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TRANSPARENCY IN ACCOUNTING: PROPOSED CHANGES TO ACCOUNTING FOR OFF-BALANCE-SHEET ENTITIES

HEARING

BEFORE THE

SUBCOMMITTEE ON
SECURITIES, INSURANCE, AND INVESTMENT

OF THE

COMMITTEE ON
BANKING, HOUSING, AND URBAN AFFAIRS
UNITED STATES SENATE

ONE HUNDRED TENTH CONGRESS

SECOND SESSION

ON

HOW ASSETS HELD OFF OF THE BALANCE SHEET CONTRIBUTED TO THE SECURITIZATION OF RISKY ASSETS, SPECIFIC CHANGES THAT HAVE BEEN PROPOSED BY FASB TO CURB INAPPROPRIATE USES OF OFF-BALANCE SHEET ENTITIES, IMPLICATIONS FOR INVESTORS AND THE INDUSTRY OF DEFERRING THESE PROPOSED CHANGES, AND NECESSARY DISCLOSURES TO ENSURE THAT INVESTORS HAVE SUFFICIENT TRANSPARENCY TO MAKE INFORMED INVESTMENT DECISIONS

THURSDAY, SEPTEMBER 18, 2008

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THURSDAY, SEPTEMBER 18, 2008

U.S. SENATE,
SUBCOMMITTEE ON SECURITIES, INSURANCE, AND INVESTMENT, COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS,
Washington, DC.

The Subcommittee met at 2:35 p.m., in room SD–538, Dirksen Senate Office Building, Senator Jack Reed, (Chairman of the Subcommittee) presiding.

OPENING STATEMENT OF CHAIRMAN JACK REED

Chairman REED. The Subcommittee will come to order. Senator Allard will be joining us in a moment. He is just moments away.

I want to thank the witnesses, not only the first panel but the second panel. In the interest of time, I will go ahead and read my statement and then ask Senator Allard to make his statement, introduce the panel and ask for your statements. Thank you, gentlemen, for joining us today.

At the outset, I want to acknowledge the importance of FASB's independence, and I appreciate their appearance before our Committee to discuss the topic of off-balance-sheet accounting. This hearing is an opportunity to discuss some of the concerns with current standards and FASB's recent proposals to address these problems.

During the last 2 weeks, we have witnessed the most challenging financial crisis since the Great Depression. The aftershocks from these events continue and will be felt for many years. This prolonged crisis threatens not just individual firms, but the entire global financial system. Moreover, the impact will be felt by families, individuals, and businesses on Main Street as well as Wall Street.

Given recent events, there is emerging consensus that companies that have more accurately accounted for their balance sheets remain viable, while those companies that were slower to recognize losses are punished by the marketplace. This is a clear signal for investors that there is a premium on improved transparency. Today's topic is at the heart of transparency in our markets: properly acknowledging and understanding assets held off balance sheets.

Over the last year or so, we have seen revelations of a significant build-up of off-balance-sheet exposures among some of the largest

financial institutions. These exposures not only weaken these institutions but, indeed, place significant risks on the entire financial system, contributing to the severity of the current crisis.

This phenomenon of moving assets off the balance sheets is eerily familiar. We recall back in the days of Enron that its schemes to manufacture false profits included special purpose entities that conducted transactions off-balance sheet. The goal was to avoid financial reporting. While no one is necessarily suggesting scandals of the Enron kind, we cannot fail to admit the irony. We are dealing with a similar problem yet again, only 6 years later.

Many experts, market participants, investors, and regulators have been calling for a change in this area. Reports and recommendations of the Financial Stability Forum, the President's Working Group, and recently the private sector-led Counterparty Risk Management Policy Group III all similarly recommended a more rigorous accounting of off-balance-sheet vehicles in order to provide a more accurate view of a company's exposures.

The drivers of the subprime crisis were not only excess liquidity, leverage, complex products, and distorted incentives, but accounting rules that allowed mortgage-backed securities be held off the balance sheet. The securities packaged from these mortgages, many of them risky subprime mortgages, remain far from the view of investors and less closely reviewed by regulators. If we have learned anything from this recent mortgage mess—and I hope that we have—it is that we need more transparency in our markets, not less. Holding large amounts of assets off-balance sheet is not more transparency. If firms hold such risk, it should be disclosed so that investors can decide whether they are comfortable with such risk. Given the current state of the financial sector, this is the time to shore up confidence in our financial sector, not undermine.

FASB has wrestled with accounting for securitization for over two decades. Most recently, FASB issued a rule in 2000 and then additional guidance after the Enron disaster to address accounting for securitizations and off-balance-sheet entities. In April of this year, FASB voted to remove a designation known as a "qualified special purpose entity," or QSPE, which allows firms to move their mortgage-backed securities off the balance sheet. These changes were voted on in July and will now be effective in 2010. On Monday, FASB issued exposure drafts for review and comment.

Now is the time to initiate these changes and to ensure that they provide thorough transparency so that risk may be properly assessed. With today's hearing, we hope that we can, first, begin to evaluate whether the proposed changes result in sufficient transparency and bring appropriate market discipline to the process; and, second, understand whether or not there is sufficient enforcement of these rules to ensure they are implemented as written.

Though the topic may be technical and complex, its implications are known. There is a real impact on investors, including many of us who hold pensions and other savings. It matters to anyone with mutual fund investments who want to know that their fund managers can review all possible information in making investment decisions with their money. And there is a real impact and consequence for financial regulators who ought to be fully aware of the

concentration of risk for the firms and, indeed, the health of the entire financial system and the economy.

The ghost of Enron should be laid to rest finally. So let's learn from our mistakes and move forward for a stronger financial sector and a stronger economy that investors at all levels can have confidence in.

Now I would like to recognize the Ranking Member, my colleague Senator Allard, for his statement.

OPENING STATEMENT OF SENATOR WAYNE ALLARD

Senator ALLARD. Mr. Chairman, thank you for convening today's hearing. I would like to welcome our panelists as we examine the updated FASB rules regarding accounting practices and off-balance-sheet entity disclosure, and I look forward to the opportunity to hear from our guests.

Off-balance-sheet finance is an accounting technique in which a company's debt obligation does not appear on the balance sheet as a liability. Keeping that off the balance sheet allows a company to appear more creditworthy but can misrepresent the firm's financial structure to creditors, shareholders, and the public.

It is critical that accounting methods for financial institutions yield an accurate and transparent representation. In the past, companies such as Enron have diminished our confidence in accounting methods by not being open and forthright.

Other current economic concerns, including the mortgage crises, have been blamed in part on opaque and obtuse accounting methods. In light of today's markets, it is of the utmost importance that accounting is regulated in a way that bolsters confidence by being precise, comprehensive, and open.

Many people are asking how we reached this point. I think one of the reasons is that we do not know the full extent of risk institutions were involved in. Healthy risk can bring positive benefits to a company. However, investors and regulators must be given a full and total understanding of what risk is being undertaken.

Accounting practices that do not accurately represent a company's actual position are detrimental and have played a substantial role in creating financial turmoil. FASB has proposed changes to its accounting rules that could potentially alter the way banks, financial institutions, and other companies account for off-balance-sheet assets. I am interested to see how these FASB regulations could change long-term accounting practices. These new rules force companies to be more careful, carefully consider which of their assets they have effectively control over, and could have an impact on how assets are accounted for. Bringing enhanced clarity to the marketplace has the potential to shore up confidence and promote stability.

On another note, this is most likely the last hearing for the Securities Subcommittee, so I want to take a moment to express my deep appreciation to Chairman Jack Reed. He has been not only a colleague but also a friend to me during my time here in the Senate. We served on a number of committees together. I think this is our fourth or so that we have served on together through our term. While some of the people here today may not know it, I have been fortunate enough to share leadership with him on four dif-

ferent Subcommittees: Securities, Insurance, and Investment; and Housing and Transportation on the Banking Committee; and Personnel and Strategic Forces on Armed Services. I have consistently found both him and his staff a pleasure to work with, no matter what the issue, and he brings a thoughtful, insightful perspective.

In an increasingly partisan atmosphere, it has been refreshing to find someone who is willing to put politics aside and work together for productive, common-sense solutions to some of the problems facing our country. His willingness to work together has allowed us to make progress in important areas, such as preventing and ending homelessness and improving access to reverse mortgages for seniors. Whether in hearings or work on legislation, Senator Reed is a true gentleman, and I have always looked forward to the opportunity to work with him. His commitment to public service is commendable, and I wish him and his staff all the best.

Again, thank you to our witnesses for being here today, and I look forward to your testimony.

Chairman REED. Well, thank you, Senator Allard, not only for your statement but for those very, very kind words. And I must respond, it has similarly been a pleasure for me to work with you. And we have, both on the Armed Services Committee and the Banking Committee, seemed fated to be Chair, Ranking Member, and then switch to be Ranking Member and Chair. And it has been a pleasure, and your staff, as yourself, have been extraordinarily kind to work with, and I appreciate it very much. One might hope this is the last Subcommittee hearing of this Congress. [Laughter.]

Chairman REED. But if we meet again, it will still be a pleasure, and I wish you the best as you embark on your different endeavors. But thank you very much, Wayne.

Senator ALLARD. Thank you. I think we set an example perhaps for how we can work together in a bipartisan way. So thank you.

Chairman REED. Thank you.

Now let me introduce our panel. First, Mr. Lawrence Smith has served on the Board of the Financial Accounting Standards Board, FASB, since 2007 and has led the efforts to address off-balance-sheet accounting issues at FASB. Thank you very much, Mr. Smith.

John White is the Director of the Division of Corporation Finance at the Securities and Exchange Commission. Prior to his work at the SEC, he was a partner in the law firm of Cravath, Swaine & Moore. In his position there, among other responsibilities, he advised companies on corporate governance and public reporting responsibilities.

James Kroeker is the Deputy Chief Accountant at the SEC, and prior to this position, he was at Deloitte as a partner in the National Accounting Services Group, where he provided consultation on accounting standards.

We will begin with Mr. Smith, and I assume Mr. White will have a statement, and Mr. Kroeker will be available to respond to questions as well.

Mr. Smith, please.

STATEMENT OF LAWRENCE SMITH, BOARD MEMBER, FINANCIAL ACCOUNTING STANDARDS BOARD (FASB)

Mr. SMITH. Chairman Reed and Ranking Member Allard, good afternoon. I am Larry Smith, a member of the Financial Accounting Standards Board. I am pleased to appear before you today on behalf of the FASB, and I thank you for inviting me to participate at this very important hearing.

The FASB is an independent private sector organization. Our ability to conduct our work in a thorough and unbiased manner is fundamental to achieving our mission, which is to establish and improve general purpose standards of financial accounting and reporting for both public and private enterprises.

As significant reporting issues arise, the Board endeavors to understand those issues and to identify the reasons why they arose. The events that have occurred recently in the credit markets created such a review, and the Board accelerated its work in several specific areas.

While we have been working on a number of different projects to address the reporting issues we identified, it is important to understand and acknowledge that good financial reporting requires both sound standards as well as faithful application of those standards.

For example, the two standards that are the focus of my testimony—Statement 140, which address the sale of receivables, as well as other financial instruments; and Interpretation 46(R), which addresses the consolidation of variable interest entities, which includes most securitization vehicles—both include disclosure requirements regarding the extent of involvement with an entity holding receivables.

Also, in 2005, the Board issued guidance in response to the proliferation of loans with non-traditional characteristics to reinforce the extensive accounting and disclosure requirements that are applicable to such products. Yet users have noted that such disclosures were often missing from financial statements.

The two fundamental issues identified as problematic in Statement 140 and Interpretation 46(R) are the concepts of QSPEs, which were meant to be pass-through entities that have minimal decisionmaking authority and were, therefore, exempt from consolidation, and reliance on a mathematical calculation to assess whether a holder of an interest in an SPE should consolidate that entity.

On Monday, the Board issued three interrelated exposure drafts that address these issues. Specifically, the Board is exposing for comment: one, that we eliminate the concept of the QSPE from our literature such that all entities will be subject to our consolidation principles; two, that we first require a qualitative assessment of control be performed to determine whether an interest holder should consolidate an entity in which it holds an interest; and, three, improvements in disclosures to better enable users to assess the extent to which an entity is involved with another entity, the related potential risks related to that involvement, the degree to which consolidated assets are restricted, as well as the judgments and assumptions made in determining whether an entity should be consolidated.

You might ask, If we are eliminating QSPEs now, why did the FASB create them in the first place? The Board at the time created the concept to allow securitization transactions to be reported as sales of receivables because the QSPE's activities were supposed to be significantly limited and entirely specified. In other words, they were supposed to be simple pass-through entities. However, practices have evolved significantly such that the qualifying criteria have been stretched well beyond the original intent and requirements of Statement 140. The Board no longer believes the concept of a QSPE is workable since practice has shown that there are few assets capable of being managed when the activities of the manager of those assets are significantly limited and entirely specified.

You might also ask, If the FASB believes that a qualification assessment of control is better than the mathematical calculation currently required, why didn't the FASB require that in the first place?

When 46(R) was written the Board thought the mathematical calculation of expected losses would be a good indicator of who ultimately controls the entity. However, we have seen in practice that people have engineered around the math to avoid consolidation. Some people have also questioned whether some of the probability assessments made in connection with estimating expected losses truly reflected the risks of those interests. Blind exuberance may have contributed to overlooking some of the risks faced by those involved with these entities, such as some risks like liquidity risk and reputation risk which were virtually ignored. We believe it will be more difficult to ignore these risks through a qualitative assessment.

The Board is proposing that both the elimination of QSPEs from Statement 140 and the requirement to first use a qualitative assessment of control under Interpretation 46(R) be effective for fiscal years beginning after November 15, 2009. The Board would have liked to have eliminated the QSPE concept and required the qualitative assessment earlier. However, discussions with banking regulators and preparers lead us to conclude that the consequential consideration of regulatory capital requirements and other changes are impossible to address any earlier. However, we have not delayed the improvements in financial statement disclosures. The exposure draft proposes that these disclosure improvements be required for financial periods ending after the guidance is finalized, which we expect to be late this year. We believe that the required financial statement disclosures will enable investors to understand a transferor's continuing involvement in the financial assets that have been transferred to an SPE, the nature of any restrictions on those assets that continue to be reported by an entity in its balance sheet, the judgments and assumptions made by the enterprise in determining whether it must consolidate the variable interest entity, the involvement of an entity with a variable interest entity, and the nature of and changes in the risks associated with an entity's involvement with a VIE.

The FASB shares your Subcommittee's concerns about the role off-balance-sheet entities have played in the current financial crisis, and we are working hard to address the shortcomings in finan-

cial reporting. We encourage all interested parties to provide us comments on the three exposure drafts we issued earlier this week.

In closing, I again want to emphasize that good financial reporting requires both sound standards as well as faithful application of those standards.

Thank you again, Mr. Chairman, Ranking Member Allard. I very much appreciate your continuing interest in and support of the mission and the activities of the FASB.

Chairman REED. Thank you, Mr. Smith.

Mr. White.

STATEMENT OF JOHN W. WHITE, DIRECTOR, DIVISION OF CORPORATION FINANCE, SECURITIES AND EXCHANGE COMMISSION, AND JAMES L. KROEKER, DEPUTY CHIEF ACCOUNTANT, SECURITIES AND EXCHANGE COMMISSION

Mr. WHITE. Good afternoon. I would like to thank you, Chairman Reed and Ranking Member Allard, for the opportunity to testify today, along with Jim Kroeker, on behalf of the Securities and Exchange Commission.

I am going to start off by discussing transparency and disclosure of off-balance-sheet arrangements, and then I am actually going to ask Jim to complete our opening remarks with a discussion of our work with the FASB, if that would be OK.

Chairman REED. Fine.

Mr. WHITE. We also have submitted a written statement for the record.

Starting with transparency, transparency is the bedrock of good disclosure, and it allows investors to make informed decisions. Clear and understandable information about a company and the risk that it faces reduces uncertainty in the market. And, of course, capital markets are constantly changing, and as markets change, risks change; financial products change; and so a company's disclosure needs to change as well.

In response to the Sarbanes-Oxley Act, the Commission in 2003 adopted a significant set of changes in the way that companies disclose information about off-balance-sheet arrangements. And as a result of those disclosure rules, today financial institutions must disclose extensive information about off-balance-sheet arrangements if—and I underline the "if"—the arrangements are reasonably likely to have a current or future material effect on the company's financial condition, revenues, expenses, or liquidity.

At the Commission, since the adoption of those requirements in 2003, we have continued to focus on enhancing transparency, and in recent months alone, we have taken a number of actions aimed at improving the disclosure requirements that came out in 2003, including last December issuing a letter to the CFOs of over 25 large financial institutions about making additional off-balance-sheet disclosures; in January of this year issuing a letter providing additional guidance on the application of FAS 140; in March issuing another letter about additional fair value disclosures; in July we had a roundtable on fair value; in August we had a roundtable on market turmoil; and just this week we issued another letter to over 25 financial institutions covering additional transparent disclosure of fair value calculations.

In addition to those activities, we continue to have our regular ongoing work of reviewing the financial statements of every public company, including all public financial institutions, at least once every 3 years. So I think it is fair to say that we have a fair amount of activity in this area at the Commission, both at the Commission level and the staff level.

So that is what is happening on the disclosure front. I am going to turn it over to Jim to talk about what is happened in our role with the FASB.

Mr. KROEKER. I would also like to thank you, Chairman Reed and Ranking Member Allard, for the opportunity to testify today.

The continued review of the effectiveness of existing accounting standards for off-balance-sheet arrangements and the recent capital market pressures have highlighted the need for improvement in the existing accounting guidance for off-balance-sheet arrangements.

As you are aware, the FASB issued FIN 46(R) to improve the accounting for off-balance-sheet arrangements after the Enron fallout. However, FIN 46(R) provided a scope exception for certain passive trusts, such as those commonly used in bank securitization transactions.

To address the current issues related to off-balance-sheet accounting, in January 2008, the Commission staff asked the FASB to consider the need for improvements to the accounting guidance and the disclosures for such transactions, including securitizations. Based on the potential far-reaching impact of this accounting topic and the important due process procedures required to evaluate and implement the potential changes, the speed at which the FASB has moved this project forward is commendable.

In November 2008, after a 60-day comment period, we expect the FASB to host a public roundtable on their proposed amendments. If the FASB adopts the proposed rule and the changes described earlier by Larry, we expect that the SPE sponsors of such off-balance-sheet arrangements would consolidate some larger portion of existing off-balance-sheet transactions, including some portion of existing QSPEs, SIVs, and commercial paper conduits.

We believe that the proposed amendments hold promise in enhancing the transparency around the financial reporting for off-balance-sheet transactions, and we continue to monitor the effectiveness of any changes and mandate further changes if necessary.

As John mentioned earlier, the Division of Corporation Finance reviews the financial statements of every public company, including financial institutions, at least once every 3 years. This effort is aimed at enhancing disclosure and at improving compliance with Federal securities laws.

In addition to this work, another important aspect of our involvement in accounting standards is the rigorous enforcement of Federal securities laws. The Commission regularly investigates allegations of accounting irregularities and reporting violations, including those related to off-balance-sheet accounting. Just to highlight a recent example, the Commission has brought action involving allegations of improper accounting for mortgage securitizations by three NYSE-listed Puerto Rican financial institutions. Additional examples of enforcement in this area are included in our written testi-

mony. The Division of Enforcement will pursue allegations such as these whenever warranted.

We look forward to evaluating the FASB's exposure draft and the related comment letters that they received, and, again, I want to thank you for holding this hearing, and we would be happy to address any questions that you might have.

Chairman REED. Well, thank you very much, gentlemen, for your testimony.

Mr. Smith, you indicated in your testimony that there are shortcomings with the current rule, and that has prompted the reevaluation by FASB. Could you highlight in more detail some of the shortcomings with the current rule that you are trying to address with this new rulemaking?

Mr. SMITH. Sure. First I will talk about 140. 140 has a concept called "qualified special purpose entities," QSPEs, and basically, as the Board has discussed this over some time, the Board believed that QSPEs should be brain-dead or pass-through entities. So, effectively, the person that is servicing the loans that are held by a QSPE should not have any significant decisionmaking authority over them.

Over time, as things change, et cetera, more and more different types of assets or different types of receivables have been put into QSPEs, such that the application and practice has been that QSPEs are holding probably, you know, different types of assets than the Board originally envisioned.

We went back and tried to—when we were dealing with this issue—and we have been dealing with this issue for a number of years. We tried to figure out ways to put parameters around the operations of the QSPE in terms of defining the types of assets that could go in, the types of activities or decisions that can be made. But, ultimately, after careful consideration of existing structures, et cetera, we decided that that was impossible and felt that because the QSPE is an exception to current accounting rule, we should just eliminate that conception and fall back on the principle regarding whether an entity holding those receivables should be consolidated.

Now, in terms of the application of 46(R), which is the other one that I mentioned, 46(R) was in direct response to Enron, and the mathematical calculation that was put into place to determine whether an entity should consolidate an entity was based upon the expectation that the holder of an interest that has the most expected losses, that would absorb the most expected losses or reap the most benefits would be effectively the entity that controlled that special purpose entity.

Well, as time has gone on, people have engineered around that concept. There have been various mechanisms put in place. Just one example is an expected loss tranche, which is a way of getting a group of investors that hold a fairly minor position in the special purpose entity to absorb those losses, yet they have no other rights associated with it. If those expected losses occurred, they would lose their investment period, and that is all they could do. But yet, because of the application of the math, they were deemed to be the primary beneficiary, yet there were other people or holders of interests who had much greater potential risks.

We also think that contributing to this was, you know, the overly optimistic assessments of probabilities of expected losses. So the Board decided that we should first consider some qualitative aspects of control, you know, whether from a practical standpoint the combination of different interests effectively put another—a holder of those interests in control rather than rely on the math, hoping, truly hoping that people cannot structure around it the way they can the math.

So that is what we have done. You know, we have put it out for comment, and we will see what people say.

Chairman REED. I understand the proposal has as a default position the quantitative measure, that if the qualitative approach does not work, what is to prevent someone from doing sort of a paper drill, you know, a qualitative analysis to satisfy Mr. White and Mr. Kroeker and their colleagues and then essentially just say, well, here is the number, and——

Mr. SMITH. We will fall back on——

Chairman REED [continuing]. We got this, this is under the rule? We are right back where we started from?

Mr. SMITH. I will comment on that in two respects. First of all, we put the fallback position in the exposure draft and put it out for exposure and people to comment on. Whether we continue to rely on that fallback position remains to be seen. A number of us were uncomfortable with just removing the math to start out with.

We have also put in the standard—I think it is nine different examples of fairly common structures that you will see out there, and put at least our assessment of whether in those situations someone should consolidate. So we have given some illustrative guidance to people in terms of how to apply this in the future, which we hope will overcome that.

The staff at the FASB does not think there will be any situations where people fall back on the math.

Chairman REED. I understand ISB does not use the quantitative approach. They use the qualitative approach. Is that accurate?

Mr. SMITH. That is true. Currently, they have a standard that requires a qualitative assessment. It is not the same as ours, but it has similarities to ours. And at the same time, they are also taking a more fundamental look at their consolidation model in general, which, in fact, was the subject of—at least a staff draft was the subject of a roundtable over in London just 2 days ago.

Chairman REED. What I think would make sense is let me finish my questions of Mr. Smith and then ask Senator Allard for questions, and then we will do a second round, and I will have some questions for Mr. White and Mr. Kroeker.

The purpose of some of the expansion, or whatever the right term is, the use of the rules or the misuse of the rules, to avoid regulatory oversight, to not diminish capital on, you know, the overall institution. What do you feel is driving the creative use, if you will, in retrospect of these rules?

Mr. SMITH. I think it is a combination of factors. I think economic times informs people's behavior. I think the complexity of securitization transactions are tremendous. It is not—at least what I have been told, it is not unusual for a particular securitization transaction to have a stack of legal papers perhaps this high. So

there might be, you know, some overlooking of certain requirements that are embedded in some of those legal documents.

I also believe that, you know, people looked at certain aspects of what was permitted before and then evaluated something fairly similar, but let's say just a little bit over the line, and said, "Well, that must be OK because it is only a little bit over the line." And over time, these practices just stretch.

A lot of people thought that securitization transactions through QSPEs were permitted, and we had some guidance in terms of how to apply that. And they looked to those and then made their own interpretations themselves. But I think over time it is just that, you know, things stretch. And that is what happens when you have—when you basically have exceptions to accounting principles. You know, we have been criticized for being overly rules based in this country and that exceptions have really effectively created a lot of those rules. And now we are going back, and we are trying to eliminate them.

Chairman REED. Thank you, Mr. Smith.

Senator Allard, and then we will do a second round.

Senator ALLARD. If we were to apply the more stringent and different off-balance-sheet entity regulations and they were active several years ago, would the mortgage crisis be worse today, or better? Or where would we stand?

Mr. SMITH. I do not know the answer to that question. I mean, it would be conjecture on my part as to try to say what would have happened in terms of the extent to which people, you know, would have entered into these transactions had other rules been in place. I really do not know the answer to that question.

Senator ALLARD. So when we come to the case of securitized mortgages, then you would not have an automatic pass-through then. I would assume they are sort of considered special purpose entities.

Mr. SMITH. Right.

Senator ALLARD. And so then they would not be just a pass-through group. They would have—well, you do not even have them now. But you have some mechanism now where they would be recalculated or reassessed as far as risk. Is that right?

Mr. SMITH. Yes. If we remove the QSPE status, there will still be a vehicle that hold these mortgages, and what will happen is there will be an evaluation of the roles and responsibilities of the different parties who hold interest in these transactions to assess who ultimately controls the entity. And it is usually a combination of the ability to prescribe what types of assets go into the entity to begin with, combined with the ability to service those assets, and perhaps combine with some type of a liquidity guarantee or credit guarantee or something like that.

Senator ALLARD. Now, just recently, Fannie Mae and Freddie Mac have been basically taken over by the Government. Do these accounting rules apply now to a Government agency in this particular instance?

Mr. SMITH. Well, if they continue to put out financial statements in accordance with generally accepted accounting principles in the U.S., yes, they will be subject——

Senator ALLARD. And they have done that in the past?

Mr. SMITH. Have they?

Senator ALLARD. Done that in the past?

Mr. SMITH. Yes.

Senator ALLARD. And so we would expect that they would continue to do that, even though they are taken over by the Government at this point in time.

Mr. SMITH. I do not know specifically, but I believe—I would not be surprised if they continued to do that.

Senator ALLARD. Now, as I understand it, Fannie Mae and Freddie Mac, when they securitized their mortgages, they ended up buying their own securitized mortgages off of the market. How would these new accounting provisions treat something like that?

Mr. SMITH. Well, first you would evaluate the new accounting rules pertaining to the vehicle that was set up to hold the mortgages that they guarantee. You would then assess whether Fannie or Freddie effectively control that entity. And I will just give you my personal opinion. Not going through any legal documents or what have you, but based upon my understanding of the combination of risks, et cetera, it appears that Fannie and Freddie would be the consolidator of those entities, and then in terms of them buying their own interest, effectively it is an intra-company transaction.

Senator ALLARD. And so go in as an added risk?

Mr. SMITH. Well, no. It is just that it would be——they would be dealing with themselves, if you will.

Senator ALLARD. And so what practical effect does that have on their financial stability?

Mr. SMITH. You know, the accounting for this really does not, I do not think, enter into their financial or end stability. It will change the way their financial statements look dramatically.

Senator ALLARD. Well, then, let me put it this way: Will their financial statements reflect that increased risk?

Mr. SMITH. Yes. The assets and liabilities would be on their books.

Senator ALLARD. I see. Okay. So then there would be more transparency, for example, on Fannie Mae and Freddie Mac under these new accounting provisions.

Mr. SMITH. That would be my expectation.

Senator ALLARD. Okay. Now, you plan on putting these into effect in the beginning of 2009. Is that correct?

Mr. SMITH. No. Let me explain.

Senator ALLARD. Okay.

Mr. SMITH. The changes regarding the elimination of QSPEs and the change in how you would assess control under FIN 46(R) would be applicable to 2010 calendar year companies.

Senator ALLARD. Starting on January 1.

Mr. SMITH. Yes. The disclosures, the enhanced disclosures, would be in effect for the reporting period ending after we release them. So if we release the final disclosure standard December 15th, they would be applicable to December 31st year-end companies.

Senator ALLARD. Okay. And are we going to have adequate time for comment between now and when we start requiring them to do these evaluations?

Mr. SMITH. We have put in a 30-day comment period for the disclosures and a 60-day comment period for the 46(R) and 140. We believe that that—we know that people are watching us. We know that interested parties have been following our projects, and we expect that they are geared up to respond to our proposals.

Senator ALLARD. Is this the same time period that you have allowed on previous proposals?

Mr. SMITH. It varies from proposal to proposal.

Senator ALLARD. And so the time period you came up with here, was that just some assumptions that you made? I mean, how do you decide which ones you take a longer time period for comment and which ones do you take a shorter time period for comment? Because I suspect there will be a fair amount of comment on this as it applies from consumer groups as well as accountants and everybody else that has an interest in it, companies probably themselves.

Mr. SMITH. I expect you are right there. In terms of the disclosures, we did consider the timing of the application, and we are hoping to get these disclosures in place by the end of the year. So, yes, the comment period is a function of when we wanted these increased disclosures applied.

In terms of the time period for the other two, we felt that this was adequate time for people to respond and for us to release the final standard probably by the beginning of next year, or some time in the first quarter.

Senator ALLARD. Now, is it your view that if we had applied these principles that you have now before the mortgage-backed securities had proliferated to the point they are now that we would not be dealing with a mortgage crisis, at least to the degree that we are now?

Mr. SMITH. I really—again, I do not know the answer to that question. You know, back in 2005, the Board became aware of the significant proliferation of non-traditional loans, so these are loans where there were no payments or, you know, no significant payments required, you know, negatively amortizing loans, et cetera, and the fact that you did not need any kind of documentation to secure a loan or regarding either your wanting to live—whether you were indicating you were going to live in the house or what your income was. And as a result of that, we put out a standard to try to convey to the world that there are existing accounting requirements that call for disclosures and how to account for these types of transactions as well as the risks that are created by those types of transactions. And we did not see any significant changes in the disclosures as a result of that.

But I cannot really tell you how the market would have reacted had we put these rules in place earlier.

Senator ALLARD. Yes. Well, Mr. Chairman, you said you have more questions, so I will hold the rest of mine for the next round. Thank you.

Chairman REED. Thank you, Senator Allard.

Mr. White and Mr. Kroeker, I have communicated with the SEC and FASB regarding these issues in letters, and you have responded back. This goes to the issue of the overall regulatory regime, which rules, principles, together with interpretations—you

indicated that several interpretations have been given by SEC—and then enforcement.

In a letter that FASB sent back to me, they indicated that they had knowledge of some entities that were not following the accounting standards with respect to these off-balance-sheet entities. Have you had a conscious, concerted effort to follow up and to see that these rules were being adequately embraced or applied?

Mr. WHITE. The answer is yes.

Chairman REED. And can you elaborate?

Mr. WHITE. Much of our efforts have been devoted on the disclosure side, and I think I described a fair amount of that earlier. In addition looking at whether companies are disclosing in accordance with our rules, we have also looked to see whether companies are complying with the accounting rules as they exist today. And I would say, by and large, we have found that companies have been complying with the existing accounting rules.

Chairman REED. Will you be reviewing these rules that are being proposed to ensure that they capture what should be captured in terms of off-balance-sheet entities and that are brought back on properly? Is that something you can positively be engaged in?

Mr. WHITE. Jim, maybe you should respond.

Mr. KROEKER. Absolutely. Part of our ongoing process and our oversight of FASB and their role in the standard-setting environment, we certainly will be following these rules. We will be particularly interested in comments that they receive from investors about the improved transparency that we believe these rules have the promise to provide. So in addition following and commenting directly with the FASB our thoughts on the proposed enhancements, including issues that Larry addressed in terms of the concept that you might have an entity that is very limited in its power, yet somebody has got to be there to service assets and liabilities, and, therefore, it stretches what people think ought to exist in terms of the notion of control, we will be looking right at that aspect in this proposal.

Chairman REED. In my discussions with Mr. Smith, he noted, we both noted, that the international accounting rules have a qualitative approach to this recognition, and that is the approach, the direction that the new rules seem to go in.

Some commentators, I think Ms. Mooney in particular, have indicated that under the IASB rules, there is a significant amount of SIVs that could stay off the balance sheet. And this becomes particularly critical as the Securities and Exchange Commission is proposing that companies, big companies, are able to elect one or the other.

First, this would seem to be the ideal opportunity to work collaboratively together for one rule which both the international standards and the FASB standards converged.

Second, would this allow an opportunity with the proposed sort of choice of accounting regimes to essentially defeat what FASB is trying to do by allowing a reporting company to use an international standard and keep these entities off their balance sheet?

Mr. WHITE. Maybe I will start it and then switch it over to Jim.

Chairman REED. Sure.

