

The Debasement of Ratings: What's Wrong and How We Can Fix It

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Executive Summary

This paper poses and answers three sets of questions that lie at the heart of the public controversy over rating agency performance and reform.

(1) What is the evidence that rating agencies have been performing badly in measuring credit risk on the debts that they rate? The evidence relates to two separate phenomena: *inflated* ratings and *low-quality* ratings. The inflation of ratings is defined as the purposeful over-rating (under-estimation of default risk) on rated debts. Low-quality ratings, defined as ratings based on flawed measures of underlying risk, are a related but logically distinct phenomenon. The recent collapse of subprime-related securitizations revealed both problems in the extreme, but these problems have been present in securitized debt instruments for decades.

(2) What are the causes of those deficiencies? Have rating agencies been suborned, and if so, by whom and to what purpose? Low-quality ratings could reflect innocent errors associated with learning about new products, but there is evidence that severe errors are often predictable. These severe, predictable errors in ratings reflect agency problems among buy-side investors that lead them to encourage rating agencies to purposely build inaccurate models that ignore or underestimate important risks. I review the evidence that suggests that important modeling errors in the recent crisis were predictable, and that they reflected buy-side investors' demand for inaccurate and inflated ratings. Both of these phenomena (rating inflation and low-quality ratings) are legitimate targets of reform. Ratings inflation, while sometimes harmless, undermines the regulatory use of ratings to limit risks undertaken by institutional investors. Low-quality ratings, resulting from agency problems, can generate disastrously large system-wide losses for ultimate investors (the clients of institutional investors), and extreme disruption to markets, as in the recent crisis.

(3) What do policy makers propose doing to improve rating agency performance to eliminate ratings inflation and low-quality ratings? Do those reform proposals make sense, and if not, what would work better? Existing policy proposals would tinker with the rating process in ways that have little hope of fixing either the ratings-inflation or low-quality ratings problems. The regulatory solution that I propose – to create credible penalties that link the fees credit rating agencies receive to their actual performance in predicting defaults – would address both the incentive problem that gives rise to ratings inflation and the incentive problems that encouraged faulty rating methodologies.

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I. Introduction

Once upon a time, debt rating agencies like Moody's, Standard and Poor's, and Fitch were bit players in the dramas that attend financial crises. No more. Last week's hearings at the House Committee for Oversight and Government Reform provided the latest in a series of surprising spectacles about the agencies, this time including accusations and denials exchanged among former and current executives of Moody's, which traditionally has been considered the most conservative and reputable of the three major rating agencies. Scott McCleskey, former head of compliance at Moody's from April 2006 to September 2008, said that he was "pushed out" by the firm as part of its campaign to maintain inflated ratings. Eric Kolchinsky, a managing director at Moody's until his departure last month, alleged that out of fear over the effects of downgrades on the market, Moody's continued this year to knowingly give inflated ratings on some complex subprime related securities 2009. Moody's denies those accusations.²

And new controversies are brewing, involving new deals on new products. The rating agencies seem to be taking financial engineering to new heights, or as some worry, new lows. They are now helping to engineer a new set of complex transactions called "re-remics" (which stands for re-securitization of real-estate mortgage investment conduits). In these new deals, the rating agencies assist in determining how best to sort a bank's or insurance company's existing portfolio of poorly performing debts into two groups, then they help repackage those securities into separate re-securitization portfolios, issue ratings of those portfolios, wave their magic wand, and voila! – the overall ratings of the combined new portfolios of the same old securities held by the bank or insurance company are improved (and the minimum capital requirements required by prudential regulations commensurately reduced). And, of course, the rating agencies, as always, receive a nice fee for their labors. Some regulators, including Kermitt Brooks, the first deputy insurance superintendent in New York, are openly skeptical of the continuing reliance by regulators on rating agency opinions and publicly question the value of high-cost opinions rating agencies provide on re-remics.³

This paper poses and answers three sets of questions that lie at the heart of the public controversy over rating agency performance and reform.

(1) What is the evidence that rating agencies have been performing badly in measuring credit risk on the debts that they rate? The evidence relates to two separate phenomena: *inflated* ratings and *low-quality* ratings. The inflation of ratings is defined as the purposeful over-rating (under-estimation of default risk) on rated debts. Low-quality ratings, defined as ratings based on flawed measures of underlying risk, are a related but logically distinct phenomenon. The recent collapse of subprime-related securitizations revealed both problems in the extreme, but these problems have been present in securitized debt instruments for decades.

² "Moody's Says Review Sees No Wrongdoing," *Wall Street Journal*, October 1, 2009, C4.

³ "Wall Street Wizardry Reworks Mortgages," *Wall Street Journal*, October 1, 2009, C1, C3.

