

Report From ABS East 2008: Securitization Is Not Dead, But Merely Wounded

Ratings Services:

Mark Adelson, Managing Director and Chief Credit Officer, New York (1) 212-438-1075;
mark_adelson@standardandpoors.com

Table Of Contents

Sessions Covered

Sunday, Oct.19, 2008

Assessing Credit Risk In The MBS Sector (2:45 p.m.)

Pricing And Valuation Strategies For Distressed Debt (3:30 p.m.)

Credit Analytics For ABS Investors (4:15 p.m.)

OTTI And Fair Value: Using Analytical Tools (5:00 p.m.)

Monday, Oct. 20, 2008

Industry Leaders Speak Out: ABS 2009 And Beyond: Will The Market Adapt, Evolve And Survive And How? (8:45 a.m.)

Keynote Address By Edward DeMarco, Deputy Director & Chief Operating Officer, Federal Housing Finance Agency (11:15 a.m.)

Transparency and Rebuilding Investor Confidence (11:45 a.m.)

Mortgage And Consumer Finance Reform (2:00 p.m.)

Table Of Contents (cont.)

Relative Value In The Distressed MBS Market: The Mortgage Research Analysts' Roundtable (2:50 p.m.)

Credit Assessment And Ratings Methodology For The MBS Sector (4:05 p.m.)

Distressed RMBS/CDO Challenges: Investment Opportunities, Restructuring And Litigation (4:50 p.m.)

Notes

Report From ABS East 2008: Securitization Is Not Dead, But Merely Wounded

(Editor's Note: The text of this article is not intended to reflect the views of Standard & Poor's. This article summarizes a number of speeches and panel discussions that took place at the 14th annual ABS East conference held in Hollywood, Florida, Oct. 19-22, 2008. These sessions were summarized by the writer and the text below is intended solely to reflect the views of the panelists, not Standard & Poor's.)

Attendees at last week's ABS East 2008 event in Hollywood, Florida, projected mixed outlooks for securitization. Despite decreased issuance levels this year, and nearly complete paralysis in the mortgage-backed securities (MBS) and subprime mortgage asset-backed securities (ABS) sectors, participants at the conference seemed to uniformly believe that securitization is not dead, but merely wounded. They generally anticipate a bottom in the real estate sector in 2009 or 2010, and expect mortgage securitization activity to recover shortly after that.

In the meantime, however, conference participants believe that there are challenges to be overcome. Secondary trading has become difficult. There is a widely held view that trading prices (on the rare occasions when securities trade) are disconnected from fundamental values. Indeed, it is hard to agree on intrinsic values or how best to estimate them.

Similar to past industry events, there was ample discussion of "what went wrong" and less discussion of how to prevent it from happening again. Predictably, there was a strong focus on quantitative models and data. Some panelists expressed the view that increasing the granularity of analysis could help avoid problems in the future. Others argued that it is more important to never lose sight of the big picture and important macro trends.

The following summaries reflect remarks of the panelists who participated in selected sessions at the conference on Sunday, Oct. 19 and on Monday, Oct. 20. For the most part, the summaries have been drawn from notes I took during the sessions. The summaries have not been reviewed or approved by the panelists, although I have tried to capture their remarks accurately. In addition, I wish to acknowledge the excellent work of Information Management Network, which organized and hosted the conference.

Sessions Covered

Sunday Workshops

- Assessing Credit Risk in the MBS Sector
- Pricing and Valuation Strategies for Distressed Debt
- Credit Analytics for ABS Investors
- OTTI: Assessing Impairment Using Credit Models

Monday Speeches and Panels

- Industry Leaders Speak Out: ABS 2009 and Beyond (general session)
- Keynote Address by Edward DeMarco, Deputy Director, FHFA (general session)
- Transparency and Rebuilding Investor Confidence (general session)
- Mortgage and Consumer Finance Reform
- The Mortgage Research Analysts' Roundtable

- Credit Assessment and Ratings Methodology for the MBS Sector
- Distressed RMBS/CDO Challenges

Sunday, Oct.19, 2008

Assessing Credit Risk In The MBS Sector (2:45 p.m.)

What could be more important and more interesting as the lead-off topic for the conference than MBS credit risk?

One panelist asserts that almost all the mortgage-related securities issued in 2006 and 2007 are likely to be downgraded, and a very large proportion of them will default. Delinquencies on some pools are over 50%. Losses above 30% are likely on some pools. This is creating pressure on some financial institutions and is causing some investors to pull away from the mortgage sector altogether.

Do all the panelists build prepayment and default curves?

One panelist explains that his firm uses static prepayment and default curves. Two panelists state that their firms use the database from LoanPerformance (a unit of First American CoreLogic Inc.) as well as the Intex Solutions Inc. structuring tool. A third panelist also uses Intex.

Building analytics:

One analyst explains that his firm builds its own loan-level credit models from historical data. Another panelist states that his firm builds credit and prepayment models from historical data but places greater weight on recent data. A third panelist explains that his firm builds credit models from aggregated vintage-level data (i.e., not loan-level data) for different product types. A fourth panelist focuses on product types more than on vintages.

Loss severities:

Loss severities on two-year subprime adjustable-rate mortgages (ARMs) in California have gone to 50% from 10% over 18 months. Over the same period, severities on loans secured by homes in the rust belt have gone to 80% from 40%. The rate of increase in severities is likely to slow down in the areas that have reached the worst severity levels, but severities are still rising in certain key areas such as New York and New Jersey.

Three of the five panelists use projections of home price appreciation as a starting point for their analyses. One panelist notes that prepayments have declined the most in areas that had the greatest home price appreciation during 2003-2005. The outlook is weak for real estate in the New York metropolitan area. The decline in real estate values in New Jersey after the telecom bust may be an instructive historical example.

Loan modifications:

The panelists recognize that there is great variation in how servicers and trustees handle loan modifications on remittance reports. One panelist states that his firm is still examining the effects of loan modifications because the final impact has not yet occurred. A second panelist observes that the amount of data on loan modifications is still very small. A third panelist remarks that the only way to keep the redefault rate acceptably low is to forgive principal. The accounting treatment for modifications that defer principal is still unclear. Trustees have different ways of reporting loan modifications. Some market participants are concerned about capitalizing interest because it may increase severity on a subsequent default. There may be conflict among holders of different classes within a deal because loan modifications may be beneficial to some and detrimental to others. Banks and bank-owned institutions do a lot of modifications. Mortgage conduits do very few modifications.