Mr. WHITE. The proposal with respect to IFRS that you are referring to, if adopted—it is a proposal at this point—but, if adopted, would allow a limited number of U.S. companies to elect to use IFRS if IFRS was the predominant accounting system used in their industry internationally. So at least those companies would be able to choose, if you want to use that word, between using IFRS and using U.S. GAAP.

But, Jim, maybe you want to describe the differences between the two.

Mr. KROEKER. Yes. It relates to the idea and the opportunity to use what we are seeing today to foster convergence. I could not agree more. I think it is a wonderful opportunity to move toward a higher quality standard for off-balance-sheet accounting.

We are also, though, interested in ensuring that the FASB moves quickly to improve off-balance-sheet accounting in the U.S. And so to the extent that a convergence project would take longer than simply addressing the more immediate issue of application of accounting standards in the U.S., we have been supportive of the FASB's project to move quickly on improving off-balance-sheet accounting.

The IASB likewise has a project on their agenda to improve off-balance-sheet accounting, and as Larry mentioned, the FASB and the IASB are working very closely on that.

Chairman REED. But it seems to me there still is at this juncture the distinct possibility that there could be two different rules about qualitative recognition, that a company could, in terms of regulatory arbitrage, choose the one that allows them to keep these entities off their balance sheets, which would go against the very essence of this hearing, getting most of these entities that should be recognized on the balance sheets. And I think that adds a further complexity to this notion of selecting either the international regime or the FASB regime.

That is a comment, but if you would like to respond.

Mr. WHITE. I might mention that at the roundtable we had this summer that I referred to earlier, one company that was there said that when they switched to IFRS, they actually brought 200 of their subsidiaries on balance sheet in the process of moving to IFRS. So I am not sure there is a particular assumption about how consolidation would work.

Chairman REED. I would presume—and this is a presumption—that that issue of whether this effectuates the same thing that FASB is trying to do, maybe not in exactly the same way is it accomplished, would be at least a factor that you would try to examine. Is that fair? Thanks.

We have talked about these, you know, special investment vehicles, the QSPEs, but there is a whole other group of entities out there—credit derivatives—that are in some cases off the balance sheet, but we are seeing have a significant impact on the operations of a company. One could speculate that the reason that AIG is now a subsidiary of the Federal Reserve is because their involvement in the credit derivatives market is so significant. And yet do you think that was properly reflected on their balance sheets, Mr. White?

Mr. WHITE. I guess I would not think that we should be discussing individual registrants that we review. That is not our common practice. AIG is one of the companies——

Chairman REED. Well, in general terms then, do you feel that in addition to these vehicles that are created, there are other classes of investment securities or financial transactions that could have a material impact on the company, but are not effectively disclosed under current rules?

Mr. WHITE. I would not have thought that we thought there were gaps in the disclosure requirements in our current rules.

Mr. KROEKER. As it relates to the accounting particularly for highly complex things like credit default swaps, the FASB put in place in the late 1990s, early 2000s, guidance on accounting for derivative transactions, and many of those types of instruments are, in fact, derivatives. And so in terms of bringing them on balance sheet and reflecting the exposure, that has happened, although the FASB recently issued—and Mr. Smith might have some additional background on some enhanced disclosures about credit default and structured, highly structured insurance-type products.

Chairman REED. Can you comment, Mr. Smith?

Mr. SMITH. Yes. In September, this month, we issued a final requirement to improve the disclosures surrounding credit derivatives. What happened was we had a project to address the accounting for financial guarantee industry, and in connection with that, we proposed a number of disclosures surrounding the risks that an entity takes on in issuing those guarantees—or that guarantee insurance. And we noted very—some similarities between those guarantees and the nature of credit derivatives.

So we basically embarked on another project to address the disclosures and credit derivatives, which, as I just said, were issued earlier this month.

Chairman REED. Thank you. Senator Allard had to step out to take a call, but that allows me, for the record, to ask Mr. White and Mr. Kroeker a question that Senator Allard asked about the timeliness of the rules, the ability to have the comments, and the implementation. Do you think there is adequate time for the comment period and also an adequate time for reporting companies to adjust to the new rules?

Mr. WHITE. The 60-day comment period is the comment period that we normally use on our rulemaking at the SEC. So certainly my experience over the last few years has been that 60 days produces a flood of public comments and provides adequate time.

If I understand it, the disclosure rules where you are thinking of 30 days, those are probably less complex and easier to understand, and——

Mr. SMITH. Yes.

Mr. WHITE. Probably that is part of the reasons why you went to 30 days. The rest is so you could get them into effect earlier.

Mr. SMITH. Correct.

Chairman REED. Just a final question, and, again, Mr. Smith, you might—I just want to make sure I understand. The disclosure requirements would become effective very shortly after the rules are finalized.

Mr. SMITH. That is correct.

Chairman REED. Which would require, I think, or which could require immediate disclosure of significant off-balance-sheet assets or liabilities, but they would not necessarily have to be brought on to the balance sheet. Is that a fair way to——

Mr. SMITH. That is correct.

Chairman REED. I know that we are all arguing for disclosure, but the disclosure itself would cause, I think, evaluation or reevaluation of the reporting companies. That is fair to say, correct?

Mr. SMITH. Yes. The purpose of the disclosures is to enhance the user's ability to assess the risk that a company holds, regardless of whether those assets are presented on the balance sheet or not.

Chairman REED. Senator Allard has other questions, I am sure. So do I. We will keep the record open for several days, and if you would be prepared to respond in writing to our written questions, I would appreciate it, and other members of the panel. But thank you very much, gentlemen, for your testimony, and I will call up the second panel.

Well, I want to welcome the second panel, and thank you all for joining us today. Let me introduce the panel; then I will ask you to make your statements and try to stay within the 5-minute guidelines. Your statements will be made part of the record automatically. And, indeed, if you want to comment about what you have heard, that is also appropriate.

First we have Joseph Mason. Mr. Mason holds the Hermann Moyse Jr. Endowed Chair of Banking at the E.J. Ourso College of Business, Louisiana State University. He has written extensively on the role of securitizations in the mortgage problems the country currently faces. Earlier in his career, he worked at the OCC and studied the role of securitizations in banking. Thank you, Professor Mason.

Elizabeth Mooney is an analyst for the Capital Strategy Research of the Capital Group covering global accounting issues. She is a certified public accountant and a member of the FASB Investor Task Force and Investors Technical Advisory Committee and the International Accounting Standards Board, and served a term on the FASB Advisory Council. Thank you.

George Miller is the Executive Director of the American Securitization Forum, an association that represents various participants in the securitization industry. Previously, Mr. Miller was an attorney at Sidley Austin where he specialized in structured financial transactions.

Donald Young recently completed a term as a Board member of FASB. He is current the Managing Director of Young and Company where he provides consulting and research services for technology and private equity clients.

Thank you all very much for joining us. Professor Mason. Turn on the microphone, please.

STATEMENT OF JOSEPH R. MASON, HERMANN MOYSE JR./LOUISIANA BANKERS ASSOCIATION PROFESSOR OF FINANCE, E.J. OURSO COLLEGE OF BUSINESS, LOUISIANA STATE UNIVERSITY

Mr. MASON. Thank you, Chairman Reed, Ranking Member Allard, Members of the Committee, for the opportunity to testify

today. Chairman Reed, as you pointed out earlier, this week's financial crisis was largely due to the lack of transparency about investment exposures, which has been promulgated by ineffective accounting rules and inefficient bond ratings.

Back in 1997, Moody's Investors Successful wrote, and I quote, "The simple act of securitizing assets can affect the appearance of the income statement and balance sheet in a profound manner without, in many cases, significantly altering the underlying economics of the seller. With securitization, reported earnings are overstated and reported balance sheet leverage is understated while there may be little, if any, risk transference."

As early as 1987, Moody's pointed out that while, and I quote, "the practices developed by the accounting and regulatory world . . . do not fully capture the true economic risks of a securitized asset sale to the originator's credit quality." So, long ago, market insiders fully realized that standard accounting rules do not apply to securitizing firms. But while the market is well aware of these problems, excess returns in recent years led to regulatory and investor complacency and the financial crisis we have with us today.

Recently, there have been suggestions that having sellers retain some risk in their securitizations can align incentives of sellers and investors as well as borrowers. The reality is that they have always retained risk, and that retained risk is precisely the problem. That retained risk is indelibly related to the variable interest entity that was the foundation of the proposed FASB revisions. Prior to financial engineering, ownership—and, therefore, on-balance-sheet treatment—was dictated by voting interest. If you owned more than 50 percent of voting equity shares, then you owned the firm.

With financial engineering, as demonstrated by Enron, all that changed. The first attempt to account for ownership in financially engineered construct was attempted in FASB 140, which stipulated that if somebody else did not own at least 3 percent of the funding liabilities and equity, you had to carry it on your own books. Of course, Enron found this requirement very easy to obviate by lending someone else money to buy the 3 percent and then selling the rest back by Enron guarantees, thus retaining a substantial first-loss stake in the arrangement.

Under FIN 46, created to revise the rules that were used to create the failed Enron structures, the 3-percent rule became the 10-percent rule. The entities used by Enron were labeled "Variable Interest Entities," and others were labeled "Qualified Special Purpose Entities," or QSPEs, which were excluded from the 10-percent rule because they were thought to be what FASB termed "passive securitizations."

The key problem with us today is that the purportedly "passive" credit card, mortgage, home equity, auto loan, and other QSPEs are not really passive at all. Those passive structures routinely manipulate pool value through servicing and direct replacement of loans in the pools under representations and warranties, just like Enron. When there are no reserves behind the warranties, trouble is hidden until the product breaks down. When loan performance sours beyond the ability of the seller to support pool performance out of regular operating earnings, the seller has to either increase earnings or stem losses. Since the seller's earnings primarily arise

through making new loans to generate underwriting fees, the seller, therefore, counterintuitively accelerates underwriting in these circumstances. Since better-qualified borrowers will most likely obtain cheaper loans from financially sound lenders, the seller targets down-market consumers—subprime borrowers—for the new business. Of course, less creditworthy borrowers mean more losses. As the firm enters a death spiral, it attempts to modify loans using repayment and forbearance plans, while aggressively re-aging loans and even committing fraud to classify as much of the portfolio as possible as "current."

The loan servicing rights that allow such practices are often the final asset remaining in the failing firm and the substantial potential for servicer malfeasance as the seller/servicer approaches bankruptcy can deteriorate their value significantly. Since there is so little to recover from a failed seller/servicer, the FDIC itself has maintained that it may disallow "true sale" status if it desires and seize those purportedly "truly sold" assets in a securitization to recover deposit insurance outlays.

So this true sale that is the accounting foundation of securitization itself does not make sense. The problem is a tragic collision of economics, finance, and accounting. Economic risk has been placed where it is difficult to value financially and even the most complex accounting rules do not apply.

Any discussion of necessary accounting reforms for securitization would be incomplete without a section on gain-on-sale accounting. In short, in gain-on-sale accounting, the first estimates the value of the thing that they want to sell with a financial model. Then they sell the thing and receive some money and other items in the actual sale of that thing. Then the firm gets to, last, record the difference between their own valuation of the thing that they sold and the value of the cash and other things that they received as cash revenue. Of course, this is not cash. So what we have here is a situation where many of the mortgage companies and similar firms that have been associated with previous securitization fiascos—and there have been many—have never been cash-flow positive in their entire corporate lives. So we have a financial world that is littered with hundreds of firms with exceedingly high stock values that had never actually earned positive cash profits in a manner typical of a classic bubble.

None of the problems I review here are new, unique, or unknown, nor is their manifestation in today's credit crisis. Rating agencies' characterizations of past crises eerily presage the present crisis. In 2002, Moody's wrote, and I quote, "The seller's capital structure, its diversity of funding sources, types of assets, and the business factors motivating its securitizations are all important considerations. The examples of deals gone 'bad' over history reveal that an overreliance on securitization as a funding source is an important risk factor. The overuse of securitization coupled with aggressive gain-on-sale accounting was a particularly lethal combination. . . . New or unusual asset classes pose particular risks as well." From 2002.

The current crisis, therefore, was merely wrapping all these influences into one and applying them to nearly all collateral types in the market.

In conclusion, while FASB continues to try to pigeonhole securitization accounting into simple on- and off-balance-sheet classifications, the issue is far more complicated due to other legacy accounting treatments surrounding the entire securitization process, as well as securitizations' unsettled legal status. And I think you talked a little bit about this with derivative product companies. We cannot expect any resolution to on- and off-balance-sheet treatment by continuing to implement the dichotomous approach used so far. Nor can we expect securitization accounting to improve significantly without removing other perverse incentives in gain-on-sale accounting and true sale status.

So while all this does not augur for prohibiting securitization in the long term, it does provide a rationale for constraining financial product development in a manner similar to that written into H.R. 6482 that was introduced in July on bond rating reform so that new products do not grow systemically large before finance and accounting can properly characterize their risks and their returns.

So much work remains to be done to adequately characterize securitizations in a credible and transparent manner. Nonetheless, we have had several decades to get this work done already. The problems of both bond ratings and FASB, therefore, seem to be that a private organization is operating in the public interest with no overt responsibility or constraints imposed by the Government. Perhaps it is time to expect something better.

Thank you.

Chairman REED. Thank you, Professor Mason.

Mr. Young.

STATEMENT OF DONALD YOUNG, MANAGING DIRECTOR, YOUNG AND COMPANY LLC, AND FORMER FASB BOARD MEMBER

Mr. YOUNG. Chairman Reed and Ranking Member Allard, thank you for your interest in improving financial reporting.

Accounting standards have been a major factor in reducing transparency for investors and have directly contributed to the current credit crisis. I do not believe the proposed FASB solution will stop the "cycle of crisis" that we have now repeated. And I believe it would be a mistake to focus on expanded regulation alone.

A better solution is to provide transparency in the reporting of securitizations and increase investor involvement in financial reporting to end this cycle of crisis.

Now, under the proposed FASB solution, which was exposed on Monday, the self-administered test for qualified special purpose entities in Statement 140 will be replaced by another self-administered test in FIN 46(R).

These custom designed entities that are the subject of the self-administered test provide little transparency to investors, and they are not subject to the forces of the marketplace. They are custom designed. Their business purpose is to get favorable accounting treatment.

The proposed rules will likely force consolidation of special purpose entities designed in the past. But the more important question is: Will future securitization structures enable management to in-

appropriately de-recognize financial assets and gains? Unfortunately, I believe the answer is yes.

Market transparency would be better served and the accounting simplified if the FASB had pursued a model where an originator continues to recognize financial assets and liabilities while there is any continuing involvement. The determination of whether a sale has occurred is shifted from management and auditors to investors and markets.

In early 2005, when I joined the FASB, the Board was very aware of the problems in accounting for securitizations. It was the subject of a joint conference with the American Accounting Association where research was presented that indicated investors' near complete distrust of FAS 140 accounting. Investors generally reversed the sale accounting propagated by the standard.

By the way, I have submitted a copy of this research with my written testimony.

The FAS Board was working on changes to Statement 140 which were exposed for comment in 2005, but very little progress was made in 2006 and 2007 when the subprime securitization was rapidly expanding. In fact, I think there were two or fewer board meetings held over a 2-year period.

Now, for most of the period, there was an unending series of issues related to 140-and Larry Smith talked about some of those today—where we made little progress, and in my written testimony, I have outlined three troublesome examples of that.

Now, there is no question that the FASB knew it had a serious problem in the financial reporting of securitizations. The question is: Why was it not addressed until after this crisis was evident?

Now, when I asked the staff the reasons for the delay, I was informed that there were concerns over the standard-setting actions we were considering. The changes would more accurately reflect the underlying economics, but this in turn would undermine companies' ability to execute securitizations worth many billions of dollars. In other words, it would be bad for business to provide transparency to investors—at least that could be said in the short term.

There was unending lobbying of the FASB not just by preparers, which should be expected, who are in economic conflict with investors, but also by their regulators—all looking to preserve sale accounting for activities that clearly indicate that there was no sale.

The SEC, for example, was actively involved in expanding the originator's ability as a servicer to renegotiate loans yet still keep sale accounting and potentially harming investors in the securitization. I have also documented that in my written testimony in an SEC Office of the Chief Accountant letter from January of 2008.

Another factor noted by the FASB staff was resistance from Federal Reserve regulators.

Now, my purpose is not to argue that company managements need to be protected from harming themselves—because in the end that is what happened—nor is it to criticize regulators but, rather, to recognize the limitation of regulation.

The essential problem is that the FASB is not capable of providing financial reporting transparency until a crisis provides the

political cover to overcome lobbying efforts that are in conflict with serving investors and providing transparency to the markets.

Because managements and regulators control the financial reporting process, we will continue to be in the cycle of crisis where we are unable to address financial reporting problems until a major crisis unfolds. Enron all over again.

Now, you can end the cycle of crisis only by engaging the markets and investors in the financial reporting process, which requires a fundamental change in the composition of standard setters and their trustees. Instead of token investor representation or, in the case of the FASB today, no investor representation, we need investors to be equally represented, both on the Board and in the trustees. Then we would have a chance of stopping the cycle of crisis.

Thank you again, Mr. Chairman, for inviting me to testify at this hearing. I look forward to responding to your questions.

Chairman REED. Thank you very much, Mr. Young.

Ms. Mooney.

STATEMENT OF ELIZABETH F. MOONEY, ANALYST, CAPITAL STRATEGY RESEARCH, THE CAPITAL GROUP COMPANIES

Ms. MOONEY. Thank you, Chairman Reed and Ranking member Allard, for the opportunity to be here to testify on a very important issue to investors.

I am an analyst with the Capital Group Companies and together with our affiliates we manage the American Funds mutual fund family and public and institutional retirement plans as well as private client accounts. We are long-term investors in equities and fixed-income securities globally, and we are one of the largest active institutional money managers. We manage accounts, over 55 million accounts, primarily for individuals and institutions and employ over 9,000 people globally around the world. And we conduct extensive, fundamental research on companies and rely heavily on financial statements prepared by public companies.

At the Capital Companies, we feel that it is critical that the views of investors are considered in establishing accounting standards. So thank you again for the opportunity to be here today.

There are six points I wish to emphasize today.

No. 1, that the current rules are inadequate and allow institutions to have too much, far too much involvement and risk exposures with entities off the balance sheet.

No. 2, while the FASB rule proposals have just come out and I have not fully studied them, my preliminary view is that together they represent a good response and a significant improvement over what we have today. Reforms in this area need to be adopted on a timely basis.

No. 3, the SEC should enforce the rules as enacted and not weaken them or permit management or auditors to weaken them through interpretation, as they did with the current rules. The inadequate accounting as well as the weak enforcement of the current rules equally contributed to the well-documented transparency problems.

No. 4, the Congress should be supportive of FASB's efforts and not undermine them. In the oversight capacity with respect to the

SEC, Congress should monitor and encourage enforcement of the new rules. Congress does not need to legislate in this area.

No. 5, the FASB rule proposals are better than the current international standards, and we are waiting to see improvements to IASB's draft proposal. The U.S. should not adopt the International Financial Reporting Standards if they are not substantially equivalent to the FASB's rules. We must be sure this fix is not undone if IFRS rules are adopted in the U.S. U.S. and International standard setters should converge to the highest-quality accounting and disclosure requirements.

No. 6, investors are an important constituent without a sufficient voice at the table in accounting standard setting, as Mr. Young alluded to. The FASB and IASB should expand investor representation on their boards.

So it is important that the accounting gets fixed, that financings get reflected on the balance sheets on a timely basis.

Thank you. That concludes my remarks, and I would be happy to answer any questions.

Chairman REED. Thank you very much.

Mr. Miller.

STATEMENT OF GEORGE P. MILLER, EXECUTIVE DIRECTOR, AMERICAN SECURITIZATION FORUM

Mr. MILLER. Thank you and good afternoon, Chairman Reed, Ranking Member Allard, and Members of the Subcommittee. I very much appreciate the opportunity to testify on behalf of the American Securitization Forum and the securities industry and Financial Markets Association. Our members include issuers, investors, financial intermediaries, and other professional organizations who are involved in the securitization and broader financial markets.

Quality accounting standards are critically important to the accuracy, relevance, and utility of financial reporting for securitization transactions and to the efficient functioning of the financial markets generally. We, therefore, strongly support the need for high-quality accounting standards governing the removal of assets from a transferor's balance sheet and, similarly, robust consolidation, financial reporting, and disclosure standards relating to off-balance-sheet entities.

Briefly, "securitization" is a term that includes a wide range of capital markets transactions that provide funding and liquidity for an equally wide range of consumer and business credit needs. These include securitizations of residential and commercial mortgages, automobile loans, student loans, credit card receivables, equipment loans and leases, trade receivables, asset-backed commercial paper, and other financial assets. Collectively, securitization represents by far the largest segment of the U.S. debt capital markets, with over $10 trillion of mortgage- and asset-backed securities currently outstanding.

Many, but not all, securitizations qualify for off-balance-sheet accounting treatment under current accounting guidance. By and large, these transaction structures are long established and are accompanied by extensive risk and accounting disclosures. We agree that a comprehensive review of de-recognition and consolidation of accounting standards is in order. However, we are very concerned

that FASB's current proposals to amend FAS 140 and FIN 46(R) in the near term without sufficient consideration of other and possibly superior accounting frameworks may have serious and unintended consequences. Especially in light of the challenges facing our financial markets, we believe that a more thorough and deliberative process in developing these changes is essential and will produce better accounting policy, financial market and economic outcomes in both the short and long term.

In particular, to the extent that FASB's current proposals may result in widespread consolidation of existing and future securitization special purpose entities, the balance sheets of affected entities would swell, impairing financial ratios and disrupting financial covenant performance and regulatory capital tests. Importantly, these results would be produced not by any change in the economics of securitization transactions, but solely by a change in accounting standards.

Although we cannot presently estimate which or how many securitization transactions would be affected by the proposed changes, consolidation of even a significant fraction of the multi-trillion-dollar securitization market would represent a momentous shift. The consequence of this change could be a material reduction in the availability and increase in the cost of consumer and business credit, precisely at a time when the availability of capital, credit, and liquidity are severely constrained throughout the financial markets.

We encourage FASB and the policymaking community to work together with the industry to develop a coherent, consistent, and operational securitization accounting framework that better reflects the economics of securitization transactions. We believe that a binary, "all-or-nothing" approach to consolidation—where an entity consolidates either all or none of the assets and liabilities that reside in a securitization special purpose entity—often does not reflect the underlying economics of those transactions. Overconsolidation of SPEs can be just as misleading to users of financial statements as underconsolidation. For these reasons, we believe that a different and more nuanced approach should be considered.

For several years, therefore, we have advocated linked presentation as a concept that has great potential to resolve many of the issues and ambiguities that surround securitization accounting. Under a linked presentation approach, the non-recourse liabilities that are issued in a securitization transaction would be shown directly on the balance sheet as a deduction from securitized assets. We strongly advocate that FASB engage in a full exploration of linked presentation, among other possible alternatives, as part of the current round of accounting revisions.

Finally, we believe that proceeding with significant accounting changes in the United States without meaningful convergence of international accounting standards in this area risks prolonged drain on the time and resources of FASB and industry participants alike. We believe that FASB should coordinate now with the IASB to develop and issue converged standards rather than proceeding with a separate initiative.

Thank you once again for the opportunity to present these views, and I look forward to answering any questions that Members of the Subcommittee may have. Thank you.

Chairman REED. Thank you. Thank you very much, ladies and gentlemen.

Let me just start with Mr. Miller. What further studies might be done to estimate the impact—your testimony suggests that there will be an impact; I think we all recognize that. But what studies should be done, or is it possible to quantify that impact?

Mr. MILLER. Well, I think that is underway right now. I think the most important predicate to being able to do that is the issuance of guidance and to be able to evaluate that and develop a clear understanding of how FASB's proposals would apply in practice to existing and future securitizations. So that is underway.

Chairman REED. As I understand from Mr. Smith, the first significant implication of the changes would be disclosing these off-balance-sheet engagements, but not necessarily bringing them back onto the balance sheet. That sounds a little bit like the linked presentation you talked about. Is that sort of a fair or rough analogy?

Mr. MILLER. Well, the linked presentation, as we have proposed it, actually would be an alternative accounting framework. The disclosures that other witnesses today have spoken about, I think it is important to recognize there are already disclosures in place relative to off-balance-sheet entities. FASB has proposed enhancements to those disclosures, and we certainly support enhanced disclosures as a step to aid and increase overall transparency regarding relationships with off-balance-sheet entities. Beyond that, what linked presentation would be is to serve as a potential alternative to the accounting framework that FASB is proposing.

Chairman REED. Professor Mason and Mr. Young, your comments on sort of a linked presentation as an alternative to what FASB is proposing now or what you would think would be appropriate.

Mr. MASON. I think a concept similar to a linked presentation makes sense for at least part of a new accounting paradigm in this area, particularly because there was discussion earlier today about financial models reporting things like mean loss estimate. And, of course, the first thing you learn in statistics is you do not just rely upon the mean but you examine the median, the mode, then you learn about standard deviation.

So the linked presentation gives an idea of really how bad things can get, and if the bottom really fell out of the world, here is your total off-balance-sheet exposure that could be, as we have seen in recent cases, forced to be bought back through legal threats or other means. But this is your total exposure, a worst-case scenario, and leave it to the investor to participate in the process of valuation by deciding what is the probability of that worst-case scenario.

Chairman REED. Mr. Young, do you have any comments about that approach?

Mr. YOUNG. I actually strongly support it. I think that, in conjunction with the no continuing involvement, displays the information on the statement. You can use linked presentation as a de-recognition model. You can use it as a consolidation model. You can

use it as a note structure. But I think as a basic way of implementing any continuing involvement in securitization, it is the most rational way that I have seen so far.

Chairman REED. Let me ask a question which will reveal, I think, my lack of accounting training. The disclosure is important to investors, but when you bring these assets on the balance sheet, it has a significant impact particularly for regulated financial institutions, the capital ratios that they must maintain. Is it possible that the disclosure, good disclosure would not be adequate because it would not be able to force the entity to raise sufficient capital? Is that a concern?

Mr. YOUNG. Well, I think what we found, what I found is the compliance with disclosure is far below the compliance with statements, particularly to go after, Chairman Reed, what you said about capital requirements. One of the nice things about linked presentation is that you show sort of a net exposure which does not offset your—it does not make your total assets look large. It nets it down for the beneficial interest or other liabilities that stand against that asset. So, in a way, one of the attractions to linked presentation, at least in the preliminary work I saw in the FASB Board, was it would not screw up the capital markets.

Now, I did not talk about measurement might be different and other things might be different, but the basic netting approach would preserve, I think, some of the regulatory capital issues.

Chairman REED. Ms. Mooney, do you have a comment? I want to make sure that you have an opportunity on this issue.

Ms. MOONEY. Well, I think the information on the balance sheet, it is about conveying information about judgments that are made by management and agreed to by auditors conveying that to investors; what happens with regulatory capital is between the banks and the regulators. But we are talking right now about reporting the information to investors, and we read a lot into the decisions about whether an asset or liability goes on the balance sheet or off the balance sheet. And we start with that when we are doing our financial analysis, we start with the balance sheet. So it is really critical to get that right and that financings are reflected on the balance sheet.

Chairman REED. Professor Mason, do you have a quick comment?

Mr. MASON. Yes, I just wanted to weigh in on this. My own research published in academic journals has shown that heavy securitizers have, at least in the past, typically held a little bit of extra capital on-balance sheet against the market risk that is out there, typically about 2 percent as compared to an 8-percent bank capital ratio.

Furthermore, the bank regulators under Basel II are beginning to deal with some of these problems. The Basel II rules for credit card securitization, in fact, require a bank to start holding capital against their credit card securitizations as the performance of the loans in those pools begins to sour, recognizing that in kind of an end game, the bank will probably need some capital here to back some of that off-balance-sheet risk.

Chairman REED. Thank you.

Both Mr. Young and Ms. Mooney indicated that part of the problem was not the rule, it was the enforcement interpretation sug-

gesting that the SEC, in your case I think it gave permission to begin renegotiating contracts. Can you comment about what specifically happened with respect to the SEC interaction with the FASB rules?

Mr. YOUNG. Well, I think it can change based on who is serving in those positions.

Chairman REED. Right.

Mr. YOUNG. I can only comment on the time I was on the FASB where I think a number of efforts—and I tried to document them in my written testimony. Part of the activity of what is allowed in this passive QSP entity that we have been talking about was put forward by the Office of the Chief Accountant. And I also include in my submitted written testimony some research done by the Federal Reserve of New York which talked about the steep economic conflict between the servicer, which was getting the ability to do more activities than 140 would normally allow and the investor, what conflict they were. And it was, Chairman Reed, a little crazy that here we are empowering the preparer or the servicer to take advantage of the investor. It is supposed to go the other way at the SEC.

Chairman REED. Ms. Mooney, do you have a comment?

Ms. MOONEY. No.

Chairman REED. Because I think you made another comment with respect to SEC involvement. OK. Thank you.

I will recognize my colleague, the Ranking Member, for his questions.

Senator ALLARD. Thank you, Mr. Chairman.

I inquired somewhat about the timeline in implementing these rules and regulations, and I think it was your letter, Mr. Miller, that maybe prompted that in that you suggested that for a longer timeline and give the public an opportunity to speak. Do you have a timeline in mind that would be adequate from your point of view?

Mr. MILLER. Well, to clarify, we see the fundamental issue as being providing enough time to consider a range of potential alternatives to what has been proposed, including linked presentation. Perhaps there are other alternatives. We are not taking issue necessarily with the length of the comment period. I think 60 days is probably sufficient to comment on the rules as proposed, although I would note the effective comment period is 45 days because FASB has scheduled a public roundtable meeting earlier than the close of the comment process and would require anyone like ourselves who would wish to participate to have our comment letter in early.

But leaving that aside, I think our fundamental concern is that there be enough time provided to consider other frameworks and have a thorough deliberation of them before making decisions about changes to accounting standards, and for that reason, we think the time should be taken between now—and we would agree with a 2010 implementation date as long as there is sufficient time allowed to thoroughly consider other potential alternatives.

Senator ALLARD. So you do not think that all of the alternatives have been checked out thoroughly enough? Do I understand that right?

Mr. MILLER. That is correct, and in particular relative to linked presentation, I believe FASB had indicated that they simply did

not feel that they had enough time to give that thorough or serious consideration, and we strongly believe that they should, again, among other potential alternatives.

Senator ALLARD. I see. This question here is for all of the witnesses, and I hope I am not duplicating any questions that the Chairman may have asked while I was not here. I apologize for my absence.

I like the idea of transparency, and I support it. I think it is key, if we want markets to work, to have informed consumers, and then they can make decisions themselves, not get too heavy on the regulatory side.

These proposals could result in very significant changes to companies' balance sheets in a relatively short period of time. Do you think that these sudden changes could in some way thwart the goal of transparency? Anybody want to comment on that?

Ms. MOONEY. Having the transparency should help stabilize the situation. Providing investors with transparency should improve liquidity and help stabilize the market.

Senator ALLARD. OK. So you do not think it any way or another we have kind of forced this to come about so quickly that transparency in some way would be maybe limited more than we would expect it to?

Ms. MOONEY. Investors can use it and move on. Once they know what the facts are, they can digest it and move on.

Senator ALLARD. OK. Mr. Miller?

Mr. MILLER. Yes, I think our concern in that respect, as I indicated in my oral statement, would be that to the degree that adoption of these rules results in overconsolidation of special purpose entities, we do not see that as being particularly helpful. And I would just also comment I think it is important to have sound accounting rules and principles. There are many other steps that the industry can and should undertake to promote broader and better transparency about risk exposures in these vehicles, whether they are on or off balance sheet.

Senator ALLARD. I see where you are concerned, not so much the time to implement it, but this consolidation. OK.

In making the switch to accommodate these new off-balance-sheet entities rules issued by the Financial Accounting Standards Board, many financial institutions would have to raise additional capital and significantly adjust their accounting practices. What will be the full practical impact of these changes in today's world and the stress that everything is going through right now? And, in particular, how will these significant changes affect an already fragile and volatile market situation? Anybody want to comment on that?

Mr. MASON. I want to say in reply to this and your previous question, I think rapid implementation of good accounting rules is not only desirable right now, but crucial right now. I think a rapid implementation of bad rules can indeed be tremendously disruptive. But, in fact, implementing a rule right now that would require the entire recognition of a securitized arrangement on-balance sheet enforce full capital raising against that, I think you are right, is tremendously disruptive right now, and it is not necessarily a good rule.

While there is not complete risk transfer in today's securitization arrangements, there is some, as evidenced by the study I did that showed that certainly banks do hold some capital against their securitizations, even though they are not required to by regulators or under accounting rules. But, clearly, the market believes that there is a worthwhile goal of holding some capital.