(2) What are the causes of those deficiencies? Have rating agencies been suborned, and if so, by whom and to what purpose? Ratings inflation may or may not be accompanied by fundamental problems in the measurement of asset risk. Either way, inflation subverts the intent of regulations that use ratings to control risk taking, resulting in ineffectual prudential regulation. If rating inflation is accompanied by low-quality ratings, this reflects deeper problems. If the modeling of asset risk is fundamentally flawed, then ratings are not only inflated, but also unhelpful to investors in gauging risk. Investors can “reverse engineer” an inflated rating to recover the true measure of risk, but if the modeling of risk is fundamentally flawed, investors cannot gauge true risk from (inflated) ratings. The revelation of severe flaws in risk modeling usually occur in response to a financial shock that reveals those flaws, and leaves investors unsure how to price the debts they are holding, and unwilling to buy additional debts of similar securitizations. This can lead to severe market disruptions, as during the recent crisis.

Low-quality ratings could reflect innocent errors associated with learning about new products, but there is evidence that severe errors are often predictable. These severe, predictable errors in ratings reflect agency problems among buy-side investors that lead them to encourage rating agencies to purposely build inaccurate models that ignore or underestimate important risks. I review the evidence that suggests that important modeling errors in the recent crisis were predictable, and that they reflected buy-side investors’ demand for inaccurate and inflated ratings.

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II. Ratings Inflation and Model Misspecification

Inflation of Ratings

Inflated ratings and low-quality ratings are related but distinct phenomena. Ratings inflation has been documented since the early 1990s; Richard Cantor and Frank Packer (1994)⁴ showed that ratings of debts issued by securitization conduits (which are sold exclusively to institutional investors, like pension funds, mutual funds, banks and insurance companies) have inflated ratings when compared to

⁴ “The Credit Rating Industry,” *Federal Reserve Bank of New York Quarterly Review* 19 (Summer 1994), 1-26.

corporate debts – that is, securitized debts are rated much less strictly than corporate debts with the same default risks. The buyers of securitized debts are mainly regulated entities whose regulators use rating agencies (specifically, rating agencies that qualify as Nationally Recognized Statistical Rating Organizations, or NRSROs, which are so designated by the Securities and Exchange Commission) to gauge the risk of debts purchased by pension funds, mutual funds, insurance companies, and banks. Regulators either use ratings to limit the portfolio risk of funds that purchase securities, or use the ratings to determine the appropriate risk-based capital that must be held against those securities.

Institutional investors, even when they are acting prudently, may have incentives to avoid such regulations by encouraging rating agencies to inflate ratings. Inflated ratings are helpful to institutional investors for three reasons: inflated ratings (1) increase institutional investors' flexibility in making investment decisions, (2) reduce the amount of capital some of them have to maintain against their investments (as discussed above, with respect to the current controversy over the rating of re-remics), or (3) increase their perceived risk-adjusted profitability in the eyes of less sophisticated ultimate investors (mutual fund shareholders, bank stockholders, pensioners, insurance company stockholders or policyholders) by making it possible for, say, AAA-rated investments to earn higher (say, AA-quality) returns. Sellers of securitized debt have no reason to complain when their ratings are inflated; thus, if buyers wish rating agencies to inflate ratings to overcome regulatory hurdles and make them appear more favorably in the eyes of their ultimate investors, rating agencies have no reason to object. This has an important implication: rating inflation on securitized debts is done in the interest of, and at the behest of, the *buy side*. Many policy makers incorrectly believe that securitization sponsors, who pay the fees for ratings, are the constituency that favors inflation. That is false. Ratings inflation is demanded by the buy side (the institutional investors whose portfolio purchases are being regulated according to the ratings that are attached to those purchases) because it benefits them, otherwise there would be no reason to inflate ratings.

Although ratings inflation is visible for all securitized products, it can be especially extreme for new products, where the lack of a long track record provides "plausible deniability" to the rating agency willing to inflate its ratings. Consider the case of the collateralized debt obligations (CDO) market. CDOs were constructed prior to the recent crisis using unsold debts from prior subprime mortgage-back securitizations (MBS) and other securitized debts. CDO issuance volume increased dramatically in the early 2000s, rising from the range of \$100-150 billion a year from 1998 through 2004, to roughly \$250 billion in 2005 and roughly \$500 billion in 2006, before collapsing in 2007. Were institutional investors aware of the high risk of CDOs prior to the 2006 boom? Yes. Moody's published retrospective data on the five-year probability of default, as of December 2005, for Baa CDO tranches of CDOs and Baa corporate debts. As of that date, the Baa CDO tranches had a 20% five-year probability of default, in contrast to the Baa corporate debts, which showed only a 2% five-year probability of default.⁵ Despite the rhetoric rating agencies publish claiming to maintain uniformity in their rating scales across products, institutional investors knew in 2005 that CDOs' debts with a given rating were ten times as risky as similarly rated corporate debts.