Option ARMs:

One panelist expects option ARMs to perform very poorly. A second panelist observes that many option ARMs become delinquent even though the borrowers can make small payments, allowing their loans to negatively amortize. The negative amortization (neg am) option makes the loans very hard to analyze according to one panelist. A third panelist notes that the delinquency rates are starting to decline. He expects that many option ARMs will default and receive modifications. Another panelist notes that option ARMs are highly concentrated in California (58%) and Florida (12%). He expects losses on option ARMs to be about 30%. He feels that roughly 50% of option ARM loans will default and that the loss severity will be roughly 60%. Another panelist focuses on the amount of neg am combined with declining home prices.

What role did investors' credit analysis have in getting us to the current situation?

One panelist asserts that it was not credit analysis but a lack of credit analysis that brought on the current situation. A second panelist (a modeler) is reluctant to blame models and prefers to focus on how they were used. A third panelist focuses on unrealistic expectations and bad choices by borrowers. A fourth panelist identifies originators' desire to sustain origination volumes by cutting credit standards. The fifth panelist highlights the rapid growth of the non-agency MBS sector. He argues that market participants did not have the analytical tools to make good choices.

Four members of the panel use delinquency transitions to project pipeline losses. This approach has the advantage of being more than 12 months ahead of the subsequent default data.

One panelist observes that it is not enough to simply shock the home price appreciation parameters used in credit models. He asserts that an analyst should shock the whole model.

Pricing And Valuation Strategies For Distressed Debt (3:30 p.m.)

One panelist argues that the concept of price is hard to apply in the current environment because there is no trading. On the other hand, he feels that value remains a valid concept and that value should be estimated by discounting projected future cash flows.

Delinquencies are at unprecedented levels for all types of mortgage products: subprime, alternative-A (Alt A), and jumbo. Value when there is no observable trading price is a challenge in the current environment. Value can be estimated, he says, through a cash flow analysis using projections of losses and prepayments, which in turn are determined by loan characteristics, environmental variables (including home price appreciation), and loan modifications. The panelist focuses on getting good projections for home price appreciation. He emphasizes the need to have flexible models. He further emphasizes that delinquency roll rates are valuable data that come much earlier than data about defaults.

A second panelist observes that history can serve as a valuable guide. He asserts that there were several early warning signs of the subprime problem including the declining rate of servicer clean-up calls starting in mid-2005, shrinking loss severity assumptions in credit models, and early payment defaults. The key lessons, he says, are that historical perspective helps, the devil is in the details, surveillance is essential, and timing is critical. He observes that calibrating the results of a valuation analysis requires common sense and real-world validity checks. According to this panelist, it is necessary to make sure that a valuation bears a relation to the market, and that assumptions for prepayments and defaults make sense from a servicing perspective. He advocates the use of scenario analysis and highlights the need to "expect the unexpected."

The third panelist focuses on tax issues relating to loan modifications. He explains his belief that purchasing a loan at a discount and then modifying it can produce phantom income.

Credit Analytics For ABS Investors (4:15 p.m.)

How did we get to where we are today? Did the analytics go wrong?

One panelist asserts that the analytics did not fail but that investors underestimated the likelihood of a severe real estate downturn and the degree to which underwriting practices deteriorated. (1) A second panelist agrees that a sustained, nationwide housing downturn was a scenario that most market participants had dismissed as unrealistic. In addition, data about risk layering was amply disclosed, but it was not given great weight by investors. (2) A third panelist believes that most market participants simply believed that historical trends (i.e., favorable conditions) would continue indefinitely. The panelist asserts that rating agency models did not incorporate scenarios as severe as what has happened. A fourth panelist feels that the market had simply gotten too hot several years ago. He notes that market prices for securities have become more volatile than seems justifiable by analytic valuations.

Do any panelists believe that market participants have adequate analytics to move the market forward and, if not, what do we need?

One panelist feels that analytics have been moving forward with the evolution of the market. His firm continually receives solicitations by vendors of new data products and new analytic products. He notes that there are certain overarching uncertainties (such as loan modifications) that limit the power of data and analytics. A third panelist reiterates the point about value versus price. The fourth panelist suggests that market participants should place greater emphasis on stochastic approaches.

What is the impact of borrower fraud and how should the market address it?

One panelist feels that the right way to tackle the problem of borrower fraud is through increased stringency in underwriting and in higher yields for investors. A second panelist remarks that many underwriting exceptions were allowed based on borrowers' FICO® scores but that the market has now learned that FICO scores were not a sufficient compensating factor. A third panelist asserts that analytics are not likely to be able to catch borrower fraud and, therefore, an appropriate fix is to make sure that there is capital backing up representations and warranties, so that the originator can be forced to repurchase loans tainted by fraudulent data.

Would more information or better disclosure have helped? Is disclosure or transparency the answer?

One panelist feels that more disclosure would have helped the market, particularly regarding underwriting exceptions. A second panelist feels that although more disclosure is always good, there will continue to be limits on the ability to make "apples to apples" comparisons because originators do not use common definitions for key data items and classifications (e.g., how to calculate a borrower's debt-to-income ratio). The American Securitization Forum's (ASF) "Project Restart" is a critical beginning to improving disclosure and transparency, but by itself it will not be enough to restore the market because the problem is deeper than just disclosure.

How can market participants figure out the intrinsic value of an asset in a market that is not trading?

One panelist explains that her firm uses a "credit option-adjusted spread (OAS)" approach for estimating intrinsic value based on a wide range of scenarios. (3) Another panelist asserts that the non-agency MBS market has become much more technical (i.e., driven by supply and demand rather than by analytically estimated intrinsic value) in recent months and that trading prices may substantially diverge from hold-to-maturity (i.e., intrinsic) values.

What about the new realities of loan modifications and how they affect analytics? How are loan modifications being reported? Is there consistency of reporting among servicers and trustees?

One panelist feels the need for enhanced data and analytics grew as deal structures and asset quality got weaker. However, he said, as the market deteriorated, new analytics have become necessary to capture the effects of deterioration in the weighted-average coupon (from disproportionately high levels of prepayments and defaults of loans with higher interest rates) and principal forgiveness (from loan modifications) on cash flows.

One panelist feels that future analytics will rely less on past performance. Many market participants are focusing on increasing the granularity of their analysis. Many are focusing on the impact of government policies.

