THE ROLE OF CREDIT RATING AGENCIES IN THE STRUCTURED FINANCE MARKET

HEARING

BEFORE THE

SUBCOMMITTEE ON CAPITAL MARKETS, INSURANCE, AND GOVERNMENT SPONSORED ENTERPRISES

OF THE

COMMITTEE ON FINANCIAL SERVICES

U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED TENTH CONGRESS

FIRST SESSION

SEPTEMBER 27, 2007

Printed for the use of the Committee on Financial Services

Serial No. 110–62

U.S. GOVERNMENT PRINTING OFFICE

39–541 PDF WASHINGTON : 2008

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2104 Mail: Stop IDCC, Washington, DC 20402–0001

HOUSE COMMITTEE ON FINANCIAL SERVICES

BARNEY FRANK, Massachusetts, *Chairman*

PAUL E. KANJORSKI, Pennsylvania
MAXINE WATERS, California
CAROLYN B. MALONEY, New York
LUIS V. GUTIERREZ, Illinois
NYDIA M. VELÁZQUEZ, New York
MELVIN L. WATT, North Carolina
GARY L. ACKERMAN, New York
JULIA CARSON, Indiana
BRAD SHERMAN, California
GREGORY W. MEEKS, New York
DENNIS MOORE, Kansas
MICHAEL E. CAPUANO, Massachusetts
RUBÉN HINOJOSA, Texas
WM. LACY CLAY, Missouri
CAROLYN McCARTHY, New York
JOE BACA, California
STEPHEN F. LYNCH, Massachusetts
BRAD MILLER, North Carolina
DAVID SCOTT, Georgia
AL GREEN, Texas
EMANUEL CLEAVER, Missouri
MELISSA L. BEAN, Illinois
GWEN MOORE, Wisconsin,
LINCOLN DAVIS, Tennessee
ALBIO SIRES, New Jersey
PAUL W. HODES, New Hampshire
KEITH ELLISON, Minnesota
RON KLEIN, Florida
TIM MAHONEY, Florida
CHARLES A. WILSON, Ohio
ED PERLMUTTER, Colorado
CHRISTOPHER S. MURPHY, Connecticut
JOE DONNELLY, Indiana
ROBERT WEXLER, Florida
JIM MARSHALL, Georgia
DAN BOREN, Oklahoma

SPENCER BACHUS, Alabama
RICHARD H. BAKER, Louisiana
DEBORAH PRYCE, Ohio
MICHAEL N. CASTLE, Delaware
PETER T. KING, New York
EDWARD R. ROYCE, California
FRANK D. LUCAS, Oklahoma
RON PAUL, Texas
PAUL E. GILLMOR, Ohio
STEVEN C. LaTOURETTE, Ohio
DONALD A. MANZULLO, Illinois
WALTER B. JONES, Jr., North Carolina
JUDY BIGGERT, Illinois
CHRISTOPHER SHAYS, Connecticut
GARY G. MILLER, California
SHELLEY MOORE CAPITO, West Virginia
TOM FEENEY, Florida
JEB HENSARLING, Texas
SCOTT GARRETT, New Jersey
GINNY BROWN-WAITE, Florida
J. GRESHAM BARRETT, South Carolina
JIM GERLACH, Pennsylvania
STEVAN PEARCE, New Mexico
RANDY NEUGEBAUER, Texas
TOM PRICE, Georgia
GEOFF DAVIS, Kentucky
PATRICK T. McHENRY, North Carolina
JOHN CAMPBELL, California
ADAM PUTNAM, Florida
MICHELE BACHMANN, Minnesota
PETER J. ROSKAM, Illinois
KENNY MARCHANT, Texas
THADDEUS G. McCOTTER, Michigan

JEANNE M. ROSLANOWICK, *Staff Director and Chief Counsel*

SUBCOMMITTEE ON CAPITAL MARKETS, INSURANCE, AND GOVERNMENT SPONSORED ENTERPRISES

PAUL E. KANJORSKI, Pennsylvania, *Chairman*

GARY L. ACKERMAN, New York
BRAD SHERMAN, California
GREGORY W. MEEKS, New York
DENNIS MOORE, Kansas
MICHAEL E. CAPUANO, Massachusetts
RUBÉN HINOJOSA, Texas
CAROLYN McCARTHY, New York
JOE BACA, California
STEPHEN F. LYNCH, Massachusetts
BRAD MILLER, North Carolina
DAVID SCOTT, Georgia
NYDIA M. VELÁZQUEZ, New York
MELISSA L. BEAN, Illinois
GWEN MOORE, Wisconsin,
LINCOLN DAVIS, Tennessee
ALBIO SIRES, New Jersey
PAUL W. HODES, New Hampshire
RON KLEIN, Florida
TIM MAHONEY, Florida
ED PERLMUTTER, Colorado
CHRISTOPHER S. MURPHY, Connecticut
JOE DONNELLY, Indiana
ROBERT WEXLER, Florida
JIM MARSHALL, Georgia
DAN BOREN, Oklahoma

DEBORAH PRYCE, Ohio
RICK RENZI, Arizona
RICHARD H. BAKER, Louisiana
CHRISTOPHER SHAYS, Connecticut
PAUL E. GILLMOR, Ohio
MICHAEL N. CASTLE, Delaware
PETER T. KING, New York
FRANK D. LUCAS, Oklahoma
DONALD A. MANZULLO, Illinois
EDWARD R. ROYCE, California
SHELLEY MOORE CAPITO, West Virginia
ADAM PUTNAM, Florida
J. GRESHAM BARRETT, South Carolina
BLACKBURN, MARSHA, Tennessee
GINNY BROWN-WAITE, Florida
TOM FEENEY, Florida
SCOTT GARRETT, New Jersey
JIM GERLACH, Pennsylvania
JEB HENSARLING, Texas
GEOFF DAVIS, Kentucky
JOHN CAMPBELL, California
MICHELE BACHMANN, Minnesota
PETER J. ROSKAM, Illinois
KENNY MARCHANT, Texas
THADDEUS G. McCOTTER, Michigan

CONTENTS

WITNESSES

THURSDAY, SEPTEMBER 27, 2007

APPENDIX

THE ROLE OF CREDIT RATING AGENCIES IN THE STRUCTURED FINANCE MARKET

Thursday, September 27, 2007

U.S. HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON CAPITAL MARKETS,
INSURANCE, AND GOVERNMENT
SPONSORED ENTERPRISES,
COMMITTEE ON FINANCIAL SERVICES,
Washington, D.C.

The subcommittee met, pursuant to notice, at 2:07 p.m., in room 2128, Rayburn House Office Building, Hon. Paul E. Kanjorski [chairman of the subcommittee] presiding.

Present: Representatives Kanjorski, Ackerman, Sherman, Baca, Lynch, Marshall; Pryce, Castle, and Manzullo.

Chairman KANJORSKI. The subcommittee will come to order. This hearing of the Subcommittee on Capital Markets, Insurance, and Government Sponsored Enterprises will take up the question of oversight of the mortgage credit market by the reporting agencies. First, I will give my opening statement, and then we will go down the line to all Members who wish to make an opening statement.

We meet this afternoon to examine a complex but familiar issue—the performance and oversight of credit rating agencies. Today's hearing also furthers our investigations into the recent credit crunch that occurred in our capital markets and focuses on the role of credit rating agencies in engineering and grading structured finance products.

A strong, robust, free market for trading debt securities relies on the independent assessments of financial strength provided by credit raters, entities like Moody's, Fitch, and Standard & Poor's. When a company or a debt instrument blows up in our capital market, critics will often raise concerns about the failures of rating agencies to warn investors, as was the case after WorldCom's bankruptcy, Enron's insolvency, New York City's debt crisis, Washington Public Power Supply System's default, and Orange County's collapse. In recent weeks, many marketplace observers have again criticized the accuracy of credit rating agencies in anticipating problems with debt instruments like mortgage-backed securities and collateralized debt obligations, or CDOs.

As part of the Sarbanes-Oxley Act, Congress required the Securities and Exchange Commission to study the performance of rating agencies. Congress then used this report to inform its debates about how best to register and oversee the work of nationally recognized statistical rating organizations. Ultimately we approved the final version of the Credit Rating Agency Reform Act on the

House Floor exactly 1 year ago today, and it became law a short while later.

Throughout these debates, my fellow House Democrats and I insisted that the new legislation contain quality controls, which the final version did. The new law, therefore, permits the Commission to hold the rating agencies accountable for producing credible and reliable ratings and following their internal policies. It also allows the Commission to prohibit or mitigate conflicts of interest. It further provides the Commission with the power to examine the financial wherewithal and management structures of approved credit raters.

Additionally, we have seen tremendous growth in our structured finance markets in recent years. For example, the global sale of CDOs tripled between 2004 and 2006 to stand at $503 billion. These CDOs, a financial instrument first engineered by Drexel Burnham Lambert, have also grown increasingly complex. Because history has a way of repeating itself, I am not surprised that the ghosts created by Drexel are with us today.

To help investors cut through the complexity of CDOs, the major rating agencies have expanded their services to evaluate these products in terms of their likelihood for defaults. Their investment-grade stamp of approval helped to provide credibility for the CDOs that had the toxic waste of liars' loans and problematic subprime products buried deep within the deal. In return, the rating agencies also made great sums of money from issuers.

To me, it appears that none of the parties that put together or purchased these faulty home loans, packaged them into mortgage-backed securities, and then divided these securities into tranches and repackaged them into CDOs, CDOs squared, and CDOs cubed, had any skin in the game. In the end it was a final investor left with this hot potato of prime debt and significant losses. In my view the rating agencies helped to create this Lake Woebegone-like environment in which all of the ratings were strong, the junk bonds good-looking, and the subprime mortgages above average. In reality, however, we now know that they were not.

That said, the conundrum facing the rating agencies is much like the conundrum facing Fannie Mae and Freddie Mac. Even though the securities issued by the two government-sponsored enterprises explicitly indicate that they are not backed by the full faith and credit of the United States, many investors believe otherwise. Similarly, even though rating agencies only calculate the likelihood of default, many investors believe that these grades measure the financial strength of the underlying instrument.

Past cases of criticism about the failure of the rating agencies to detect faults generally focused on a single issuance or issuer. In this most recent case, however, these financial failures seem to have been much more pervasive; they occurred across a class of financial product. As a result, I am very concerned about systemic failures within the rating agencies themselves and the potential for a systemic failure within our global capital markets. I hope to explore these issues today.

As we proceed on these matters, I also want to assure everyone that I have not yet reached any conclusions. That said, we may ultimately decide that we need to revisit last year's law and improve

upon the quality controls adopted within it. Some of the policy options that we could consider include requiring more disclosure for rating agencies like those required of auditors, instituting rotations in raters like auditors, altering the methods by which raters receive compensation, mandating simultaneous disclosure of nonpublic information to all Commission-registered raters, improving the transparency of underlying debt products, and forcing a delay in allowing complex products like CDOs to come to market so as to allow a deal to season in its performance.

In closing, I look forward to a lively debate today. We have an excellent panel of witnesses with experience in credit ratings, valuation, hedge funds and the securitization process. They also have a variety of views, and we will likely learn much from them.

Ms. Pryce.

Ms. PRYCE. Thank you, Mr. Chairman. Thank you for holding this hearing today. This is another important piece in a series of hearings to help us better understand the mortgage crisis our country is facing.

The shockwaves have been felt everywhere across the country and throughout the world, but no State has been as impacted as my own home State of Ohio. Ohio's foreclosure rates have increased 138 percent since August of 2006, and the number of foreclosure filings has nearly quadrupled since 1995. There seems to be no end to this crisis. An estimated $14 billion in adjustable-rate mortgages are expected to reset in Ohio over the next 5 years, putting more homeowners at risk of foreclosure.

Last week we looked at ways to help homeowners facing the prospect of foreclosures. Today we are here looking at one of the primary actors within the structured finance market. Rating agencies and their credit risk assessments have become a cornerstone of our housing market, in particular as the amount of subprime mortgages in the market shot up from $35 billion in 1994 to $625 billion in 2005. Mortgages sold into the secondary market are combined, carved up, evaluated by the rating firms, and resold to Wall Street as asset-backed securities. This process has provided much liquidity into the housing market and helped drive the housing boom and the growth of the subprime market.

As we look at all aspects of this crisis, we should be asking tough questions about the rating agencies' role. They are uniquely positioned as monitors of the risk associated with different mortgage products. Their insight into how these risks have changed and how methodologies and ratings have changed to meet them will be invaluable to us; their open questions about the timing of lowering rating scores, whether original ratings appropriately reflected the credit risks presented by residential mortgage-backed securities, and whether the rating agencies adequately monitor previously issued ratings for structured finance products.

Since June, 2,400 tranches of RMBS have been downgraded. This does not fit the model of recent history. Until 2006, upgrades outnumbered downgrades, but we have seen a quick turnaround of this pattern. There is no doubt that the subprime mortgage boom of 2004, 2005, and even early 2006 was unlike anything we have ever seen before. We can learn much from rating agencies' successes and failures engaging that risk.

I want to thank our witnesses for testifying today and I look forward to your testimony. Thank you.

Chairman KANJORSKI. Mr. Ackerman.

Mr. ACKERMAN. Thank you, Mr. Chairman.

Much of the blame for the current economic mess can sure be placed on the shoulders of the subprime mortgage business. Too many brokers sold these complex and inherently risky financial products to people who had no business being approved for a black-and-white TV loan, let alone a six-figure mortgage. A handful of these institutions even went so far as to offer mortgages with promises of, "no background checks," and "no income verification," and advertised in low-income areas saying that no one could be turned down for a loan.

In my view, such business practices, very clearly designed to bait the hook with the American dream to entrap economically strapped and often less financially savvy customers into mortgages that they could not afford were not just irresponsible, but they were reprehensible, if not criminal.

But there is more blame to be apportioned. Loan originators took these junk mortgages, packaged them into securitizations, and then marketed the collateralized debt obligations, or CDOs, on the secondary mortgage market after absent transparency. We now know that credit rating agencies by their own admission assigned overly favorable ratings to many of these products. The why of it is very simple. Some of these firms were double-dipping. First they profited by helping the originators put these shady securities together, and then they collected fees for deliberately misrating these risky products at a higher value than they were worth. This is what the Arthur Andersens of the world did for the Enrons and the WorldComs. The credit raters helped put the Spam in the can, made it sizzle, and then they sold it as steak. As I noted at a hearing earlier this month, that is not the free market at work; that is fraud. And fraud is a crime, not a correction.

Now, nobody here today will argue that the ratings assigned by Moody's or S&P's are the sole factors that investors used when deciding whether or not to purchase a securitization. In fact, many sophisticated investors voiced their concerns about CDOs products when the subprime lending spree hit its peak about 2 years ago. But nobody can deny that credit ratings played a major role in many investors' decisions, and my concern here is not that Wall Street players lost money because good-faith credit ratings turned out to be bad estimates of risk; the outrage here is that the credit rating agencies colluded with loan originators and then consciously assigned overly favorable ratings and deliberately manipulated the market for their own greedy profit.

Collusion and misrepresentation are not elements of a genuinely free market. It is the job of the Federal Government to protect the integrity of our markets. And as I said earlier this month, the committee, this committee, and this Congress, will not be passive speculators as banks, nonbank banks, and credit rating agencies use their control of information to fool investors into believing that a pig is a cow and a rotten egg is a roasted chicken.

I am pleased that we have some witnesses from the credit rating agencies with us this afternoon, and I am hoping that their testi-

mony will merit a Triple A rating. In light of the industry's recent performance, something closer to a C, might be more likely expected. I would caution them that their forthrightness today about where their industry went wrong and what steps they are taking to ensure that unduly favorable ratings are not given to shaky financial products in the future may determine their future earnings or losses.

Thank you, Mr. Chairman.

Chairman KANJORSKI. Thank you, Mr. Ackerman.

The gentleman from Delaware, Mr. Castle.

Mr. CASTLE. Mr. Chairman, I have no opening statement, but I congratulate you and the committee on a good list of witnesses and I look forward to the testimony.

I yield back.

Chairman KANJORSKI. Thank you, Mr. Castle.

Mr. Sherman.

Mr. SHERMAN. Thank you, Mr. Chairman. You are to be commended for your Lake Woebegone reference, a reference to an idyllic Minnesota town where the women are strong, the men are good-looking, all the children are above average, and all the mortgage pools are investment grade.

When we look at this crisis, we should expect borrowers to borrow. Many are optimistic about what will happen to real estate prices in their area, and they are optimistic as Americans are and should be about their own job prospects. Some were sold bad products or misled. But even with perfect information, borrowers are going to buy homes that they only have an 80 percent chance of really being able to afford. And, in fact, when we look at today's subprime loans, even under bad conditions roughly 85 percent of the homebuyers are going to be able to keep their homes, and most of them couldn't have bought those homes without some sort of a subprime loan. So we can't blame borrowers for wanting an extra bedroom or wanting to be homeowners instead of renters, especially at a time when they saw all of these real estate values going up and all their friends becoming considerably more wealthy as a result of real estate value increases.

We shouldn't be surprised that intermediaries want to intermediate. After all, they package the loans and sell them without recourse. And as long as they don't get stuck with inventory on the shelf, they do quite well under any market circumstances. So we shouldn't be surprised that investors will invest. After all, they are buying in a debt, basically a debt instrument. They are getting 100, 150 basis points above the same rate that is available for equivalent terms of government paper, and the rating agencies are saying, "Hey, it is an A instrument."

So we have to look at the rating agencies and see why they missed. Borrowers were going to borrow, investors were going to invest, but the rating agencies don't have to give a high rate to every pool of mortgage debt. And I am told that rating agencies tended to look at the performance of prior pools. Well, a rising tide lifts all boats, so all boats must be aircraft or at least levitating hovercraft if the tide is rising.

It is pretty difficult, or often you don't default on a loan in a rising real estate market even if you lose your job, because all of a

sudden, if you have lived there for a few years, you have a lot of equity, and somebody will buy the house from you before you lose it in foreclosure. Heck, there are 17 mortgage brokers ready to loan you more because you have so much equity in spite of the fact that you lost your home.

So you have to look not at—I mean, the first question is why so much rating was done looking at the past, looking at prior performance; and then, in particular, why you folks allowed and gave high grades to such low underwriting standards. Because it is only the underwriting standards that can protect investors if there is a decline in nationwide employment, which, thank God, there really hasn't been to a large degree, or a decline in real estate values.

We don't need rating agencies to tell us what to do in great times. We need rating agencies to tell us what instruments are investment grade if real estate values level off or even decline. What we have seen is you have given, or some of you have given, high ratings to stated income loans even when your own people called them "liars' loans." And you have given high ratings to pools that include what I call—I don't know if a term has emerged in this area—teaser rate qualification. You go to the borrower and you say, hey, your interest rate is only 4 percent for the first 3 years, and then you go to the investors and say, that is a qualified borrower because for the first 3 years, they can afford to make the payments.

We need better—whether that requires a restructuring of the industry, or whether that just requires a change in your behavior, I don't know, but I hate to think that teaser rate qualification and liars' loans are going to find their way into pools that you folks give investment-grade ratings to, and I look forward to hearing—I am going to have to leave for part of this testimony, but I look forward to hearing much of what you have to say.

Chairman KANJORSKI. The gentleman from Illinois, Mr. Manzullo.

Mr. MANZULLO. I am looking forward to the testimony.

Chairman KANJORSKI. Okay. The gentleman from Georgia, Mr. Marshall.

Mr. MARSHALL. Thank you, Mr. Chairman. I would like to associate myself with your opening statement; I found myself in complete agreement.

I am open-minded on this subject, though quite concerned. It is pretty obvious if you look at the system, the only two real weak points are the initial transaction that created the debt—and we may need a much more robust Truth in Lending Act if nothing else—and then the rating agencies. Those are the two really weak points.

The rating agencies have failed us many times in the past. It seems to me that this committee must have looked at this problem before today many times. And you mention that legislation was passed last year designed to deal with it.

I hope I don't have to feel like I should have associated myself with Mr. Ackerman's very entertaining opening statement, because where the substance is concerned, it is pretty damning. And if he is correct, some people need to go to jail.

Chairman KANJORSKI. Without objection, all Members' opening statements will be made a part of the record.

And without objection, the statements of the witnesses will be made part of the record, and will be recognized, after I introduce them, for 5-minute summaries of their testimony.

The panel will consist of: Mr. H. Sean Mathis, Miller Mathis & Co., LLC; Mr. J. Kyle Bass, managing partner, Hayman Capital Partners, L.P.; Mr. Mark H. Adelson, Adelson & Jacob Consulting, LLC; Mr. Michael B. Kanef, group managing director, Asset Finance Group, Moody's Investors Service; Ms. Vickie A. Tillman, executive vice president, Standard & Poor's; and Dr. Joseph R. Mason, LeBow College of Business, Drexel University.

First, we will hear from Mr. Mathis.

Mr. ACKERMAN. Mr. Chairman, I would just like to exert the prerogative of a homeboy here. We are fortunate to have among our expert witnesses today a gentleman with over 25 years of advisory and principal-side investing experience. Sean Mathis is the senior managing partner at Miller Mathis, an independent investment bank headquartered in my City of New York. He holds an MBA from the Wharton Graduate School of Business, has previously served as the president or chairman of any number of companies within the financial services industry, and has a proven track record of success within the financial markets.

I had the opportunity to meet with Mr. Mathis a month or so ago regarding the role of credit rating agencies in the subprime crisis, and I was very impressed with his insight. I am sure that the members of our subcommittee will be equally impressed listening to his testimony along with the others.

Thank you, Mr. Chairman.

STATEMENT OF H. SEAN MATHIS, MILLER MATHIS & CO., LLC

Mr. MATHIS. Mr. Chairman and members of the subcommittee, good afternoon. I would like to thank you for inviting me to testify here today in the matter of the role of credit rating industries in the structured finance market. I do so with regard to my experience and that of my colleague Julia Whitehead in connection with many companies and public entities we have worked with over the years whose pension arms have an intense interest in the topic before the subcommittee.

In the wake of the subprime meltdown, we are facing perhaps the most serious crisis of confidence in our domestic and international financial market since the Great Depression. I submit, however, that the fallout would have never assumed these proportions if it were not for the extension of ratings issued by our nationally recognized statistical rating organizations to structured finance securities.

In some ways it is easy to blame the rating agencies whose willingness to attach investment-grade labels to untested, unproven, and, in many cases, deeply flawed structures allowed the incidence of these instruments to grow to enormous proportions, infiltrating the portfolios of even the most risk-averse investors. I believe, however, that the true culprit of the system that allowed NRSRO ratings to become critical and an embedded part of the protections built into our capital markets, financial institutions, and pension

funds without sufficient or appropriate thought given to accompanying supervision or accountability. In an age of financial engineering where complex, opaque, and off-exchange products have outpaced the ability of regulators to understand or control them, it is the failure to properly supervise the rating agencies that has brought the financial markets to their knees.

For Congress, to focus on finding a villain is only part of the effort. If there is a legal or inappropriate behavior, these people can be dealt with in the legal process. In part, I really believe Congress' focus should be on fixing the regulatory structure whose malfunction impeded the ability of our markets to function.

In that vein I draw your attention to the following four points. First of all, there is nothing small or self-limiting about the current situation. Subprime is not the source of all evil, it is merely the first eruption of a disease which has been growing in structured finance for some time. Make no mistake, the pain that will be suffered from collapses across the financial structured finance landscape will not merely be borne by well-heeled hedge fund managers or greedy, intemperate citizens looking to make a fast trade in a frothy housing market. The pain will be felt by regular people whose pension funds have been impaired by investments in gold-plated, highly rated securities whose performance will turn out to be far worse than the promise implied by these ratings.

Second, the significant flaws in the NRSRO rating system which precipitated this crisis are less ones of conception than they are of execution. In fact, the motive for the creation of NRSROs to give regulators charged with ensuring the capital adequacy of financial institutions a way to piggyback on the rating agency's designation of highly liquid and stable securities was never made explicit in the rating agency regulatory construct. As a consequence, moves by rating agencies to extend investment-grade ratings to securities that are liquid and unpredictable is significantly at odds with the original intent, and it was only a question of when, not if, they would migrate to these securities. Moreover, the lack of accountability placed on rating agencies freed them from the normal checks on behavior and judgment that such accountability tends to confer.

Third, as a result of the damage done via the rating system, it is critical that Congress view the reestablishment of the NRSRO system as its most important objective. As the legislative arm of our government, Congress must use its power to repair the body of law that has brought us to this point.

Fourth, to fix the inadequacies of the current NRSRO system, Congress must address its two most fundamental problems. First, it must seek to draw a line between securities eligible for NRSRO investment-grade designation and those that are still too new and complex to be modeled appropriately. The line will not be a perfect one, but it must be drawn in a way not to hamper innovation, while preventing the application of investment-grade labels on securities whose structures and assets are too unseasoned or volatile to be reasonably evaluated.

Second, it must imbue the system with accountability. The functioning of a free market relies on individuals and corporate entities

being responsible for what they do. Congress must see to it that this principle is built into the rating system.

Let me expand. Imprudently granted ratings have been a key contributor to the excesses in the extension of credit not just in housing, but also, as we are finding, in commercial real estate; corporate loans; and complicated, sometime near fantastical synthetic bets on credit. The unwinding of all these will cause significant trauma in many sectors.

Additionally, since our system of ensuring the capital adequacy of our financial institutions is heavily ratings-driven, flaws in the award of ratings impact the very bedrock of our financial markets. Those flaws, however, do not invalidate the purpose for which the rating system was initially intended to serve.

When the SEC created the rating agency regime in 1975, it sought to use the rating agency metrics to categorize the relative risk of broker-dealer securities for the purpose of ensuring capital adequacy. The NRSRO designation was certainly not intended to convey any power to the agencies. It was merely the result of the SEC's recognition "that securities that were rated investment-grade by credit rating agencies of national repute typically were more liquid and less volatile in price than securities that were not so highly rated." While the SEC clearly equated the term "investment-grade" with liquidity, that fact was never memorialized in legislation, process, or definition.

Notwithstanding that lack of provision, regulators all over the world jumped on the SEC bandwagon by referencing NRSRO ratings in a multitude of capital requirements and investment mandates at every level of the domestic and international economy.

Regardless of the SEC intent or lack thereof, the NRSRO designation gave a few fortunate rating agencies enormous authority, establishing them as the de facto gatekeepers of the investment-grade universe. Moreover, without any sort of regulatory or legal definition of investment-grade, the rating agencies were free to apply that grade at will. Since, for reasons that may have seemed important at the time, the SEC enacted various provisions which protected the rating agencies from securities liability, and since the rating agencies themselves successfully appropriated the freedom of speech shield for their ratings, they confidently extended their ratings umbrella in a remarkably unfettered fashion. And with enormous compensation they received from issuers, the rating agencies were handsomely rewarded for these ratings.

The ultimate result is what we see today, that the investment-grade ratings framework has been stretched beyond its initial conception to cover uses in instruments which were exactly the opposite of what was intended, causing it to backfire on the capital structures and investors it was designed to protect. There have been warnings before this, previous blowups, most notably Enron and WorldCom.

These fixes, however, remained elusive. The generously named Credit Rating Agency Reform Act of 2006, if anything, institutionalizes much of the current rating agency activity, leaving those firms generally free to do what they are paid to do, issue ratings.

This time the blow-up is not confined to one company or security, but an entire asset class of structured finance. What we first saw

in subprime issuances, dubious assets, faulty structures are now appearing in other vehicles whose rapid-fire issuance depended on a successful Triple A rating of a large part of their capital structure including SIBs and other asset-backed commercial paper vehicles, CDOs, CLOs, and many structures which are not based on money assets, but are based mainly on synthetic bets.

The damage from the collapse of these hastily conceived instruments will take years to play out. In recognition of the wreckage wrought by not acting sooner, Congress must act to repair this framework. There is no question that modifications of the current rating structure must be thoroughly and carefully evaluated with appropriate input from vested and unvested interests to avoid unintended consequences. But if the desire is to restore functions to our markets and credibilities to our institutions, Congress must address the following:

Regulatory oversight and supervision of the rating agencies must be had. Despite the fact that rating agencies are broadly and deeply felt throughout our economy, supervisory authority, which is largely vested in the SEC, remains de minimis.

Applicability of NRSRO ratings. The accelerant fuel fueling the growth of this generation of subprime and subprime-linked securities was the willingness of the rating agencies to stamp them investment-grade so they could be injected into the portfolio of yield star fiduciaries. Congress should review the use of NRSRO ratings for securities or structures which lack liquidity, transparency, and seasoning, as well as the process and authority under which new asset classes are brought into the investment-grade world.

Compensation-driven conflicts of interest. The rating agencies have been paid enormous sums of money by their structured finance clients, which has caused outsiders to question the impartiality and objectivity of the ratings.

Accountability. Unlike other professionals—accountants, lawyers and the like—rating agencies have heretofore escaped any liability when their ratings opinions proved wrong. Requiring the rating agencies to bear responsibility for their ratings and performance, perhaps in the manner of other professionals who function as experts, must be examined.

Finally, if Congress wishes to remedy these defects that contributed to the near meltdown of our financial markets, it must comprehend just how deeply NRSRO influence is entrenched in measures intended to protect capital and financial institutions and fiduciaries, both domestic and internationally, including Basel II, whose provisions to regulate international bank capital adequacy are being implemented as we speak. We believe past failures to recognize the pervasiveness of NRSRO activity contributed to a reduced search sense of urgency on Congress' part. Now is the time for Congress to take a more deliberate stand. We urge Congress to act.

[The prepared statement of Mr. Mathis can be found on page 132 of the appendix.]

Chairman KANJORSKI. Mr. Bass.

STATEMENT OF J. KYLE BASS, MANAGING PARTNER, HAYMAN CAPITAL PARTNERS, L.P.

Mr. BASS. Thank you. Chairman Kanjorski and Ranking Member Pryce, this is an incredibly complex issue that is very difficult to distill into a 5-minute remark, so I will refer you to my written testimony for a more detailed explanation of my position.

I am here today as an investor and participant in the residential mortgage-backed securities market, the RMBS market. In total I manage or advise over $4 billion of investments in the RMBS marketplace. I am here today because I am worried about the recent behavior of the ratings agencies and their work that has been irresponsible and flawed.

The two things I would like to talk about are: one, the instrument that should never have been invented, the Mezzanine CDO; and two, the operating duplicity of the ratings agencies.

Mezzanine CDOs are arcane structured finance products that were designed specifically to make dangerous, lowly rated tranches of subprime debt deceptively attractive to investors. This was achieved through some alchemy and some negligence in adapting unrealistic correlation assumptions on behalf of the ratings agencies. They convinced investors that 80 percent of a collection of toxic subprime tranches were the ratings equivalent of U.S. Government bonds. This entire process completely ignored the fact that these assets had a near perfect correlation of homogenous collateral as home prices declined nationwide.

Within this new vehicle the tranches were rebundled, marked up, and upwardly rerated. Now, in Mezzanine CDOs, anything less than Triple A is likely to be completely wiped out, and the Triple As will be severely impaired on average. This structure has made a mockery of the Triple A ratings, which contributed to the loss of faith in the ratings agencies that has frozen financial markets worldwide.

There is a gross inconsistency of modeling assumptions, and it still exists today. While the provisioning of Triple A ratings to Mezzanine tranches of subprime debt is the most egregious example of the flaws in the current ratings process, the clearest and easiest error to correct is the ratings agencies' refusal to acknowledge historical mistakes in the application of model assumptions.

In 2007, the ratings agencies changed many of their inputs into their structured securities ratings for mortgage-backed securities. Those changes were sweeping changes in many of the model inputs of their black box. And while they made those changes prospectively and tried to solve the problem going forward, where they stand today and where their duplicity lies is those model assumptions that changed in 2007 have not been input into their models for 2006, and 2005, and 2004. And they haven't put those assumptions in and subsequently rerated those prior transactions. They take the stance of the prior transaction and say, well, we will wait and see how they perform, and we will downgrade them as they happen. Well, until the ratings agencies plug their model assumptions in from 2007 to the prior ratings, no one will have faith in the ratings agencies.

With great power comes great responsibility. All participants in the fixed-income market recognize the enormous power the ratings

agencies wield over pricing with their ability to bestow universally recognized ratings. This power has turned the ratings agencies into de facto for-profit regulatory bodies. This role is both explicit in the reliance on the benchmark of what constitutes investment-grade debt and implicit in the power to dictate the life or death of a monoline financial guarantor with a simple ratings action.

I will tell you why and how regulators completely missed the epic size and depth of this problem in the credit markets today. An important concept to appreciate is that each securitization is essentially an off-balance-sheet bank. Like a regular bank, there is a sliver of equity and 10 to 20 times leverage in a securitization or CDO, and 20 to 40 times leverage in the CDO Squared and Bespoke instruments. The booming securitization market has in reality been an extraordinary growth of off-balance-sheet banks. However, the securitization market has no Federal and State banking regulators to monitor its behavior. The only bodies that provide oversight or implicit regulation are the ratings agencies, the bodies that are inherently biased towards their paymasters, the securitization firms. Without sufficient oversight, this highly levered, unregulated off-balance-sheet securitization market and its problems will continue to have severe ramifications on global financial markets.

My belief is that the following two policy principles are an important step in addressing the issues I have raised above. First, we need additional disclosure by the ratings agencies to their regulator, the SEC, to ensure the consistency of economic assumptions for models across all securitizations and vintages, as well as a requirement to rerate securities based on any new model assumptions.

Second, I think we should sponsor and facilitate the creation of a buy-side credit rating consortium funded by a limited fee on each fixed-income transaction in the fixed-income market, similar to an SEC fee on equities transactions. Ultimately something must be done to resolve the problem of a market that is forced to rely upon the ratings agencies that are only paid to rate securities, and they are not paid to downgrade them.

Thank you.

[The prepared statement of Mr. Bass can be found on page 69 of the appendix.]

Chairman KANJORSKI. Mr. Adelson.

STATEMENT OF MARK H. ADELSON, ADELSON & JACOB CONSULTING, LLC

Mr. ADELSON. Thank you Mr. Chairman.

Mr. Chairman, I have been in the structured finance business for my whole career, 22 years, first as a lawyer on mortgage-backed securities, and then I worked at Moody's for almost 10 years. For the last 6 years, I was at Nomura Securities, heading up structured finance securitization research. And now I have a little consulting company with my ex-boss, my partner, and we consult on securitization and real estate.

Thank you for inviting me here to give some testimony. Obviously, I can't cover everything that I addressed in my written testi-

mony in 5 minutes, and so I recommend that you take a look at my written statement.

There are two points I want to particularly emphasize, though, and a couple of little things that have come up from your remarks and the remarks of the witnesses who already spoke. The first is the transparency of the ratings, of the rating methodologies. In my view, it is entirely clear that the rating methodologies are fully transparent. The evidence of the transparency of rating methodologies is in the voluminous reports that come from the agencies; the fact that they make the actual quantitative models available; the fact that analysts, hundreds of analysts, leave the rating agencies each year to take jobs with issuers, underwriters, etc.; and most important of all, the spirited debate about the pros and cons, the strengths and weaknesses of the methodologies that takes place in the open from individuals like me writing research reports. I have cited many of those reports in my written testimony, as you will see.

So they are not black boxes, but they are also not totally simple. They are actually quite technical, and you have to have the right kind of technical background to grasp it. I mean, if my watch was broken, I couldn't fix it to save my life. But if I went to watch repair school, eventually I would learn how to fix a self-winding mechanical watch, and then I could do it. So it is a technical area. It is not going to be graspable by everyone. But to folks in the business, it is perfectly graspable.

The second thing that I want to emphasize is the issue of conflicts of interest. One kind of conflict of interest that gets talked about with respect to rating agencies is the exact same kind that any publishing company, a regular old magazine, would have. Motor Trend takes advertising money from car manufacturers and then writes about those cars. Does that mean that all the reviews in Motor Trend are worthless or tainted? Of course not. They do—like publishers have done since the beginning, they have a reasonable separation to preserve editorial independence. Rating agencies also do that.

Another aspect of conflict of interest, though, that is a little different is that rating agencies—or different for the rating agencies—is that the rating agencies can come under pressure to loosen their standards for a whole sector. And this can happen from a behavior by the issuers called rating shopping, where the issuers, an issuer let us say, shows a deal to multiple rating agencies and then picks one or two that have the easiest standards to rate the deal. Then the other rating agencies that had tougher standards become invisible, and, once more, they don't make any money, because the way you make money rating a deal is you rate the deal and charge the issuer. So it puts pressure on the rating agencies to loosen their standards, and we call this competitive laxity.

Years ago the way rating agencies combated the pressure of competitive laxity—I want to emphasize, there is no conclusive evidence that the competitive laxity was actually practiced by the major rating agencies. It is a potential, it is clearly a potential. Rating shopping is undisputable; it happens, and it has been happening for more than 15 years. But the way the rating agencies used to combat it was by doing unsolicited ratings. They would call

each other out. If one put a triple-A on a security that another thought should be single-A, they published a report that said, we think that is a single-A security, and then the market would see it and deal with it.

In the 1990's, that practice was abandoned because it was bad relations with issuers. One of two rating agencies said they wouldn't do it, and then the others had to stop.

I would say if you want to really address that issue and clean it up, you want to encourage or require unsolicited ratings even though that is something that you have viewed as a bad thing before.

I see I am out of time, so I will stop there, but if you ask me questions, I will have something to say about some of your remarks and the remarks of the other witnesses.

Thank you.

Chairman KANJORSKI. Thank you, Mr. Adelson.

[The prepared statement of Mr. Adelson can be found on page 56 of the appendix.]

Chairman KANJORSKI. Mr. Kanef.

STATEMENT OF MICHAEL B. KANEF, GROUP MANAGING DIRECTOR, ASSET FINANCE GROUP, MOODY'S INVESTORS SERVICE

Mr. KANEF. Thank you. Good afternoon, Chairman Kanjorski, Ranking Member Pryce, and members of the subcommittee. I am pleased to be here on behalf of my colleagues at Moody's Investors Service to speak about the role rating agencies play in the financial markets and to discuss some of the steps that we believe rating agencies and other market participants can take to enhance the effectiveness and usefulness of credit ratings.

Moody's plays an important but narrow role in the investment information industry. We offer reasoned, independent, forward-looking opinions about relative credit risk. Our ratings don't address market price or many of the other factors beyond credit risk that are part of the investment decision-making process, and they are not recommendations to buy or sell securities.

Let me briefly address the subprime mortgage market, which has been part of the broader residential mortgage market for many years. While subprime mortgages originated between 2002 and 2005 have generally continued to perform at or above expectations, the performance of mortgages originated in 2006 has been influenced by what we believe are an unprecedented confluence of three factors: First, increasingly aggressive mortgage underwriting standards in 2006. Numerous resources also indicate that there have been instances of misrepresentation made by mortgage brokers, appraisers, and others; second, the weakest home price environment on a national level since 1969; and third, a rapid reversal in mortgage lending standards which first accommodated and then quickly stranded overstretched borrowers needing to refinance.

Moody's response to these increased risks can be categorized into three broad sets of action. First, beginning in 2003, Moody's began warning the market about the risk from deterioration in origination standards and inflated housing prices, and we published frequently and pointedly on these issues from 2003 onward.

Second, we tightened our ratings criteria, steadily increasing our loss expectations for subprime loans and the credit protection we look for in bonds they backed by about 30 percent between 2003 and 2006. While Moody's anticipated the trend of weakening conditions in the subprime market, neither we nor most other market participants anticipated the magnitude and speed of the deterioration in mortgage quality by certain originators or the rapid transition to restrictive lending.

Third, we took prompt and deliberative action on specific securities as soon as the data warranted it. We undertook the first rating actions in November 2006 and took further actions in December 2006 and April and July 2007, and will continue to take action as appropriate. In addition, we are undertaking substantial initiatives to further enhance the quality of our analysis and the credibility of our ratings. These include enhancing our analytical methodologies, continuing to invest in our analytical capabilities, supporting market education about what ratings actually measure in order to discourage improper reliance upon them, and developing new tools to measure potential volatility in securities prices, which could relieve stress on the existing rating system by potentially curtailing the misuse of credit ratings for other purposes. We also continue to maintain strong policies and procedures to manage any potential conflicts of interest in our business.

Among other safeguards, at Moody's, ratings are determined by committees not individual analysts. Analyst compensation is related to analyst and overall company performance and is not tied to fees from the issuers and analyst rates. Our methodologies as well as our performance data are publicly available on our Web site, and a separate surveillance team reviews the performance of each mortgage-backed transaction that we rate.

Finally, beyond the internal measures we undertake at Moody's, we also believe that there are reforms involving the broader market that would enhance the subprime lending and securitization process. These include licensing of mortgage brokers, tightening due diligence standards to make sure all loans comply with law, and strengthening and enforcing representations and warranties.

We are eager to work with Congress and other market participants on these and other measures that could further bolster the quality and usefulness of our ratings and enhance the transparency and effectiveness of the global credit markets. Thank you. I will be happy to answer any questions you have.

Chairman KANJORSKI. Thank you very much, Mr. Kanef.

[The prepared statement of Mr. Kanef can be found on page 78 of the appendix.]

Chairman KANJORSKI. Ms. Tillman.

STATEMENT OF VICKIE A. TILLMAN, EXECUTIVE VICE PRESIDENT, STANDARD & POOR'S

Ms. TILLMAN. Mr. Chairman and members of the subcommittee, good afternoon. I appreciate this opportunity to address S&P's role in the financial markets, to discuss our record of offering opinions about creditworthiness, and to assure you of our ongoing efforts to improve.

Before I do so, however, I would like to offer a brief comment on the testimony of SEC Chairman Cox at yesterday's hearing before the Senate Banking Committee. The Chairman testified that pursuant to recently adopted regulations under the 2006 Rating Agency Act, the SEC is examining various allegations that have been leveled at the rating agencies. Chairman Cox further shared his view that the 2006 act struck a sound balance between regulatory oversight and analytical independence. S&P agrees with the Chairman and will continue to work with the SEC on the examinations.

Let me turn to S&P's excellent record of evaluating the credit quality of RMBS transactions. As a chart on page 6 of my prepared testimony demonstrates, we have been rating RMBS transactions for 30 years, and over that period of time, the percentage of defaults of transactions rated by us as Triple A is 4/100ths of 1 percent. Even our lowest investment-grade rating, Triple B, has a historical default rate of only slightly over 1 percent.

That said, we at S&P have learned some hard lessons from the recent difficulties in the subprime mortgage area. More than ever we recognize it is up to us to take steps so that our ratings are not only analytically sound, but that the market and the public fully understand what credit ratings are and what they are not. Our reputation is our business, and when it comes into question, we listen, we learn, and we improve.

