alleged overconcentration on NAV, he also constructed a hypothetical portfolio that kept investments in non-agency MBS within the 25 percent limit by reweighing the components of the actual portfolio.

Professor James found that the hypothetical portfolio NAV tracked the actual NAV very closely, showing that the alleged overconcentration in non-agency MBS did not cause the fund's NAV decline. The case settled shortly before trial.

"Economic Equivalence" of Reference Obligations in a CLO

Defense counsel for a major bank retained Cornerstone Research and Steven Grenadier of Stanford University in a case arising from a synthetic collateralized loan obligation (CLO) transaction between the bank and the plaintiff, a hedge fund. Under the contract, the bank agreed to pay insurance premiums to the hedge fund, while the hedge fund agreed to compensate the bank for credit losses, if corporate borrowers defaulted on their senior secured obligations referenced in the CLO.

After a corporate borrower undertook a leveraged buyout (LBO), one of the reference obligations was no longer outstanding and had to be replaced. The bank substituted the old loan with a new senior secured obligation from the post-LBO borrower. Because the borrower ended up in default two years later, the hedge fund owed the bank an insurance payoff. However, the hedge fund sued the bank, alleging that the bank had inappropriately substituted the old loan with the new loan as a reference obligation.

The plaintiff claimed that substitution was invalid because the new loan was substantially riskier and did not preserve the "economic equivalence" of the parties' delivery and payment obligations under the insurance contract. Professor Grenadier analyzed the plaintiff's allegations and reviewed its expert's report.

In his report, Professor Grenadier opined that both loans shared similar characteristics on the substitution date:

- Collateral and seniority in the capital structure
- Credit ratings by Moody's and Standard & Poor's (S&P)
- Expected loss given default using contemporaneous information from Moody's and S&P models
- LIBOR spreads

In his analysis of the plaintiff's expert report, Professor Grenadier identified several flaws, most critically the expert's failure to use market pricing data in assessing economic equivalence. Specifically, the plaintiff's expert failed to account for fluctuations in market risk premiums over time when comparing the LIBOR spreads of the two loans. Professor Grenadier also found that the expert relied on hindsight and information that was not known at the time, and ignored contemporaneous third-party analyses.

Bond Event Studies and Market Efficiency

Event studies and other market efficiency evaluations are often important analyses in cases with Rule 10b-5 or Section 11 claims. Fixed income securities—which may trade infrequently—can present a unique set of analytical challenges relative to equity securities. In these cases, we use sophisticated modeling techniques and the most up-to-date transaction and pricing data to analyze market efficiency and allegations of price inflation.

Rebuttal of Bond Market Efficiency

Retained by Munger, Tolles & Olson and by Irell & Manella

Plaintiffs sought to certify a class of purchasers of MGM Mirage's common stock and eleven publicly traded bonds. They alleged that the value of securities at issue had been artificially inflated by misrepresentations related to the company's CityCenter construction project, as well as the company's viability and general financial position. Defense counsel retained David Marcus of Cornerstone Research to analyze market efficiency issues in this Rule 10b-5 class action.

The plaintiffs' expert's event study attempted to establish a cause-and-effect relationship between public information about MGM Mirage and changes in the company's bond prices. The plaintiffs' expert identified statistically significant price changes for each bond and then attempted to find releases of company-specific information that could have caused the price changes.

In his rebuttal, Dr. Marcus demonstrated that the plaintiffs' expert failed to meet basic requirements of an event study—namely, that events of interest should be identified first, and price changes are then analyzed in the context of these events. Dr. Marcus also showed that price changes were not consistent across the eleven bonds and did not reflect the new information identified by the plaintiffs' expert in a systematic or predictable fashion.

Further, Dr. Marcus's analysis of several cause-and-effect relationship tests illustrated that other indicators of market efficiency were not present. Overall, Dr. Marcus demonstrated that the plaintiffs' expert erred in assuming that a single efficient market existed for the eleven bonds.

The case settled before any ruling on the plaintiffs' motion for class certification.