OTTI And Fair Value: Using Analytical Tools (5:00 p.m.)

It is said that Americans and British are two peoples separated by a common language. Similarly, accountants and financial analysts are separated by their common language.

The Financial Accounting Standards Board (FASB) and the SEC have recently offered new interpretations on the subject of "other than temporary impairments" (OTTI). From an accounting perspective, "impairment" occurs whenever the fair value of an asset is less than its amortized cost. Once an impairment occurs, a reporting company must decide whether it is temporary. If the company does not expect the fair value to rise before selling the asset, there is an OTTI. A second kind of OTTI can occur when there is a probable loss on the asset (FAS 115, ¶ 16). If an asset has OTTI, the cost basis must be written down to fair value and the amount of the write-down must be included in earnings. The fair value may be different from the loss-adjusted cost basis because fair value reflects the actual market. Subsequent unrealized increases in fair value do not get included in ordinary income but are included in other comprehensive income.

Under FASB's new interpretation, fair value now means "the price at which a transaction takes place between market participants" or "the price received by a holder in an orderly transaction and not a forced sale." (4) However, according to the panelists, it is not appropriate to conclude that all market activity comprises forced liquidations or distressed sales. In addition, broker quotes should receive less weight as indications of value if they do not reflect the results of market transactions.

Valuation of Level 3 (5) assets uses present value methods to determine the fair value. According to panelists, methodologies should reflect the uncertainty in the future cash flows.

OTTI means expecting not to receive contractual cash flows under an expected scenario. In contrast, "fair value" is based on a risk-neutral expectations approach. Thus, OTTI and fair value really apply two different standards.

Turning to the financial analysis perspective, the methodology can be static or stochastic.

A "breakpoint ratio" is the ratio of the smallest amount of losses that would be required to break a bond (i.e., cause it to default), divided by the base case projected losses. Bonds that have a breakpoint ratio of less than one arguably have OTTI but those with breakpoint ratios of one or higher arguably do not. A case can be made that a bond with a breakpoint ratio slightly below one may not necessarily have an OTTI.

It can be interesting to compare market prices to the price implied by both "normal" OAS levels (e.g., OAS of 50 for low credit risk) and by "stressed" OAS levels (e.g., OAS of 200 for low credit risk assets during periods of market dislocation).

OTTI and fair value are similar but different. Analytical models can provide a framework for determining OTTI and fair value. Modeling involves both objective and subjective choices.

Monday, Oct. 20, 2008

Industry Leaders Speak Out: ABS 2009 And Beyond: Will The Market Adapt, Evolve And Survive And How? (8:45 a.m.)

How did we get to where we are today? What about the primary and secondary markets?

One panelist feels that the issues of what happened and how it happened are secondary. Rather, the more important issue is how to move forward. Moving forward will require a restoration of confidence. According to this panelist, mark-to-market accounting is very damaging, and confidence starts at the very bottom of the financial system, with mortgage loans, assets, and bank deposits. The panelist feels that confidence will start to come back after the election. New presidential leadership ought to start restoring consumer confidence in the banking system and banks' willingness to make loans.

How are fundamental values restored?

One panelist remarks, among other things that: the secondary market has been under pressure for the last year and that the pressure has intensified during the past month; the entire structured finance market has had a price collapse; and the main reason is excess supply. However, the panelist notes that the fundamentals also have deteriorated significantly and the structured finance market is experiencing a manpower shortage. The panelist said an additional stress on the market is the trend among financial institutions to reduce leverage. Over the past several years, he says, many market participants "gorged" themselves on leverage but that over the past several months, most market participants have attempted to decrease their financial leverage, or "de-lever." He says, the dealer network for secondary trading is more wounded than other groups of market participants because the dealers mark their inventories to market every day.

Some investors got into big trouble using 20 to 1 leverage to buy 'AAA'-rated MBS, according to this panelist. When those investors received margin calls, he says, their positions unraveled. He adds that credit default swaps (CDS) encouraged excessive leverage and CDS ultimately created overwhelming problems for companies like American International Group Inc. The panelist believes that there is likely to be a wave of downgrades of Alt-A MBS that were initially rated at the 'AAA' level. He believes that insurance companies will suffer significant capital shortfalls because of those downgrades, and that there is likely to be a crisis in the insurance industry.

Another panelist counters that a moratorium on downgrades would not be a solution for the insurance sector.

A third panelist agrees that leverage is the culprit. Brokers and hedge funds operating at 40 to 1 leverage and financial institutions operating at 20 to 1 are going to be things of the past. He argues that restoration of confidence will require a better understanding of how ratings will behave. Investors likely will demand higher yields, he says, to compensate for uncertainty about how ratings will behave. He notes the impact of fundamental economic factors. In the future, structures are likely to be simpler and deals will have more subordination, according to this panelist. Recovery likely will not occur in 2009, but rather in 2010 or later.

What are some of the key provisions in the documents?

Lack of standardization in the servicing and loan modification provisions of MBS documents is an important issue. The ASF has helped by releasing some "interpretive" guidance. (6) In addition, in the CDO area, differences in default and remedies provisions have created difficulties for the markets. There is a need for greater standardization in the operative documents for securitization deals.

TARP, EESA, Hope for Homeowners:

The Treasury has enormous discretion in how to administer the Troubled Asset Relief Program (TARP). (7) The Emergency Economic Stabilization Act (EESA) (8) included some clean-up items for the Hope for Homeowners program. (9) There is a provision for guaranteeing modified loans. In addition, the EESA included an option for the Treasury to guarantee troubled assets rather than buying them. (10) EESA seems to give the Treasury the ability to create its own securitization program.

New issue market:

One panelist observes that the new issue market has declined. It had grown enormously over recent years because of growth in two sectors: subprime mortgage ABS and CDOs of ABS (SF CDOs). Demand from SF CDOs priced out real, cash buyers from the subprime mortgage ABS sector. Panelists state their view that the market embraced a naively low correlation assumption in SF CDO deals. The Basel II framework allowed banks to abdicate their credit role and instead to simply rely on credit ratings. On the other hand, the credit card, auto loan, and student loan ABS sectors continue to function and have not suffered to nearly the same degree as the subprime mortgage area. ABS from those areas have not suffered impairments to nearly the same degree as SF CDOs and subprime mortgage ABS.