⁵ Charles W. Calomiris, "The Subprime Turmoil: What's Old, What's New, and What's Next," *Journal of Structured Finance* 15 (Spring 2009), 6-52.

Model Misspecification

The phenomenon of low-quality ratings is closely related to ratings inflation, but is a distinct phenomenon. Low-quality ratings refer not just to the inflation of the ratings scale used to measure risk of a particular debt, but to the accuracy of the methodology employed to measure the risk of the securitization pool. If a debt rating is inflated, but the methodology used to calculate the risk for the pool is correct, then the market can gauge debt risk accurately by simply adjusting the rating (recognizing that AAA-rated debt is really AA). But if the rating methodology for the asset pool is fundamentally flawed in order to disguise the riskiness of the overall asset pool being rated, then not only will the debt ratings be inflated, there will be no way of adjusting the existing ratings to arrive at a reasonable gauge of risk for the various debts issued by the securitization conduit. When one reviews the history of the rating of subprime MBS and their related CDOs or special investment vehicles (SIVs), it is hard to escape the conclusion that modeling methodologies were fundamentally misspecified, and that these “mistakes” were intentional. What is the evidence for purposeful misspecification, and what is its purpose?

Recent academic studies describe in detail the faulty assumptions that underlay the massive securitization of subprime mortgages and related CDOs.⁶ It can be difficult to establish the ex ante unreasonableness of any assumptions. Nevertheless, in the case of subprime securitizations, it is not so difficult. Some facts known to everyone in advance of the subprime collapse were simply put aside in the modeling of risk. In retrospect, the two most important errors of subprime risk modeling were: (1) the assumption that house prices would not fall (subprime MBS was much more sensitive to house price assumptions than normal MBS, as discussed further below), and (2) the assumption that ignoring “soft” information and allowing lending through “no-docs” mortgages based entirely on Fair Isaac Co. (FICO) credit scores would not result in significant adverse selection in the pool of no-docs mortgages; in other words, the models wrongly assumed that a mortgage with a 600 FICO score and with proper documentation of employment was roughly as good as a mortgage with a 600 FICO score with no documentation. According to recent research by Uday Rajan, Amit Seru and Vikrant Vig,⁷ each of these two modeling errors was of roughly equal importance in produce the massive shortfalls of performance in subprime mortgage portfolios. Without those assumptions there would have been no subprime debt crisis. And yet, those assumptions were obviously unreasonable on an ex ante, not just ex post, basis during the subprime boom.

⁶ Joseph R. Mason and Joshua Rosner, “How Resilient Are Mortgage Backed Securities to Collateralized Debt Obligation Market Disruptions,” Working Paper, Louisiana State University 2007; “Where Did the Risk Go? How Misapplied Bond Ratings Cause Mortgage Backed Securities and Collateralized Debt Obligation Market Disruptions,” Working Paper, Louisiana State University 2007; International Monetary Fund, *Global Financial Stability Report*, 2008; Luci Ellis, “The Housing Meltdown: Why did it Happen First(?) / Only(?) in the United States?” Working Paper, Bank for International Settlements, 2008; Benjamin J. Keys, Tanmoy K. Mukherjee, Amit Seru, and Vikrant Vig, “Did Securitization Lead to Lax Screening? Evidence from Subprime Loans,” *Quarterly Journal of Economics*, forthcoming; Uday Rajan, Amit Seru, and Vikrant Vig, “The Failure of Models that Predict Failure: Distance, Incentives and Defaults,” Working Paper, London Business School, 2008; Charles W. Calomiris, “The Subprime Turmoil: What’s Old, What’s New, and What’s Next,” *Journal of Structured Finance* (Spring 2009), 6-52.

⁷ Uday Rajan, Amit Seru, and Vikrant Vig, “The Failure of Models that Predict Failure: Distance, Incentives and Defaults,” Working Paper, London Business School, 2008.

What was the basis for assuming that house prices would never fall? Subprime was a relatively new product, which grew from humble beginnings in the early 1990s, and remained small even as recently as 2003, after which it took off, roughly tripling in 2004 and peaking in 2006 and early 2007. Subprime risk models based their stress tests, including their house price stress tests, on a short period of “lookback.” For some variables that may have been a reasonable practice, given the short track record of the product, but it was not reasonable to base projections of the possible paths of housing prices on a ten-year retrospective history of house price change. Doing so meant that modelers relied on the experience of housing prices during the 2001 recession to gauge the potential downside for the housing market – this was the only recession in their limited sample. It was also a unique recession from the standpoint of the housing cycle – the only recession in US history in which housing prices grew dramatically. Other prior recessions show a very different pattern.