SEC Proceeding: Municipal Debt Offering

The SEC alleged that the offering prospectus had omitted material information. Defense counsel retained Cornerstone Research and David Smith of the University of Virginia.

Two months after the offering, the municipality submitted a late filing notice. Professor Smith performed an event study analysis of the bond's pricing data. He concluded that there was no evidence that the late filing notice had a negative impact on the price of the bond.

Professor Smith's report was submitted to the SEC as part of a Wells submission. The SEC decided not to proceed against any of the parties it was investigating.

Corporate Bond Event Studies

Counsel representing former executives of a publicly traded company retained Cornerstone Research and René Stulz of The Ohio State University to analyze loss causation and damages in a Section 10(b) securities class action.

The plaintiffs alleged that the prices of eight of the company's bonds were artificially inflated by misrepresentations related to the company's forward guidance, violations of generally accepted accounting principles (GAAP), and misrepresentations related to the adequacy of the company's internal controls.

The plaintiffs' expert proposed a bond event study to estimate the unexplained portion of bond price declines on the alleged corrective disclosure days, which the expert used to calculate bond price inflation. The expert based the study on matrix prices—proprietary model prices estimated by a data service—to compute daily bond returns, even though many of the bonds at issue did not trade around the alleged corrective disclosure days.

Professor Stulz performed an alternative event study using actual transaction prices, and followed an established methodology for analyzing bond returns in the context of infrequent trading. Among other findings, he opined that the plaintiffs' expert mistakenly concluded that all eight bonds had statistically significant price movements on the alleged corrective disclosure days. In fact, when the analysis was performed using transaction prices, few of the bonds had statistically significant price movements around those days. The case settled just prior to the filing of motions for summary judgment.

Suitability and Disclosure Adequacy

Plaintiffs may claim that investors lacked the sophistication to understand potential risks or that advisors and issuers withheld relevant information. Our experts review the risk and return profiles of investments and the extent to which they are consistent with investors' stated objectives and issuer disclosures. We also evaluate a range of performance drivers of fixed income securities and derivatives, including market events, public information, and economic factors to assess disclosure adequacy.

Auction Rate Securities

Starting in late 2007, the number of auction failures increased dramatically, peaking in February–May 2008. Following the failures, both issuers and investors filed claims against the investment banks that served as underwriters or broker-dealers.

Issuers and investors alleged that the investment banks had previously "propped up" the auction rate securities (ARS) market by bidding at auctions, thereby obscuring the illiquidity in the ARS market. They alleged the underwriting banks knew, but failed to disclose, that the ARS market would collapse without underwriter support.

Issuers that had to pay relatively high fixed maximum rates as a result of the failed auctions typically claimed that they would have opted to issue different types of debt—such as fixed-rate bonds—had the banks made appropriate disclosures. Investors that could not sell their ARS because of the auction failures claimed that they would have purchased more liquid securities or securities offering higher rates.

Cornerstone Research staff analyzed auction and inventory data of the broker-dealers, demonstrating that their previous auction participation was not to "prop up" the market but rather to provide liquidity between auctions.

Our analyses also found there was investor demand for ARS as the inventory purchased by broker-dealers was typically sold to investors before the next auction. In addition, we assessed damages estimates proffered by issuers' experts, and showed interest savings for issuers relative to other types of debt issuances.

In the investor cases, Cornerstone Research staff analyzed alternative investments and their returns, and demonstrated that investors were fairly compensated for the higher liquidity risk of the ARS.

About Auction Rate Securities

Auction rate securities (ARS) usually have long-term maturities (twenty years or longer) with interest rates that are reset at short-term intervals via Dutch auctions. ARS interest rates are typically subject to a cap in the form of a maximum rate that can be fixed or can vary formulaically over time.

Because of this cap, interest rates cannot always adjust so that demand for ARS equals supply. If there are not enough bids to purchase all the ARS to be sold at an auction, the auction "fails." When an auction fails, the interest rate for the next interval is set at a "maximum rate" specified in the ARS offering documents. Investors wanting to sell their ARS in the auction may not be able to do so in these circumstances.