Credit ratings speak to one topic and only one topic: the likelihood that rated securities will default. When we rate securities, we are not saying that they are guaranteed to repay, but, in fact, the opposite; that some of them will likely default. Recognizing what a rating constitutes is critical given that the recent market turmoil has not been the result of widespread defaults on rated securities, but rather the tightening of liquidity and a significant fall in market prices. These are issues our ratings are not meant to and do not address.

Ratings do change, in our view, if a transaction can and doesn't evolve as facts develop often in ways that are difficult to foresee. This has been the case with a number of the recent RMBS transactions involving subprime. In these transactions a number of the behavioral patterns emerging are unprecedented and directly at odds with historical data.

At S&P we have been expressing in publications our growing concerns about the performance of these loans and the potential impact on rated securities for over the last 2 years. We have also taken action, including downgrading RMBS transactions more quickly than ever before. Moreover, we continue to work to enhance our analytics and processes by tightening our criteria, increasing the frequencies of our surveillance and modifying our analytical models.

We take affirmative steps to guard against conflicts of interest that may rise out of the fact that we, like most every other major rating agency, use an issuer pay model. This issue was thoroughly debated in Congress during the consideration of the 2006 act. Independent commentators, including the head of the SEC's Division of Market Reg, agreed that the potential conflicts of interest can be managed. At S&P analysts are neither compensated based on the number of deals they rate, nor are they involved in negotiating

fees. These controls and others are set forth in our code of conduct. Every employee receives training in this code and must attest to its compliance.

Equally important, Standard & Poor's has not and will not issue higher ratings so as to garner more business. From 1994 through 2006, upgrades of U.S. RMBS ratings outpaced downgrades by approximately seven to one. This pattern surely would not exist if S&P issued inflated ratings to please issuers.

Mr. Chairman, the issuer pays models help bring greater transparency to the market as it allows all investors to have realtime access to our ratings. Unlike under a subscription model, the issuer pay model allows for broad market scrutiny of our ratings every day.

Others have questioned how pools of subprime loans can support investment-grade securities. The reason is the presence of credit enhancement, such as excess collateral in these transactions. We do not simply take a pool of subprime loans and rate the issued securities Triple A. Instead, drawing on our expertise and experience, we carefully analyze the appropriate amount of credit enhancement or cushion needed to support a particular rating. Without this cushion of additional collateral protection, we simply could not and would not issue what some consider high ratings on securities backed by a pool of subprime loans.

Let me end by reiterating our commitment to do all that we can to make our analytics the best in the world. Let me also assure you again of our desire to continue to work with the subcommittee as it explores developments affecting the subprime market.

Thank you, and I would be more than happy to answer any questions that you may have.

Chairman KANJORSKI. Thank you, Ms. Tillman.

[The prepared statement of Ms. Tillman can be found on page 147 of the appendix.]

Chairman KANJORSKI. Dr. Mason.

STATEMENT OF DR. JOSEPH R. MASON, LeBOW COLLEGE OF BUSINESS, DREXEL UNIVERSITY

Mr. MASON. Mr. Chairman, Ranking Member Pryce, and members of the committee, thank you for the opportunity to be here today.

By way of introduction, I am an associate professor of finance at Drexel University. I am a senior fellow at the Wharton School. Before joining Drexel University, I worked at the Office of the Comptroller of the Currency, studying structured finance. Since I moved to academics, I have advised bank and securities market regulators, as well as many industry groups and the press, on recent difficulties with structured finance. And I am also an expert in the economic dynamics of financial panics and crises of which the most recent market difficulties are a shining example.

My own academic research has shown that the leading contributor to financial crises historically, this one included, is information transparency. Market participants recently discovered that they do not know all that they thought they did. Investors are, therefore, rationally applying discounts to all banks and investment funds indiscriminately until they find out who is holding the

risk. Hence, investors need more information about the value and the holdings of structured products.

Note that funds rate cuts, increased agency mortgage limits, FHA programs or even, as in the U.K., blanket deposit insurance coverage will solve that information problem. The solution lies in changes to the manner in which information about structured finance investments is gathered and disseminated. Today's hearing on the role of NRSROs is, therefore, a good start in gathering information that can be used to make meaningful changes that will reduce information problems.

NRSROs like to say that investors are free to avoid their products if ratings are not useful. Not so. Issuers must have ratings even if investors do not find them very accurate. When the government stipulates that BBB or better-rated instruments are acceptable for public pension fund investments, the government confers on NRSROs the unique power to act as regulators, not mere opinion providers. Thus, the NRSROs are the gatekeepers to the majority of the investment world.

The problem is that a letter rating can mask an extremely wide range of risk. For instance, a Moody's Baa rating can indicate a 5-year, 24 percent default rate for CDOs or a 0.097 percent default rate for municipal bonds, a 250-times magnitude of economic difference. Hence, the BB rating cutoff for ERISA eligibility is no longer meaningful. Using ratings for the Basel II framework of banking supervision will only worsen the problem.

While the general statistical methods for NRSRO ratings criteria are disclosed, the NRSRO ratings criteria are not disclosed to a level of replicability. The reason is that the NRSROs do not release the economic assumptions they include in the models. When pressured, the NRSROs have divulged assumptions that differ significantly from reasonable forecasts issued by the NRSRO's own economic research affiliates. NRSROs have not strived to keep their models up to date, refusing to incorporate data on subprime mortgage products into their models until recently, while at the same time warning investors about the risks since 2003 and selling those investors tools to evaluate the difference.

Even when models are improved, NRSROs apply changes only prospectively, not retrospectively to the deals that they have admittedly misrated. Furthermore, while NRSRO ratings criteria are somewhat transparent, the NRSROs do not issue criteria for re-rating securities and do not have systematic methods for doing so, presumably because they are not paid to do so. Rerating, however, is crucial in structured finance.

In their reluctance to adequately monitor structured finance, the NRSROs have also been complicit in allowing servicers to use aggressive modification and reaging practices to manipulate cashflows on behalf of structured finance noteholders. Since roughly half of modifications result in consumer redefaults, it appears that many loan modifications may be for the sole purpose of extracting money from consumers who still cannot afford even lower loan payments.

While the NRSROs do not play a formal role in the development of new products in structured finance, the integrity of the financial engineering plays a crucial role in establishing the credit risk of

the investment securities. In structured finance, therefore, ratings serve as a seal of approval issued after NRSROs inspect the safety and soundness of the financial engineering. In that financial engineering, collateral types that are very heterogeneous and/or do not have a long history of demonstrated performance cannot be expected to allow as fine a slicing and dicing of risk as collateral types that are very homogenous and have a long history in credit markets. The NRSROs, however, overlooked the crucial and well-known characteristics of collateral risk and heterogeneity and supported the rapidly growing sector by rating complex and lucrative security structures for subprime mortgages as if the collateral were typical prime conforming mortgages.

Going forward, enforcement of SEC Regulation AB and FAS140 will alleviate significant problems in structured finance, but the NRSROs themselves need to be monitored if they are to continue to fulfill a regulatory role for pension funds and see that expanded to banks under Basel II. But how? The solution is fairly simple.

Basel II already proposes that bank regulators monitor bank internal credit models, but it allows banks that do not build their own models to use NRSRO ratings. I merely propose that if NRSRO models are to be used in the same manner as bank internal models they be subjected to the same supervision. The NRSRO's regulatory responsibility, however, cannot be maintained, much less expanded, without accountability.

[The prepared statement of Dr. Mason can be found on page 112 of the appendix.]

Chairman KANJORSKI. Thank you very much, Doctor.

Way back in the early dealings with the computer rates, I remember people arguing that anything could be done with computers, and then some very smart person came up and made the simple statement, "Garbage in, Garbage out." It seems to me you put a finger on why we have jurisdiction in this matter.

You know, as far as I am concerned, I am not worried about wealthy people losing money. They know what they are doing. That is their game. As a matter of fact, I will be happy to go to the casino with them. My problem is that we are dealing here with pension funds and other important funds, which you have just indicated in some instance because of these rating circumstances the risk of these CDOs are 250 times worse than other rated bonds or securities, so that they miss the mark on what the rating is supposed to do in the protection of these various areas of money. Is that correct?

Mr. MASON. I would say that they purposefully miss the mark in order to satisfy the investment manager and, in some cases, those who were looking for the fat yields that come from structured products.

Chairman KANJORSKI. All right. So, I guess I am trying to get to the measuring of where do we have jurisdiction. What jurisdiction should we utilize and for what purposes? We are not the cure of the world, and we are not to guarantee people profits or even that they do not get taken. I mean Nigeria is running a very strong economy and is getting people to send money to protect their rights and checks.

Mr. Adelson, I am not going to attack you, but I notice you are an attorney by profession.

Mr. ADELSON. I am still admitted to the bar, but I have not practiced law—

Chairman KANJORSKI. But you have never heard of that pleasurable thing about what sirens do to lawyers?

Mr. ADELSON. No.

Chairman KANJORSKI. Well, you have heard of the concept of "ambulance chasers."

Mr. ADELSON. Yes. Oh, sirens. Yes.

Chairman KANJORSKI. Sirens. What causes ambulance chasing? It is profit motive, isn't it?

Mr. ADELSON. Sure.

Chairman KANJORSKI. So that would indicate that even people of supposedly a higher ethical calling respond to that ugly thing called "profit" and sometimes abuse their ethical standards in order to obtain a profit. Wouldn't that be a logical conclusion from that humorous statement about ambulance chasers?

Mr. ADELSON. I think the reason that we would say is that, you know, ambulance chasing is improper conduct and that it violates a lawyer's code of ethics to engage in it. It is not the right thing to do. I mean—

Chairman KANJORSKI. It is not the right thing to do because the object is money as opposed to performing your professional activity. Let me give you another example. Have you ever heard about orthopaedic surgery in hospitals? In September and February, the operation rate gets to be the highest, and there are correlation studies—I think Drexel did one of them—of when tuitions of orthopaedic specialists are due. Now, I am not saying all orthopaedic surgeons are driven by money, but there is an unusually high surgery performance at the particular times when monies are necessary for tuition. There could be other causes, I grant you.

Mr. ADELSON. But you are not saying that you would expect either lawyers or orthopaedic surgeons or anybody else to be working for free, right?

Chairman KANJORSKI. No, they should not be working for free, but you used an example of Motor Trend Magazine. Honestly, would you buy an automobile from Consumer Reports if you knew that General Motors was paying them millions of dollars to write the recommendation?

Mr. ADELSON. Well, actually, I like to read both Consumer Reports and Motor Trend Magazine because I value getting different points of view.

Chairman KANJORSKI. Are you familiar with the publications across America of the 100 Best Lawyers? They show you pictures of them, and they give you writeups of them. Whenever I am, you know, in a waiting room and waiting for something, these are interesting things for me to read because I know a lot of these people, and I have come to the conclusion that there is a tremendous correlation between how great these 100 lawyers in each of the States are and how much they pay for ads in the book that publishes the 100 Best Lawyers. It is just an unusual correlation. The best lawyers seem to be the best advertisers. I am not certain why or what the exact relationship is, but what I am getting to is how

can we miss profit motive here as a problem? I am beginning to believe we have to take profit out of some of these areas.

It is not unusual that Moody's and Standard & Poor's showed almost 50 percent of their revenues coming out of this rating area, and if we had just been—if somebody had been perceptive enough to watch how their profits were growing in that area, they probably could have detected a little earlier that the ratings may not be reflecting the true picture.

Ms. TILLMAN. Mr. Chairman, could I make a comment?

Chairman KANJORSKI. Sure, Ms. Tillman.

Ms. TILLMAN. Two comments—one in terms of Dr. Mason's statistics. I cannot speak to where he came up with his statistics, but if you take the same statistics on an investment grade CDO—okay?—at a Bbb level over a 5-year period, the average default rate is somewhere around 2½ percent. If you look at a corporate bond—okay?—rated by Standard & Poor's in the same time period rated Bbb, then you have approximately 2½ to 3 percent of a probability of default.

So I think we have to be very careful in terms of using statistics and understand really, you know, the other element that I think that the act was getting at is to have diverse opinions, and because Moody's or Fitch or someone else may have a different methodology than Standard & Poor's, I would assume that is part of the competitive environment that we are looking for.

Chairman KANJORSKI. Ms. Tillman, what I am getting at is maybe we have to do several things, and of those several things, probably information and transparency are the most important. I am absolutely convinced that in this computer age we could have a system in which these structured financial deals, by the push of a button, could give you the reflection of performance to the moment. That would allow people who are advisers, people who are buyers in the field, and individual investors to find out what the relative position of their security is at any given moment. I think that is very important. The fact that somebody gets away without that, they are really selling a pig in a poke.

Ms. TILLMAN. I agree wholeheartedly with you, Mr. Chairman.

Chairman KANJORSKI. I think, from a prior discussion, I cannot understand why the rating agency has not come forward and recommended to the Congress or to the SEC that we do something about that. We cannot wait until the horse has escaped from the barn all the time and then come up here and try to do remedial legislation. Some of these things are anticipatory, and I think this is very clearly anticipatory.

I wanted to make one other comment—and I know I am a little over my time.

I had a great conversation with the CEO of one of the major accounting firms in the United States that no longer exists, and that is as far as I am going to go to disclose who it was, and I remember sitting on the edge of my chair, asking, "How could this happen?" Now I am going to tell you why.

I am a lawyer by profession, and I know a lot of the bad eggs in the legal profession, and I know some of the bad eggs in the medical profession, but I always had this incredibly high respect for the accounting profession. Why? Because I did not understand

their field too well, and I knew that all of us relied on them to be absolutely correct if we wanted to know what was happening in a business. Finally, in weakness, when we were talking about WorldCom, he looked at me and he said, "Congressman, you have to understand, I have an organization throughout the world that I need $12.5 billion a year in revenue to operate." That was the justification of why this special allotment of making accounting principles warp, to allow WorldCom to do this, and that was it.

That is scary to me. It is scary to me that the rating agencies are all profit-driven from the companies that own them, up to the holding company, all the way down. I am sure you can say there is separation, and maybe I am getting gun shy, but even the New York Times? Now in years past, we used to have a great deal of respect for the standards and ethics of the New York Times. Didn't they run an ad for $65,000 when it should have been billed at $170,000, and it was attacking personalities that were against their stated position in advertising? It is amazing how, if it is their political conviction or for profit or for whatever reason, that corporations, companies, and other entities in America today, mostly profit-driven, are starting to make significant changes and are lessening their standards.

If the rating agencies are the only thing between absolute fraud, do we have to make them nonprofit and take the profit motive out of it? I do not know, but we certainly have to have disclosure. I agree with Dr. Mason on that. That is easy to do, and I expect the agencies to come to the Congress with recommendations of how it can be done. We could very quickly put that in place, or get the regulators to put it into place, but we have to do something about this.

You know, I want to close and let my good friends get their time in, but to those of you whom I have talked personally about, I have constantly mentioned what really scares me about our whole economic system today—over the last decade or two, the very sophisticated people in the field of finance have learned how to take their skin out of the game, and they have no risk. They only have the upside. They make a profit if they sell a mortgage. They do not lose anything if the mortgage fails. They make a profit if they sell the securitization. They do not lose any money if the securitization fails. All of the people who sell the securitization rates, they all make profits. They risk nothing if it fails. We have to find a way of putting skin back in the game, and if we do not, all we are doing is creating a market out there that pretty soon people just will not believe in.

Now, I had a discussion with a European Parliament member yesterday, and he was telling me about the run on the bank in England and how the Bank of England stepped up with total insurance, which is an interesting concept since I think I just read—or did I hear it in your testimony, Dr. Mason?—that 10 percent of the banks of America's securities involve these types of securities that are in their vaults. That could be very serious if they collapsed. That would take down the entire banking system in the United States, as I understand it. They do not have the equity to withstand a 10 percent total failure, do they?

Mr. MASON. No. Neither does the FDIC have the funds to cover the outlays.

Chairman KANJORSKI. So the last thing. For the last several weeks, I have had a terrible feeling that we are in a serious condition in this country. Is there anybody at the witness table who thinks this is not a serious problem, and it will pass? Or do you agree—you do not think it is a serious problem, Mr. Adelson?

Mr. ADELSON. No, Mr. Chairman. With respect to the securities on the subprime side, the amount of securities are very small by dollars. One of the other members referred to the number of bonds. The dollar amount of the affected securities from subprime deals is actually very modest in relation to the total amount.

Chairman KANJORSKI. You do not see cross-pollenization or pollution occurring?

Mr. ADELSON. You are talking about where the problem is now. You can have a problem, which we have not gotten into at all, about the derivatives guys and the CDO sector's using derivatives to create $130 billion of exposure when there was only $40 billion of actual triple-B paper created in the subprime area that has been put under pressure. Even CDOs, themselves, are just not that big a piece of the pie.

I think you do have a problem. I will agree with you that you have a problem in how lenders made subprime loans, but you guys make the laws. You have computers, too. You see the little dancing robot telling people they can get a loan for no money down. It is not like anyone at this table was seeing anything that you were not, okay? If you want banks to have skin in the game when they make loans—right?—and if you want to temper or to restrain the ongoing process or evolutionary trend of financial disintermediation, you are the guys to stop it. You just make a law that says whenever you make a loan, you must retain 10 percent of it forever.

Chairman KANJORSKI. Let me say this to you. I am one Member here. I have preached a little, but that does not exonerate me from responsibility.

The Congress of the United States adopted a policy of maximum homeownership even when we knew financial literacy was lacking, and capacity performance was lacking, and managerial capacity was lacking. It made us all feel so good to say everybody has a perfect cure if they own a home. I think this may be the beginning of understanding that is not true. I hope it is. We are responsible for that.

Yes.

Mr. MATHIS. Mr. Chairman, could I respond to this not being a big issue?

Chairman KANJORSKI. Yes?

Mr. MATHIS. The main issue—and you brought up North Rock. North Rock was an institution that by most measures was not in financial trouble. This is an issue of trust.

Chairman KANJORSKI. Right.

Mr. MATHIS. These securities have been issued, not only CDOs and mortgage-backs but also CLOs that number in the trillions. They are across the marketplace. When the marketplace loses the trust in the rating system that it had come to trust and it believes

that ratings do not mean anything, you are going to have essentially the run on the bank that you had in the U.K., and that is why this is a significant problem. There is a contagion that comes from a lack of faith in what is in a security and what it means. This is the thing that I say—this is one of the bigger crises to face the financial markets since the Depression because there were not tangibles. These were intangibles. People just lost their trust in those securities, and if it happens on a larger scale, God forbid.

Chairman KANJORSKI. I agree with you, and I will get back to you.

Ms. Pryce, you have all the time in the world.

Ms. PRYCE. Thank you, Mr. Chairman. I will not take too much time.

Mr. Chairman, you talked about skin in the game. I think some of the skin that the rating agencies have is their reputation. I mean your reputation is what the trust of the world markets has relied on. I think that you have lost some skin in this game, and I might be wrong, but let me ask a question.

Mr. Bass and Dr. Mason both brought up the point that the 2007 home prices assumptions have been changed prospectively but not retrospectively for products needing rerating, and that goes to the chairman's point, that is because you are not being paid to rerate, but your reputation is at stake.

Is there a reason you do not rerate? Don't you want to regain some of these layers of skin that you have lost? So why are they not being rerated? Will you address that in some depth?

Mr. KANEF. Congresswoman, could I answer that question, please?

Ms. PRYCE. Sure.

Mr. KANEF. The one thing I would like to say—and I would like to, actually, try to correct the record here—is that, contrary to some of the statements that have been made at Moody's—and I can only speak for Moody's—when we have gone through on the review of this subprime RMBS transactions that we have rated, the assumptions that have been used for ongoing transactions, transactions on a going-forward basis, are the assumptions that are used by our monitoring team to monitor the existing and the outstanding subprime RMBS transactions.

We held a teleconference in July when we had downgraded a substantial number of subprime RMBS transactions, a small percent of the total outstanding but a substantial number of transactions. During that teleconference, we did explain the methodology that we were using for the surveillance and for the rating downgrades of those transactions, and that process involved an application of the forward-looking assumptions to the existing transactions.

Ms. TILLMAN. May I respond, as well?

Ms. PRYCE. Yes. Then we will go back to Mr. Bass.

Ms. TILLMAN. I wanted to sort of reiterate what Mr. Kanef has said. We have both a new issue group and a surveillance group that seem to have gotten lost in some of the criticism here at the table. What our surveillance group does, which is totally separate from the new issue deal, is we get information in on a monthly basis from servicers, and we review the performance of how these

deals are operating because on a primary deal the new deal, you are really rating against what your expectations are. On the surveillance side, you are reviewing what is actually happening and what the behavior is of those loans in their portfolio.

In addition, we change our models that we utilize both internally as well. That is totally accessible to anyone in the marketplace, and it has been for quite a period of time. We have changed the model multiple times as we have changed our assumptions.

Ms. PRYCE. Well, would either one of you say that you are doing this retroactively or just prospectively?

Mr. KANEF. Well, I think, again, there is a separate monitoring team, and the monitoring team needs to look at two aspects of the previously rated transactions. I mean they do that monthly. Data usually comes in on these transactions once a month, and so every month every transaction is reviewed by the separate monitoring team that we have.

Ms. PRYCE. It is reviewed. Is it rerated?

Mr. KANEF. When I say "reviewed," what I mean is the performance of the loans underlying the securitization is reviewed, and it is compared to our original expectations and to the enhancement levels that are in place to protect the bonds, and to the extent that the analyst reviewing the transaction believes that the performance or the enhancement levels have changed in a material way, there is a committee, and each and every deal that requires it is rerated. Yes.

Ms. PRYCE. Okay. Mr. Bass and Mr. Adelson and Mr. Mason, then, if you want to jump in.

Mr. BASS. Let us be clear here.

I have met with your—specifically yours, Mr. Kanef—surveillance team numerous times. Your surveillance team drives in the rear view mirror. They look at the performance; they look for outliers, and they downgrade the outliers after the performance. My comments as to your operating duplicity are specifically aimed at your global assumptions on the front end of rating those securitizations. When those global assumptions change—let us say the two most important assumptions for this asset class, I would say, are home price appreciation assumptions and loss severity assumptions. When you change those assumptions from an up 6 to 8 home price for the next 3 years—flat to down—and you slightly raise your loss severity assumptions for 2007 deals, all of a sudden, the OC that you are requiring in these transactions balloons and makes them much less profitable, but more importantly, if you were to take those assumptions and drop them in your 2006 models, you would have to rerate the entire securitization that day. You guys are not rating them using your modeling expectations, you know, retrospectively. You are driving with the rear view mirror retrospectively.

Ms. PRYCE. Mr. Adelson.

Mr. ADELSON. I think there is a little bit of confusion. Maybe it is the terminology here.

When the rating agencies are called on to rate a new deal, it usually involves brand new mortgage loans that have no performance history on them. So the analysis goes, in very large measure, off of the measurable characteristics of the loans—the loan-to-value

ratio, the borrowers' FICO scores, the kind of loan product it is. On a deal that has been rated and has been closed and has been in the market for a while, that stuff becomes a lot less important. What is really important is seeing how those loans are doing month after month, right? It is much less meaningful, if you have a pool of loans that are a year old, to take your new rating model—let us say you have upgraded it and changed it somehow—and put the pool of loans through it as if it had no history at all, because in fact you can do a lot better by looking at the actual performance of these loans, this honest to God pool right in front of you.

I think that is what the witnesses from the rating agencies are saying, that when you have a deal that is out there for a while you are doing it differently because you have more information.

Ms. PRYCE. Mr. Mason, do you want to have the last word on this? My time has expired.

Mr. MASON. I have trouble with "rerating" being entirely in the rear view mirror. If "rating" is prospective and "rerating" is in the rear view mirror, let us call it something else. "Review" is not the same function. The important thing to remember is in the context of structured finance, and partially relating to the chairman's previous question, this is a structured finance problem, not a subprime problem; the structures have fallen apart. Whether it is subprime, leverage buyouts, or other new collateral types, the structures are falling apart because the structures have been stressed too much, like a bridge that was underengineered.

There are certain cumulative dynamics to these pools. These are pools of mortgages. You take 5,000 mortgages and put them in a pool. Now, the pool will demonstrate some dynamics as it goes, but if a loan defaults and a loan goes into foreclosure and the property is sold and we book a 40-cents-on-the-dollar loss from that one, that money is not going to be recovered from somewhere. So we book a certain percentage loss in the pool, and that rises, certainly, early in the deal because we are not sure of what loans are going to do. They generally default in the first couple of years of life, and that is the way things go, and then they start tailing off and they start leveling out. The issue is where that tail-off and that leveling-out goes, but the point is the cumulative loss never goes down. Those cumulative dynamics do not come back. It is not like a corporate bond on—I do not know—some company, because I do not want to name a company inappropriately—but a corporate bond on some company that has an ongoing operation. Maybe they are getting some losses—okay?—and those losses are tailing up, but then they rejigger their investment program, go into a new product area, start some new plants, raise some capital, and they earn some money that can offset those earnings, and the curve can go back down. This does not happen in structured finance. This is the pool. That is all there is. It is static, done. So to look in the rear view mirror in that environment is really misleading because in the context of these mortgage-backed securities today and these other structured investments it is not going to get any better. We have what we have.

Secondly, I think that part of the incentive conflict that has to do with this industry is that structured finance brought to the industry a great number of repeated transactions, and one of the first

things you learn in grad school in economics and in micro-game theory is that repeated games have very different outcomes than single, individual games. So, if one of the ratings agencies is thinking about downgrading an issuer's deals, that has dramatic implications for that issuer going forward and also as to what choice of ratings agency that issuer uses going forward in their new deals next month and next quarter and ongoing.

I had a very interesting discussion with a researcher at one of the ratings agencies. I have always been interested because these loans are supposed to be truly, indeed, sold under FAS140 (which I will not go into, but FAS140 has not been enforced and has been overlooked for years, but they are supposed to be sold); they are supposed to be separate from the bank that originated a loan. So what happens to the bank or to the originator when the deals are downgraded? I had been interested in researching the stock price effect on the financials, and the researcher laughed and said, "They die. They are done. It is the end of the road."

So is it surprising to see that the downgrades that we saw last summer were of New Century, American Home—the other originators had already died—that there was no reputational hit, that there was no problem with new business coming up the pipe because there was no new business from those originators?

Ms. PRYCE. Well, it is all very fascinating, and I think we really have not even touched on how to change if we need to, and it may be the subject for a whole new hearing or for a whole new discussion group.

So thank you all. It certainly is not less than complicated, so I appreciate.

Thank you, Mr. Chairman.

Chairman KANJORSKI. Mr. Ackerman.

Mr. ACKERMAN. I had a car once. It said on the rear view mirror that "Objects you see in the rear view mirror may be a lot closer than they look." A couple of observations.

Fascinatingly, I have not heard anybody uttering the words "the market can correct itself"—it is just an observation—because the debate that we have is whether or not we should be trying to fix the market or whether we should keep our hands off the market because the market is going to take care of this situation. Nobody came charging up here saying that. Interesting.

Somebody mentioned the word "faith." It is very, very interesting how much trust we place in the hands of others upon whom we rely. Cookies. These are Girl Scout cookies as it turns out. There are people who are, as a principle of their faith, orthodox Jews, who have to keep laws that are the kosher laws, the Kosheret laws. They have to know that the foods they eat are kosher by the law that they have to adhere to. That means they have to know, as the consumer of edible products, how the process was done, what went into the process and that each of the ingredients meets the specifications according to the standard, the "standard." Girl Scout cookies meet that standard. The average person not familiar with Kosheret laws does not know to look for a little thing somewhere in the small print. Within a little, tiny circle, there is a "u." That is the clue that the people who manufacture it choose to put on to signal to those people who are interested in doing their due dili-

gence that this meets the standard that they have to by law uphold, and they put a lot of faith into that. One of the reasons is they cannot see into this. It is not a black box, because nothing is a black box in any of the markets. They are fancy boxes with beautiful pictures, and they are gussied up to make them appealing. This is not even translucent, let alone transparent, and the only thing that a person has to rely on, who needs to keep the law, is someone else's word.

I think—and you can comment on it—that faith that we have had in the markets, because we have been relying on the rating agencies to keep the deals kosher, is a faith that has been, in this case, misplaced. If I wanted to take these cookies apart and eat them one by one, I would know they are all still kosher. If somebody repackaged this package by taking 50 percent of this package and combining it with 20 percent of another package—the ingredients of which might all be listed—and then down the road someone else repackaged that repackage and that kept going on, there would be no way for anybody to certify the processes by which the ingredients were assembled and whether or not the package that they were buying met the standards that they were required to keep. That is why you cannot rerate, because even you in a fourth generation of a package of securitized mortgages could not tell me what was in it. You could not even tell me, of the subprime people's mortgages that were in it, how many of them might have lost their jobs, how many of them were mortgaged together with their husbands as co-borrowers and the breadwinner died without insurance. There is no way of knowing the viability of that package. Maybe I am missing something.

How does a prudent consumer know?

Ms. TILLMAN. Can I make a comment, sir?

Mr. ACKERMAN. Please.

Ms. TILLMAN. When we look at a mortgage-backed security, on average, there are about, probably, around 3,000 loans in each of the pooled packages. We evaluate over 70 characteristics of each of those loans, including—

Mr. ACKERMAN. Each of the 3,000?

Ms. TILLMAN. Each of the 3,000.

There are 70 characteristics that range from what kind of loans they are, the FICO score of the borrower, the employment, and so forth and so forth. We run those.

Mr. ACKERMAN. When you review the employment for 3,000 people in the package—

Ms. TILLMAN. Well—

Mr. ACKERMAN. —how many people have lost their jobs? Do you reinvestigate that?

Ms. TILLMAN. No, we do not reinvestigate it.

Mr. ACKERMAN. It was not investigated to begin with, so how do you know that—

Ms. TILLMAN. Well, can I finish, sir?

Mr. ACKERMAN. Please.

Ms. TILLMAN. Basically, it is the originators. It is their responsibility, obviously, in terms of not only making the loans but in ensuring that they meet the underwriting standards there. There is due diligence. There is a responsibility of both the underwriters

and of the investment bankers in terms of reviewing them, and they have to—

Mr. ACKERMAN. And you—

Ms. TILLMAN. Let me finish.

Mr. ACKERMAN. I just want to understand what you just said. Please, do finish.

You are relying on the original underwriter?

Ms. TILLMAN. No. What I said is that what we look for is—it is the originators. It is the originators of the loans' responsibility to ensure that the loans that are being lent to the borrower are meeting their underwriting standards, at which point in time the investment banker, if they are working with an investment banker—

Mr. ACKERMAN. Some of those are the underwriters who helped participate in the "no background check" thing?

Ms. TILLMAN. Yes, they are the originators of the loan.

Mr. ACKERMAN. And that is what you are relying on?

Ms. TILLMAN. It primarily the non—

Mr. ACKERMAN. It is a pretty high standard to rely on somebody else's "no please lie to me" standard.

Ms. TILLMAN. Well, I am just telling you—

Mr. ACKERMAN. If somebody says to me "no background check," man, you know, I am Rockefeller.

Ms. TILLMAN. Well, to that point, sir, actually the Mortgage Bankers' Association commissioned a study, and it did find out, in fact, sir, that, especially in the 2006 loan originations, there were substantially higher misrepresentations and fraudulent information in those sets of loans, where you had a FICO score for an individual borrower in the 2006 that acted more like an individual borrower of a much lower FICO score in previous times.

So I totally agree with you relative to the transparency, in terms of the types of loans that we are seeing, the enforcement of underwriting standards, and due diligence, but, sir, we get this information. We state very clearly that it is this information that we look at, and then we run it loan by loan through our models, again which are totally available to the public and to the investment banker's rep, and warrant to the accuracy of that information. You know, we are not accountants. We depend on the accuracy of what is given to us. Our job is to really look at the probability of default, and we do a very extensive review of all of those loans.

In essence, to your point about the kosher box and the "u," our criteria and the models that we put out are so transparent that just about everybody in the marketplace knows exactly what it is that our models are saying and the types of things that we are looking for, and so it is not a great mystery to the marketplace how Standard & Poor's views particular kinds of residential mortgage-backed securities.

Mr. ACKERMAN. Thank you.

If I put different cookies in this box, the three chief rabbis in Jerusalem could not tell me they were still kosher.

Ms. TILLMAN. I agree, but that is why we have a surveillance group that surveils those deals that have been rated so that we can look at the performance of the deals after the fact, not only at the time of the sale.

Mr. ACKERMAN. Mr. Mathis.

Mr. MATHIS. One of the things, I believe, that one of the people from a rating agency said is that, when they looked to rerate, they did not look at those original FICOs because they did not mean as much anymore, and as to the whole process you have to ask yourself—and I believe the chairman sort of alluded to that with the metaphor of the ambulance. Here you have investment bankers who are—you know, these are private offerings; these are not public offerings, and they are warranting to them that these loans are going away; they are going to make a big fee in selling them; the originators they are talking about are never going to hold these loans; they are going away; they are never going to see them again. The only person who is going to see them again or who will be with them are the pension funds, and what they depended on was that mark that you were talking about, which in this case happens to be a AAA.

I mean one of our suggestions is that maybe one of the ways to deal with this—and this was alluded to by the people from the rating agencies, that you do not know for a couple of years. Well, maybe one of the ways is that everybody who makes these loans has to live with them for 3 years, that you cannot issue some structured finance along these lines until they are seasoned for about 3 years. So that means that everybody who made these loans, including the originators and the investment bankers and all of that, would have to live with them for 3 years. Just think about common sense. Do you think you would have a different world if they had to live with these for 3 years? I think you would. I think it would be a different world.

Chairman KANJORSKI. Thank you.

Mr. Sherman is going to jump off this platform.

Mr. SHERMAN. Thank you.

I would point out that the little "u" issued by the rabbi who is paid—compensated—by the people who put the cookies in the box could claim a conflict of interest, but the rabbi has to answer to a higher power. Then again, so do you. In addition to Wall Street, you have to answer to the tort system, and while some have argued that God is dead, the rock is only in jail.

So let us say: You guys get paid—what?—about one or two basis points? On average, what is the fee that you charge for rating them? How many basis points?

Mr. MATHIS. I would like them to answer, but it is a little higher than—

Mr. SHERMAN. Okay. How many basis points? Can you give me an answer quickly on average?

Mr. KANEF. I can give you a rough dollar. Very, very roughly for all of RMBS—so it would include prime and subprime both—it is, roughly, $130,000 per rating, sir.

Mr. SHERMAN. Per rating. You are rating how large a pool?

Mr. KANEF. That would be for a pool of anywhere from several hundred million to several billion dollars. That would be the total fee for all of the bonds issued relating to that pool.

Mr. SHERMAN. Okay. So, of the folks who are from rating agencies, raise your hand if you are not currently getting sued as a result of what has happened with these mortgage pools over the last 2 months.

For the record, no hands are going up.

So we do have what economists call the "moral hazard." That is you are subject to lawsuits by the investors who have lost money, and that is the best argument for our not changing the system in that there is a way to hold you folks accountable.

I would like to focus—I believe Ms. Tillman was talking about how you have transparent standards. When you rate a pool of mortgages and over 5 percent of them are stated income mortgages, what does that do to the rating?

Ms. TILLMAN. Well, basically, as we look at each characteristic—and as stated incomes, we understand that those are more risky, and so, as to each of the pools, if they have a certain number of stated income, they would basically have to have more credit protection built in that deal than if you did not have it, so we go through each one of these 70 different characteristics and estimate not only the probability of default because of those characteristics but the estimated loss.

Mr. SHERMAN. Now, your modeling, was that based on stable real estate prices or declining real estate prices?

Ms. TILLMAN. Actually, declining real estate prices.

Mr. SHERMAN. Declining real estate prices.

So you did your model for the market that we face today. So why are investors losing money?

Ms. TILLMAN. What I said was is we based it on declining prices, but what I will tell you is there has been an unprecedented housing decline since the late 1960's, and we have already published—

Mr. SHERMAN. Unprecedented in housing declines?

Ms. TILLMAN. In prices.

Mr. SHERMAN. Prices. A price decline.

Ms. TILLMAN. Price declines, and we publicly stated that—

Mr. SHERMAN. Well, since you faced an absolutely unprecedented, in-over-a-century increase, didn't you model for the possibility that you would have an unprecedented decrease? That which goes up, up, up real high goes down real, real low?

Ms. TILLMAN. Well, sir, we used both external and internal economic data that we have received like everybody else receives about the housing market, and if the housing market were going to be, you know, growing, whether it was going to be declining 8 percent or 5 percent, we would stress it even more than that, so we were extremely conservative, but obviously the declines happened a lot faster. In fact, in 2006—and we are talking about the 2006 loans—we started downgrading these loans only 6 months after these loans were originated. I mean that is an unprecedented quickness in downgrade.

Mr. SHERMAN. You would think that you would have been—Mr. Mathis, I see you have something to say.

Mr. MATHIS. Well, I think that is remarkable. Did things change so much in that 6 months? We have housing prices now that have been more under pressure in the more recent period, but until the end of 2006, housing prices were going up; they just started to move down. Unfortunately, I think the right word is they just started to go down.

Ms. TILLMAN. Yes, but that is not the only thing we look at. We look at 69 other things, sir.

Mr. MATHIS. Well—but you were saying it was unprecedented. You were saying it was unprecedented.

Ms. TILLMAN. Well, it was.

Mr. MATHIS. The "unprecedented" only just started when you were doing those ratings, and what was going on is you were putting into your models, in your original models 6 months before, that housing prices would go up at the same rate they have been going.

Ms. TILLMAN. No, sir. I said that they were going down.

Mr. SHERMAN. If I can reclaim my time—and I know you folks could have the hearing without us up here. As a matter of fact, we are about to vote. You folks are welcome, with the chairman's permission, to continue without us.

I am just flabbergasted that you folks would allow any stated income or teaser rate loans at all into something that you would rate as investment grade, and I know you have models, but those models have failed.

Secondly, if you look at the value of houses as a percent of GDP and inflation adjusted for the last 100 years, etc., every single chart shows unprecedented increases over the last 5 years. I would like to see models. I do not know if Mr. Marshall has—I want to be quiet just in case you have something—

Chairman KANJORSKI. Well, we will break now, Mr. Sherman.

This is a great panel. Myself, I would just suggest that we come back. We have about a 40-minute vote on the Floor.

Would that terribly inconvenience the panel if we kept you waiting for 40 minutes before we get back or would you like to conclude it now? Mr. Marshall has not had a chance, and he has been a soldier here all day, waiting.

Mr. MARSHALL. Mr. Chairman.

Chairman KANJORSKI. Yes.

Mr. MARSHALL. It is me.

Chairman KANJORSKI. Yes.

Mr. MARSHALL. I have spent a lot of time preparing for this. The written testimony is something I have not had an opportunity to read. It is very thorough. It seems to me that we ought to ask them to stay.

Chairman KANJORSKI. All right.

Mr. MARSHALL. If there are not too many people here, let us go ahead and have more of a conversation amongst you so that we can better understand. If I had all of the knowledge that each of you has, I would be better able to question each one of you about your positions, and given a little bit of time here, I suspect that we can clear up, maybe, this dispute between Mr. Bass, Dr. Mason, and the two representatives of the industry. I think that is a pretty important dispute.

Chairman KANJORSKI. Is there any objection to staying on and taking a break now? We will be back. We will even try and get you coffee if you would like. You all go and have a drink.

With that in mind, we have about 2 minutes to get to the vote. The subcommittee will stand in recess until we reassemble after the last vote on the Floor in approximately 30 to 40 minutes.

[Recess]

Chairman KANJORSKI. The committee will come to order.

I will now hear from Mr. Marshall from Georgia.

Mr. MARSHALL. Thank you, Mr. Chairman. Since it is just you and me, I would invite you to chime in, as you have questions to follow up on.

I am hoping that I can get a little bit more conversation among the panelists. And if it winds up being feisty, that is fine with me.

Mr. Bass, I think you started it off with your suggestion concerning rerating and said something to the effect that the industry was not going to regain its credibility until it does that. And while you were saying that, Mr. Kanef sort of stood up, turned around and talked to somebody behind him.

And as I understand it now, your contention, Mr. Kanef, I guess the industry's contention, is that there is rerating. But then Mr. Bass would say that is only with regard to those issues that they actually check that have previously been rated, and that there is not a wholesale going back and rerating when the industry is aware of the fact that some of the fundamental assumptions that it made were either wrong at the time or are no longer valid.

And I assume you are referring to, not the list of 70, the ones that would be particular to that particular issue, but, of those 70, the ones that are global and apply to all of these investments. And so, could you just go ahead, quickly tell us what are the global ones, assumptions concerning market conditions?

Mr. BASS. Sure. My contention is when you look at the 70 inputs, in my opinion, it boils down to two. And we are just going to talk on a larger scale here. The home price appreciation assumption built into their models is the single most important input in the model, in my personal opinion.

Mr. MARSHALL. Now, could I ask you this: In your view, that home price appreciation assumption is not one that varies from issue to issue or rating, group.

Mr. BASS. Right. At any one point in time, whatever their opinion of home prices is. In 2005—

Mr. MARSHALL. You apply it across everything that they are rating.

Mr. BASS. In 2006, let's say it was significantly positive, meaning they set it for the rest of 2006, 2007, 2008, and 2009. They model in assumptions as to how much home prices will be going up. And then they factor that into their model to figure out how the models should be rated, how every class of security should be rated.

Mr. MARSHALL. And what weight would you assume they put on that?

Mr. BASS. In 2006, I think it was around 6 percent.

Mr. MARSHALL. Six percent.

Mr. BASS. They won't tell you exactly—

Mr. MARSHALL. No, no. I asked weight. Of all the factors they are taking into account, what weight would you say that—

Mr. BASS. I would say it is more than half.

Mr. MARSHALL. More than half of the weight in making the evaluation.

Mr. BASS. And it is more complicated than that, because the way they get there is—and I will let them speak—

Mr. MARSHALL. I just want to make sure that everybody understands what you are saying they should be doing.

Mr. BASS. The point I am trying to make is whenever they rate a securitization, they have an HPA, home price appreciation assumption, built in.

On October 4, 2006, Moody's chief economist, or Moody's economy.com's chief economist, Mark Zandi, did a detailed report on every metropolitan statistical area in the country on what he thought home prices were going to do, and it differed markedly from their expectations they were building into their models from securitization. It was significantly lower, and their models were saying significantly higher. They started implementing his recommendations on where he thought home prices were going some time in mid-2007, and, you know, they can speak to exactly when they implemented that.