Wouldn't it have been more reasonable to assume that the next recession might see a flattening or a decline in housing prices, which was the rule rather than the exception? Indeed, some risk managers worried that the U.S. was overdue for a housing price decline, partly because of the extremely positive performance of the 1990s and early 2000s. David Andrukonis, a risk manager at Freddie Mac, recognized in his April 5, 2004 letter to a superior that the reliance of underwriters on house price appreciation to “bail out” subprime lenders was based on a false extrapolation of the past into the future: “We are less likely to get the house price appreciation we've had in the past 10 years to bail this program out if there's a hole in it.”⁸

By “this program” he was referring to the proposed entry of Freddie Mac into no-docs lending on a large scale. The assumption that no-docs mortgages would have the same risk as well-documented mortgages with similar FICO scores defied economic logic and the experience of the mortgage market with no-docs products in the 1980s, and Mr. Andrukonis weighed in to discourage his superiors from entering this product area in 2004. He reminded them that “in 1990 we called this product ‘dangerous’ and eliminated it from the marketplace.” No one listened. The growth in subprime originations from 2004 to 2007 was meteoric, and was accompanied by a significant deterioration in borrower quality due to the growth in no-docs mortgages. The heavy weight of no-docs mortgages in subprime portfolios after 2004 largely reflected the decisions of Fannie Mae and Freddie Mac (the 800 pound gorillas in the mortgage market) to enter into the purchase of no-docs subprime MBS in mid-2004, over the strong objections of their risk managers who pointed to large adverse-selection consequences from doing so, based on experience they had with no-docs mortgages in the 1980s. Not only did lenders know better from their own experience, but using simple economic theory, the consequences of no-docs lending were predictable. If a mortgage lender hangs out a shingle saying that he will ask no questions but the FICO score, then he will predictably attract (“adversely select”) people who know that their FICO scores

⁸ Charles W. Calomiris, “Statement Before the Committee on Oversight and Government Reform, U.S. House of Representatives,” December 9, 2008.

are about to deteriorate. The three primary reasons for consumer defaults are the loss of a job, a severe health problem, and divorce. All of those three events are known to the borrowers long before their consequences show up in the FICO score; only by doing proper due diligence can a lender detect these problems before they show up in the FICO score. Banks that do not perform such due diligence will predictably “adversely select” borrowers who know that their FICO scores are about to fall.

Even more remarkably, subprime and Alt-A originations for 2006 and early 2007 continued despite mounting evidence beginning in mid-2006 that housing prices were flattening (which had predictably disastrous consequences for subprime portfolios), and evidence of unprecedented performance problems beginning to occur in existing portfolios, which were discussed openly by the ratings agencies. Josef Ackerman, the CEO of Deutsche Bank, in a speech given at the European Central Bank in December 2008, said that Deutsche Bank fled the subprime market in mid-2006 in reaction to these obvious signals of problems. Professor Gary Gorton of Yale, in his oral comments at the August 2008 Kansas City Federal Reserve Bank’s Jackson Hole Conference described the continuing high-volume of originations in 2006 and 2007 by Merrill, UBS, and Citibank in light of the obvious problems brewing in the housing market as “shocking.” As Gorton’s recent research emphasizes, the core assumption on which subprime lending had been based was the permanent appreciation of home prices. By the middle of 2006, that assumption was being disproven, and no one – least of all the rating agencies – seemed to care.⁹

The rating agencies did *notice* the problem, they just did not *react* to it. According to Fitch’s extremely negative discussion of subprime prospects in December 2006, the environment became increasingly negative after the first quarter of 2006, as reflected in the fact that “the number of subprime downgrades in the period between July and October 2006 was the greatest of any four-month period in Fitch’s history for that sector” (up to that point). Fitch correctly predicted that “the sensitivity of sub-prime performance to the rate of HPA [home price appreciation] and the large number of borrowers facing scheduled payment increases in 2007 should continue to put negative pressure on the sector. Fitch expects delinquencies to rise by at least an additional 50% from current levels throughout the next year and for the general ratings environment to be negative, as the number of downgrades is expected to outnumber the number of upgrades.”¹⁰ Nevertheless, in the midst of all this negative news, the originations continued at a feverish pace, and not until the middle of 2007 did these serious problems become reflected in any significant (albeit still inadequate) changes in modeling assumptions or subprime securities ratings by the ratings agencies.

What Drove Rating Agency Model Misspecification?