Variable Rate Demand Obligations

An investment bank, the respondent in a FINRA arbitration, retained Cornerstone Research. The investment bank had served as an investment advisor, underwriter, and re-marketing agent for a healthcare debt issuer of tax-exempt variable rate demand obligations (VRDOs).

The claimant argued that in late 2007 the investment bank had recommended financing through a synthetic fixed-rate debt instrument by issuing $300 million in variable rate debt. The debt was paired with interest rate swaps, and backed by monoline bond insurance. In mid-2008, the insurers were downgraded, leading to high refinancing costs for the claimant.

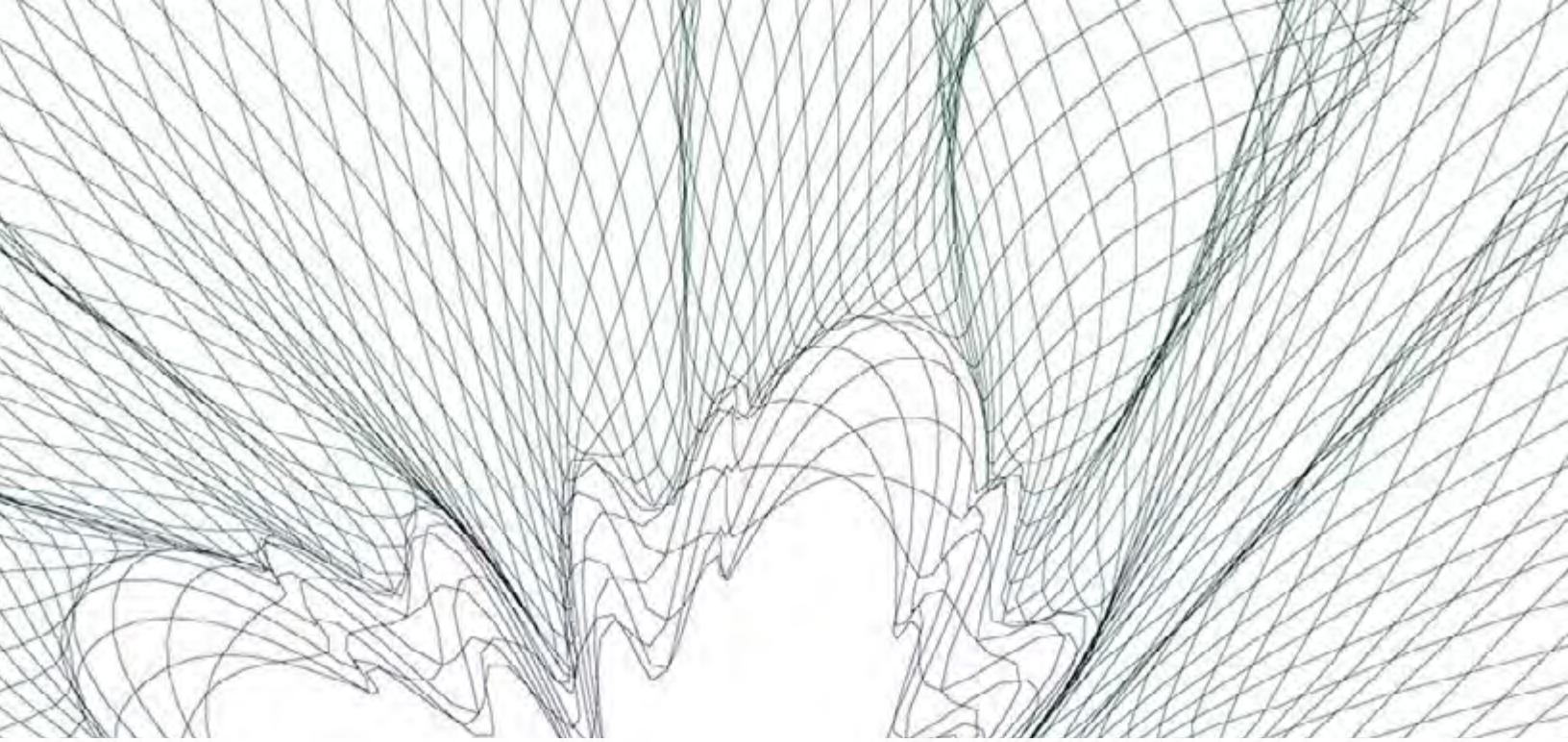
In arbitration the claimant alleged that the investment bank had not disclosed material information concerning the instability and potential downgrades of monoline bond insurers. In responding to the allegations, our expert opined that both the claimant and respondent had access to the same publicly available information on monoline insurers, the municipal bond market, and interest rate swaps.