My point being that if your home price assumption goes from up-6 to down-2, there is an exponential change that happens in the securitization. It is not a linear change. It is massively sensitive to that assumption.

So, in 2007, when they started putting negative home price assumptions into their models, they didn't put the negative assumption in the 2006 models and see where those securities should be rerated. What they are doing in 2006 is they have surveillance teams and their surveillance teams look for outliers on how bad things are performing.

And, you know, Mr. Kanef and I talked afterwards; they did up some of the loss assumptions in the pool—

Mr. MARSHALL. Could I ask—let me interrupt here. I think I get your point. I think everybody does at this point.

It is just an observation that if one person in Moody's, somebody who is probably pretty sharp, no doubt about it, thinks that things are going south doesn't necessarily mean that the entire team does. It might take the team some time to get there. So that might defend the fact that they didn't simply adopt in October of last year that the—

Mr. BASS. Yes.

Mr. MARSHALL. Are there people out there who are hedging, who are going short, on the assumption that, if there is a rerating that is across the market, they are going to make a fortune? If you are successful in persuading Moody's to do what you would like, is a whole bunch of money going to change hands, the derivatives that people are betting?

Mr. BASS. We are in the marketplace. We own securities and we bet against securities. We do both in the mortgage marketplace.

Mr. MARSHALL. Right.

Mr. BASS. We were very lucky to have identified this problem in the beginning of 2006. We didn't believe their ratings, and we met with them—

Mr. MARSHALL. Let me ask you, if they rerated as you request, what happens to your portfolio?

Mr. BASS. Well, clearly—

Mr. MARSHALL. You would make a bunch of money?

Mr. BASS. Absolutely.

Mr. MARSHALL. Okay. Now, back to Moody's. Why shouldn't you do what they are requesting? I mean, if, in fact, you have in the rating, whatever you call it, a model that you use, factors such as

price appreciation assumptions that apply across the board, and you just uniformly do them, why not just, as soon as you come up with a change, why not go ahead and plug that into your rating for all these different things? If you have a computer, it is all set up; it can't be that much work to do. And then you quickly notify those who are holding those instruments that they have been rerated, that they are not—you know, from AAA they have gone to whatever they have gone to. I guess that is bad news for the people who are caught holding them. It at least warns those investors that they might get passed to that, in fact, these are no longer a AAA.

In other words, you are doing a great service for the industry, in a sense, by rating these things as rapidly as possible, either going up, going down. And if you have the ability to do it across the board, just do it across the board.

Mr. KANEF. Congressman, there are really two components to the surveillance process for an existing transaction.

One process is looking at the performance of the pool to date. And the performance of the individual loans within the pool over a period of time, the seasoning of those loans, can be a very important factor and a predictive factor of the performance of the pool as a whole.

Then there is also the fact that you need to think about the change in the environment and how that might have changed your original assumptions.

At Moody's, we have done both things. And so we have, in fact, changed our original assumptions to reflect the fact that the deals we are rating on a going-forward basis are looking at new assumptions. So we have, in fact, looked back and changed our expectations based upon the new assumptions. But we also have considered the performance of the pool to date and the seasoning and predictability of that information in the ratings.

Mr. MARSHALL. Mr. Bass?

Mr. BASS. Yes?

Mr. MARSHALL. Can you come back to that?

Mr. BASS. The point I am trying to make is, when you change an assumption as important as any assumption that you apply on your deals going forward, it just makes sense to me and it makes sense to the rest of the marketplace to restore credibility in the ratings. If you plug in the new assumptions into your 2006 models, the deals would look completely different than you originally rated them. We have had exponential changes in these numbers.

Mr. MARSHALL. Well, back to Mr. Kanef, you are not interested in doing what he is suggesting because?

Mr. KANEF. Sir, we have made significant rating changes.

Mr. MARSHALL. But he is suggesting a much broader—I think I understand, though I am not that familiar with your industry, but he is suggesting that a much broader brush be used here. I mean, as you get this information, you hit the computer button that says "all."

Mr. KANEF. That is correct, sir. And there are many people who place bets both positive and negative on the way in which these securities move. It is our job to provide our best possible forward-looking opinion as to the credit strength of each and every security

that we rate, by not only applying the past information we have, but also the updated information. And that includes—

Mr. MARSHALL. I am sorry. If you are answering my question, I can't really follow the answer. I think the question was, why don't you do as he suggests? What is the objection to doing this?

Mr. KANEF. The performance of the pool itself of each of the loans—so if a pool was originated in January of 2006, for example, the performance of that pool over the past 18, 20 months of time is an extremely important predictor of how that pool will continue to perform on a going-forward basis.

Mr. MARSHALL. So you are saying that if you simply applied—price appreciation assumptions have changed, and so consequently we are going to go back to the model that we used in January of 2006 with regard to that particular pool, plug in the new price appreciation assumption, see what the rating would be, and then notify everybody that the new rating is B instead of AAA, that would not be the right thing to do, you say, because the 18 months of history is a better predictor of the likely future performance? And, in fact, it would be misleading not to take into account that 18 months of history and various other things, is that what you are saying?

Mr. KANEF. That is correct, sir. It is also an important predictor.

Mr. MARSHALL. Mr. Bass?

Mr. BASS. You can go back and look at how the securitization has performed to date. On the 25th day of every month, you see exactly what is happening in the securitization. You see what the cumulative loss and delinquency numbers are.

And all I am saying is we have had an exponential change in home price assumptions. And the ratings agency have a business disincentive to cut ratings.

Mr. MARSHALL. What is the business disincentive to cut ratings now?

Mr. BASS. It will upset the entire—

Mr. MARSHALL. I mean, initially I could see that there would be a business disincentive to give bad ratings, because then that would dampen the entire sector and there wouldn't be as many issuances and consequently not as many future ratings.

And they say, and I accept them at face value, that is not what drives them. But then others would say that is kind of odd if that is not a significant factor in your decisionmaking.

Mr. BASS. Right. When you look at what they have cut to date in just the RMBS marketplace, in general—and, again, you have to make general comments here, because every deal is a little bit different—but the deals that they have cut to date have been mostly below the investment grade line. They have cut the BB's to B's. The all-important investment grade line, when you start cutting the BBB- and BBB bonds—and this gets into what I said in my oral remarks to lead off today.

I keep getting back to this mezzanine CDO. And I know I am digressing from your question, but I think this is a really important point that I am not sure everybody understands what is going on here. A mezzanine CDO, when you have a securitization, you have a traditional securitization that we have been discussing all of today that has AAA all the way down to collateralization. The in-

vestment grade piece just above the investment grade line is considered mezzanine. That is about 4 percent of the capital structure of these deals.

These mezzanine CDOs collected all of those mezzanine tranches—so the riskiest tranches of subprime debt—they took all of those tranches, packaged them up, levered it 20 times, and 80 percent of that structure is AAA. They can't defend themselves that that was a great structure. That structure, in itself, is flawed, regardless of your opinion of HBA.

Chairman KANJORSKI. These buyers are pretty sophisticated, are they not?

Mr. BASS. The buyers of those assets—the reason the mezzanine CDO business came about—and I have met with the heads of structured products marketing of some of the biggest securities firms in the world, so this comes from them. The reason that those mez CDOs ever came about was that no one in the United States, from 2003 on, the real money buyers in the United States wouldn't buy those bonds. They were too risky for them. So Wall Street had to figure out a way to package up the risk opaquely. With the aid of the ratings agencies, were able to magically rerate 80 percent of those bonds AAA, and then they sold them to Asia and Central Europe.

Chairman KANJORSKI. Okay. So we peddled that product to Asia and Central Europe.

Mr. BASS. It was a way to get all the risk off the book.

Chairman KANJORSKI. Even when they perfumed it, it did not sell.

Mr. BASS. Correct.

Mr. MARSHALL. How are they making money right now by not dropping the ratings?

Mr. BASS. And this goes to—

Mr. MARSHALL. It seems to me they are probably not doing a lot of ratings of these things because these things don't sell right now. There is a future market for them—

Mr. BASS. Now, all of a sudden, people realize what is in there.

But to Mr. Mathis's point earlier—and when you ask about the size of the problem, it is not the dollars that we are talking about here; it is the loss of faith in the ratings agencies, because AAA is not AAA anymore. They bestowed 80 percent of that particular securitizations ratings AAA. AAA, I mean, that implies it is a U.S. Government bond. Right? AAA is the lowest—

Chairman KANJORSKI. Did they lose faith in the United States, or did they lose faith in the ratings agencies, the Asian and European buyers?

Mr. BASS. Basically, what you are seeing with the ABCP markets freezing, the commercial paper markets, to Mr. Mathis's point, the reason they are failing is, all of a sudden, people aren't buying AAA because it is AAA anymore; they realize that it is not what it was cracked up to be.

Mr. MARSHALL. It might not be.

Mr. BASS. Right. So that is the crisis that the United States and the world is facing today. And the reason that is—it is not just because of subprime. Subprime was the spark that set it off.

Mr. MARSHALL. Do you suppose that the rating agencies here going back and rerating, in a sense, with the new assumptions, all of the issues that have been made so far, would enhance our credibility? Wouldn't it just be more extremely bad news? If you are worried about somehow globally sending bad news, wouldn't we, in fact, be sending really bad news if they did that?

Mr. BASS. Would we rather sit here and let the opacity continue and take the pain over time, or would you rather take the pain all at once and try to restore credibility? I will ask you the question. How would you handle it?

Mr. MARSHALL. I get to ask the questions, by the way. That is the way it works.

Mr. BASS. I'm sorry about that.

Mr. MARSHALL. I have nowhere near your expertise. Part of me asking questions is to try to get some information here. You don't need information from me. I am not going to tell you anything you don't know.

So it seems to me, though, that your central argument is that somehow we would restore credibility by doing this. And now what you are saying is that, well, you can either dribble out the loss of credibility or you can have it all right now, but it is going to be a loss of credibility either way.

Mr. BASS. Correct.

Chairman KANJORSKI. Well, has anybody estimated faced this issue right square? Has anybody figured out what the actual loss is out there? Is there some way you can total up what that loss would be?

I get all these weird figures. And generally they are in the range of $150 billion to $200 billion.

Mr. BASS. I think that loss figure is directly related to just subprime cumulative losses. When you get into the structured finance markets, the synthetic markets for CDOs, I haven't found anyone to give me a hard number, but I will tell you—

Mr. MARSHALL. Dr. Mason is going to offer some. That is what academics do. They sort of think about things like this.

Mr. MASON. I just want to—I am going to be straight. I can't give a dead-on number, but I can give some perspective on these situations that we have faced, before because this is nothing new.

We started the thrift crisis with about $10 billion of losses that the FSLIC could have absorbed.

Chairman KANJORSKI. $10 billion to $15 billion.

Mr. MASON. And we ran that up to about $100 billion.

Chairman KANJORSKI. $150 billion.

Mr. MASON. By allowing the losses to dribble out, as it were, is to forebear on the closures.

Chairman KANJORSKI. Now, all we did was we contaminated good organizations with bad assets. And ultimately those assets failed and dragged down the good organizations, so that we had to have a bail-out. We call that supervisory goodwill or something.

Mr. MASON. Which the lawsuits are still going on.

Chairman KANJORSKI. See, our big problem, Doctor, is that there are only three or four of us left up here who remember that crisis. So we like to relive history so these youngsters down here can—

Mr. MARSHALL. I wish I was as young as he is; all of us were studying exactly this problem back then.

Chairman KANJORSKI. Here is what I am worried about. I am going to jump in, and you jump into this thing, too.

I am not one of these people who are saying we ought to uncap the ceiling for Fannie Mae and Freddie Mac so they can go in and buy these things up and do a quasi-rescue, like in 1989 in the S&L crisis, because that is really what it would be. And we would be taking two fairly decent organizations and encouraging them to create much greater equity risk out there that does not cover these bad obligations they would be buying in. And then the temptation politically is to do it, because if you can make 3 years and we do not have a recession or if the real estate bubble is not as bad as it could be, we will make it out, and nobody will know the difference. And we will have just made a tremendous recovery, and everybody will say how brilliant the Administration and the Congress was, and particularly the regulators.

On the other hand, if we get into a 20 or 30 percent depreciation in real estate in the hot markets of California, Florida, Texas, Virginia—which, to my way of thinking, it looks to me like it may be moving in that direction—and you tap on a recession over the next year to 18 months, then all hell is going to break loose, and we are going to go into a meltdown. But in order to fix that, it would seem to me, using the mathematics of the S&L, would cost several trillion dollars, which we do not have. And I don't know anybody in Asia who is going to dig in their pockets and give it to us. So currency, as weak as it is today, will look terribly strong when everybody bails out of American currency. And, literally, we could collapse the whole world system.

I do not particularly like that scenario or that risk factor. And I think it is sufficiently high enough that we have to protect the Fannie Maes and Freddie Macs and others that would come to their rescue from themselves and from the politicians, which is probably the most important thing. And then, we just have to find another vehicle to address this issue and try and straighten it out without constructing an RTC, which would come later on if that is the only thing left as a last resort. But there are other things here. I mean, we can make a couple more tranches, can't we?

Mr. MASON. Oddly enough, that is something that was done in the U.K. recently.

Chairman KANJORSKI. No, I think if we get some tranches that are paying 35 or 40 percent, like credit card interest, we will find somebody in the world who will buy them.

Mr. SHERMAN. Mr. Chairman, if I can interject on your idea, I don't think we should let Fannie and Freddie take unwarranted risks. I hope we can rely on OFHEO to make sure that doesn't happen.

Chairman KANJORSKI. No, they are on their way there now. The recommendations are to lift the portfolio restrictions.

Mr. SHERMAN. I could think that portfolio restrictions could be lifted—I may differ a bit from you—if they are not overpaying or taking excessive risks. I think we originally set those portfolio limits in part because other competitors in the market didn't want to face too much competition.

If it is just banks screaming that they don't like the competition, or the securities industry screaming they don't want the competition, that is one thing. If, on the other hand, you are right and what Fannie and Freddie have planned is a risk to the solvency of those institutions—

Chairman KANJORSKI. Well, unless they are going to do some new offerings for equity, it seems to me if they go into the marketplace to get more capital to buy these securities they are thinning out their equity support system.

Mr. SHERMAN. If they sell more stock, then they will have more equity to—

Chairman KANJORSKI. I do not hear that is their intention; now, of course, I am not sitting on their board.

But I look at what everybody is talking about in town, and I do not want to attribute this to Fannie and Freddie. I think they are standing there saying, "Can we be helpful, and what can we do?" I think many of us in government, whether it is in the Congress or the Administration, do not want to face a bad situation now, and would rather cover it up.

A government-sponsored enterprise is going to try and appeal to take care of us. They are a dangerous instrumentality, from that standpoint. There is a very close relationship between the government, so we force them to live with us, in a way. They know that; they are very conscious of it. So they are going to try and create an S&L bail-out of some sort of the first order that we had, and I think it is going to be very dangerous. Now, I do not want to suggest that is going to happen. I am just trying to send a message, "Do not even think about it happening."

But along that line, I would like to get to some—Deborah Pryce mentioned it before she left. You know, we really should talk about—obviously, we have here a wealth of intelligence, of thought process. And I may have given the impression earlier on that I was going to use some old tacks and crosses on the rating agencies. I do not want to impart that to you. I will fight to my damnedest to hope we can get you all back to resuscitation so that you are believed. I would have a hard time believing—I mean, maybe I am harsh that way. Fool me once, shame on you. Fool me twice, boy, I am never coming to your house to eat again. It is just not worth taking the chance.

And I think that is where the rating agencies, for whatever reason that you did not go back, whatever reason that you say you wrote all these learned articles that nobody read, or all the whistles that you blew that nobody listened to, now it is absolutely incumbent upon the rating agencies to be part of the recommenders of what we do.

And my recommendation, if nothing else, is that you should live up here and camp out with us and get the best academics in the world to help us out of this maze and to get it done and get it done quickly. Because I think, we are not going to know about the real estate for another 18 months or so.

That is a question I wanted to ask you, on the real estate question. When you do these 70 questions to set up these pools, one of the significant questions would be where this mortgage is issued, what state, what county?

Ms. TILLMAN. Absolutely, yes.

Chairman KANJORSKI. So how do you take into consideration, for instance, the California principle that you just hand your keys in and that forgives the mortgage obligation, as opposed to Pennsylvania, that we not only have a mortgage on the property, we have a judgment note on all your assets? You know, a Pennsylvania mortgage is a lot more secure than a California mortgage. So how do you rate that?

Mr. SHERMAN. Mr. Chairman, I resemble that remark.

Ms. TILLMAN. Well, we certainly look for geographic dispersion, because, obviously, if a pool is concentrated into one specific area, it is probably going to be more risky. Because if something happens, obviously, in the California market, it is going to impact everything exponentially across the board. And we do take into consideration the different loan characteristics and what the underwriting practices and practices are in each of the States.

But you still are getting a pool, and they are generally dispersed, and, again, dispersing the risk. And we look at them and then assign an appropriate probability of default to each of the characteristics and the expected loss on each of those. And when we look at it, depending on what kind of tranche it is, there is certain overcollateralization—

Chairman KANJORSKI. I am going to stop you right there. I want you to give me your honest answer, not as an employee of Standard & Poor's. I am not suggesting it was not an honest answer you were giving, but your gut answer. If you had an opportunity to do something different than you did, would you? And what would that be?

Ms. TILLMAN. Well, I think that we would look for more quality information than potentially that we are getting right now. Because it has just proven not necessarily to be as reliable as it has in the past. And just really push for—

Chairman KANJORSKI. Why would you suggest—when I take the string of 8 or 12 people who are involved in this transaction, even down to the last guy recommending to the pension fund that they buy this particular security, they are all making money on the deal and they have no skin in the game and they are out of the deal in a moment. Why wouldn't you question the motives and the activities and the judgments of every person in that line, and how could you do that?

Ms. TILLMAN. Well, one of the things that we are doing, and it probably didn't get out here, is that we do look at the originators and the servicers in the mortgage market. And what we have started to do is really look very heavily on what fraud protection-types of policies that these originators have in place. Because I think I said earlier the—

Chairman KANJORSKI. Okay. Let us stop right there. I have been involved in this subprime problem for about 5 or 6 years now. It is a big, big huge problem. You practically never find a fraud situation unless you find a fraudulent appraiser. You have to have a bad appraiser to go along with the deal. Didn't you all know that?

Ms. TILLMAN. Well, we do take into consideration—we work into every deal that we do on RMBS a certain amount of fraud, because it is known in the mortgage field that it takes place.

Chairman KANJORSKI. Well, but I do not mean prosecutable fraud or prosecuted fraud.

Ms. TILLMAN. Fraud in the sense that the information that we are getting may not be the type of information or characteristics that you would assume. And that is what I said. Like the FICO scores that we looked at, the high FICO scores in 2006 are actually behaving like very low FICO scores in 2004 and 2005.

Chairman KANJORSKI. Yes, because they have been restructured and fixed.

Ms. TILLMAN. Well, exactly.

Chairman KANJORSKI. But you all watch television, you see who you can call to fix your FICO score. I mean, that does not take a penetrating mind, does it?

Ms. TILLMAN. Well, it is one of the things we are currently really looking into now. But that occurrence just didn't happen in the past.

Mr. MASON. Mr. Chairman?

Chairman KANJORSKI. Let us get Dr. Mason in there.

Mr. MASON. I just want to say that I am sympathetic to what the ratings agencies' representatives are saying at this point. That, at a certain point, yes, there are things that can be fixed in the ratings end of the industry. But the problems that we face today had fraudulent borrowers, in some cases, fraudulent brokers, fraudulent appraisers, fraudulent underwriters, all the way up through the chain.

And from my days with the bank supervisors, if somebody is going to commit fraud, they are going to try to cover it up as much as possible. And, yes, it will eventually spill out, and it is really going to mess up your model if you have a statistical model that you are running. And that is part of what we have seen.

For these data feeds that the agencies rely upon for the review in the monthly performance, those are coming from servicers. And the servicers are sometimes related to the same firm that originated the loan, sometimes not. They are a whole other source of the problem here. One of the incentives they often hold is a residual, a bottom first loss stake in the securitized pool. They want to maximize the value of that residual.

And one way of doing that is keeping as many of the borrowers paying as possible. Because, in fact, if the borrowers don't pay, the servicer has to act as if they are paying and pass the money on to the note holder. So there are dire implications for the servicer in the amount of default and every reason to try to keep loans out of default by hook or by crook.

And one of the key elements that needs to be looked at here is the process of modification and what is called re-aging, the process by which you determine that a loan, after it has been defaulted for a while, is good again. Some servicing firms are very aggressive at re-aging. They will even lower your payment to get you to make one on-time payment so that we can call you good again and we can take you out of the default category and call you a good, on-time loan. But the loan is not going to stay there; it is going to re-default. But the servicer reports back to the ratings agency that this loan is good, this is performing, we received the payments on

time, everybody is happy. And then you see the deal go along beautifully for a while and then drop off a cliff.

And we have seen a lot of—

Mr. MARSHALL. Mr. Chairman?

Mr. MASON. —inappropriate behavior in the industry.

Mr. MARSHALL. Mr. Chairman, may I?

Chairman KANJORSKI. Yes.

Mr. MARSHALL. Mr. Kanef—and I kind of did this to you, and I almost feel badly about it. Okay, so your reason for not going back and rerating in light of this new information is that it would be misleading, potentially, because of the fact that there has been a history, an 18-month history, a 2-year history, something like that, depending upon the issue obviously, and that is probably better evidence of what the lack of future performance is going to be than going back and trying to refigure out what we should have said back in 2006.

And so, I guess that prompts a question. Do you randomly check—you know, you do do some revisiting of the expected performance, with regard to certain issues. You sort of track them, and that is that rear-view mirror stuff that Mr. Bass was talking about, correct?

Mr. KANEF. Yes. If—

Mr. MARSHALL. Is that done randomly?

Mr. KANEF. If I could be clear—because this is something that I perhaps didn't answer as clearly as I should have—what we really have between Mr. Bass and myself is a difference of opinion of the way in which the ratings should be surveilled or reviewed.

We review every single rating that we have on an RMBS transaction every month. So every single transaction, the past performance of that transaction is reviewed every month. And, in addition, we do also consider the changes that have been made to deals that need to be rated on a going-forward.

But we don't rely 100 percent on the new information, because the performance information of the pool is also an important component of the way in which we continue to rate the outstanding transactions.

Mr. MARSHALL. So you are saying you are looking at, you are thinking about the necessity to rerate across your entire portfolio every month?

Mr. KANEF. On a monthly basis, when we get the new data on the performance of that transaction. We receive data once a month on each transaction. And, again, we do review it, each transaction, in our rating universe once a month when that data comes in.

Mr. MARSHALL. It seems to me that for these mez deals that were batched, they are the ones, just offhand, just mathematically, they are the ones that are disasters as soon as the entire industry moves, because they, by definition, are that portion of the industry.

Have you gone back and looked at all of them? Have you rerated all of them?

Mr. KANEF. Yes. And we, in fact, have moved, changed the ratings, the initial ratings, on a number of BAA tranches issued out of the subprime RMBS sector in 2006. And, in fact, on the CDO side is the mez CDOs that Mr. Bass has referred to. Those are also rerated on a monthly basis.

Mr. MARSHALL. Thank you.

Mr. SHERMAN. Mr. Chairman?

Chairman KANJORSKI. Yes?

Mr. SHERMAN. I would like to get back to the issue of what the economic incentives are for those in the rating industry.

I am an old CPA auditor, and we used to say we were the only umpires that were paid by one of the teams. Now I realize we weren't alone; you folks are also paid umpires, paid by one of the teams.

One thing that is obvious is, if you are in a league in which the pitchers pay the umpires, you don't want to get a reputation as the guy with the narrowest strike zone. The economic incentive with regard to this deal is to make sure you have a good reputation as a pitcher's umpire in order to get the next assignment. And so, you are in a situation where you need some reputation with investors. And, obviously, this recent problem has not helped any of your agencies with that.

But up until the last few months, what you needed was at least an investment grade image with investors. And then with the issuers, if you were thought to be slightly more liberal but still credible with investors, you got the assignment.

What do we need to do, or should we do anything, to change the economic incentives in the rating business? Should we require rotation? Should we have the SEC do the assigning, so that the pitchers don't get to pick the umpire? Or is the present system, combined with the reputational risk that you have experienced and the lawsuits risk that you have experienced, sufficient enough to make sure that the strike zone doesn't get too wide?

Mr. Mathis?

Mr. MATHIS. On the issue of the strike zone and whatever, accountability comes into that play. If you are doing something and you have to pay—you mentioned earlier, Congressman, that they could be sued. Well, this is America and anybody can be sued. The question is, can you win a judgment? And, as you know, the 1975 Act basically exempted all of the NSROs.

Mr. SHERMAN. "NSRO" standing for?

Mr. MATHIS. I am sorry, NRSROs—exempted all of them basically from any underwriters liability.

In addition, the agencies have been able to win decisions in court saying that their opinions are free speech, and therefore they are not liable for any of their opinions if they are, in fact, wrong. And then—

Mr. SHERMAN. Wait a minute. I used to be a lawyer too. If I told the guy that the will was valid and it turns out, from his heirs' standpoint, that it wasn't, I could say it was free speech. I mean, isn't there malpractice liability?

Mr. MATHIS. For the most part, the courts have held that the actions of the rating agencies are free speech and that, if they are later proved to be wrong, they don't have the same kind of liability that you do as a lawyer, as a professional.

Mr. SHERMAN. Why does the First Amendment apply to the speech of rating agencies but not the speech of lawyers and doctors or accountants, for that matter, who, by the way, do the exact same

thing? They rate the financial statements instead of rating the securities.

Mr. MATHIS. Well, here you have a basically government-sponsored program, through legislation, where the people have been essentially exempted from accountability on a legal basis. And in addition—

Chairman KANJORSKI. I was going to suggest to you, we have Dan's father in the audience. Maybe we can get an expert opinion here. I could not resist saying that.

Mr. MATHIS. Can I just say one more thing? Recently, one of the rating agencies, in a lawsuit, cited the 2006 Act as something that really exempted them from liability along these lines.

Mr. SHERMAN. So their argument is somehow they are in a different position than the accountants? Although the accountants issue an opinion, an opinion on financial statements, the rating agencies issue an opinion on the creditworthiness of the security. What legal doctrine—and, boy, you guys have some great lawyers.

Mr. Kanef?

Mr. KANEF. If I could just state that there is one significant difference between the opinion that is provided by a rating—well, there may be many, but one that I would like to point out is the difference between the opinion of a rating agency and the opinion of an accountant or perhaps a lawyer. And that is the opinion provided by a rating agency is a subject of forward-looking opinion about the likelihood that a default will or will not occur at some point in the future. An accountant is reviewing a set of financial statements that are factually present and that reflect a situation that has already occurred.

And so, one of the large differences is simply the fact that—

Mr. SHERMAN. I would say, if you know more about accounting, you realize that you have to, for example, write off an asset that won't be valuable in the future. When a company buys research results, you have to determine, are they going to be valuable in the future? And so, it is odd to say that accountants, in determining whether the financial statement is accurate now, don't have to have a crystal ball about the future.

I realize that accountants like to give the impression that they are in a science and not an art, but anybody who looks at the individual decisions realizes the opposite. Likewise, lawyers give opinions all the time; I used to write tax opinions, saying, if you get challenged by the IRS, you are going to win this thing and get your tax deductions. Thank God the statute of limitations has expired on those.

I mean, it is hard for me to say that everyone else—medicine, law, accounting—is a science to which we can hold the practitioners accountable to a standard of due care, but that rating agencies are an art which is only in the eye of the beholder.

Let me hear from the doctor.

Mr. MASON. I just want to point out that I think Congress has acted on this part. And I am in line with the views espoused by the IMF in the recent Global Financial Stability Report, that we have a lot of regulations that have not been enforced by the SEC, by bank regulators, by accountants sometimes. One of them is the 2006 Act, which, as I understand it, tried to bring the industry into

adherence with—and this is from my written testimony—the International Organization of Securities Commissions, or IOSCO, code of conduct, which reads that, "The credit rating agency should adopt, implement and enforce written procedures to ensure that the opinions it disseminates are based on a thorough analysis of all information known to the CRA that is relevant to its analysis, according to the credit rating agency's published rating methodology."

And yet, we still have—and this is from—now, I will admit, my particular quote here predates—

Mr. SHERMAN. Doctor, if I can interrupt you with perhaps a more narrowly drafted question. Is it your understanding that, even if a plaintiff could show negligence or even gross negligence, they might be unable to recover from a rating agency?

Mr. MASON. Well, let me read the disclaimer that Moody's uses, that Moody's has no obligation to perform—it does not perform due diligence with respect to the accuracy of information it receives or obtains—

Mr. SHERMAN. Well, Doctor, if I can interrupt you. We only hold a professional responsible for doing their own job well. If the X-ray is bad and the radiologist reads it correctly, you can't sue him for malpractice.

Mr. MASON. Right. But—

Mr. SHERMAN. The question is not whether Moody's is responsible for the quality of work done by others. The question is, if they themselves perform their role in a negligent manner, are they subject to liability?

Mr. MASON. But Moody's does not undertake to determine that any information that they use is complete.

Mr. SHERMAN. What was that again?

Mr. MASON. They don't even try to see if the information is complete. They just—

Mr. MARSHALL. Will the gentleman yield?

Mr. SHERMAN. I yield to the gentleman.

Mr. MARSHALL. Let me, instead of stating it abstractly, bring it back to what we are talking about here. And if this particular mezzanine tranche is the one that is the problem, I suppose the contention would be that the raters, in buying the pitch that this should be listed—that any segment of this should be listed AAA, were grossly negligent in not taking into account what would inevitably, anybody looking at this would conclude inevitably, happen if the economy turned south on housing, that this was what was going—they were not AAA. Nobody in good faith could rate these things AAA.

So, suppose that is the contention. Suppose reasonable people listened to it and conclude, "You are right; they were utterly incompetent in concluding that that 80 percent could be listed AAA. It doesn't meet any standard of expertise in the industry." Let us assume that is the case. Are you saying that there is no recovery?

Mr. MASON. That appears to be the treatment from the courts, that there is no recourse to the ratings agency.

Mr. MARSHALL. Do you agree—

Chairman KANJORSKI. Based on constitutional law, First Amendment rights, or based on some failure to put a regulation in effect

or pass a statute? I mean, are they barred? Is there no way we can make them responsible?

Mr. MASON. Now, I am an economist, not an attorney, but it is my understanding that it is based upon First Amendment rights, that this is merely an opinion.

But my assertion stands that when we begin to base ERISA or pension fund legislation on a BBB cutoff, this is more than—

Mr. SHERMAN. If I can just interject. All accountants ever do is express an opinion on financial statements. I am flabbergasted to hear that medical opinions, legal opinions, and accounting opinions are all subject to malpractice and rating agencies aren't.

Mr. MARSHALL. I doubt this happened in this case. I mean, it is entirely possible that they were pretty negligent in assessing this.

But let us take it one step further, and let us assume that there was intentional fraud here. Let us assume, it is just hypothetical, that the rating agency, tempted by fees that were going to be earned as a result of being able to pass all these things, went ahead and said, it is a lot of give and take, back and forth, "Okay, we will rate this 80 percent of these things, we will rate them at AAA; we will do what you want to do." And some jury concludes that that is just flat-out fraud. They knew at the time they were doing it that these weren't AAA, and they did it just to get some money. Is there no recovery there?

Mr. MASON. I have seen—I think if you could find printed evidence that parties were colluding beyond tacit collusion, explicit collusion—of course, again, I am not an attorney—but it appears that there have been occasional cases where the First Amendment protection has been breached. The one that I know of, in particular, is where the agency was found to be actively guiding the structure of the securitization, recommending that, in particular, 80 percent be AAA and actually providing—

Mr. MARSHALL. Some of the ratings given earlier, the derivatives, were just stunning, how bad they were.

Mr. MASON. Well, another point of regulatory bite here that I think is very important to your original question about CDOs is that CDOs are often built with contractual triggers that are only enacted upon a ratings decision. So that if the ratings decisions on what I would call the primary structured finance instruments, the residential mortgage-backed securities are delayed, then the terms in the CDOs that would be enacted by those downgrades don't get triggered, and we don't get a revaluation of the CDO, nor do we get even a clean-up or an investor recourse action so the investors can get out of the non-performing CDO.

So, to me, this presents another regulatory responsibility of the ratings agencies to act in a timely and complete manner and to continue to rerate regularly and completely.

Now, I am going to say that, the way the industry is currently built, they are not paid to do that. And I think that is a shortcoming of the way the industry developed.

Mr. MARSHALL. Before they get paid to do that, what does the industry have to say in response to the doctor's observation, Dr. Mason's observation about responsibility here, rerating responsibility? Ms. Tillman? Mr. Kanef?

Mr. KANEF. I think, as a representative of Moody's, I will tell you that Moody's believes it has a responsibility to review the data that we receive every month. Calling it rerate or review is, I think, beside the point. What we do—and we have a separate team that is made up of analysts and chaired by a chief credit officer, and that team reviews the updated information we have that relates to each of the outstanding securitizations that we rate each month. And it is a responsibility that we take very seriously.

Mr. MARSHALL. Suppose you just decided to take Mr. Bass's advice, and you got very aggressive, and then you are reviewing this month, you had been thinking about it for a while, and you said, "Okay, we are going to rerate, I am going to rerate just about everything here, and I am going to drop it all." What effects on Moody's—

Mr. KANEF. I think that we have a responsibility to, based upon the approach that we are using, to make certain that we are providing our best possible opinion to the market. And I believe that we take that responsibility seriously. If the approach that we use in rating suggested that we needed to take significant additional downgrades beyond the downgrades that we have already taken during the past 18 months, we would do so.

Mr. MARSHALL. But you do that reluctantly.

Mr. KANEF. I would not do that reluctantly, sir. We would try to make certain that we had our best possible opinion on the future.

Mr. MARSHALL. Okay, so I accept that is what drives you, for purposes of this question. I accept that is what drives you. What consequences?

Ms. TILLMAN. Our reputation and what you have all been talking about here has been a big part of the consequence of what has been going on here. I mean, our reputation is everything. The market evaluates us every day.

And I think that one of the things we have to recognize here, and you all have talked about it, you know, that somehow our reputation has been tarnished. And we have to be able to go out and explain what it is we do better to a broader audience to be involved with other industry associations. Because the bottom line is a couple of things: We only are talking about probability of default. We are not talking about whether this is a suitable investment. We are talking about a highly sophisticated institutional investor—

Mr. MARSHALL. The problem with that observation is that, in fact, the probability of default goes way up if, indeed, the entire industry can't get any money. It is the nature of how all of this is structured. So the suitability—

Ms. TILLMAN. But that is not around—

Mr. MARSHALL. Pardon me? The suitability of the investment is directly related to the stability of the industry. You can't separate the two, in this instance.

Ms. TILLMAN. We are not setting market values or market prices. The market does that. And there is a lot more that goes into—

Mr. MARSHALL. But when the market price goes way down on these things, money drives up, refinancings don't occur, defaults go up. So there is a direct relationship between performance of the instrument that you are judging and the market, in this instance. Am I mistaken about that?

Ms. TILLMAN. Well, I think what has happened in the markets, and I think one of the panel members said it, there is a fear factor in the markets right now. And, certainly, a more open, transparent marketplace is something that we absolutely agree with, because the fear is that people don't necessarily know what exactly it is that they are holding.

And what we do is do our best to explain what is in the portfolios, what we are looking at. When circumstances change, we talk to investors, we talk to issuers. We talk about ideas that we have on an ongoing basis. We talk to the market. We have teleconferences. We go on and on and on about what our views are.

And we do change. Ratings aren't static. It is supposed to be stable, but it can't be static when you have changing circumstances occurring, which is why you have a surveillance process. And as you, in the surveillance process, see that behavior is changing, sir, we change our models, we review everything that may be impacted by that, and we go out and we do what we need to do.

And that is all I can say. I don't know how to seriously explain it any further than that.

Mr. MARSHALL. I got you. Right. So, as you are looking, as you are reviewing, monthly, across the board, is there this feeling that, to the extent that have you to rerate, somehow you lose a little bit of credibility with regard to your original rating?

Ms. TILLMAN. Actually, since our responsibility is to speak to the creditworthiness and probability of default, it absolutely is our responsibility that, if it is a weaker credit than we had first anticipated, that we will downgrade it. That is our responsibility.

Mr. MARSHALL. Mr. Bass?

Mr. BASS. I know I keep going back to this, but I think it is very important. When they talk about their credibility and the probability of default, the probability of default of a mezzanine CDO AAA piece is exponentially higher, you probably can't even calculate how much higher it is, in this structure than it is in a corporate structure.

And they haven't even told us yet that they have blown it. The fact that they allowed that structure to be rated the way it was rated, it doesn't matter what their surveillance teams are doing. The fact that they allowed a mezzanine CDO structure to be launched is where they blew it, and they lost their credibility. Because those AAAs, some of them will be fully impaired, and anything below AAA will be wiped out. And that is the loss of credibility from the beginning, not as we rerate things. That is the structural problem.

Mr. MARSHALL. Mr. Adelson?

Mr. ADELSON. Yes, I have to respond a second to what Mr. Bass is saying.

You know, the issue of the mezzanine CDOs is a great illustration, and it is interesting that he is saying it now, you know, after the fact. You know, there were researchers, a number of us, myself included, but others in the research community, who basically took that view a long, long time ago, right? So it is not a surprise.

But the rating agencies' view—where I differ with Mr. Bass is the rating agencies' view was not unreasonable. We had a different point of view. We differed from their point of view. Their point of

view was not unreasonable. Ours was not unreasonable. It is a complicated problem as to which reasonable people can differ in making assumptions and in tackling the analysis.

Mr. MARSHALL. Mr. Adelson, I am getting the impression that no reasonable person could conclude that these particular issues—

Mr. ADELSON. No.

Mr. MARSHALL. Let me finish—that these particular issues would survive a substantial turndown in the housing market.

Mr. ADELSON. What they had was actually historical evidence—

Mr. MARSHALL. Well, that was—

Mr. ADELSON. —about the correlated performance of BBBs, okay? Now, I would have said you look beyond the historical performance and you place more emphasis on what might happen, what you could imagine to happen—okay?—as opposed to relying more on the actual data, what you had observed. And you did have data for a pretty long time series about the performance of BBBs. The correlation factors that the rating agencies came up with, as much as I disagreed with them—right?—were not coming out of thin air, all right?

I have probably criticized the rating agency correlation—

Mr. MARSHALL. Mr. Adelson—

Mr. ADELSON. —more than anyone.

Mr. MARSHALL. Mr. Adelson, can you rate something or should you rate something AAA if there is a 5 percent chance you will lose the entire investment?

Mr. ADELSON. I think the question—

Mr. MARSHALL. Just answer that question. Can you answer that question?

Mr. ADELSON. I don't think I can. I think the best answer I could give you would be it depends on what you mean with your ratings.

Mr. MARSHALL. Well, you were at Moody's for a long time. You said so yourself; you have given ratings before. So how would you rate that? If you thought there was a 5 percent chance that the entire investment would be lost entirely, gone, and you say—

Mr. ADELSON. Well, I would give that a very low rating.

Mr. MARSHALL. Pardon me?

Mr. ADELSON. There is a 5 percent chance that you are going to have a 100 percent loss, so a 5 percent expected loss is going to be a low rating.

Mr. MARSHALL. It would not be investment grade?

Mr. ADELSON. That would be below investment grade on the short-term horizon.

Chairman KANJORSKI. I am sorry. Thank you.

Mr. MARSHALL. You guys have been very patient—we appreciate it—and very informative.

Chairman KANJORSKI. Panel, I want to thank you very much. I wish we could stay here for another hour and ask you questions. As a matter of fact, I hope that you will all be available if we want to have a future hearing. I think it would be helpful for the whole committee. And you can see how well-attended the committee hearing was today, so we know that so many people will miss you in the future.

But because we have about 3 minutes to vote, and because you have been so kind, we are going to wrap this up.

The Chair notes that some members may have additional questions for this panel which they may wish to submit in writing. Without objection, the hearing record will remain open for 30 days for members to submit written questions to these witnesses and to place their responses in the record.

And, with that, this hearing is adjourned. Thank you.

[Whereupon, at 5:55 p.m., the hearing was adjourned.]

A P P E N D I X

September 27, 2007

OPENING STATEMENT OF
CONGRESSMAN PAUL E. KANJORSKI

SUBCOMMITTEE ON CAPITAL MARKETS, INSURANCE, AND GOVERNMENT SPONSORED ENTERPRISES

HEARING ON THE ROLE OF CREDIT RATING AGENCIES IN THE STRUCTURED FINANCE MARKET

THURSDAY, SEPTEMBER 27, 2007

We meet this afternoon to examine a complex but familiar issue: the performance and oversight of credit rating agencies. Today's hearing also furthers our investigations into the recent credit crunch that occurred in our capital markets and focuses on the role of credit rating agencies in engineering and grading structured finance products.

A strong, robust free market for trading debt securities relies on the independent assessments of financial strength provided by credit raters – entities like Moody's, Fitch, and Standard and Poor's. When a company or a debt instrument blows up in our capital markets, critics will often raise concerns about the failures of the rating agencies to warn investors, as was the case after WorldCom's bankruptcy, Enron's insolvency, New York City's debt crisis, Washington Public Power Supply System's default, and Orange County's collapse. In recent weeks, many marketplace observers have once again criticized the accuracy of credit rating agencies in anticipating problems with debt instruments like mortgage-backed securities and collateralized debt obligations, or CDOs.

As part of the Sarbanes-Oxley Act, Congress required the Securities and Exchange Commission to study the performance of rating agencies. Congress then used this report to inform its debates about how best to register and oversee the work of Nationally Recognized Statistical Rating Organizations. Ultimately, we approved the final version of the Credit Rating Agency Reform Act on the House floor exactly one year ago today and it became law a short while later.

Throughout those debates, I and my fellow House Democrats insisted that the new legislation contain quality controls, which the final version did. The new law therefore permits the Commission to hold the rating agencies accountable for producing credible and reliable ratings and for following their internal policies. It also allows the Commission to prohibit or mitigate conflicts of interest. It further provides the Commission with the power to examine the financial wherewithal and management structures of approved credit raters.

Additionally, we have seen tremendous growth in our structured finance markets in recent years. For example, the global sales of CDOs tripled between 2004 and 2006 to stand at $503 billion. These CDOs, a financial instrument first engineered by Drexel Burnham and Lambert, have also grown increasingly complex. Because history has a way of repeating itself, I am not surprised that the ghosts created by Drexel are with us today.