So I think if we are looking for a kind of recognition paradigm, an accounting paradigm, it is important, as Mr. Miller noted, to look outside the box a bit to get away from this on- or off-balance-sheet paradigm and see where the reality really is. If investors are asking banks to hold not 8-percent but 2-percent capital, why shouldn't a bank regulator require that 2-percent capital holding, which, in fact, the bank probably already has if it is a well-managed bank. So that well-managed banks are not disrupted by the transition, and, of course, ill-managed banks are. But then, again, they should be, to help them recognize their true financial situation, help investors see the situation, invest in the good banks, avoid the bad banks, and get over the crisis.

Senator ALLARD. Yes?

Mr. YOUNG. I guess, Senator Allard, I would look at that question a little bit differently in light of recent events. We just had an investment bank go bankrupt with a fair-value balance sheet that showed it had plenty of assets and liabilities. And it almost seems like financial reporting is out of control and not trusted and not believed in. And I think what we do here has got to establish transparency.

If the transparency is such that we are going to bring out some bad news that was not there before, that is a risk. But I think the benefit of reestablishing confidence in the markets will overwhelm that. And I think, you know, for us to say let's go slow or not proceed when we have lost all confidence in financial reporting in some cases now I think is a very difficult tradeoff to make. I would think we would be—we do not have a whole lot to lose right given the low level of confidence.

Senator ALLARD. Any other comment on that question? Yes?

Ms. MOONEY. I would just say that, you know, working on this issue has been in the works for research and study by standard setters for decades. So it is about time that we get it right, we get financings on the balance sheet, transparent reported, so we can get trust and confidence back in the markets. And we should be able to do this on a timely basis after all the work that has been put in.

Senator ALLARD. Yes, Mr. Miller?

Mr. MILLER. I would agree that it is very important to move forward quickly to develop and implementation sound accounting principles here. I believe there are great risks to the financial markets and to the economy of moving forward quickly with bad rules and specifically especially given capital liquidity credit constraints that are now being faced. It is not clear that there is sufficient capacity if many assets are moved back on-balance sheet for financial institutions to be able to provide funding for the business and credit—consumer and business credit needs that exist. So I think those risks are very serious.

Senator ALLARD. Ms. Mooney?

Ms. MOONEY. As I mentioned earlier, in terms of capital, which you alluded to, regulatory capital decisions, if the Fed would feel it prudent to—for prudential regulations to exercise some forbearance on the capital and require more or less capital to be raised despite the accounting, it should be done.

Senator ALLARD. Mr. Chairman, I have one more questions. Can I ask it?

Chairman REED. Please.

Senator ALLARD. In your testimony—and this is to you, Ms. Mooney—you testified that—or at least in your written testimony, you raised concerns about the possibility of IFRS standards being weaker than U.S. standards. How do you see these issues resolved in the context of convergence?

Ms. MOONEY. I do not think we should be adopting IFRS if it is not substantially equivalent to what the U.S. FASB comes up with as a fix. Right now the international standard has as a lighter qualitative test that even with reputation risk that could lead to, you know, obligations to absorb losses that could potentially be significant, to not have to consolidate that, and also have significant voting rights to appoint directors. It would not be appropriate to go backwards and adopt that. So we should not unless we——

Senator ALLARD. So you would be opposed to the IFRS standards being applied at all?

Ms. MOONEY. In this area, absolutely. If we fix it—if we fix it in the U.S. and come up with a higher-quality standard, convergence should not only occur unless we have the highest-quality accounting and disclosure adopted in the U.S.

Senator ALLARD. OK. Thank you.

Thank you, Mr. Chairman.

Chairman REED. Well, thank you, Senator Allard. In fact, you asked precisely one of the questions I was going to ask to Ms. Mooney about this convergence issue of international standards and our FASB standards.

The topic that I want to raise—and this is the end of the hearing, so it might require educating me, which would take years. So it is perfectly OK to say, you know, we will send you a note or something.

It seems at the heart of this, Professor Mason and Mr. Young, you know, stepping away from specific items of disclosure or bringing back on the balance sheet, is this notion of whether it is a sale or financing. Does that have to be reconciled, or are we sort of suboptimizing by saying, well, we got into the sale box years ago, and now we just have to sort of do what we can to get as much information on the balance sheet, in some cases bring the entity back on the balance sheet? But if you can just briefly comment, Professor Mason and Mr. Young, and if Ms. Mooney or Mr. Miller want to also, on this whole issue of the sale versus financing.

Mr. MASON. Well, you are right, that is a big issue in the accounting world. I have a working paper right now that looks at investor reactions to securitization and suggests that they react to a securitization as if it is a financing not a sale. But in a way the distinction is artificial. Perhaps securitization is something different. It is something in between. And, in fact, we should offer firms an array of different arrangements, perhaps spanning the

middle ground between financings and sales. And as long as we properly account for the risk transfer, I think that we have made the system more efficient.

Now, the rub there is that accounting deals with accounting for returns. There is no accounting system for risk. And in this world where we have financial engineers shifting risk and moving risk and slicing and dicing risk, it becomes critical to at least attempt to track the risk, allocate it correctly, follow what the engineers are doing, and build smart accounting rules that can at least get close. And the problem is right now we are nowhere near close, and that is evidenced by the cliff risk that we see in the market today. We see firms that we thought there was no problem with suddenly fail. So, clearly, the accounting has missed something, and that is what we need to fix.

Chairman REED. Mr. Young, your comments?

Mr. YOUNG. Chairman Reed, I think that is a pivotal issue. The determination of the sale has become too complex for accounting. And when you look at the way securitizations can be structured, how you can slice and dice them and spread the risk, it is hard for FASB to come up with a way to do that. And that is why the statement prior to 140 has had problems, why 140 had a problem, why we had two exposure drafts that went nowhere in 2003 and 2005. And I just think it is time to step back and say let's not make a judgment on whether they are sale or not by the accountants and the management. Let's put that information in the financial statements in a way that is not detrimental to understanding and transparency, and let the investor and the market decide. That is really the gist of the question.

I think, you know, to FASB's credit, in some ways they did that in the disclosure requirements. In fact, if you are a sponsor, under FIN 46(R) that they are proposing, you have to disclose any exposure to a VIE where you are the sponsor, regardless of how significant it is. I am just saying, instead of it being on the disclosure, we ought to think more about putting that on the financial statements.

Chairman REED. Ms. Mooney.

Ms. MOONEY. I think the qualitative test is principles based, and as you alluded to earlier, that it would be unfortunate if companies defaulted to what we have today, which is broken, and I would hope that that would be seriously revisited if that is the behavioral fact pattern that results. But I do think, based on the examples provided and the implementation guidance in the proposal, that it would be a good step forward, especially and only if management, auditors, and regulators complied with and enforced the rules.

Chairman REED. Mr. Miller, any comments?

Mr. MILLER. No.

Chairman REED. Thank you very much. Thank you very much for your testimony, and my colleagues might have their own statements, which will be made part of the record if they are submitted no later than September 25th. We might have additional questions for the record which we would get to you and ask you to respond within 2 weeks in writing back to us.

Thank you very much for your very helpful testimony, and the hearing is adjourned.

[Whereupon, at 4:20 p.m., the hearing was adjourned.]
[Prepared statements supplied for the record follow:]

Testimony of

Lawrence W. Smith

Member

Financial Accounting Standards Board

Before the

Subcommittee on Securities, Insurance, and Investment

Committee on Banking, Housing, and Urban Affairs

September 18, 2008

Transparency in Accounting:
Proposed Changes to Accounting for Off-Balance Sheet Entities

Introduction

Chairman Reed, Ranking Member Allard, and Members of the Subcommittee:

Good afternoon. I am Larry Smith, a member of the Financial Accounting Standards Board ("FASB" or "Board"). I am pleased to appear before you today on behalf of the FASB. I want to thank you for inviting me to participate at this very important hearing.

I have brief prepared remarks and would respectfully request that the full text of my testimony and all supporting materials be entered into the public record.

The FASB is an independent private-sector organization. Our ability to conduct our work in a systematic, thorough, and unbiased manner is fundamental to achieving our mission—to establish and improve general-purpose standards of financial accounting and reporting for both public and private enterprises. Those standards are essential to the growth and stability of the United States economy because creditors, investors, and other consumers of financial reports rely heavily on credible, transparent, comparable, and unbiased financial information to make economic decisions. In other words, financial accounting and reporting is meant to tell it like it is, not to distort or skew information to favor particular industries, types of transactions, or particular political, social, or economic goals.

Because the actions of the FASB affect so many organizations, our decision-making process must be open, thorough, and as objective as possible. Our Rules of Procedure require an extensive and public due process. That process involves public meetings, public roundtables, field visits, liaison meetings with interested parties, consultation with our advisory councils, and exposure of our proposed standards to external scrutiny and public comment.

In setting our standards, the FASB gives priority to the needs of investors because, in our view, the primary reason for developing high-quality accounting and external financial reporting standards is to enhance the efficiency of the capital markets by giving potential investors the information to confidently make lending and investing decisions. We also give careful consideration to the costs and benefits to companies that prepare the accounting information as well as the costs imposed on auditors, regulators, and the rest of society. In our view, these costs are important but secondary criteria for setting external financial reporting policy.

As significant reporting issues arise, the Board endeavors to understand those issues and to identify the reasons why they arose. Once the Board understands the underlying issues, it is able to assess whether there are potential accounting standard-setting matters that may need to be addressed. The events that have occurred recently in the credit markets resulted in such a review, and the Board accelerated its work in several specific areas.

For example, in May 2008, the Board issued guidance to improve disclosures related to derivative instruments and to improve accounting for revenues and expenses relating to financial guarantee insurance contracts. And, in 2005, the Board, aware that the volume of "nontraditional" loan products was proliferating and could increase the exposure of the originator, holder, investor, guarantor, and/or servicer to the risk of nonpayment or realization, issued guidance to reinforce the extensive existing accounting and disclosure requirements that would be applicable to such products.

The Board also is working on projects to improve disclosures about (a) credit derivatives and certain guarantees, (b) loans and loan losses, and (c) assets held in employer-sponsored postretirement benefit plans. While the work on all of these projects is important in light of recent economic events, the Board

considers its work in the areas of transfers of financial instruments (i.e., Statement 140) and consolidations of variable interest entities (i.e., Interpretation 46(R)) to be of paramount importance.

Proposed Improvements to Statement 140 Influenced by Recent Events in the Credit Markets

FASB Statement No. 140, *Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities,* addresses the accounting and disclosure of transfers of financial instruments. Its fundamental purpose is to address when the transfer of a financial instrument (such as a loan receivable) should be accounted for as a sale rather than as a secured borrowing. One of the fundamental criteria that must be met under Statement 140 to qualify as a sale is that the transferee, that is, the buyer of the financial instrument, must be able to sell or pledge the financial instrument. Nevertheless, transfers to special-purpose entities (that meet certain criteria) qualify for sale accounting under Statement 140 despite provisions that prohibit the SPE from selling or pledging its assets. This special provision for transfers to qualifying special-purpose entities (QSPEs) is what enables transferors to derecognize loans sold through securitization transactions. The criteria to qualify as a QSPE relate to restrictions on the permitted activities of a QSPE. Specifically, Statement 140 requires that the activities of a QSPE must be "significantly limited" and "entirely specified" in the legal documents creating the QSPE. In other words, the QSPE has very restricted decision-making authority because the entity was supposed to be able to function on "autopilot." This lack of decision-making authority is the basis for allowing transfers to QSPEs to be accounted for as sales despite the restriction on a QSPE's ability to pledge or sell its assets. The QSPE was viewed as a way of selling financial instruments to a number of buyers, that is, the holders of the beneficial interests in the QSPE, while restricting the ability of the transferor to benefit from the operation of the QSPE.

The Board has a project under way to amend Statement 140 to address (a) practices that have developed since that Statement's issuance that are not consistent with the original intent and key requirements of the

Statement and (b) concerns of financial statement users that many of the financial assets (and related obligations) that have been derecognized should continue to be reported in the financial statements of transferors. The Board's current deliberations to revise the Statement are the result of an extensive review of comments received on earlier Exposure Drafts to amend Statement 140, subsequent constituent inquiries (including financial statement user requests for greater transparency), and market conditions over recent years including, but not limited to, the impact of the recent credit crisis in the United States. This research and analysis have led Board members to the conclusion that because of the range of financial assets being securitized and the complexity of securitization structures and arrangements, the current qualifying SPE criteria are being stretched well beyond the original intent and requirements of Statement 140 that its activities be "significantly limited" and "entirely specified."

The Board considered an approach that would have clarified and strengthened the existing criteria for a qualifying SPE. After careful consideration Board members concluded that it is not possible to create an entity that functions on "autopilot" because few classes of financial assets are truly passive as envisioned in the qualifying SPE concept. As a result, the Board decided to remove the concept of a qualifying SPE from Statement 140. This change is a fundamental change in the accounting for transfers of financial instruments and, as discussed in the next section, has significant implications on the consideration of who, if anyone, should consolidate entities that were previously considered QSPEs.

Proposed Improvements to Interpretation 46(R) Influenced by Recent Events in the Credit Markets

FASB Interpretation No. 46, *Consolidation of Variable Interest Entities,* was created post Enron to address weaknesses in financial reporting of interests in thinly capitalized entities for which the traditional concepts of consolidation for voting interest entities do not work. In creating Interpretation 46(R) the

Board considered the existing restrictions surrounding the powers and activities of a QSPE and concluded that QSPEs should not be subject to the consolidation model created by the Interpretation. The basis for that decision was that the QSPE's activities are extremely limited such that they are on "autopilot"; hence, no one controls the QSPE.

As a result of its decision to remove the concept of the qualifying SPE from Statement 140, the Board decided to remove the scope exception for qualifying SPEs from consolidation guidance, including the guidance in Interpretation 46(R). The Board considered the potential impact of the elimination of the qualifying SPE concept on the application of Interpretation 46(R) to formerly qualifying SPEs and noted that the elimination would put additional pressure on the framework of the existing model under Interpretation 46(R). Additionally, in light of recent events in the credit markets, financial statement users have expressed concerns that many variable interest entities have not been consolidated by the entity that maintains effective control over those SPEs. As a result of these and other concerns, the Board decided to add a separate but related project to reconsider the guidance in Interpretation 46(R).

Currently, the guidance in Interpretation 46(R) requires an enterprise to consolidate a variable interest entity if the enterprise has a variable interest or interests that will absorb the majority of the entity's expected losses, receive a majority of the entity's expected residual returns, or both. The Board created this requirement because it believed that the party that has the obligation and right to absorb a majority of the entity's expected losses or expected residual returns would be the party in control of the entity. That assessment is performed by calculating the variable interest entity's expected losses and expected residual returns (a quantitative analysis) to determine which enterprise, if any, is required to consolidate the variable interest entity. A variable interest entity's expected losses and expected residual returns are

determined by calculating the expected negative variability (for losses) and positive variability (for returns) in the fair value of its net assets, exclusive of variable interests.

Investors were troubled that the quantitative analysis often seems to identify a different primary beneficiary of a variable interest entity from that identified by applying a qualitative analysis to the same entity. For example, the Board understands that sponsors of certain structured finance vehicles that are variable interest entities avoid consolidation of the entities by selling interests to third parties that would absorb the majority of the expected losses (expected loss note holders). The expected loss note holder receives a substantial return on its investment but typically has very limited power, if any, to direct matters that most significantly impact the activities of the variable interest entity. Additionally, the maximum exposure to economic losses that can be absorbed by the expected loss note holders is typically limited to their investment in the notes, while other variable interest holders may be at risk of incurring significantly larger economic losses. The Board understands that the expected loss note holders frequently held a very minor position in the variable interest entity, yet, as a result of the judgments behind the expected loss calculations, they were deemed to be the holder of the majority of expected losses.

The Board generally agreed with the concerns about the application of the quantitative analysis required by Interpretation 46(R) and the related results. Some Board members believed that the predominant issues may not be attributed to the calculation itself but to the quality of inputs into the analysis, including the use of overly optimistic assumptions that did not contemplate all the relevant risks. However, Board members acknowledged that the calculation was complex and difficult to apply.

The Board decided to propose amending Interpretation 46(R) to require that an enterprise initially perform a qualitative analysis about the enterprise's power to direct the activities of the variable interest entity. A quantitative analysis based on the expected losses calculation would be performed only when an enterprise cannot determine whether or not it meets the qualitative criteria. The Board expects there will be few situations in which an enterprise must perform a quantitative analysis and, thus, has proposed requiring that the enterprise disclose an explanation for its use of that analysis.

In addition to the change discussed above, the Board decided that an entity's status as a variable interest entity and an enterprise's status as primary beneficiary should be assessed in an ongoing manner rather than performed only upon certain triggering events.

Proposed Enhanced Disclosure Requirements

Disclosures serve to provide complete and transparent information to users of financial statements. This information enhances information contained in an enterprise's financial statements by describing both qualitative and quantitative information. Statement 140 currently includes disclosure requirements regarding the transferor's continuing involvement in a securitization transaction including, but not limited to, servicing, recourse, and restrictions on retained interests. Likewise, Interpretation 46(R) requires an enterprise that holds a significant variable interest in a variable interest entity to disclose the nature of its involvement; the nature, purpose, size, and activities of the variable interest entity; and the entity's maximum exposure to loss as a result of its involvement with the variable interest entity. Despite these requirements, the Board is making disclosure improvements to Statement 140 and Interpretation 46(R).

First, the Board is proposing a short-term improvement designed to provide users with additional information about transfers of financial assets and interests in variable interest entities until the recognition and measurement amendments discussed earlier are effective. This short-term improvement will include principal objectives of the disclosure requirements for both Statement 140 and Interpretation 46(R), which, if not met by the specific requirements, would require reporting entities to expand their disclosures until the objectives are met. Second, the short-term improvement will require certain disclosures about (a) a sponsor that has a variable interest in a variable interest entity (irrespective of the significance of the variable interest) and (b) a nontransferor enterprise that holds a significant variable interest in a qualifying SPE. And, third, the final amendments to Statement 140 and Interpretation 46 (R) discussed above will include the applicable disclosure principal objectives and requirements that are included in the short-term improvement. All of these disclosure improvements will provide users of financial statements with (a) an improved understanding of a transferor's continuing involvement with transferred financial assets, the risks inherent in the transferred financial assets that have been transferred or retained, and the nature and financial effect of restrictions on the transferor's assets that continue to be reported in the statement of financial position and (b) information about an enterprise's involvement in a variable interest entity, including a requirement for sponsors of a variable interest entity to disclose information even if they do not hold a significant variable interest in the variable interest entity.

Expected Impact of Proposed Changes

We expect that these improvements to financial reporting will provide users with more relevant, comparable, and transparent information about the past and potential effects of a transferor's continuing involvement and the current or potential financial effects of an enterprise's involvement with a variable interest entity. This will better enable investors to understand the impact on an enterprise's financial position, financial performance, and cash flow.

Effective Dates of Proposed Amendments

Given the current economic environment, the Board concluded that the requirements of the proposed Statements to amend Statement 140 and Interpretation 46(R) should be effective as soon as reasonably possible. The Board considered various alternatives for the effective date; however, the majority of users asserted that a single effective date would provide for a more rational and understandable implementation. The Board recognizes the urgency of addressing these issues, but it ultimately concluded that the proposed Statements should have one single effective date so as to provide sufficient time for preparers and regulators to review the capital adequacy of regulated financial institutions and to provide preparers with ample time to renegotiate items such as debt covenants, if necessary. When the Board concluded that the proposed Statements should be effective as of the beginning of each reporting entity's first fiscal year that begins after November 15, 2009, the Board decided to issue the short-term disclosure improvements discussed earlier (which will be effective at the end of the reporting period in which the guidance is issued, regardless of whether it is an annual or interim period) to serve as interim guidance until the final Statements become effective.

Future Project Plans

The Board issued the Exposure Drafts of the proposed amendments to Statement 140 and Interpretation 46(R) and the draft FASB Staff Position (FSP) on the short-term disclosure improvements on September 15 for public comment, and it plans to hold a public roundtable in November. The Board invites individuals and organizations to send written comments on all matters of the proposed amendments. The Board will consider all comments received during its redeliberations of the proposed amendments. The

Board currently plans to complete its redeliberations and issue the final FSP in November and the final amendments to Statement 140 and Interpretation 46(R) in the first quarter of 2009.

The FASB and the IASB have agreed to long-term objectives to improve, simplify, and reach convergence on financial reporting requirements for financial instruments. A joint research project is under way to simplify and improve the accounting for financial instruments. The FASB and the IASB plan to discuss the status of the projects and future plans to work together at our upcoming joint Board meeting in October.

Conclusion

I have provided an overview of the recent actions and activities at the FASB relating to "off-balance-sheet entities." We share your Subcommittee's concerns about the role these entities have played in the current financial crisis. The fundamental issue relates to shortcomings in the transparency of information available to investors to enable them to understand the true financial reporting status of reporting entities, particularly in the financial services industry. This is why the Board has undertaken these projects to clarify and improve the standards for transfers of financial instruments and off-balance-sheet entities.

Thank you again, Mr. Chairman, Ranking Member Allard, and all of the Members of the Subcommittee. I very much appreciate your continuing interest in, and support of, the mission and activities of the FASB.

I would be happy to respond to any questions.

Testimony Concerning Transparency in Accounting, Proposed Changes to Accounting for Off-Balance Sheet Entities

By: John W. White
Director, Division of Corporation Finance, U.S. Securities and Exchange Commission

James L. Kroeker
Deputy Chief Accountant, U.S. Securities and Exchange Commission

Before the Subcommittee on Securities, Insurance, and Investment Committee on Banking, Housing, and Urban Affairs, United States Senate

September 18, 2008

Chairman Reed, Ranking Member Allard, and members of the Subcommittee:

Thank you for the opportunity to testify today on behalf of the Securities and Exchange Commission (Commission) concerning transparency in accounting and the FASB's proposed off-balance sheet accounting improvements. This testimony is presented jointly on behalf of the Office of the Chief Accountant, which advises the Commission on accounting and auditing matters, and of the Division of Corporation Finance, which is responsible for overseeing disclosures by domestic and foreign issuers of securities.

The Commission's Commitment to High Quality Accounting Standards

High quality accounting standards are the foundation of a financial reporting system that is responsive to investor needs. An open process that allows standard setters to seek and thoughtfully consider the views of market participants is critical to establishing, maintaining, and continually improving financial accounting and reporting standards. We are committed to high quality accounting standards and a transparent financial reporting system that meets the needs of investors and other market participants.

The Commission's Commitment to Improving Transparency in Financial Reporting

Transparency is the cornerstone of world class financial reporting. Transparent and unbiased financial reporting allows investors to make informed decisions based upon a company's financial performance and disclosures. A clear, concise, and balanced view into the companies that participate in our capital markets is

fundamentally important to those who choose to invest in our markets. Informed decision making results in efficient capital allocation.

Transparent financial reporting that conveys a complete and understandable picture of a company's financial position reduces uncertainty in our markets. Surprises are reduced or avoided when a company provides clear and understandable information about existing risk and uncertainty, particularly where such risk and uncertainty is reasonably likely to have a current or future impact on that company. However, we do not live in a static world. Circumstances and risks change and, as a result, disclosure about those risks evolves.

No better example of this exists than our recent experience with off-balance sheet accounting and disclosure in the financial services sector. In response to the Sarbanes-Oxley Act of 2002, the Commission adopted a number of new and revised disclosure requirements. Among these were the specific changes in Item 303(a)(4) of Regulation S-K relating to off-balance sheet transactions. Under this disclosure requirement, financial institutions with off-balance sheet arrangements are required to provide certain disclosure regarding those arrangements if those arrangements are reasonably likely to have a current or future effect on the company's financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to investors. An institution is not required to provide this disclosure until it determines that a current or future effect is material and reasonably likely. A financial institution with a large off-balance sheet arrangement may not provide disclosure about that arrangement in one period because, at the date of the balance sheet for that period, the institution determined that it was not reasonably likely to have a future material impact upon the institution's financial statements. However, circumstances can, and often do, change. In a subsequent period, the institution may reach a different materiality conclusion and determine that it is appropriate to provide disclosure about that off-balance sheet arrangement. As its exposure to loss evolves, the associated disclosure about the likely financial statement impact will evolve as well.

We remain focused on enhancing financial reporting transparency. We continue to work with companies to improve their disclosure about off-balance sheet transactions. As part of our mandate, the Division of Corporation Finance (the Division) regularly evaluates public company financial disclosure transparency. Through its regular and systematic review of public companies, in 2007 the Division determined it would be appropriate to identify a number of items companies with off-balance sheet arrangements may want to consider in preparing their Management's Discussion and Analysis of Financial Condition and Results of Operations. In a December 2007 letter to a number of large financial institutions, the Division highlighted these items and encouraged these companies to consider whether they could improve the transparency of their financial reporting based on this disclosure guidance.

Another example of efforts to improve the transparency of financial reporting is the Division's March 2008 letter to large financial institutions concerning fair value disclosure practices. Like the December 2007 letter regarding off-balance sheet transaction disclosure, this letter highlighted items companies may wish to consider in providing transparent disclosure of fair value accounting. Our ongoing reviews of public companies suggested that additional guidance would be helpful, and as a result, just this week, the Division issued a similar letter in which it provided additional guidance on this topic.

Although we have noted an improvement in the transparency of financial reporting relating to off-balance sheet transactions and fair value accounting, the Division continues to monitor and evaluate disclosure about them. We will, as necessary, ask companies to improve the transparency of their disclosure. Where we are unable to achieve improved disclosure through the review and comment process, we stand ready to take any necessary action, including referring companies with material disclosure deficiencies to the Division of Enforcement.

Investors, analysts, auditors, and preparers of financial disclosure play a fundamental role in improving the transparency of financial reporting. We continually receive input on and suggestions for changes in the financial reporting framework from a broad range of interested persons. In some instances this exchange of information is informal and in others, it is more formal.

As an example, when we and market participants became concerned about compliance with our disclosure rules relating to certain off-balance sheet securitization arrangements, the FASB, at the request of the Commission's Office of Chief Accountant, hosted an educational forum in June 2007 where a diverse range of market participant representatives discussed their concerns. The discussion in this forum provided the necessary background information for staff guidance on the accounting for mortgage loan modifications – guidance that was vital given the growing concerns about the nation's housing market.[1] Ongoing market developments and the insight we gained at this forum highlighted the need for the FASB to quickly address certain aspects of the accounting for off-balance sheet arrangements. In a January 2008 letter to leaders in the financial reporting community, the Commission's Office of Chief Accountant provided additional staff guidance on the accounting for mortgage loan modifications. In this letter, we asked the FASB to prioritize its efforts to address the accounting for off-balance sheet arrangements.[2]

As another example, the Commission held a roundtable in July 2008 during which a broad range of market participants discussed fair value accounting standards and the transparency of financial reporting. At that meeting, panelists discussed their experience with fair value, or "mark-to-market," accounting, and the challenges they face in applying the accounting standard. Panelists agreed that fair value

accounting increases transparency and provides relevant financial information. Panelists also agreed that the FASB's recent guidance on fair value accounting helps improve transparency. However, the panelists shared their views on how difficult it was to implement fair value accounting in the current market environment. To address this feedback, we understand that the FASB is working closely with its counterparts at the International Accounting Standards Board (IASB) to consider whether additional real time guidance would be useful.

Finally, last month, the Commission hosted a roundtable at which panelists discussed how International Financial Reporting Standards (IFRS) and U.S. Generally Accepted Accounting Principles (U.S. GAAP) have performed during the recent period of market turmoil.[3] Again, the Commission asked a broad range of market participants to describe their experiences and share their thoughts. The Commission invited the FASB and IASB to participate in the meeting as well. At the meeting, while panelists generally agreed that the FASB and the IASB should continue to work to improve the accounting for, and disclosures of, off-balance sheet arrangements, a number of panelists clarified that international consolidation standards, such as SIC 12,[4] place a greater emphasis on control, which often results in greater levels of assets and liabilities remaining on balance sheet.

We have found educational forums and meetings to be extremely useful ways to solicit market participant views on how we can improve transparency in financial reporting. However, they are not the only source of this important input. For instance, in July 2007, Chairman Cox established the Advisory Committee on Improvements to Financial Reporting (CIFiR) and asked it to provide recommendations on how our financial reporting system could be improved to the benefit of investors. The CIFiR members represented a diverse group of capital market leaders who provided a fresh perspective on the use of financial reporting. In the 25 recommendations it presented in its August 2008 report, CIFiR made clear that a straight-forward, understandable, and balanced financial reporting framework provides investors with transparent information.[5] The Commission and its staff look forward to working with the FASB and other market participants as it considers the CIFiR recommendations.

FASB's Proposal on Off-Balance Sheet Arrangements

The continued review of the effectiveness of existing accounting standards for off-balance sheet arrangements and recent capital market pressures have highlighted areas for improvement in the existing accounting guidance for off-balance sheet arrangements.

The primary guidance for accounting for off-balance sheet arrangements for financial instruments is contained in FASB Statement No. 140, *Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities*,

and FASB Interpretation No. 46R, *Consolidation of Variable Interest Entities*. FAS 140 and FIN 46R are the two sources of guidance market participants have identified for improvement.

In FAS 140, the FASB provides guidance on how a company should determine whether it should account for cash received for a financial asset (for example, a mortgage loan) as a sale (off-balance sheet) or as a secured loan (on balance sheet). If the company does not account for the transaction as a sale, it must record the mortgage loan and related borrowing of cash separately (i.e., grossed up) on the balance sheet.

The FASB adopted FIN 46R to address off-balance sheet arrangements after the Enron fallout. In FIN 46R, the FASB provides guidance on how a company should determine whether it should include the assets and liabilities held in special-purpose entities, or SPEs, including commercial paper conduits and other structured finance vehicles, or SIVs, in its balance sheet. Following FIN 46R, a company must consolidate the assets and liabilities of a SPE if it has the majority of the associated risks or rewards. However, it is important to note that if assets and liabilities are held by a securitization trust that is a Qualified SPE, or a passive trust with limited and predetermined activities, FAS 140 prohibits their consolidation and the company must keep those assets and liabilities off its consolidated balance sheet. This exception is commonly referred to as a "QSPE scope exception." We believe that "scope outs" or "scope exceptions" should be used sparingly since economically similar transactions will result in different accounting outcomes. Such a result can unnecessarily increase the complexity of financial reporting and, it is for this reason, the CIFiR recommended that the FASB reduce or eliminate the use of scope exceptions when they develop standards.

In January 2008, the Commission staff asked the FASB to consider the need for further improvements to the accounting and disclosure for off-balance sheet transactions involving securitization arrangements. Further, in March 2008, the President's Working Group on Financial Markets made similar recommendations to improve the accounting and disclosure for these transactions. To address these requests, the FASB has thoughtfully undertaken a project on off-balance sheet arrangements and has moved expeditiously to expose proposed guidance. Based on the potential far-reaching impact of this accounting topic and the important due process procedures required to evaluate and implement any potential changes to it, the speed at which the FASB has moved this project forward is commendable.

On Monday, September 15, 2008, the FASB proposed amendments to FAS 140 and FIN 46R. Under the proposed amendments, the FASB would eliminate what is commonly referred to as the QSPE scope exception. Eliminating the QSPE scope exception would subject all securitization transaction trusts and other vehicles to a single consolidation accounting model. The FASB's proposal would

introduce a new accounting model that will focus the consolidation analysis on qualitative indicators of control and reduce the reliance on mathematical calculations. The new model, which more closely aligns with relevant international standards than the current guidance, would become the relevant guidance for companies to follow when determining whether they should consolidate their SPEs.

In response to a number of other issues we have referred to the FASB as a result of our ongoing review of company filings, the FASB's revised model would also require a company to take into account the impact of current economic conditions at each balance sheet date as it makes its consolidation assessment. The existing FIN 46R model generally requires a company to re-evaluate its consolidation of off-balance sheet transactions only when there is a change in the SPE's structure or upon the company's purchase of an additional interest in the SPE. As a result, the existing model can result in a company's identification of significant asset exposure in the notes to its financial statements rather than in its balance sheet.

If the FASB adopts the proposed rule changes, we believe SPE sponsors would consolidate a significant portion of existing off-balance sheet arrangements, including some portion of the existing QSPEs, SIVs and commercial-paper conduits. However, an accurate assessment of the full impact of the proposed amendments will not be possible until companies have an opportunity to study and measure their effects. It is difficult, if not impossible, to predict how structured finance will evolve and how the proposed amendments will affect the accounting for yet unforeseen arrangements. However, the Commission staff strongly believes that the proposed amendments hold promise in enhancing financial reporting transparency and we will monitor their effectiveness and mandate further change if necessary.

In November 2008, after a 60-day public comment period, we expect the FASB to host a public roundtable on the proposed amendments. While we strongly support the FASB's objective of improving the accounting and disclosure for off-balance transactions, public input is critical to the development of high quality accounting standards. We cannot predict the nature and extent of public response to the proposed amendments, nor at this time can we predict the full impact the proposed amendments may have on capital formation and the operation of our capital markets. The Commission staff will monitor public comments on the proposals as well as the views of all market participants and will work closely with the FASB and other regulators as this important due process proceeds.

