

# **Moody's Investors Service**

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

Before the
United States Senate
Committee on Banking, Housing and
Urban Affairs

September 26, 2007

## I. Introduction

Good morning Chairman Reed, Ranking Member Shelby and members of the Committee. 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 Committee on Banking, Housing and Urban Affairs for the opportunity to participate in today's panel on the role and impact of credit rating agencies on the subprime credit markets.

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"<sup>1</sup>. 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.

<sup>1</sup> 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. 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. 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

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

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, <a href="https://www.moodys.com">www.moodys.com</a> – indicate a high degree of consistency between structured finance and corporate ratings.<sup>4</sup>

#### 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.

\_

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,<sup>5</sup> 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

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. 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.<sup>7</sup>

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

<sup>&</sup>quot;Moody's Investors Service Ratings Policy: Core Principles for the Conduct of Rating Committees," Ratings Practice, April 2006.

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.<sup>8</sup> 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);

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;<sup>9</sup>
- 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;<sup>10</sup>
- 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

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

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	Total Subprime	Percent of			
	origination	origination	Subprime			
	(\$billions)	(\$billions)	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

-

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. <sup>12</sup>

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, <sup>13</sup> 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

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.

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.

published in September 2007,<sup>14</sup> 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)								
	Pri	me	Alt	-A	Subp	rime	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:

\_

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

#### 1) We began warning the market starting in 2003

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. In January 2007, we published a special report highlighting the rising defaults on the 2006 vintage subprime mortgages. In

#### 2) We tightened our ratings criteria

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.

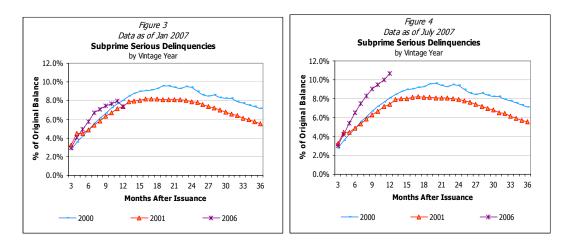
#### 3) We took rating actions as soon as the data warranted it

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.

<sup>16</sup> Early Defaults Rise in Mortgage Securitization, Moody's Special Report, January 18, 2007.

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

*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 Nur	By Do	ollar Volume	(\$mil)		
Total Number	Number	%	Rated	Dollar	%
of Tranches	On Review/	<b>Impacted</b>	Dollar	Volume	<b>Impacted</b>
Rated	Downgraded		Volume	Im pacted	-

	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%
Α	1,291	10	0.8%	\$21,190	\$185	0.9%
Baa	1,299	244	18.8%	\$14,897	\$3,161	21.2%
Ва	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%
Α	184	175	95.1%	\$1,851	\$1,785	96.4%
Baa	211	207	98.1%	\$1,462	\$1,450	99.2%
Ва	99	99	100.0%	\$670	\$670	100.0%
Total	858	724	84.4%	\$33,023	\$19,708	59.7%
•						

		First and Seco	nd Lien Trar	nsactions		
Aaa	2,302	86	3.7%	371,139	12,716	3.4%
Aa	1,442	157	10.9%	44,322	3,087	7.0%
Α	1,475	185	12.5%	23,040	1,970	8.6%
Baa	1,510	451	29.9%	16,360	4,611	28.2%
Ва	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

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.<sup>18</sup> Additional market education about what our ratings

\_

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 29<sup>th</sup> Annual Meeting of the International Organization of Securities Commissions" October 2003; "Statement of John Rutherfurd at the 30<sup>th</sup> 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:

\_

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			
	\$0 Net Worth			
\$80 Mortgages	("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	<ul> <li>"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)</li> <li>"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)</li> </ul>