To help investors cut through the complexity of CDOs, the major rating agencies have expanded their services to evaluate these products in terms of their likelihood for defaults. Their investment-grade stamp of approval helped to provide credibility for the CDOs that had the toxic waste of liar's loans and problematic subprime products buried deep within a deal. In return, the rating agencies also made great sums of money from issuers.

To me, it appears that none of the parties that put together or purchased these faulty home loans, packaged them into mortgage-backed securities, and then divided these securities into tranches and repackaged them into CDOs, CDOs-squared, and CDOs-cubed had any skin in the game. In the end, it was the final investor left with this hot potato of subprime debt and significant losses. In my view, the rating agencies helped to create this Lake Wobegon-like environment in which all the ratings were strong, the junk bonds good looking, and the subprime mortgages above average. In reality, however, we now know that they were not.

That said, the conundrum faced by the rating agencies is much like the conundrum faced by Fannie Mae and Freddie Mac. Even though the securities issued by the two government-sponsored enterprises explicitly indicate that they are not backed by the full faith and credit of the United States, many investors believe otherwise. Similarly, even though ratings agencies only calculate the likelihood of default, many investors believe that these grades measure the financial strength of the underlying instrument.

Past cases of criticism about the failure of the ratings agencies to detect defaults generally focused on a single issuance or issuer. In this most recent case, however, these financial failures seem to have been much more pervasive. They occurred across a class of financial products. As a result, I am very concerned about systemic failures within the rating agencies themselves and the potential for systemic failure within our global capital markets. I hope to explore these issues today.

As we proceed on these matters, I also want to assure everyone that I have not yet reached any conclusions. That said, we may ultimately decide that we need to revisit last year's law and improve upon the quality controls adopted within it. Some of the policy options that we could consider include requiring more disclosures for rating agencies like those required of auditors, instituting rotations in raters like auditors, altering the methods by which raters receive compensation, mandating simultaneous disclosure of non-public information to all Commission-registered raters, improving the transparency of underlying debt products, and forcing a delay in allowing complex products like CDOs to come to market so as to allow a deal to season in its performance.

In closing, I look forward to a lively debate today. We have an excellent panel of witnesses with experience in credit ratings, valuation, hedge funds, and the securitization process. They also have a variety of views. We will likely learn much from them.

ADELSON & JACOB CONSULTING, LLC
Mark H. Adelson, Member
21-25 34th Avenue, Apt. 4D, Long Island City, NY 11106
(917) 882-0155 cell (718) 726-1633 evenings
markadelson@nyc.rr.com

The Role of the Credit Rating Agencies in the Structured Finance Market

Testimony of

Mark Adelson

before the

Subcommittee on Capital Markets, Insurance and Government Sponsored Enterprises, Committee on Financial Services, U.S. House of Representatives

27 September 2007

Introduction

This written testimony embodies and amplifies on the main points of my brief oral testimony. The key points are as follows:

1. Securitization is an important and beneficial financing tool. America today is better off because securitization got started nearly forty years ago.

2. Credit ratings are important to the healthy operation of the securitization markets. Credit risk is a complex phenomenon and credit ratings help investors to understand credit risk and make comparisons among different kinds of bonds in a simplified way.

3. Despite the outward simplicity of credit ratings, the inherent complexity of credit risk in many securitizations means that reasonable professionals starting with the same facts can reasonably reach different conclusions. This is one reason that the market benefits from the presence of multiple ratings (from different rating agencies) on most securities.

4. Rating methodologies for MBS and CDOs are fully transparent to knowledgeable professionals in the field. The evidence of transparency is abundant and includes the *very* public debate and discourse among securitization professionals about the pros and cons of different rating approaches and about the merits of entirely different approaches for analyzing risk.

5. The rating agencies acted in a timely manner in downgrading various CDOs and MBS in July. The evidence to support such actions was too thin in the spring. Had the rating agencies waited until the start of fall, they would have been late in reacting to firm

indications of credit deterioration. Criticism based on hindsight and Monday-morning-quarterbacking is unwarranted.

6. Most potential conflicts faced by rating agencies are exactly the same as the ones faced by other publishing companies in preserving editorial independence in the face of pressure from advertisers. Rating agencies can handle those conflicts just the same way that other publishers do.

   "Rating shopping" by issuers creates the unique problem of "competitive laxity" for the credit rating industry. In the past, the practice of assigning unsolicited ratings was the industry's method for counter-balancing the harmful effects of rating shopping. However, pressure from issuers and bankers, as well as from policymakers, has caused the rating agencies largely to abandon unsolicited ratings. To restore appropriate balance, policymakers should encourage or require a resumption of unsolicited ratings.

Securitization Basics

Because securitization is the canvas on which we must paint the issues and conclusions of this discussion, I am starting with a description of securitization:

Securitization is a modern financing tool. It is a close cousin to traditional secured debt. In a typical securitization, a company raises money by issuing securities that are backed by specific assets. In most cases, the underlying assets are loans, such as mortgage loans or auto loans. The cash flow from the underlying assets is usually the source of funds for the borrower/issuer to make payments on the securities. Securitization products are generally viewed as including the following: residential mortgage-backed securities ("MBS"),[1] commercial mortgage-backed securities ("CMBS"), asset-backed securities ("ABS"),[2] collateralized debt obligations ("CDOs"),[3] and asset-backed commercial paper ("ABCP").

---

[1] For a basic introduction to MBS, see *MBS Basics*, Nomura fixed income research (31 Mar 2006). For an introduction to securitizations of sub-prime mortgage loans, see *Home Equity ABS Basics*, Nomura fixed income research (1 Nov 2004).

[2] The term "ABS" generally refers to securities backed by specific assets, where the payments on the securities are tied to or derived from the cash flows produced by the assets. Examples of typical collateral backing ABS include the following: auto loans, credit card receivables, home equity loans, manufactured housing loans, student loans, and equipment leases. In the U.S., the term ABS does *not* include securities backed by: (1) prime-quality first-lien residential mortgage loans, (2) commercial mortgage loans, or (3) pools of corporate bonds and loans. Outside the U.S., the term ABS may include deals backed by such collateral. ABS also includes securities backed by "esoteric assets" such as; healthcare receivables, tax liens, trade receivables, structured settlements, entertainment royalties, patent and trademark receivables, etc.

[3] A CDO is a securitization structure/technique similar to a hedge fund. In a U.S. CDO, an actively managed pool of rated bonds or loans serves as the collateral backing other debt securities. The underlying bonds and loans may include junk bonds, investment grade corporate bonds, securitization instruments, or syndicated bank loans. A CDO generally issues multiple tranches of debt securities, each at its own level of seniority in the transaction's capital structure. For a basic introduction to CDOs see *CDOs in Plain English*, Nomura fixed income research (13 Sep 2004).

Compared to traditional secured debt, securitizations are intended to provide a lender/investor with greater protection against the corporate credit risk of the originator of the assets. In principle, a securitization lender/investor is a kind of "super-secured creditor," with rights that surpass those of a traditional secured lender. Securitization employs the notion that the subject assets have been "sold" by the originator and, therefore, will not become entangled in bankruptcy proceedings if the originator files for protection under the bankruptcy code.

Accomplishing a "sale" of the securitized assets often requires the use of a special purpose entity or "SPE." A typical securitization is structured as a two-step transaction. In the first step, the originator transfers the subject assets to an SPE in a transfer designed to constitute a "true sale." In the second step, the SPE issues securities backed by the assets. The SPE uses the proceeds from selling the securities to pay the originator for the assets. In addition, part of the "consideration" that the originator receives for transferring the assets to the SPE is ownership of the SPE.

In some securitizations, the originator does not receive the equity in the SPE. Instead, the originator may retain the subordinate or equity position in the securitized assets through other means, such as variable fee structure.

Importance of Securitization

The Positives: As a financing technique, securitization offers certain important advantages, which translate into benefits to America and to the American economy. The most vivid example of such benefits is in the residential mortgage sector. The securitization activities of the GSEs – Ginnie Mae, Fannie Mae, and Freddie Mac – have produced a highly liquid secondary mortgage market. Roughly $4 trillion of residential mortgage loans are packaged into MBS issued or guaranteed by the GSEs. Another $2¼ trillion is packaged into MBS issued by private companies. In all, about half of all the nation's residential mortgage loans are packaged into MBS.

As a result, funds for residential mortgage loans are available all across the nation, and regional differences in interest rates for residential home loans are virtually non-existent. The MBS market has directly molded lending practices. It has standardized the application process for most mortgage loans, thereby providing faster decisions to applicants. Most important, MBS have helped to boost the rate of homeownership in America. Increasing home ownership arguably strengthens America's democracy by giving more Americans an economic stake in their communities. A homeowner with an economic stake is more likely to care about his community and, therefore, to participate in the political process by casting his vote each November on Election Day. For this alone securitization can rightly be viewed as the greatest financial innovation of the 20th Century.

Beyond the mortgage area, securitization has expanded the availability of consumer credit in general. Securitization of auto loans and credit card receivables has made auto loans and credit cards available to more Americans than would otherwise be the case. Superior access to credit by responsible households is undeniably beneficial, even though easier availability causes some consumers to borrow more than they should.

The benefits of securitization extend to the commercial sector as well. Equipment leasing companies use securitization to finance their leases on many different types of equipment. This makes the equipment available more cheaply to businesses of all types. Lessees of aircraft, computers, medical equipment, trains, and office equipment have all benefited from cheaper lease rates because of securitization.

Securitization produces its benefits by improving the efficiency of the financial system. It allows lenders to finance their lending activities more efficiently than they could with traditional corporate bonds or with bank loans. The sources of improved efficiency include: (i) asset liability matching, (ii) lower funding costs, and (iii) improved liquidity.

Countries around the globe have embraced the model of securitization developed in America. Those countries seek to realize for themselves the improved financial efficiency that securitization brings. Companies in those countries want to harness the asset-liability matching, lower funding costs, and improved liquidity that securitization can offer. The global acceptance of securitization reaffirms the conclusion that securitization is an important and beneficial innovation.

The Negatives: On the other hand, as with many important inventions and innovations, securitization has been used in ways that may have caused harm as well as good. For some companies, the primary motivation for using securitization has not been asset-liability matching, lower funding costs or improved liquidity. Some companies have used securitization as a way to exploit accounting loopholes or gimmicks. In one variation, companies (including some banks) use securitization as a way to finance assets "off" their balance sheets while retaining virtually all of the economic risk. Those transactions can lower a bank's required level of capital without a commensurate reduction in the institution's risk. Other companies have used securitizations as a way to obfuscate their financial condition in order to conceal wrong-doing.

Also on the negative side, easy access to funding through securitization makes the credit pendulum swing farther as the economy moves through the credit cycle. This certainly appears to have happened over the past few years, particularly in the sub-prime mortgage area. Sub-prime lenders let their credit standards virtually evaporate. They made loans with ridiculous terms (*e.g.*, 100% financing to a borrower who would not document his income). The lenders did not care about the credit quality of the loans that they made because they did not retain significant risk from poor future performance. However, this phenomenon is a by-product of the larger trend toward financial disintermediation, of which securitization is merely one dimension.

Value of Credit Ratings

Credit ratings are valuable because they provide simplified, one-dimensional, summary opinions about complex, multi-dimensional phenomena. The challenge for a rating agency is to have a methodology that balances the diverse factors that contribute to a security's "credit quality" in a way that is useful to investors.

At first blush, the idea of "credit quality" seems very simple. However, deeper examination reveals layers of subtlety. For example, one possible way to define credit quality is in terms of the likelihood that a security will default. S&P emphasizes this approach. A second

way is to focus on the security's expected loss (*i.e.*, the probability of default times the anticipated severity of loss following default). Moody's takes that route. Other possible approaches might emphasize the range of potential future outcomes (*i.e.*, widely or narrowly dispersed) or the variability of different factors over time.

Although rating agencies differ in how they define credit quality and in their criteria and methodologies for analyzing it, they all express their ratings with symbols along one-dimensional rating scales (*e.g.*, AAA, AA+, AA, AA-, A+...). Rating symbols cannot necessarily communicate nuances such as "low risk in the short run but higher risk over the long term" or "low risk right now but subject to the possibility of changing quickly." Consider an analogy to the weather. We can attempt to describe the weather with a one-dimensional scale with categories or symbols as follows: great, good, OK, bad, and horrible. Obviously, such descriptions omit all nuances. Each category would include different combinations of temperature, humidity, wind speed, cloud cover, barometric pressure, and precipitation. The weather can be bad or horrible for any of several reasons: too hot, too cold, too windy, too rainy, etc. Likewise, great weather for the beach would be horrible at a ski resort in the winter. This example illustrates the inherent limitation of one-dimensional rating scales.

On the other hand, one dimensional rating scales offer the ability to make coarse comparisons between or among very different kinds of securities. Within the context of how each rating agency defines credit quality and credit risk, its ratings allow an investor to make rough comparisons among securities and obligations as different as corporate bonds, mortgage backed securities, bank loans, insurance policies, bank deposits, and derivative contracts. Although it may be rough, such a comparison can still be very useful.

Accordingly, many institutional investors frame their investment policies for fixed income investments in terms of ratings. For example, some have investment policies that require bonds to have ratings of at least double-A from both S&P and Moody's. The institution's investment policy does not delve into the detailed nuances of different kinds of bonds, but rather uses rating agency ratings as a rough benchmark.

Complexity Leads to Multiple Points of View

The level of complexity in a typical securitization is high enough that creating a methodology[4] for analyzing the deal is not a mechanistic, cut-and-dried process. Rather, the process embodies a range of qualitative judgments and, accordingly, is one through which reasonable people can come to different results.

Let us get the right perspective. Creating a methodology for analyzing a securitization is neither rocket science nor brain surgery. In fact, the complexity of a typical securitization is arguably somewhat less than that of a modern automatic transmission in a car. However, the

[4] Moody's favors the term "methodology," while S&P uses "criteria." For convenience of exposition, I am using the term "methodology" generically to encompass the approach, criteria, or methodology of any rating agency, regardless of what it is called.

complexity of a typical securitization is *far* above that of traditional bonds. It is above the level at which the creation of the methodology can rely solely on mathematical manipulations.

For example, in the private-label MBS area, both investors and rating agencies use combinations of tools for performing analysis. They use prepayment and default models to estimate the future cash flows from the loans backing a security. Then they use other models to apply those cash flows through the MBS structure, which allocates prepayments and losses among the various classes of a deal according to the deal's terms. Then they may repeat the process dozens, hundreds, or thousands of times to test the impact of alternative scenarios with different patterns of prepayments and losses. Although the models are entirely quantitative, creating them involves key analytic decisions that are qualitative. The choice among competing models and the selection of key assumptions (including which scenarios to emphasize the most) are inherently qualitative in nature.

Likewise, in the CDO area, market participants rely very heavily on quantitative models for their analyses. Most of the models work by treating bonds as if they behave according to a set of mathematical rules. Here, too, although the models themselves are strictly quantitative, both the specification of the modeling framework and the choice of modeling inputs are matters of qualitative judgment.

Understanding the role of qualitative judgment is essential to understanding why different market participants can reasonably reach different results from analyzing the same securities. Two investors might start their analyses with two different sets of equally reasonable assumptions and yet reach different conclusions. Two rating agencies might develop equally reasonable mortgage models that place differing degrees of weight on different factors that affect credit risk. They also might reach different rating opinions on the same security. In either case, none of the conclusions or ratings should be considered "wrong" because they were all derived from reasonable assumptions at the start.

At the end of the day, it is tempting to conclude that the only "correct" analysis is the one that most closely matches the outcome in the real world. Such a conclusion is dangerous. It presupposes that there was only one correct way of analyzing a securitization in the first place. It ignores the fact that reasonable people can come to different conclusions because they start with different (though reasonable) modeling assumptions. It ignores the fact that securitizations embody a non-trivial level of complexity.

Transparency of Rating Methodologies

Credit rating methodologies for MBS and CDOs are extremely transparent. That is not to say that they are simple. Quite the contrary, they are intricate and complex. Nonetheless, they are transparent.

The transparency of rating methodologies for MBS and CDOs is evident from a number of sources. First, and most important, is the voluminous body of reports and technical papers that the rating agencies publish to describe and update their methodologies. The reports and papers may make for tedious reading, but they are thorough.

Second, the major rating agencies make their quantitative models for MBS and CDOs available to market participants. Market participants can acquire complete familiarity with the quantitative models by experimenting with them to their hearts' content. S&P's *LEVELS®* is perhaps the best known of the rating agency mortgage models. Moody's competing model is called *Moody's Mortgage Metrics*. For CDOs, S&P's model is called *CDO Evaluator* and Moody's is called *CDOROM™*. All of these products are described on the rating agency websites and can be licensed from the rating agencies.

Third, the steady turnover of rating agency analytic staff – who take jobs with investors, issuers, and investment banks – spreads hands-on knowledge of rating methodologies beyond the confines of the rating agencies. Front line rating analysts ordinarily work at a rating agency for two to four years. That means that each year *hundreds* of analysts leave the rating agencies and carry first-hand knowledge of rating methodologies to their new jobs.

Fourth, the transparency of rating methodologies for MBS and CDOs is evident from the spirited, and sometimes contentious, public debate over those methodologies. Securitization researchers have published numerous reports over the years evaluating, challenging, or critiquing rating agency methodologies for MBS and CDOs. I have written a substantial volume of such reports myself.[5] Other researchers who have tackled the subject include Douglas Lucas of UBS,[6] Rod Dubitsky of Credit Suisse,[7] and Arturo Cifuentes of Pressprich (and formerly of Wachovia).[8]

---

[5] Examples include the following: Adelson, *Bond Rating Confusion*, JOURNAL OF STRUCTURED FINANCE (Winter 2007); Adelson, *Rating Shopping – Now the Consequences*. Nomura fixed income research (16 Feb 2006); Adelson and Manzi, *CMBS Credit Migrations 2005 Update*, Nomura fixed income research (30 Nov 2005) ; Adelson and Bartlett, *ABS Credit Migration Update*, JOURNAL OF STRUCTURED FINANCE (Fall 2005); Adelson, *CDO and ABS Underperformance: A Correlation Story*, JOURNAL OF FIXED INCOME (December 2003); Adelson, *NERA Study of Structured Finance Ratings – Market Implications*, Nomura fixed income research, (6 Nov 2003); Adelson, Hoyt, and Manzi, *CMBS Watchlistings, Downgrades, and Surveillance*, Nomura fixed income research (2 Oct 2003); Adelson and Hoyt, *CMBS Credit Migrations*, JOURNAL OF PORTFOLIO MANAGEMENT (Special Real Estate, Fall 2003), Adelson and Hoyt, *Temporal Aspects of CMBS Downgrades and Surveillance*, Nomura fixed income research, (1 Jul 2003); Adelson and Villanueva, *Oops... They Did It Again – Jumbo MBS Credit Enhancement Levels Keep Falling*, Nomura fixed income research (2 Apr 2003); Villanueva, Adelson, and Leonard, *Jumbo MBS Credit Support Continues to Reach New Lows*, Nomura fixed income research (27 Mar 2002); Adelson, Sun, Nikoulis, and Manzi, *ABS Credit Migrations*, Nomura fixed income research (updated 5 Mar 2002); Villanueva, Adelson, and Leonard, *Jumbo MBS Credit Enhancement: More of the Same, or Less?*, Nomura fixed income research, (5 Dec 2001); Adelson, Villanueva, and Leonard, *Jumbo MBS: Where's the Credit Enhancement?*, Nomura fixed income research (12 Jul 2001).

[6] *See, e.g.*, Lucas, D., et al., *Why Is My Synthetic CDO Rated By Only One Rating Agency? ...and... Why Is It Rated By This Particular Rating Agency?*, UBS CDO Insight (31 Mar 2006).

[7] *See, e.g.*, Dubitsky, R., et al., *A Day of Reckoning: Unprecedented Negative Rating Actions*, Credit Suisse fixed income research (12 Jul 2007)

[8] *See, e.g.*, Cifuentes, A. and Katsaros, G., *The One-Factor Gaussian Copula Applied To CDOs: Just Say NO (Or, If You See A Correlation Smile, She Is Laughing At Your "Results")*, working paper (9 May 2007); *see also*, Chen, N., et al., *The Young and the Restless: Correlation Drama at the Big Three Rating Agencies*, Wachovia Securities structured products research (22 Feb 2005); Lancaster, P., et al., *Default and Loss Games: Taking Another Look at CMBS Conduit Performance*, Wachovia Securities structured products research (9 Mar 2006).

Finally, strong evidence of transparency comes for the widespread discussion and debate of rating methodologies and alternative analytic approaches at the securitization industry's major conferences. At those events, presenters and panelists frequently discuss areas of concern on the credit landscape. Then, members of the audience discuss those matters further as they socialize between sessions and during the leisure activities.

Here are two concrete examples: First, the rating methodologies for rating MBS and CDOs rely extensively on quantitative models. The models in turn, rely on assumptions and have inherent limitations based on the data from which they are developed (*i.e.*, the range of their development samples). The limitations often come from the fact that a model may be used to predict future results for new products that have never actually experienced stressful conditions. For example, most of the data available for developing and calibrating MBS rating models comes from our recent period of rising home prices and benign economic conditions. Most of the data relates to basic, mainstream mortgage loans, rather than loans with multiple exotic features and risk factors.

Data covering times of stress is scarce. So is data relating to loans with multiple risk factors, such as loans with both high loan-to-value ratios and no documentation of borrower income. Nonetheless, rating models are called on to estimate the performance of such loans under stressful conditions. Although the models produce reasonable estimates of performance under stressful conditions, they are not the *only* reasonable estimates. Market participants have been able to "disagree" with rating models by using alternative assumptions or by ascribing less confidence to the models' estimates for stressful conditions. Many have done so and have tailored their investment strategies accordingly.

Second, the situation with CDO ratings is likewise unsurprising. The recently watchlisted CDOs are those that specialized in the riskiest pieces of sub-prime MBS deals. In essence, each one concentrated the riskiest classes from many sub-prime MBS deals into a CDO transaction. As in the MBS area, various commentators over the past several years have proposed using assumptions and approaches for estimating CDO risk that differed from the rating agency methodologies. Like the rating methodologies, those alternative approaches were well known by market participants in the sector, including investors.

Interestingly, this is not the first time that the CDO area has hurt itself badly by piling on exposure to a single sector. During the tech bubble, CDOs were eager buyers of junk bonds from tech companies. The subsequent troubles in the high yield bond market were amplified in the CDO sector and resulted in record numbers of CDO downgrades in 2002. Today, five years later, the trouble comes to CDOs not from the tech sector but from the sub-prime mortgage sector. In technical terms, the assets backing the CDOs displayed higher correlation than the rating agencies had assumed in their models. While the rating agencies carefully chose their correlation assumptions, those assumptions have been one of the most hotly debated aspects of CDO analysis *for years!* The fact that the real world did not behave according to a model and its underlying assumptions is simply not surprising to experienced professionals in the CDO area.

One would think that the high degree of *actual* transparency of rating methodologies for MBS and CDOs would make misconceptions about transparency unlikely. Obviously, this is not

the case. A few vocal critics have complained that the methodologies lack transparency. The complaints stem from just a few origins. First, some market participants, particularly those who have suffered disappointing results, want to blame someone else for their misfortunes. They try to use the rating agencies as scapegoats.

Second, although the rating methodologies are transparent, it takes a lot of work and technical expertise to fully understand them. Some market participants do not perceive the transparency because either (i) they are not willing to do the work or (ii) they lack sufficient technical expertise. By way of analogy consider this: the methodology for diagnosing and repairing a car's automatic transmission is fully transparent. Yet, the methodology appears completely opaque to individuals who are not already skilled auto mechanics.

Third, some of the recent commentary on the subject of transparency appears to originate from individuals who are not actual participants in the securitization market. They do not appear to be involved in buying, selling, structuring, or analyzing MBS or CDOs. Commentary from such individuals on the subject of transparency should be taken with a grain of salt. Such individuals *naturally* would not find the methodologies to be transparent because they have never acquired the relevant technical background to understand them. To reiterate a key point: although the rating methodologies are not rocket science, neither are they trivially simple. Instead, rating methodologies lie in the middle ground, where experience and technical knowledge are necessary but also ultimately within the reach of most professionals; like becoming a proficient chess or Scrabble® player.

Timeliness of Recent Downgrades

A few market participants have accused the rating agencies of having been too slow to downgrade sub-prime MBS that they ultimately downgraded in early July. However, those professionals mistakenly ignore the fact that rating agencies need to continually strike a balance between being "trigger happy" and being "asleep at the switch." Had the rating agencies taken their actions in March or April, they would have been acting too soon. Had they waited until September or October, they would have been too late. Acting as they did, in early July, was just right, because by then there was enough actual performance data to conclude that the credit quality of the deals had deteriorated and that there was not just a temporary anomaly.

It is always easy to criticize with the benefit of hindsight. Whatever the rating agencies do, professionals on one side of the market or the other will find fault with it. If rating agencies are quicker to downgrade, they will cause more "false alarms" (downgrades that get reversed within a short time). Investors that already own the affected bonds, as well as the issuers and their bankers, will be dissatisfied. If rating agencies are slower to downgrade, investors who buy the securities shortly before the rating action will argue that the action should have been quicker and that if it had been they would have decided not to invest.

Conflicts of Interest

Rating agencies face potential conflicts of interest because they accept payment from companies about whose bonds they provide opinions. One kind of potential conflict is the same

one faced by most publishing companies. For example, *Motor Trend* magazine offers opinions about cars *and* receives advertising revenue from the manufacturers. In the current issue, *Motor Trend* evaluates the Honda Accord EX-L against the Toyota Camry SE. In another article the magazine compares the Porsche 911 GT3 RS, the Chevrolet Corvette Z06, the Dodge Viper SRT-10, and the Lamborghini Murciélago LP640. Does the presence of commercial relationships with the manufactures (*i.e.*, advertising) *necessarily* taint the magazine's product reviews? Obviously it does not. Indeed, in the comparison of powerful sports cars, the magazine found that *none* of the four cars achieved the top speed claimed by its manufacturer.

On the other hand, it is unrealistic to ignore the possibility of a taint. The issue of conflicts arises even in medical journals:

> Many societies depend on income from their journal to support other initiatives of interest to the membership. Income is increasingly dependent on advertising revenue – thus, there may be subtle but real pressures to please the industry partners with content and editorial position. This pressure is the accepted reason for the dismissal of at least one high-profile Editor-in-Chief who did not do as the society wished.[9]

I am not aware of any instance where a rating agency gave a higher (or lower) rating to securities of a specific issuer because that issuer (or any of its competitors) paid substantial rating fees to the rating agency. Accordingly, rating agencies should be expected to handle these kinds of conflicts of interest in the same manner that other publishing companies do. If they fail to do so, they should be called to account for the failure. Until then, they should be left to handle the "advertising" type of potential conflict in the same manner that they have done so for almost 100 years.

There is, however, another type of potential conflict of interest that can affect rating agencies. It is the potential conflict of interest that arises when rating agencies compete to win business from many issuers in a sector by generally loosening their rating standards for the entire sector. This practice has been termed *competitive laxity*. The credit rating industry is potentially vulnerable to the threat of competitive laxity in areas where issuers can engage in *rating shopping*. Rating shopping refers to the practice among issuers of presenting their transactions to multiple rating agencies and then selecting only some of them (usually one or two) based on which ones will permit the highest leverage and still grant the desired ratings.

It is indisputable that securitization issuers in the MBS, CMBS, and CDO areas engage in rating shopping. They do so openly. However, the degree to which rating shopping has promoted competitive laxity is not entirely clear. There is no conclusive evidence that the major rating agencies have ever succumbed to the effects of rating shopping and engaged in competitive laxity. In fact, even though rating shopping became rampant in the early 1990s, the major rating agencies achieved highly impressive track records during that time and in the years that followed.[10]

---

[9] Smith, E., *Editorial Independence*, Canadian Journal of Cardiology, vol. 8, no. 6 (June 2002).

[10] Adelson and Bartlett, *ABS Credit Migration Update*, JOURNAL OF STRUCTURED FINANCE (Fall 2005); Adelson, Hoyt, and Manzi, *CMBS Watchlistings, Downgrades, and Surveillance*, Nomura fixed income research (2 Oct

Rating methodologies naturally evolve over time as business practices and deal structures change. Overall, the evolutionary process includes numerous small changes, some of which lean toward stricter standards while others lean toward looser standards. The incremental changes are not individually significant. Rather, the larger trend is what matters. Even so, a trend of looser standards may reflect a genuine change in a rating agency's point of view rather than a position influenced by a conflict of interest.

Consider the following: Suppose that one rating agency has a methodology that calls for an equity cushion of 10% in a certain type of deal. Suppose that a second rating agency has a methodology that calls for a cushion of 15% and that a third calls for a cushion of 20%. If deals of that type customarily carry two ratings, the issuers will always select the first and second rating agencies. The deals will have cushions of 15% because that it is stricter of the two requirements of the first two rating agencies. The 20% requirement of the third rating agency will not be visible in the market because that rating agency will never be selected to rate any deals. If the situation persists for many months (or even years) the analysts at the third rating agency may start to question their own position. They will come to observe widespread and long-standing acceptance of the 15% cushion by investors and other market participants. They will hold their position for a while, but eventually they will start to question themselves. They will ask whether they really know better than everyone else, who have accepted the 15% cushion as sufficient. In the end, the need to observe "a decent respect to the opinions of mankind"[11] will probably move them to abandon the 20% standard in favor of 15%. It is not clear whether such a scenario should be described as an instance of competitive laxity.

Now consider another example using the same facts except that both the second and third rating agencies initially have methodologies that call for a cushion of 15%. In this case, all three rating agencies will appear on deals because the 15% level is the lowest common denominator for having two ratings. All other things being equal, each rating agency would be hired to rate two-thirds of the deals (two agencies per deal). Now suppose that the second rating agency decides to change its methodology so that a cushion of 12% is enough. In that case, all the issuers will start choosing the first and second rating agencies for their deals. The deals will all have cushions of 12% and the third rating agency will have no presence in the sector. If the second rating agency changed its methodology to gain market share, then the example is one of competitive laxity

The best way to combat the threat of competitive laxity is to encourage rating agencies to openly challenge their competitors' ratings when they have differing opinions. In this way, the rating agencies keep each other honest by engaging in a public debate. The most powerful

---

2003); Adelson and Hoyt, *CMBS Credit Migrations*, JOURNAL OF PORTFOLIO MANAGEMENT (Special Real Estate, Fall 2003), Adelson and Hoyt, *Temporal Aspects of CMBS Downgrades and Surveillance*, Nomura fixed income research, (1 Jul 2003); Adelson, Sun, Nikoulis, and Manzi, *ABS Credit Migrations*, Nomura fixed income research (updated 5 Mar 2002); *see also*, Hu, J., et al., *Default & Loss Rates of Structured Finance Securities: 1993-2006*, Moody's special comment (April 2007); Tung, J., et al., *Structured Finance Rating Transitions: 1983-2006*, Moody's special comment (January 2007); Vazza, D. et al., *Annual 2006 Global Corporate Default Study and Rating Transitions*, S&P special report, Appendix III (5 Feb 2007);

[11] Declaration of Independence (1776).

vehicle through which rating agencies can challenge their competitors' views is with *unsolicited ratings*. An unsolicited rating is one that an agency assigns without having been asked to do so by the issuer of the affected security. In fact, an issuer that has engaged in rating shopping typically would complain vocally about receiving an unsolicited rating. The issuer might assert that it was being "bullied" or "blackmailed" by the rating agency that assigned the unsolicited rating.

For many years, S&P and Moody's assigned unsolicited ratings on instruments in most areas of the fixed income capital markets. However, practices started to change in the mid-1990s. Around that time, some rating agencies declared that they would not assign unsolicited ratings to securities from securitizations.[12] That action was perceived favorably by issuers and bankers, and the remaining rating agencies faced pressure to stop issuing such ratings themselves. Eventually all the rating agencies stopped issuing unsolicited ratings on securitization securities. The rating industry's core method for policing itself had crumbled.

Interestingly, when Congress and the SEC have previously considered rating agency practices, they have focused on unsolicited ratings as a potential abuse of power by the rating agencies. Unfortunately, they ignored the critical role of unsolicited ratings as a check on the potential erosion of standards that might come from rating shopping.

To re-establish appropriate checks and balances to prevent the erosion of standards, Congress should consider encouraging or requiring each rating agency that holds the NRSRO designation to issue unsolicited ratings on at least 3%-5% of the securities or deals that are shopped away from it. Under such a framework, it would be impossible for any single rating agency to curry favor with issuers and bankers by refraining from the "hostile" practice of assigning unsolicited ratings.

Conclusions

Securitization has become a large and beneficial feature of the American financial landscape. Credit ratings are important aids to investors in their decision-making process because they attempt to simplify the complex nature of credit risk into a one-dimensional measure. Nonetheless, the nature of credit risk in securitization is sufficiently complex that reasonable people starting with the same facts can reasonably reach different conclusions. This is partly why the existence of multiple rating agencies with differing rating methodologies is beneficial to the market.

The complexity of credit risk in securitization leads to complexity in rating methodologies. Accordingly, it takes substantial work and technical expertise to fully understand a rating agency's methodology in a given area. Despite an extremely high level of transparency of rating methodologies for MBS and CDOs, there is a persisting misconception that those methodologies are opaque black boxes.

---

[12] *See* Richard Cantor and Frank Packer, *The Credit Rating Industry*, 19 FRBNY Q. REV. 1, 4 (Summer-Fall 1994).

Monday-morning quarterbacks criticize a football team's strategy and performance with the benefit of hindsight. In similar fashion, certain market participants criticize rating agencies for being too quick or too slow to upgrade or downgrade ratings during periods of volatility. Those criticisms are generally unwarranted and unjustified because the rating agencies must continually strike a balance between being "trigger happy" and "asleep at the switch."

Finally, although conflicts of interest are a real issue, rating agencies have dealt with such conflicts appropriately for a long time. The main conflict that they face is the same one that other publishers handle through preserving editorial independence in the face of pressure from advertisers. The problem of competitive laxity is peculiar to the rating industry and it has been exacerbated by rating shopping. The industry's counterbalancing practice of assigning unsolicited ratings has been derailed in the area of securitizations. An appropriate equilibrium can be restored by encouraging or mandating a resumption of that practice.

— E N D —

TESTIMONY OF J. KYLE BASS

MANAGING PARTNER, HAYMAN ADVISORS L.P.

UNITED STATES HOUSE OF REPRESENTATIVES COMMITTEE ON FINANCIAL SERVICES, SUBCOMMITTEE ON CAPITAL MARKETS, INSURANCE AND GOVERNMENT SPONSORED ENTERPRISES

The Role of Credit Rating Agencies in the Structured Finance Market

Thursday, September 27, 2007

Chairman Kanjorski, Ranking Member Pryce: I am here as an investor and participant in the Residential Mortgage Backed Securities (RMBS) market. From my experience with the unfolding credit crisis I have formed the view that the current credit rating agency regime is flawed on both a systemic and process specific level.

I am the portfolio manager for the Hayman Capital Master Fund, and I am a co-manager of the Subprime Credit Strategies Funds I & II. I also act as a mortgage credit portfolio advisor to several other asset management firms. In total, I manage or advise over $4 billion of investments in the RMBS market. I also serve as a Director of the ABS Credit Derivatives Users Association.

Inherent Conflicts of Interest

The Nationally Recognized Statistical Ratings Organizations (NRSROs) have become a ubiquitous presence in the fixed income market. The enormous proliferation of fixed income products, especially in the structured finance area over the last 10 years has seen an explosion in the need for ratings of these products. As the size of the marketplace grew, along with an influx of new participants the need for a universally accepted ratings regime intensified. The primary NRSROs have seen strong growth during this period as they met the need for bond issuers to provide a stamp of credit approval that would allow them to market their products around the world.

Unfortunately the relationship between the bond issuers and the NRSROs presents a fundamental conflict of interest because the NRSROs are dependent on the issuers for their revenues. The bond issuers, as seller's of risk, have an incentive to see that the risk they are selling is priced as cheaply as possible – in the marketplace this means obtaining as high a rating as possible – because once they sell the bonds they are relieved of any risk burden. It is this incentive, and the fact that they work closely with, and provide payment to, the NRSROs that places into question the objectivity of the ratings provided by the NRSROs. The ultimate holders of the risk, the buyers of these bonds, have the most at stake in accurately pricing risk, but instead rely upon the ratings bought and paid for by the sellers.

It would be like cattle ranchers paying the Department of Agriculture to rate the quality

and safety of their beef. It would undermine the integrity of the system by casting doubt on the impartiality of the body that the ultimate buyer relies upon to keep them safe from harm. But as it is becoming increasingly clear as each month passes, Subprime credit has become the mad cow disease of structured finance. Nobody knows who consumed the infected product and nobody has any real faith in the NRSRO that gave it a clean bill of health.

Mezzanine CDO's – Defying Belief

Sometime in the late 1990's the Asset Backed Security Collateralized Debt Obligation (ABS CDO) was born. It was originally a compilation of a variety of asset classes ranging from aircraft receivables to mortgages. Original correlation assumptions on the assets within these structures were not based on any empirical data, but simply reflected the best guess of the NRSROs. The success of these products drove changes to the asset compilations and by late 2003 ABS CDOs were comprised almost entirely of Subprime mortgages. It is my belief, based upon conversations with various structured finance marketing groups at bulge bracket broker-dealers, that NRSROs did not alter their correlation assumptions despite the homogenization of the collateral underpinning ABS CDOs.

While there are many forms of RMBS out there, the Mezzanine Collateralized Debt Obligation (Mezzanine CDO), CDO Squared and all their respective derivations in the marketplace stand out as the most egregious example of what went wrong. A Mezzanine

CDO is an elaborately structured product that is derived from a more run of the mill mortgage securitization. Within a typical Subprime securitization the top 80% of the capital structure is generally rated AAA, and the bottom 4-6% is over-collateralization. The next 3-4% immediately above the over-collateralization, just above the bottom of the capital structure, represents the mezzanine tranches. There has always been demand for the AAA tranches, but the mezzanine tranches were less popular because of their higher risk profile and the inability of many buyers to hold them due to their low credit rating. Sometime in 2003, US institutional investors stopped buying these mezzanine tranches. The NRSROs and Wall Street needed to keep their highly profitable (over $6 billion of underwriting fees in 2006 alone) Subprime securitization machine running, so they figured out how to collect the unwanted mezzanine tranches into a new vehicle. Within this new vehicle, the tranches were re-bundled, marked up, and re-rated. Through the alchemy of Mezzanine CDOs this re-bundling process magically allowed the top 80% of the capital structure to be rated AAA. This magic came despite the underlying securities remaining mostly among the lowest rated tranches of the original Subprime securitizations. The justification for this process was that the securities were sufficiently diversified, both geographically and by originator, that their principal and interest payments could be restructured to prioritize the top of the newly created capital structure. Whereas in reality the underlying collateral remained a homogenous asset class whose default probability was highly correlated and therefore their risk was dramatically understated.

In fact this correlation was further underestimated by an arbitrary decision to create the hereto unknown classification of "Midprime" borrowers by splitting up the existing Subprime category. Prior to this, Subprime was simply defined as loans made to borrowers with FICO scores below 660. Midprime was declared to be the top half of the Subprime spectrum, FICO scores between 625 and 660. This designation not only allowed NRSROs to use a second color in their CDO presentation pie charts but also allowed them to argue they were less correlated because they were a different asset class. This in turn allowed them to use more aggressive assumptions in their ratings models and deliver higher credit ratings to products containing both Midprime and Subprime loans even though they both were previously considered Subprime. With the stroke of a pen and some less than creative naming, Mezzanine CDOs were further able to mis-price and re-lever the riskiest tranches of Subprime RMBS securitizations. Interestingly enough, Moody's, just last week, issued a press release that eliminated the context of Midprime versus Subprime in ALL ABS CDOs. They did not say however if they were going to go back and re-rate previous transactions as all Subprime.

We have not seen AAA impairments yet on Mezzanine CDO's because the natural process takes between 12 and 24 months for the impairment process to be completed (from foreclosure to eventual sale and impairment). Due to the fact that some are trading in the marketplace at discounts of over 50% it is clear to me that global investors are losing faith in the NRSROs as we speak. I believe that this loss of faith is the primary reason that the Global Asset Backed Commercial Paper markets were frozen and required

massive emergency action by Central Banks around the world.

The Glaring Error - Inconsistency of Model Assumptions

While the provision of AAA ratings to mezzanine tranches of subprime debt is the most egregious example of the flaws in the RMBS credit rating process, the clearest and most obvious error lies with the internal inconsistency of the application of model assumptions.

Each NRSRO has its own proprietary models which they rely upon to determine the projected performance of securities. Within the world of RMBS, two of the most important assumptions for any of these models are the estimation of Home Price Appreciation (HPA) and Loss Severities of loans that go into foreclosure over the course of the life of the security.

At least one of the NRSROs was using HPA assumptions of +6-8% for 2006, 2007 and 2008 in their models for securitizations underwritten in 2006 and in the first quarter of 2007. Sometime during the second quarter of 2007, referencing a detailed study of all major metropolitan statistical areas that they recently completed, they decided to dramatically reduce their HPA assumption and increase their Loss Severity assumption for the next few years. Therefore new securitizations were required to have much larger initial over-collateralization amounts. However these new model assumptions were only adopted prospectively, despite the fact that securitizations from previous years still rely

on these assumptions about future economic outcomes. If the NRSROs change their model assumptions going forward, to avoid being duplicitous they should be required to change their existing ratings that rely on now outdated assumptions.

Put simply, they should be compelled to adhere to a single assumption (open to change and revision when new data comes to light) with regard to any of their inputs to their black-box models. In this example, it shouldn't matter when a security was rated, the HPA assumption for 2007 should be consistent across all models.

With Great Power Comes Great Responsibility

All participants in the fixed income market recognize the enormous power that NRSROs wield over pricing with their ability to bestow universally recognized ratings. This power has turned NRSROs into de facto regulatory bodies. This role is explicit in the reliance on NRSRO ratings as benchmarks for what is considered "investment grade" both for institutions with restricted mandates such as money market and pension funds as well as for institutions that must maintain minimum Capital Adequacy Requirements.

It is also implicit in many other markets where the possession of a top tier credit rating is an essential ingredient to the success of a business model. One such example of this is the mono-line insurance industry where a AAA rating is necessary to keep capital adequacy requirements at a low enough level to allow the hugely levered (some more than 100 times) balance sheets to function. The NRSROs know that a downgrade is tantamount to

a death sentence for these companies, and thus become the implicit overseer of their viability.