Another panelist feels that the currently stressful conditions will cause underwriting standards to tighten in normal ways. Loan-to-value (LTV) ratios will be lower. The effects will be stronger in markets where the housing bubble was the most pronounced. Tighter underwriting standards should help to restore investor confidence.

Current and future state of U.S. consumers:

A key issue for consumers is the level of interest rates that they have to pay. Although rates on Treasury securities have come down a lot, interest rates that consumers face remained steady or went up. The winter holiday shopping season is likely to be weak.

Another panelist feels that U.S. consumers are very resilient and that they will become confident again reasonably soon. He also feels that there are many real money investors waiting on the sidelines, but that they will be willing to invest only when they can understand the assets backing their potential investments.

A third panelist reiterates that times have become very difficult. Nonetheless, he is essentially optimistic now. He believes that consumers have stronger credit than financial institutions. Consumers have leverage of 3 to 1 or 5 to 1, which is much lower than that of financial institutions. Most consumers did not use stated income loans. Most consumers did not get second-lien loans. Security prices exaggerate the deterioration of fundamentals. Some senior MBS tranches initially rated 'AAA' offer yields of 15% or higher. Some MBS and ABS mezzanine tranches initially rated in the 'AA' category have dollar prices in the single digits. Many of the available trading opportunities have much more upside opportunity than downside risk. The panelist is very bullish on the U.S. consumer. Typical U.S. consumers will protect their homes. They will forego flat screen TVs.

How will TARP affect the primary and secondary markets and what are the biggest risks?

One panelist feels that a key challenge for TARP is determining the price that the Treasury will pay for troubled assets. Prices that are too low will not help distressed institutions, but prices that are too high will improperly

burden taxpayers. He feels that TARP can be most effective if it involves purchases of ABS from all asset classes. Another panelist notes that TARP is a revolving purchase facility. Thus, even after the \$250 billion applied to recapitalize the banks, the Treasury can recycle the remaining \$450 billion by securitizing or otherwise disposing of assets that it purchases. TARP also is likely to unleash a flood of loan modifications.

Q&A: Aren't we just replacing the monolines with government programs and what if those programs unravel?

One panelist asserts that although programs like TARP might eventually affect government borrowing rates or the strength of the U.S. dollar, those effects would likely take time to develop.

Keynote Address By Edward DeMarco, Deputy Director & Chief Operating Officer, Federal Housing Finance Agency (11:15 a.m.)

The combined debt of Fannie Mae and Freddie Mac equals the debt of the U.S. (\$5.4 trillion). The share of mortgage originations tied to the government-sponsored entities (GSEs) increased rapidly with the onset of the subprime problems. The total outstanding amount of GSE MBS is around \$3.7 trillion. Private-label mortgage securitization activity has essentially vanished since mid-2007. At the same time, Ginnie Mae activity has increased. Fannie Mae and Freddie Mac each have had operating losses in most of the past eight quarters. The companies' problems are tied to the bursting of the housing bubble and rising delinquencies.

The Federal Housing Finance Agency (FHFA) has replaced the GSE oversight functions previously spread among diverse government agencies: the Federal Housing Finance Board (FHFB), the Office of Federal Housing Enterprise Oversight (OFHEO), and the Department of Housing and Urban Development (HUD). The structure of the FHFA is different from the structure of the predecessor agencies. The FHFA has at least three divisions: supervision of Fannie Mae and Freddie Mac, supervision of the Federal Home Loan Banks (FHLBs), and supervision of the housing mission. In regulating Fannie and Freddie, the FHFA can impose portfolio limits and capital requirements (risk based and minimum capital) and it can exercise enforcement and receivership powers. In overseeing the FHLBs, the FHFA has the power to regulate capital and has enforcement and receivership/conservatorship powers.

During the first half of 2008, 78% of all residential mortgage loans were part of Fannie Mae or Freddie Mac programs. The deterioration of real estate and capital market conditions caused impairment of capital-raising abilities at both GSEs. Each had purchased large amounts of Alt-A production in 2007. In addition, their holdings of risky, private-label MBS had increased markedly. Then Fannie Mae and Freddie Mac found themselves in weakened positions in terms of their ability to perform their missions. The FHFA director's recent congressional testimony covers the reasoning behind putting these GSEs into conservatorship. (11)

Under the conservatorship, Fannie Mae and Freddie Mac are allowed to grow their portfolios in the short term but then must shrink them at a rate of 10% per year. Their ability to guarantee MBS is not restricted. Dividends to common and preferred shareholders have been stopped, but the stock remains outstanding and the shareholders have a claim if the companies recover. The Treasury has contracted to maintain a positive net worth at each organization by the purchase of up to \$100 billion of senior preferred stock from each. The Justice Department has issued an opinion that the obligation of the U.S. under the agreement is not cancelable. There is also an MBS purchase facility under which the Treasury can purchase MBS from Fannie, Freddie, or the FHLBs.

The EESA established the TARP and gives the Treasury broad authority to purchase troubled assets, provide guarantees, and provide capital. It enabled the new \$250 billion bank preferred stock program. It provides for

increasing the use of mortgage modifications to avoid foreclosures.

Transparency and Rebuilding Investor Confidence (11:45 a.m.)

Rating agencies and their role in restoring confidence:

A panelist representing Standard & Poor's Ratings Services explains that it makes its rating criteria available on its public Web site and organizes it for easy access. It has also formalized the criteria management process and has separated it from the business units. The company has also created a detailed process for criteria development and has designated personnel to have solely criteria-related responsibilities. It has published "what if" scenario analyses and appointed a new chief credit officer.

Another panelist observes that notwithstanding the actions by the rating agencies, it will still take time for confidence to be restored. The market needs to return to an environment where investors have strong relationships with the rating agencies to really understand what they are doing. The key is that the market should not be surprised when rating agencies take actions because market participants understand well what the rating agencies do. There has been much focus on conflict of interest issues and who pays for ratings. However, large institutional investors do credit analysis themselves and view rating agencies as companies with whom they share information and insights. Investors should not rely on rating agencies to the exclusion of doing their own analysis but rather, should use credit ratings as supplements to their own analysis.

Another panelist notes that proposed SEC rules would deemphasize the role of ratings in the regulatory framework. (12) He notes that the improved disclosure for ABS, which started in January 2006, (13) did not help to prevent the problems that emerged with deals from the 2006 and 2007 vintages.