To ensure that market participants have adequate time to fully consider the proposed amendments before the FASB finalizes and implements them, the FASB has proposed that most companies apply changes in the reporting for off-balance sheet transactions on January 1, 2010. Additionally, to provide enhanced

financial reporting transparency prior to completing its work on the proposed amendments, the FASB plans to adopt requirements for additional information regarding the risk and involvement with SPEs before the end of this year. Under the new requirements, companies will provide enhanced SPE disclosure no later than first quarter 2009.

We remain committed to the ongoing review of our accounting framework to identify enhancements to financial reporting transparency. Echoing our commitment to continual review, CIFiR reaffirmed the benefits of a post-adoption review of new accounting standards in its August 2008 report. Our work in the area of the accounting for off-balance sheet arrangements is just an example of why a post-adoption review is necessary to our ongoing efforts to improve financial reporting.

Enforcement Related Activities

You asked us to discuss the adequacy of the Commission's enforcement mechanisms and any contemplated changes and to discuss planned enforcement actions should companies fail to comply with required disclosure requirements. As you probably know, it is the Commission's policy to conduct investigations on a confidential basis, and generally not to disclose the existence or non-existence of an investigation until it is made a matter of public record in proceedings before the Commission or the courts. That said, the Commission regularly investigates allegations of possible accounting irregularities or reporting violations by issuing subpoena requests for documents, taking sworn testimony of witnesses, and otherwise vigorously investigating meritorious allegations, and it is fair to say that, were the Commission to become aware of possible disclosure or accounting issues involving FAS 140, the Division of Enforcement ("Enforcement") would undertake an initial investigation of those allegations and the Commission would direct Enforcement to pursue a formal investigation if the facts warrant.

And, while we cannot comment on pending investigations, the Commission has brought significant actions for failing to comply with the requirements of FAS 140 or its predecessor, FAS 125. Enforcement recently concluded a financial fraud investigation involving improper accounting for mortgage-related transactions under FAS 140 by three NYSE-listed Puerto Rico financial institutions: Doral Financial, R&G Financial and First BanCorp. The Commission alleged that Doral Financial improperly recognized gain on sales of approximately $3.9 billion in mortgages to First BanCorp. Those transactions allegedly were not true sales under FAS 140 because of oral agreements or understandings between Doral Financial's former treasurer and former director emeritus and First BanCorp senior management providing for recourse beyond the limited recourse established in the written contracts. The Commission alleged that R&G Financial improperly recognized gain on sales of mortgages under FAS 140 because of full recourse provisions in the written contracts.

Doral Financial settled for a fraud injunction and a $25 million penalty [*SEC v. Doral Financial Corporation*, LR-19837 (Sept. 19, 2006)]; First Bancorp settled for a fraud injunction and $8.5 million penalty [*SEC v. First BanCorp*, LR-20227 (August 7, 2007); R&G Financial settled for a fraud injunction [*SEC v. R&G Financial Corporation*, LR-20455 (Feb. 13, 2008)]; a former Morgan Stanley Vice President pleaded guilty to lying during the investigation; Doral Financial's former Treasurer was indicted on related criminal securities fraud charges; and First BanCorp's former CEO and CFO settled for fraud injunctions, officer and director bars and civil money penalties [*SEC v. Alvarez and Astor*, LR-_____ (Sept. ___, 2008).

Additionally, the Commission has brought actions against Canadian Imperial Bank of Canada, PNC and Raytheon for transactions accounted for under FAS 125 or FAS 140. The Commission has also named individuals for their role in certain FAS 125 and FAS 140 transactions, including former Enron CEO and Chairman Ken Lay, former Enron CEO Jeff Skilling, former Enron CFO Andrew Fastow and former Enron CAO Richard Causey.

Going forward, in the event companies fail to comply with disclosure requirements, the Commission would consider the individual facts and circumstances as to why the companies failed to comply, and would take the fact of failed compliance as well as other applicable facts into consideration in determining whether enforcement action would be appropriate.

Conclusion

We are committed to our role in setting high quality accounting standards. We are committed to supporting the FASB's role in this process. The FASB's recent proposals regarding the accounting for off-balance sheet arrangements represent a positive step in a necessary process of continually reevaluating our accounting standards to make sure they result in transparent financial information. Evaluating the views of all market participants is essential to developing effective accounting standards. We believe the Commission's and the FASB's ongoing efforts to improve the accounting for off-balance sheet arrangements are consistent with our role in setting high quality accounting standards and improving transparency in financial reporting information.

[1] http://www.house.gov/apps/list/press/financialsvcs_dem/sec_response072507.pdf.

[2] Letter from SEC Chief Accountant to Arnold Hanish, Chairman, Committee on Corporate Reporting, Financial Executive International and Sam Ranzilla, Chairman, Professional Practice Executive Committee, The Center for Audit Quality, American Institute of Certified Public Accountants concerning the American Securitization Forum's Streamlined Foreclosure and Loss Avoidance Framework for Securitized Subprime Adjustable Rate Mortgage Loans, January 8, 2008 .

[3] http://www.sec.gov/spotlight/ifrsroadmap/ifrsround080408-transcript.pdf.

[4] SIC Interpretation No. 12, "Consolidation – Special Purpose Entities"

[5] Final Report of the Advisory Committee on Improvements to Financial Reporting, August 1, 2008.

Testimony of Joseph R. Mason

Herman Moyse, Jr./Louisiana Bankers Association Professor of Finance,
Louisiana State University and Senior Fellow, The Wharton School

Before the United States Senate Committee on Banking, Housing, and Urban Affairs
Subcommittee on Securities, Insurance, and Investment
September 18, 2008

**"Transparency in Accounting:
Proposed Changes to Accounting for Off-balance Sheet Entities"**

Thank you Chairman Reed, ranking member Allard, and members of the committee, for the opportunity to testify today. I am pleased to appear before you to discuss the role of the accounting transparency and off-balance sheet entities precipitating the credit crisis, as well as possible legislative options for accounting reforms. I am Joseph Mason, Herman Moyse, Jr./Louisiana Bankers Association Professor of Finance at Louisiana State University and Senior Fellow at The Wharton School, and these are my personal views. Before joining academe, I studied consumer credit, bankruptcy, and structured finance as a Senior Financial Economist at the Office of the Comptroller of the Currency, and have since advised bank and securities market regulators as well as many industry groups and the press on the recent market and economic difficulties.

It is useful to teach securitization using the notion of a pool of assets segregated from the seller[1] and funded by tranches of bonds and equity. The standard approach is to emphasize the intent to segregate the assets from the seller in a bankruptcy remote subsidiary to achieve a lower cost of financing in a sort of "super-collateralized" loan arrangement. Securities representing claims against the collateral pool are then structured and sold as asset-backed or mortgage-backed securities.

Of course, that simplified paradigm does not accurately reflect real-world practice. In the real world, a number of intricacies erode the nature of the true sale. First, the bottom securities in the structure of the securitization absorb losses first, so the majority of risk is effectively distilled into those bottom elements. Bank regulators realized this some time ago and approved policy to

[1] I will use the term seller throughout to refer to the originator of the loans or the originator of the pool of loans. Sometimes the term sponsor is used interchangeably with seller, though I will find it useful to use seller later on in my written testimony when discussing loan servicing performed by the seller, in which case the seller is a seller-servicer. Such circumstances are important because the most egregious problems have occurred with seller-servicers.

deal effectively with the situation in 2001 and with variations on the theme (most famously promulgated by Enron) in 2003.

Second, "representations and warranties" have become a mechanism for subsidizing pool performance, so that no asset- or mortgage-backed security investor experiences losses – until the seller, itself, fails and is no longer able to support the pool. Regulators, policymakers, and market participants again and again feign surprise when the seller fails and call for bailouts on the basis of the purported systemic risk, if only because of the lack of their own attention to the arrangements.

Third, "gain-on-sale" accounting creates paper earnings from securitizations that create the appearance of solid financial performance for firms that can be posting big cash losses due to operations. Regulators, policymakers, and even managers have known of this problem for decades now, but again continue to feign surprise when such firms fail, suddenly changing from record "earnings" to bankruptcy (because the accounting "earnings" are not real *cash* earnings).

I. Asset Securitizations and Traditional Accounting Measures

While many other intricacies exist, it is important to realize that the market has been aware of all of these situations for some time now. In 1997, Moody's published their classic special report on their internal methods for making sense of accounting for securitizations. Since the industry was small at the time, Moody's maintained an aggressive stance on clarity and accuracy. Even then, however, Moody's found it necessary to adjust earnings and leverage ratios for the less palatable aspects of securitization accounting.

In 1997, Moody's Investors Service wrote that "...the simple act of securitizing assets can affect the appearance of the income statement and balance sheet in a profound manner without,

in many cases, significantly altering the underlying economics of the [seller]. Under gain on sale accounting, income statements reflect the present-value of lifetime earnings from assets in a single quarter, predicated on numerous assumptions and calculations. Reported earnings may give a false sense of the long term ability of the company to repay debt. Reported balance sheet leverage declines as securitized assets are treated as "sold" for accounting purposes, although there may be little, if any, risk transference." (*Alternative Financial Ratios for the Effects of Securitization*, Moody's Investors Service, September 1997)

With respect to earnings, Moody's adjusted the standard ratio used to express the ability of companies to pay, or "cover," interest expense from operating earnings, EBITDA coverage, which is the ratio of earnings before interest, taxes, depreciation, and amortization to interest expense. According to Moody's this ratio may give a false sense of security when calculated for sellers. In particular, Moody's maintains, "...the inclusion of gain on sale in the numerator of this ratio is inappropriate as [those] gains cannot be used to pay interest expense. To adjust for this, [Moody's] simply deduct[s] any gain on sale from earnings when calculating EBITDA coverage. The result is adjusted EBITDA coverage. (Moody's Investors Service, "*Alternative Financial Ratios for the Effects of Securitization*," September 1997, p. 9)

To adjust leverage for securitizations, Moody's added the securitizations back onto on-balance sheet debt. Then Moody's adjusted common equity by reversing gains from securitizations (gains-on-sale) and adding back excess spread as income to common equity. Adjustments are also made for the different accounting methods firms would be subject to if they did not account for securitizations as sales. Moody's leaves it to the analyst to make additional adjustments to these calculations. According to Moody's, the result is that the equity base for the effective leverage calculation is increased by the credit loss reserve related to a securitization,

effectively giving sellers credit in their equity base for loss reserves, without requiring them to establish an appropriate loss reserve. (Moody's Investors Service, "*Alternative Financial Ratios for the Effects of Securitization*," September 1997, p. 8)

In documents dating all the way back to 1987, Moody's points out that while, "...the practices developed by the accounting and regulatory world are useful starting points for the credit analyst..., these guidelines often do not fully capture the true economic risks of a securitized asset sale to the originator's credit quality." Hence, Moody's maintains that their own focus is not on whether a sale of assets is arbitrarily put on or kept off the balance sheet, but rather on "...assessing the fundamental residual credit risks left with the originator from the asset sale and the amount of the firm's equity base that should be allocated to support the transaction." (Moody's Investors Service, "Asset Securitization and Corporate Financial Health," December 1987, p. 3) Moody's continues, "Because of different accounting treatment, any direct comparison of results with financial services companies that do not securitize their assets becomes misleading." (*Alternative Financial Ratios for the Effects of Securitization*, Moody's Investors Service, September 1997, p. 1)

Hence, more than two decades ago market insiders fully realized that standard accounting rules are not applicable to securitizing firms.

II. Retained Interests and Risk Distillation

Recently, there have been repeated calls to supposedly align incentives of sellers and investors, as well as borrowers, by having sellers retain some risk in their securitizations. The reality is that they have always retained risk, and that retained risk is precisely the problem.

Old pass-through securitizations are about risk transfer. In those deals, the pool of loans is funded by a single set of securities that represents identical interests in the pool. That is, the securities all absorb losses equally.

Modern securitization is about creating a senior subordinate security structure wherein some securities absorb risks before others, making those others safer (and higher-rated). In senior-subordinate structures, essentially all the risk is distilled into the roughly 10% or less of subordinate bonds. Hence, the senior bonds can achieve an (often real) AAA rating.

Suppose we sell a pool with a 2% expected loss rate, meaning we fully expect 2% of the pool value to be lost to foreclosures after recovery. If losses are less than 2%, the "first-loss" piece can be valuable. If losses climb to more than 2%, the piece is worthless. Certainly, no investor will buy an interest in that almost guaranteed 2% first-loss piece, so the seller has to retain that on their own balance sheet. Economically, the average risk level retained by the seller is the same whether the pool is securitized or not.

In the past, the seller (if it is a commercial bank) would hold the Basel-required 8% capital against the 2% first-loss piece retained on the balance sheet. Recognizing that the piece was almost a guaranteed loss, in 2001 bank regulators required banks to hold 100% capital against the first-loss piece. Nonetheless, the first expected loss portion of the deal was already retained by sellers, so in fact now *requiring* sellers to retain that piece will change nothing.

Those retained interests are indelibly related to the "variable interest entity" that is the foundation of the proposed FASB revisions. Prior to financial engineering, ownership (and therefore on-balance sheet treatment) was dictated by voting interest: if a firm owned more than 50% of voting equity shares, they clearly owned the firm.

With financial engineering (as demonstrated by Enron), all that changed. The first attempt to establish ownership in financially-engineered construct was attempted in FASB140, which stipulated that if somebody ***else*** did not own at least 3% of the funding liabilities and equity, you had to carry it on your own books. Of course, Enron found this requirement very easy to obviate by lending someone else money to buy the 3% and then selling the rest with Enron guarantees of the securities' performance, thus retaining a substantial first-loss stake in the arrangement.

Under FIN46, created to revise the rules that were used to create the failed Enron structures, the 3% rule became the 10% rule. The entities used by Enron were labeled "Variable Interest Entities" (VIEs) and others "Qualified Special Purpose Entities" (QSPEs), which were excluded from the 10% rule because they are thought to be what FASB termed "passive securitizations."

Hence, a key problem with us today is that the purportedly "passive" credit card, mortgage, home equity, auto loan and other qualified SPEs (QSPEs) were not passive at all. That trouble is worsened when those "passive" structures are allowed to manipulate pool value through servicing and direct replacement of loans in the pools.

III. True Sale and Risk Transfer

Let's start with a simple notion of a "true sale." Then, we can talk about active interests to support the sale and intermediate notions in the real securitization world.

To form a view of the objective "truly passive" sale, it is useful to use the automobile analogy. Suppose I sell you my car. I give you the car and receive cash in return. You drive away. If the engine falls out two weeks later you are out of luck. Classical caveat emptor applies.

That is a true sale. From an accounting perspective, we can clearly take the car off the balance sheet and replace it with the cash at the time of the sale.

Now suppose I give you a warranty at the time of sale: for six months, if anything happens I will give you your money back. I should probably keep some amount of cash on hand to satisfy the obligation should you run into trouble. From an accounting perspective, it would make sense that I should not close the sale until the six months have passed. That is, I should hold reserves against the possibility that the car will break down. The entire car is still "on-balance sheet" (as a contingent liability) but so is the cash so we have no effect until the warranty expires.

Now, adding complexity, suppose that I give you a warranty that states I will fix the car – not give you your money back – if anything goes wrong. Perhaps I don't have to reserve against the entire price of the car now, but only the cost of repairs. That could make sense, but the maximum cost of repairs is still the total value of the car. Even if I could estimate the probable cost of repairs, I may still want to remain aware of the total possible liability involved in honoring the warranty.

Back in the early development of securitization, and indeed still today with most Real Estate Mortgage Investment Conduits (REMICS), the underlying situation is that of the first example of the true sale above. A pool of loans is purchased from the seller and financed through RMBS. The pool is passive in the sense that the seller is legally restricted from swapping loans into and out of the pool.

But as different securitization structures and paradigms developed, sellers and investors saw the capacity for greater arbitrage through manipulating pools, rendering the passive view of many securitizations revealed in even FASB's view toward its FIN46 post-Enron reforms obsolete. In 1989, early credit card securitizations showed the path forward. Because credit card

accounts are, on average, outstanding less than a year it is necessary to structure a "revolving" period so that the pool of loans can be funded by bonds of longer maturity than the loans, themselves. During the revolving period, old credit card loans that have been paid off are replaced with new loans so that the pool balance remains relatively constant. Since the early 1990s, there were concerns with "cherry picking" the new accounts to be added so as to increase the credit quality of the pool. While such practice has never been officially confirmed or denied, it has appeared as if regulators allow such practices to encourage stable funding for the industry.

But the idea of selling the loans while not really passing along the full risk of the loans' performance was too attractive for the rest of the world to pass up. Hence, Enron embarked on a similar endeavor, "selling" something for accounting purposes while retaining the economic risk. Of course, the risk was truly borne by Enron until the firm failed, resulting the spectacular disentangling of myriad funding conduits and instruments implemented in the process and sold throughout the world.

While FASB's FIN46 revised accounting rules to preclude another Enron, it specifically exempted consumer credit securitizations from its rulemaking. Having had their future demonstrated so clearly by Enron, however, non-bank financial firms like New Century, investment banks like Bear Stearns, and even some banks and thrifts pursed the same strategy. Those firms sold pools of mortgages that bore little resemblance to the early REMIC structures. In the private-label RMBS, loans that didn't perform well were repurchased in a ready and fluid fashion, more akin to an inappropriately off-balance sheet covered bond than any sort of passive true sale securitization envisioned by FASB.

Many sellers have voluntarily provided additional support to preserve the performance and bond ratings of their structured transactions. (Moody's Investor's Service, "The Costs and

Benefits of Supporting "Troubled" Asset-Backed Securities: Has the Balance Shifted?" January 1997) Still, it would be egregious to maintain that securitization transfers no risk at all. After all, in the event of catastrophic asset quality problems, the seller may choose NOT to support a troubled deal, notwithstanding any legal responsibility to do so. In such a case, the asset-backed bond investors and any third-party credit enhancers, such as a bond insurer, would absorb the residual losses. By contrast, a portfolio lender would have to absorb all losses.

Trouble begins in this paradigm, however, when loan performance sours beyond the ability of the seller to support pool performance out of regular operating earnings. Then, the seller has to either increase earnings or stem losses. Since the seller's earnings primarily rise through MAKING NEW LOANS TO GENERATE UNDERWRITNG FEES, the seller accelerates underwriting. Since better-qualified borrowers will most likely obtain cheaper loans from financially sound lenders, the seller targets down-market consumers – subprime borrowers – for the new business.

Of course, less creditworthy borrowers mean more losses. So the deterioration in loan performance that prompted the decline is met with more deterioration in loan performance. As the firm tumults down the death spiral, they attempt to modify loans using repayment and forbearance plans, while aggressively reaging[2] loans to classify as much of the portfolio as "performing" as possible. Some lenders, upon realizing that they were unable to generate enough repayment and forbearance plans to feed the reaging process, resort to "amnesty" programs, wherein they merely wrote off the past due balance and called the loan current once again –

[2] Reaging refers to the criteria for classifying a previously delinquent loan "current" again. Conservative reagers (including commercial banks, by FFIEC rulemaking) require an account to post three consecutive on-time payments to be classified as current again. Aggressive reagers (non-bank finance companies) can choose to reage on the mere promise of a payment. Aggressive reaging has been found to have played a role in many of the mortgage firm failures in the crisis.

sometimes without the delinquent borrower even knowing their loan had been awarded this "amnesty"!

Loan swapping under "representations and warranties," therefore, together with loan modifications carried out through ongoing servicing allow the seller to readily absorb the loan risk that was purportedly sold. Hence, Nomura notes that, "...without audits or third-party oversight, an ABS servicer in financial distress may manipulate amortization triggers, divert deal cash flows, or otherwise misappropriate assets. (Nomura, "ABS Credit Migrations 2004," December 7, 2004, p. 41)

The financial prospects for a seller that is unable to muster the resources to voluntarily support a securitization are grim. Such a seller would likely no longer receive any excess spread from the securitization trusts and might have difficulty raising external cash due to uncertainty over the asset quality of its serviced portfolio. Such a seller would surely not be able to issue again in markets any time soon. Hence, the seller can be reasonably expected to fail outright in the near term (Moody's Investors Service, "Bullet Proof Structures Revisited: Bankruptcies and a Market Hangover Test Securitizations' Mettle, August 30, 2002, p. 3)

Bondholders often have a legal right to replace the primary servicer with a backup servicer, since, "...the performance of securitized assets can be impaired by actions taken by a servicer in financial distress, but they usually need to do so *before* bankruptcy. The bankruptcy court may not allow replacement of the servicer since servicer rights may be viewed as a property right of the debtor's estate. Investors thus may have no choice but to continue with the original servicer even if the quality of its servicing is poor. Even if the servicer is willing to give up servicing rights, those can often be difficult to transfer because they are tainted by the servicer's malfeasance, often of too little value for a follow-up servicer to maintain on any reasonably

profitable basis. (Moody's Investors Service, "Bullet Proof Structures Revisited: Bankruptcies and a Market Hangover Test Securitizations' Mettle, August 30, 2002, p. 4; Nomura, "ABS Credit Migrations 2004," December 7, 2004, p. 41)

Servicing rights also create difficulties for a bankruptcy trustee – including the Federal Deposit Insurance Corporation – who seeks to liquidate the assets of a failed seller/servicer. The loan servicing rights are often the final asset remaining in the firm and the substantial potential for servicer malfeasance as the seller /servicer approaches bankruptcy can deteriorate their value significantly. Thus, firms like IndyMac are difficult to liquidate because no other servicer is willing to service the portfolio without substantial remuneration to insulate them from the losses and legal ramifications of unwinding the potential fraud and malfeasance left over from the previous distressed servicer. That is why the FDIC was left servicing the NextBank credit card portfolio, and that is most likely the case at IndyMac as well (and some of that is probably behind Bank of America's purchase of Countrywide at a very favorable price).

Since there is so little to recover from a failed seller/servicer, the FDIC, itself, has maintained that it may disallow "true sale" status if it desires to seize those "truly sold" assets to recover deposit insurance outlays. Indeed, the legal status of securitizations remains unsettled. One of the most intriguing cases in the history of structured finance, In re LTV Steel Corporation, tested the fundamental tenet that assets can be isolated from the bankruptcy of their seller through a "true sale." According to Moody's Investors Service, "...in December 2000, LTV Corporation (LTV), an integrated steel maker, and its operating subsidiaries filed for protection under Chapter 11. LTV entered bankruptcy court without a DIP loan in place. Instead, LTV requested and the court granted permission to use the cash generated from two of LTV's

securitizations in order to stay in business - despite the previous sale of these assets to two SPVs."

Even the court failed to see the logic in the securitization and was inclined toward allowing the estate to seize the securitized pools, maintaining, "[T]here seems to be an element of sophistry to suggest that Debtor does not retain at least an equitable interest in the property.... To suggest that Debtor lacks some ownership interest in products that it creates with its own labor, as well as the proceeds to be derived from that labor, is difficult to accept." (Memorandum Opinion, U.S. Bankruptcy Court for the Northern District of Ohio, Feb. 5, 2001) The case, however, was never ruled upon, therefore the issue of true sale – itself the keystone of securitization – remains contentions.

In summary, "true sale" as it has been practiced does not make sense. To get at any meaningful FASB reforms, we need to go back to the principle of true sale. I sold you the car. Caveat emptor. Retaining servicing rights are like maintaining the car after the sale. Loan swap agreements are simple warranties. In order to improve accounting standards, therefore, we have to put a limit on the amount of money that can be spent on maintenance, i.e., loan servicing, after the sale. While FASB has maintained that acting under representations and warranties is not optional, they are interpreting that optionality only in the strict legal sense. There is always the "real" option of simply refusing to support the pool representations and warranties. While that may result in some lawsuits, in reality those can be beaten back for several years giving the firm a chance to restore performance and eventually meet their contractual obligations. Hence, we also need to financially value the option in the warranty.

The problem is a tragic collision of economics, finance, and accounting, where economic risk is placed where it is difficult to value financially and even the most complex accounting

rules do not apply. While that does not augur for prohibiting any of the above arrangements in the long term, it does provide a rationale for constraining financial product developments so that they do not grow systemically large before finance and accounting can properly characterize their risks and returns. Hence, there may be reason to curb the over-reliance on financial innovations – certainly within the realm of financial institutions that receive Federal and State safety net protection – and require public reporting of such exposures and values to better align incentives for innovation with the need for financial stability.

IV. Gain on Sale Accounting and Perceived Profitability

Any discussion of necessary accounting reforms would be incomplete without a section of gain-on-sale accounting.

FASB'S August 11, 2005, Revision of Exposure Draft Issued June 10, 2003, "Accounting for Transfers of Financial Assets, an amendment of FASB Statement No. 140," (Financial Accounting Series No. 1225-001), explains gain-on-sale. Summarizing, in order to facilitate "gain-on-sale accounting," the firm (1) estimates the value of the thing they want to sell with a financial model. Then, the firm (2) receives some money and other items in the actual sale of that thing. Next, in what is the real arbitrary aspect of gain-on-sale accounting, the firm gets to (3) record the difference between their own valuation of the thing that they sold and the value of the cash and other items received in the sale as cash revenue.

Difficulties in the high-LTV home-equity loan crisis of the late 1990s were largely attributable to aggressive gain-on-sale accounting. When firms, realizing the risks of gain-on-sale accounting and the false earnings conditions they represented to investors, sought to pull back from gain-on-sale and become more conservative, they were told by FASB that they if the

firm adopted an unreasonably conservative approach that would be considered earnings manipulation.

According to Moody's:

In the late 1990's, several subprime home equity and auto lenders encountered financial difficulty arising in part from explosive growth patterns, in part from using securitization as a source of funds, and in part from overly aggressive use of gain on sale accounting. Such accounting methodology made these companies look much stronger financially on paper than they actually were. Companies that used gain on sale accounting included, among subprime mortgage issuers, Contifinancial Corp., Southern Pacific Funding Corp., Cityscape, and United Companies Financial Corp.... Once the effect of gain on sale accounting was removed from financial statements, leverage ratios were often high. These companies also had weak capital positions compared to more diversified finance companies. (Moody's Investors Service, "Bullet Proof Structures Revisited: Bankruptcies and a Market Hangover Test Securitizations' Mettle, August 30, 2002, p. 14)

The problem with gain-on-sale accounting is, therefore, that the revenue booked is not real cash. Hence, many recently-failed mortgage companies and similar firms associated with previous securitization fiascos have *never been cash-flow positive in their entire corporate lives*. Thus, the financial world was recently littered with hundreds of firms with exceedingly high stock values that had never actually earned positive cash profits in a manner typical of a classic bubble.

V. Summary and Conclusion: Everything Old is New Again

None of the problems above are anything new, unique, or unknown, nor is their manifestation in today's credit crisis. The only thing that increased the severity of the crisis this time around is the sheer scale of the operation, which rose from less than $1trillion in the late 1990s to some nearly $10 trillion today.

Rating agencies' characterizations of past crises eerily presage the present crisis. In 2001, Moody's wrote, "The seller's capital structure, its diversity of funding sources, types of assets, and the business factors motivating its securitizations are all important considerations. The examples of deals gone 'bad' reveal that an over-reliance on securitization as a funding source is an important risk factor. The overuse of securitization coupled with aggressive gain-on-sale accounting was a particularly lethal combination.... New or unusual asset classes pose particular risks as well." (Moody's Investors Service, "Bullet Proof Structures Revisited: Bankruptcies and a Market Hangover Test Securitizations' Mettle, August 30, 2002, p. 1) The current crisis merely wrapped all the most influences into one, and applied them to nearly all collateral types in the market.

In conclusion, while FASB continues to try to pigeonhole securitization accounting into simple on- and off-balance sheet classifications, the issue is far more complicated due to other legacy accounting treatments surrounding the entire securitization process, as well as securitizations' unsettled legal status. We cannot expect any resolution to on- and off-balance sheet treatment by continuing to implement the dichotomous approach used so far. Nor can we expect securitization accounting to improve much without removing other perverse incentives in gain-on-sale accounting and true sale status. Much work remains to be done to adequately characterize securitizations in a credible and transparent manner. Nonetheless, we have had

several decades to get the work done, already. It is time to clean up reporting for the structured finance marketplace, which has proven so useful in deepening capital of the banking system to fund myriad consumer and commercial loan products – before the financial crisis gets even deeper.

Testimony of
Don Young
before the
Securities, Insurance, and Investment Subcommittee
of the
Committee on Banking, Housing, and Urban Affairs

September 18, 2008

Chairman Reed, Ranking Member Allard, and Members of the Subcommittee:

Thank you for your interest in improving Financial Reporting and promoting American leadership in Capital Markets.

Accounting standards have been a major factor in reducing transparency for investors and have directly contributed to the current credit crisis. I do not believe the proposed Financial Accounting Standards Board (FASB) solution will stop the 'cycle of crisis' that we have now repeated. And I believe it would be a mistake to focus on expanded regulation alone.

A better solution is to provide transparency in the reporting of securitizations and increase investor involvement in Financial Reporting to end the 'cycle of crisis'.

The FASB Proposed Solution

Under the proposed FASB solution, the self-administered test for "special purpose entities" in Statement of Financial Accounting Standards No. 140 (FAS 140) will be replaced by another self-administered test in a revised FASB Interpretation No. 46 (revised) (Fin 46R).

These custom designed entities that are the subject of the self-administered test provide little transparency to investors and are largely free from market forces. Their business purpose is to get favorable accounting treatment.

The proposed rules will likely force consolidation of special purpose entities designed in the past. But the more important question is: " Will future securitization structures enable management to inappropriately de-recognize financial assets and liabilities and book gains?" I believe preparers will continue to pass the self-administered test.

Market transparency would be better served and the accounting simplified if the FASB had pursued a model where an originator/arranger continues to recognize financial assets and liabilities while there is any continuing involvement. The determination of whether a sale has occurred is shifted from management and auditors to investors and markets.

Senator Reed's letter of September 2, 2008 specifically asks about the implications of the deferral of the proposed changes. I believe this is a critical question because it appears an option will be provided to certain preparers to adopt International Financial Reporting Standards (IFRS) and International Accounting Standard 39 at the same time as the proposed changes to FAS 140 and Fin 46R.

In my discussions with International Accounting Standard Board (IASB) members and the examination of 20F reconciliations by foreign filers with US GAAP, it is not clear whether international standards are any better or worse than the existing FAS 140 application. (Ciesielski, 2007)

But this I can say. It is rare, if ever, that market transparency or investor's needs are aided by optional accounting treatments.

The Cycle of Crisis.

In early 2005 when I first joined the Financial Accounting Standards Board, the board was very aware of the problems in accounting for securitizations. It was the subject of a joint conference with the American Accounting Association where research was presented that indicated investors' near complete distrust of FAS 140 accounting. Investors generally reversed the sale accounting propagated by the standard. (Yohn, 2005)

The FAS Board was working on changes to statement 140 which were exposed for comment in 2005 (this in turn followed a failed exposure draft in 2003) but very little progress was made in 2006 and 2007 when the sub-prime securitization was rapidly expanding.

For most of the period - there was an unending series of issues related to FAS 140 where we made little progress:

1. Can an affiliate of the securitization/originator/transferor provide credit support and still get "sale accounting"?
2. What are limits to activities in the passive securitization entities? (Can an entity that has invested in financial instruments with long-term maturities and refinances with short-term debt be a passive entity?)
3. What activities can a "servicer" perform and still get "sale accounting"?

There is no question that the FASB knew it had a serious problem in the financial reporting of securitizations.

The question is: " Why was it not addressed until after this crisis was evident?"

When I asked the staff the reasons for the delay, I was informed that there were concerns over the standard setting actions we were considering, which would more accurately reflect the underlying economics, would in turn undermine companies' ability to execute securitization worth many billions of dollars. It would be bad for business to provide transparency … at least in the short term.

There was unending lobbying of the FASB not just by preparers, which should be expected, but also by their regulators – all looking to preserve 'sale accounting' for activities that clearly indicate that there was 'no sale'.

The SEC, for example, was actively involve in expanding the originator's ability as a servicer to renegotiating loans yet still keep 'sale accounting' and potentially harming investors in the securitization (Hewitt, 2007 and Ashcraft, 2007)

The FAS 140 exposure draft issued in 2005 failed to make much progress in 2006 and 2007. Another factor noted by the FASB staff was resistance from Federal Reserve regulators.

My purpose is not to argue that company managements need to be protected from harming themselves – because in the end that is what happened. Nor is it to criticize regulators but rather to recognize their limitations.

The essential problem is that the FASB is not capable of providing financial reporting transparency – until a crisis provides the political cover to overcome lobbying efforts that are in conflict with serving investors and providing transparency to the markets.

Need for Governance to Be Aligned With Investors

Because managements and regulators control the financial reporting process, we will continue to be in the 'cycle of crisis' where we are unable to address financial reporting problems until a major crisis unfolds.

You can end the 'cycle of crisis' only by engaging the markets and investors in the financial reporting process, which requires a fundamental change in the composition of standard setters and their trustees. Instead of token investor representation, or in the case of the FASB today – no investor representation, we need investors to be equally represented. Then we would have a chance of stopping the 'cycle of crisis'.