I will tell you why and how regulators completely missed the epic size and depth of the problem in the credit markets today. An important concept to appreciate is that each securitization is essentially an off balance sheet bank. Like a regular bank there is a sliver of equity and 10-20 times leverage in a securitization or CDO and 20-40 times leverage in CDO Squared and Bespoke instruments. The booming securitization market has in reality been an extraordinary growth in off balance sheet banks. However the securitization market has no Federal and State banking regulators to monitor its behavior. The only bodies that provide oversight or implicit regulation are the NRSROs – bodies that are inherently biased towards their paymasters, the securitization firms. Without sufficient oversight, this highly levered, unregulated, off balance sheet securitization market and its problems will continue to have severe ramifications on global financial markets.

My belief is that the following two policy principles are an important step in addressing the issues I have raised above:

- Additional disclosure requirements for NRSROs to the SEC to ensure consistency of economic assumptions for models across all ratings. As well a requirement to re-rate securities relying on subsequently outdated model assumptions.

- Sponsoring and facilitating the creation of a "buy-side" credit rating consortium funded by a limited fee on each transaction in the fixed income market – similar to the SEC fee on equities securities transactions.

Ultimately something must be done to resolve the problem of a market that is forced to rely upon NRSROs that are only paid to rate securities, not downgrade them.

Moody's Investors Service

Testimony of Michael Kanef
Group Managing Director
Moody's Investors Service

Before the
United States House of Representatives
Subcommittee on Capital Markets, Insurance, and
Government Sponsored Enterprises

September 27, 2007

I. Introduction

Good afternoon Chairman Kanjorski, Ranking Member Pryce and members of the Subcommittee. I am Michael Kanef, and I am the head of the Asset Backed Finance Rating Group at Moody's Investors Service ("Moody's"). My group is responsible for ratings of Residential Mortgage Backed Securities ("RMBS"), Term Asset Backed Securities ("ABS") and Asset Backed Commercial Paper ("ABCP") issued in the United States, Canada and Latin America. On behalf of my colleagues, let me thank the Subcommittee on Capital Markets, Insurance, and Government Sponsored Enterprises for the opportunity to participate in today's hearing.

In my statement, I will provide a brief overview of the role of credit rating agencies in the structured finance market. In doing so, I will touch on the Credit Rating Agency Reform Act of 2006 and the Securities and Exchange Commission's rules implementing the Act. I will then describe Moody's rating and monitoring process for residential mortgage-backed securities and highlight some of the policies and procedures that help us ensure that our rating opinions are produced according to the highest standards of independence, objectivity and integrity.

I will then comment on the recent deterioration in the subprime mortgage sector, which has been caused by an unusual confluence of three factors -- increasingly aggressive mortgage loan underwriting practices, declining home price appreciation, and the sudden unavailability of refinancing alternatives for mortgage-holders. I will review the various courses of action that Moody's has taken over the past four years in response to this weakening situation. Finally, I will describe some additional steps that Moody's believes that rating agencies as well as other market participants can take to help provide greater transparency in the structured finance market and bolster confidence in the overall financial markets.

I note at the outset that the observations and information contained herein are largely based on data and experience related to the subprime mortgage securitizations that Moody's has rated, and not on the broader subprime mortgage market, some of which

was securitized and rated by other rating agencies, some of which was securitized but not rated, and some of which was not securitized.

II. Background About Moody's

Rating agencies occupy a narrow but important niche in the investment information industry. Our role is to disseminate up-to date information about the relative creditworthiness of, among other things, financial obligations of corporations, banks, governmental entities, and pools of assets collected in securitized or "structured finance" transactions.

Moody's is the oldest bond rating agency in the world, having introduced ratings in 1909. Today, we are one of the world's most widely utilized sources for credit ratings, research and risk analysis. Our ratings and analysis track debt covering more than 100 sovereign nations, 12,000 corporate issuers, 29,000 public finance issuers, and 96,000 structured finance obligations. In addition, Moody's publishes credit opinions, transaction research, and commentary serving more than 9,300 customer accounts at some 2,400 institutions around the globe.

Moody's credit ratings are forward-looking opinions that address just one characteristic of fixed income securities – the likelihood that debt will be repaid in accordance with the terms of the security. They reflect an assessment of both the probability that a debt instrument will default and the amount of loss the debt-holder will incur in the event of default. In assigning our credit opinions, Moody's analysts adhere to published rating methodologies, which we believe promote transparency and consistency on our global ratings.

Our ratings are expressed according to a simple system of letters and numbers, on a scale that has 21 categories ranging from Aaa to C. The lowest expected credit loss is at the Aaa level, with a higher expected loss rate at the Aa level, an even higher expected loss rate at the A level, and so on down through the rating scale. Moody's rating system is not a "pass-fail" system; rather, it is a probabilistic system in which the forecasted probability and magnitude of credit losses rises as the rating level declines.

Moody's credit ratings are widely and publicly available at no cost to investors or the general public. We publicly disseminate our ratings through press releases and also make them available on our website. They are simultaneously available to all market participants regardless of whether or not they purchase products or services from Moody's. The public availability of ratings helps "level the playing field" between, for example, large and small investors, enhances the transparency and efficiency of financial markets, and allows the market and all users of ratings to assess independently the aggregate performance of our rating system.

While Moody's ratings have done a good job predicting the relative credit risk of debt securities and debt issuers, as validated by various performance metrics including published rating accuracy ratios and default studies, they are not statements of fact about past occurrences or guarantees of future performance. Furthermore, ratings are not investment recommendations. The likelihood that debt will be repaid is just one element, and in many cases not the most material element, in an investor's decision-making process for buying credit-sensitive securities. Credit ratings do not address many other factors in the investment decision process, including the price, term, likelihood of prepayment, liquidity risk or relative valuation of particular securities.

Moody's has always been clear and consistent in telling the market that our ratings should not be used for any purpose other than as a gauge of default probability and expected credit loss. We have discouraged market participants from using our ratings as indicators of price, as measures of liquidity, or as recommendations to buy or sell securities. Although some market participants may have used our ratings for such purposes, they are not designed to address any risk other than credit risk and should not be used for any other purpose.

III. The Credit Rating Agency Reform Act of 2006

In September 2006, the Credit Rating Agency Reform Act ("**Reform Act**") was passed into law. It created a voluntary registration process for rating agencies willing to have their ratings used in federal securities laws by being designated as a nationally recognized statistical rating organization ("**NRSRO**"). The Reform Act also authorized

the Securities and Exchange Commission ("**SEC**") to oversee such NRSROs. The objective of the Reform Act is "to improve ratings quality for the protection of investors and in the public interest by fostering accountability, transparency and competition in the credit rating agency industry"[1]. It aims to:

a) enhance accountability by providing the SEC with oversight authority to assess the continued credibility and reliability of an NRSRO;

b) promote competition through a clear process by which a rating agency can apply for NRSRO designation; and

c) improve transparency by requiring registered NRSROs to make publicly available most of the information and documents submitted to the SEC in their applications.

In June 2007, the SEC published its rules to implement the Reform Act and ensure rigorous oversight of the credit rating industry and on September 24, 2007 Moody's became a registered NRSRO pursuant to the new Reform Act rules. The rules include the following:

- Registration Requirements (17g-1): Implements the registration requirements for NRSROs.
- Recordkeeping (Rule 17g-2)**:** Ensures that an NRSRO makes and retains records to assist the SEC in monitoring, through its examination authority, an NRSRO's compliance with the provisions of the Statute.
- Financial Reporting (Rule 17g-3): Requires NRSROs to furnish the SEC with audited financial statements and associated schedules on an annual basis to allow the SEC to monitor the NRSRO's financial resources and assess its ability to support robust credit analysis activities.
- Protection of Material Non-Public information (Rule 17g-4): Requires an NRSRO to have procedures designed to prevent potential misuses of material non-public information.

[1] Credit Rating Agency Reform Act of 2006, Preamble.

- Managing Conflicts of Interest (Rule 17g-5): Requires an NRSRO to disclose and manage those conflicts of interest that arise in the normal course of engaging in the business of issuing credit ratings.
- Prohibition of Unfair, Coercive, or Abusive Practices (Rule 17g-6): Prohibits NRSROs from engaging in certain acts or practices relating to the issuance of credit ratings that the SEC has determined to be unfair, coercive, or abusive.

IV. Role of Credit Rating Agencies in the Structured Finance Market

The use of securitization as a financing tool has grown rapidly both in the U.S. and abroad since its inception approximately 30 years ago. Today, it is an important source of funding for financial institutions and corporations. Securitization is essentially the packaging of a collection of assets into a fixed income "security" that can then be sold to investors. The underlying group of assets is also called the "pool" or "collateral." A securitization does not simply transform a loan pool into a single security: it leads to the creation of two (or more) bonds.[2] One of the bonds may be deemed nearly risk-free from default and rated Aaa, but the others are often quite risky because the payments generated by the underlying pool are first used to make required payments to the Aaa-rated bond investors before making funds available to the holders of the other securities.

Residential mortgage-backed securities are bonds whose principal and interest payments are made from the mortgage payments received on thousands of mortgage loans. In considering the role of rating agencies in this market, it is important to recognize that we are one of many players with historically well-defined roles in the market.[3] Moody's comes into the residential mortgage securitization process well after a mortgage loan has been made to a homeowner by a lender and identified to be sold and

---

[2] For a more detailed discussion of the securitization process and the various participants in that process, please refer to Annex 1.

[3] In particular, we do not conduct any "due diligence" on these loans as that role is currently conducted by two separate parties at separate time periods during the loan origination and securitization process: first, the lender or originator of the loan conducts due diligence at the time when it is extending the mortgage loan to the borrower; and second, the investment banker arranging the structured finance vehicle conducts due diligence and ensures that the loans in a particular pool meet underwriting standards. Please see Annex 1 for more detail.

pooled into a residential mortgage-backed security by an originator and / or an investment bank. We do not participate in the origination of the loan; we do not receive or review individual loan files for due diligence; and we do not structure the security. Rather, we provide a public opinion (based on both qualitative and quantitative information) that speaks to one aspect of the securitization, specifically the credit risk associated with the securities that are issued by securitization structures.

Consequently, our role in the structured finance market is fundamentally the same as the role Moody's has played over the last hundred years in the corporate bond market. As discussed in greater detail below, the rating processes are, in fact, very similar in the two sectors. Ratings are assigned by committees when securities are first issued and then monitored over the life of those securities. Upward or downward rating adjustments result from deviations in performance from the expectations held at the time of the initial rating – expectations regarding the performance of the underlying asset pool in the case of securitizations and expectations regarding the realized business or financial plan in the case of corporations. Moody's ratings performance reports – posted on our website, www.moodys.com – indicate a high degree of consistency between structured finance and corporate ratings.[4]

a) Moody's Analytical Approach

Our analytical methodologies, which are published and freely available on our website, consider both quantitative and qualitative factors. Specifically, in rating a mortgage-backed securitization, Moody's estimates the amount of cumulative losses that the underlying pool of mortgage loans is expected to incur over the lifetime of the loans (that is, until all the loans in the pool are either paid off, including via refinancing, or default). Because each pool of loans is different, Moody's cumulative loss estimate, or "expected loss," will differ from pool to pool.

---

[4] These publications include a wide variety of metrics, including a measure of the accuracy of ratings as predictors of the relative risk of credit losses. See, for example, the follow Moody's *Special Comments*, "Default and Recovery Rates of Corporate Bond Issuers, 1920-2005" (January 2007), "The Performance of Moody's Corporate Bond Ratings: March 2007 Quarterly Update" (April 2007), "Default & Loss Rates of Structured Finance Securities: 1993-2006" (April 2007), and "The Performance of Structured Finance Ratings: Full-Year 2006 Report" (May 2007).

In arriving at the cumulative loss estimate, Moody's considers both quantitative and qualitative factors. We analyze between 40 and 60 specific credit characteristics for each loan in a pool,[5] which help us assess potential future performance of the loans under a large number of different projected future economic scenarios. For example, the quantitative data we analyze includes, among other characteristics:

- credit bureau scores, which provide information about borrowers' loan repayment histories;
- the amount of equity that borrowers have or do not have in their homes;
- how fully the borrowers documented their income and assets;
- whether the borrower intends to occupy or rent out the property; and
- whether the loan is for purchase of a home or for refinancing an existing mortgage loan.

We also consider the more qualitative factors of the asset pool, past performance of similar loans made by that lender and how good the servicer has been at loan collection, billing, record-keeping and dealing with delinquent loans. We then analyze the structure of the transaction and the level of loss protection allocated to each "tranche," or class of bonds issued by the structure. Finally, based on all of this information, a Moody's rating committee determines the credit rating of each tranche. However, it should be noted that the quality of our opinions is directly tied to the quality of the information we receive from the originators and the investment banks. Regardless of the quantity of data we assess, if the data we receive is faulty – e.g., as a result of misrepresentation – the quality of our rating opinions will be jeopardized.

It is important to note that, in the course of rating a transaction, we do not see individual loan files or information identifying borrowers or specific properties. Rather, we receive only the aforementioned credit characteristics provided by the originator or the investment bank. The originators of the loans and underwriters of the securities also make representations and warranties to the trust for the benefit of investors in every

[5] We do not receive any personal information that identifies the borrower or the property.

transaction. While these representations and warranties will vary somewhat from transaction to transaction, they typically stipulate that, prior to the closing date, all requirements of federal, state or local laws regarding the origination of the loans have been satisfied, including those requirements relating to: usury, truth in lending, real estate settlement procedures, predatory and abusive lending, consumer credit protection, equal credit opportunity, and fair housing or disclosure. It should be noted that the accuracy of information disclosed by originators and underwriters in connection with each transaction is subject to federal securities laws and regulations requiring accurate disclosure. Underwriters, as well as legal advisers and accountants who participate in that disclosure, may be subject to civil and criminal penalties in the event of misrepresentations. Consequently, Moody's has historically relied on these representations and warranties and we would not rate a security unless the originator or the investment bank had made representations and warranties such as those discussed above.

Moody's monitors its ratings on all securitization tranches on a monthly basis, and, as appropriate, considers the need for a ratings change. Monitoring is performed by a separate team of surveillance analysts who are not involved in the original rating of the securities, and who report to the chief credit officer of the Asset Finance Ratings Group. We generally receive updated loan performance statistics on a monthly basis for every collateral pool for each transaction we have rated. We assess this information using quantititative models and flag potential rating "outliers" – securities whose underlying collateral performance indicates that the outstanding rating may no longer be consistent with the current estimated risk of loss on the security. Once a specific rating is flagged, a Moody's surveillance analyst will further investigate and discuss the status of the transaction with senior members of the team who together determine whether a rating change should be considered.

Moody's does not take wholesale rating actions based on market speculation. Rather, our analysts carefully and deliberately consider the data that we receive on a transaction-by-transaction basis, and we conduct the monitoring process judiciously to make sure that such relevant information is appropriately considered. If based on the analyst's review it is deemed appropriate to consider adjusting the rating, the analyst will

call a rating committee and follow Moody's procedures for conducting a rating committee.[6] These procedures include: ensuring that the committee is comprised of individuals who have relevant expertise, presenting the facts and circumstances of the particular security to the committee, debating the various issues, and voting on the rating outcome on a majority basis, with the most senior member of the committee voting last.

b) Discussions With Issuers

In rating any structured security (or, for that matter, any corporate security) we may hold analytical discussions with issuers or their advisors. These discussions do not transform rating agencies into investment bankers, consultants or advisors. Instead, they serve the dual purpose of: (a) helping us better understand the particular facts of the transaction as proposed by the issuer; and (b) clarifying to the issuer the rating implications of our methodologies for that transaction.[7]

In circumstances where there is considerable performance history for the particular asset being securitized and where the structure has been used previously, our published methodologies may provide sufficient transparency on our analytical approach to obviate the need for detailed "back-and-forth" discussions.

In contrast, we have more general conversations with issuers who are securitizing new asset classes or are utilizing novel structures that are different from those we have discussed in our published methodologies (revealing the limitations of a "one-size-fits-all" approach). As part of this dialogue, an investment bank underwriting a mortgage-backed security, for example, provides the composition of a pool of mortgages and the details of a particular structure and asks for the rating implications in light of our existing, published methodologies. What the investment bank does in response to our feedback – whether they decide to seek a rating of the structure presented, modify the structure as

---

[6] "Moody's Investors Service Ratings Policy: Core Principles for the Conduct of Rating Committees," Ratings Practice, April 2006.

[7] Similar discussions frequently take place with corporations contemplating changes in financial structures and business strategies (e.g., the potential rating implication of a share buy-back program on a corporate issuer's senior unsecured debt obligations), or with new corporate issuers to whom Moody's has not previously assigned a rating.

they see fit, or not seek a Moody's rating at all – is determined entirely by the investment bank and the originator.

Moody's does not provide consulting services as part of this process and receives no incremental or additional payments for holding these discussions. We believe that these discussions help enhance overall market transparency and stability in that both issuers and investors have a better understanding of our analytical thinking and the ratings that result.

Moody's does not structure, create, design or market securitization products. We do not have the expertise to recommend one proposed structure over another, and we do not do so. Investment bankers structure specific securities and tranches to fit the needs of particular issuers and investors. We are not privy to many of the discussions that consider the features of a securitization (many of which are non-credit related), and we do not know who the ultimate investors in the transaction will be.

c) Managing Conflicts of Interest

The issuer-pays business model used by Moody's, like most alternative models (e.g., the investor-pays model), gives rise to potential conflicts of interest. Issuer fees were introduced over three decades ago, and since that time we believe we have successfully managed related conflicts of interest and provided the market with objective, independent and unbiased credit opinions. To foster and demonstrate objectivity, Moody's has adopted and publicly disclosed important fundamental principles for managing Moody's ratings process.[8] For example, among other steps:

- Rating decisions are taken by a rating committee and not by an individual rating analyst;
- Analysts participating in a committee are required to be fully independent from the companies they rate – they are prohibited from holding discussions regarding fees with and owning securities in institutions that they rate (except through holdings in diversified mutual funds);

[8] See, "Moody's Investors Service Code of Professional Conduct".

- Analysts are neither evaluated on the basis of, nor compensated for, the revenue associated with the entities they rate; compensation of analysts consists of a base salary and an annual bonus;[9]
- Rating actions reflect judicious consideration of all circumstances we view as relevant to an issuer's creditworthiness;
- Moody's will take a rating action that it deems appropriate regardless of the potential effect of the action on Moody's or an issuer;
- Moody's does not create investment products, or buy, sell, or recommend securities to users of our ratings and research;[10]
- Once a rating is assigned, a separate surveillance team, which is independent of the rating team, takes responsibility for the ongoing monitoring of that rating. The surveillance team reviews the performance of each structured finance security, makes recommendations about adjustments to the ratings and, as appropriate, convenes rating committees to adjust ratings; and
- Our rating methodologies are publicly available on our website, allowing the market to ensure that we consistently adhere to them in every rating we issue.

The integrity and objectivity of our rating processes is of utmost importance to us. Our continued reputation for objective and independent ratings is essential to our role in the marketplace.

d) Performance of Moody's Structured Finance Ratings

The predictive content of Moody's ratings has consistently been demonstrated. Our annual default studies demonstrate that both our corporate and structured finance ratings have been reliable predictors of default over many years and across many economic cycles. Over the past 15 years, investment-grade structured finance securities have had somewhat lower credit losses on average than investment-grade corporate

[9] The annual bonuses of analysts are based on Moody's overall financial performance and the qualitative performance of the individual analyst.

[10] Moody's parent company, Moody's Corporation, invests excess cash in highly-rated short-term debt securities. All investment decisions are made at the parent company level.

securities. This strong overall performance of structured securities led many market participants to increasingly perceive the sector to be "safer" than the corporate sector.

Moody's rating accuracy on mortgage-backed securities has been similar to its rating accuracy on other structured finance products, and, over long time horizons, comparable to the accuracy of Moody's corporate bond ratings. However, since sectoral shocks cannot always be predicted in advance, default rates by rating category have varied widely from year to year across regions and industries within the corporate sector, as well as within various structured finance sectors. As in most sectors, the RMBS sector has seen years in which its securities have experienced lower credit losses than other similarly rated securities and other years when they have proven more risky.

V. The Recent Weakness in the Subprime Mortgage Securitization Market

Subprime mortgages have been part of the broader residential mortgage market for many years, and as a group, have performed differently at various stages of the credit cycle. For instance, to date the majority of subprime mortgages originated between 2002 and 2005 have performed at or better than subprime loans performed in prior periods. Many subprime mortgages underlying the securitizations issued in 2006, however, are experiencing higher levels of serious delinquencies than the mortgages that backed securitizations issued between 2002 and 2005. Put differently, more borrowers are becoming seriously delinquent on 2006 subprime loans than borrowers on loans originated between 2002 and 2005. The poor performance of 2006 subprime loans initially followed a pattern that is not uncommon in a residential housing "credit cycle". However, a number of extraordinary factors have made the current turn in this cycle much more dramatic than in past slowdowns.

During periods of growth in the housing and mortgage markets, increased borrowing demand allows existing mortgage lenders to expand their business and new lenders to enter the market. Eventually, these trends create overcapacity in the mortgage lending market as borrowing demand slows or falls. As the lending market cools (e.g.,

when interest rates rise, home price increases abate, or the economy slows), competition among lenders for the reduced pool of borrowers heats up and lenders may lower credit standards (i.e., make riskier loans) in order to maintain origination volume. The riskier loans are more likely to become delinquent and potentially default.

Lending behavior in the subprime mortgage market over the past few years and until recently had followed this pattern. Through 2005 and 2006, in an effort to maintain or increase loan volume, some lenders introduced alternative mortgage products that made it easier for borrowers to obtain a loan. Such loans include:

- Loans made for the full (or close to the full) purchase price of the home, allowing borrowers to have no equity in the home;
- Loans with less rigorous documentation, such as those allowing borrowers to state their income without verification and asset information instead of providing documented proof;
- Loans that expose borrowers to sudden payment increases; and
- Longer-tenure loans, which have lower monthly payments that are spread out over a longer period of time (40 years and longer).

Often, the loans made had a combination of these features. In situations commonly referred to as "risk layering," for example, a borrower could get a low initial payment, without documenting other income or assets, and put no money down. Consequently, while the $640 billion of subprime mortgages originated in 2006 still comprised a relatively small portion of the nearly $3 trillion of residential mortgages originated during that same year, the subprime sector was steadily becoming a larger proportion of the overall mortgage origination by dollar volume (see ***Figure 1***).

Figure 1			
	Total Mortgage origination ($billions)	Total Subprime origination ($billions)	Percent of Subprime Orgination of Total Orignation
2002	3,038	421	14%
2003	4,370	539	12%
2004	3,046	560	18%
2005	3,201	625	20%
2006	2,886	640	22%

This trend toward riskier loan originations was exacerbated by a confluence of circumstances that has played into the unusually poor performance of subprime mortgages originated in 2006. Moody's has identified three factors that are especially relevant:

- **Aggressive underwriting standards,** including risk layering in the mortgage origination process has been a contributor to the housing bubble and subsequent deterioration in mortgage payment performance. In addition, many market participants have suggested that fraud, such as misrepresentations made by mortgage brokers, appraisers and the borrowers themselves, has also played a significant role and exacerbated the problem. Numerous sources have indicated that home values, borrowers' incomes as well as other information may have been overstated and the intended use of the home was often misstated (i.e., as a primary residence rather than an investment property);
- **Decline in home prices on a national basis** has been the most important factor in the decline in subprime mortgage loan credit performance. July 2007 marked the twelfth consecutive month of home price decline on a year-over-year basis.[11] This is the longest period of declining home prices on a national basis since 1969, and declining home prices have reduced borrowers' equity in their homes and constrained their refinancing opportunities. The borrowers most affected by the housing downturn

[11] As of the date of the submission of this testimony, the August 2007 data was not yet available.

have been those who because of the timing of their purchase did not realize benefit from the price appreciation that had occurred in prior years; and

- **A rapid reversal in mortgage lending standards**, in which mortgage lending standards moved from very loose to very restrictive. This first accommodated and then quickly stranded overstretched borrowers needing to refinance in the future.

As the residential mortgage market has shifted from an environment of aggressive lending, low interest rates, and rapid home price appreciation in 2004, 2005, and early 2006, to one of tighter lending standards, higher costs of borrowing and a weak housing market, the collateral performance of the 2006 vintage of subprime residential mortgage-backed securities (RMBS) has deteriorated. Data indicate that from the beginning of 2002 through the second quarter of 2005, loan defaults within six months of origination ranged from 0.63% to 1.32%, with an average of 0.90%. However, since that time, such early loan defaults have exhibited a sharply rising trend with each successive quarterly cohort, roughly tripling from 1.31% for the securitizations issued in the third quarter of 2005 to over 3.50% for those issued in the fourth quarter of 2006.[12]

These loan defaults will likely continue to increase in the months ahead, as loans reset to higher interest rates in 2007 and 2008. Moody's believes that loan modifications,[13] when used judiciously, can mitigate losses on mortgage loans and increase the likelihood that the securitized bonds backed by the mortgages will be paid.

In an effort to gauge the potential impact that loan modifications might have in reducing losses on defaulted loans, Moody's recently conducted a survey of the modification practices of sixteen subprime mortgage servicers (who together constitute roughly 80% of the total subprime servicing market). The survey results, which were

---

[12] The data provided is based on the information that Moody's presently has on the performance of these loans and is subject to change as the loans mature.

[13] Loan modifications are typically aimed at providing borrowers an opportunity to make good on their loan obligations and may include interest rate reductions, loan term extensions, payment deferrals, and forgiveness of payments, penalties or principal. Because these modifications are aimed at reducing or postponing borrowers' payments, they are particularly useful in mortgage environments such as the current subprime market, where delinquencies are increasing. To determine whether a loan modification is the best course of action, servicers will generally have to review the borrower's current financial situation and re-qualify the loan.

published in September 2007,[14] suggest that, on average, subprime servicers have only recently begun to address modifications as it relates to interest rate resets. Specifically, the survey showed that most servicers had only modified approximately 1% of their serviced loans that experienced a reset in the months of January, April and July 2007. Based on this data, it appears that the number of modifications that will be performed in the future by subprime servicers on loans facing reset may be much lower than what may be needed to significantly mitigate losses in subprime pools backing rated securitizations. This may exert downward pressure on our ratings.

VI. Moody's Response to the Deteriorating Subprime Market

As mentioned earlier, the 2002 – 2005 vintages have continued to perform at or above expectations and our rating changes, shown below in ***Figure 2***, indicate that the deterioration in subprime mortgages seems relatively isolated in the 2006 vintage.

Figure 2
Downgrade / Upgrade Percentage By Vintage
(By Rated Original Balance)

	Prime		Alt-A		Subprime		Total RMBS	
Vintage	Dow ngrade	Upgrade	Dow ngrade	Upgrade	Dow ngrade	Upgrade	Dow ngrade	Upgrade
2002	-	1.9%	0.4%	1.0%	2.3%	2.0%	1.1%	1.8%
2003	-	1.2%	0.1%	1.0%	1.1%	2.7%	0.6%	1.9%
2004	-	0.9%	-	-	0.3%	0.2%	0.2%	0.3%
2005	-	0.1%	-	-	0.5%	0.3%	0.2%	0.1%
2006	-	-	-	0.1%	5.4%	-	2.5%	0.1%
2002 - 2006	-	0.8%	-	0.2%	2.1%	0.6%	1.0%	0.5%

Having said that, during the period from 2002 – 2006, Moody's observed an increase in the risk profile of subprime mortgage portfolios that we were asked to review prior to assigning ratings. Our response to these increased risks can be categorized into three broad sets of actions:

[14] Moody's Subprime Mortgage Servicer Survey on Loan Modifications," September 21, 2007, Moody's Special Report

1) <u>We began warning the market starting in 2003</u>

We provided early warnings to the market, commenting frequently and pointedly over an extended period on the deterioration in origination standards and inflated housing prices. We published frequent reports on these issues starting in July 2003 and throughout 2004, 2005 and 2006.[15] In January 2007, we published a special report highlighting the rising defaults on the 2006 vintage subprime mortgages.[16]

2) <u>We tightened our ratings criteria</u>

In response to the increase in the riskiness of loans made during the last few years and the changing economic environment, Moody's steadily increased its loss expectations and subsequent levels of credit protection on pools of subprime loans. Our loss expectations and enhancement levels rose by about 30% over the 2003 to 2006 time period, and as a result, bonds issued in 2006 and rated by Moody's had more credit protection than bonds issued in earlier years.

Moody's observed the trend of weakening conditions in the subprime market and adjusted our rating standards to address the increased risk. Along with most other market participants, however, we did not anticipate the magnitude and speed of the deterioration in mortgage quality (particularly for certain originators) or the rapid transition to restrictive lending.

3) <u>We took rating actions as soon as the data warranted it</u>

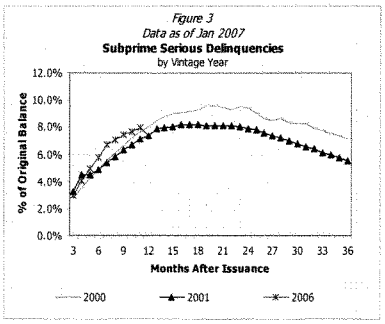
As illustrated by ***Figure 3***, the earliest loan delinquency data for the 2006 mortgage loan vintage was largely in line with the performance observed during 2000 and 2001, at the time of the last U.S. real estate recession. Thus, the loan delinquency data we had in January 2007 was generally consistent with the higher loss expectations that we had already anticipated. As soon as the more significant collateral deterioration in the 2006 vintage became evident in May and June 2007, we took prompt and deliberate action on those transactions with significantly heightened risk.

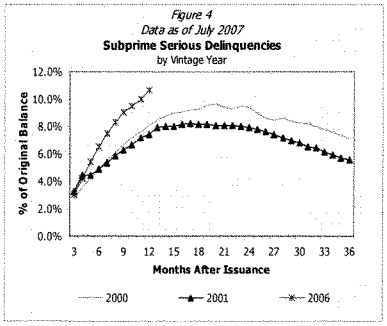
---

[15] Please see Annex II for a grid which identifies our various publications on the issue.

[16] Early Defaults Rise in Mortgage Securitization, Moody's Special Report, January 18, 2007.

Figure 4 shows the significantly higher loan delinquencies in the 2006 vintage, as of July 2007. For example, at 10 months of seasoning, 8.6% of the underlying loans in the 2006 vintage were seriously delinquent, nearly twice the level of delinquencies of the 2001 vintage 10 months after closing.





Moody's first rating actions (downgrades and reviews for downgrades) on securities backed by 2006 vintage subprime loans took place in November 2006. Further rating actions occurred in December and our first comprehensive set of rating actions (on second lien mortgage transactions) took place in April 2007, with a second set of actions (on first lien mortgage transactions) in July 2007. To date, we have downgraded about $25 billion, or roughly 5 percent of the $460 billion of subprime mortgage-backed securities we rated in 2006 (see ***Figure 5***). (To put the 2006 vintage rating actions in broader perspective, please see Figure 2 which shows that, to date, Moody's downgrades for the combined 2002 – 2006 time period amounts to 2.1% by dollar volume in the subprime RMBS sector, and 1% by dollar volume for all of RMBS.)

Figure 5

	By Number of Tranches			By Dollar Volume ($mil)		
	Total Number of Tranches Rated	Number On Review/ Downgraded	% Impacted	Rated Dollar Volume	Dollar Volume Impacted	% Impacted
First Lien Transactions						
Aaa	2,118	0	0.0%	$345,578	$0	0.0%
Aa	1,262	0	0.0%	$40,843	$0	0.0%
A	1,291	10	0.8%	$21,190	$185	0.9%
Baa	1,299	244	18.8%	$14,897	$3,161	21.2%
Ba	447	181	40.5%	$4,450	$1,910	42.9%
Total	**6,417**	**435**	**6.8%**	**$426,959**	**$5,257**	**1.2%**
Second Lien Transactions						
Aaa	184	86	46.7%	$25,561	$12,716	49.7%
Aa	180	157	87.2%	$3,479	$3,087	88.7%
A	184	175	95.1%	$1,851	$1,785	96.4%
Baa	211	207	98.1%	$1,462	$1,450	99.2%
Ba	99	99	100.0%	$670	$670	100.0%
Total	**858**	**724**	**84.4%**	**$33,023**	**$19,708**	**59.7%**
First and Second Lien Transactions						
Aaa	2,302	86	3.7%	371,139	12,716	3.4%
Aa	1,442	157	10.9%	44,322	3,087	7.0%
A	1,475	185	12.5%	23,040	1,970	8.6%
Baa	1,510	451	29.9%	16,360	4,611	28.2%
Ba	546	280	51.3%	5,120	2,581	50.4%
Total	**7,275**	**1,159**	**15.9%**	**$459,982**	**$24,965**	**5.4%**

We did not take these rating actions sooner because, until we had actual performance information to distinguish between individual mortgage pools, the only rating actions that we could realistically have taken would have been on the entire $460 billion of Moody's-rated 2006 subprime RMBS securities. Such sweeping action would have failed to distinguish among

- first and second lien mortgages;[17] and

[17] These are loans secured by a second priority mortgage lien on residential real estate. When closed simultaneously with the first-lien mortgage loan, they are known as "piggyback" loans. The holder of a second lien mortgage is only entitled to recoveries on the underlying property after the first lien holder has been paid in full.

- collateral from mortgage originators who made better-quality loans in 2006 (such as Wells Fargo Bank and Option One) and those who made lower quality loans (such as New Century Financial Corporation).

Instead, we began publishing narrative commentary expressing our concerns about expected loan deterioration while we collected performance data on specific pools to validate our assessment of overall market conditions and differentiate performance among various individual mortgage pools.

By basing our actions on performance information rather than negative market sentiment, our rating actions have currently been limited to a fraction of Moody's-rated subprime RMBS securities. The timing of our actions allowed us to identify specific problematic mortgage securities and originators and, at least as importantly, enabled us to avoid potential rating reversals on billions of dollars of securities that are currently performing within expectation.

We opted for the approach described above to avoid applying general concerns about risks in the mortgage market to specific securities where asset quality continued to provide protection consistent with original rating levels. We will continue employing our careful and deliberate approach by closely monitoring market developments and taking rating actions when sufficient information becomes available.

VII. Actions to Enhance Ratings Quality and Usefulness

A variety of factors contributed to the deterioration of the subprime mortgage market over the past several months. Today, it is clear that a constant erosion of underwriting standards between 2003 and 2006 – including misrepresentations by mortgage brokers, appraisers and borrowers – was a major contributor to the housing bubble and subsequent correction. Many lenders and brokers who were charged with upholding lending standards stopped playing that role effectively – until early this year when many lenders went out of business and those that remained quickly tightened lending standards, further exacerbating defaults from borrowers unable to refinance.

As the higher than expected levels of delinquencies on the 2006 subprime loans started becoming apparent, the resulting volatility in the capital markets was further exacerbated by the short positions taken by some hedge funds on securities and indices and the lack of transparency regarding who holds many of these structured finance products.

We believe that addressing the problems in the subprime market will require action on the part of many market participants, and we are eager to work with the Congress, regulators and other market participants to this end. In this same spirit, we have undertaken substantial internal initiatives at Moody's that have begun, and will continue, to enhance the quality of our analysis and the credibility of our credit ratings. These internal initiatives include:

- **Enhancements to our analytical methodologies**. We have made a number of refinements to our methodology for rating subprime securities – as we do periodically with all our methodologies – to further improve our ratings process and to respond to the unprecedented market changes that have occurred in the overall performance of subprime securitizations. These changes have included, among others:

  - Increasing our delinquency and loss expectations as well as the resulting credit enhancements we look for to support our various rating levels, for both currently outstanding and future subprime transactions;

  - Expanding the mortgage loan data we request from the issuer to include depth and breadth of borrower's credit history, presence of escrow for taxes and insurance and presence and level of cash reserves;

  We will continue to refine our methodologies to respond to changing market dynamics. As in the past, we will continue to publicly post draft versions of important revisions to methodologies and models and actively encourage constructive comments from market participants before we implement the changes.

- **Continued investments in analytical capabilities.** We plan to continue investments in and analysis of historical performance data as well as future scenario analysis to improve the predictive power of our models for RMBS securities. We will also explore ways to more quickly decide when ratings actions are warranted in the case of unexpected deterioration in collateral performance underlying individual securitizations.

- **Changes to the credit policy function.** We have already taken steps to enhance the credibility of our ratings by further separating the Credit Policy function from management of Moody's ratings business, establishing a direct communication responsibility for the Chairman of Credit Policy to the Board of Directors of Moody's Corporation. Reinforcing the oversight role, credit officers from within the rating departments will have a reporting line to the Chairman of Credit Policy to ensure proper sharing of information and standards across sectors. Finally, we recently reorganized our operating businesses to formalize the existing separation between the ratings business and other products and services offered by Moody's Corporation.

- **Additional market education.** While capital market participants are often highly sensitive to Moody's ratings and rating actions, some may have misunderstood the meaning of, or misused either intentionally or unintentionally, our ratings. This is despite Moody's frequent publications and extensive distribution of information on these topics.[18] Additional market education about what our ratings

[18] For examples, see our publications: "Understanding Moody's Corporate Bond Ratings and Rating Process," May 2002; "Comments from Moody's Investors Service on the European Commission Services' New Capital Adequacy Directive: Recognition and Supervision of ECAIs," January 2003; "Measuring the Performance of Corporate Bond Ratings" April 2003; "Moody's Investors Service Response to the Director General Internal Market Services' Working Document on the Implementation of the European Parliament and Council Directive 2003/6/EC on Insider Dealing and Market Manipulation," April 2003; "Moody's Investors Service Comments on the Securities and Exchange's Concept Release on Rating Agencies and the Use of Credit Ratings under the Federal Securities Laws," July 2003; "Are Corporate Bond Ratings Procyclical?" October 2003; "Statement of Raymond McDaniel at the 29th Annual Meeting of the International Organization of Securities Commissions" October 2003; "Statement of John Rutherfurd at the 30th Annual Meeting of the International Organization of Securities Commissions" April 2005; "Moody's Investors Service Comments on the Securities and Exchange Commission's Rule Proposal on the Definition of Nationally Recognized Statistical Rating Organization," June 9, 2005; "Moody's Investors Service Code of Professional Conduct," June 2005; "Response of Moody's Investors Service to The Committee of European

do and do not measure will assist those who misunderstand the meaning of a credit rating and ensure more appropriate use of our credit ratings.

- **Development of new tools beyond credit ratings.** Moody's designs and manages its ratings to speak to expected credit losses. We are currently attempting to develop additional financial tools that measure fundamental values and potential volatility in securities prices. Such tools, regardless of who develops them, could fill currently unmet market needs and relieve stress on the existing rating system by potentially curtailing misuse of ratings for other purposes. However, since they do not exist today, we do not know if we will be successful in developing them or if the market will be interested in – and benefit from – using them.

In addition to these changes to our practices at Moody's, we believe reforms involving the broader market and its participants would enhance the usefulness and effectiveness of the credit rating opinions we provide. We believe measures that address potential fraud and increase transparency would be particularly beneficial. While there is no sure way for an outside observer of the lending process to detect fraud or to enforce transparency, there are steps we believe would help:

- **Licensing or other oversight of mortgage brokers**, who unlike most other financial professionals responsible for selling investment products, are not required to register with any federal regulatory authority. Procedures that might be considered include background checks, finger printing, minimum standards of competency, and a mechanism to address customer complaints.
- **Greater disclosure** of additional information by borrowers and lenders.
- **Tightening due diligence standards for underwriters** and requiring a higher level of verification performed by an independent third party such as an accountant or trustee.

Banking Supervisors' Consultation Paper on the Recognition of External Credit Assessment Institutions," September 2005.

- **Stronger representations and warranties** from originators and issuers on the loans included in a securitization pool. A third party, such as the trustee, the master servicer or a credit risk manager, should have the responsibility and the appropriate incentives to monitor and to enforce those representations and warranties.
- **Increased disclosure from issuers and servicers on the individual loans in a pool.** Standardized reporting of loan level information, both prior to closing and throughout the life of the transaction, should be provided to all transaction participants requesting it.
- **Increasing transparency.** Many funds that currently invest in structured products are not required to disclose these investments, thereby obscuring where different interrelated assets are held. Such opacity can create confusion and fear in the markets, which in turn can lead to a crisis of confidence. (Investors will abstain from taking risks that they are not confident they can dimension.) We are eager to work with the Congress, regulators and other interested market participants to enhance transparency in the area of "who holds what."

VIII. Conclusion

Moody's is deeply committed to providing the most independent, objective and accurate credit assessments available in the global markets. We appreciate the anxiety and frustration that has resulted from the unprecedented market conditions that have occurred in the subprime mortgage market this year. Moody's has worked hard to respond quickly, accurately and sensibly to rapidly changing market conditions, and we continue to refine our practices to improve our performance in the future, based on what we have observed from this confluence of events. We welcome the opportunity to work with the Congress and the SEC on measures that could further bolster the quality and usefulness of our ratings and restore confidence in the global financial markets. We are also eager to work with other market participants on broader market-based reforms and

solutions that would enhance the transparency and effectiveness of the global credit markets.

I hope that this testimony has been useful, and I would be pleased to address your questions.

Annex I: **The Process of Securitizing Subprime Mortgages**

To understand the process of securitizing subprime mortgages, it is important to understand the roles played by the various market participants:

- Mortgage originators, or lenders – entities that make the loans, such as banks or mortgage finance companies. Typically lenders make a loan decision based on four key factors: a borrower's current income in relation to the size of the mortgage loan; a borrower's credit history (including their FICO score); the appraised value of the house that secures the mortgage; and the size of the down payment for the loan. Originators are one of the two parties who historically have been responsible for conducting due diligence on the loans pooled together for securitization.
- Subprime borrowers – borrowers who have weaker credit histories (e.g., average FICO scores of 610), incur loan-to-value ratios of 80-100%, and have income to loan payment ratios of 45-50%.
- Investment bankers – generally investment banks or other banks that structure the securitizations and sell the bonds that are issued to investors. Investment banks are the second party who historically have been responsible for conducting due diligence on the loans pooled together for securitization.
- Trustees – entities that are responsible for administering the securitizations.
- Servicers – entities that collect all payments on the subprime mortgage loans from the borrowers.
- Investors – entities that purchase the bonds that are backed by the assets and their related cash flows. In the securitization market, these entities are typically sophisticated institutional investors who generally make their investment decisions based on their own analysis, with ratings being one of many factors they consider.