Rating agencies had no incentive to construct realistic models or to respond realistically to bad news relating to subprime instruments for a simple reason: their buy-side clients did not want them to do so. Institutional investors managing the portfolios of pensions, mutuals, insurance companies and banks continued to buy subprime-related securitization debt instruments well into 2007. Even the banks

⁹ Gary Gorton, “The Panic of 2007,” in *Maintaining Stability in a Changing Financial System*, Federal Reserve Bank of Kansas City, 2008.

¹⁰ Fitch Ratings, “2007 Global Structured Finance Outlook – Economic Sector-By-Sector Analysis,” December 2006.

that sponsored these instruments (the people who presumably had the clearest understanding of their toxic content) continued to retain large amounts of the risk associated with the subprime MBS and CDO securitizations they packaged, through purchases of their own subprime-related debts and credit enhancements for subprime conduits. Were the bank who created these securitizations and retained large exposures banks related to them, and the other sophisticated institutional investors who bought subprime-related securities, aware of the flawed assumptions regarding housing prices and no-docs mortgages that underlay the financial engineering of subprime MBS by ratings agencies? These assumptions were widely publicized as part of the process of selling the securities. Did they object? Apparently not.

Why did these sponsoring banks take these risks, and why did sophisticated institutional investors buy these overpriced securities? The obvious answer is that asset managers in charge of making these decisions were placing someone else's money at risk, and earning huge salaries, bonuses and management fees for being willing to pretend that these were reasonable investments. Rating agencies gave legitimacy to this pretense, and were paid to do so. Investors may have reasoned that other competing banks and asset managers were behaving similarly, and that they would be able to blame the collapse (when it inevitably came) on a surprising shock. The script would be clear, and would give plausible deniability to all involved. "Who knew? We all thought that the model gave the right loss assumption! That was what the rating agencies used." Plausible deniability was a coordinating device for allowing asset managers to participate in the feeding frenzy at little risk of losing customers (precisely because so many participated). Because asset managers could point to market-based data and ratings at the time as confirming the prudence of their actions on a forward looking basis, they may have reasoned that they were likely to bear little cost from investor losses.

In short, it seems that asset managers willingly invested too much in risky assets because of an incentive conflict or "agency problem," and rating agencies were their willing (fee-receiving) accomplices. If asset managers had informed their clients of the truth – that the supply of good investments in risky assets has been outstripped by the flood of financial savings, and that consequently, the risk-reward tradeoff did not warrant further investment in risky assets – then asset managers would have been required to return money to clients rather than invest in risky assets. Presumably the money would then have ended up in bank deposit accounts or other low-risk (and low-fee generating) investments. Returning the money to investors under these circumstances would have made investors better off (given the poor return to bearing risk), but it would have made asset managers worse off (because their compensation depended primarily on the size of the funds they manage), since management fees earned grow in proportion of the amount of funds invested in risky assets.

To what extent is it plausible to argue against this view by pointing to the novelty of subprime-related securitization products (subprime MBS, CDOs, SIVs, etc.), which may have made investors and rating agencies unable to gauge risk properly in advance of the crisis? As I have already noted, data and logic available prior to the crisis showed that key assumptions regarding the possible path of home prices and the adverse-selection consequences of no-docs mortgages were unrealistic. Furthermore, the novelty of a securitization product, in and of itself, should have indicated the need to adjust estimates of risk *upward*. Experience suggests that rating agencies frequently have underestimated the risks of new

products and only adapted their behavior after major credit or fraud events occur, which shows that their risk measures and controls for new products tend to be inadequate. Experience prior to the subprime collapse (in credit card securitization, in delinquent consumer account receivable securitization, and in other areas) has shown that the learning curve related to underestimation of risk can be steep. Decades of experience with steep learning curves in new securitization products indicates yet another reason that properly incentivized institutional investors should have been cautious about the new, fast growing markets in subprime mortgages and CDOs.

Indeed, it is particularly revealing to contrast the measurement of subprime risk with the measurement of risk in the much older credit card securitization business. In credit card securitization, even during the subprime crisis, market participants paid close attention to the identities of originators, to their performance in the past, to the composition of portfolios, and to how compositions changed over time, and originators were rewarded with greater leverage tolerances for “seasoned” receivables with good track records. In contrast, until the middle of 2007, the ratings of subprime portfolios (based largely on the unrealistic expected loss assumptions) seem to have been extremely insensitive to changes in borrower quality, product type (which is correlated with unobservable aspects of borrower quality), or the state of the housing market. And there was dramatic new entry into subprime origination in 2004-2006 by fly-by-night originators, yet these new entrants offering new, riskier products to new customers seem to have been able to raise funds under more or less the same low loss assumptions as old originators who offered older, lower-risk products. The principles learned over twenty years in the credit card securitization business were thrown out the window when rating subprime-related securitizations.