Thank you again Mr. Chairman for inviting me to testify at this hearing. I look forward to responding to your questions.

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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

OFFICE OF
THE CHIEF ACCOUNTANT

January 8, 2008

Mr. Arnold Hanish, Chairman
Committee on Corporate Reporting
Financial Executives International
200 Campus Park Drive
Florham Park, NJ 07932-0674

Mr. Sam Ranzilla, Chairman
Professional Practice Executive Committee
The Center for Audit Quality
American Institute of Certified Public Accountants
601 13th Street, NW
Washington, DC 20005

Dear Sirs:

On December 6, 2007, the American Securitization Forum ("ASF") issued the "Streamlined Foreclosure and Loss Avoidance Framework for Securitized Subprime Adjustable Rate Mortgage Loans" (the "ASF Framework"). The ASF Framework provides recommended guidance for servicers to streamline borrower evaluation procedures and to facilitate the effective use of all forms of foreclosure and loss prevention efforts, including refinancings, forbearances, workout plans, loan modifications, deeds-in-lieu and short sales or short payoffs. The ASF Framework is focused on subprime first-lien adjustable-rate residential mortgages that have an initial fixed interest rate period of 36 months or less, are included in securitized pools, were originated between January 1, 2005 and July 31, 2007, and have an initial interest rate reset date between January 1, 2008 and July 31, 2010 ("subprime ARM loans").

The ASF Framework categorizes the population of subprime ARM loans into three segments. Subprime ARM loans that meet the screening criteria in Segment 2 of the ASF Framework are eligible for a fast track loan modification under which the interest rate will be kept at the existing initial rate, generally for five years following the upcoming reset (referred to hereafter as "Segment 2 subprime ARM loans"). The ASF Framework indicates that for Segment 2 subprime ARM loans, the servicer can presume that the borrower would be unable to pay pursuant to the original terms of the loan after the interest rate reset, and thus, the loan is "reasonably foreseeable" of default in absence of a modification.

The Office of the Chief Accountant ("OCA") has been asked by preparers, auditors, ASF, the U.S. Department of the Treasury, and others whether modifications of Segment 2 subprime ARM loans that occur pursuant to the ASF Framework would result in a change in the status of a transferee as a qualifying special-purpose-entity ("QSPE") under paragraph 55 of FASB Statement No. 140, *Accounting for Transfers and Servicing of*

Financial Assets and Extinguishments of Liabilities ("Statement 140"). This letter expresses only the view of OCA on this accounting issue, and its limited application should not be extended by analogy or relied upon for any mortgage modification other than one occurring pursuant to the specific screening criteria in Segment 2 of the ASF Framework. This letter does not express any view or opinion regarding whether servicers are legally permitted to modify the terms of subprime ARM loans pursuant to the recommendations in the ASF Framework. This ability is determined by the contractual provisions set forth in the governing documents for the securitization trust and by any applicable laws. As with all staff guidance, this letter has not been approved by the Commission.

Application of Statement 140 to Modifications of Mortgages Held by QSPEs When Default is "Reasonably Foreseeable"

Statement 140 is a detailed accounting standard with many specific requirements, and its application can be a complicated process. Paragraphs 35-55 of Statement 140, as interpreted by the FASB Staff Implementation Guide: *A Guide to Implementation of Statement 140 on Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities* ("Statement 140 Guide"), provides numerous conditions that must be met for a transferee to meet the QSPE exception in paragraph 9(b) of Statement 140. The basic underlying principle in this guidance is that assets transferred to a securitization trust should be accounted for as a sale, and recorded off-balance sheet, only when the transferor has given up control, including decision-making ability, over those assets. If the servicer maintains effective control over the transferred financial assets, off-balance sheet accounting by the transferor is not appropriate.

Paragraphs 35(b) and 35(d) of Statement 140 and the related interpretative guidance in Statement 140 and the Statement 140 Guide discuss the permitted activities of a QSPE. The objective is to significantly limit the permitted activities so that it is clear that the transferor does not maintain effective control over the transferred financial assets. However, neither Statement 140 nor the related interpretative guidance indicates whether it would be appropriate for a servicer to modify a securitized mortgage in a QSPE prior to an actual delinquency or default and, if so, the relevant disclosures that may be necessary when such modifications occur. At the request of the Committee on Financial Services of the U.S. House of Representatives, on July 24, 2007 the Chairman of the SEC issued a letter to the Committee to address this accounting issue, attaching a memorandum on the subject prepared by OCA (the "July 24, 2007 letter"). In a memorandum enclosed with the July 24, 2007 letter, OCA indicated that it believed mortgage modifications that occur when default is "reasonably foreseeable" would not invalidate the status of a trust as a QSPE provided the nature of the modification activities are consistent with those when a mortgage becomes delinquent or default has occurred. The view in the July 24, 2007 letter was consistent with a general agreement among participants at a June 22, 2007 Financial Accounting Standards Board ("FASB") educational forum. Additionally, at the time the July 24, 2007 letter was issued, based on representations of participants at the June 22, 2007 FASB educational forum, the Commission's staff did not believe that

additional interpretative accounting or disclosure guidance was necessary regarding the contemplated types of securitized mortgage work-out activities.

Application of Statement 140 to Modifications of Subprime ARM Loans Pursuant to Segment 2 of the ASF Framework

Subsequent to the issuance of the July 24, 2007 letter, the ASF Framework was issued. As described above, the ASF Framework provides a standardized approach to facilitate the effective use of a variety of foreclosure and loss prevention efforts. As a result of the modifications of subprime ARM loans that may occur pursuant to Segment 2 of the ASF Framework, a new accounting issue has arisen related to whether those loans are "reasonably foreseeable" of default in absence of modification and, if so, the relevant disclosures that may be necessary when such modifications occur. The issue arises because those loan modifications will occur without a comprehensive loan-by-loan analysis, based on current information, as to whether default is "reasonably foreseeable." OCA recognizes that the guidance in Statement 140 regarding servicer discretion can be complicated to apply in practice and that specific accounting and disclosure guidance does not exist in Statement 140 regarding the nature of permitted modification activities of QSPEs. The FASB has had a project on its agenda since 2003 to address certain Statement 140 application issues, including those pertaining to servicer discretion.[1] The purpose of this letter is to express the view of OCA on modifications of Segment 2 subprime ARM loans in order to provide interim accounting and disclosure guidance until the FASB finishes its project.[2]

OCA has read the ASF framework and has concluded that it will not object to continued status as a QSPE if Segment 2 subprime ARM loans are modified pursuant to the specific screening criteria in the ASF Framework. Additionally, given the unique nature of the contemplated modifications and other loss mitigation activities that are recommended in the ASF Framework, OCA expects registrants to provide sufficient disclosures in filings with the Commission regarding the impact that the ASF Framework has had on QSPEs that hold subprime ARM loans.[3]

OCA reached this view based upon a consideration of several factors. First, OCA was recently informed by preparers, auditors, ASF, the U.S. Department of the Treasury, and others that there currently is a lack of relevant, observable market data that can be used to perform an objective statistical analysis of the correlation between the specific screening criteria in Segment 2 of the ASF Framework and the probability of default. Therefore, it would be impracticable to precisely quantify the percentage of Segment 2 subprime ARM

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[1] A summary of this agenda project can be found on the FASB's website at: http://www.fasb.org/project/transfers_of_financial_assets.shtml

[2] Given the lack of clarity in Statement 140 on the permitted activities of QSPEs, OCA believes that interim guidance is necessary. For similar reasons, in November 2005, OCA provided an informal view in the aftermath of Hurricane Katrina. OCA indicated at that time that it would not object to continued status as a QSPE if servicers took certain limited actions (including payment extensions) to aid borrowers in areas devastated by Hurricane Katrina.

[3] See Appendix A to this letter for additional information regarding disclosures.

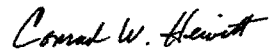
loans that would experience a default in absence of a modification. While historical default statistics are available for older subprime adjustable-rate residential mortgages, that information is not expected to be representative of the default characteristics of Segment 2 subprime ARM loans because of differences in underwriting characteristics, housing market conditions, and credit conditions. Therefore, OCA understands that a quantitative analysis of default probability using that historical data would be expected to significantly underestimate the percentage of Segment 2 subprime ARM loans that would default in absence of a modification. Secondly, although there is insufficient observable market data to form a conclusion based solely on quantitative information, OCA believes that it would be reasonable to conclude that Segment 2 subprime ARM loans are "reasonably foreseeable" of default in absence of a modification based upon a qualitative consideration of the expectation of defaults (made in the context of how defaults would be expected to differ from historical defaults of older subprime adjustable-rate residential mortgages).[4] Lastly, because the vast majority of modifications of Segment 2 subprime ARM loans are expected to occur beginning in early 2008, OCA believes this is an appropriate interim step at this time to address this issue given the complexity and lack of specific guidance on the accounting and disclosure for these types of modifications.

Reconsideration of Statement 140 Guidance on QSPEs

The view of OCA expressed in this letter represents an interim step in addressing one practice issue that exists in the application of paragraphs 9(b) and 35-55 of Statement 140. Concurrent with the issuance of this letter, OCA has requested the FASB to immediately address the issues that have arisen in the application of the QSPE guidance in Statement 140. OCA has requested that the FASB complete its project addressing the guidance in paragraphs 9(b) and 35-55 of Statement 140 in order to be effective no later than years beginning after December 31, 2008.

Further questions about these matters should be directed to James Kroeker, Deputy Chief Accountant (202-551-5360), Paul Beswick, Senior Advisor to the Chief Accountant (202-551-5364), or Ashley Carpenter, Professional Accounting Fellow (202-551-5307).

Sincerely,



Conrad Hewitt
Chief Accountant

cc: Henry M. Paulson, Jr., Secretary, U.S. Department of Treasury
Robert H. Herz, Chairman, Financial Accounting Standards Board
Mark W. Olson, Chairman, Public Company Accounting Oversight Board
George P. Miller, Executive Director, American Securitization Forum
Jonathan L. Kempner, President and CEO, Mortgage Bankers Association

[4] See the letter issued by the U.S. Department of Treasury in Appendix B.

Appendix A – Disclosures in Filings with the Commission

Registrants are individually responsible for determining the nature and extent of disclosures that are necessary to provide users of the financial statements with sufficient information to understand their business, financial condition, results of operations, and related risks and uncertainties. Registrants make judgments about the nature and extent of disclosures provided in filings with the Commission based on the disclosure objectives and minimum disclosure requirements outlined in the Commission's rules and generally accepted accounting principles. In order to meet those disclosure objectives and requirements, the Office of the Chief Accountant and the Division of Corporation Finance believe that registrants that have transferred subprime ARM loans to QSPEs should consider whether the following information should be included in filings with the Commission.

Disclosures in Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A")

In order to meet the objective of the disclosures required in MD&A, the SEC staff would generally expect MD&A to include sufficient information regarding the nature of the ASF Framework, its impact on the loss mitigation strategies employed for subprime ARM loans that are included in QSPEs, and its impact on the level of servicer discretion related to subprime ARM loans that are included in QSPEs. To meet this objective, registrants that have transferred subprime ARM loans to QSPEs should consider whether to disclose the following information within the MD&A section of its filings with the Commission:

- A general description of the ASF Framework, including the criteria used by the registrant to define what constitutes a subprime mortgage and a statement that a uniform definition of a subprime mortgage does not exist, the subprime ARM loans that are included in the ASF Framework, and the borrower segmentation categories that are included in the ASF Framework.
- A statement that the adoption of the loss mitigation approaches in the ASF Framework did not impact the off-balance sheet accounting treatment of QSPEs that hold subprime ARM loans.
- The total dollar amount of assets owned by QSPEs that hold subprime ARM loans as of the date of the latest balance sheet. Additionally, the following supplemental information about major categories of assets is relevant when the registrant is also the servicer of the QSPE:

- The dollar amount of subprime ARM loans that fall within each of the three segments of the ASF Framework as of the latest balance sheet date;
- A description of the nature of loss mitigation activities for subprime ARM loans that fall within each of the three segments of the ASF Framework, including the dollar amounts of refinancings, modifications, and other loss mitigation activities for the quarterly and year-to-date periods; and
- The dollar amount of other assets (including re-possessed real estate) owned by QSPEs that hold subprime ARM loans as of the latest balance sheet, and a description of the change in the amount of those assets for the quarterly and year-to-date periods.

- The total principal amount of beneficial interests issued by QSPEs that hold subprime ARM loans (segregated by third party and retained interests) as of the date of the latest balance sheet, and the impact that loss mitigation efforts have had on the fair value of the registrant's retained interests and other forms of financial support provided by the registrant.

Registrants are encouraged to provide additional quantitative or qualitative disclosures necessary to facilitate a sufficient understanding of the activities of QSPEs that hold subprime ARM loans subject to the ASF Framework. Registrants should also consider including within the disclosures about critical accounting policies under FRR-60, *Cautionary Advice Regarding Disclosure About Critical Accounting Policies*, information about the permitted activities of QSPEs, including the loss mitigation approaches in the ASF Framework.

Disclosures in the Notes to the Financial Statements

In order to meet the disclosure requirements of APB Opinion No. 22, *Disclosure of Accounting Policies,* the SEC staff generally expects that a registrant's disclosure of its accounting policies would include a discussion of the permitted activities of off-balance sheet QSPEs, including the ability of the servicer to modify subprime mortgages when default is "reasonably foreseeable," and the adoption of the specific screening criteria in Segment 2 of the ASF Framework for purposes of determining the subprime ARM loans that are "reasonably foreseeable" of default.

Apendix B - Letter Issued by the U.S. Department of the Treasury

DEPARTMENT OF THE TREASURY
WASHINGTON, D.C.

UNDER SECRETARY

January 7, 2008

Mr. Conrad W. Hewitt
Chief Accountant
Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549

Dear Mr. Hewitt,

Thank you for your letter dated December 4, 2007 regarding the American Securitization Forum's Streamlined Foreclosure and Loss Avoidance Framework (ASF Framework). We look forward to your perspective regarding the consistency of the ASF Framework with Financial Accounting Standards Board Statement No. 140, *Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities*. In your letter, you requested more data regarding the correlation between the pre-defined screening criteria as described under the ASF Framework and the notion of "reasonably foreseeable" default. In response to your query, the Treasury Department has prepared the attached information with data provided by the Federal Deposit Insurance Corporation and a large mortgage servicer.

We are pleased that mortgage investors and servicers worked through the ASF to develop this streamlined process for fast-tracking refinancings and loan modifications where doing so is in the interest of both homeowners and investors. We believe the ASF Framework is an important tool to prevent avoidable foreclosures. Unfortunately, there is no simple solution that will undo the housing excesses of the last few years. We are committed to avoiding preventable foreclosures whenever possible while ensuring the health of the mortgage market.

Thank you for all of your efforts. Please let me know if you have any questions regarding the attached information.

Sincerely,

Robert K. Steel
Under Secretary of the Treasury

Effectiveness of the American Securitization Forum Streamlined Foreclosure and Loss Avoidance Framework at Identifying Loans Where Default is Reasonably Foreseeable

I. Overview

On December 6, 2007, the American Securitization Forum (ASF) published a Streamlined Foreclosure and Loss Avoidance Framework (ASF Framework) to enable mortgage servicers to streamline their loss avoidance and loan modification practices. The ASF Framework applies to subprime, owner-occupied, two- and three-year adjustable-rate mortgages, and is meant to expedite consideration of these loans for refinancing or modification.

Under most pooling and service agreements, servicers have an obligation to implement all available loss-mitigation options, including loan modifications, to maximize cash flow to the investment trusts. Under current loan modification practices, servicers gather additional income and expense data from borrowers – effectively re-underwriting loans to determine if borrowers need a modification. While this process is effective in analyzing borrowers' financial capacity, it is a time consuming process that requires significant borrower contact. This burden will increase substantially over the next two years, due to the large number of resetting subprime mortgages and the expected increase in defaults.

Faced with this costly administrative burden, servicers, issuers and investors designed the ASF Framework to increase the efficiency and effectiveness of servicer loss-mitigation practices so they can analyze and process the increasing volume of subprime mortgage resets more quickly. Approximately 1.8 million owner-occupied, subprime two- and three-year adjustable-rate mortgages are expected to reset in 2008 and 2009.

The purpose of the ASF Framework is to streamline the procedures servicers use to identify borrowers who are candidates for refinancings or loan modifications. The parameters of the ASF Framework were designed to improve administrative efficiency while still maximizing cash flow by appropriately identifying the following: borrowers that can refinance into a sustainable mortgage; borrowers that should be modified into a more affordable mortgage; and borrowers that require in-depth, case-by-case analysis. Consistent with these goals, the ASF Framework was designed to fast-track into loan modifications only those borrowers who have demonstrated the ability to pay their starter rates, are unable to refinance, and are unable to afford their reset rates. The Federal Deposit Insurance Corporation (FDIC) and a major servicer both provided data that reflect whether the criteria the ASF Framework uses to identify borrowers for modifications are effective in preventing modifications where they are not needed (i.e., where the borrowers can afford the reset rates). Minimizing these false positives is consistent with maximizing the cash flow to investment trusts. Absent the ASF Framework, investors and servicers face a potential increase in false-negatives; i.e., loans entering foreclosure where modifications would have been a better outcome for investors.

The ASF Framework uses a number of screens to determine the appropriate loss-mitigation option for these subprime loans:

Test for ability to afford the starter rate: The ASF Framework first evaluates a borrower's ability to afford the starter rate, as demonstrated by a borrower not being more than 30 days delinquent, and having not been more than once 60 days delinquent in the last 12 months, both under the OTS method. Borrowers who have not demonstrated they can afford the starter rate will require in-depth, case-by-case analysis by their servicer to evaluate potential loss-mitigation options.

Test for capability to refinance: The ASF Framework next evaluates (first-lien) loan-to-value (LTV) to determine if a borrower has the potential to refinance. If a borrower has an LTV at origination greater than 97 percent, the ASF Framework assumes a refinancing is not possible. A borrower with an LTV below 97 percent may require additional information and analysis to determine if a refinancing is possible. If a borrower is deemed unable to refinance, the servicer may then consider the borrower for a fast-track modification.

Under the FHA Secure program, a borrower with an LTV up to 97 percent may be eligible for a refinancing. In the current market environment, outside of the FHA Secure program, most refinancing products require an LTV below 97 percent. Hence the ASF Framework established 97 percent LTV as the first test to evaluate a borrower's ability to refinance.

Tests for ability to afford reset: Once the servicer has determined the borrower is unable to refinance, the servicer then applies three tests to determine financial difficulty: 1) borrower's payment must increase by more than 10 percent, 2) borrower's current FICO must be less than 660, and 3) borrower's FICO must not have increased by more than 10 percent since origination. A borrower who fails to meet these tests may still qualify for a loan modification, but the servicer may need to gather additional information from the borrower to qualify the borrower for a modification.

The ASF Framework incorporated the FICO score of 660 as an initial indicator of financial stress for borrowers based both on servicers' default experience with borrowers and also on the banking regulators' report "Questions and Answers for Examiners Regarding the Interagency Expanded Guidance for Subprime Lending Programs Issued January 31, 2001," which identifies a credit score of 660 as one that generally indicates a higher default probability.

II. Limitations of Using Historical Data to Evaluate Future Application of the ASF Framework

The ASF Framework applies to subprime, two- and three-year adjustable-rate mortgages, originated between January 2005 and July 2007 and facing an initial reset between January 2008 and July 2010. The data provided by FDIC and the major

servicer help assess the baseline default and foreclosure occurrences for the subset of these loans that qualify for a modification under the ASF Framework. It is extremely difficult to estimate the counterfactual of what will happen to these loans if they do not receive the modification. This difficulty arises because historical data of similar loans are likely not representative of the underwriting, housing, and credit market conditions of the current vintages of loans eligible for the ASF Framework.

Evaluating a borrower's ability to afford the reset rate requires time to determine if a borrower ultimately remains current or defaults. While data from older loans where significant time has passed since reset provide sufficient time to determine if borrowers ultimately defaulted, those loans were originated under higher quality underwriting standards and experienced home price appreciation since origination. Such data would therefore likely underestimate the defaults of loans qualifying for the ASF Framework, because more recent vintages were originated with weaker underwriting standards and faced lower home price appreciation or even depreciation.

The worsening condition of more recent subprime mortgages is demonstrated by the significantly higher default percentage for the 2005 and 2006 vintages than for previous vintages. Even at one year before the rate reset, the number of foreclosure starts as a percentage of loans originated is much higher for recent vintages, moving from 2.1 percent for the 2004 vintage to 3.4 percent for the 2005 vintage to 9.2 percent for the 2006 vintage (i.e., foreclosure rates were approximately 1.6 and 4.4 times greater for the 2005 and 2006 vintages.) The more than four-fold increase in the foreclosure start rate one year before reset from the 2004 to 2006 vintage is likely driven by both deteriorating underwriting standards as well as declining housing prices. In fact, the cumulative foreclosure start rate for the 2006 vintage is higher than for the 2004 vintage, even though the former has yet to reset and the latter has already reset. Hence, data for the older vintages likely significantly underestimate the ultimate defaults of the recent loans qualifying for the ASF Framework. Data from more recent vintages that were originated with lower quality underwriting and that faced price depreciation do not provide sufficient time post-reset to determine if a borrower ultimately remained current or defaulted.

It is also important to note that the current case-by-case system of evaluating loans for modification will also result in some false positives (i.e., modifying loans that would not otherwise default), especially given the increase in the administrative burden that will result from the large number of impending resets. The relevant measure would be the false positive rate for loans eligible for the ASF Framework's fast-track modification relative to the false positive rate under current practices. Unfortunately, such a comparison is not feasible.

III. Historical Default Data

Both the FDIC and a major subprime servicer provided data that reflect the baseline default and foreclosure rate for the population of loans expected to be eligible for the fast-track modification under the ASF Framework.

Both data sources attempt to approximate the ASF Framework's criteria for modification eligibility and then quantify the subsequent outcomes of these loans. Both data sources therefore examine owner-occupied, subprime two- and three-year adjustable-rate mortgages that are still active at the reset date. They further restrict the sample to include only those loans that had a FICO (at origination) of less than 660. The data only record FICO at origination, so cannot include the ASF Framework's condition that a borrower's FICO must not have increased by more than 10 percent since origination, making the data less precise at forecasting default than the actual Framework should be in practice. Also, the FDIC data (but not the private servicer's data) cannot measure whether the borrower's payment increase is more than 10 percent post-reset (note: typical rate increases for these loans is closer to 30 percent). Both of these limitations will lead to a more conservative assessment by understating the number of defaults and foreclosures of loans that qualify for a fast-track modification under the ASF Framework.

The two data sources take different approaches to limiting the sample to only those loans that are unable to refinance. The FDIC restricts the data to those loans with an LTV (at origination) above 97 percent, whereas the private servicer does not. However, because the fast-track modification can be considered by the servicer only if a borrower is unable to refinance, both data sets restrict the samples to those loans that did not subsequently refinance after reset.

The remaining loans that are active at first reset (and that subsequently did not refinance) provide the relevant population of loans for assessment. For these populations (by month of vintage), each data set then measures the number that subsequently default. Default is defined as 60 or more days delinquent, in Real Estate Owned ("REO") status, bankruptcy, or in foreclosure.

Results

The FDIC relies on First American's LoanPerformance Mortgage Securities Database, which is a representative, loan-level sample of more than $2 trillion worth of active nonagency securitized mortgages. (See www.loanperformance.com for details about the data.) This database represents about 85 percent of all nonagency mortgage securities and approximately 76 percent of all mortgages in the United States.

The FDIC had data through September 2007. In order to assess default and foreclosures one year post-reset, the FDIC data counts the relevant loans that reset in September, 2006. There were 6,124 loans that reset during this month, of which 1,929 refinanced (while current) within the next year. Of the remaining 4,195 loans, 2,500 (60 percent) defaulted within a year of the first reset.

Not surprisingly, older vintages have a still higher default rate, as more time has elapsed for these at-risk loans to default. For example, for the relevant loans that reset in March 2006 (1.5 years of elapsed time post-reset), the default rate is 68 percent. For

the relevant loans that reset in September 2005 (two years of elapsed time post-reset), the default rate is 76 percent. For the relevant loans that reset in March 2005 (2.5 years of elapsed time post-reset), the default rate is 81 percent.

The private servicer relies on proprietary data on the loans that it services. The data are through November 2007. These data only examine the one-year window post-reset for those loans that reset in November 2006. There were 1,512 two-year subprime adjustable-rate mortgages that reset during this month that were active at the time of reset, of which 351 refinanced (while fewer than 60 days delinquent) within the next year. Of the remaining 1,161 loans, 657 loans (57 percent) were at least 60 days past due during the year. Using a 30-day delinquency standard, of the original 1,512 loans that were active at reset, 152 refinanced (while fewer than 30 days delinquent) within the next year. Of the remaining 1,360 loans, 1,147 (84 percent) were at least 30 days past due during the year. With additional time, undoubtedly the default rate will continue to climb.

While default and foreclosure rates do typically vary across securitizations, the ASF Framework considers the payment history, LTV and FICO for each loan individually, on a case-by-case basis. Once that data has been considered in evaluating each loan, there is likely to be far less systematic variation from securitization to securitization and it is reasonable to conclude individual securitizations would perform in a similar manner to the data presented here.

IV. Estimation of Future Performance of ASF Framework

As noted above, the FDIC data indicate that, of the loans that reset in March 2005, 81 percent subsequently defaulted over the next 2.5 years. The data did not measure vintages that reset before 2005, so one cannot measure the default rate over longer elapsed times. However, based on the monthly vintage data, one can compute a simple linear forecast of default rates moving forward.

The FDIC data track default rates every six months post reset, as well as at the latest recorded date (September 2007). For those vintages with more than one year recorded post-reset, the monthly increase in the default rate was 1.53 percentage points per month. For each monthly vintage, one can extrapolate on a linear basis past the one year post-reset rate using this monthly increase. Across monthly vintages, this leads to a three-year default rate of between 92 percent and 98 percent.

Given that the loans in the private servicer sample were originated in 2004 and 84 percent were at least 30 days past due and 57 percent were at least 60 days past due within one year post-reset, it is reasonable to expect far higher default rates one year post-reset for the loans qualifying for the ASF Framework, since these loans were originated from 2005 through 2007. As noted above, only 2.1 percent of the 2004 vintage had started foreclosure a year after origination, whereas 3.4 percent and 9.2 percent had started foreclosure a year after origination for the 2005 and 2006 vintages, respectively.

V. Conclusion

Based on the data of historical subprime loan performance post-reset and considering the poor performance of recent vintages that qualify for the ASF Framework (driven by poor underwriting standards and home price depreciation), our assessment is that servicers who apply the ASF Framework can reasonably conclude that they are modifying loans where default is reasonably foreseeable. Servicers can also reasonably conclude that, absent modification, loans that qualify for the ASF Framework would result in default.

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Standard-Setting Issues and Academic Research Related to the Accounting for Financial Asset Transfers

Katherine Schipper and Teri Lombardi Yohn

SYNOPSIS: A large number and cross-section of firms undertake financial asset transfers. The Financial Accounting Standards Board and the International Accounting Standards Board have been grappling with the appropriate accounting for financial asset transfers, especially with respect to derecognition—that is, when the assets should be removed from the transferor's balance sheet. This paper discusses the financial reporting issues surrounding financial asset transfers and summarizes the related academic research. It also discusses potentially useful future research that could provide insights for standard-setters and suggests some impediments to that research.

INTRODUCTION

This paper describes financial reporting standard-setting issues associated with the accounting for transfers of financial assets, summarizes some findings of related academic research, and links those research findings to the standard-setting issues.[1] The paper also discusses unresolved financial reporting issues in the accounting for transfers of financial assets where academic research might provide insights that could prove useful to standard-setters, and identifies some potential impediments to that research.

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The Securities and Exchange Commission, as a matter of policy, disclaims responsibility for any private publication or statement by any of its employees. The views expressed herein are those of Teri Yohn and do not necessarily reflect the views of the Commission or of the author's colleagues on the staff of the Commission. The views expressed in this paper are those of the authors and do not represent positions of the Financial Accounting Standards Board. Positions of the Financial Accounting Standards Board are arrived at only after extensive due process and deliberations.

[1] The paper is not intended to be a review of the research on financial asset derecognition. We discuss examples of academic research with findings that have implications for setting accounting standards for financial asset derecognition, or by authors who draw standard-setting inferences.

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The threshold standard-setting issue in the accounting for transfers of financial assets is derecognition; that is, whether and under what conditions the assets should be removed from the transferor's balance sheet. Resolution of this issue has both conceptual and practical implications, including significant implications for international convergence of accounting standards and practices. With regard to conceptual issues, as part of a joint project to complete, improve, and converge their respective conceptual frameworks, the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) have identified derecognition as a significant and recurring conceptual issue (Bullen and Crook 2005). The FASB and IASB have isolated the following questions that are pertinent to financial asset derecognition: (1) Is derecognition simply the opposite of recognition (derecognition of an asset is appropriate when an item no longer meets the definition and recognition criteria for an asset), or should other considerations, including the ownership history of the item, affect derecognition? (2) Should derecognition of a financial asset be based on transfer of legal ownership, on surrender of control, or on transfer of substantially all risks and rewards? (3) Should derecognition focus on the asset as a whole or on its components? (4) How does derecognition interact with the choice of measurement attributes?

The issue of financial asset derecognition has been debated for many years, but standard-setters have not reached a satisfactory and durable solution. The FASB has addressed financial asset derecognition in Statement Nos. 77, 125, and 140, and has undergone a project to amend Statement No. 140. The IASB has amended IAS No. 39 several times. Both boards have acknowledged needs for improvements in both conceptual and standards-level guidance for asset derecognition.[2] In addition, and as discussed in more detail in later sections, the existing authoritative guidance for financial asset derecognition, as well as certain proposals for improving that guidance, appear to be based on divergent concepts and approaches. Specifically, Statement No. 140 is based on the surrender of control, while the approach taken in IAS No. 39 is based on the transfer of substantially all risks and rewards. Finally, in addition to the approaches taken in Statement No. 140 and IAS No. 39, the Financial Instruments Joint Working Group (JWG) has proposed an approach that analyzes a financial asset transfer in terms of components: The transferor accounts for the rights and obligations that it retains and derecognizes transferred rights and obligations.[3]

This paper proceeds as follows. The following section summarizes accounting issues related to financial asset transfers and shows how FASB and IASB have (for the time being) resolved those issues. The next section summarizes some findings of academic research that is motivated by issues surrounding financial asset transfers and discusses the standard-setting implications of the research. The concluding section raises questions that academic research might address to help standard-setters resolve open issues in the accounting for financial asset transfers.

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[2] The February 27, 2006, Memorandum of Understanding (MOU) between FASB and the IASB concerning their joint international convergence efforts lists derecognition as a topic that is being researched but is not on either board's active agenda; a due-process document summarizing the results of staff research efforts is expected in 2008. The MOU is available at FASB's website (http://www.fasb.org).

[3] See Financial Accounting Standards Board (2000). The Financial Instruments Joint Working Group (JWG), formed in 1997 and including representatives from the International Accounting Standards Committee (the predecessor to the IASB) and from standard-setters and professional organizations in 13 countries including the United States, has provided a research report that suggests derecognition principles for transferred financial assets. Because we believe the JWG's proposals are likely to be considered by FASB and the IASB if they undertake a joint project to improve and converge the accounting for transfers of financial assets, we discuss some of those proposals.

ACCOUNTING FOR TRANSFERS OF FINANCIAL ASSETS

Derecognition is the Basic Accounting Issue

In a transfer of financial assets, one basic accounting question arises: Under what conditions should the transfer cause derecognition (removal of the asset from the transferor's balance sheet)? The answer to this question has significant practical implications, because a transfer of financial assets can be accounted for either as a sale or as a secured borrowing. While the *economic outcomes* of asset sales and secured borrowings are frequently similar, the *accounting depictions* differ greatly.[4] If the transfer is accounted for as a sale, then the transferor removes the asset from its balance sheet and reports a gain or loss, calculated as the difference between the sale proceeds and the book value of the asset sold. If the transfer is accounted for as a secured borrowing, then the financial assets remain on the balance sheet, and the transferor recognizes a liability for the proceeds.