Our expert demonstrated that the insurers' rating downgrades and the mark-to-market losses on the swaps were consequences of the unanticipated financial crisis and not due to information withholding by the respondent.

In addition, our expert examined whether the VRDO bond structure was appropriate in light of the issuer's objectives and the information available at the time of the financing. He analyzed the structure and performance of this VRDO versus alternative debt structures.

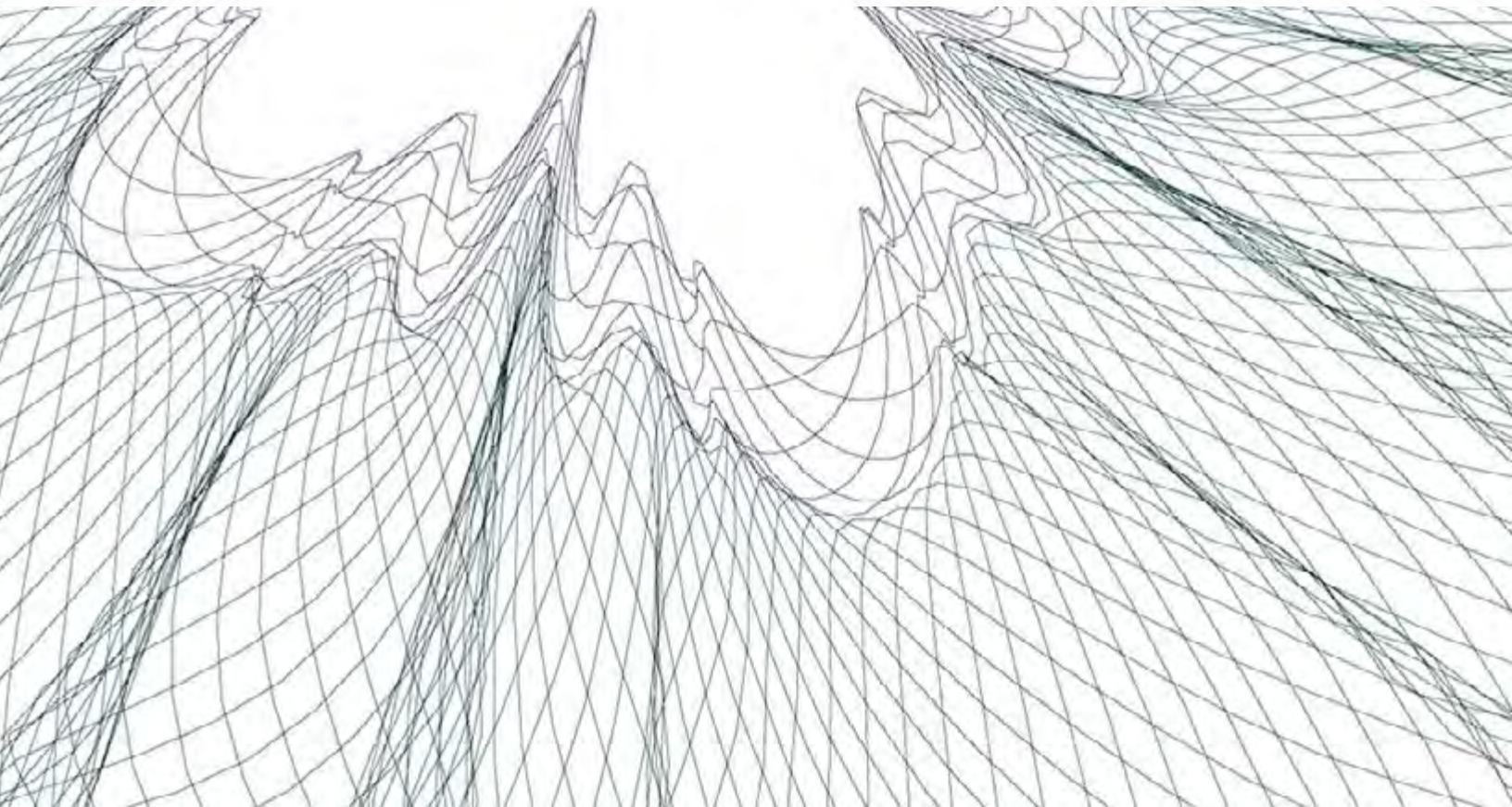
His analysis showed that alternate financing structures would not have led to a significantly better performance, and that the opposing expert's opinion relied heavily on the benefit of hindsight. Finally, our expert was able to show that damages calculations by the opposing expert were inaccurate and unreliable.