This account does not place the primary blame for the mispricing of risk on securitization sponsors (the sell side) or on rating agencies. After all, sponsors were only supplying what asset managers of their own institutions or outside buyers were demanding. And the rating agencies were also doing what the investors wanted – going through the mechanical process of engineering conduit debt structures, and rating them, based on transparently rosy assumptions. Rating agencies were not deceiving sophisticated institutional investors about the risks of the products they were rating; rather they were transparently understating risk and inflating the grading scale of their debt ratings for securitized products so that institutional investors (who are constrained by various regulations to invest mainly in debts rated highly by NRSROs) would be able to invest as they liked without being bound by the constraints of regulation or the best interests of their clients.

Many observers wrongly attribute rating agencies’ behavior to the fact that sponsors, rather than investors, paid for the ratings. But that fact was not relevant; sponsors and investors alike knew what was going on, and if the investors had not wanted the models to be misspecified and the ratings to be inflated, then the ratings agencies would not have built such faulty models and would not have generated such inflated ratings. Ratings inflation and model misspecification of subprime-related securitized debts was demand-driven, and thus would have occurred if the buy side had paid for ratings.

Evidence of Buy-Side Agency Problems from Ratings Shopping

Further evidence that buy-side investors encouraged the debasement of the ratings process comes from the phenomenon of “ratings shopping.” Before actually requesting that a rating agency rate a securitization, sponsors ask rating agencies to tell them, hypothetically, how much AAA debt they would allow to be issued against a given pool of securities being put into, say, the CDO portfolio. Effectively, rating shopping allows the most lenient rating agency to engineer the structure of any particular securitization; they tell issuers which combination of structural features (external or internal credit enhancements) will allow them to approve the maximum percentage of high-priced AAA debt, and issuers structure their conduits accordingly. If a rating agency gives too conservative an answer relative to its competitors, the sponsor just uses another rating agency.

Who is to blame for ratings shopping? It is important to recognize that in order for rating shopping to result in a race to the bottom in ratings, that race to the bottom must be welcomed by the buy side of the market; ratings shopping will not benefit the sell side without the buy side’s cooperation. If institutional investors punish the absence of relatively good strict agencies in an offering (by refusing to buy, or by paying a lower price, when a reputable rating agency is excluded from rating a securitization), then would-be ratings shoppers will have no incentive to exclude relatively strict rating agencies. Thus, the fact that ratings shopping tends to exclude relatively strict rating agencies and leads to low quality and inflated ratings implies that the buy side favors a ratings shopping process that results in low-quality, inflated ratings.

An anecdote conveyed to me by a rating agency executive illustrates how institutional investors, not sponsors and rating agencies, were driving the market’s decision to overpay for risky debts, which drove ratings shopping and the race to the bottom in rating quality. On one occasion, when one agency was uninvited by a sponsor from providing a rating (because the rating agency did not offer to approve as high a percentage limit for AAA debt as the other agencies), that agency warned a prominent institutional investor not to participate as a buyer, but was rebuffed with the statement: “we have to put our money to work.” Clearly, institutional investors understood and controlled the rating process. They were sophisticated and informed buyers, and because they controlled the cash, they determined what constituted acceptable risk measurement by sponsors and rating agencies.

Active participants in the structured finance market are well aware that rating shopping is common. Rating shopping in structured finance takes place at both the deal level and the individual debt tranche level: At the deal level, some agencies are dropped off of deals entirely if their Aaa-level enhancement indications for the deal are not sufficiently favorable, or if their published methodologies or past rating practices suggest to the issuer that the likely rating outcomes would be unfavorable. At the tranche level, some agencies are asked to rate the senior tranche, but they are not asked to rate the junior tranches. Agencies are dropped from the junior tranches if their ratings would be lower than those of other agencies.

Adverse selection of rating agencies as the result of ratings shopping is visible in the data, specifically in the tendency of issuers to prefer agencies that give more generous ratings, which can be

seen in the data describing which deals are rated by which rating agencies. Almost every deal that comes to market is shown to all three major agencies for preliminary indications on what credit enhancement levels are necessary to achieve targeted ratings. Typically, two or three agencies are selected to rate the senior-most, Aaa/AAA-rated tranche, although on some occasions only one agency is selected. Even when more than one agency is selected to rate the senior most tranche, fewer agencies are often asked to rate tranches further down the securitization's structure. Since very limited amount of work is required to assign junior tranche ratings once an agency has assigned a senior tranche rating, the only possible reason why agencies "fall off" the list of ratings is because they would have assigned lower ratings on tranches than other agencies.¹¹

Deal-level rating shopping is difficult to quantify because there are multiple possible reasons why an issuer might select some rating agencies over others. Tranche-level rating shopping, however, can be seen very clearly, for example, in the commercial mortgage-backed securities (CMBS) market. The database maintained by *Commercial Mortgage Alert*, an industry trade magazine, reveals the market share statistics presented in Table 1.