While *nonfinancial* asset transfers also give rise to difficult accounting issues (e.g., lease accounting, sales of real estate, and revenue recognition generally), accounting issues related to transfers of *financial* assets are particularly affected by certain distinguishing characteristics of those assets. First, many financial assets appear in large homogeneous pools that are almost wholly passive (in the sense that no operating decisions must be made in order to realize the cash flows of the assets).[5] This characteristic raises the possibility that control of the assets, in the sense of decision-making powers, might not be pertinent. Second, financial assets, whether one at a time or in large pools, readily lend themselves to subdivision into components (e.g., principal versus interest on loans), raising the possibility that a part or component of a financial asset could be derecognized. Third, some financial assets are readily available and fungible, and can therefore be (effectively) lent to a transferee that can easily dispose of the assets and repurchase them when it is time to return the assets to the transferor. This characteristic raises the question of whether the ownership history of the asset, in combination with whether it is readily available, should affect the accounting for a transfer of that asset.[6]

Fourth, and related to their other characteristics, it is easy to modify financial assets as part of the transfer.[7] Modifications vary in the extent to which they introduce a new party to the arrangement, other than the transferor and the transferee(s), and in the extent to which they could require a party to the arrangement to pay cash, as opposed to forgoing a cash receipt. Modifications in the form of derivatives and guarantees offset a risk that exists in the transferred asset, introduce a new risk—counterparty performance—and introduce the possibility that cash flows paid to investors in the transferred assets may come from sources other than the transferred assets themselves. In contrast, modifications in the form

[4] That is, the payoffs to the transferor and the investors in the financial assets can be similar for asset sales and secured borrowings. In a secured borrowing the borrower "reacquires" the collateral when it is released, after the debt is settled. In the case of financial assets as collateral, most or even all of the cash flows of those assets might have been realized by the time the debt is settled. The outcome of a secured borrowing is similar to that of an asset sale to the extent that the borrower has transferred for consideration (the use of investors' cash) most or all of the cash flows of the asset that serves as collateral.

[5] However, this is not universally the case; some financial assets such as put or call options *require* the holder to make decisions and some, such as equity instruments with voting rights, *permit* decisions.

[6] Paragraph 32 of Statement No. 140 indicates that an option to reacquire assets that are readily available might not preclude sale accounting (depending on other terms), but such an option *would* preclude sale accounting if the assets are not readily available. However, ownership history also matters. That is, a transfer of an asset that is not readily available with the option to repurchase that asset would not result in derecognition, but an option to purchase an asset that had not been previously owned—regardless of whether it is readily available—would be accounted for simply as an option.

[7] Of course, nonfinancial assets can also be sold with guarantees of performance (e.g., warranties) and with other modifications such as rights of return. These modifications give rise to their own accounting complications.

of subordinated interests divide (as opposed to offset) a risk that exists in the transferred assets, introducing no new risks and no new sources of cash flows (because the holder of the subordinated interest is exposed to receiving no cash, as opposed to paying cash). The relative ease of modification, as well as the many possible forms of modifications, raises the question as to whether the *characteristics* of modifications of financial assets, made as part of transfers of those assets, should affect the accounting for the transfers.

U.S. GAAP Requirements for Financial Asset Derecognition

Statement No. 77, Reporting by Transferors of Receivables with Recourse

Statement No. 77 was issued in December 1983. Statement No. 125 was then issued in June 1996 to provide guidance for more complex transactions and to consider more types of continuing involvement than recourse. Although Statement No. 77 was superseded by Statement No. 125, we discuss Statement No. 77 because it reflects FASB's initial approach to financial asset derecognition and the handling of recourse, which is a recurring standard-setting concern and a significant focus of academic research.

Statement No. 77 applied a control approach to derecognition of financial assets, considered as indivisible units. It identified three conditions that must be met for a transfer of receivables with recourse to qualify for sale treatment: (1) The transferor surrenders control (an option to repurchase would violate this condition).[8] (2) The transferor's obligation under the recourse provisions can be reasonably estimated. (3) The transferee cannot require the transferor to purchase the receivables except pursuant to the recourse provisions. With regard to measurement, the transferor is required to apply Statement No. 5 to accrue for "probable adjustments," that is, to apply Statement No. 5's "probable" recognition threshold and measurement guidance to recognize and measure the effects of debtor defaults, prepayments, and possible legal defects in the receivables.

For our purposes, Statement No. 77 is noteworthy because it establishes the principle that recourse per se does not preclude sale accounting.[9] The principle is based on the view that loans collateralized by receivables are substantively different from transfers of receivables with recourse; in the latter arrangement (but not the former) the transferor has surrendered control of the future economic benefits of the receivables in exchange for cash, while retaining some of the risks of ownership. Recourse is merely one form of risk retention, and that alone is not enough to preclude sale accounting in Statement No. 77, as long as it is possible to reasonably estimate the effects of that risk retention per Statement No. 5 (i.e., the recourse obligation is measured as "all probable adjustments in connection with the recourse obligations to the transferor" [Statement No. 77, paragraph 6]).[10] In addition, FASB reasoned that a requirement to treat a transfer entirely as a secured borrowing if there is any risk retention would require the transferor to record as liabilities credits that do not meet the accounting definition of liabilities, because the transferor is not obligated

[8] This condition also illustrates the effect of ownership history on the accounting for financial asset transfers; see footnote 6. Because Statement No. 77 considers transfers of receivables, the question of how the ready availability of those assets would interact with an option to reacquire does not arise.

[9] The two dissenters to Statement No. 77 argue that any form of recourse means that "the economic benefits and inherent risks related to [the] receivables ... are controlled by the transferor" because it benefits when the receivables are collected and incurs costs when they are not, while the transferee is indifferent between those two outcomes as long as it receives the promised cash. That is, the dissenters argue that recourse is sufficient to preclude derecognition of transferred assets, so that a transfer with recourse should be accounted for as a secured borrowing.

[10] Statement No. 77 does not require that recourse obligations be measured at their fair values. Statement No. 5's recognition criterion also implies that no obligations would be recognized unless and until payments under the recourse provisions become probable.

to repay a loan (the entire proceeds); it is obligated only to stand ready to perform under the recourse provisions.

Statement No. 140, Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities

Statement No. 140 was issued in September 2001, replacing Statement No. 125. (Statement No. 140 carries forward many of the provisions of Statement No. 125, so we do not consider Statement No. 125 further.) Statement No. 140 uses "surrender of control" to determine whether a transfer of financial assets is a sale or a secured borrowing. Control is considered to be surrendered by the transferor if (1) the assets are isolated from the transferor and its creditors, even in bankruptcy (a legal concept); (2) the transferee has the right to pledge or exchange the assets, unless the transferee is a qualifying special purpose entity (QSPE); and (3) the transferor does not maintain effective control over the assets through certain forms of continuing involvement, including an agreement that entitles and obligates the transferor to repurchase or redeem the assets before their maturity and the ability to cause the holder to return the specific transferred assets (except for special treatment of cleanup calls, certain removal-of-accounts provisions, and certain agreements to repurchase items that are fungible and readily available).

Three features of Statement No. 140 are particularly pertinent for our discussion. First, the requirement of legal isolation (also called bankruptcy remoteness) means that the possibility that the transferor or its creditors might reclaim the transferred assets, even if the transferor were to enter receivership, is sufficient to preclude derecognition—that is, legal isolation is a *recognition condition* that does not affect measurement.[11]

An alternative, favored by the JWG, would use a measurement approach to capture the effects of legal isolation. Such an approach would measure the fair value of the transferred assets (or the claims on their cash flows) taking into account expectations about transferor or creditor claims on those assets, and would apparently permit transfers of assets that do not meet the legal isolation condition to be accounted for as sales, with the pricing of the transfer capturing the lack of legal isolation. That is, investors would presumably pay less for transferred assets that are not legally isolated. This is an example of measurement interacting with recognition. Under the requirements of Statement No. 140, the legal isolation criterion affects (de)recognition and has no explicit measurement effects, while under a measurement approach, uncertainty about potential future transferor/creditor claims on the transferred assets is captured by measurement.

Second, because of its requirement that the transferee can pledge or exchange the assets it receives, Statement No. 140 makes the transferor's accounting for a transfer of financial assets a function of the rights of the transferee. While the right of the transferee to pledge or exchange the transferred assets may constitute the ultimate evidence that the transferor has given up control, Statement No. 140's focus on that right has in turn necessitated the creation of QSPEs (discussed later in this section).

Third, in Statement No. 140, relinquishment of control clearly does not preclude all forms of continuing involvement in the asset on the part of the transferor. In practice, determining the acceptable nature and magnitude of continuing involvement has proven complex, and sometimes the determination depends in part on whether the transferred assets are readily available (refer to footnote 6).

[11] The idea of bankruptcy remoteness is not accepted in all jurisdictions. See, for example, Financial Accounting Standards Board (2000, paragraph 3.80), which states: "bankruptcy remoteness is an unfamiliar and largely untested notion in some jurisdictions."

With regard to recourse specifically, however, Statement No. 140 follows Statement No. 77: A transfer of receivables with recourse is accounted for as a sale, with the sale proceeds reduced by the fair value of the recourse obligation, if the criteria for a sale are met. That is, the transferor would derecognize the transferred receivables and net the fair value of the recourse obligation (the retained risk) against the assets received—the recourse obligation is not *separately* recognized. However, Questions 67 and 68 of FASB's 2001 *Special Report on Statement No. 140* also make it clear that the method used to provide recourse might affect the accounting for the transfer. If the recourse takes the form of subordinated retained interests (the transferor holds an interest in the transferred assets that is paid after other investors have been paid, thereby absorbing much or all of the credit risk), there is no separate recourse liability, because the cash flows to the investors derive from the transferred assets, not the transferor. Only if the transferor could be obligated to pay investors—as opposed to forgoing payments on the interests it holds—would the transferor record a recourse liability.[12]

International Accounting Standard (IAS) No. 39, *Financial Instruments: Recognition and Measurement*

The current version of IAS No. 39 (applicable for annual periods beginning on or after January 1, 2005) uses a risks-and-rewards approach to financial asset derecognition. Specifically, asset derecognition is determined based on the transfer of "substantially all the risks and rewards of ownership," evaluated by analyzing whether the transferor's post-transfer exposure to the variability in amounts and timing of the cash flows of the transferred assets is "no longer significant in relation to the total variability" of those cash flows (paragraphs 20 and 21).

IAS No. 39 requires risk-and-reward analysis that focuses on the total variation of outcomes (considering both upside rewards and downside risks). That analysis necessitates the quantification and comparison of the various types of risk and reward inherent in financial assets, including the risk/reward associated with changes in interest rates and foreign currency exchange rates, as well as changes in default risk and prepayment risk. IAS No. 39 does not specify the procedures to be used in this analysis. For example, the standard stipulates that "all reasonably possible variability" is to be considered (paragraph 22), but does not state whether the variability to be analyzed is the *maximum* amount, the *expected* amount, or something else, and it does not provide guidance for determining what is a "significant" exposure to variability. In its discussion of approaches considered but not adopted in the development of Statement No. 125, FASB identified the requirement to quantify and compare the various types of risk and reward and the difficulties in determining when the threshold of "substantially all" has been met as reasons for rejecting a risks-and-rewards approach in favor of a control-based approach.[13]

IAS No. 39 is likely to differ from Statement No. 140 in its application for at least two reasons. First, the determination of the transferor's accounting in a risks-and-rewards

[12] Casual observation of recent financial asset transfer arrangements suggests that subordination is more commonly used than recourse.

[13] Those who favor a risks-and-rewards approach as being principles-based may wish to consider Statement No. 13, *Accounting for Leases*, often characterized as being highly rules-based. The basis for conclusions of Statement No. 13 (paragraph 60) makes it clear that FASB created the provisions of the statement to make operational the view that "a lease that transfers substantially all of the benefits and risks incident to the ownership of property should be accounted for as the acquisition of an asset and the incurrence of an obligation by the lessee." Similarly, Interpretation No. 46(R), *Consolidation of Variable Interest Entities, An Interpretation of ARB No. 51*, which uses risks and benefits as the determinants of consolidation (paragraph E7), has been criticized for being rules-based and difficult to apply.

framework is not based on what the transferee can do with the transferred assets. Therefore, IAS No. 39 does not explicitly specify a QSPE arrangement to permit sale treatment for transfers to wholly passive entities that (1) are expected to hold passive financial assets for the benefit of investors and (2) will not be consolidated by the transferor.[14] (IAS No. 39 requires a consolidation analysis before the application of derecognition criteria, while QSPEs are exempted from the provisions of Interpretation No. 46[R].) Second, IAS No. 39 is based on a consideration of all transferred and retained risks and rewards, so it does not require a separate consideration of legal isolation or of all forms of continuing involvement, including the possibility that the transferor or its creditors might be able to reclaim the transferred assets, since these would presumably be part of the analysis of retained risks and rewards.

Vexatious and Recurring Financial Reporting Issues

Distinctions between Control Approaches and Risk-and-Reward Approaches

To achieve international convergence of financial reporting standards for transfers of financial assets, standard-setters will have to resolve the differences between the approaches in Statement No. 140 and IAS No. 39.[15] Those approaches may at first appear to be so different as to be nearly irreconcilable; however, closer analysis reveals they are distinct, but related. For example, control of an asset is neither necessary nor sufficient to receive some or all of the risk and reward of that asset, because (at the cost of introducing the risk of counterparty performance) a derivative can be used to shift some or all of either or both the risk and reward of an asset to a party that has no ownership claim on that asset. On the other hand, control without access to some or all of the risk and reward of an asset is probably meaningless (the party in apparent control may be a fiduciary). This analysis suggests that risk and reward may overlap with control, or that control may be fundamental to risk and reward (the payoff structure that is captured by the risk and reward of an asset is what makes control valuable).

Derecognition of Pieces (Components) of a Financial Asset

In its simplest form, a components approach would require transferors and transferees to recognize and measure, after a transfer of financial assets, the financial statement elements (assets, liabilities, revenues, and expenses) each has as a result of the transfer. For example, a transferor would derecognize any transferred components that qualify as assets and continue to recognize any retained components that qualify as assets.

While both Statement No. 140 and IAS No. 39 are partly based on a components approach, neither standard completely resolves the treatment of pieces (components) of financial assets. For example, Statement No. 140's legal isolation criterion might seem to apply to whole assets—that is, the whole asset must first be legally isolated in order for

[14] However, paragraph 19 of IAS No. 39 describes a passive pass-through entity that is similar to a QSPE. In addition, if the risks-and-rewards analysis is not determinative (i.e., the transferor has neither transferred nor retained substantially all the risks and rewards of the transferred asset), IAS No. 39 requires that the accounting treatment be determined by whether the transferor has retained control of the asset. IAS No. 39's control analysis (paragraph 23) rests on the ability of the transferee to sell the transferred asset.

[15] Statement No. 140 and IAS No. 39 could require different accounting treatments for the same arrangement. For example, suppose that a transferor transfers financial assets that are not readily available to an investor for cash and enters into a contract with the investor to repurchase the financial assets in six months at their fair value. Because the assets are not readily available, the investor is restricted in its ability to sell or otherwise transfer the financial assets. Under Statement No. 140's control approach, the transferor would not derecognize the financial assets. However, the transferor's agreement to repurchase the financial assets at fair value would appear to transfer the risks and rewards of those assets to the investor, suggesting that the application of IAS No. 39 would result in the transferor derecognizing the transferred financial assets.

any piece of that asset to qualify for derecognition.[16] Similarly, IAS No. 39 requires an initial determination of whether its sale criteria are to be applied to the entire asset or to certain specified parts (which need not be *pro rata*). In addition, agreement may not be reached as to what constitutes a "component" of an asset that might qualify for separate derecognition.[17] For example, must a component be present in the original transferred asset (e.g., a subordinated interest) or can it be added in connection with the transfer (e.g., a guarantee)?

Ownership History of the Asset

The issue of ownership history arises when the transferor has continuing involvement in the form of an opportunity to reacquire a transferred asset, for example, a fixed-price call option. While a fixed-price option that entitles the holder to acquire an asset it has never owned would be accounted for simply as a call option (asset), if that option pertains to a transferred financial asset, Statement No. 140 requires an analysis of the details of the arrangement and the institutional features of the marketplace for the asset, including whether it is fungible and readily available (e.g., paragraph 32). That is, ownership history affects the accounting.

In contrast, IAS No. 39 would focus on the transferor's retention of downside risks and upside rewards. A transferor that holds a fixed-price call option to repurchase a transferred asset has upside rewards to the extent the asset's price is above the strike price, and its downside risk is limited to the loss of the option premium. Under IAS No. 39, if the call option has caused the transferor to retain substantially all the risks and rewards of ownership, then the asset would not be derecognized. If the transferor has neither transferred nor retained substantially all the risks and rewards of ownership and has retained control, then it would recognize "the transferred asset to the extent of its continuing involvement" (paragraph 30). Finally, a pure components approach would, presumably, focus only on the right retained by the entity (the call option) and would not record the underlying transferred asset.

Transfers to a Passive Transferee that Cannot Pledge or Exchange the Transferred Asset

To protect investors in the cash flows that will be generated by passive financial assets, it may be necessary to transfer those assets to a passive transferee that cannot dispose of the assets. Because a transfer to a transferee that cannot dispose of the transferred assets would fail one of the sale criteria in Statement No. 140, FASB created an exception for qualifying special purpose entity (QSPE) transferees. The FASB intended the QSPE to be a structure that is so passive that control of it cannot be an issue; it was intended to be a "pass-through" vehicle holding assets that require no decision-making, for the benefit of investors in those assets. However, the passivity of such a structure can never be absolute (for example, if debtors default, then some action must be taken to protect the structure's investors), so FASB has found it necessary, on more than one occasion, to reconsider the limits of permitted activities of QSPEs.

[16] The question of whether, and under what conditions, a piece of a financial asset can be derecognized by a transferor without first legally isolating the entire asset is part of FASB's current project on transfers of financial assets (as of August 2006).

[17] At least two approaches to defining components of financial assets might be considered. One approach would build on the ideas in FASB's 2000 Exposure Draft, *Accounting for Financial Instruments with Characteristics of Liabilities, Equities or Both*, which defined six basic components of financial instruments (unconditional and conditional payables and receivables, options, guarantees, forwards, and equity). Another approach would define components of an asset as "rights and obligations (i.e., assets and liabilities) embedded in that asset."

In addition, although IAS No. 39 does not explicitly contain the notion of a QSPE, the standard does describe (paragraph 19) an entity that receives cash flows of an asset, has a contractual obligation to pay those cash flows to others—with that obligation limited to the cash flows from the original asset, and cannot sell/pledge the original asset. Therefore, it would appear that the IASB also found it necessary to create a passive transferee that would not be able to dispose of transferred assets but whose presence in an arrangement would not preclude sale accounting.

Measuring the Gain or Loss on a Sale of Financial Assets

A transferor often retains one or more interests in transferred financial assets, for example, to monitor and service the assets (servicing rights) or to protect the transferee from some amount of credit risk (subordinated interests). Both Statement No. 140 and IAS No. 39 require an allocation of the carrying value of the transferred assets between the assets sold and the retained interests, based on their relative fair values.[18] A gain or loss is reported for the assets sold, while no gain or loss is reported for the retained interest(s). Frequently, no markets for the retained interests can be observed, so the relative fair values that determine gain or loss must often be measured using valuation techniques. That measurement requires professional judgment, which has been viewed by some (including academic researchers) as allowing the possibility of manipulations.

RESEARCH ON ACCOUNTING ISSUES RELATED TO TRANSFERS OF FINANCIAL ASSETS

Academic research on transfers of financial assets has provided direct and indirect evidence that standard-setters might find useful as they attempt to converge and improve the accounting guidance for financial asset transfers. However, research has addressed only a limited subset of the issues that standard-setters seek to resolve. Specifically, research has addressed: (1) the magnitude of financial asset transfers and their impact on financial statements; (2) motives for financial asset transfers; (3) motives for, and prevalence of, recourse in financial asset transfers; (4) investor treatment of financial asset transfers; and (5) transferor responses to changes in accounting standards for financial asset transfers. Because banks are heavily involved in securitizing financial assets, a significant portion of this research considers issues that are specific to banks, such as regulatory capital considerations. In this section, we summarize research findings that pertain to each of these issues, discuss potential standard-setting implications, note research limitations that could reduce its usefulness to standard-setters, and provide suggestions for future research.

Three general limitations apply to most or all of the research we consider. First, the research uses archival data that reflect outcomes reported under the accounting and regulatory guidance in force at the time the outcomes occurred. Findings based on analyses of different time periods with different accounting standards and regulatory requirements may not apply to the current environment. Second, the research often aggregates, for purposes of analysis, financial asset transfers with different structures and characteristics, without controlling for differences that could have both accounting and regulatory implications. Third, to the extent the research is descriptive, it is difficult to detect important relations between the variables. In addition to these general limitations, we also note specific limitations as applicable.

[18] For years beginning after September 15, 2006, Statement No. 156, *Accounting for Servicing of Financial Assets*, an amendment of FASB Statement No. 140, requires initial measurement of servicing rights at fair value, not allocated carrying value, and permits (but does not require) subsequent measurement at fair value.

The Magnitude of Financial Asset Transfers and Their Financial Statement Impact

Based on an analysis of the financial statements, footnotes, and management discussion of 200 issuers, the Securities and Exchange Commission (SEC) estimates that about 5.3 percent of active U.S. issuers (i.e., SEC registrants) reported transfers of financial assets at the end of 2003, and that $1 trillion in financial assets were transferred and removed from the transferors' balance sheets but were still outstanding at the end of 2003 (SEC 2005).[19] This evidence indicates that financial asset transfers are economically significant, albeit undertaken by less than 10 percent of U.S. public entities. Research also suggests that securitization activities are concentrated among financial services firms, but other sectors are also involved. Based on an examination of 127 10-K filings that disclose details on securitizations from September 2000 to December 2002, Dechow et al. (2005) find that approximately 30 percent of the sample represents nonfinancial firms, including the retail, manufacturing, and real estate industries.

Niu and Richardson (2006) examine 535 securitization disclosures from 1997 to 2003, and find that the average outstanding amount of transferred receivables minus the related credit enhancements (retained interests) is about 4.3 times the market value of equity of the transferors. For their sample, the mean debt-to-equity ratio of 5.9 reported using sale accounting would have increased to 10.2 had the transferors accounted for the transfers as secured borrowings. This evidence points to economically significant differences in leverage ratios depending on whether transfers of financial assets are accounted for as sales or secured borrowings.

To summarize, research suggests that the accounting for financial asset transfers affects a significant number of firms, in various industries, with concentration in financial services, retailing, real estate, and manufacturing. In addition, the dollar magnitude of financial transfer activities is significant, and differences in accounting treatment have substantial effects on leverage ratios.

Motivations for Financial Asset Transfers

Motivations for financial asset transfers—selling and securitizing financial assets—can be divided into two distinct types. First, motivations may be unrelated to accounting treatments, and may include economic reasons such as diversifying an asset pool, focusing on competitive advantage, and obtaining liquidity for future growth. Securitizations, in particular, are attractive to firms seeking nonequity capital on favorable terms because they isolate securitized assets in bankruptcy and create separate financial assets with varying risk characteristics to satisfy investors with different risk preferences. The second type of motivation is associated with the sale (derecognition) treatment permitted certain financial asset transfers. Accounting for a transfer of financial assets as a sale provides a means to reduce regulatory capital and to manage earnings. Research has provided evidence supporting each of these motivations.

Economic Motivations for Financial Asset Transfers

Researchers have found evidence indicating that firms sell and securitize assets to diversify, to focus their efforts on activities in which they have competitive advantages, and to meet liquidity needs. Pavel and Phillis (1987) find that banks that sell or securitize loans have higher loan concentrations and, therefore, greater needs for asset diversification than

[19] The SEC examined the financial statements and disclosures of the 100 largest issuers (based on market capitalization on December 31, 2003) and 100 additional randomly selected issuers. The SEC excluded Fannie Mae and Freddie Mac because they are government-sponsored entities.

other banks. In addition, both Pavel and Phillis (1987) and Karaoglu (2005) find that banks are more likely to sell loans if they have a lower ratio of non-interest expense-to-total loans, suggesting that banks that sell loans more efficiently originate loans. Finally, in terms of meeting liquidity needs, Karaoglu (2005) finds that banks that sell or securitize loans have a higher loan-to-deposit ratio, higher growth expectations as measured by the market-to-book ratio, and stronger motives to avoid underinvestment as measured by the interaction between the market-to-book ratio and debt-to-equity ratio.

Because securitizations separate financial assets by risk characteristics to satisfy investors with different risk preferences, they reduce financing costs and thereby facilitate access to nonequity capital. Minton et al. (2004) point out that the sale and securitization of low-risk assets should lead to lower financing costs since riskier assets are more likely to be discounted by relatively uninformed investors. Consistent with this motivation, Pavel and Phillis (1987) and Ambrose et al. (2004) find that firms tend to sell and securitize their higher quality assets and retain their lower quality assets.

Gorton and Souleles (2005) suggest that securitizations reduce financing costs by isolating securitized assets from the expensive and lengthy bankruptcy process. Consistent with this reasoning, they find that riskier firms are more likely to securitize. Similarly, Minton et al. (2004) find that unregulated financial companies become more likely to securitize with increased leverage. Examining the effect of LTV Steel's bankruptcy, in which a securitization was recharacterized as a secured loan, Ayotte and Gaon (2005) find that spreads for asset-backed securities issued by transferors eligible for Chapter 11 bankruptcy increased significantly more than spreads for securities of transferors not eligible for Chapter 11 bankruptcy around LTV's bankruptcy announcement. Consistent with the importance placed on legal isolation in Statement No. 140, they conclude that "the creditor protection provided by bankruptcy remoteness is indeed valuable and priced in financial markets" (Ayotte and Gaon 2005, 1).

We interpret this research as providing evidence that financial asset transfers are economically substantive, in the sense of being undertaken to provide real economic benefits. We note that legal isolation appears to be an important element in obtaining these benefits, consistent with the emphasis placed on this condition in Statement No. 140. However, research results do not illuminate whether the measurement approach to legal isolation (suggested by the JWG) might be superior to the recognition approach taken in Statement No. 140.

Accounting-Based Motivations for Financial Asset Transfers

Management of bank regulatory capital. Financial asset transfers are often undertaken by regulated banks that are required to meet certain regulatory capital requirements. Those requirements are generally based on both reported (recognized) assets and exposures to off-balance sheet activities. Because of the significant balance sheet impact of sale treatment, as opposed to secured borrowing treatment, banks might securitize assets to manage their regulatory capital.[20] However, research does not support the view that bank securitizations are primarily motivated by the desire to *minimize* regulatory capital. Minton et al. (2004) find that commercial banks are *less* likely to securitize than unregulated firms and

[20] Banks are required to maintain regulatory capital greater than a specified percentage of risk-weighted assets, computed as the sum of balance sheet assets and direct credit exposures from off-balance sheet activities, weighted according to their risk levels. For example, bank regulators require minimum capital based on a combination of leverage ratios and risk-based capital ratios. The maximum leverage requirement is determined as a fraction of total assets, and there is a risk-based capital requirement in which tier 1 (tier 1 plus tier 2) capital as a percentage of risk-weighted assets must be greater than 0.04 (0.08).

that banks with lower capital ratios are less likely to securitize than banks with higher capital ratios.

On the other hand, securitizations might be motivated by the desire to manage regulatory capital requirements in other ways—specifically, to hold assets whose risk characteristics are commensurate with capital requirements. Nolan (2005, 4) notes that in calculating required capital ratios, prior to 2002, the risk weighting "was based exclusively on the so called 'standardized risk bucket approach' which assigns risk weightings to different categories of assets without distinguishing among different levels of risk within a single asset category based on the relative credit worthiness of the obligor." In addition, Nolan (2005) notes that the required capital on residual interests was limited to a 100 percent risk weighting.

Some argue that the failure to distinguish levels of risks, combined with the risk weighting handling of residual interests, creates an opportunity for regulatory arbitrage through securitizations. Consistent with results in Pavel and Phillis (1987) and Ambrose et al. (2004) that banks securitize safer loans and retain riskier ones, Minton et al. (2004, 8) suggest that a securitizing bank may wish to hold "high risk assets because the low risk assets require the bank to hold more capital at the margin than is economically justified by their incremental effect on the probability of insolvency."

However, the retention of risky financial assets is also consistent with a desire to reduce financing costs by retaining the assets most likely to be discounted by investors, so this research does not unambiguously support the inference that bank securitizations are motivated by regulatory capital arbitrage. In addition, recent (and proposed) changes in regulatory capital rules better align the risk weightings with their actual risk levels and place additional restrictions on the treatment of retained interests, reducing both the opportunities and incentives for regulatory capital arbitrage.

Earnings management. Similar to sales of available-for-sale financial instruments and nonfinancial assets, financial asset sales and securitizations can be timed to manage earnings. Karaoglu (2005) examines loan sales and securitizations, noting that both arrangements allow discretion in the timing and the selection of loans to be transferred that could be used to manage earnings. Consistent with this earnings management perspective, he finds that banks are more likely to *sell* loans when their pre-transfer income does not meet analyst forecasts or prior-year earnings. However (and not consistent with an earnings management perspective), he finds no relation between the decision to *securitize* loans and meeting analyst forecasts and prior-year earnings.

Karaoglu (2005) also notes that accounting for securitizations requires more professional judgment and estimation than does accounting for loan sales, because, in a securitization, managers not only decide when to transfer assets and which assets to transfer, but also calculate a gain or loss based on the fair value of the retained interest. As previously discussed, both Statement No. 140 and IAS No. 39 require that retained interests in securitized assets be measured by allocating the carrying value of the transferred assets between the assets sold and the retained interests based on their relative fair values, which typically must be estimated. Therefore, under current accounting standards, a gain or loss is reported for the assets sold, but not for the retained interests, and the fair value estimates affect the magnitude of that reported gain or loss.

Although some (e.g., the American Accounting Association's Financial Accounting Standards Committee [AAA 1996]) argue that a transfer of financial assets that does not change the fundamental attributes of those assets should not result in any gain or loss, research has documented that transfers of financial assets usually result in reported gains.

Specifically, Dechow et al. (2005) find that 76 percent of firms report gains, 14 percent report no gain or loss, and 10 percent report losses from securitizations. They do not investigate whether transferors modify the transferred assets but focus, instead, on measurement issues. Specifically, they note differences between fair values and book values and, therefore, that reported gains may be due to the use of internal discount rates, not market rates, to discount the cash flows from the assets.

Consistent with the view that securitizations are used to manage earnings, Shakespeare (2004) finds evidence that firms manage retained-interest fair-value estimates to meet analyst forecasts and prior years earnings; Dechow et al. (2005) find that firms are more likely to report large securitization gains when income is low or below the previous year's income; Dechow and Shakespeare (2006) find that the reporting of gains or losses from securitization transactions appears to be influenced by financial reporting incentives (e.g., to exceed the previous year's income or analyst forecasts); and Karaoglu (2005) finds that securitization gains are negatively related to the change in earnings before securitization gains. In addition, Karaoglu (2005) finds less earnings management related to mortgage securitizations than to other securitizations. He argues that firms are more likely to manage earnings related to nonmortgage securitizations because they are less likely to have established market values and therefore more likely to offer opportunities to manipulate fair value estimates.

In addition to earnings management incentives, Dechow and Shakespeare (2006) argue that firms have timing incentives to arrange securitizations just before a financial reporting date in order to increase efficiency ratios, decrease leverage ratios, and increase reported operating cash flows. Consistent with this view, the authors find that securitization transactions occur with greater frequency in the last few days of each month and in the last few days of each quarter. On the other hand, the timing of these transactions, taken alone, does not necessarily call into question either the economic validity of the transactions or the way they are reported.

Implications of this research. This research may be interpreted in at least two ways. First, standard-setters should consider the potential for earnings and balance sheet management in establishing accounting standards for financial asset transfers. Second, managers, auditors, and other participants in the financial reporting process, including audit committees and regulatory bodies, should be concerned about how those standards are implemented. For example, Karaoglu (2005, 25) concludes that the evidence of biased reporting raises concerns about "the reliability of the reported fair values in the absence of liquid markets that provide reference prices," and Dechow et al. (2005, 28) suggest that standard-setters should consider "limiting management's flexibility in using their internal costs of capital in determining the value of retained interests."

We believe that, in this case, the earnings management behavior documented by research arises from management's implementation decisions, and not from the standards themselves, so we do not believe that research provides evidence of a need for additional standards governing the measurement of fair values in transfers of financial assets. Our conclusion rests on two bases. First, Statement No. 140 requires a fair value measurement, and the objective of that measurement is stated in FASB's conceptual framework. That is, Statement of Financial Accounting Concepts (SFAC) No. 7 states that fair value is calculated using estimates and expectations that marketplace participants would use in determining the amount at which an asset could be bought or sold in a current transaction between willing parties. Therefore, an implementation of Statement No. 140 that uses an internal discount rate that is not consistent with market participant estimates and expectations to estimate the fair value of retained interests would not be consistent with a fair

value measurement objective, and would therefore be an improper implementation of the standard.[21] Second, Dechow et al. (2005) find that firms with less powerful CEOs and more outside monitoring are less likely to manage earnings through securitizations, suggesting that appropriate governance arrangements would curtail this abuse.

We believe that the financial asset transfer issues identified by academic research can be addressed by properly applying existing standards and through appropriate governance. We also believe that these issues raise two more general standard-setting questions. First, what should a standard-setter assume about the implementation of standards (and what evidence should the standard-setter gather to form those assumptions)? Second, when are implementation issues sufficiently serious to warrant a review and possible changes to the standard?