Another panelist feels that getting additional information about security prices into the hands of investors could only help, even though it might not have prevented the current problems.

Another panelist observes that no amount of transparency can counter forces such as irrational exuberance. Nonetheless, transparency can only help. There are three types of information that can help investors: information about new deals, information about performance of outstanding deals, and pricing information on outstanding securities. The ASF Project Restart encourages issuers and servicers to provide information in a standardized format. Although the standardized format may not have the force of legal or regulatory obligation, investors may require it and it may become a de facto standard. However, another panelist disagrees and asserts that there should be a mandatory standard under which issuers and underwriters are not permitted to decide whether particular items of information are material in given cases.

One panelist explains that more data and increased granularity are not always the answer. They cannot overcome irrational exuberance that causes many players to lose sight of the big picture. Another panelist feels that at the top of the capital structure of MBS deals (senior, 'AAA' tranches), investors want measures that are simple and consistent. Unlevered, on-balance sheet entities are likely to be the dominant group of investors for low-yielding, 'AAA'-rated structured finance securities. Accordingly, the securitization sector first needs to regain the confidence of that group of investors before it tries to restore confidence among investors who buy lower in the capital structures of deals.

An ASF survey reveals that investors are largely satisfied with disclosure for ABS backed by credit cards, auto loans, and student loans. In contrast, they were unsatisfied with disclosure in the areas of MBS, mortgage-related ABS, and

CDOs.

One panelist suggests that the same seeds that grew into problems in the mortgage sector may grow into problems in other areas. For example, credit cards are too freely available to too many consumers with weak credit. It is hard to have perspective and to apply the brakes when everyone is still making money.

How far off were the models?

One panelist feels that models were off on a macro basis and they "missed" the issue of combining risk factors. Another feels that the models did not address a sufficiently broad range of scenarios. A third feels that users of models too frequently forget the limitations of the models. A fourth panelist explains that there was not enough stress testing on a wide range of scenarios.

Skin in the game?

One panelist argues that originators should not be required to retain an economic interest in securitizations, or "keep skin in the game." That does not mean that an originator should not do so, but simply that it should not be required to do so. However, originators implicitly retain skin in the game through representations and warranties. Another panelist likes the concept of skin in the game, but he does not want to require it. However, he feels that many investors will insist on it. He does not feel that rating agencies should be asked to hold positions in securities that they rate. Another panelist argues that it should not make any difference whether an originator holds a continuing interest as long as some sophisticated, well-informed investor (or other kind of entity) holds the riskiest position and makes an informed decision about how to price the risk.

An investor panelist wants rating agencies to comment when they don't rate securities. In particular, he wants to understand why a given rating agency did not rate certain deals. Another panelist observes that rating agencies always face conflicts of interest because somebody pays for the ratings. A third panelist notes that conflicts of interest also affect mortgage brokers and mortgage bankers.

An audience member asks whether transparency is really the issue for rebuilding investor confidence because investors were complicit in creating the problems. He contends that investors drove the market for exotic instruments by seeking unreasonably high yields.

Another audience member asks whether there is ever likely to be an effective way to disclose the weaknesses associated with new loans and new loan products. He contends that the SEC's Regulation AB failed to provide warning about those weaknesses and, therefore, no similarly structured disclosure regime likely will be successful in doing so in the future.

Mortgage And Consumer Finance Reform (2:00 p.m.)

Recent policy initiatives:

One panelist feels that the markets are driving the economy, rather than vice versa. This has important policy implications. Over the past several years, borrowers took out loans that they did not have the ability to repay. New lending standards should change that. New legislation is not intended to inhibit credit to but rather to return it to solid foundations. One recent initiative was to increase the limit for conforming loans. Other initiatives, such as TARP, are directed toward improving transparency and restoring investor confidence.

Another panelist remarks that the Federal Reserve regulates bank holding companies and state member banks. In

addition, the Fed is responsible for the consumer lending regulations, such as Regulation Z. The Fed's lending regulations apply to all lenders, not just regulated financial institutions.

A third panelist focuses on the creation of a uniform licensing system for state-regulated mortgage originators. Individuals in the business of originating mortgage loans will be required to have licenses, unless they work for banks. Separately, states are likely to remain intimately involved in the foreclosure process.

A fourth panelist observes that there is a promising return to traditional underwriting norms. A fifth panelist notes that recent challenges to the enforcement of lenders' remedies are making investors wary of investing in distressed MBS and mortgage-related ABS. Another panelist comments that it is hard to model "regulatory risk."

Loss mitigation and loan modification:

One panelist explains that the view of the FDIC and of several other agencies is that impediments to loan modifications were overstated. The ASF released helpful guidance on loan modifications late last year. FDIC Chairwoman Sheila Bair has been a vocal proponent of loan modifications as a way to prevent foreclosures. One program that helps to prevent some foreclosures is "FHA Secure." However, some programs may require a very substantial write-down of a loan's principal as a condition to refinancing. The FDIC believes that its orientation toward loan modifications is not a social program, but rather a means of maximizing recoveries to minimize costs to taxpayers on resolving failed banks.

In the Indymac conservatorship, the FDIC used a formula to decide what loan modifications to make. There were simply too many delinquent loans to be able to assess each one individually. The key metric was achieving a debt-to-income ratio of 38%. The FDIC has reduced loan interest rates to as low as 3%, has extended loan amortization periods, and has made partial reductions of principal. The FDIC uses a net present value analysis to determine when to modify loans and when to pursue foreclosures.

Countrywide settlement: (14)

Streamlining the loss mitigation and loan modification processes is key to reducing the level of local lawsuits against foreclosure activities. The State Foreclosure Prevention Working Group is an association of state attorneys general. The main thrust of the Countrywide Settlement of October 2008 is to promote the use of loan modifications instead of foreclosures. The settlement requires Countrywide Financial to maintain a specified staffing level and provides for four levels of loan modifications. The settlement does not override contractual duties to investors.

New lending regulations will require better disclosures of fees and loan costs to borrowers and will restrict prepayment penalties on subprime loans.

The Office of the Comptroller of the Currency is gathering more data on mortgage loan performance and loan servicing (mortgage metrics). Data indicates that the rate of loan modifications increased markedly in the second quarter of the year, but we don't yet know how many of the modified loans will redefault.

There is a proposal that would restrict the ability of credit card companies to change the interest rates that they charge borrowers.