Steps to Structure Mortgage-Backed Securities

The securitization process generally begins approximately three or more months after a borrower has closed on his mortgage transaction. It is at this point in time that the lending institution decides to securitize. It is important to note that some lenders may choose to retain the loans they have made on their balance sheet or sell them into the whole loan market, and as such a certain percent of mortgages are never securitized. Once the lender decides to securitize, however, there are numerous steps involved in securitizing a mortgage-backed security from lender origination to investor purchase.

First, a large number of subprime residential mortgage loans (typically thousands) are identified for securitization by the mortgage originator. This originator relies on an arranger like a bank or investment bank to assess the risk of the loan portfolio, conduct due diligence by sampling loan files, with or without the help of a due diligence firm, and "kick out" any loans which do not conform to the underwriting standards. The originator creates a trust, limited liability company or corporation,[19] which is the securitization issuer. The originator then sells all of its legal right to receive monthly payments on the subprime mortgages to the trust, receiving cash in return which is then used to originate new loans, thereby keeping the market liquid. The trust thereby becomes the "owner" or "holder" of the loans. Finally, the trust issues and sells bonds to investors – in separate tranches that have varying degrees of risk and payouts. The bonds obligate the trust to make monthly payments to the bond investors, which it does using the monthly loan payments it receives from borrowers on their mortgages.

Loss Protection for Mortgage-Backed Securities

Securitizations of all kinds, including those of subprime mortgage loans, use various features to protect bondholders from losses. The more loss protection (also referred to as "credit enhancement") a bond has in relation to its "expected loss", the higher the likelihood that the investors holding that bond will receive the interest and principal promised to them. Some common types of loss protection are:

[19] For ease of reference, we will refer to these types of new entities as the "trust".

- A guarantee from a creditworthy entity, like an insurance company, or a bank that covers all or a certain portion of the losses above a certain level;
- "Overcollateralization", which is the amount by which the aggregate amount of mortgage loans exceeds the aggregate amount of bonds issued;
- "Subordination", which means that instead of all bonds in the securitization sharing losses equally, losses are borne by bonds sequentially in reverse order of seniority; and
- "Excess spread", which refers to the application of any excess amount of interest collected on the loans over the amount of interest payable on (and fees and expenses payable with respect to) the bonds to cover loan losses.

Example of How Loss Protection Works

Figure 6 represents a simple subprime securitization transaction, where four classes, or "tranches," of bonds totaling $90 are issued and are backed by loans totaling $100. In this structure, losses would first be applied to reduce the "$10 net worth," or overcollateralization. Only when the losses exceed the overcollaterization amount would the bond balances be affected. Losses would be applied to the bond tranches in reverse order of seniority, such that losses are not allocated to a given tranche until the balances of all tranches that have a lower priority have been reduced, or written down, to zero.

Figure 6

Simplified Balance Sheet for a Typical Subpri

Assets (Loans)	Liabilities (Bonds) + Net Worth
	$65 Senior Bond
	$10 Mezzanine Bond #1
	$10 Mezzanine Bond #2
	$5 Subordinated Bond
$100 Mortgages	$10 Net Worth ("Overcollateralization")

For example, if the losses on the pool of mortgages were $20, as shown in ***Figure 7***, then the outstanding balance of the mortgage loan pool would fall to $80. At this point, the overcollaterization amount would be reduced, or "written down" from $10 to zero, and the remaining $10 of losses would result in losses for both the $5 subordinated bond and the $10 mezzanine bond #2. The principal amount of the $5 subordinated bond would be written down to zero, and then the $10 balance of mezzanine bond #2 would be reduced by the remaining $5 of losses to a balance of $5. Losses are not allocated to a given tranche until the balances of all tranches that have a lower seniority have been written down to zero.

Figure 7

Securitization After Incurring $20 of Losses

Assets (Loans)	Liabilities (Bonds) + Net Worth
	$65 Senior Bond
	$10 Mezzanine Bond #1
	$5 Mezzanine Bond #2
	$0 Subordinated Bond
$80 Mortgages	$0 Net Worth ("Overcollateralization")

Consequently, the likelihood that an investor in a particular tranche will receive both the principal and interest due on the bond depends not only on the quality of the loans in the securitization, but also on the amount of loss protection provided. The higher the seniority of a bond issued in a securitization, the greater protection it will have against losses, making it more likely to be repaid in full – meaning it is "less risky." Conversely, the lower the seniority of a bond, the less protection it will have against losses, making it less likely to be repaid in full.

When Moody's issues credit ratings for subprime bonds like those in this example, the tranches generally receive progressively lower ratings as the seniority of the tranches gets lower. Each progressively more subordinate bond has less loss protection because each has fewer bonds that can provide a cushion to absorb losses in case of defaults on some of the loans in the pool. Furthermore, because losses on subprime loans are generally expected to be much higher than losses on "prime" loans, a greater amount of

loss protection is needed in a subprime securitization for a given tranche to receive the same rating as a similar tranche of a prime securitization.

Annex II:

Early Warnings: Sample of Moody's Publications Discussing the Deterioration of the Subprime Mortgage Sector

Title	Publication Date	Trends, Moody's View and/or Actions
		2003
Second Lien Mortgages - Issuance Volume Set for Another Record-Breaking Year in 2003	July 3, 2003	- *"The credit performance of second lien mortgage-backed securities has been strong over the past five years; however, as price appreciation slows down and interest rates rise Moody's believes that there could be more volatility in the credit performance of this product and will maintain credit enhancement levels accordingly."* (Page 1)
		2004
2003 Review and 2004 Outlook: Home Equity ABS	January 20, 2004	- *"Moody's expects relatively high defaults and losses for these mortgage types and has set credit enhancement levels to offset the risks."* (Page 5) - *"Potentially indicating deteriorating credit quality, the percentage of full documentation loans in subprime transactions continues to decline as borrowers choose more expensive low and no doc alternatives to minimize the time and scrutiny taken by lenders to underwrite new loans."* (Page 6) - *"Not only are borrowers susceptible to payment shock in a rising interest rate environment, but at the end of the IO period borrowers will again suffer payment shock with the introduction of principal in their monthly payment. Because of the shorter amortization period, that principal amount will also be significantly higher."* (Page 6)
Moody's Approach to Rating Initial Period, Interest-Only Mortgages in Prime RMBS	May 5, 2004	- *"But a first look at the effects of an IO feature on loan pools reveals expected loss severity, and therefore cumulative loss levels, that are 10% to 20% higher than those for an equivalent non-IO loan."* (Page 1)
		2005
2004 Review & 2005 Outlook: Home Equity ABS	January 18, 2005	- *"Because these loans are generally underwritten based on lower initial monthly payments, many subprime borrowers may not be able to withstand the payment shock once their loans reset into their fully indexed/amortizing schedule. The resulting higher default probability, which may be exacerbated with slowing home price appreciation, could have a very negative effect on home equity performance in the future."* (Page 3) - *"The increase in reduced documentation in the subprime sector is particularly worrisome because for*

		borrowers with weaker credit profiles the need for establishing repayment capability with stronger asset and income documentation becomes even more important." (page 6) - *"Moody's increases credit enhancement on such loans to account for the lower borrower equity and the higher borrower leverage"* (page 6)
The Importance of Representations and Warranties in RMBS Transactions	Jan 14, 2005	- *"Moody's believes that representations and warranties against the inclusion of certain loans in securitized transactions provide a small but important protection against losses."* (Page 1) - *"For those securitizers that don't meet standards, Moody's would seek additional credit enhancement, or financial backing from another company, or acceptable third-party verification of compliance with the standard R&Ws."* (Page 2)
An Update to Moody's Analysis of Payment Shock Risk in Sub-Prime Hybrid ARM Products	May 16, 2005	- *"Moody's adjusts the loss coverage levels up or down by up to 15% for mortgage loans that utilize product features resulting in higher or lower levels of payment increase relative to the benchmark loan."* (Page 1)
Moody's Increases Overcollateralization Floor In Subprime Mortgage Transactions	Jul 12, 2005	- *"To increase the level of protection for investors in Moody's-rated residential mortgage-backed securities (RMBS), Moody's Investors Service has revised its overcollateralization floor for subprime mortgage transactions that include a mix of asset types, such as manufactured housing loans."* (Page 1)
	2006	
2005 Review & 2006 Outlook: Home Equity ABS	January 24, 2006	- *"Full documentation levels fell by almost 10 percent on average per transaction from the beginning of 2004 to the end of 2005. Therefore, in 2005 not only did we see a proliferation of riskier "affordability" products, but also a gradual weakening of underwriting standards."* (Page 5) - *"Moody's loss expectations on the interest-only mortgages are about 15%-25% higher than that of fully amortizing mortgages."* (Page 6) - *"In Moody's view, credit risk for this product is approximately 5% higher than the standard 30 year fully amortizing product, all other credit parameters being equal."* (Page 6) - *"Moody's considers hybrid ARM loans to be riskier than equivalent fixed- rate loans primarily because of the risk of payment shock associated with adjustable-rate products."* (Page 6)
The Blurring Lines between Traditional Alternative-A and Traditional Subprime US Residential Mortgage	Oct 31, 2006	- *"In today's economic environment which includes declining US residential mortgage loan origination volume, originators are exploring various ways to stay competitive. We are seeing originators who historically specialized in either prime or subprime moving into*

Markets		*each other's markets to maintain or increase their origination volume."* (Page 1)
Moody's Approach to Coding Subprime Residential Mortgage Documentation Programs: Updated Methodology	Nov 28, 2006	- *"The subprime residential mortgage-backed securities (RMBS) market is experiencing a decrease in the percentage of loans with full income documentation ("full income doc")."* (Page 1) - *"Less than full documentation, or in other words, reduced documentation ("reduced doc") programs can add to the credit risk of a loan as the borrower's financial capabilities are not fully revealed and may result in a loan that may be beyond the borrower's means."* (Page 1)

Testimony of

Joseph R. Mason
Associate Professor
Drexel University

To the Subcommittee on Capital Markets, Insurance, and Government Sponsored Enterprises, Committee on Financial Services
United States House of Representatives

Hearing on the Role of Credit Rating Agencies in the Structured Finance Market

September 27, 2007

Mr. Chairman, Ranking Member Pryce and members of the Committee, thank you for the opportunity to be here today. I am pleased to appear before you to discuss the role of credit rating agencies in the structured finance market. I will also discuss some possible legislative options for addressing these concerns.

I am Joseph Mason, an Associate Professor of Finance at Drexel University and Senior Fellow, the Wharton School, and these are my personal views. Before joining Drexel University, I spent three years at the Office of the Comptroller of the Currency studying structured finance, and have since advised bank and securities market regulators as well as many industry groups on the press on recent difficulties with structured finance. I am also an expert in the economic dynamics of financial panics and crises, of which the most recent market difficulties are a shining example.

Many are tempted to characterize the current market conditions as a bursting of a classic asset bubble. The central question, however, is not that of whether recent market conditions were a bubble, but why markets are in their current state of turmoil despite very favorable Federal Reserve rate cuts and a variety of other measures.

The answer lies in the branch of economics having to do with how investors react to information differences. The foundation of this branch of research lies in the work of 2001 Nobel Laureate George A. Akerlof. The problem introduced by Akerlof is, very simply, that some people may know something that others do not. As a result, those that do not know (or think they do not know) may impose a discount on information coming from others. Akerlof introduced the idea with the example of buying a used car. The

buyer is prone to discount information about the quality of the car, and therefore the seller will not be able to sell the car for its true worth. The difference between the price paid and price the car is really worth (if the buyer knew the truth about the car) is the "lemons discount."

Lemons discounts are common in credit markets. When something happens in markets or the economy that demonstrates an increase to the amount of information that is unknown, i.e., an asset price shock, it is rational for market participants to raise the standard lemons discount. If market participants only know that there has been shock to asset values, but cannot discern which banks or investment funds are principally affected, they rationally apply the higher lemons discount to all banks and investment funds indiscrimantly. If lemons discounts rise significantly, the price differences that result may cause liquidity problems. If they rise further, the price differences may become so large that markets may cease to function altogether.

Market participants recently discovered that someone else knew a lot more than they did. Investors, therefore, rationally apply the higher lemons discount to all banks and investment funds indiscrimantly. Hence, investors need more information about the value and the holdings of structured products. No Fed funds rate cut, increased agency mortgage limit, FHA program, or even (as in the UK) blanket deposit insurance coverage, will resolve that information problem. Rather, the solution lies in changes to the manner in which information about structured finance investments is gathered by accountants and regulators and disseminated to market participants by ratings agencies and markets. Today's hearings on the role of credit rating agencies are a good start in gathering information that can be used to make meaningful improvements to market transparency and liquidity that will reduce information problems that cause financial crises.

1. Understanding how Conflicts of Interest in NRSROs Contribute to Information Differences

NRSROs have replied to recent downgrades on residential mortgage backed securities (RMBS) and collateralized debt obligations (CDOs) and subsequent hedge fund failures and market turmoil by maintaining that accurately accounting for risk is not their job and that they are protected by the right of free speech. They point to disclaimers in their ratings that make it clear that they are paid by the companies they rate and that ratings are statements of opinion, not recommendations.

Clearly there is conflict of interest in arrangements where credit NRSROs are paid by those they rate. Savvy investors should know better than to invest only on the basis of a rating, but such admonitions ring hollow. NRSROs do more than opine; they play an active role in structuring RMBS and CDOs. They also serve as key sources of information about securitization performance and often enumerate measures that issuers must take to maintain ratings in troubled securitizations.

More importantly, unlike typical market actors, NRSROs are more likely to be insulated from the standard market penalty for being wrong, namely the loss of business. The fact

is, issuers *must* have ratings, even if investors do not find them very accurate. That fact reflects the unique power that the government has conferred on NRSROs to act as regulators, not mere opinion providers. Portfolio regulations for banks, insurance companies and pension funds set minimum ratings on debts these intermediaries are permitted to purchase.

Giving NRSROs more power actually reduces the value of their ratings by creating a strong incentive for grade inflation and making the meaning of ratings harder to discern. Regulated investors encourage NRSROs to understate risk so that the menu of high-yielding securities available to them is larger. The regulatory use of ratings thus has changed the constituency demanding a rating from free-market investors interested in a conservative opinion to regulated investors looking for an inflated one.

Grade inflation has been concentrated particularly in structured finance products, where the demand is especially driven by regulated intermediaries. In 1994, economists Richard Cantor and Frank Packer, then of the New York Fed, pointed out that grade inflation was occurring and that it was driven by the least reputable NRSROs. In fact, those agencies were already pushing more heavily into structured finance than Moody's and Standard & Poor's, rating deals that the two main agencies did not. Moody's and S&P eventually joined the others in what turned out to be a lucrative product area, which now accounts for roughly half of NRSROs' fees.

Although there is evidence that Moody's and S&P remain relatively conservative when rating structured products, it is clear that even Moody's has allowed its ratings scale for securitized products to become inflated. Bloomberg Markets reported in July that: "Corporate bonds rated Baa, the lowest Moody's investment grade rating, had an average 2.2 per cent default rate over five-year periods from 1983 to 2005, according to Moody's. From 1993 to 2005, CDOs with the same Baa grade suffered five-year default rates of 24 per cent, Moody's found." In other words, long before the current crisis, Moody's was aware that its Baa CDO securities were 10 times as risky as its Baa corporate bonds.

While not structured finance, municipal bonds face a similar effect. According to Moody's 2007 study on the differences between the ratings scales, a state general obligation bond rated A1 by Moody's is really equivalent to a Aaa-rated investment on Moody's "Global Scale," which equates to a five-year Baa default rate of 0.097%, or about 1/250th that of CDOs.[1]

---

1. Christine Richard and Darrell Preston, *Bond Insurance Charade Costs U.S. Taxpayers $2.5 Billion a Year,* BLOOMBERG NEWS, Oct. 5, 2006. The result of the penalty is that municipal bond issues are often required to buy bond insurance they do not need, since they are already equivalent to the highest-rated corporate or global equivalents. Furthermore, bond insurance does little to help pay out on bonds that receive the full faith and credit backing of the state government. As a result, some states bail out bonds even when they have paid dearly for bond insurance to cover just that eventuality. Right now, money is being diverted from school districts in Texas because the state officials are reluctant to collect on insurance purchased from MBIA at a price of $11 million to date. In Louisiana, Treasurer John Neely Kennedy wrote Governor Kathleen Blanco a letter after Hurricane Katrina saying the state couldn't let any of its borrowers default and wouldn't take money from insurers, because either could lower the state's (artificially deflated and overly sensitive) credit rating.

Given the different and shifting meanings of Baa and other ratings as measures of risk, and given the high rate of financial innovation and the lack of transparency inherent in multi-layered structured finance deals, it is not surprising that investors underestimated risks so badly leading up to the recent crisis. The situation is bound to get worse when ratings also set the standard for acceptable investments by banks who do not build their own internal credit rating model under the soon-to-be-implemented Basel II standards.

The solution is for regulators to reclaim the regulatory power that has been transferred to NRSROs. One drastic solution is to reform existing regulations to avoid the use of letter grades in setting standards for permissible investments by regulated institutions. In the absence of letter grades, banks and their regulators would look at the underlying risks of investments, not ratings. Such a solution, however, has been largely dismissed as overly complex and expensive.

A more reasonable solution is to apply soon-to-be-implemented Basel II internal ratings-based (IRB) surveillance standards beyond banks, to credit rating agencies. Such a solution makes sense because the default risk measurement standard for banks that do not develop their own IRB models (that is, most banks in the U.S.) is the NRSROs. But the NRSRO models are not subject to the same surveillance and supervision as the bank internal models. It makes perfect sense, therefore, to apply the same supervision to the credit rating agency models that will be awarded further regulatory responsibility (and value) through Basel II implementation. Bank supervisors, through extensive Basel II negotiations, have already devised means and standards for supervising internal bank credit models to allow the largest banks to develop their own risk-grading capabilities in-house and have ready capabilities to extend surveillance to NRSRO models immediately.

2. The Timeliness of Recent Decisions by NRSROs to Downgrade Ratings of Many Residential Mortgage-backed Securities and Collateralized Debt Obligations in the Wake of the Recent Credit Crunch

Recent NRSRO downgrade decisions were late because the present ratings system only rates bonds for regulatory purposes, not investors. Hence, NRSROs set ratings initially in order to meet regulatory ratings cutoffs and rarely review their work thereafter. Where models are changed as a result of ratings "mistakes," the models are only applied prospectively, not retrospectively. NRSROs sell tools to investors to evaluate credit risk in rated deals after origination, and therefore effectively profit from selling one product to arbitrage regulatory requirements and another product to sort out the difference.

NRSROs initially misrated structured finance deals because their models are constructed for corporate obligations, not structured finance. Residential mortgage-backed securities (for insance) are constructed on the basis of static pools of new mortgages that only demonstrate their performance over time (a process known as seasoning). It is, therefore, difficult – if not statistically impossible – to statistically predict mortgage pool performance at deal inception. Only after a pool is adequately seasoned (roughly two years) does the pool contain sufficient history to support statistical analysis that can be

used to predict performance in a manner the leads to stable ratings. It is not surprising, therefore, that many recent downgrades were applied to pools constructed from 2005 and 2006 vintages.

Indeed, when S&P analysts were asked in a conference call regarding the downgrades why the securities had not been downgraded earlier, they replied, because, "...it takes time for the deals to demonstrate their performance."[2] The question, then, becomes how the deals were rated in the first place and why they were not monitored more closely for rating stability.

While there canot be more data at the beginning of the deal, it is possible (nay, crucial) to systematically refresh ratings early in the life of a structured finance deal using the rich data set contained in the monthly servicer's report. There is no need for a similar function for standard corporate bonds.

Of course, because of the conflicts of interest outlined above, it must again be realized that the NRSROs were pressed to produce ratings for the structured products only at issue. NRSROs are not paid to review their work for purposes of rerating or for purposes of applying new risk modeling procedures in the event of widespread mistakes. Rather, they make money doing so through selling investor products that allow investors to estimate those effects, themselves. As discussed further below, while NRSROs issue criteria for initially rating securities, they do not issue criteria for reviewing and rerating securities.

3. Other Issues: Reaging and Modification in Structured Finance Arrangements

Without monitoring during the life of a structured finance deal, the pool can manipulate the borrowers to maintain cash flows to investors. While those manipulations work in the short term, they mask a potential fraud on borrowers and investors alike.

The source of those manipulations is reaging policy, which has historically been a problem in the banking sector. Since subprime mortgage lending has now moved substantially outside the banking sector, however, the problem has spread industry-wide. Reaging policy has to do with when it is prudent to consider a once-delinquent borrower current again. Reaging is problematic because a lender that requires three consecutive on-time payments in order to reclassify borrowers as current will carry a lot more delinquencies on its books than a lender that requires only one on-time payment in order to reclassify borrowers as current. Modification policies can help pull delinquencies down even further by assisting the borrower in making that one on-time payment. Hence, it is not surprising that reaging policy remains of great concern to investors throughout the mortgage industry, including mortgage lenders, servicers, and MBS.

In their reluctance to adequately monitor structured finance ratings, therefore, NRSROs have been complicit in allowing pools to use practices that can potentially harm consumers to manipulate cash flows on behalf of RMBS investors.

---

2. CONFERENCE CALL, Standard & Poor's, Jul. 10, 2007, at 00:22:20.

4. Reviewing the Role of the Nationally Recognized Statistical Rating Organizations in Developing New Debt Products

While the NRSROs do not play a formal role in the development of new debt products, in structured finance the integrity of the financial engineering plays a crucial role in establishing the credit risk of the investment securities issued by the securitizing trust. I have repeatedly asserted, therefore, that the current crisis is one of financial engineering, rather than subprime loans. Let me explain.

Structured finance can be used to fund a variety of different collateral of varying levels of risk. Higher-risk collateral will simply require security structures with a higher volume of risky investment securities (non-investment grade bonds and equity). Through the development of securitization markets, therefore, I have witnessed deal structures with as little as roughly one percent or less of risky investment securities in the structure (for instance, prime, conforming, mortgages with government-sponsored credit insurance) and deal structures with as much as roughly sixty percent risky investment securities in the structure (for instance, charged-off credit card receivables). The point is that the amount of risky investment securities in the funding structure varies directly with the risk of the underlying collateral.

Other features of the funding structure vary with characteristics of the underlying collateral, as well. Underlying collateral types that are very homogenous and have a long history in credit markets (for instance, prime, conforming, fixed-rate, 30-year mortgages, at less than 80% LTV or with government guarantees) present a great deal of data that can be used to infer performance. Other collateral types that are very heterogeneous and/or do not have a long history of demonstrated performance (for instance, credit cards or subprime mortgages) are more difficult to analyze. Statistically, that difficulty translates into greater error in performance forecasts.

Because of the greater statistical error, collateral types that are very heterogeneous and/or do not have a long history of demonstrated performance cannot be expected to allow as fine a "slicing and dicing" of risk as collateral types that are very homogenous and have a long history in credit markets. When new collateral types are securitized, therefore, they are typically limited to simple funding structures. Even mortgages, when first securitized, relied upon simple pass-through structures with a single class of securities. The same is true in credit card and automobile loan markets.

As financial engineers become familiar statistically with new collateral types, deal structures can become more complex. For instance, as more became known statistically about mortgage performance, mortgage-backed securities evolved with more tranches that paid investors in a waterfall, and then, later, included sophisticated elements like interest-only and principal-only strips and planned amortization class (PAC) bonds.

But there are limits to deal complexity. Mortgages are a special case, in that the types of mortgages that supported the most complex structures were historically those very

homogenous prime, conforming, fixed-rate, 30-year mortgages, at less than 80% LTV or with government guarantees. Credit cards and automobile loan securitizations did not develop as much complexity as mortgages, primarily due to the riskier nature of the collateral and the more diverse kinds of loans.

While credit cards and automobile loans can be securitized with as little as five to ten percent of risky investment securities in the structure, compared to as little as one percent or less for prime, conforming, mortgages, the heterogeneity and risk limited the degree to which credit cards and automobile loans could support the more sophisticated deal structures. Hence, even today, credit cards and automobile loans limit themselves to just a few waterfall tranches, while prime conforming mortgages can utilize up to fifty waterfall tranches and very sophisticated elements like interest-only and principal-only strips and planned amortization class (PAC) bonds.

Home equity loan securitization structures were similarly constrained in the late 1990s. At some time following the subprime home equity loan crisis in the late 1990s and early 2000s, when subprime first lien mortgages gained popularity, home equity loan trusts started to include newer subprime first lien loans and substantially increase complexity of the array of securities used to fund the deal. Now, it is common for the "home equity" class of collateral to include subprime first lien mortgages of types ranging from fixed-rate 30-year mortgages to interest-only ARMs and everything in between (hence the quotes around the latter reference to the "home equity" collateral type for the latter period). Hence, the newer "home equity" deals had a great deal more collateral heterogeneity and a great deal less historical performance that rating agencies could use to estimate statistical performance.

The NRSROs, however, overlooked the crucial – and well-known – characteristics of collateral risk and heterogeneity and the need for a solid base of historical performance statistics and continued to support the rapidly growing sector by rating complex (and lucrative) security structures as if the collateral were typical prime conforming mortgages. Furthermore, since each security is quoted and reported independent of the rest of the securities in the structure, it was difficult for investors to see the complexity building over time.

The point is that new and complex debt products need simple funding structures, but the NRSROs simply rated the new instruments like old corporate debt. The next section shows, even worse, that the while the NRSROs sold tools to investors to adjust for the risk of the new products, they did not adjust their ratings models to account for that same risk until very recently.

5. The Transparency *and Consistency* of NRSRO Criteria for Evaluating Structured Products

While the statistical techniques used by the NRSROs are transparent, the ratings criteria (the variables incorporated into the statistical techniques) are not disclosed up to a level of replicability. Without disclosure, even to a regulatory authority, NRSRO models are

black boxes. Hence, it came as a surprise when Moody's revealed that their ratings models lacked many key variables needed to properly evaluate non-prime loan products.

In one of the more striking recent reports, Moody's commented in that "the data fields essential for running the model were established when the model was first introduced in 2002. Since then, the mortgage market has evolved considerably, with the introduction of many new products and an expansion of risks associated with them."[3]

The report characterized the need for additional data as broken into three categories: Primary; Highly Desirable; and Desirable. Of "Primary" importance to Moody's was an indicator that a loan was an option ARM, meaning that as of April 2007 Moody's had not been gathering data on one of the key risky subprime loan products that led to recent market difficulties.

The NRSROs do not seem to demonstrate a responsibility toward maintaining timely relevance in their ratings function. Moody's Investor Service, Code of Professional Conduct 6 (June 2005), stipulates that "Moody's has no obligation to perform, and does not perform, due diligence with respect to the accuracy of information it receives or obtains in connection with the rating process. Moody's does not independently verify any such information. Nor does Moody's audit or otherwise undertake to determine that such information is complete. Thus, in assigning a Credit Rating, Moody's is in no way providing a guarantee or any kind of assurance with regard to the accuracy, timeliness, or completeness of factual information reflected, or contained, in the Credit Rating or any related Moody's publication."

Similarly, "Fitch shall have no obligation to verify or audit any information provided to it from any source or to conduct any investigation or review, or to take any other action, to obtain any information that the issuer has not otherwise provided to Fitch." Given NRSRO's importance to regulating risk in pension funds and banks, it is surprising that agencies are not expected to seek out more information than provided to them by issuers or to verify even the non-financial data provided them by issuers.

Ratings models also rely crucially upon key assumptions about economic growth and other baseline factors. Rarely are those key assumptions revealed, save for occasions on which NRSRO officials are directly and repeatedly queried for such inputs. Moody's only stipulates that, "generally, in absence of key information, assumptions are utilized." Given that ratings entail expected default, those assumptions are, by necessity, forward–looking. As such, ratings should change with expectations, not past demonstrated history. Furthermore, given that the NRSROs are examining downside risk the NRSROs would be expected to err on the conservative side.

It is unclear, however, how conservative NRSRO assumptions are in practice. Discussions with NRSRO employees occasionally reveal tantalizing insights into the model inputs and assumptions. For example, on a April 2007 webcast and conference call

3. Moody's, REVISED US MORTGAGE LOAN-BY-LOAN DATA FIELDS, Apr. 3, 2007.

titled "Subprime Mortgage Distress Effect on CDOs,"[4] Fitch staff were asked about the home price assumptions they are assuming. After several related questions, a Fitch respondent stated that they assumed a mid-single digit home price appreciation. This is in stark contrast to Fitch's own fourth-quarter median home price data for 2005 and 2006 which "...confirms a national home price correction has been under way, with the U.S. median home prices down 2.7%."[5] Hence, Fitch appears to have been using very aggressive growth assumptions in their ratings models while their own research suggested markets had already turned.

Rating methods for CDOs containing structured finance products compound the previous errors. Furthermore, most CDO rating models have until recently assumed zero correlation across CDO asset classes, which is obviously unrealistic when a CDO contains a preponderance of exposures to a single sector, like subprime mortgages.

While initial rating criteria are disclosed to the extent discussed above, no NRSRO has issued criteria for reviewing and rerating securities. The NRSROs sell tools used by investors to evaluate loans on the basis of information lacking from the NRSRO ratings models and adjust for the lack of ratings actions, but NRSROs do not seem to use those tools to review and rerate securities, themselves.

6. Assessing the Credit Quality of Complex Financial Instruments

In discussing how well NRSROs assess the credit quality of complex financial instruments, it is important to discuss first the goals of that assessment exercise. Default is defined as a state in which the borrower is not paying principal and interest on a debt obligation. It takes one payment period to reveal that a borrower has missed a payment, but that does not mean the borrower is in default. The trustee may contact the borrower on investors' behalf, have some discussions and negotiations, and perhaps reach an agreement about moving forward. Only after such discussions fail to produce a willingness and ability to pay will a corporate borrower be formally declared in default, on average 125 days after the last cash payment.[6]

Beyond that distinction, different NRSROs measure different characterizations of the default event. S&P and Fitch estimate the probability of the default event. Moody's, in contrast, estimates the expected loss potential, that is, the probability of default multiplied by the expected loss given default. So while all NRSROs produce seemingly similar "ratings," the end result of their ratings exercises yields statistically non-comparable results.

---

4. Fitch Webcast: Subprime Mortgage Distress Effect on CDOs Tomorrow 09:30 am HK/SG Standard Time (Apr. 22, 2007).
5. *Fitch Reports on How the Housing and Mortgage Market Downturn Could Affect Municipal Credit*, BUSINESS WIRE, Apr. 25, 2007.
6. Robert R. Cangemi, Jr., Joseph R. Mason, and Michael S. Pagano, *How Much of a Haircut?:Options-based Structural Modeling of Defaulted Bond Recovery Rates*, Working Paper.

In a world of structured finance and re-securitization, the effect does not end with the initial rating decision. Ratings and rating changes have direct implications for cash flows because of deal "triggers" that maintain interrelationships among the investment securities in the deal. If security A is downgraded, that may result in Security B cash flows being diverted to security A, increasing risk to security B investors. Without transparent rerating criteria and active reevaluation of security A, however, the probability that security A will be downgraded is substantially reduced. Hence the structured finance world is writing deal triggers that rely on securities being rerated when the NRSROs do not issue clear rerating criteria and, indeed, rerating is rare. Because rating changes determine credit risk elated securities and NRSROs wield discretion over ratings changes, NRSROs, rather than economics, dictate the manifestation of credit risk for those securities.

The effect extends well beyond the initial securitization in a world of re-securitization, CDOs, and CDOs-squared. With downstream securitizations deriving value from upstream securitizations, delayed rerating of the initial securizations disrupts the entire structured finance market while investors await the ratings changes. According to Robert Selvaggio , Managing Director of the Risk Analysis Group at AMBAC, "To the extent the [NRSROs] ... are dragging their feet on changing the rating on subprime MBS, ... they are preventing the reallocation of cash flows to the senior tranches, to change the sequential structure on "AAA" and "AA" ABS CDOs. So they are actively harming the cash flow profile of this CDOs and are actively hurting ABS and CDOs, and something has to be done about it. They have to speed up the process of re-rating these CDOs."[7]

Hence, NRSROs have another conflict of interest in that delaying rerating securities can alleviate the task of rerating other downstream re-securitized securities in resecuritizations, CDOs, and CDOs-squared.

7. The Implementation of the Credit Reform Act of 2006

The Credit Reform Act of 2006 raised hopes that the industry would (1) fully adhere to the International Organization of Securities Commissions (IOSCO) code of conduct and (2) provide for entry of new NRSROs to encourage the development of business practices were less exposed to existing conflicts of interest. Neither has happened.

The IOSCO Code explains that "...the CRA should adopt, implement and enforce written procedures to ensure that the opinions it disseminates are based on a thorough analysis of all information known to the CRA that is relevant to its analysis according to the CRA's published rating methodology."[8]

Recall, however, that Moody's Investor Service, Code of Professional Conduct 6 (June 2005), stipulates, "Moody's has no obligation to perform, and does not perform, due diligence with respect to the accuracy of information it receives or obtains in connection

7. *Comments at Professional Risk Manager's Industry Association* at the Harvard Club, Sep. 20, 2007.
8. Committee of European Securities Regulator's *Report to the European Commission on the Compliance of Credit Rating Agencies with the IOSCO Code* - Ref: CESR/06-545 at 13.

with the rating process. Moody's does not independently verify any such information. Nor does Moody's audit or otherwise undertake to determine that such information is complete. Thus, in assigning a Credit Rating, Moody's is in no way providing a guarantee or any kind of assurance with regard to the accuracy, timeliness, or completeness of factual information reflected, or contained, in the Credit Rating or any related Moody's publication."

It is not clear whether NRSROs' decisions to recuse themselves of the responsibility to verify information provided by an issuer fully meets the IOSCO standard. Nor is it clear whether such conduct meets even the standards the agencies are expected to meet as "investment advisors" under the 1940 Act. A June 2003 memorandum from Annette L. Nazareth, Director, Division of Market Regulation, United States Securities and Exchange Commission, to William H. Donaldson, Chairman, Securities and Exchange Commission, noted, "The Commission has emphasized that, NRSROs, as registered investment advisers under the Investment Advisers Act of 1940, have a special duty to base their opinions upon current and adequate information."[9]

It is also not clear that recent delays in rating actions do not also violate the IOSCO code, Section 2.1: which reads that agencies should "...not forbear or refrain from taking a rating action based on the potential effect (economic, political, or otherwise) of the action on the [credit rating agency], an issuer, an investor, or other market participant."

As for market entrants, while several NRSROs have repeatedly applied for NRSRO status since before the Act, none has been approved as a result of implementation of the Credit Reform Act of 2006. Hence, it does not seem that the Act has had substantial influence on the industry.

8. Conclusion and Policy Recommendations

U.S. authorities have a track record of generally ignoring the structured finance sector. While technically violating FAS140, during the early- and mid-1990s, regulators routinely looked the other way while lenders provided recourse to their securitizations.[10] Such actions provided little incentive for issuers to be more conservative about the legal and financial structures that defined risk in the arrangements.

Similarly, authorities consistently ignored repeated crises that arose from inadequate legal or financial structures. Funding crises arising in credit cards (1998), home equity lending (1999), and other receivables like aircraft leases and 403-b mutual fund fees (2001) were deemed too small to be of concern. The US Securities and Exchange Commission examined RMBS markets four times between 1998 and 2007, each time claiming no significant concerns with transparency. Authorities have therefore been

9. June 4, 2003, at 4.
10. For examples from credit cards, see Eric Higgins and Joseph Mason. *What is the Value of Recourse to Asset Backed Securities? A Study of Credit Card Bank ABS Rescues.* JOURNAL OF BANKING AND FINANCE, Apr. 2004, at 857-874.

consistently reluctant to examine market dynamics at incipient stages of development to infer larger-scale risks, which has turned out to have been a fatal oversight.

In the meantime, structured finance grew to fund approximately 70% of consumer credit. Lack of attention to the rapidly-growing structured finance market created the opportunity for NRSROs to cultivate conflicts of interest and inefficiencies in the ratings process. Currently, much needs to be done to effectively increase transparency and liquidity in what is now a crucially important structured finance sector. Ensuring ratings are both valid and transparent and that they are changed promptly over time with credit quality will begin to reduce information differences, prospectively.

It is crucial to enforce existing regulations toward NRSRO ratings models and applications to resolve the vast information problewms in today's markets. I cannot stress firmly enough: no Fed funds rate cut, increased agency mortgage limit, FHA program, or even (as in the UK) blanket deposit insurance coverage, will resolve the information problems. Existing securities need to be rerated so that investors can get on with evaluating risk and making appropriate investment decisions in today's markets while regulators and legislators develop a unified approach to structured finance that can carry markets into the future without unnecessary interruptions.

Joseph R. Mason

231 Dogwood Lane
Berwyn, PA 19312
joseph.r.mason@gmail.com
(610) 805-9083 ph

LeBow College of Business
Drexel University
Philadelphia, PA 19104
(215) 895-2944 ph

AREAS OF INTEREST:

- Risk Management
- Financial Engineering
- Government Regulation of the Financial Sector

My research focuses primarily on investigating liquidity in thinly-traded assets and illiquid market conditions. Current research projects analyze default risk, including both immediate and cross-default risk, and default resolution costs in the contexts of asset-backed securities, defaults, and failures in systemic and non-systemic environments.

PROFESSIONAL EMPLOYMENT:

Academic Appointments:

2004-pr. Associate Professor of Finance, **Drexel University LeBow College of Business.**

1998-04 Assistant Professor of Finance, **Drexel University LeBow College of Business.**

1997-98 Adjunct Assistant Professor of Finance, **Georgetown University School of Business.**

Concurrent and Non-academic Appointments:

2005-pr. Senior Fellow, **The Wharton School.**

2005-07. Visiting Scholar, **Federal Deposit Insurance Corporation.**

2004-05. LeBow Research Fellow, **Drexel University LeBow College of Business.**

2002-05. Visiting Scholar, **Federal Reserve Bank of Philadelphia.**

2000-05. Sloan Fellow, **Wharton Financial Institutions Center.**

1995-98 Financial Economist, Bank Research Division, **Office of the Comptroller of the Currency.**

EDUCATION:

Ph.D., 1996, **UNIVERSITY OF ILLINOIS**, Champaign, IL.
M.S., 1992, **UNIVERSITY OF ILLINOIS**, Champaign, IL.
B.S., 1990 **ARIZONA STATE UNIVERSITY**, Tempe, AZ.

RESEARCH GRANTS:

2005-06 Drexel University *Research Sabbatical Award*

2004 LeBow College of Business *Research Support Grant*

2001 LeBow College of Business *Summer Research Grant.*

1994-99 *National Science Foundation (NSF) Grant #SBR 9409768* (with Charles W. Calomiris, Columbia University and National Bureau of Economic Research).

1993 Federal Reserve Bank of St. Louis, *Research Support Grant.*

1993 University of Illinois at Urbana-Champaign Office of Research, *Research Support Grant.*

1992 University of Illinois at Urbana-Champaign, *Thesis Support Grant*,

ACADEMIC ARTICLES:

"Herding Behavior in Chinese Stock Markets: An Examination of A and B Shares," (with Tom Chiang, Edward Nelling, and Lin Tan). *Pacific-Basin Finance Journal* (forthcoming).

"A Real Options Approach to Bankruptcy Costs: Evidence from Failed Commercial Banks during the 1990s." *Journal of Business*, July 2005 (79:3), pp. 1523-53. This paper is a revised version of Wharton Financial Institutions Center Working Paper # 02-20. This paper was listed in the Social Science Research Network's *Top Ten Recent Download* lists for Banking & Financial Institutions, Corporate Finance, and Derivatives, November 2002. An earlier version also circulated on the Social Science Research Network as "What Do We Know about Bankrupt Firm Liquidation Rates? Evidence from Commercial Bank Liquidations during the 1930s and 1990s."

"Bank Asset Liquidation and the Propagation of the Great Depression," (with Ali Anari and James Kolari). *Journal of Money, Credit, and Banking*, August 2005 (37:4), pp. 753-773. This paper is a revised version of Wharton Financial Institutions Center Working Paper # 02-35. This paper was listed in the Social Science Research Network's *Top Ten All Time Download* and *Top Ten Recent Download* lists for Banking & Insurance Abstracts, October 2002, and the *Top Ten Recent Download* list for Economic History, November 2002.

"Credit Card Securitization and Regulatory Arbitrage," (with Charles Calomiris). *Journal of Financial Services Research*, August 2004 (26:1), pp. 5-27 (lead article). This paper is a revised version of Federal Reserve Bank of Philadelphia Working Paper no. 03-7, April 2003.

"What is the Value of Recourse to Asset Backed Securities? A Study of Credit Card Bank ABS Rescues," (with Eric Higgins). *Journal of Banking and Finance*, April 2004 (28:4), pp. 857-874. This paper is a revised version of Federal Reserve Bank of Philadelphia Working Paper no. 03-06, April 2003.

"Fundamentals, Panics and Bank Distress during the Depression," (with Charles Calomiris). *American Economic Review,* December 2003 (93:5), pp. 1615-1647. This paper is a revised version of NBER Working Paper no. 7919, September 2000. This paper was listed in the Social Science Research Network's *Top Ten Recent Download* list for Economic History, January 2003.

"Too-big-to-fail, Government Bailouts, and Managerial Incentives: The Case of Reconstruction Finance Corporation Assistance to the Railroad Industry during the Great Depression," (with Daniel Schiffman). In *Too-Big-To Fail: Policies and Practices in Government Bailouts*, Benton E. Gup, ed. Westport, CT: Greenwood Press, 2003, pp. 49-75.

"How to Restructure Failed Banking Systems: Lessons from the U.S. in the 1930s and Japan in the 1990s," (with Charles Calomiris). In *Privatization, Corporate Governance and Transition Economies in East Asia*, Takatoshi Ito and Anne Krueger, eds. Chicago: University of Chicago Press 2004, pp. 375-420.

"Consequences of U.S. Bank Distress during the Great Depression." (with Charles Calomiris). *American Economic Review*, June 2003 (93:3), pp. 937-947.

"The Political Economy of RFC Assistance during the Great Depression." *Explorations in Economic History*, April 2003 (40:2), pp. 101-121.

"Do Lender of Last Resort Policies Matter? The Effects of Reconstruction Finance Corporation Assistance to Banks." *Journal of Financial Services Research*, September 2001 (20:1), pp. 77-95.

"Reconstruction Finance Corporation Assistance to Financial Institutions and Commercial & Industrial Enterprise in the US Great Depression, 1932 – 1937." In *Resolution of Financial Distress*, Stijn Claessens, Simeon Djankov, and Ashoka Mody, eds. Washington: World Bank Press, 2001, pp. 167-204.

"Demographics and Personal Bankruptcies." *Research in Banking and Finance*, November 2000 (1:1), pp. 229-257.