The arbitration panel denied all claims in their entirety.



Credit Ratings and Default

We consult in matters involving actual, implied, and projected credit ratings. Our work includes reviewing credit ratings and credit rating agency analyses and reports; simulating hypothetical credit ratings under alternative financial and market conditions; and constructing default probability and expected loss models based on historical default factors and security and derivative prices.



Securitized Mortgage Defaults

In the wave of cases arising from the credit crisis related to residential mortgage-backed securities (RMBS), Cornerstone Research staff have worked with academic experts to analyze the factors driving mortgage defaults.

In these cases, allegations center on claims that RMBS issuers, sponsors, and underwriters failed to disclose or misrepresented information regarding the quality and characteristics of the securitized mortgages. Plaintiffs claimed that, as a result, they incurred losses on their RMBS investments when mortgage borrowers defaulted.

In conjunction with experts, Cornerstone Research has applied sophisticated econometric models, known as hazard rate models, to determine the primary factors driving mortgage defaults, and the extent to which these factors relate to the allegedly inaccurate information.

In many cases, we established that there was no statistical evidence of a link between the alleged misrepresentations identified by plaintiffs and higher rates of default. Thus, there was no evidence that the alleged misrepresentations caused plaintiffs' losses.

In certain cases, these analyses allowed us to measure the effect of factors unrelated to the alleged misrepresentations and provide reliable estimates of losses attributable solely to the alleged misrepresentations.

About Hazard Rate Models

These statistical models are used to measure the probability that something will survive past a certain "lifetime." These models can be used in a variety of settings.

In RMBS cases, we calculated hazard rate models to measure the incremental impact of multiple variables, such as loan characteristics, borrower characteristics, and home price changes, on the probability that a mortgage will default.

Municipal Bond Default and Bankruptcy

On behalf of a U.S.-based company, Cornerstone Research staff analyzed empirical evidence on lifetime default rates of various types of municipal bonds. We also reviewed a wide variety of academic literature and studies by major rating agencies such as Moody's, Standard and Poor's, and Fitch Ratings.

Our work included analysis of:

- Traditional municipal sectors such as transportation, as well as public utility versus non-public utility entities in health-care, multifamily housing, and industrial development sectors.
- Credit ratings of senior-lien and subordinated debt issued by municipal electric utilities in specific states.
- Observable yields and yield spreads of municipal bonds with different credit ratings
- The relationship between third-party bond insurance, credit ratings, and default probabilities of municipal bonds.
- Market data on single-named credit default swaps (CDS) and a tradeable index of municipal CDS (the Markit MCDX Index).