Relative Value In The Distressed MBS Market: The Mortgage Research Analysts' Roundtable (2:50 p.m.)

Where we are, how we got here, how long will it last?

One panelist feels that we are less than halfway toward achieving fair values in home prices. The fair peak-to-trough decline should be about 30%, with substantial regional variation, but it is possible that the market will overshoot. Home price declines likely will continue for another 12 to 18 months. A big wild card is the policies that the next administration might pursue.

Another speaker observes that the correction could be as severe as 42%, based on an analysis of Case-Schiller data. He estimates that it could take about 10 years for the housing market to make a full recovery to long-term, trend-line growth.

A third panelist feels that real-estate owned (REO) inventories are the key factor right now. A recovery cannot come until REO inventories start to decline.

A fourth panelist feels that the market is still in the first phase of a two-phase process. Housing prices got too high relative to incomes. He feels that the policy response has been insufficient. This has allowed stress within the housing sector to spread into the whole economy and to become a serious problem. He feels that it may be too optimistic to view the housing challenges as being contained to markets like California and Florida. The recent uptick in home sales is not necessarily a sign of improving conditions. It may simply reflect the fact that servicers have become more desperate to sell REO properties.

One panelist has a theory that subprime pools from 2006-2007 really include two cohorts: one of traditional subprime loans that would have had losses of roughly 6% in a benign market and the second of poorly underwritten loans that would suffer much higher losses in any environment. The first cohort produces losses above 6% because of home price deterioration, but not nearly the level of losses produced by the poorly underwritten loans. [Author's note: This seems like one of several reasonable ways to think about the combined impacts of poor underwriting and declining home prices.]

Relationships among loan risk factors appear to have been reasonably stable for several years leading up to 2004. However, the relationships started to break down that year and made models less effective.

Another panelist notes that a senior official from one of the GSEs had observed that some loan products made sense in a rising home price environment but not in a stable home price environment. The panelist asserts that it is shocking that any mortgage product would be based on the notion that home prices would only go up.

Policy responses:

One panelist observes that the success of policy responses depends on the definition of success. Fed Chairman Ben Bernanke had stated at one point that the goal was to prevent preventable foreclosures. All policies so far have, at least, paid lip service to the notion that loan modification programs must attempt to maximize net present value. Another panelist remarks that different government agencies and different servicers display differing degrees of aggressiveness toward loan modifications. There is a moral hazard issue. If servicers grant too many loan modifications, some borrowers will default unnecessarily to try to get modifications. A third panelist notes that the Hope for Homeowners program encourages loan modifications because it encourages government-insured refinancing after the lender writes down the loan balance. The refinancing means that the servicer/lender does not bear redefault risk. Thus, accepting a 15% write-down with no further default risk can be appealing. A fourth panelist feels that loan modifications are being oversold as a solution. They are like "bringing a knife to a gun fight." Rate reductions are not nearly enough by themselves. Principal reductions are unpalatable to many market

participants but they are necessary to fashion a real solution.

Countrywide settlement: (15)

One panelist feels that the impact of the Countrywide initiative is likely to be slight because many deal documents would require Countrywide to repurchase the modified loans.

Trade ideas; rich/cheap:

One panelist feels that there are opportunities for getting very nice yields in the mortgage sector, but the price volatility is very high. He favors short tranches that return principal within a year. Another panelist agrees that there is value across the residential mortgage-backed securities (RMBS) space but that prices could decline further. He notes that future downgrades may produce some forced selling. He likes certain Alt-A MBS, which he finds are virtually impossible to break in 10% yield scenarios. A third panelist feels that there are value opportunities based on OAS analysis. He feels that there are opportunities to buy solid credits that have been marked-down to unreasonably low levels. However, after buying the securities, it could be difficult or impossible to trade out of the position later. A fourth panelist likes ABS backed by autos, credit cards, and student loans more than those backed by mortgages. He likes Alt-A MBS more than subprime. He believes that the market cannot recover until real estate starts to recover. A fifth panelist feels that everything is cheap on a fundamental basis and rich on a technical basis. She notes that non-mortgage ABS may be rich relative to MBS and to mortgage-related ABS because the downside has been priced into the mortgage area but not other areas.

Some panelists feel that there is a chance that subprime mortgage servicers may stop making advances, as did servicers in the manufactured housing sector several years ago.

One panelist feels that home prices in California are likely to fall another 25%. Another panelist feels that home prices are still above affordable levels in 80% of markets. Affordability has to be analyzed in each local market separately.

Credit Assessment And Ratings Methodology For The MBS Sector (4:05 p.m.)

Key challenges:

One panelist feels that the main challenge is determining the clearing level (i.e., trading price) for trades from the offered side. For some products there is no clearing level. There has been a lack of agreement about the level of future losses. A second panelist feels that the biggest challenge is restoring investor confidence and rating agency credibility. The dearth of new issues makes it hard to regain investor confidence. Investors will likely remain wary of possible future declines in security prices until home prices start to turn around. A third panelist agrees that a key challenge is restoring rating agency credibility. She also believes that data quality issues (including borrower fraud) are another critical area. A fourth panelist agrees that data quality is the key issue. He notes that accounting treatment is a key issue for some market participants. The fifth panelist feels that the key challenge is that the entire securitization sector is like a crime scene with many participants in the crime. He feels that the whole sector needs to be restructured.

How to fix the system:

One panelist feels that restoring credibility to the overall process is the key task that must be accomplished before the securitization market can come back. The responsibility for that task is shared among all market participants. He feels that the focus should not be on minutia but rather on the big picture. Another panelist feels that the key problem was too much money chasing too few deals. He further believes that there has to be some focus on the

details in addition to the big picture. A third panelist reiterates his earlier statements that the market needs pricing benchmarks and guidance. Competing assumptions and methodologies for analytic valuations are not beneficial when they result in differing answers for what a bond should be worth. (16) A fourth panelist argues that the fix should come from heightened focus on "macro-level" variables in addition to traditional variables. For example, the introduction of "affordability" loan products was a phenomenon with profound implications.

How have rating agency analytic approaches changed?

One panelist states that her firm uses a combination of loan attributes and economic scenarios. The firm focuses primarily on LTV and has lessened its emphasis on FICO scores. A second panelist reiterates that her firm is increasing the weight it places on macro-level variables. Both panelists observe that there are certain commonalities between loan performance in the subprime and Alt-A sectors. One panelist observes, however, that the shape of the default curves is different for the two sectors.