"Contagion and Bank Failures during the Great Depression: The Chicago Banking Panic of June 1932," (with Charles Calomiris). *American Economic Review*, December 1997 (87:5), pp. 863-884. This paper is a revised version of NBER Working Paper no. 4934, November 1994.

OTHER PUBLICATIONS:

"Causes of U.S. Bank Distress during the Great Depression," (with Charles Calomiris). *Financial Crises: The International Library of Critical Writings in Economics*. Franklin Allen, ed. London: Edward Elgar Publishers 2007 (forthcoming).

"Credit Card Securitization, Recourse, and Regulatory Arbitrage," (with Eric Higgins and Charles Calomiris). *Bank Structure and Competition Conference Proceedings*. Chicago: Federal Reserve Bank of Chicago, May 2003, pp. 471-492.

"A Real Options Approach to Bankruptcy Costs: Evidence from Failed Commercial Banks during the 1990s." *Bank Structure and Competition Conference Proceedings*. Chicago: Federal Reserve Bank of Chicago, May 2002, pp. 108-128

"Causes of U.S. Bank Distress during the Great Depression," (with Charles Calomiris). *Bank Structure and Competition Conference Proceedings*. Chicago: Federal Reserve Bank of Chicago, May 2001, pp. 530-554.

"Contagion and Bank Failures during the Great Depression: The Chicago Banking Panic of June 1932," (with Charles Calomiris). In *The Regulation and Supervision of Banks*. Maximilian J. B. Hall, ed. London: Edward Elgar Publishers 2000.

"The Speed of Bank Liquidation and the Propagation of the U.S. Great Depression," (with Ali Anari and James Kolari). *Bank Structure and Competition Conference Proceedings*. Chicago: Federal Reserve Bank of Chicago, May 2000, pp. 320-345.

High-LTV Lending: Problem or Cure? (with Charles Calomiris). Washington: American Enterprise Institute, 1998. Also excerpted in *Journal of Lending & Credit Risk Management*, September 1998, pp. 39-43.

"Contagion and Bank Failures during the Great Depression: The Chicago Banking Panic of June 1932," (with Charles Calomiris). *Bank Structure and Competition Conference Proceedings*. Chicago: Federal Reserve Bank of Chicago, May 1995, pp. 110-122.

WORKING PAPERS AND WORK IN PROGRESS:

Economic and Financial Distress:

"How Much of a Haircut? Options-Based Structural Modeling of Defaulted Bond Recovery Rates," (with Robert Cangemi and Michael Pagano). Wharton Financial Institutions Center Working Paper #06-18, August 2006.

"Real and Financial Effects of Bank Failures in the Great Depression," (with Charles Calomiris).

"Rational Divestiture in Real Options-based Liquidation Cycles: Evidence from Failed Bank Assets in the Great Depression," (with Charles Calomiris).

"Bank Panics and Liquidation Cycles," (with Scott Redenius).

Asset-Backed Securities

"Mortgage Loan Modification: Promises and Pitfalls," Criterion Economics Working Paper, September 2007.

"Where Did the Risk Go? How Misapplied Bond Ratings Cause Mortgage Backed Securities and Collateralized Debt Obligation Market Disruptions," (with Joshua Rosner). Hudson Institute Working Paper, May 3, 2007.

"How Resilient Are Mortgage Backed Securities to Collateralized Debt Obligation Market Disruptions?" (with Joshua Rosner). Hudson Institute Working Paper, February 15, 2007.

"Deriving Credit Portfolio Correlation Properties from Large Asset-backed Security Pools," (with Eric Higgins). Drexel University Working Paper, February 2006.

"The Frequency and Severity of Ratings Changes in Retail ABS," (with Eric Higgins).

Profit and Cost Efficiency

"Is Bank Efficiency Cyclical? The Relationship between Economic and Financial Market Conditions and Bank Performance." (with Yi-Kai Chen and Eric Higgins) Drexel University Working Paper, January 2005.

"Economies of Scale in the Banking Industry: The Effects of Loan Specialization." (with Yi-Kai Chen and Eric Higgins) Drexel University Working Paper, December 2004.

Other Topics

"Resolving the Puzzle of the Underissuance of National Bank Notes." (with Charles Calomiris). Federal Reserve Bank of Philadelphia Working Paper #05-19. Previously NBER Working Paper 10951, December 2004. (Submitted to Journal of Money, Credit, and Banking April 2006).

"Reserve Supply and Demand in the National Banking Era," (with Charles Calomiris and David Wheelock).

"Corporate Governance in Failed Banks," (with David Becher).

"Disparate Impact in Mortgage Prepayment Rates: Evidence from FHA Mortgage Data," (with Charles Calomiris).

BOOK REVIEWS:

Review of "International Financial History in the Twentieth Century: System and Anarchy," by Marc Flandreau, Carl-Ludwig Holtfrerich, and Harold James, eds. EH.net. February 2004.

Review of "Capital Flows and Crises," by Barry J. Eichengreen. EH.Net. August 2003.

Review of "The Banking Panics of the Great Depression," by Elmus Wicker. *Economica*, February 1998.

Review of "Reform of the Federal Reserve System in the Early 1930s: the politics of money and banking," by Sue C. Patrick. *Journal of Economic History*. September 1994, pp. 724-5.

OTHER PUBLICATIONS:

"Savings Banks." Dictionary of American Economic History, Charles Scribner's & Sons: Boston, 2002.

"American Banks during the Great Depression." Federal Reserve Bank of St. Louis *Review*. May/June 1998.

"The Effects of Branching on Illinois Banks." *Illinois Business Review*. Winter 1994.

"A Guide to Monthly Retail Sales Statistics." *Illinois Business Review*. Fall 1992.

PROFESSIONAL CONFERENCE AND INVITED PRESENTATIONS:

American Finance Association (1996, 1997, 1998, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007)
Financial Management Association (1996, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2007)
Eastern Finance Association (1997, 2002, 2003)

Southern Finance Association (1998, 2003, 2005)

Federal Reserve System Conference, New Orleans, LA, Federal Reserve Bank of Atlanta (2008)
Credit Magazine "Credit Interactive" Conference, London (Keynote Speaker and Panelist) (2007)
Federal Reserve Bank of New York Central Bankers' Seminar (2007)
George Mason University Conference on Subprime Lending and its Aftermath (2007)
Risk Magazine "Risk Interactive" Conference, New York (2007)
Conde Nast Investors Breakfast, New York, (2007)
The Deal Magazine-Risk and Financial Markets Conference, New York, (2007)
Bond Club of Philadelphia (Keynote Speaker) (2007)
George Washington University Credit Research Center Conference on Subprime Lending (2007)
Financial Markets Conference, Sea Isle, GA, Federal Reserve Bank of Atlanta (2007)
Financial Development Conference, Federal Reserve Bank of Atlanta (2006)
XE Capital First Annual Investors' Conference (Keynote Speaker), London (2006)
Economics of Payments II Conference, Federal Reserve Bank of New York (2006)
Origins of Financial Markets Conference, University of Illinois, U-C (2006)
Bank Relationships, Credit Extension, and the Macroeconomy, (Conference organized by the German Institute for Economic Research (DIW Berlin), the Journal of Financial Intermediation (JFI), and the Federal Reserve Bank of Philadelphia), Berlin (2005).
Conference on Bank Structure and Competition, Federal Reserve Bank of Chicago (1995, 2000, 2001, 2002, 2003)
Conference on Retail Credit Risk Measurement and Management, Federal Reserve Bank of Philadelphia (2003)
Harvard Law School Colloquium on Risk Based Capital (2002)
Wharton Financial Institutions Center Conference on Credit Risk Modeling and Decisioning (2002)
NBER Summer Institute (1995, 2000)
NBER East Asian Seminar on Economics (2001)
Cliometrics Society Annual Conference (1995, 2002)
Economic History Association (1999, 2000, 2001, 2006)
Annual Policy Conference, Federal Reserve Bank of St. Louis (1997)
High-LTV Mortgage Lending, American Enterprise Institute, Washington, DC (1998)
Special Risks Facing Credit Card Banks, American Enterprise Institute, Washington, DC (1998)

University of California-Berkeley (2000)
University of California-Irvine (2004)
Columbia University (1997)
University of Delaware (2000, 2003)
Drexel University (1998)
Federal Deposit Insurance Corporation (1997, 2004, 2005, 2006)
Federal Reserve Bank of Atlanta (2006)
Federal Reserve Bank of Chicago (1995)
Federal Reserve Bank of New York (2004)
Federal Reserve Bank of Philadelphia (2002)
Federal Reserve Bank of St. Louis (1995)
University of Illinois at U-C (2000, 1995)
Indiana University (1995)
Louisiana State University (2007)
North Carolina State University (1997)
Office of the Comptroller of the Currency (2000, 1998, 1995)
Rutgers University (2007, 2000, 1997)
Suffolk University (1998)
SUNY Binghamton (2005)
Temple University (2003)
Texas Christian University (2003)
Villanova University (2003, 2004, 2005)
World Bank Group (2000)

UNIVERSITY SERVICE ACTIVITIES:

LeBow College of Business, Curriculum Committee.

Department Representative, LeBow College of Business Undergraduate Assessment Committee.

Chair, LeBow College of Business Committee on Financial Engineering Program Development and Implementation.

Department Representative, Writing Intensive Curriculum Implementation Pilot Group.

Department Representative, Doctoral Curriculum Task Force.

PROFESSIONAL AND COMMUNITY SERVICE ACTIVITIES:

Refereed for *Journal of Finance; Financial Management; American Economic Review, Quarterly Journal of Economics; Journal of Money, Credit, and Banking; Journal of Banking and Finance; Journal of Financial Services Research; Journal of Economics and Business; Journal of International Money and Finance; The Financial Review; Economic Inquiry; Journal of Economic History; Explorations in Economic History;* Cambridge University Press; Kluwer Academic Publishers; Ohio State University Press, and the National Science Foundation.

Testified before the House Financial Services Committee and the Federal Reserve Board and advised the Government Accountability Office (GAO), Federal Deposit Insurance Corporation, Federal Reserve Bank of Philadelphia, Federal Reserve Bank of Richmond, and Public Company Accounting Oversight Board (PCAOB) on structured finance.

Taught securitization seminar for officers and executives at Federal Reserve Bank of Philadelphia, Summer 2002.

Conference Organization: Conference on Retail Loan Securitization. Federal Reserve Bank of Philadelphia (December 2003).

Conference Organization: Program Committee Member for Financial Management Association Annual Meeting (Denver, CO, 2003; New Orleans, LA, 2004; Chicago, IL, 2005); Southern Finance Association Annual Meeting (Orlando 2002, Columbia, SC, 2003); Eastern Finance Association Annual Meeting (Norfolk, VA, 2005).

Conference Organization: Local Arrangements Committee: Economic History Association Annual Conference (Philadelphia, 2001).

Conference Organization: Panel Member, Financial Management Association Best Paper in Financial Services Award (Orlando, FL, 1999).

Conference Organization: *High-LTV Lending: Problem or Cure?* American Enterprise Institute (Washington, DC, Fall 1998).

Conference Organization: *Special Risks Facing Credit Card Banks*, American Enterprise Institute (Washington, DC, December 5, 1997).

Conference Organization: Financial Institutions Assistant Program Track Chair. *Eastern Finance Association* Annual Meeting (Panama City Beach, FL, 1997).

Regulatory Liaison: *Bankers' Roundtable Working Group on Deposit Insurance Reform.* Produced "Deposit Insurance Reform: In the Public Interest," released May 1997.

COURSES TAUGHT AND EVALUATION SCORES:

PhD (average evaluation 3.84/4)	MBA (average evaluation 3.13/4)	Undergraduate (average evaluation 3.20/4)
• Financial Intermediation	• Derivatives	• Financial Markets and Institutions
• Research Methods	• Risk Management	
	• Financial Management	
	• Financial Markets and	

Institutions
- Financial Institutions
Management

PH.D. STUDENT SUPERVISION:

Lin Tan. *Empirical Analysis of Chinese Stock Market Behavior: Evidence from Dynamic Correlations, Herding Behavior, and Speed of Adjustment.* (2005: University of Central Florida).

Vidya Nayak. *Web-based Relational Database Mining for Financial Data.* (2004: Federal Reserve Bank of Philadelphia).

Neelam Paharia. *Spatial – Temporal Aggregation in Finance.* (2002: Progressive Insurance – Pricing Applications Research).

De Wai Chow. *Three Essays on Going-Private Transactions.* (2001: National Chung Cheng University, Taiwan).

Chen, Yi-Kai. *Three Essays on X-Efficiency Distribution among U.S. Commercial Banks.* (2001: Emporia State University, KS).

CONSULTING ACTIVITY:

I have consulted and advised many government agencies, research institutions, and corporations, including The Conference Board, Inc., Coventry First, Deloitte, Fannie Mae, the Federal Deposit Insurance Corporation, the Federal Reserve Bank of Philadelphia, FirstPlus Financial (in conjunction with Bear Stearns, Merrill Lynch, and Deutsche Bank), The Group of Thirty, Pricewaterhouse-Coopers, Wachovia, The World Bank Group, and XE Capital Management LLC.

In litigation, I have acted as testifying or non-testifying expert for firms such as Allstate Insurance, AMBASE Corporation/Carteret Federal Savings Bank, Ameriquest Mortgage, Equities First Holding, LLC, Fannie Mae, GMAC Commercial Mortgage, Superior Federal Savings Bank, World Financial Network National Bank.

In regulatory matters, I have testified before the House Financial Services Committee and the Federal Reserve Board and advised the Government Accountability Office (GAO), Federal Deposit Insurance Corporation (FDIC), Federal Reserve Bank of Philadelphia, Federal Reserve Bank of Richmond, and Public Company Accounting Oversight Board (PCAOB) on structured finance.

My consulting has involved issues ranging from mortgage, home equity loan, home equity line of credit, auto, and credit card servicing, and securitization, to discrimination and disparate impact in consumer lending and insurance pricing, valuing distressed securities, the investor recoveries and efficient liquidations of bankrupt firms, and economic valuations of complex investment and lending arrangements involving asset-backed securities, collateralized debt obligations, and hedge funds.

My research has received over 100 national and international press citations in publications such as the *Wall Street Journal, New York Times, Washington Times, the Economist, Financial Times, LA Times, San Francisco Chronicle, Toronto Globe & Mail, Barrons, Business Week, die Zeit, Neue Zürcher Zeitung am Sonntag, Financial Times-Germany, MIST News, Business Week, Forbes, Fortune, Portfolio Magazine, Bloomberg Magazine, Credit Magazine, American Banker*, BNA's *Banking News, Investment Dealers' Digest, Inman News, Grant's Interest Rate Observer, Realty Times*, and the *Philadelphia Business Review*, and syndicated on *Associated Press, Reuters, Bloomberg, KnightRidder Syndicate, MarketWatch-Dow Jones Newswire, and NBC Nightly News*..

I have made numerous live and taped appearances on *CNBC, CNBC Asia, Bloomberg Television,* Comcast *CN8 News, NPR, Bloomberg Radio, NBC Radio,* WBBM Radio Chicago, *KYW NewsRadio Philadelphia,* and WWDB Talk Radio Philadelphia. I have a weekly Economic Commentary on KYW NewsRadio, Philadelphia.

REFERENCES:

Charles W. Calomiris, Paul M. Montrone Professor of Private Enterprise, Department of Finance, Graduate School of Business, Columbia University, 10027, (212) 854-8748.

Mark J. Flannery, BankAmerica Eminent Scholar, Finance, Insurance, and Real Estate Department, Warrington College of Business, University of Florida, 32611, (352) 392-3184.

Edward J. Kane, Cleary Professor of Finance, Finance Department, Wallace E. Carroll School of Management, Boston College, Chestnut Hill, MA 02647, (617) 552-3986.

MILLER MATHIS

675 THIRD AVENUE
NEW YORK, NY 10017
TEL: 212-867-4750

Finding a Way Out of the Rating Agency Morass

By Julia M. Whitehead and H. Sean Mathis
Miller Mathis & Co., LLC

PREPARED STATEMENT
submitted to
THE SUBCOMMITTEE ON CAPITAL MARKETS, INSURANCE, AND GOVERNMENT SPONSORED ENTERPRISES OF THE HOUSE COMMITTEE ON FINANCIAL SERVICES
regarding
THE ROLE OF CREDIT RATING AGENCIES IN THE STRUCTURED FINANCE MARKET
September 27, 2007

As the problems spewing out of the subprime meltdown seem to consume broader and deeper swathes of our financial markets daily, the blame game is progressing in earnest. The rating agencies are natural targets, having waved their magic wands over tranches and tranches of ugly subprime loans, turning them into shiny investment grade paper vacuumed up by yield-hungry fiduciaries. Now that midnight has passed, those awful loans are showing their natural forms to the chagrin of unhappy investors who fell under the rating agency spell.

No question, the improvident application of investment grade ratings to questionable securities appears to be producing some fairly severe repercussions – the perhaps one to two hundred billion in potential losses in subprime loans; the markdowns from hedge funds who can't trade out of their securities except at huge losses; the outflows experienced by money market and mutual funds who, tinged with the subprime tar, are scurrying to meet the redemption demands of nervous investors. The real pain, however, will result from the longer term impact of credit markets that failed to function properly – from housing markets working off the overhang of illusory price appreciation engendered by poorly conceived subprime loans, to pension funds taking writedowns on securities they thought were as good as gold, and finally to lingering questions about the integrity of just about anything with a credit rating stamped on it. And if a lasting credit seize up in the bedrock commercial paper and repo markets brings down a major financial institution or two, subprime and the rating agencies will be tagged as bigger financial villains than tulips, junk bonds or dotcoms.

That would be wrong. First, subprime is not the source of all evil; it is merely the first eruption of a disease which has been growing in structured finance for some time. Second, while the rating agencies were instrumental in inflating the subprime bubble, and they will certainly be fighting challenges on the propriety of their actions for years to come, the primary culprit is a slapped together regulatory matrix that gave the raters virtually unchecked power to designate what securities were deemed safe enough for the portfolios of our most important financial

institutions -- without accompanying responsibility or accountability and with only a mere whisper of supervision.

That the rating agencies fall a little short as protectors of our capital base was evident before now. Unfortunately, the seeming one-off nature of previous blow-ups resulted in only minor fixes, leaving the rating agencies generally free to do what they're paid to do – issue ratings. This time though, the blow-up is not confined to one company or security, but to the entire asset class of structured finance. Thanks to the prestidigitations of financial engineering, rating agencies facilitated the production of structured finance securities and vehicles at a fantastical rate under the now clearly mistaken, and commonly held, assumption that they could all be treated for rating purposes just like corporate bonds.

Once again, members of Congress will be scrutinizing the rating agency system; in light of the revelations of recent events, they must act to finally fix it.

The History of the Rating Agency System

The first credit ratings were probably those provided to colonial importers who needed some way to know which of the many shopkeepers and retail establishments who bought their goods were actually worthy of credit. By the late 1800s, entrepreneurial businessmen were applying the same rating concepts to the just developing US stock and bond markets. John Moody was the first to reduce ratings to simple, uniform metrics, greatly facilitating their ease of use. His company was soon joined by others including Standard Statistics Company, Poor's Publishing Company (the latter two ultimately merging to become Standard & Poor's) and Fitch Publishing Company[1].

The usefulness of ratings did not go unnoticed by regulators. Early on, the Federal Reserve Banks used ratings to help them evaluate the quality of bank investment portfolios. In 1931, the Comptroller of the Currency made the bold move of ruling that bonds held by national banks which were rated BBB or higher could be held on bank books at cost while those rated lower would have to be held net of some discount. Five years later, the Comptroller went even further, banning the purchase of bonds with less than a BBB rating – a move which shocked the subject banks. The ruling certainly added value to ratings provided by the numerous service providers, but after a period of growth following those pronouncements, rating agency performance appeared to be modest at best over the next few decades.[2]

In 1975, the Securities and Exchange Commission dramatically changed the fortunes of a few select rating agencies. Responding to the losses suffered as a result of the Penn Central Railroad bond default[3], the SEC adopted Rule 15c3-1 under the Securities Exchange Act of 1934 in an effort to ensure that broker-dealers were adequately capitalized. Under the so-called net capital

[1] Frank Partnoy, "The Siskel And Ebert Of Financial Markets?: Two Thumbs Down For The Credit Rating Agencies," Washington University Law Quarterly, vol. 77, no. 3, 1999, pp. 636-639.
[2] Ibid., pp. 647-648, 687-690.
[3] "Financial Oversight of Enron: The SEC and Private-Sector Watchdogs" Report of the Staff to the Senate Committee on Governmental Affairs, October 8, 2002.

rule, the SEC required broker-dealers to maintain a certain amount of "net" capital which would be computed by deducting from their net worth certain percentages of the market value of debt securities, with such "haircuts" to be a function of how risky or illiquid those securities were perceived to be. Out of convenience, as much as anything else, the SEC delegated the job of risk categorization to certain prominent rating agencies (S&P, Moody's and Fitch) which it designated as "Nationally Recognized Statistical Rating Organizations", or "NRSROs", effectively establishing those fortunate few as the gatekeepers to the investment grade bond-buying audience.

It is notable that, in coming up with the NRSRO system, the SEC held that it was appropriate to apply lower haircuts to securities "that were rated investment grade by a credit rating agency of national repute, ***because those securities typically were more liquid and less volatile in price than securities that were not so highly rated"***(emphasis added).[4] The fact that the SEC clearly equated the term "investment grade" with liquidity was never memorialized in legislation, process or definition. The failure to do so allowed the NRSROs to apply the investment grade label at will – even to the highly illiquid structured finance securities responsible for many of the problems we suffer today.

Rating Agency Regulation and Oversight

With that 1975 stroke of a brush pen, the ratings issued by those first NRSROs became immediately more valuable than those issued by undesignated competitors. Since, in addition to forgoing any definition as to what it expected of an investment grade security, the SEC also took a pass on characterizing what an NRSRO was – or even a process for how they should be run or supervised – the few agencies blessed with the NRSRO designation effectively received a huge, costless windfall. The only substantive regulatory overlay was the no action letter process, through which the SEC could let the world know that it believed a particular rating agency was qualified to be an NRSRO -- which primarily meant that a rating agency was big enough to be "nationally recognized". As many observers have since pointed out, the need to be nationally recognized to become "nationally recognized" creates a bit of a catch-22 for aspirants to NRSRO status.

Since 1975, the SEC has effectively acted as the guardian of the NRSRO system, although its authority was ill-defined at best. The few actions taken by the SEC in respect of rating agencies only served to entrench the already privileged status of the existing NRSROs. First, the SEC exempted NRSROs from Regulation F-D, thereby giving them the right to receive confidential, non-public information from issuers without that information being subject to public disclosure. While this exemption was necessary to allow the rating agencies' access to information deemed important to the fulfillment of their credit assessment function, it also made their ratings more valuable, because of the non-public information presumably embodied in them. Second, under Rule 436 of the Securities Act, the SEC shielded "NRSROs from liability under Section 11 of

[4] SEC Report on the Role and Function of Credit Rating Agencies in the Operation of Securities Markets, January 2003.

the Securities Act in connection with a securities offering . . . <which> means that NRSROs are not even held to a negligence standard of care for their work".[5,6] Again, while the SEC had reason to enact this exemption, it left the NRSROs, for all intents and purposes, responsible to no one.

Notwithstanding the rather cavalier way the NRSRO system was constructed, and the complete failure to temper the grant of what turned out to be a very powerful franchise with some appropriate level of accountability, a swarm of other regulators followed the SEC's lead in delegating risk classification to the NRSROs. Over the next three decades, reliance on NRSROs was a common theme in the design of investment rules across all levels of the financial markets. By 2003, the SEC noted that NRSRO ratings had become "widely used for distinguishing among grades of creditworthiness in federal and state regulations"[7] including in various SEC regulations issued under the 1933 Act, the Exchange Act, the Investment Company Act of 1940 (including Rule 2a-7 which pertains to money market funds), the Federal Deposit Insurance Act, various state insurance codes which rely on NRSRO ratings to determine the appropriateness of investments held in insurance company portfolios, a plethora of guidelines applying to public and private pension funds, and even internationally, most recently in the Basel II guidelines which are to be implemented over the next few years to regulate international bank capital.

Warning Signs

The history of NRSROs has not been without its share of unhappy surprises including Washington Public Power Supply System, the bankruptcy of Orange County and, more recently, Enron.

After all three major NRSROs failed to downgrade Enron until the eve of its collapse, a specific provision of the Sarbanes-Oxley Act of 2002 required the SEC to investigate rating agency performance. In the ensuing report issued in January, 2003, SEC staffers concluded that "the credit rating agencies displayed a disappointing lack of diligence in their coverage and assessment . . . ***because the credit rating agencies are subject to little formal regulation or oversight, and their liability traditionally has been limited by regulatory exemptions and First Amendment protections, there is little to hold them accountable for future poor performance***" (emphasis added).[8] Further, "the credit rating agencies' approach to Enron fell short of what the public had a right to expect, having placed its trust in these firms to assess corporate creditworthiness for the purposes of federal and state standards. ***It is difficult not to wonder***

[5] "Financial Oversight of Enron: The SEC and Private-Sector Watchdogs."
[6] NRSROs have also argued that their ratings are merely "opinions" and, as such, are subject to the same First Amendment protections for free speech afforded other publishers.
[7] SEC Report on the Role and Function of Credit Rating Agencies in the Operation of Securities Markets, January 2003.
[8] "Report On The Role And Function Of Credit Rating Agencies In The Operation Of The Securities Markets As Required by Section 702(b) of the Sarbanes-Oxley Act of 2002, Executive Summary," January 2003.

whether lack of accountability – the agencies' practical immunity to lawsuits and non-existent regulatory oversight – is a major problem" (emphasis added).[9]

Numerous Congressional committees have also held hearings in the last few years, ostensibly to address concerns regarding the lack of oversight in connection with NRSRO activities, the reliability of ratings, the potential conflict of interest created by a business model which depends on compensation from those being rated and a general concern that the existing NRSROs effectively comprise a government-granted oligarchy. After years of deliberations and committee meetings and hearings, Congress finally produced the Credit Rating Agency Reform Act of 2006, described by one observer as possibly "a high-water mark of a particular type of hands-off regulatory model".[10] Despite a consistent stream of criticisms that the rating agencies lacked independence, reliability and accountability, the final Act focused almost solely on addressing the barriers to entry perceived to exist for rating agencies seeking to achieve NRSRO recognition.[11]

From the viewpoint of the current NRSROs, the mild new requirements imposed by the Act for recordkeeping and reporting are a small price to pay for the benefits the Act is giving them. As Moody's itself pointed out, the Act "contains important new protections for the industry" (that would be the "NRSRO" industry) including the preservation of existing legal protections for the publication of their credit "opinions"[12], prohibiting the SEC from "regulating the substance of ratings" and directing the SEC to "narrowly tailor" its rules.[13,14] Thanks to the Act, it appears to be business as usual for the NRSROs.

NRSRO Profits and the Age of Structured Finance

As the reliance on NRSROs became increasingly hardwired into the regulation and supervision of our financial and investment markets, the profitability of the so-designated NRSROs[15] grew

---

[9] Ibid.

[10] Oxford Analytica, "Credit Crisis Hurts Rating Agencies", Forbes.com, August 14, 2007.

[11] Even the Act's ability to increase competition may be limited. John Dizard writes in the Financial Times ("Reform unlikely to dent rating agencies' armour", April 16, 2007) that the rules "say, yes, we will consider letting you compete with Moody's and S&P. But you must replicate their entire structure, balance sheet, and staffing. You must have this in place, without being recognized by us, for at least three years, all the while somehow charging for this un-"recognized" service."

[12] "Opinions" is the operative word; characterizing a rating as an opinion is integral to the rating agencies' reliance on protection from prosecution under the First Amendment.

[13] Moody's Corporation, "2007 Investor Day Presentation," June 5, 2007.

[14] Moody's recently cited the Credit Agency Reform Act of 2006, and the limitations it imposes on state-level regulation, to defend itself in a lawsuit by Lloyds TSB Bank PLC which seeks recompense from Moody's for alleged flaws in ratings it issued on Natural Century Financial Services, prior to that firm's spectacular 2002 blow-up (see "1st Amendment Bars Ratings-Based Claims: Moody's", Marc Tracy, Securities Law 360, September 7, 2007).

[15] While other rating agencies including Duff & Phelps, Thomson BankWatch, McCarthy Crisanti & Maffei, Inc. and IBCA Ltd. also at one time received NRSRO designation via no action letters, all were ultimately purchased by one of the big three, leaving those to dominate the ratings business just as they had prior to the creation of the NRSRO concept. Today, AM Best, DBRS, Japan Credit Rating Agency, Ltd. and Rating and Investment

apace. Fortuitously, just prior to the 1975 imposition of the Net Capital Rule, the bigger rating agencies had changed their business models. While formerly they generated revenues from ratings users, under the new model, they were paid by the issuers who were seeking the ratings.[16] Of course, the value imparted to ratings by the Net Capital Rule and the others which followed did wonders to generate issuer demand for an NRSRO ratings stamp. Today, those rating agencies blessed with NRSRO status are among the most profitable companies in America. Moody's, for example, the only one of the big three which is a standalone public company[17], is a veritable cash machine, consistently delivering 50% operating margins. For the past five years, its pretax margins have made it the third most profitable company in the S&P 500[18].

If the NRSRO label was a moneymaker before, the development of structured finance vehicles made it a goldmine. Public filings by Moody's indicate just how lucrative the NRSRO business has become now that financial engineering has entered the picture. Since 2000, Moody's revenues have more than tripled, with the most important source of growth coming from its ratings in structured finance. In 1995, Moody's structured finance business was responsible for a mere $50MM in revenues. By 2006, however, its structured finance revenues had soared to $848MM, accounting for 54% of Moody's ratings revenues with the biggest contributions to those structured finance revenues provided by residential mortgage backed securities and credit derivatives including Collateralized Debt and Collateralized Loan Obligations (CDOs and CLOS, respectively)[19].

The structured finance business[20] is more than just a terrific revenue generator, it is likely the rating agencies' most profitable business line. Rating agencies charge nearly three times as much for structured finance ratings as they do for corporate bond work[21], and while the work may be harder given the complexity of the structured finance models and the greater rating agency involvement as compared to corporate bond work, some of those extra fees clearly drop

---

Information, Inc. are also recognized as NRSROs, however, according to Moody's, it, S&P and Fitch are responsible for 95% of global ratings with shares of 39%, 40% and 16% respectively.

[16] The change may have been motivated by a desire to get away from the free rider problem whereby a lot of users simply cribbed the ratings information from someone else. Partnoy, p. 653.

[17] Fitch Ratings is owned by Fimalac, S.A. and S&P is a unit of McGraw-Hill Companies.

[18] Jesse Eisinger, "Overrated," Portfolio.com, September 2007.

[19] Moody's Corporation, "Investor Day Presentation," June 5, 2007.

[20] In its simplest terms, structured finance is the pooling of assets and the subsequent sale of tranched claims on the cash flows generated by the assets. Thus, a structured finance vehicle can be a simple mortgage-backed structure where the interest and principal payments from a pool of mortgages are used to satisfy the obligation of various layers of debt used to purchase the pooled assets. The least risky layer of debt, which might be AAA-rated, would essentially have the first claim on the cash flows. The lowest layer of the structure, which might be an equity layer, would, conversely, be the first to absorb losses in excess of any structural protections built into the vehicle. If losses from a pool exceeded the amount of the equity layer, than the lowest debt level would absorb additional losses until that layer was used up and so on up the capital structure. Pools can also be constructed from "layers" or debt sold on other pools; a CDO of CDOs, or CDO^2 is comprised of rated and unrated securities issued by other CDOs.

[21] Moody's, for example, stated in an August 2007 Investor Presentation, that it charges 4.25 basis points (a basis point is $1/100^{th}$ of a percent) for rating corporate and financial institutions but up to 11 basis points for complex structured finance issues. S&P charges up to 12 basis points for a CDO issue vs. 4.25 basis points for a corporate bond rating ("The Ratings Charade, Richard Tomlinson and David Evans, Bloomberg Markets, July 2007).

to the bottom line. In Moody's case, operating margins have increased from 48% in 2000 to 54% in 2006[22] and it is more than likely that the growth of structured finance is core to the margin improvement.

The profitability of structured finance goes to the heart of concerns about the coziness of the agencies' relationship with issuers. The raters don't get paid if they don't issue a rating, so much as they like to say that fact presents only a "potential" conflict of interest, it is undeniable that they have an enormous amount of self-interest vested in keeping the structured finance machine going.

And that machine could not go without the raters. Moody's has presented a chart which overlays the growth in its structured finance rating revenues on the growth in structured finance issuance. From 1997 to 2000, structured finance issues were around $500 billion a year. In 2001, the growth curve took off and never looked back, jumping to over $900 billion that year and growing from 2002 to the present day at a compound growth rate of nearly 30% annually. This year global structured finance issuance is expected to reach $3.3 trillion[23]. The growth rate of Moody's structured finance revenues has not only matched that of the issuances, it actually exceeded it.

The relationship is not surprising. As the Bank for International Settlements points out, "From the beginning, structured finance has largely been a "rated" market"[24]. It relies on the modeling of cash flows from pools of assets, which could be anything from residential home loans to slices of debt issued by other structured finance vehicles to hodgepodges of financial assets and derivatives. A critical aspect of the modeling process is determining how and whether the cash flows generated by the pooled assets can service the tranched claims on those cash flows[25] (the tranches generally consisting of layers of rated debt with an equity cushion on the bottom) and what level of credit enhancement (insurance, over-collateralization, a bigger equity cushion, for instance) might be needed to make sure the rated tranches really pay off as they're supposed to. It is the credit enhancement, along with the supposed diversification of assets (which presumes they won't all default at the same time), that allow structured finance vehicles to turn a collection of assets that individually would be considered very risky into 90% AAA securities.

---

[22]Moody's Corporation, "2007 Investor Day Presentation," June 5, 2007.

[23]Moody's Corporation, "2007 Investor Day Presentation," June 5, 2007 and "Investor Presentation," August 2007.

[24] Report submitted by a Working Group established by the Committee on the Global Financial System, "The role of ratings in structured finance: issues and implications," Bank for International Settlements, January 2005.

[25]Ibid. "A key goal of the tranching process is to create at least one class of securities whose rating is higher than the average rating of the underlying collateral asset pool or to create rated securities from a pool of unrated assets. This is accomplished through the use of credit support specified within the transaction structure to create securities with different risk-return profiles. The equity/first-loss tranche absorbs initial losses, followed by mezzanine tranches which absorb some additional losses, again followed by more senior tranches. Thus, due to the credit support resulting from tranching, the most senior claims are expected to be insulated - except in particularly adverse circumstances - from default risk of the underlying asset pool through the absorption of losses by the more junior claims."

Now, in the absence of ratings, an investor interested in buying one of those tranched claims, say a senior piece of a mortgage-backed security comprised of subprime loans, would have to be able to analyze all the details of the individual assets (some of these structures have thousands and thousands of assets), the potential cash flows from each of those assets under all sorts of different scenarios (say 10,000 or so), and the possible correlation of each asset with all the other assets in the pool under all those scenarios. But that information is simply not available to outside investors, certainly not in the same way that information on a public issuer of a corporate bond is. Even if it was, few investors possess the modeling expertise to be able to use such information to make an investment decision.

A variant on this tranching proved to be a major catalyst of the growth of the structured finance market, and that was the use of CDOs specifically designed to hold lower rated or unrated tranches[26]. Once the NRSROs attached investment grade ratings to the bulk of a structured finance vehicle's securities, those issues were relatively easy to place, particularly as they tended to have a higher yield than comparable corporate bonds. The lower grade or mezzanine debt issues and equity layers were more problematic. In a stroke of financial engineering genius, structurers devised the concept of creating CDOs to hold all those issues that couldn't be sold otherwise. Through model magic, a bunch of low-rated securities could be bound together with a little credit enhancement and, again, mostly funded with AAA debt. A problem with placing the equity of that CDO? No problem. That's what CDO^2s are for[27].

Of course none of this would have worked, except perhaps on a very limited scale, without the full-hearted involvement of the NRSROs. The opacity of structured finance vehicles makes the rating agencies' imprimateur absolutely essential to the placement effort. Without that rating metric there would be many fewer investors willing or able to take on the risk of a structured finance black box. With the ratings, however, particularly the investment grade ones which cloak the majority of all the structured finance securities sold, all doors were opened.

The Subprimal Urge

For a number of years, structured finance seemed to be the fair-haired child of the perfect marriage between the rating agencies and Wall Street. The speed with which vehicles could be created and sold encouraged a steady stream of innovation and more and newer kinds of products were originated to meet the appetite of investors desperate for a little extra yield on their investment grade instruments.[28] The fact that many of these products had never existed before (credit default swaps, for example) or that the models were for the most part completely unvetted

[26] CDO, or collateralized debt obligation is a generic term for a structured finance vehicle that holds some form of debt security. Included in this category are CLOs (collateralized loan obligations), CBOs which hold corporate bonds and ABS CDOs which hold a variety of asset-backed paper.

[27] A CDO^2 is a CDO which holds tranches of other CDOs; it is essentially a repackaging of other CDOs. "Synthetic" CDO^2s do not hold the actual CDO tranches; rather they are comprised of derivatives, generally credit default swaps, which reference other CDOs or asset-backed securities.

[28] "In the early 1990s, there were fewer than twenty asset types securitized, but today the number exceeds two hundred." Moody's Corporation, "2006 Annual Report," p. 19.

and unseasoned raised concerns among a few veterans of the finance world, but for all intents and purposes the structured finance engine was set on full throttle. With the housing market one of the biggest generators of financial paper, it was only a matter of time before financial engineers set their sights on the subprime market.

Home mortgages had been securitized successfully for many years under the auspices of Fannie Mae and Freddie Mac (Government Sponsored Enterprises or "GSEs"). What made those securitizations work was the fact that originators had to make sure that both borrowers and loans satisfied a laundry list of GSE requirements. That "conformation" process ensured that the resulting pools of loans were relatively homogenous and, with years of experience demonstrating the behavior of these loans, quite susceptible to predictable modeling.

Subprime was something else again. Not only was there no standard by which subprime loans were measured, but, in addition, the subprime loans that were originated in the last few years were of a completely different complexion than anything that had ever existed before. Not that any of that was of concern to the securitization market; it seemed that no matter how crazy these loans got, the rating agencies and issuers could find a model and a structure that would tolerate them. The optimism with which these loans were viewed knew no bounds and, by 2006, subprime loans which were barely a blip on the screen a few years earlier accounted for 20% of all mortgage originations (the slightly more upscale but also troublesome Alt-A loans kicking in for another 5%).

Of course, to get there, all those who participated in the securitization process had to take some mighty leaps of faith concerning the quality and future performance of the loans they were moving into the structured finance market. From 2004 on, in the face of rising interest rates and a dwindling pool of prime borrowers, lenders, particularly the private, non-bank originators who were so active in these markets, relaxed their already shaky lending standards to attract enough subprime borrowers to maintain their book of business. According to one source, interest only and 40-year amortization loans, which were not a factor at all in 2001, appeared on the subprime borrower menu and by 2005 and 2006 were present in nearly 1/3 of securitized subprime loans. Silent seconds, which allowed a borrower to buy a house with no money down, accompanied a mere 1% of the 2000 vintage securitized loans; by 2006, they were present in 25% of the cases[29]. As troublesome as these features are on their own, they look even worse when combined with other dubious loan attributes like low doc/no doc, one and two year teaser rates and option arms. This process of systematically weakening a loan until you can make it work for a borrower, academically referred to as "risk layering", is almost certainly responsible for what will ultimately be the horrendous performance of the 2006 vintage subprime securitizations.

It is difficult, if not impossible, to estimate the potential damage from the too rosy forecasts and excessively rapid development of subprime securitizations: 1) There are structural problems with the subprime vehicles themselves, particularly with respect to the potential inability to do

[29] Statistics from Loan Performance and UBS as presented in a Presentation by Thomas Zimmerman, Managing Director, US Securitized Products, UBS, "The US Subprime Market: An Industry in Turmoil," March 2007.

modifications without violating the legal requirements of the structure or triggering the early release of collateral that make it difficult to predict the extent to which various loss mitigation efforts might successfully be employed. 2) There does not appear to be an easy way to capture the full range of securities and derivatives touched by subprime. The rise of synthetic structures which mimic the behavior of other assets, including subprime tranches, has magnified the impact of the pure dollar value of the actual loans securitized, as do bets placed through credit default swaps and other derivative instruments. 3) The dismal performance of the subprime securitizations is causing investors to question whether the same sort of structural and model issues are present in some of the other securitized products which were created just as rapidly over the past five years. The CLO market is clearly suspect, but at this point no structured finance vehicle is getting a bye.

What the Future Must Bring

Congress has asked all the questions that have been sprinkled throughout this document many times. The difficulty of achieving consensus answers, and concerns that any significant action will do more harm than good, always seem to block any real action. But the failure to act in a meaningful fashion allowed the NRSROs to unilaterally decide that trillions of dollars of completely illiquid securities were as safe as GE and Berkshire Hathaway bonds. And the fact that NRSRO activity in the structured finance arena was completely contrary to the SEC's original premise, that investment grade ratings should connote liquidity, seems to have escaped the notice of everyone involved in rating agency reviews over the years.

Now, though, with the full knowledge of the extent to which NRSRO pronouncements guide the investment decisions of so many of our institutions, Congress must define once and for all what investment grade is supposed to mean.

The other questions that should be addressed are not new ones but the current times provide a very different context from which to determine appropriate answers. Among the issues which should be evaluated are:

1) Regulatory oversight and supervision of the NRSROs. Notwithstanding the Credit Rating Agency Reform Act of 2006, the NRSROs are still effectively self-policing. In light of recent events, a review of the entire NRSRO oversight structure should be conducted.
2) Applicability of ratings. The accelerant fueling the growth of this generation of subprime and subprime linked securities was the willingness of the rating agencies to stamp them investment grade allowing them to be injected into the portfolios of yield-starved fiduciaries. It is the unfettered extension of ratings to illiquid, opaque structured-finance securities that is at the heart of our current problems. As a result, Congress must review the use of "NRSRO" ratings for securities or structures which lack liquidity, transparency and seasoning and, as well, the process and authority under which new asset classes are brought into the NRSRO investment grade world.