The table considers all CMBS securitizations where at least two rating agencies jointly rated a Aaa/AAA tranche, and then examines how often junior tranches from the same transactions were rated by both of these agencies or just one of them. As shown above, all three agencies are frequently dropped from junior tranches even when they have rated the senior-most tranche Aaa. This phenomenon is more common for Moody's than for Fitch or S&P. That is significant since Moody's ratings are considered of highest quality in the market (partly reflecting the fact that Moody's ratings are based on expected loss, as opposed to default probability alone) and this has the effect of lowering its junior tranche ratings relative to its competitors.¹² In other words, ratings shopping does produce a race to the bottom in ratings, which implies that buy-side investors favor that race to the bottom (otherwise, they would penalize the absence of Moody's harshly enough to discourage the exclusion of Moody's as the result of the race to the bottom).

Congressional Action to Promote the Race to the Bottom

Congress and the SEC also played a role in encouraging the debasement of ratings standards in subprime MBS and related securities. In a little known subplot to the subprime MBS ratings-inflation story, the SEC proposed "anti-notching" regulations to implement Congress's 2006 legislative mandate to avoid anti-competitive behavior in the ratings industry. The proposed prohibitions of notching were directed primarily at the use of previous subprime MBS ratings when rating new CDOs.

"Notching" arose when CDO sponsors brought a pool of securities to a rating agency to be rated that included debts not previously rated by that rating agency. For example, suppose that ratings shopping in the first generation of subprime securitization had resulted in some MBS securities that

¹¹ Rating fees are generally quite low on junior tranche. In the CMBS market, at least one agency provides junior tranche ratings at no additional charge if it rates the senior tranche.

¹² See V. Peretyatkin and W Perraudin, "EL and DP Approaches to Rating CDOs and the Scope for 'Ratings Shopping,'" in M. K. Ong (ed.), *Credit Ratings – Methodologies, Rationale and Default Risk*, London: Risk Books (2002).

were rated by Fitch but not Moody's (i.e., perhaps Fitch had been willing to bless a higher proportion of AAA debt relative to subprime mortgages than Moody's). When asked to rate the CDO that contained those debts issued by that subprime MBS conduit, Moody's would offer either to rate the underlying MBS from scratch, or to notch (adjust by a ratings downgrade) the ratings of those securities that had been given by Fitch.

Table 1
CMBS Transactions Issued from Jan 1993 - Apr 2007
(Source: Commercial Mortgage Alert)

	Number	Share of Rated Tranches
Deals Where Fitch and Moody's Jointly Rate AAA/Aaa Tranches		
Number of Securitizations	411	
All non- Aaa/AAA Tranches	3,719	100.0%
Tranches Rated Jointly by Fitch and Moody's	2,534	68.1%
Tranches Rated by Fitch but Not Moody's	922	24.8%
Tranches Rated by Moody's but Not Fitch	263	7.1%
Deals Where Fitch and S&P Jointly Rate AAA/Aaa Tranches		
Number of Securitizations	501	
All non- Aaa/AAA Tranches	4,301	100.0%
Tranches Rated Jointly by Fitch and S&P	3,497	81.3%
Tranches Rated by Fitch but Not S&P	483	11.2%
Tranches Rated by S&P but Not Fitch	321	7.5%
Deals Where Moody's and S&P Jointly Rate AAA/Aaa Tranches		
Number of Securitizations	546	
All non- Aaa/AAA Tranches	5,251	100.0%
Tranches Rated Jointly by Moody's and S&P	3,726	71.0%
Tranches Rated by Moody's but Not S&P	519	9.9%
Tranches Rated by S&P but Not Moody's	1,006	19.2%
Memo Items:		
	Number of Deals	Number of Rated Tranches in These Deals
CMBS Deals Rated Only by Fitch	94	510
CMBS Deals Rated Only by Moody's	67	473
CMBS Deals Rated Only by S&P	125	689

Rating agencies that offered more favorable subprime MBS ratings (i.e., Fitch) reportedly lobbied Congress to prohibit notching, complaining that this constituted an anti-competitive practice, and arguing that the allegedly dominant players (Moody's and S&P, who opposed the proposal) should instead accept ratings of other agencies without adjustment when rating CDO pools. This would have further emboldened the most lenient rating agencies to be even more lenient to ratings shoppers, since it effectively would have required the relatively conservative agencies (e.g., Moody's) to accept the ratings of other agencies in repackaging securities rated by others. The SEC agreed that notching was anti-competitive and proposed to prohibit notching. The threatened anti-notching rule pressured relatively conservative rating agencies to loosen their ratings standards on subprime MBS and CDOs. This policy constituted an attack on any remaining voices of conservatism within the ratings industry

that argued for the importance of preserving long-run reputational capital: trying to swim against the tide of ratings inflation would put relatively conservative rating agencies at risk of running afoul of their regulator!