Motives for, and Prevalence of, Recourse in Financial Asset Transfers

Background. As previously discussed, Statement No. 140 and IAS No. 39 specify criteria to determine if a transferor of financial assets has surrendered control (Statement No. 140) or transferred substantially all the risks and rewards (IAS No. 39) of those assets and should treat the transfer as a sale. In making that determination, both Statement No. 140 and IAS No. 39 permit some continuing involvement. That is, IAS No. 39 (paragraph 21) requires that the transferor's post-transfer exposure to cash flow variability "is no longer significant in relation to the total variability" of those cash flows, so a fair value call option or a retention of a *pro rata* share would be permitted, and Statement No. 140 describes several forms of permissible continuing involvement.

Recourse is among the forms of continuing involvement permitted by Statement No. 140, provided the assets are deemed to be isolated from the transferor under applicable laws and regulations. If a transfer of financial assets with recourse meets the conditions for the surrender of control, then the transfer can be accounted for as a sale with any gain recognized on the sale reduced by the fair value of the recourse obligation. (That is, the fair value of the recourse obligation is accounted for but not as a separate obligation; it is included *net* with the rest of the arrangement.) As previously discussed, FASB has made it clear, beginning with Statement No. 77, that it does not equate recourse with control.

Although existing accounting guidance does not view recourse *per se* as an impediment to sale accounting for financial asset transfers, researchers have focused on this form of continuing involvement. In fact, we could not find any research on other forms of continuing involvement. In addition, research has focused specifically on noncontractual (i.e., implicit) recourse, arguing that transfers of financial assets sometimes include an unstated promise that the transferor will provide an unspecified amount of recourse. Those researchers argue that the balance sheet of a transferor that provides implicit recourse but accounts for the transfer as a sale does not display all the transferor's risks and obligations related to the transferred assets.[22] As result of the nonrecognition of implicit recourse, these researchers say, investors might be misled and regulatory capital might be inadequate.

[21] In addition, paragraph 68 of Statement No. 140 describes fair value in terms of a current transaction amount, for which the best evidence is a quoted price in an active market, and paragraph 69 specifies that when measurement techniques are used, the techniques "should incorporate assumptions that market participants would use." This point is reinforced by EITF D-69, *Gain Recognition on Transfers of Financial Assets under FASB Statement No. 140*, which emphasizes that "using assumptions that are not consistent with current market conditions in order to ascribe intentionally low or high values ... is not appropriate" (paragraph 2).

[22] It is not clear whether these researchers mean the (implicit) recourse obligation should be, but is not, displayed or disclosed separately instead of being netted against the proceeds of the transfer, or whether they mean that the (implicit) recourse obligation is omitted from the accounting altogether.

Evidence on the prevalence of implicit recourse. Calomiris and Mason (2004) note that since 1996 regulators have expressed concerns about the provision of implicit recourse and have issued guidance as to examples of actions that provide implicit recourse. However, they argue that the practice continues and provide examples of implicit recourse as late as 2003.

Higgins and Mason (2004) also argue that transferors provide implicit recourse and document 17 recourse events involving ten credit card banks, based on a search of Lexis-Nexis from 1987 to 2001 for reports of "ratings affirmations" following a period of weak collateral pool performance. The recourse events involve adding new, higher quality accounts, selling new receivables to the pool at a discount to par, increasing the credit enhancement, getting investors to waive early amortization triggers, and getting the servicer to reduce its fees. The authors also note that during 1987 to 2001, only two credit card securitizations entered early amortization without recourse.[23]

Motives for providing implicit recourse. Calomiris and Mason (2004) suggest that transferors may securitize with implicit recourse either to generate and exploit subsidies from government safety nets (i.e., deposit insurance) or to allocate risk and capital more efficiently. They examine securitizations without explicit recourse to provide evidence on each motivation.

The safety net motivation implies that securitizing banks that provide implicit recourse transfer some of the associated risk to the government via deposit insurance, an outcome that some would view as socially undesirable. Empirically, the safety net motivation implies that securitizing banks' capital levels should be close to the minimum regulatory requirements. Calomiris and Mason (2004), however, find that capital levels of securitizing banks exceed regulatory requirements, and they have equal or higher capital ratios than nonsecuritizing banks. They suggest, therefore, that banks' provision of implicit recourse is not motivated by governmental safety nets.

The use of implicit recourse to allocate capital and risk more efficiently presumes that bank managers and investors believe that capital regulatory requirements are too high, given the risks of the related assets. Obtaining external financing by transferring assets with implicit recourse is cheaper than issuing equity or transferring assets without implicit recourse; therefore, healthy banks with scarce resources would reap the greatest benefits from transfers with implicit recourse. In addition, if investor demand drives the use of transfers with implicit recourse, then transferring banks' capital should vary with the market perceptions of on- and off-balance sheet asset risks.

Consistent with this analysis, Calomiris and Mason (2004) find that securitizing banks maintain lower capital ratios (relative to on- and off-balance sheet assets) than do nonsecuritizing banks, and that securitizing banks' capital is better explained by the managed capital ratios (relative to on-balance sheet assets plus off-balance sheet securitized assets) than the regulatory capital ratios (relative to on-balance sheet assets). Therefore, securitizing banks are able to reduce their capital (relative to assets) below the levels that would be required if the assets remained on the banks' balance sheets. The evidence suggests that investors believe that lower capital is adequate. The authors conclude that "this implies that the amount of capital needed to stand behind securitized receivables should be less than the amount needed to stand behind receivables held on the balance sheet" (Calomiris

[23] Early amortization occurs when collateral is underperforming. Instead of purchasing new collateral from the sponsor through the designated time period, the SPE makes payments to investors in order to prevent the loss of principal.

and Mason 2004, 20). Therefore, securitizing with implicit recourse appears to be motivated by the wish to save required regulatory capital and maintain capital levels consistent with market perceptions of risk.

Gorton and Souleles (2005) suggest that transferors that plan to return to the market for financing at a later point must support current asset transfers by providing implicit recourse. The authors examine 167 credit card asset-backed securities issued between 1988 and 1999. Consistent with this theory, they find a positive relation between the yields for bonds issued by trusts (SPEs) and the risk of the sponsors, suggesting that sponsor risk is related to the pricing of the SPE debt. However, this relation is documented for arrangements prior to the issuance of Statement No. 140.

Characteristics of recourse providers. Higgins and Mason (2004) provide evidence on characteristics of transferors that provide recourse by examining stock returns and profitability in the periods surrounding a recourse announcement.[24] They find that, relative to a matched sample of nonrecourse firms, recourse firms experience lower profitability, deteriorating performance, and lower stock returns in the year prior to the recourse announcement. They infer from this result that recourse events may be responses to poor performance. At the time a recourse action is announced, Higgins and Mason (2004) find, on average, a positive abnormal stock return, followed by improved share returns and operating performance. The authors also find that while the recourse firms face similar terms for subsequent securitizations relative to their prior securitizations, they also face delays before returning to the market. They conclude that "recourse may have beneficial effects for sponsors by revealing that the shocks that made recourse necessary are transitory" (Higgins and Mason 2004, 875).

Implications of this research. Several factors complicate the interpretation of research findings on the provision of implicit recourse. First, the recourse events documented occurred between 1991 and 2003, under three different accounting standards on financial asset transfers.[25] The research does not show clearly how each form of recourse documented was handled by the standard in effect at the time and whether every form of recourse documented would have violated then-existing requirements for sale accounting. Second, it is not clear whether these forms of recourse were indeed only implicit (that is, unstated) or whether the recourse provisions were explicitly stated in the securitization transaction. That is, research has identified recourse *events,* but the research does not always clearly show whether these outcomes reflect implicit recourse or contractually specified recourse. Third, the research investigates recourse events only in (revolving) credit card securitizations, and results may not generalize to other types of securitizations. Fourth, the research does not consider (close) substitutes for recourse, in particular, the transferor's holding of subordinated interests in the transferred assets. The difference turns on whether the transferor assumes credit risk by agreeing to be paid last (subordination) or by agreeing to make payments if necessary.

The research on recourse raises several issues. One way to interpret researchers' focus on recourse is that FASB (and, possibly, the IASB) has overlooked a set of arrangements that, if present, should invalidate sale accounting. In other words, has FASB misplaced its emphasis by requiring analysis of other forms of continuing involvement and relatively

[24] Higgins and Mason's (2004) results should be interpreted cautiously, since the analysis is based on only ten firms.

[25] Statement No. 77 was effective through December 31, 1996; Statement No. 125 was effective from January 1, 1997, through March 31, 2001, and Statement No. 140 is currently in effect.

briefly discussing recourse? Alternatively, the research may illuminate implementation issues and not issues with the standards themselves. That is, given that Statement No. 140 requires that the fair value of recourse obligations accounted for as a sale be subtracted in calculating the proceeds in a transfer of financial assets, are researchers and regulators in fact expressing concerns about implementation?

A second issue, and one that extends beyond the financial reporting for asset transfers, is whether *implicit* (as opposed to contractual or explicit) recourse meets the accounting definition of a liability. More broadly, this issue concerns the treatment of implicit (that is, unstated) arrangements, in particular, implicit promises to perform that might be inferred from an entity's actions and relied upon by others. FASB has grappled with this issue in several contexts, as it has attempted to determine what types of arrangements give rise to noncontractual obligations that should nonetheless be recorded as liabilities.[26] However, it is not clear whether an unstated promise to provide an unspecified amount of recourse in a transfer of financial assets would qualify as a liability even under a generous interpretation of the current definition, and even taking an expansive view of constructive obligations.[27]

Investor Treatment of Financial Asset Transfers

The evidence on how investors view financial asset transfers is sparse and largely indirect, consisting of statements about how analysts, credit rating agencies, and regulatory bodies treat securitizations, and empirical analyses of both systematic risk and valuation effects of securitization gains/losses. With regard to statements about how analysts evaluate securitizations, Niu and Richardson (2006) report that analysts generally treat securitizations as secured borrowings because they believe that most or all of the risks of the transferred assets remain with the transferor. Landsman et al. (2006) examine equity valuations of the assets and liabilities of SPEs and find that the market views those assets and liabilities as belonging to the sponsoring originator. Consistent with this view, Moody's Investors Service (2003, 4) states, "To date, we have observed very few examples of meaningful risk transference through securitization." When a securitization fails to transfer meaningful risk, Moody's (2003, 7) views "the securitization as the equivalent of on-balance sheet secured financing."

Regulatory bodies also indicate in their statements that they sometimes view securitizations as being similar to secured borrowings, with respect to risk transfer. Again, the focus seems to be on providing implicit recourse as a form of continuing involvement that (should) preclude sale treatment. For example, the Office of the Comptroller of the Currency (2002) *Guidance 2002-20* states that originators who provide implicit recourse must rerecognize assets for determining regulatory capital requirements. The Federal Reserve System Board of Governors' (2002, 1) Supervisory Letter states that providing implicit recourse "demonstrates that the securitizing institution is reassuming risk associated with the securitized asset that the institution initially transferred to the marketplace," and "providing

[26] See, for example, paragraphs B18–B22 of Statement No. 146, *Accounting for Costs Associated with Exit or Disposal Activities*, and paragraphs B21-B31 of Statement No. 143, *Accounting for Asset Retirement Obligations*. In both cases, FASB compares the arrangement at issue with the definition and characteristics of a liability, including a *present* obligation that the entity has *little or no discretion to avoid*.

[27] The issue appears to be one of *economic compulsion*, in which an entity's actions are determined by economic self-interest, not contractual obligations. In this case, the transferor would take actions because of reputation effects: a transferor that intended to securitize assets in the future might feel economically compelled to provide recourse.

implicit recourse can pose a high degree of risk to a banking organization's financial condition and to the integrity of its regulatory and public financial reports."

Niu and Richardson (2006) empirically analyze both systematic risk and valuations of securitization gains/losses. With regard to the former, they find that off-balance sheet debt related to securitizations and on-balance sheet debt have the same relation to beta; that is, securitizations are treated like secured borrowings in the determination of systematic risk. (The authors do not examine whether investors appear to treat the transferred assets as if they were in fact still under the control of the transferor.) With regard to the latter, they find that gains from securitizations are less value-relevant than other earnings components, and that those gains are less valued for firms with higher levels of off-balance sheet debt. The authors conclude that investors are increasingly skeptical about the value-relevance of the securitization gains as the amount of off-balance sheet debt increases.[28]

The research on investor treatment of financial asset transfers, while sparse and sometimes indirect, could suggest that investors tend to view most transfers as secured borrowings—that is, the transferor still has the assets (even though transferred) and has encumbered those assets with a loan. The standard-setting implication of this interpretation, taken to its extreme, is that investors believe the transferor (1) has retained the risk/reward of the assets and presumably controls those assets and (2) has an obligation equal to the loan. This extreme implication might, however, be affected by other considerations.

First, the existing research tends to focus on evidence that the transferor has retained the credit risk of the transferred receivables by, for example, retaining a subordinated interest. Research has not focused on whether investors view the transferred assets as continuing under the transferor's control; the legal isolation requirement of Statement No. 140 would imply that the transferor does not have access to the cash flows of those assets.

Second, and related to the first point, inspection of contractual arrangements governing financial asset transfers indicates that the transferor has, typically, sold *something*, even if not the entire bundle of risks and rewards that comprise the asset. Specifically, even if the transferor has retained a significant subordinated interest in the transferred assets, it no longer has control of the cash flows of those assets (they are paid first to the investors in the transferred assets). In addition, a transferor that retains a subordinated interest in order to absorb most or all of the credit risk of the transferred assets does not have a liability. Rather, it has a potentially low-value asset. Finally, even a transfer of receivables with full recourse does not constitute a present obligation of the transferor to repay the entire loan—the investors must look first to the transferred assets.

Transferor Responses to Changes in the Accounting Rules Related to Financial Asset Transfers

As previously discussed, research suggests that accounting rules affect the structure of financial asset transfers. In addition, anecdotal evidence suggests that transferors expend resources to structure securitization transactions to meet the accounting requirements for sale treatment, for example, to ensure that the legal entity used in a securitization transaction is a qualifying SPE. It is not clear, however, whether firms expend resources to structure transactions primarily to meet the requirements for sale accounting, or for economic reasons.

[28] These results do not indicate whether investors view securitization gains as being similar to other gains and losses, either in terms of their transitory nature or in terms of measurement reliability. That is, the results do not shed light on whether the market valuation of securitization gains and losses is similar to the valuation of other gains and losses on, for example, sales of available-for-sale securities or sales of fixed assets.

Some insight can be obtained on this issue by investigating responses to changes in standards that affect the accounting for financial asset transfers. For example, Bens and Monahan (2005) report a decline in the level of sponsorship of asset-backed commercial paper conduits by U.S. banks following the release of Interpretation No. 46R, *Consolidation of Variable Interest Entities*.[29] They also report that some U.S. banks created new (higher cost) securities called "expected loss notes" (ELN) to avoid consolidation of conduits. (The holder of the ELN is the primary beneficiary of the variable interest entity and, therefore, consolidates the conduit.) They conclude that, in response to the issuance of Interpretation No. 46R, companies changed the structures of commercial paper conduits in order to obtain a desired accounting outcome.

Bens and Monahan (2005) also conclude that the consolidation rules of Interpretation No. 46R put U.S. banks at a disadvantage relative to U.S. nonbanks and foreign banks. That is, U.S. banks appeared to lose market share to entities that are not subject to the same accounting rules and to the same form of regulation that is tied to ratios based on reported financial statements. If this conclusion is valid, then it highlights the importance of convergence between the IASB and FASB on a single standard for asset derecognition so that differing accounting standards do not affect competitiveness.

The standard-setting implications of research that documents firms' responses to changes in accounting standards are not clear. Guided by its conceptual framework, FASB aims to promulgate standards that are *neutral* in the sense of unbiased and not intended to influence the behavior of a particular group. FASB acknowledges that knowledge of financial reporting outcomes affects behavior, just as other measurements do; if a change in financial reporting standards results in providing more decision-useful information, then any subsequent changes in behavior will be based on better financial information.[30]

DISCUSSION AND SUGGESTIONS FOR FUTURE RESEARCH

Summary and Limitations of Research Findings

Research suggests that transfers of financial assets are economically significant in terms of the amounts involved and effects on leverage ratios, and that transferors include retailing, manufacturing, and real estate firms as well as financial institutions. Research also suggests that financial asset transfers occur for a variety of reasons, including diversifying assets, obtaining greater liquidity for growth, and reducing financing costs. Finally, researchers have suggested the possibility of manipulated fair value measurements in connection with calculating gain or loss on financial asset transfers accounted for as sales, although factors associated with stricter corporate governance appear to mitigate this effect.

Sale accounting for transferred financial assets is not consistent with significant continued involvement with those assets. Although many forms of continued involvement exist, research has tended to focus on providing implicit recourse and transferor motivations for doing so. Finally, research suggests that both credit analysts and investors appear to treat off-balance sheet financing related to financial asset transfers as if it were on-balance sheet debt in assessing firm risk, and that firms alter their securitization activities in response to changes in accounting requirements.

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[29] Interpretation No. 46R, using a risk-and-rewards approach to consolidation analysis, requires certain sponsors of highly leveraged asset-backed commercial paper conduits to either redesign or consolidate the conduits (that qualify as variable interest entities).

[30] Examples of FASB's discussions of this issue include paragraphs B29–B31 of Statement No. 123R, *Share-Based Payments*, and paragraphs 130-132 of Statement No. 106, *Employers' Accounting for Postretirement Benefits Other Than Pensions*.

Several characteristics of the research limit the implications of these findings. First, much of the research discussed is unpublished; therefore, the results and inferences might change as the papers are modified in response to the peer review process. Furthermore, most issues discussed have been addressed by only one or two studies, some of which rely on small sample sizes and/or limited time periods, without controls for differences in accounting rules across periods. In addition, some of the studies examine credit card securitizations, some examine loan securitizations, and some examine a combination of different types of securitizations. Future research could examine whether the type of securitization or the specific features of the securitization are important factors in the analyses.

Examples of Open Issues that Could be Addressed by Research

While research provides insights into certain issues related to financial asset transfers, many questions remain unanswered. For example, while some researchers appear to draw the inference that some, most, or even all financial asset transfers should not be accounted for as sales, research has not addressed whether investors might be misled if all financial asset transfers were accounted for as secured borrowings. That is, research could examine whether investors would be misled if transferors' balance sheets showed assets that have been legally isolated from the transferor (so that the transferor cannot access its cash flows) and a liability for the entire obligation (even though the transferor has no present obligation to pay that amount). This research might provide evidence on what might be superior criteria (relative to those in Statement No. 140) for distinguishing between financial asset sales and secured borrowings. Research might also consider the advantages and disadvantages of the all-or-nothing sale versus secured-borrowing approach in Statement No. 140 relative to the Joint Working Group proposal to account for the transferors' assets (e.g., retained interests, call options) and liabilities (e.g., recourse obligations) after the transferor.

While research has examined whether investor assessments of systematic risk (beta) appear to treat securitizations as if they were secured borrowings, further investigations could provide additional insight into other investor judgments and decisions. For example, research could examine whether investors' estimates of firm value are affected by variations in the structures of financial asset transfers.

Research could also provide direct evidence of how equity and credit analyst judgments and decisions are affected by differing accounting treatments of financial asset transfers. Some research finds that analysts are not sophisticated in adjusting financial statements for off-balance sheet items (for example, Hirst et al. [2004] find that commercial bank equity analysts are able to analyze banks' exposure to interest rate risk under recognition but not disclosure of fair values), but the evidence discussed here suggests analysts make an explicit adjustment for off-balance sheet debt.

Finally, in analyses of continuing involvement, academic research has focused on the provision of implicit recourse in determining whether transferred financial assets should be derecognized. However, other types of continuing involvement in transferred assets might raise equally (or more) serious questions about whether the assets should be derecognized.

Impediments to Academic Research on Financial Asset Transfers

We believe that the lack of data is the most important impediment to archival-empirical research on financial asset transfers. This impediment takes at least three forms.

First, Statement No. 140 has been in effect in the United States only since 2001; outside the United States IAS No. 39 (as amended) has been effective only since 2005. Thus, as noted earlier, there is a dearth of time-series outcomes under the accounting guidance that

is currently in effect, and there is no way to know whether research results and inferences based on outcomes reported under previous accounting guidance remain relevant.

Second, and equally important, it appears to be difficult to obtain (typically, to hand-collect) data on financial asset transfers, and, sometimes, even to identify the arrangements. For example, Niu and Richardson (2006) report that after attempts to identify "as many as possible" U.S. firms that both undertook securitizations during 1997–2003 and were listed on both CRSP and Compustat, they obtained 103 firms (535 firm-year observations) but only 41 firms with complete data.[31] Dechow et al. (2005) report that an EDGAR search of Form 10-K filings of all firms filing with the SEC during September 2000 to December 2002 yielded 80 firms (127 firm-year observations) with the data required for their analyses.

Third, to the extent that the contractual provisions of financial asset transfers determine both the economic characteristics and the accounting treatment, the data impediments are even more formidable. While Form 10-K, containing the disclosures required by Statement No. 140, is a searchable public document, the contractual provisions might be found only in very difficult-to-access sources, for example, in the offering materials provided to investors.

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[31] Niu and Richardson (2006) do not report the details of their sample identification/selection procedures.

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THE ANALYST'S
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It's Not A Small World, After All: The SEC Goes International

Just two short years ago, the chief accountant of the SEC laid out a "road map to convergence" for the melding of United States FASB accounting standards with the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board. Don Nicolaisen's road map ultimately called for the elimination of the IFRS-to-GAAP reconciliation in SEC filings by the year 2009 or sooner. "Sooner" is looking like "now:" in July, the Commission issued a proposal for the reconciliation's current elimination. In August, the Commission issued a Concept Release to test the merits of allowing U.S. registrants to choose between FASB standards and IASB standards in preparing their financial statements - a more extensive proposal that could eventually put all accounting standards under one roof, but create surprising costs and inefficiencies along the way.

Should these two proposals become reality, the main benefit to shareholders would be an increase in investment choices on the United States exchanges: conversion to United States-style reporting, a long-standing barrier to foreign filers, would be removed. The exchanges would likely be flooded with new registrants. The question: are more choices always worth the cost? This report presents the highlights of the two proposals. It also compares 129 IFRS-to-GAAP reconciliations by foreign registrants to see if the two reporting systems currently produce similar results. The short answer: there are still plenty of major differences between them.

I. Nothing To Explain

Foreign companies who wish to trade their stocks and debt in U. S. markets must file financial statements with the Securities & Exchange Commission, just like domestic companies. Those financial statements might be prepared in terms of United States accounting principles, but more likely, they're presented in a firm's native accounting format. Lately, the presentation basis might be the IASB's International Financial Reporting Standards (IFRS), as their acceptance around the world expands. Regardless, if a firm's financial statements are not presented in U.S. GAAP, there's a reconciliation between as-presented earnings and stockholders' equity and their U.S. GAAP-prepared equivalents. That reconciliation has been a fixture of 20-F filings used by foreign registrants since 1982. The reconciliation requirement imposed an unpleasant cost on foreign companies wishing to trade their securities in U.S. markets: to be able to prepare the reconciliation, they had to effectively keep two sets of books.

How useful has the reconciliation proved to investors and analysts? It doesn't permit line-by-line comparisons of foreign issuers to U.S. counterparts, automatically limiting its usefulness. Being part of a 20-F filing, the reconciliation hasn't been available to investors on a particularly timely basis, either: there's a six-month filing deadline for 20-F's. By comparison, many U.S companies deemed "large accelerated filers" (over $700 million in market float) must file their 10-K's within 60 days of their year end. To investors never satisfied with enough information, it seems like paltry, stale data. The reconciliation glass is half empty.

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On the other hand, the SEC is charged with protecting the interests of investors - and the reconciliation gives investors two key financial measurements used for valuing firms in terms comparable to the domestic measurements. Instead of burdening investors with the cost of forcing imprecise adjustments of their own onto the foreign financial statements in order to make them comparable to domestic counterparts, the cost is imposed on the firms benefitting from trading their securities in the U.S. markets. While it is an added cost for those foreign filers, it's also not as great as it would be if the Commission required full GAAP financial statements - something that's within the boundaries of the SEC's authority. The reconciliation has been a cost-effective way of providing something for everyone: bare-bones information for investors, at a minimized incremental cost for foreign filers. It's a compromise, guaranteeing that nobody will be completely happy.

Since the reconciliation was first required, much has changed in global markets - and in the setting of standards for financial reporting. In 2001, the privately-funded International Accounting Standards Board was established as the successor organization to the International Accounting Standards Committee, which had issued 41 International Accounting Standards during its lifespan beginning in 1973. When the IASB replaced the IASC in 2001, an entire support system patterned after the United States' own standard-setting infrastructure went into place, too. The IASB is governed by the International Accounting Standards Foundation, similar to the FASB and its relationship with the Financial Accounting Foundation. Interpretations of IASB standards are carried out by an International Financial Reporting Interpretations Committee (IFRIC) whose American counterpart would be the FASB's Emerging Issues Task Force. The IASB is advised by an Standards Advisory Committee - just like the FASB is counseled by the Financial Accounting Standards Advisory Committee.

The IASB's goal is "developing, in the public interest, a single set of high-quality, understandable and enforceable global accounting standards that require transparent and comparable information in general purpose financial statements."[1] It may well be succeeding: over 100 countries have adopted their standards, known as International Financial Reporting Standards, or IFRS. More are on the way: Canada will be switching to IFRS as its accounting language over the next few years.[2] Domestic standard setters in India and in Japan have also announced their plans to fully converge their standards with IFRS by 2011. The European Union required its members to adopt reporting in IFRS terms beginning in 2005, greatly increasing the "installed base" of firms publishing financials under the IASB standards.

Executive Summary

- For 25 years, companies that report on a basis of accounting other than U.S. GAAP have had to provide a reconciliation of their earnings and stockholders' equity from their basis of presentation to the US equivalent. For companies using International Financial Reporting Standards as published by the International Accounting Standards Board, the SEC has proposed that this reconciliation requirement be eliminated in the name of convergence.

- Elimination of the reconciliation might take pressure off of standard setters to continue meaningful convergence efforts. The reconciliation is a public record of differences remaining between the standards; remove it and there's less visibility into progress.

- Many companies are not deeply experienced in applying IFRS. The SEC has studied filings of firms reporting on an IFRS basis, and found problems in the presentation of cash flow statements, accounting for common control mergers, recapitalizations, reorganizations, acquisition of minority interests, and similar transactions.

- While the FASB and IASB have made much progress in the last five years in coordinating their standard-setting efforts, there are many significant differences remaining between the two bases of accounting. Accountants and investors have had little, if any, training in the use of IFRS simply because it is not part of the curricula in American higher education. The reconciliation has at least provided "hands-on" training in the differences between the two accounting systems.

- The SEC has also proposed that domestic firms be allowed to choose between reporting in US GAAP or an IFRS basis. This raises many of the same issues as eliminating the reconciliation.

- A study of 129 reconciliations from foreign filers using IFRS in 2006 shows that the differences between the two accounting systems can be quite large. Eighty-three of the firms showed higher earnings under IFRS than GAAP; the median difference was 12.7%. Forty-four of the firms showed lower earnings under IFRS; the median difference was 9.1%. Only two firms showed the same earnings under both bases of accounting.

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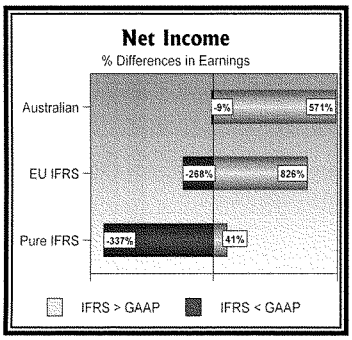
[1] From www.iasb.org/About+Us/About+IASB/About+IASB.htm.

[2] See details at http://www.acsbcanada.org/download.cfm?ci_id=32735&la_id=1&re_id=0 . Transition could take as long as five years.

The United States is not ignoring the IASB movement, by any means. Under the "Norwalk Agreement"[3] reached in 2002, the FASB and the IASB have been working towards converging the two sets of standards "as soon as practicable." Since then, no major standard-setting project has been started by either body without a joint effort.

The SEC has been monitoring the convergence scene keenly in the past few years. In an April 2005 article in the Northwestern University Journal of International Law and Business, Don Nicolaisen, the SEC's chief accountant at the time, declared: "... both the U.S. GAAP and IFRSs models have their place in the U.S. capital markets, and that convergence is the enabler that will allow them to coexist. What is essential is that each set of standards be complete, that each produce financial statements of high quality, that each set of standards enjoy wide acceptance and use, that the standards be reasonably comparable to each other and that investors are capable of and comfortable in understanding the nature of differences between the two sets of standards."[4]

Nicolaisen's article included a "possible roadmap to convergence" that would allow for the elimination of the GAAP reconciliation for financial statements prepared on an IFRS basis by 2009 - or sooner. The Commission has stayed on the roadmap's course since then, and now asks the question of investors: Can we drop the reconciliation now for firms that report on a pure IFRS basis - that is, with no exemptions from standards as published by the IASB? That's "as published by the IASB" because some countries claim to have adopted IASB standards, but employ their version of a particular accounting standard in lieu of the IASB's. Another important exception is in the European Union: while they require their member countries to use IFRS in their financial reporting, they've carved out an exception for the application of the hedging provisions of International Accounting Standard 39: firms can elect whether or not to follow its hedge accounting provisions.[5]



The SEC can always drop the reconciliation - the better question is whether or not that's a good idea. Check the chart at left and you might not think so: it shows the range of differences between IFRS-based financials and their GAAP-reconciled amounts. It's based on 129 20-Fs found in the SEC's EDGAR system, for 20 filers using "genetically pure" IFRS reporting, another 101 using IFRS as endorsed by the European Union, and another 8 filers whose native tongue is Australian IFRS. All were from fiscal year 2006 filings.

No matter what the strain of IFRS in use may be - and they're all essentially the same in the data presented - the range of differences between the IFRS-reported net income and the United States net income is huge. The same is true of the stockholders' equity reconciliations on the next page. If convergence between the application of U.S. standards and international standards had truly been reached by now, the range of differences in these key measurements should be much narrower. (More on specific differences later.)

The SEC's proposal asks if there is "sufficient comparability among companies using IFRS as published by the IASB to allow investors and others to use and understand the financial statements of foreign private issuers prepared in accordance with IFRS as published by the IASB without a U.S. GAAP reconciliation."[6] This is the most important question of all for the Commission to ask investors in deciding to drop the reconciliation, and the evidence from the filings of foreign issuers is that there's still quite a wide gulf between the two reporting systems.

Not all investors are going to be comfortable without the familiar touchstone of GAAP earnings in the foreign filings. That's contrary to the investor indifference towards the reconciliation uncovered by the Commission in the investor roundtable

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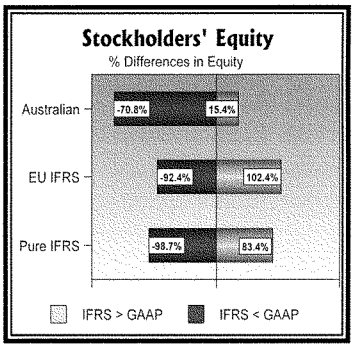
[3] See http://www.fasb.org/news/memorandum.pdf

[4] Full text at http://sec.gov/news/speech/spch040605dtn.htm

[5] According to IASB member Thomas Jones in a panel discussion at the Council of Institutional Investors Annual Meeting on September 17, the Board believes there are only 29 firms in the EU using that exemption out of thousands that are reporting on an IFRS basis.

[6] See Question 3 in "Acceptance from Foreign Private Issuers of Financial Statements Prepared in Accordance with International Financial Reporting Standards Without Reconciliation to U.S. GAAP" at http://sec.gov/rules/proposed/2007/33-8818.pdf

it sponsored to gather inputs on the entire roadmap process earlier this year.[7] While it would be surprising to find investors that use the reconciliation information *directly* in their investment analysis - and therefore say they don't find it useful - there are likely to be many investors who use the reconciliation in a more *indirect* way. One way is that it provides a handy context: if the foreign filer were reporting just like anyone else in the United States, how would they look? Better or worse, on the basis of at least two metrics? Another way is that it provides a proxy for complexity, something that turns off many investors. The sheer number of reconciling items and the magnitude of the differences they create might convince some investors that such foreign investments are outside their range of competence - or that the effort to monitor such an investment might not be worth it. Another indirect use of the reconciliation: investors might use it as "on the job" training to learn about IFRS in real-world applications, rather than try to parse it from the standards or textbooks. Removing the reconciliation would take away a source of education for them, running somewhat counter to the SEC's mission of investor advocacy.



There's no question that convergence of the IFRS and FASB standards is a good idea: investors want to put their capital where it's going to earn the best return, and they like to have choices. Different reporting languages describing the same economic events are an obstacle for capital flowing to where it's best served.