Hubris in modeling and the need for common sense:

A panelist suggests that investors should approach credit as a dynamic phenomenon, in a manner similar to how they approach prepayment risk. He asserts that well-designed credit models can help empower investors to be less dependent on rating agencies. He quickly adds that investors should continue to apply common sense and should continue to use rating agency ratings.

Changing assumptions in rating methodologies:

One panelist feels that the new issuance pipeline will not get going until investors sense that the market has reached its nadir. At that point, the panelist believes, some private transactions will start to occur and then they will be followed by public deals. In the past, the market used past defaults as the main way to estimate future defaults. Now, more market participants use delinquencies. Similarly, there likely will be leading indicators that should signal when a fundamental bottom is approaching. Another panelist feels that the market should move toward master trust-type structures in which the seller/originator retains an interest in the trust. The master trust structure might be preferable to covered bonds because master trusts would achieve off-balance sheet accounting treatment. He proposes that there should be a predetermined panel of rating agencies for each deal and that issuers should not be allowed to practice rating shopping. Until measures like that happen, he says, it will be hard for the market to bounce back. Another panelist feels that indicators of a bottom will be very clear for real estate and the economy, but that it will be hard to see in the securitization market.

Future of ratings:

One panelist feels that ratings and securitization both have an ongoing role but that data quality remains a key challenge. Another panelist feels that investors will rely less on ratings in the future and that there likely will be a more level playing field upon which rating agencies will compete.

Outlook and prognosis:

One panelist expresses his view that the rating process is "broken." He says the buyer of 'AAA' tranches needs to have confidence that his investment is safe. He does not expect the market to recover for at least a year, and expects that when it does come back it will likely be different. He expects issuers to have greater accountability. A second panelist notes that the future of the mortgage industry is in mortgages. The solutions for today's problems lie in getting back to basics. Originators must be responsible for fraud risk. A third panelist focuses on the relationship between government-supported mortgage lending and lending that's not supported by the government. The proportion of the two activities may shift over time, he says. Another panelist feels that there will be a return to stone-age technologies of mortgage lending (i.e., plain vanilla, low risk) and that the relationships between investors

and rating agencies will be more equal. The last panelist feels that the securitization market is likely to be more heavily regulated. He feels that ratings are "interesting" and help liquidity for a bond, but they are not a substitute for an investor's own analysis.

Distressed RMBS/CDO Challenges: Investment Opportunities, Restructuring And Litigation (4:50 p.m.)

Valuation of assets:

TARP provides for reverse auctions as a way for the Treasury to purchase assets. (17) The Treasury is not likely to pay the full hold-to-maturity price for assets but it likely will pay more than a fire sale price. We don't yet know how the Fed or the Treasury would implement reverse auctions to make sure that fire sale prices do not result. TARP is broad enough to cover all kinds of MBS, CDOs, and other derivatives.

One panelist feels optimistic; there are potentially great values in real estate. The notion of "hold-to-maturity value" is a poorly defined concept for MBS. Moreover, the notion of "market price" becomes poorly defined when there is no trading. There is a connection between liquidity and fundamentals because deteriorating fundamentals can lead to illiquidity. The challenge in today's market is that participants cannot agree on the price of risk (i.e., the risk that scheduled cash flows never materialize because of credit losses). Auction protocols under TARP are not yet defined. However, auctions of some type will give pricing benchmarks to the market. MBS should and will continue to trade at distressed levels because the cash flow deterioration is real.

"Super-duper" senior classes (i.e., classes made by dividing the original senior tranche from a deal into a super-duper senior class and a subordinate-senior class) have not gained widespread support because structure is not a substitute for loan-level collateral analysis. Rather, the opportunity for restructuring is at the loan level, by modifying or refinancing loans. There ought to be regulatory accountability; rescue loans should have full verification of borrower income and negative equity should not justify a modification for a borrower who is able to afford the unmodified payment amount. Desirable investment opportunities are those with asymmetry: limited downside and greater upside.

One panelist says investors face many risks that cannot be modeled, such as: home prices, the economy, and policy actions. Therefore, a strong investment strategy is one that produces favorable outcomes under a wide range of scenarios. Good advice: be "positively convex" to what you do not know (limited downside and greater upside). There is plenty of capital waiting on the sidelines, but investors are not certain about when will be the right time to move. The best trade in 2007 was to short the ABX Index. But that is with 20/20 hindsight.

The best time to act always is a little unclear. Investors need to do their homework in order to really understand what they are doing. Going long on mortgages right now amounts to shorting many options. Investors should hedge value rather than price.

A second panelist observes that the composition of the investor community is changing. Sovereign wealth funds are likely to become active in securitizations through funds of funds. The key question is when investors will come in. The TARP guarantee program may be more effective than the asset purchase program. The panelist says corporate defaults are likely to rise as the credit cycle progresses and the economy deteriorates further. This could ripple through collateralized loan obligations backed by exposure to corporate credits. Proprietary models may create problems for the market because they may impede transparency. They produce pricing disparities and unhealthy

diversity of views.

The third panelist focuses on litigation and says the main opportunities arguably lie with the class action plaintiffs' lawyers, and there is arguably little social value in those class actions. Nonetheless, there is likely to be an increase in litigation relating to securitization. The volume of cases from the current financial crisis has already surpassed the volume of litigation from the savings and loan crisis and other past crises. There likely will be class actions by shareholders of banks and investment banks regarding reported asset valuations. Another likely key area for class actions will be the adequacy of disclosure. A third category is contractual claims and interpleader actions relating to the interpretation of complex cash flows provisions in documents. There has been a pendulum swing in the law favoring defendants in class actions. Plaintiffs have to plead with specificity and must be able to prove causation. Other court decisions have reduced the ability to sue lawyers and accountants involved in securities offerings.

Notes

(1)

The nature of the housing bubble is easy to spot with 20/20 hindsight. On the other hand, scholars have well documented the market's general inability to spot bubbles in advance or even while they are inflating. See, e.g., Galbraith, J.K., "A Short History of Financial Euphoria," Penguin Books, New York (1993). However, some farsighted commentators were able to perceive the warning signs of the latest bubble fairly early. Leamer, E., "Bubble Trouble?, Your Home Has a P/E Ratio Too," UCLA Andersen Forecast (June 2002). Moreover, by early 2004, members of the securitization community were openly talking about the possibility of a housing bubble. See "Report from Arizona 2004: Coverage of Selected Sessions of the Winter Securitization Conferences," Nomura fixed income research (Feb. 10, 2004).