III. Effective Reform

Any attempt at reforming the ratings process that would have a realistic chance of improving ratings quality and avoiding ratings inflation must come to grips with the two influences that are at the heart of these problems: (1) the outsourcing of government regulation to ratings agencies (which gives institutional investors strong incentives to encourage ratings inflation), and (2) buy-side agency problems that further encourage institutional investors to reward rating agencies for constructing unrealistic and inflated ratings models, since those models give plausible-deniability protection to institutional investors, and allow them (as well as rating agencies) to enjoy substantial fee income by overinvesting their clients' funds in risky assets that they pretend are not so risky.

Once one recognizes that the core constituency for low-quality and inflated ratings is the buy-side in the securitized debt market, that carries important implications for reform. Proposals that would require buy-side investors to pay for ratings, rather than the current practice of having securitization sponsors pay for ratings, likely would have no effect in improving ratings; buy-side investors' incentives are the source of the problem, and so giving them more control over ratings will not change the status quo. Furthermore, efforts to regulate rating agencies corporate governance (a popular idea in Europe) are similarly misguided. Rating agencies are already very responsive to their customers on the buy side; the problem is not that rating agencies are ineffective organizations, but rather that their incentives are skewed by the agency problems of buy-side institutional investors.

The elimination of the use of ratings for regulatory purposes would remove some of the incentive for ratings inflation, but by itself, this would not solve the problem of inflated and low-quality ratings, since the buy-side agency problem would continue to generate a demand for inflated, low-quality ratings in the securitization markets, where incentive-conflicted institutional investors dominate.

Any solution to the problem of the debased ratings process for securitized debts must address the incentive problem of ratings agencies directly, which means that it *must make it profitable for rating agencies to issue high-quality, non-inflated ratings*, notwithstanding the demand for low-quality, inflated ratings by institutional investors. This can only be accomplished through the following two regulatory interventions: (1) objectification of the meaning of ratings, and (2) linking the fees earned by rating agencies to objective measures of their performance. Quite simply, if ratings agencies fees are linked to the quality of their objectified ratings, then ratings agencies would find it unprofitable to cater to buy-side preferences for inflated, low-quality ratings. How could this be done?

The objectification of ratings could be achieved by requiring that all agencies wishing to qualify as NRSROs submit ratings for regulatory purposes that link letter grades to specific numerical estimates of the probability of default and the expected loss given default. The letter grades are already produced by models that estimate probabilities of default and expected losses on defaults, and rating agencies already maintain and report data on these measures, so it would be very easy for rating agencies to

provide the numbers that relate to their letter grades. Once they have done so, then regulators can specify regulatory limits and capital requirements that are linked to estimated probabilities of default and losses given default (which have concrete meaning), rather than vaguely defined letter grades.

Once the ratings are objectified in this way, rating agencies could be held accountable for their ratings. For example, if an NRSRO's ratings for a particular product (say, CDOs) were found to be persistently inflated over a sufficiently long period of time (where the size of the error and the duration of the time period would be constructed to ensure a very high level of statistical confidence that the error was intentional), then that NRSRO would face a penalty. That penalty could take the form of a "clawback" of the fees the agency has already earned on that product (which would be enforced by requiring that agencies keep some of their fees on hand as a "bond" to ensure that they can pay fines if they are imposed). Alternatively, a rating agency found to have exaggerated its ratings could simply lose its NRSRO status for a brief period of time (say, several months), which would also provide powerful incentives not to inflate.¹³

¹³ One proposal recently floated by Rep. Paul Kanjorski would try to hold ratings agencies accountable for their ratings through legal action. This proposal is misguided for several reasons. First, in some instances the proposal strangely would provide for "joint liability" of ratings agencies, meaning that each could be held liable for actions by another. Second, it creates no objective standard for NRSRO performance on which to base potential legal liability. Third, because it relies on legal liability, it would entail a wasteful litigation process that would create huge new legal risks for rating agencies, rather than the straightforward penalty function that I propose for all rating agencies that choose to provide ratings as NRSROs.