3) Compensation-driven conflicts of interest. The rating agencies have been paid enormous sums of monies by their structured finance clients, causing outsiders to question the impartiality and objectivity of the ratings.
4) Accountability. Unlike other professionals – accountants, lawyers and the like – the rating agencies have heretofore escaped liability when their ratings "opinions" prove wrong. Given renewed doubts about the objectivity of their performance, particular attention should be given to implementing measures which hold NRSROs accountable for their performance, perhaps in the manner of other professionals who function as "experts".

Finally, if Congress wishes to remedy the defects that contributed to concerns that our financial markets were near meltdown, it must comprehend just how deeply NRSRO influence is entrenched in measures intended to protect capital in financial institutions and fiduciaries both domestic and internationally, including Basel II whose provisions to regulate international bank capital adequacy are being implemented as we speak. We believe past failures to recognize the pervasiveness of NRSRO activity contributed to a reduced sense of urgency on Congress's part. Now is the time for Congress to take a more deliberate stand. We urge Congress to act.

MILLER MATHIS

675 THIRD AVENUE
NEW YORK, NY 10017
TEL: 212-867-4750

CV of H. Sean Mathis

H. Sean Mathis is a Senior Managing Director, and one of the original founders, of Miller Mathis & Co., LLC, an investment banking firm, and was the President of Litchfield Asset Holdings, an investment advisory company he founded in 1983. Mr. Mathis has over 25 years of advisory, principal investing and business/management experience and has testified in numerous cases as an expert witness. The following is a summary of his professional experience:

Recent Expert Testimony / Litigation Support / Fairness Opinions

- *Williams Communications Group (2007):* serving as an expert witness on behalf of counsel for the Williams Communications Group ("WCG") subclass in connection with litigation against certain officers and directors of WCG, a telecommunications company, as well as other parties
- *Bridgeport Holdings (2006):* served as an expert witness on behalf of the liquidating trust in connection with fraudulent conveyance litigation against CDW, an online retailer of computer and software products; the case settled
- *Banc of America Securities (2006):* testified as an expert witness on behalf of Banc of America Securities with respect to high-yield financings in connection with litigation against Evergreen International Aviation, an air cargo company; the case settled
- *Robotic Vision Systems (2005)*: provided an expert report and was deposed with respect to valuation on behalf of the technology company in its Chapter 11 case
- *Bush Industries (2004)*: testified as an expert witness with respect to valuation on behalf of the furniture company in its Chapter 11 case; the Bankruptcy Court cited Mr. Mathis's expert report and testimony positively in its decision and sided with its conclusions
- *Polar Air Cargo (2004)*: testified as an expert witness and provided litigation support on behalf of the Unsecured Creditors' Committee with respect to valuation, DIP financing and other matters; the creditors pursued an aggressive legal strategy and ultimately received a substantial recovery in cash as part of a negotiated settlement
- *NTL Europe (2003)*: provided a fairness opinion to the media and telecommunications company in connection with a going-private transaction
- *Uniroyal Technologies (2003)*: testified as an expert witness as to valuation on behalf of the chemical manufacturing company in its Chapter 11 case

Advisory

- Managing Director and one of the original founders of Miller Mathis & Co., LLC, an investment banking firm, in February 2004; selected recent assignments have included:
    - Restructuring advisory and M&A services for ForstmannLeff, an asset management firm; ForstmannLeff ultimately was sold to Angelo Gordon
    - Financial advisor to the UCC of Polar Air Cargo; provided litigation support and expert testimony which resulted in a substantial recovery in cash for the company's creditors
    - Financial advisor to the Montana Public Service Commission in the Chapter 11 case of Northwestern Corp., an electric and gas utility
    - Strategic advisory services for CMS Energy, the 13th largest utility in the US
- President and original founder of Litchfield Asset Holdings, an investment advisory company, in 1983
- Managing Director of Morgan Joseph (2003-2004) and Financo, Inc. (2002-2003), investment banking firms; selected assignments included:
    - Financial advisor to Horizon Natural Resources, the 4th largest coal company in the US at the time, in its Chapter 11 case
    - Financial advisor to Rouge Steel, the 6th largest steelmaker in the US at the time, in its Chapter 11 case
    - Financial advisor to Uniroyal Technologies in its Chapter 11 case
    - Financial advisor to RFB Cellular in its Chapter 11 case
- Investment Banker with Lehman Bros. in the 1970's, during which time he worked steadily and intensively with banks, shareholders, bondholders, directors and management in turnarounds and workouts; selected transactions included:
    - Restructuring advisory assignments for the REIT industry; for clients such as GAC Corporation, Guardian Mortgage Investors, Citizens and Southern Reality, and Chase Manhattan Realty Investors, Mr. Mathis successfully completed a variety of activities, in and out of Chapter 11 proceedings, including the restructuring of balance sheets, the design and execution of securities offerings, the development of business plans and the creation and execution of asset sales strategies
    - Principal financial advisor to Wheeling-Pittsburgh Steel Corporation in its bankruptcy
    - Reorganized and restructured Service Resources Corporation, which resulted in the company selling a majority of its unprofitable operations and focusing on its core business of facilities management; as a result of the restructuring, Service Resources was able to refinance all of its debt and became known as Ameriscribe

Corporation ("Ameriscribe"), which subsequently had a secondary stock offering and was sold to Pitney-Bowes in November 1993

Principal Investing

- Managing Director of International Financial Group Inc. ("IFG"), a merchant banking firm, from 1987-1990
- During the 1980's, as an investor and as a Managing Director of First City Financial (1980-1984) and Jessup & Lamont (1984-1987), both investment banking firms, Mr. Mathis was instrumental in realizing value for equity holders in restructuring situations, serving as Chairman of the Equity Shareholders Committee for A.H. Robins Co., Salant Corporation, Allis-Chalmers Corporation and Revere Copper & Brass during their bankruptcy proceedings and successful reorganizations
- Obtained exclusive right to purchase the Charter Security Life Insurance Company, a division of the bankrupt Charter Oil Company, specializing in single premium deferred annuities; after a series of intense negotiations with investment banks and insurance firms, Charter Life was eventually sold to Metropolitan Life Insurance Company

Business / Management

- Currently a Director of Trans-Industries, a manufacturer of transportation signage
- Currently a Director of PTV Europe, an international media company
- Chairman of the Board of Allis Chalmers, Inc., an industrial manufacturer, from 1996-1999
- Chairman of Universal Gym Equipment, a private exercise equipment manufacturer, from 1996-1997
- Federal Court Appointed Trustee for International Wire News Service Liquidation Corp., formerly United Press International ("UPI"), a news syndication service, from 1992-1994
- Vice Chairman and Director of UPI from 1991-1992
- President of RCL, a predecessor firm of Allied Digital Technologies, from 1991-1993
- Director of Allied Digital, which manufactures audio cassettes, video tapes, CD's and CD-ROMs, from 1993-1998
- President and Director of RCL Capital Corporation, from 1993-1995 (RCL Capital Corporation was merged into DISC Graphics in November 1995)
- Chief Operating Officer and Director of Ameriscribe, a national provider of reprographic and related facilities management services, from 1988-1993

- Also served as a Director of Thousand Trails, Inc., an operator of recreational parks; ARCH Communications Group, Inc., a communications company; and Kasper A.S.L., Ltd., a manufacturer and designer of women's fashions

Education

Mr. Mathis received his B.A. from Allegheny College and his M.B.A. from Wharton Graduate School of Business, University of Pennsylvania

TESTIMONY OF VICKIE A. TILLMAN,
EXECUTIVE VICE PRESIDENT,
STANDARD & POOR'S CREDIT MARKET SERVICES,
BEFORE THE SUBCOMMITTEE ON CAPITAL MARKETS,
INSURANCE AND GOVERNMENT SPONSORED ENTERPRISES
UNITED STATES HOUSE OF REPRESENTATIVES

SEPTEMBER 27, 2007

Mr. Chairman, Members of the Subcommittee, good afternoon. I am Vickie A. Tillman, Executive Vice President of Standard & Poor's ("S&P") Credit Market Services, and head of Ratings Services, our nationally recognized statistical rating organization ("NRSRO"). I appreciate the opportunity to appear before you today. I especially appreciate your invitation because I believe it is important to clarify the role of rating agencies such as S&P in the financial markets, the rigor S&P applies in fulfilling that role, and our overall record of delivering unbiased opinions on creditworthiness. To that end, I also welcome the opportunity to address some questions that have been raised about how we have served the market in the midst of unprecedented conditions in the subprime mortgage market and the credit crunch and pressure on the economy that have followed.

I want to assure you at the start of my testimony that we have learned hard lessons from the recent difficulties in the subprime mortgage area. While we fully agree with Secretary Paulson's observation last week that "the subprime mortgage market improved access to credit and homeownership for millions of Americans," it appears that abuses may have occurred in the origination process. We support Congress' efforts to investigate those abuses and to prevent their recurrence. For our part, we are taking steps to ensure that our ratings — and the assumptions that underlie them — are analytically sound in light of shifting circumstances. As I am sure you know, and as my testimony will set forth in some detail, S&P began downgrading some of its ratings in this area towards the end of last year and had warned of deterioration in the subprime sector long before that. Nonetheless, we are fully aware that, for all our reliance on our analysis of historically rooted data that sometimes went as far back as the Great Depression, some of that data has proved no longer to be as useful or

reliable as it has historically been. Additionally, the collapse of the housing market itself has been both more severe and more precipitous than we had anticipated. As I will describe in more detail later, we have taken a number of steps in response to enhance our analytics and process and continue to look for ways in which to do still more.

Our reputation and our track record are the core of our business, and when they come into question, we listen and learn. We take our work seriously, very seriously, and at no time in our history more than now, as I speak to you.

In my testimony I would like to address four broad topics:

- First, the nature of S&P's ratings and their role in the capital markets;
- Second, S&P's approach to rating residential mortgage-backed securities ("RMBS"), including mortgage securities backed by subprime mortgage loans;
- Third, a number of the questions that have been raised in the press and elsewhere related to ratings, including:
    - Questions as to whether payment of fees by issuers presents a conflict of interest that could compromise analytical independence;
    - Questions as to whether S&P is somehow involved in "structuring" RMBS and other structured finance transactions;
    - Questions about the appropriateness of our ratings because securities backed by subprime collateral sometimes receive 'AAA' ratings; and
    - Questions about whether S&P has acted too slowly in responding to the deterioration of the subprime mortgage market.

- Fourth, steps we have taken in light of the Credit Rating Agency Reform Act passed by this body in 2006.

Ratings and Their Role In The Capital Markets

I would like to begin today by discussing the nature of our credit ratings, as it appears from numerous press reports that this matter is sometimes misunderstood. At their core, S&P's credit ratings represent our opinion of the likelihood that a particular obligor or financial obligation will timely repay owed principal and interest. Put another way, we assess the likelihood, and in some situations the consequences, of default — nothing more or less.

When we issue a rating on a particular security we are expressing our view that the security shares similar credit characteristics to those securities that have, in the past, represented a particular range of credit risk. A bond that we rate as 'BBB' has received the lowest of our so-called "investment grade" ratings; one rated 'BB' has received the highest non-investment grade rating. "Investment grade" securities are those securities that certain regulated investors may legally purchase. On S&P's ratings scale, such securities are those rated at the 'BBB' level or higher. Since we began rating RMBS in the late 1970's, only 1.09% of those securities rated by us 'BBB' have ever defaulted. For 'BBs' this number is 2.11%. Thus, when we rate securities, we are *not* saying that they are "guaranteed" to repay but the opposite: that some of them *will* likely default. Even our highest rating — 'AAA' — is not a guarantee or promise of performance. 'AAAs' do default and have defaulted, although rarely.

Another misconception about ratings relates to their purpose and use. Ratings speak to one topic and one topic only — credit risk. As we have repeatedly made clear in public statements, including statements to the SEC, testimony before Congress, and innumerable press releases, ratings do *not* speak to the likely market performance of a security. Thus, ratings clearly do not address:

- Whether investors should "buy", "sell" or "hold" rated securities;
- Whether any particular rated securities are suitable investments for a particular investor or group of investors;
- Whether the expected return of a particular investment is adequate compensation for the risk;
- Whether a rated security is in line with the investor's risk appetite;
- Whether the price of the security is appropriate or even commensurate with its credit risk; or
- Whether factors other than credit risk should influence that market price, and to what extent.

I want to be clear. Ratings matter; as the individual who oversees S&P's ratings business I would be the last person to suggest to you that they do not. But in the current climate, it is especially important to bear in mind just what it is we do and that other developments also affect market perceptions and behavior. The current credit crunch is very real, but we certainly have not witnessed widespread defaults of mortgage-backed securities. This dynamic and its relationship to the nature of ratings was recently recognized by one of Europe's top regulators, Mr. Eddy Wymeersch, Chairman of the Committee of European Securities Regulators and also Chairman of Belgium's Banking and Financial Commission. According to Mr. Wymeersch:

> "[t]he press and general opinion is saying it's the fault of the credit rating agencies . . . Sorry, the ratings are just about the probability of default. Nothing more. Now we have a liquidity crisis and not a solvency crisis."

Though they may move more slowly than market prices, ratings are not designed to be static. Our view of an RMBS transaction evolves as facts and circumstances develop, often in ways that are difficult to foresee. We issue ratings and, as new information becomes available with the passage of time, we either affirm those ratings — *i.e.,* leave them unchanged — upgrade them, downgrade them, or put them on CreditWatch, which is a warning to the market that the rating is subject to change after a pending review. To make such decisions, we perform surveillance on our ratings. I will discuss our surveillance process in greater detail a little later on, but the three important points here are:

- That we have a team and process in place whose responsibility it is to monitor developments and bring about ratings changes to reflect those developments as appropriate;
- Changes in RMBS ratings are not based on speculation or market sentiment; and
- Such changes are often based upon events which were not predictable.

To cite only a few recent examples on this last point, the level of early payment default trends in recent subprime loans is unprecedented; so is the fact that, while individuals who purchased homes have generally paid their mortgages before paying off their credit cards, that now appears no longer to be true to the extent it once was; so is the reality that, while individuals who live in homes they purchase historically repay the mortgages on these homes more regularly than those who live elsewhere, that long-standing pattern now appears of questionable validity in a striking number of cases. These are ahistorical behavioral

modes, ones of particular import at a time of a substantial fall in real estate prices, and ones that, together with other factors, required downgrading some RMBS ratings even though no substantial amount of pool losses have occurred.

I said earlier that we have made repeated statements about the nature and role of ratings. To the extent those efforts have failed to communicate sufficiently clearly about that topic, we view this hearing, and this process overall, as an opportunity to begin to rectify that. We recognize that we bear primary responsibility for getting the message out. We are making, and will continue to make, every effort to do so.

S&P's Rating of Securities Backed By Mortgage Loans, Including Subprime Loans

Our ratings of residential mortgage-backed securities, particularly RMBS backed by pools containing subprime mortgage assets, have recently received a significant amount of attention. S&P has been rating RMBS for thirty years and has developed industry-leading processes and models for evaluating the creditworthiness of these transactions. As a result, S&P has an excellent track record of assessing RMBS credit quality. For example, S&P's cumulative U.S. RMBS default rate by original rating class (through September 15, 2007) is as follows:

Initial Rating	**% of Default**
AAA	0.04
AA	0.24
A	0.33
BBB	1.09
BB	2.11
B	3.34

Default statistics are the critical measure of ratings analytics because, as I explained earlier, at their core ratings speak to the likelihood of timely repayment, not other market factors, such as supply and demand, that may go into the pricing of securities. Moreover, these default numbers for our RMBS ratings are lower, in some cases materially lower, than the long-term default rates for similar ratings issued on corporate bonds.

While evaluating the credit characteristics of the underlying mortgage pool is part of our RMBS ratings process, S&P does not rate the underlying mortgage loans made to homeowners or evaluate whether making those loans was a good idea in the first place. Originators make loans and verify information provided by borrowers. They also appraise homes and make underwriting decisions. In turn, issuers and arrangers of mortgage-backed securities bundle those loans and perform due diligence. They similarly set transaction structures, identify potential buyers for the securities, and underwrite those securities. For the system to function properly, S&P relies, as it must, on these participants to fulfill their roles and obligations to verify and validate information before they pass it on to others, including S&P. Our role in the process is reaching an opinion as to how much cash we believe the underlying loans are likely to generate towards paying off the securities eventually issued by the pool. That is the relevant issue for assessing the creditworthiness of those securities.

As a practical matter, S&P's analysis of an RMBS transaction breaks down into the following categories:

The LEVELS® Model The first step in our analysis is evaluating the overall creditworthiness of a pool of mortgage loans by conducting loan level analysis using our Loan Evaluation and Estimate of Loss System (LEVELS®) Model. This model is built on, and

reflects, our analytical assumptions and criteria. S&P's criteria do not dictate the terms of the mortgage loans; those terms are set by the originator in the underwriting process. S&P collects up to seventy different types of inputs, including, but not limited to: the amount of equity a borrower has in the home; the loan type; the extent of income verification; whether the borrower occupies the home; and the purpose of the loan. This analysis allows us to quantify multiple risk factors, or the layered risk, and allows us to assess the increased default probability that is associated with each factor. Based on the individual loan characteristics, the LEVELS® model calculates probabilities of default and loss realized upon default. The assumptions and analysis embedded in the LEVELS® model are under regular review and are updated as appropriate to reflect our current thinking about rating residential mortgages.

As part of our commitment to transparency, S&P makes its LEVELS® model available to investors who wish to license it. The vast majority of those involved in issuing RMBS have access to LEVELS® and use it regularly. We also publicly announce any changes to our LEVELS® model in a timely manner. In other words, our basic criteria is out there every day, subject to criticism and comment.

The SPIRE® Model Another important aspect of our rating process is assessing the availability of cash flow, which comes from the monthly payments generated by the mortgage loans, to timely pay principal and interest. To do this, we use our Standard & Poor's Interest Rate Evaluator (SPIRE®) Model. The model uses the S&P mortgage default and loss assumptions (generated by the LEVELS® model) as well as interest rate assumptions. Like the LEVELS® model, our SPIRE® model reflects our analysis and assumptions and is regularly reviewed and updated as warranted.

Also like our LEVELS® model, our SPIRE® model is publicly available, used extensively by market participants, and subject to market comment and review every day.

Review of Originator and Servicer Operational Procedures S&P also reviews the practices, polices, and procedures of the originators and servicers primarily to gain comfort with the ongoing orderly performance of the transaction. For an originator, the topics we review include, but are not limited to: loan production practices; loan underwriting; and quality control practices and findings. S&P may adjust its credit support calculation based on the underwriting employed at origination.

Review of Legal Documents S&P also reviews, with the assistance of internal and external counsel, the legal documents of the securities to be issued, and, where appropriate, opinions of third-party counsel that address transfer of the assets and insolvency of the transferor, as well as security interest and other legal or structural issues. S&P reviews the underlying documentation in order to understand the payment and servicing structure of the transaction.

Credit Enhancement Any description of our ratings of RMBS would be incomplete without discussing the critical concept of credit enhancement. Credit enhancement is the protection (*i.e.*, additional assets or funds) needed to cover losses in deteriorating economic conditions, sometimes referred to as "stress". Sufficient credit enhancement allows securities backed by a pool of subprime collateral to receive what might otherwise be considered high ratings. One form of credit enhancement, although there are several, would occur if the pool has more in collateral than it issues in securities, thereby creating a cushion in the pool. We refer to this form of credit enhancement as

"overcollaterization," and it is a key component in our ratings analysis. It provides protection against defaults in the underlying securities. That is, if the pool ends up experiencing losses, it should still generate enough cash from which to pay the holders of the securities. I will discuss credit enhancement in more detail later in my testimony.

The Rating Committee After reviewing the relevant information about a transaction, including information related to credit enhancement, the lead analyst then takes the transaction to a rating committee. As with all S&P ratings, structured finance ratings are assigned by committee. Committees are comprised of S&P personnel who bring to bear particular credit experience and/or structured finance expertise relevant to the rating. The qualitative judgments of committee members at all stages of the process are an integral part of the rating process as they provide for consideration of asset and transaction specific factors, as well as changes in the market and environment. Personnel responsible for fee negotiations and other business-related activities are not permitted to vote in ratings committees and vice versa.

Notification and Dissemination Once a rating is determined by the rating committee, S&P notifies the issuer and disseminates the rating to the public for free by, among other ways, posting it on our Web site, www.standardandpoors.com. Along with the rating, we frequently publish a short narrative rationale authored by the lead analyst. The purpose of this rationale is to inform the public of the basis for S&P's analysis and enhance transparency to the marketplace.

Surveillance After a rating has been issued, S&P monitors or "surveils" the rating to review developments that could alter the original rating. The surveillance process seeks to

identify those issues that should be reviewed for either an upgrade or a downgrade because of asset pool performance that may differ from original assumptions. The surveillance function also monitors the credit quality of entities that may be supporting parties to the transaction, such as liquidity providers. Analysts review performance data periodically during the course of the transaction, and as appropriate present that analysis to a rating committee for review of whether to take a rating action. The rating committee then decides whether the rating change is warranted. For changes to public ratings, a press release is normally disseminated.

S&P's Commitment to Constant Improvement

While our ratings process is the product of three decades of analytical experience and excellence, we are always looking for ways to enhance that process and our analytics. This is a hallmark S&P principle and is especially true when, as with recent subprime loans, developments indicate that historically-rooted behavioral patterns that have served as solid foundations for analysis may lack their prior value.

By now there is no doubt that subprime loans made from late 2005 through at least early 2007 are behaving very differently from loans in prior periods, even when the loans share the same basic credit characteristics. For example, for years a primary indicator of a borrower's credit has been so-called FICO credit scores. FICO scores are provided by another independent market participant and are an industry standard. In recent loans, we are seeing borrowers with high FICO scores behaving in a manner consistent with how materially lower FICO borrowers have historically behaved. Similarly, as I observed earlier, there are a number of other ahistorical anomalies that make more problematic applying a number of historically-rooted assumptions about the behavior of borrowers. At the same time, these

behaviorial shifts appear *not* to be occurring in loans generated in 2004 and most of 2005, which include many of the same type of subprime characteristics present in the more recent loans. We are still gathering data to analyze the causes for these inconsistent market dynamics.

In response to these developments, and as part of our constant commitment to enhancing our analytical processes, S&P has already initiated a number of steps:

- We have significantly heightened the stress levels at which we rate and surveil transactions to account for deteriorating performance as evidenced by data we have received. We have also increased the frequency of our review of rated transactions;
- We are modifying (and will soon be releasing) our LEVELS® model to incorporate these new stress levels and other changes recently made to our ratings assumptions, as announced in our July 10, 2007 press release;
- We recently acquired IMAKE consulting and ABSXchange. These services have long provided data, analytics and modeling software to the structured finance community and we feel they will further enhance our in-depth surveillance process;
- We have also undertaken a survey of originators and their practices, particularly with respect to issues of data integrity. We are in the process of compiling the results of this survey and will publish those results when finalized; and

- We have hired a Chief Compliance Officer to augment our internal control procedures.

In addition to these steps, we continue to look at areas in which we can further enhance our analysis and processes. Some of the areas include:

- Our policies and procedures to protect against conflicts of interest;
- The quantity and quality of data available to us; and
- Modification of our analytics to reflect changing credit behaviors.

S&P's Response To Various Questions

Some have raised questions about ratings and the ratings process in recent months in light of the turmoil in the subprime mortgage market. As I have previously said, we are well aware that certain historically-rooted assumptions we made in determining which RMBS ratings to issue do not, in retrospect, appear to have remained as relevant as they previously have been. Whether that is because of factors unique to the period immediately prior to and after 2006 or whether we must change those assumptions on a long-term basis is a subject of robust and continuing examination and re-examination at S&P.

At the same time, some of the questions recently put to S&P reflect a fundamental misunderstanding of what ratings are or are based on inaccurate or, in some cases, incomplete information. Let me now address those questions.

The "Issuer Pays" Model Does Not Compromise the Independence and Objectivity of Our Ratings

A number of commentators have asked whether payment of fees by issuers and/or their representatives presents a conflict of interest that compromises the independence and objectivity of ratings. Skeptics question whether, in pursuit of fees, S&P and other major

rating agencies may give higher ratings than they otherwise would. Not only is this not true at S&P, but this line of questioning ignores the significant benefits of the "issuer pays" model to the market.

S&P currently makes all of its public ratings available to the market free of charge in real time. When a rating is assigned or changed, the announcement is made on our Web sites — www.sandp.com and www.ratingsdirect.com — and a press release is provided to news outlets and other media. Today there are approximately 9 million current and historical ratings available on RatingsDirect. In addition, as many as 1.3 million active ratings are available for free on www.sandp.com. The benefits to the market are obvious: any and all interested market participants can access the same information at the same time. It creates a level playing field and a common basis for analyzing risk. It also leads to higher quality ratings as our analysis is subject to market scrutiny and reaction every day from every corner of the capital markets.

This type of free, public disclosure and transparency is only possible under the "issuer pays" model. Developing and maintaining models and hiring experienced and skilled analytical talent is costly. Without payment by issuers, those costs would have to be covered by subscription fees, an approach with several insurmountable problems. A subscription model would severely limit the transparency and broad (and free) dissemination of ratings, as access would necessarily be expensive and exclusive to subscribers. Not only would this result in less, not more, information in the market, but it would also take away an important check on ratings quality — the constant scrutiny of a broad market. Moreover, because subscription fees would necessarily be significant (given the breadth of our ratings coverage

and the depth of our analysis), many investors, including the vast majority of individual investors, simply would not be able to afford access to ratings information. The likely result would be one of two equally harmful outcomes: either (i) these investors would have no meaningful access to ratings information; or (ii) a ratings black market would develop in which S&P's intellectual property — its ratings analysis — would be misused or resold in a manner all too consistent with the pervasive misuse of other intellectual property and with the same destructive impact.

As noted, some have questioned whether the "issuer pays" model has led S&P and others to issue higher, or less rigorously analyzed, ratings so as to garner more business. First and foremost, there is no evidence — none at all — to support this contention with respect to S&P. This is not surprising since it would be clearly against S&P's self-interest as well as its cornerstone principles.

Indeed, what evidence there is on the subject shows the opposite.

1. Consider, for instance, the performance of our RMBS ratings. As reflected in the chart below, in every year from 1994 through 2006, upgrades of U.S. RMBS ratings significantly outpaced downgrades by multiple factors — about 7:1 on average. The ratio was even higher from 2001-2006. That is to say, after S&P initially provided its ratings in this area, actual performance of the rated transactions led to upgrades far more often than downgrades as time passed.

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
% of Ratings Upgraded	6.81	2.54	1.38	2.54	2.20	2.78	10.08	10.21	9.24	12.82	10.74	7.91	3.79
% of Ratings Downgraded	2.21	1.70	1.18	1.25	1.28	0.54	1.93	1.05	0.98	0.85	0.45	0.64	1.04

If, as some claim, S&P deliberately issued high ratings to please those who paid for them, one would expect that the initial (allegedly inflated) ratings would require downward adjustment to reflect actual performance. Similarly, one would expect default rates on our RMBS ratings to be higher — indeed, materially higher — than the statistics I cited earlier. But, over the years, the opposite has emphatically been the case.

2. Similarly, if S&P put revenue ahead of analytical rigor, we would not refuse to rate, as we have, transactions that do not meet our criteria. A recent highly publicized example occurred in Canada where significant amounts of asset-backed commercial paper became illiquid. The paper had not met S&P's minimum criteria and so we did not rate it. These are not the actions of an agency that would rate every deal that reaches our door.

3. The primacy of our reputation has been recognized by independent sources. A report prepared by two Federal Reserve Board economists found "no evidence" that rating agencies acted in the interest of issuers due to a conflict of interest. After detailed study, the report concluded that "rating agencies appear to be relatively responsive to reputation concerns and so protect the interests of investors." *See* Daniel M. Covitz & Paul Harrison, *Testing Conflicts of Interest at Bond Ratings Agencies with Market Anticipation: Evidence that Reputation Incentives Dominate* (Dec. 2003) at

http://www.federalreserve.gov/pubs/feds/2003/200368/200368pap.pdf.

The real question is not whether there are potential conflicts of interest in the "issuer pays" model, but whether they can be effectively managed by S&P and other credit rating agencies. Mr. Erik Sirri, director of the SEC's Division of Market Regulations, recently testified at a congressional hearing that the conflicts raised by this long-standing business model are indeed manageable. As Mr. Sirri testified:

> "Typically, [rating agencies] are paid by the underwriter or the issuer. That presents a conflict. But we believe that conflict is manageable. Credit rating agencies should have polices and procedures in place, and they should adhere to those policies and procedures when they evaluate deals."

S&P maintains rigorous policies and procedures designed to ensure the integrity of our analytical processes. For example, analysts are not compensated based upon the amount of revenue they generate. Nor are analysts involved in negotiating fees. Similarly, individuals responsible for our commercial relationships with issuers are not allowed to vote at rating committees. These policies, and others, have helped ensure our long-standing track record of excellence. As previously noted, our track record speaks for itself. Moreover, the Credit Rating Agency Reform Act of 2006, and the SEC's implementing regulations, give greater assurance that those policies will be enforced.

S&P Does Not "Structure" Transactions

Similar misunderstandings have led some to question whether rating agencies "structure" transactions, thereby threatening ratings independence. These questions are particularly troubling as they give false and negative impressions about a practice that benefits the markets — the open dialogue between issuers and ratings agencies.

It is true that our analysts talk to issuers of RMBS transactions as part of the ratings process, as they have traditionally had discussions with corporate issuers with respect to rating their non-structured securities. This dialogue provides benefits to the marketplace. Critical to our ability to rate transactions is a robust understanding of those transactions. Reading documents and reviewing the results of modeling are important, of course, but so is communication with the people responsible for the transaction itself. Through dialogue with issuers and their representatives our analysts gain greater insight into transactions to be rated, including any modifications to those transactions that may occur as the process goes forward. This dialogue promotes transparency into our ratings process, a virtue we believe in, and one that regulators have consistently espoused.

Nor does the dialogue amount to "structuring" by S&P, even in cases where the discussion is about the effect different structures may have on ratings. S&P does not tell issuers what they should or should not do. Our role is reactive. Using our models with set publicly available criteria, issuers provide us with information and we respond with our considered view of the ratings implications. In the process, and as part of our commitment to transparency, we also may discuss the reasoning behind our analysis. Those who question this practice ignore that the ratings process is not and should not be a guessing game. Without informed discussion, issuers would be proposing structure upon structure until they stumbled upon the structure that best matches with their goals. That certainly would not make the markets more transparent and efficient.

Nor should anyone view as suspicious the fact that some issuers structure transactions so as to achieve a specific rating result. Indeed, a variety of potential structures could merit a

particular result. Our role is to come to a view as to the structures presented, but not to choose among them. Again, we do not compromise our criteria to meet a particular issuer's goals. As noted, we make criteria publicly available. If we were not applying our criteria to particular transactions, it would be readily apparent to the market and would immediately diminish the credibility — and thus the value — of our ratings business.

Credit Enhancement — How Securities Backed By Subprime Mortgages Can Receive, and Merit, Investment Grade Ratings

A potentially incomplete understanding of the ratings process has also led to questions about how a pool of subprime mortgage loans can support securities with investment grade, even 'AAA' ratings. The answer lies in the concept of credit enhancement.

As discussed earlier, credit enhancement — additional assets or funds — affords protection against losses in deteriorating conditions. When an issuer comes to us with a pool of subprime loans to be used as collateral for an RMBS transaction, S&P is well aware, of course, that all of this collateral is not likely to perform from a default perspective like 'AAA' securities. Nonetheless, the pool of collateral loans *will* yield *some* amount of cash, even under the most stressful of economic circumstances.

A key component of our analysis is looking at the pool of collateral to determine how much credit enhancement — extra collateral, for example — would be needed to support a particular rating on the securities to be backed by that collateral. To do this, we analyze the expected performance of the collateral in stressful economic conditions. To determine the amount of credit enhancement that could support an 'AAA' rating, we use our most stressful economic scenario, including economic conditions from the Great Depression. The stress

scenarios are then adjusted for each rating category. Thus, if our analysis of a particular collateral pool's expected performance indicates that the pool would need 30% credit enhancement to support an 'AAA' rating, the issuer would have to have 30% additional collateral above and beyond the value of the securities issued in order for the securities issued by the pool to have enough credit enhancement for an 'AAA' rating. To put it in more concrete terms, if the pool was comprised of, for example, $1.3 million in collateral, it could only issue $1 million in 'AAA' rated securities in this scenario. This way, if the collateral performs poorly — and thirty percent in losses is very poor performance — there will still be sufficient collateral to cover losses incurred upon loan defaults. This credit enhancement figure would, of course, be lower for ratings other than 'AAA', as those ratings address the likelihood of repayment in less stressful economic environments. For example, the issuer might be able to issue $1.2 million in 'BBB' rated securities backed by the same collateral pool. Thus, it is not the case that through securitization, poor credit assets magically become solid investments. Rather, it is because, in our example, a pool has $1.3 million in collateral to support $1 million in securities that it may receive an entirely appropriate 'AAA' rating on those securities.

S&P Has Been Warning the Market, and Taking Action, in Response to Deterioration in the Subprime Market Since Early 2006

Others have questioned whether S&P has acted quickly enough in response to the deteriorating subprime market. Again, we believe these questions result from an incomplete understanding of the facts. S&P has spoken out — and taken action — early and often on subprime issues.

For some time S&P has been through our publications repeatedly and consistently informing the market of its concerns about the deteriorating credit quality of RMBS transactions. For example:

- In a January 19, 2006 article entitled *U.S. RMBS Market Still Robust, But Risks Are Increasing And Growth Drivers Are Softening*, we said: "Standard & Poor's expects that some of the factors that drove growth in 2005 will begin to soften in 2006 . . . . Furthermore, Standard & Poor's believes that there are increasing risks that may contribute to deteriorating credit quality in U.S. RMBS transactions; it is probable that these risks will be triggered in 2006."

- On May 15, 2006, in an article entitled *A More Stressful Test Of A Housing Market Decline On U.S. RMBS*, we reported on the results of our follow-up analysis to our September 2005 housing-bubble simulation. We stated: "[t]he earlier simulation had concluded that most investment-grade RMBS would weather a housing downturn without suffering a credit-rating downgrade, while speculative-grade RMBS might not fare so well . . . . In the updated simulation . . . [S&P used] more stressful macroeconomic assumptions [which] lead to some downgrades in lower-rated investment-grade bonds."

- On July 10, 2006, in an article entitled *Sector Report Card: The Heat Is On For Subprime Mortgages*, we noted that downgrades of subprime RMBS ratings were outpacing upgrades due to "collateral and transaction performance." The article also identifies "mortgage delinquencies" as a "potential hot button," and notes that such delinquencies "may become a greater concern for lenders and servicers."

- On July 17, 2006, we noted a 38% increase in downgrades in U.S. RMBS, a significant number of which came from the subprime market. *Structured Finance Global Ratings Roundup Quarterly: Second-Quarter 2006 Performance Trends.*

- On Oct. 16, 2006, in our *Ratings Roundup: Third-Quarter 2006 Global Structured Finance Performance Trends*, we reported a 15% decline in upgrades for U.S. RMBS while the number of downgrades more than tripled compared to the same period in 2005. We also noted that the quarter's ratings actions among RMBS transactions had set a record for the most performance-related downgrades.

- Then on December 8, 2006, in an article entitled *Credit Trends: 2007 Global Credit Strategy: Asset Class Outlook*, we informed the market of our view that "[c]redit quality in the RMBS sub-prime market has been under scrutiny this year. Standard & Poor's RMBS surveillance group sees the environment ahead as portending greater downgrade potential along with lower upgrade potential." We also stated that "the jump in third-quarter downgrade activity for the sub-prime market raises some risk flags for this segment; with 87 third-quarter downgrades adding to the 46 downgrades of the second quarter and 34 in the first."

- On January 16, 2007, in an article entitled *Ratings Roundup: Fourth-Quarter 2006 Global Structured Finance Performance Trends*, we stated: "Rating activity among subprime transactions has started to shift to being predominantly negative from being predominantly positive. . . . We expect this trend in subprime rating performance to continue during 2007."

- Ten days later on January 26, 2007, in our *Transition Study: U.S. RMBS Upgrades Are Down And Downgrades Are Up In 2006*, we reported that for 2006 "[d]owngrades overwhelmed upgrades for subprime mortgage collateral" and that we expected "losses and, therefore, negative rating actions to continue increasing during the next few months relative to previous years."

- Our statements to the market continued throughout the first half of 2007. On March 22, 2007, in an article entitled *A Comparison Of 2000 and 2006 Subprime RMBS Vintages Sheds Light On Expected Performance*, we stated: "[w]hile subprime mortgages issued in 2000 have the distinction of being the worst-performing residential loans in recent memory, a good deal of speculation in the marketplace suggests that the 2006 vintage will soon take over this unenviable position."

- In an April 27, 2007 article entitled *Special Report: Subprime Lending: Measuring the Impact*, we stated: "The consequences of the U.S. housing market's excesses, a topic of speculation for the past couple of years, finally have begun to surface. . . . Recent-vintage loans continue to pay the price for loosened underwriting standards and risk-layering in a declining home price appreciation market, as shown by early payment defaults and rising delinquencies."

- Then on June 26, 2007, in an article entitled *Performance of U.S. RMBS Alt-A Loans Continues To Deteriorate*, we reported: "The most disconcerting trend is how quickly the performance of these delinquent borrowers has deteriorated. We continue to see migration from 60-plus-day to 90-plus-day delinquencies within the 2006 vintage, suggesting that homeowners who experience early delinquencies are finding it increasingly difficult to refinance or work out problems, as opposed to being able to 'cure' falling behind on payments."

None of these warnings were hidden by S&P and I will gladly provide the Subcommittee with these documents. In addition to these warnings, we also took action in response to subprime deterioration. For example:

- On June 1, 2006, almost sixteen months ago, we tightened our criteria through changes in our LEVELS® model targeted to increase the credit enhancement requirements for pools with subprime loans. In announcing these changes to the market, we specifically identified subprime loans, such as "[l]oans with simultaneous second liens (especially those with very low FICO scores)", as loans "much more likely to default than non-second-lien loans with similar FICO scores."

- Then in February 2007, we took the unprecedented step of placing on CreditWatch negative (and ultimately downgrading) transactions that had closed as recently as 2006. As we informed the market in the accompanying release: "Many of the 2006 transactions may be showing weakness because of origination issues, such as aggressive residential mortgage loan underwriting, first-time home-buyer programs, piggyback second-lien mortgages, speculative borrowing for investor properties, and the concentration of affordability loans." In a February 16, 2007 Los Angeles Times article, S&P's announcement was described as "'a watershed event' because it means S&P is now actively considering downgrading bonds within their first year." *See S&P to Speed Mortgage Warnings*, Los Angeles Times, Feb. 16, 2007.

- We continued taking downward action through the Spring. In May we announced that "Standard & Poor's Ratings Services took 103 rating actions affecting 103 classes of residential mortgage-backed securities (RMBS) transactions backed by subprime, closed-end second-lien, and Alt-A loan collateral originated in 2005 and 2006; we lowered 92 ratings . . . and placed 103 ratings on CreditWatch negative . . . . These rating actions were due to collateral performance." We also noted that "[m]ost of the transactions affected by CreditWatch placements (and no downgrades) have not experienced significant losses. The placement of our ratings on CreditWatch when a transaction has not experienced significant losses represents a new methodology derived from our normal surveillance practice."

- On June 22, 2007, we announced further ratings actions in an article entitled *133 Subordinate Second-Lien, Subprime Ratings From 2006, 2005-Vintage RMBS On Watch Neg, Cut.* We explained that "[t]he downgrades and CreditWatch placements reflect early signs of poor performance of the collateral backing these transactions."

- Then in July of this year, we again took action in response to increasingly bad performance data, including loss levels that continued to exceed historical precedents and our initial expectations. Specifically:

- We increased the severity of the surveillance assumptions we use to evaluate the ongoing creditworthiness for RMBS transactions issued during the fourth quarter of 2005 through the fourth quarter of 2006 and downgraded those classes that did not pass our heightened stress test scenario within given time frames.

- In addition, we modified our approach for ratings on senior classes in transactions in which subordinate classes have been downgraded.

- We also announced that, with respect to transactions closing after July 10, 2007, we would implement changes that would result in greater levels of credit protection for rated transactions and would increase our review of lenders' fraud-detection capabilities.

No one can see the future. The point of these articles and actions, however, is to highlight our reaction to increasing subprime deterioration — looking, as we always do, to historical or paradigm-shifting behaviors to help analyze long-term performance. Consistent with our commitment to transparency we repeatedly informed the market of our view that the credit quality of subprime loans was deteriorating and putting negative pressure on RMBS backed by those loans. And, consistent with our commitment to analytical rigor, we revised our models, took action when we believed action was appropriate, and continue to look for ways to make our analytics as strong as they can be.

Impact of The Credit Rating Agency Reform Act of 2006

Earlier this year, the Credit Rating Agency Reform Act of 2006 took effect. As a result, over the past few months, S&P has been actively engaged in the process of implementing the requirements of the Commission's new Rules regulating NRSROs under the Act.

On June 25, 2007 we filed our application to register as an NRSRO. The application includes, among other things, our procedures and methodologies for determining ratings;

credit ratings performance measurement statistics; and information related to our ratings analysts and the largest users of our credit ratings. In addition, the application includes a description of our policies for preventing the misuse of material, non-public information and addressing and managing potential conflicts of interest. We also hired a Chief Compliance Officer who is responsible for administering and overseeing these policies and procedures and ensuring compliance with applicable securities laws.

Additionally, S&P has continued its ongoing efforts to develop and streamline internal record-keeping policies and procedures in order both to ensure the integrity of the ratings process and to satisfy Commission requirements that records be available for inspection. We recently received a notice of examination from the Commission seeking the production of a substantial amount of documents that may relate to the issue of the potential conflict of interest discussed above. We are in the process of complying with this notice.

S&P supported final passage of the Credit Rating Agency Reform Act and remains committed to that Act's stated goal of improving ratings quality for the protection of investors and fostering oversight, transparency and competition in the credit rating industry. Given that we are relatively early in the process of seeing this new law fully implemented, we would respectfully urge you to allow the Commission to proceed with its task of enforcing the provisions of the new law and the regulations so recently adopted before Congress proposes any further actions.

Conclusion

I thank you for the opportunity to participate in this hearing. Over the past several decades, S&P's consistent approach has been to evolve our analytics, criteria, and review

processes when appropriate, and you can expect that same approach in light of new consumer credit behaviors in all markets, including residential mortgages. Let me also assure you again of our commitment to analytical excellence and our desire to continue to work with the Subcommittee as it explores developments effecting the subprime market. I would be happy to answer any questions you may have.

O