(2)

Some researchers emphasized the issue of risk layering fairly early before the bursting of the bubble. See e.g., Dubitsky, R., et al., "Subprime Interest-only Loans: Attributes and Early-Stage Performance," Credit Suisse First Boston fixed income research (Jan. 14, 2005).

(3)

The terms "option adjusted spread" and "OAS" generally refer to a class of quantitative methods for assessing the relative value of securities that contain embedded options. OAS analysis is often applied to RMBS because of their embedded short option positions (i.e., the borrowers' options to prepay their loans). OAS models attempt to estimate the value of securities by projecting future cash flows under a variety of interest rate scenarios. A typical OAS model uses an "interest rate process" to generate multiple hypothetical paths of future interest rates. For each such path, the OAS model uses a "prepayment model" to estimate the level of mortgage loan prepayments in each future month. The prepayment model produces a hypothetical cash flow corresponding to each scenario. The OAS model calculates the fixed spread over benchmark interest rates at which the average discounted value of the modeled cash flows equals the actual market price of the security. See "Securitization Glossary," Nomura Securities International (Nov. 25, 2002).

(4)

SEC and FASB, SEC Office of the Chief Accountant And FASB Staff Clarifications on Fair Value Accounting, press release (Sept. 30, 2008) <http://www.fasb.org/news/2008-FairValue.pdf>.

(5)

"Level 3" refers to estimation of an asset's value from unobservable inputs as opposed to market prices or other independently verifiable data. The term comes from FAS 157, the accounting standard about fair value measurements. FASB, Statement of Financial Accounting No. 157, Fair Value Measurements ¶ 30 (September 2006) <http://www.fasb.org/pdf/fas157.pdf>.

(6)

American Securitization Forum (ASF), "Streamlined Foreclosure and Loss Avoidance Framework for Securitized Subprime Adjustable Rate Mortgage Loans" (July 2008); ASF, "Streamlined Foreclosure and Loss Avoidance Framework for Securitized Subprime Adjustable Rate Mortgage Loans" (Dec. 6, 2007).

(7)

Troubled Asset Relief Program (TARP), Pub. L. No. 110 343, Title I (2008).

(8)

Emergency Economic Stabilization Act of 2008 (EESA), Pub. L. No. 110 343, Division A (2008).

(9)

Hope for Homeowners Act of 2008, Pub. L. No. 110 289, Title IV (2008) (amended by EESA § 124).

(10)

TARP § 102.

(11)

Statement of The Honorable James B. Lockhart III, Director, Federal Housing Finance Agency, Before the House Committee on Financial Services on the Conservatorship of Fannie Mae and Freddie Mac (Sept. 25, 2008) <http://www.ofheo.gov/newsroom.aspx?ID=468&q1=0&q2=0>.

(12)

Securities and Exchange Commission (SEC), References to Ratings of Nationally Recognized Statistical Rating Organizations, Release No. 34-58070, 73 Fed. Reg. 40088 (July 11, 2008); SEC, Securities Ratings, Release No. 33-8940, 73 Fed. Reg. 40106 (July 11, 2008); SEC, References to Ratings of Nationally Recognized Statistical Rating Organizations, Release No. IC-28327, 73 Fed. Reg. 40124 (July 11, 2008).

(13)

Regulation AB is the SEC regulation covering disclosure standards and sales practices for ABS and MBS. 17 C.F.R. § 229.1101 et seq. (2005), Release 33 8518, 70 Fed. Reg. 1506 (Jan. 7, 2005).

(14)

Countrywide Financial and Bank of America, Multistate Settlement Term Sheet (Oct. 6, 2008) http://www.iowa.gov/government/ag/latest_news/releases/oct_2008/Multistate_Settlement_Term_Sheet.html.

(15)

Id.

(16)

The desire to have predictable analytic valuations reflects a classical fixed-income orientation. The central premise of fixed-income investing--indeed, the premise suggested by the term "fixed income"--is that analysts can determine the value of a security by discounting reasonably certain future cash flows. The development of RMBS introduced a wrinkle in that the timing of principal cash flows was uncertain, but the amount was not. Now, because of

uncertainty about the amount of future credit losses, analysts produce differing projections on the amount of future principal cash flows. Accordingly, they frequently come to widely differing valuations on many sub-prime mortgage ABS and Alt-A MBS. This makes for a very uncomfortable situation for fixed-income professionals.

(17)

TARP § 113(b)(2).

Copyright © 2011 by Standard & Poors Financial Services LLC (S&P), a subsidiary of The McGraw-Hill Companies, Inc. All rights reserved.

No content (including ratings, credit-related analyses and data, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of S&P. The Content shall not be used for any unlawful or unauthorized purposes. S&P, its affiliates, and any third-party providers, as well as their directors, officers, shareholders, employees or agents (collectively S&P Parties) do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Parties are not responsible for any errors or omissions, regardless of the cause, for the results obtained from the use of the Content, or for the security or maintenance of any data input by the user. The Content is provided on an "as is" basis. S&P PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs) in connection with any use of the Content even if advised of the possibility of such damages.

Credit-related analyses, including ratings, and statements in the Content are statements of opinion as of the date they are expressed and not statements of fact or recommendations to purchase, hold, or sell any securities or to make any investment decisions. S&P assumes no obligation to update the Content following publication in any form or format. The Content should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. S&P's opinions and analyses do not address the suitability of any security. S&P does not act as a fiduciary or an investment advisor. While S&P has obtained information from sources it believes to be reliable, S&P does not perform an audit and undertakes no duty of due diligence or independent verification of any information it receives.

S&P keeps certain activities of its business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain business units of S&P may have information that is not available to other S&P business units. S&P has established policies and procedures to maintain the confidentiality of certain non-public information received in connection with each analytical process.

S&P may receive compensation for its ratings and certain credit-related analyses, normally from issuers or underwriters of securities or from obligors. S&P reserves the right to disseminate its opinions and analyses. S&P's public ratings and analyses are made available on its Web sites, www.standardandpoors.com (free of charge), and www.ratingsdirect.com and www.globalcreditportal.com (subscription), and may be distributed through other means, including via S&P publications and third-party redistributors. Additional information about our ratings fees is available at www.standardandpoors.com/usratingsfees.