It's just that dropping the reconciliation might not be a great idea right now. There's a "quantity versus quality" aspect to dropping the reconciliation at this time. Certainly it would open up more investment choices to investors because it would make it easier for foreign filers to trade in United States markets. Even if greater number of investment choices was an unalloyed benefit, there are nagging quality considerations if the reconciliation is dropped:

• **Understanding IFRS.** As the above charts show, there may not be as much symmetry between the two reporting regimes as regulators hope. Do investors really understand the nuances of IFRS enough to compare the financials of different companies using different standards? Unlikely: the level of education about IFRS at the American college level is practically nil - and what little there may be is in the curricula for accounting degrees, not finance degrees.

• **Enforcement.** The SEC is depending on the uniform application of IFRS standards among different countries and is relying on cooperation with other countries' securities regulators to monitor and enforce that application. For new registrants in the United States, that's not going to result in enforcement that's quite as direct.

• **Many companies are still inexperienced in applying IFRS.** As mentioned before, the European Union's members have only started using IFRS since the beginning of 2005; many companies have only had two years of experience in applying the new reporting. The SEC has examined filings of IFRS-reporting firms and noted problems in the application of the standards in the areas of cash flow statements, accounting treatments for common control mergers, recapitalizations, reorganizations, and acquisitions of minority interests, and similar transactions.[8]

• **Convergence efforts might cease.** Without a public display of how much work remains to be done to achieve substantive convergence, there's less incentive for the two key standard setters to continue working together. That's unlikely, however: the IASB and the FASB have a harmonious relationship and have demonstrated genuine commitment to the goal of converging their standards. A longer-term plan for eliminating the reconciliation might actually *improve* convergence efforts. Instead of simply achieving convergence by decree, a plan for eliminating the remaining differences by certain dates would galvanize the efforts.

• **Elevating IASB to recognized standard-setter status.** If it eliminates the reconciliation, the SEC effectively recognizes the IASB as a standard setter. The standards of the IASB would have the same stature as the FASB's, yet the independence of the IASB is not the same. European Union politics have played a role in past IASB standards and could do so once again - another risk to achieving truly converged accounting standards between the United States and IFRS.

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[7]See transcript at http://sec.gov/spotlight/ifrsroadmap/ifrsroadmap-transcript.txt

[8]See "SEC Staff Observations in the Review of IFRS Financial Statements," July 2, 2007, found at: http://www.sec.gov/divisions/corpfin/ifrs_staffobservations.htm

II. Beyond Convergence

The Concept Release issued by the SEC in August[9] goes well beyond the convergence issues raised in the reconciliation proposal. Why worry about remedying any disadvantages that U.S. companies might suffer if they have to compete with foreign filers here that use IFRS instead of U.S. GAAP? If you can't beat them, join them, in accounting terms. The Concept Release effectively asks observers what could happen if U.S. companies were allowed to choose reporting on an IFRS basis or a U.S. GAAP basis.

Such a choice would effectively level any uneven playing field that the reconciliation proposal might create - situations that might occur if the reconciliation proposal becomes a reality. Suppose United States firms in a particular industry face competition from foreign companies that report on an IFRS basis and are consistently more profitable because of the differences in the two sets of standards. Without the reconciliation, how would investors make a fair comparison? They really couldn't - so if there isn't any reconciliation, the U.S. firms are at a disadvantage in the capital markets. Allowing them to move their accounting to IFRS for their SEC filings provides relief. That's a scenario that could be on the increase: as the Commission points out in its Concept Release, the continuing acceptance of IFRS around the world could lead to more comparisons between U.S. firms and IFRS-adopting firms, and the comparisons could be especially pointed if those firms elect to trade their securities in the United States should the reconciliation requirement be dropped. Furthermore, as U.S. firms increase their global footprint, it becomes more likely that they may have to report subsidiary operations on an IFRS basis to regulators in foreign countries. U.S. firms might thus be adopting IFRS reporting whether they want to do so or not.

Notice that if the two sets of standards - U.S. and IFRS - were genuinely converged already, none of this would matter. Nor would the reconciliation matter: if the standards produced truly comparable results, the great majority of reconciliations would read "Not Applicable." The question of whether or not U.S. firms should be allowed to use IFRS in their SEC filings would be moot: they'd be substantially the same as U.S. standards. Because they aren't the same, the SEC is compelled to raise questions about the effects of such a move in the Concept Release. That's a strong indication that dropping the reconciliation is a premature idea.

The Concept Release is an exploratory document: it's less of a concrete rule proposal (like dropping the reconciliation) than it is an information-gathering attempt by the Commission. The SEC seeks advice on all the ramifications of offering American firms the choice of reporting in IFRS. Here are some of the key issues.

• First of all: do investors and financial statement preparers believe that there *should* be a choice?

• ***Capital bias.*** Does such a choice give some firms an advantage over others? For instance, large multinational firms might find it cost-effective to switch to IFRS, but small domestic firms with limited resources may not be able to make a transition. If a firm enjoys a lower cost of capital by using IFRS, will some firms be at a natural disadvantage?

• ***Capital formation.*** If the option isn't granted, what happens to capital formation in the United States as IFRS adoption gains steam overseas? Will U.S. companies incorporate elsewhere?

• ***Investor usefulness.*** Will investors be able to understand and use financial statements of U.S. firms prepared on an IFRS basis? (The reconciliation elimination proposal, if enacted, would be a virtual "yes" answer by the SEC.)

• ***Barriers to switching.*** Would there be contractual barriers for U.S. firms in switching to IFRS? For example, many covenants and agreements may be contingent upon figures reported on a U.S. GAAP basis.

• ***Convergence efforts.*** What would be the effect on the FASB and standard-setting in the U.S.? How much would convergence of U.S. standards and IFRS matter? If the FASB and the IASB were unable to converge certain standards, what should the SEC do?

• ***Confidence in IFRS and the IASB process.*** Do investors and financial statement preparers have confidence in the IASB process that has produced IFRS - and if so, are they confident that the process will continue to be robust? If they're confident in the process and the standards, should it matter to them at all if the SEC officially recognizes the principles? Does it matter to investors that the SEC has no direct oversight over the IASB - quite unlike its relationship with the FASB?

• ***Experience-gathering.*** Currently, IFRS is not part of many college accounting curricula; it isn't even covered in the Uniform CPA exam. If the accountants in the United States are unfamiliar with the standards due to lack of exposure, then most investors are likely even farther behind. Should the Commission take it upon itself to provide education for investors? If so - how? What barriers and incentives exist for getting experienced professionals to adapt to a world that would embrace IFRS more fully? What barriers and incentives exist for getting colleges and universities to do the same? Or for changing the content of the CPA exam?

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[9]The "Concept Release on Allowing U.S. Issuers to Prepare Financial Statements in Accordance with International Financial Reporting Standards" can be found at http://sec.gov/rules/concept/2007/33-8831.pdf

• ***Practice issues.*** What actual differences between the two sets of standards would pose problems for financial statement preparers and their auditors in a conversion to an IFRS presentation? Do such differences matter in giving U.S. preparers the choice of a basis? What might be the costs involved in a conversion, and what benefits would justify the costs?

• ***Auditing & regulation.*** Would auditing firms be willing to audit IFRS-basis financial statements? Would the relative "balance of power" within the public accounting hierarchy be affected by giving companies the choice? Would the audit quality of IFRS-based U.S. financial statements be satisfactory? Is the information-sharing ability among international securities regulators sufficiently developed to ensure that IFRS is being applied properly?

• ***Transition & timing.*** Who should make the decision on such a switch in principles - management, board of directors or shareholders? When would investors and auditors be ready for a system that allows a choice? Should the SEC establish a timetable for giving an IFRS-basis option to U.S. firms? Should the choice be available to issuers for a limited time? Should they be allowed to switch back to U.S. GAAP?

The devil is in the details, and the questions posed show that many are considerations needed before allowing a choice. If every action has a reaction, then it's important to think a few steps ahead to figure out the consequences of an action. "Then what?" is the most under-utilized question in the world, but at least the Concept Release forces affected parties to ask that question many times.

The knee-jerk reflex of most investors to the first question posed in the Concept Release is probably "sure, give U.S. companies a choice of accounting basis." That response might be rooted in the twin naive beliefs that accounting doesn't matter, and that the two bases must be awfully similar if the SEC wants to waive the reconciliation for foreign filers. So - why penalize domestic issuers? Let them have a choice and they'll be able to compete more effectively with the foreign filers who'll flock to the United States markets.

Those are incorrect assumptions, because the dissimilarities will matter - and because the proposal to eliminate the reconciliation is rooted more in politics than in standard-setting or regulation. (Or deregulation.) On April 30, 2007, the United States - European Union Summit took place in Washington, DC and resulted in a "Framework for Advancing Transatlantic Economic Integration Between the United States of America and the European Union."[10] One part of that framework included efforts to "promote conditions for the U.S. Generally Accepted Accounting Principles and International Financial Reporting Standards to be recognized in both jurisdictions without the need for reconciliation by 2009 or possibly sooner."[11] While this convergence touchstone has always been part of the SEC's plan - remember, it was in the "convergence roadmap" set forth by Don Nicolaisen in 2005 - it takes on significantly more urgency when the President of the United States commits to other world leaders that it will happen by a certain date.

What may come out of the process is a more concrete plan for converging the IFRS standards with the FASB standards by 2009. Again, that's a process already well in place, one to which both standard setters agreed in 2002 with the Norwalk Agreement - and they've worked diligently towards that end ever since. If there's a more concrete plan that comes out of these two SEC proposals, the big question may be whether "by 2009" means the "beginning of 2009" or the "end of 2009."

As we'll see in the next section, given the magnitudes of the differences produced by the two sets of standards, those extra twelve months might come in pretty handy in any convergence process.

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[10] The framework in on the Web at http://www.whitehouse.gov/news/releases/2007/04/print/20070430-4.html

[11] Ibid, Annex 6, Financial Markets, part b.

III. Are We There Yet?

How much work needs to be done to get IFRS and U.S. GAAP to speak (almost) the same language? As the graphs in the first section showed, the difference between the IFRS-basis earnings and the GAAP-basis earnings can be very wide. Those differences are based on a survey of 2006 20-F filings for 129 SEC registrants using IFRS reporting. Of the 129 firms, 20 of them declared that their financials were presented under International Financial Reporting Standards as published by the IASB, and their auditors attested to that declaration in their opinion. Another 101 firms presented their financials on the basis of IFRS as adopted by the European Union. That's almost the same as using the standards as published by the IASB with one exception: when the EU adopted IFRS as the mother tongue for its constituents, it carved an exception out of International Accounting Standard 39, with regards to derivatives hedging. The exception made by the EU gave firms the choice of sticking with the accounting endorsed by IAS 39 or using their own country's standard; it's not an exception that has been widely chosen, meaning that most of those firms on the "IFRS-EU" basis are on the same playing field as those firms on the strict "IFRS as published by the IASB" basis. Finally, 8 Australian firms rounded out the sample: their standards are the same as the IFRS as published by the IASB.

The differences in the reconciliations show one thing for certain: there are still plenty of gaps between U.S. GAAP and international GAAP. The table below provides an overview of the differences.

Headcount: How IFRS Differences Mattered To Earnings & Equity

Earnings	Total	IFRS < GAAP	IFRS > GAAP	No Difference	Greatest IFRS > GAAP	Least IFRS > GAAP	Greatest IFRS < GAAP	Least IFRS < GAAP
Pure IFRS	20	10	10	–	41.3%	0.1%	-336.6%	-0.7%
IFRS as adopted by EU	101	31	69	1	826.4%	0.5%	-268.3%	-0.0%
Australian	8	3	4	1	570.5%	0.8%	-8.7%	-8.7%
	129	44	83	2	826.4%	0.1%	-336.6%	-0.0%
Median difference	5.1%	-9.1%	12.7%	NA				

Equity	Total	IFRS < GAAP	IFRS > GAAP	No Difference	Greatest IFRS > GAAP	Least IFRS > GAAP	Greatest IFRS < GAAP	Least IFRS < GAAP
Pure IFRS	20	6	14	--	83.4%	0.2%	-98.7%	-0.1%
IFRS as adopted by EU	101	54	47	--	102.4%	0.2%	-92.4%	-0.2%
Australian	8	3	4	1	15.4%	0.3%	-70.8%	-70.8%
	129	63	65	1	102.4%	0.2%	-98.7%	-0.1%
Median difference	0.2%	-12.7%	6.2%	NA				

It's an admittedly small sample, but you can't ignore two facts emerging from it. First, two firms with no difference in earnings on the two bases doesn't suggest a high degree of convergence. The medians suggest that the two accounting systems produce earnings and equity values that are pretty far apart; so does the range information in the shaded area. Second observation: with earnings showing up higher on an IFRS basis than on a GAAP basis over twice as often, U.S. firms might be fairly interested in supporting the SEC's concept release on allowing them a reporting choice.

The SEC has long been concerned about materiality of misstatements in financial reporting, due to errors or intentional misstatements.[12] *While the differences in the two bases of accounting aren't the results of errors or intentional misstatements, they do introduce an element of imprecision into the language of investors, who may be basing their investment decisions on information that may not be as complete as they thought it was. That's one reason the SEC is concerned about the materiality of misstatements, and it's hard to square their position on materiality with the proposal to drop the reconciliation.*

Another fallout from dropping the reconciliation that the SEC might not expect: the differences between the two bases might spur domestic firms to increase their pro forma reporting of earnings. U.S. firms that compete with foreign IFRS reporters might take to putting some sort of hybrid information in their press releases to "help" analysts make comparisons. Increases in pro forma measures don't usually increase the consistency or quality of financial information.

The tables on the next two pages present the IFRS basis and GAAP basis earnings and stockholder's equity drawn from the reconciliations of the 129 filers summarized above, sorted in descending order of the difference between the two bases of accounting.

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[12]For example, see Staff Accounting Bulletin No. 99 - Materiality at http://www.sec.gov/interps/account/sab99.htm

From The Current Reconciliations: Earnings Differences

(All figures in millions of native currencies)	IFRS	GAAP	% Diff.		IFRS	GAAP	% Diff.
OCE NV	72.9	7.8	826.4%	Smith & Nephew	745.0	709.0	5.1%
Head NV	4.4	0.6	666.5%	Westpac Banking Corp.	3,071.0	2,936.0	4.6%
Cityview Corporation Limited	(5.3)	(0.8)	570.5%	British Sky Broadcasting Group	499.0	479.0	4.2%
Bayer AG	1,695.0	269.0	530.1%	BASF AG	3,215.2	3,094.3	3.9%
Rhodia	66.0	15.0	340.0%	National Australia Bank Ltd	4,392.0	4,232.0	3.8%
Global Crossing	13.5	5.8	131.7%	Telefonica SA	6579	6341	3.8%
Fiat SPA	1,519.0	719.0	111.3%	Veolia Environment	758.7	732.1	3.6%
Abbey National PLC	313.0	173.0	80.9%	Invesco /London	490.1	474.5	3.3%
Telecom Italia	3,003.0	1,862.0	61.3%	Total SA	11,768.0	11,400.0	3.2%
Reed Elsevier PLC	625.0	399.0	56.6%	Petrochina Co.	19,143.0	18,719.0	2.3%
Lloyds TSB Group	2,803.0	1,815.0	54.4%	Novo Nordisk	6,452.0	6,310.0	2.3%
Lihir Gold	53.8	36.3	48.4%	Groupe Danone	1,353.0	1,326.0	2.0%
Credicorp	247.3	175.0	41.3%	TNT NV	570.0	557.0	2.0%
WPP Group	482.6	347.0	39.1%	Koninklijke KPN	1,583.0	1,569.0	0.9%
Astrazeneca	6,043.0	4,392.0	37.6%	Australia and NZ Banking Group	3,688.0	3,657.0	0.8%
Aegon NV	2,789.0	2,046.0	36.3%	Nokia	4,306.0	4,275.0	0.7%
Suez	3,606.3	2,683.0	34.4%	Ericsson LM Telephone	26,251.0	26,080.0	0.7%
Novartis	7,019.0	5,264.0	33.3%	Swisscom	1,599.0	1,589.0	0.6%
Sodexho Alliance SA	333.0	250.0	33.2%	Pfeiffer Vacuum Technology	29.6	29.4	0.6%
Pearson PLC	446.0	341.0	30.8%	Publicis Group	443.0	441.0	0.5%
Coles Group	1,163.6	892.3	30.4%	Guangshen Railway Co	98.9	98.5	0.4%
Endesa	3,798.0	2,916.0	30.2%	National Telephone -VZ	1,130,375.0	1,129,351.0	0.1%
Portugal Telecom SGPS SA	954.1	734.7	29.9%	Randgold Resources Ltd	47.5	47.6	0.0%
Metal Storm	(14.2)	(11.1)	28.3%	Atlas South Sea Pearl	3.2	3.2	0.0%
CGG Veritas	157.1	123.9	26.8%	Banco Bilbao Vizcaya Argentaria	4,971.0	4,971.7	-0.0%
Syngenta	634.0	504.0	25.8%	Governor & Company - Ireland	1,651.0	1,655.0	-0.2%
Benetton Group	124.9	99.8	25.2%	Reuters Group PLC	305.0	306.0	-0.3%
Prudential	874.0	705.0	24.0%	Tenaris	1,945.3	1,957.3	-0.6%
Glaxo Smith Kline	5,498.0	4,465.0	23.1%	Sinopec Shanghai Petrochemical	844.4	850.0	-0.7%
China Telecom Corporation	27,142.0	22,046.0	23.1%	Sanofi-Aventis	4,006.0	4,034.0	-0.7%
Vodafone Group	(10,427.0)	(8,514.0)	22.5%	Yanzhou Coal Mining	2,373.0	2,405.8	-1.4%
LaFarge	1,589.0	1,299.0	22.3%	AS Steamship Co Torm	234.5	238.1	-1.5%
National Grid PLC	1,394.0	1,146.0	21.6%	Deutsche Telekom	3,165.0	3,219.0	-1.7%
Rio Tinto PLC	7,867.0	6,649.0	18.3%	China Petroleum & Chemical	53,912.0	54,862.0	-1.7%
Electrolux AB	3,847.0	3,264.0	17.9%	HSBC Holdings PLC	15,789.0	16,358.0	-3.5%
ING Group	8,033.0	6,827.0	17.7%	Euro Disney SCA	(88.6)	(92.9)	-4.6%
AXA	5,085.0	4,330.0	17.4%	Temium	795.4	841.0	-5.4%
CRH plc	1,224.2	1,060.7	15.4%	China Eastern Airlines	(3,452.8)	(3,661.0)	-5.7%
Akzo Nobel	1,153.0	1,000.0	15.3%	Royal Ahold	915.0	973.0	-6.0%
Unilever	5,015.0	4,385.0	14.4%	Delhaize Group	351.9	374.9	-6.1%
Aktiebolaget Volvo	16,318.0	14,309.0	14.0%	Grupo TMM SAB	69.9	75.6	-7.5%
Royal Bank of Scotland Group	6,202.0	5,440.0	14.0%	Eni SPA	9,217.0	10,005.0	-7.9%
Aixtron AG	5.9	5.2	13.1%	Stora Enso	585.0	637.5	-8.2%
Cadbury Schweppes Public Ltd	1,165.0	1,034.0	12.7%	Alumina	511.1	559.8	-8.7%
Repsol	3,348.0	2,972.0	12.7%	Telekom Austria AG	561.8	620.8	-9.5%
Mittal Steel Company	6,086.0	5,405.0	12.6%	France Telecom	6,292.0	6,970.0	-9.7%
Banco Santander Central Hispana	8,245.8	7,414.6	11.2%	Inmarsat Group	128.0	142.0	-9.9%
Hanson PLC	401.5	363.4	10.5%	Technip	200.1	224.2	-10.7%
Allied Irish Banks	2,188.0	1,986.0	10.0%	BG Group	1,824.0	2,102.0	-13.2%
Imperial Tobacco Group	851.0	778.0	9.4%	Intercontinental Hotels Group	405.0	486.0	-16.7%
Air France	891.0	817.0	9.1%	Arcadis	44.9	54.1	-16.9%
Allianz	7,021.0	6,517.0	7.7%	Turkcell Iletisim	832.9	1,015.6	-18.0%
Huaneng Power Intl	6,889.1	6,394.7	7.7%	Enel SPA	4,007.0	4,907.0	-18.3%
Metso	409.0	380.0	7.6%	UPM Kymmene Corp	338.0	424.0	-20.3%
National Westminster Bank PLC	2,586.0	2,423.0	6.7%	Millicom Intl	168.9	230.7	-26.8%
UBS AG	12,257.0	11,486.0	6.7%	SGL Carbon Aktienges	53.6	77.2	-30.6%
Royal Dutch Shell	26,311.0	24,797.0	6.1%	Crucell NV	(87.6)	(138.4)	-36.7%
Barclays Bank	4,571.0	4,318.0	5.9%	China Southern Airlines	126.0	216.0	-41.7%
ABN Amro	4,715.0	4,461.0	5.7%	Alcatel Lucent	(176.0)	(590.0)	-70.2%
BP	22,315.0	21,116.0	5.7%	Protherics PLC	(3.4)	(20.3)	-83.5%
Magyar Telekom	75,453.0	71,481.0	5.6%	Sappi Ltd	(4.0)	(116.0)	-96.6%
Telkom	1,214.0	1,151.0	5.5%	Thomson	55.0	(199.0)	-127.6%
Wolseley PLC	537.0	510.0	5.3%	Trinity Biotech	3.3	(1.9)	-268.3%
Signet Group PLC	141.5	134.4	5.3%	Calcitech	(0.6)	0.3	-336.6%
Corporate Express	123.0	117.0	5.1%				

From The Current Reconciliations: Equity Differences

(All figures in millions of native currencies)	IFRS	GAAP	% Diff.		IFRS	GAAP	% Diff.
Protherics PLC	76.5	37.8	102.4%	Guangshen Railway Co	2,585.8	2,585.0	0.03%
France Telecom	41,754.0	21,326.0	95.8%	Cityview Corporation Limited	2.2	2.2	0.00%
China Eastern Airlines	3,475.6	1,895.7	83.4%	Grupo TMM SAB	182.7	182.8	-0.1%
Portugal Telecom SGPS SA	3,106.0	1,877.6	65.4%	HSBC Holdings PLC	108,352.0	108,540.0	-0.2%
Lihir Gold	811.9	500.8	62.1%	Nokia	12,060.0	12,112.0	-0.4%
Fiat SPA	13,244.0	8,715.0	52.0%	Sinopec Shanghai Petrochemical	18,976.3	19,063.1	-0.5%
Thomson	2,119.0	1,468.0	44.3%	Novartis	41,294.0	41,670.0	-0.9%
Global Crossing	(195.6)	(135.9)	43.9%	Sanofi-Aventis	45,600.0	46,023.0	-0.9%
Euro Disney SCA	393.5	278.1	41.5%	Barclays Bank	19,799.0	20,032.0	-1.2%
Veolia Environment	4,360.8	3,177.8	37.2%	Ericsson LM Telephone	120,113.0	121,898.0	-1.5%
Mittal Steel Company	50,191.0	36,879.0	36.1%	Hanson PLC	2,728.8	2,781.5	-1.9%
Endesa	15,936.0	11,775.0	35.3%	Royal Dutch Shell	105,726.0	108,018.0	-2.1%
Sodexho Alliance SA	2,173.0	1,619.0	34.2%	BP	84,624.0	86,517.0	-2.2%
Swisscom	4,436.0	3,413.0	30.0%	Repsol	18,042.0	18,472.0	-2.3%
TNT NV	2,008.0	1,571.0	27.8%	Delhaize Group	3,525.2	3,610.2	-2.4%
Huaneng Power Intl	50,608.7	40,249.7	25.7%	Smith & Nephew	2,174.0	2,227.0	-2.4%
Electrolux AB	13,194.0	10,653.0	23.9%	Groupe Danone	5,823.0	5,973.0	-2.5%
China Southern Airlines	12,121.0	9,917.0	22.2%	Pearson PLC	3,476.0	3,581.0	-2.9%
Inmarsat Group	389.8	323.6	20.5%	China Telecom Corporation	202,425.0	208,920.0	-3.1%
Turkcell Iletisim	4,118.0	3,449.2	19.4%	CRH plc	7,104.3	7,343.9	-3.3%
Millicom Intl	562.4	469.2	19.0%	Banco Santander	47,072.3	48,705.5	-3.3%
Governor & Company - Ireland	6,724.0	5,679.0	18.4%	Allianz	50,481.0	52,999.0	-4.8%
AXA	47,228.0	40,924.0	15.4%	Westpac Banking Corp	14,186.0	14,965.0	-5.2%
Coles Group	3,598.0	3,118.2	15.4%	Vodafone Group	132,466.0	139,923.0	-5.3%
Telkom	4,391.0	3,885.0	13.0%	Deutsche Telekom	49,670.0	52,747.0	-5.8%
Syngenta	5,666.0	5,046.0	12.3%	Rio Tinto PLC	19,385.0	20,791.0	-6.8%
LaFarge	11,794.0	10,510.0	12.2%	Technip	2,401.3	2,587.4	-7.2%
Ternium	3,757.6	3,435.5	9.4%	Aegon NV	19,155.0	20,994.0	-8.8%
Credicorp	1,533.8	1,403.9	9.2%	Alumina	1,754.8	1,937.5	-9.4%
National Australia Bank Ltd	27,972.0	25,911.0	8.0%	Wolseley PLC	2,592.0	2,869.0	-9.7%
Petrochina Co	79,137.0	73,611.0	7.5%	WPP Group	3,918.4	4,396.9	-10.9%
Enel SPA	24,362.0	22,725.0	7.2%	National Westminster Bank	10,173.0	11,470.0	-11.3%
National Telephone - VZ	3,289,654.0	3,086,579.0	6.6%	Koninklijke KPN	4,195.0	4,786.0	-12.3%
Air France	8,412.0	7,950.0	5.8%	Magyar Telekom	526,039.0	604,400.0	-13.0%
Yanzhou Coal Mining	18,931.8	17,913.2	5.7%	Telefonica SA	20,001.0	23,376.0	-14.4%
Bayer AG	12,851.0	12,181.0	5.5%	ABN Amro	23,597.0	28,080.0	-16.0%
CGG Veritas	877.0	831.9	5.4%	Arcadis	188.9	225.4	-16.2%
Stora Enso	7,799.6	7,400.4	5.4%	Suez	19,503.8	23,684.4	-17.7%
Allied Irish Banks	8,108.0	7,696.0	5.4%	Rhodia	(626.0)	(778.0)	-19.3%
Crucell NV	497.3	473.5	5.0%	Alcatel Lucent	15,493.0	19,284.0	-19.7%
Metso	1,468.0	1,402.0	4.7%	Signet Group PLC	886.3	1,130.9	-21.6%
Lloyds TSB Group	11,155.0	10,752.0	3.7%	Cadbury Schweppes Public Ltd	3,696.0	4,785.0	-22.8%
Trinity Biotech	187.3	181.3	3.7%	UBS AG	49,686.0	64,523.0	-23.0%
Eni SPA	39,029.0	37,656.0	3.6%	Prudential	5,488.0	7,204.0	-23.8%
BG Group	6,465.0	6,251.0	3.4%	Banco Bilbao Vizcaya Argentaria	22,318.5	30,461.2	-26.7%
Benetton Group	1,318.7	1,276.5	3.3%	OCE NV	907.7	1,274.2	-28.8%
SGL Carbon Aktienges	586.1	568.1	3.2%	Abbey National PLC	3,116.0	4,420.0	-29.5%
Novo Nordisk	30,122.0	29,235.0	3.0%	Invesco /London	4,275.1	6,173.9	-30.8%
Aktiebolaget Volvo	87,188.0	84,854.0	2.7%	Unilever	11,672.0	17,068.0	-31.6%
Australia and NZ Banking	19,872.0	19,412.0	2.4%	Publicis Group	2,080.0	3,075.0	-32.4%
Sappi Ltd	1,386.0	1,356.0	2.2%	Telecom Italia	27,098.0	43,823.0	-38.2%
Randgold Resources Ltd	336.1	329.0	2.2%	Reed Elsevier PLC	1,979.0	3,220.0	-38.5%
UPM Kymmene Corp	7,289.0	7,152.0	1.9%	Reuters Group PLC	172.0	281.0	-38.8%
ING Group	41,215.0	40,647.0	1.4%	Akzo Nobel	4,144.0	7,162.0	-42.1%
Tenaris	5,338.6	5,265.8	1.4%	Total SA	40,321.0	71,884.0	-43.9%
BASF AG	18,578.1	18,394.0	1.0%	Royal Ahold	5,270.0	10,433.0	-49.5%
Corporate Express	1,527.0	1,512.0	1.0%	Astrazeneca	15,304.0	32,467.0	-52.9%
Aixtron AG	183.9	182.3	0.9%	Intercontinental Hotels Group	678.0	1,498.0	-54.7%
AS Steamship Co Torm	1,280.8	1,271.4	0.7%	National Grid PLC	4,125.0	9,330.0	-55.6%
Royal Bank of Scotland	40,227.0	40,077.0	0.4%	Imperial Tobacco Group	579.0	1,503.0	-61.5%
Pfeiffer Vacuum Technology	139.0	138.6	0.3%	Metal Storm	2.4	8.3	-70.8%
Atlas South Sea Pearl	18.2	18.2	0.3%	Glaxo Smith Kline	9,648.0	34,653.0	-72.2%
China Petroleum & Chemical	262,845.0	262,297.0	0.2%	British Sky Broadcasting	47.0	616.0	-92.4%
Telekom Austria AG	2,823.5	2,818.8	0.2%	Calcitech	(0.1)	(5.9)	-98.7%
Head NV	155.9	155.6	0.2%				

What caused the differences could fill a book - but it will fill only the next two pages for the 20 "IFRS as issued by the IASB" filers. Only these 20 are presented here due to space limitations.

"Pure IFRS" Filers: Earnings Reconciliation To GAAP (Part 1)

(All figures in millions of native currencies)	Count	Novartis	UBS AG	Syngenta	Sappi	Telkom	Swiss-com	Huaneng Power	China Southern Airlines	China Petr.& Chem.	China Eastern Airlines
Net tax effect of GAAP adjustments	12	--	(146.0)	46.0	(19.0)	(14.0)	--	(96.4)	(18.0)	(421.0)	(23.9)
Deferred taxes methodology	10	125.0	--	27.0	(12.0)	(47.0)	--	--	(10.0)	--	--
Other	9	(68.0)	130.0	9.0	(25.0)	(12.0)	--	(26.2)	--	--	27.0
PP&E/Long-term assets	8	58.0	--	--	4.0	--	--	--	--	1,420.0	210.4
Pensions/OPEBs	8	(188.0)	165.0	(48.0)	(44.0)	7.0	(16.0)	--	--	--	--
Minority Interests on adjustments	7	(27.0)	--	--	--	(28.0)	--	--	--	(93.0)	--
Capitalization of interest	6	--	--	--	--	--	20.0	8.8	(35.0)	(40.0)	--
Purchase price accounting	5	(58.0)	(31.0)	(56.0)	--	--	--	315.3	74.0	--	--
Asset impairment	5	--	--	2.0	(43.0)	1.0	--	(30.1)	--	38.0	--
Goodwill and business combinations	4	64.0	3.0	--	18.0	--	--	152.1	--	--	--
IFRS Minority Interests	4	--	--	--	--	--	--	(817.9)	--	--	139.3
Securities and investments	4	(114.0)	(107.0)	--	--	--	--	--	--	--	--
Inventory	4	103.0	--	(13.0)	(1.0)	(1.0)	--	--	--	--	--
Derivatives	4	--	372.0	--	7.0	14.0	--	--	--	--	--
Leases	4	--	--	--	1.0	--	32.0	--	93.0	--	(126.5)
Compensation costs: share based	3	(5.0)	(475.0)	--	(2.0)	--	--	--	--	--	--
Derivatives on own shares	3	--	6.0	(60.0)	--	17.0	--	--	--	--	--
Equity method investments	3	--	--	--	--	--	--	--	(14.0)	--	--
Foreign exchange gains/losses	2	--	--	--	--	--	--	--	--	46.0	--
Restructuring provisions	2	--	--	(9.0)	4.0	--	--	--	--	--	--
Revenue recognition	2	--	--	(1.0)	--	--	18.0	--	--	--	--
Fair value of securities	1	--	(682.0)	--	--	--	--	--	--	--	--
Translation of financial statements	1	--	--	--	--	--	--	--	--	--	--
Start-up costs	1	--	--	--	--	--	(40.0)	--	--	--	--
Real estate investments	1	--	(4.0)	--	--	--	--	--	--	--	--
Consolidation/deconsolidation of VIEs	1	--	(2.0)	--	--	--	--	--	--	--	--
Other intangible assets	1	(441.0)	--	--	--	--	--	--	--	--	--
GAAP Disc. Ops	1	114.0	--	--	--	--	--	--	--	--	--
Debt restructuring	1	--	--	--	--	--	--	--	--	--	--
Assets held for disposal	1	--	--	--	--	--	--	--	--	--	(434.6)
Onerous contracts	1	--	--	--	--	--	(5.0)	--	--	--	--
Environmental provisions	1	--	--	(27.0)	--	--	--	--	--	--	--
Mining rights	1	--	--	--	--	--	--	--	--	--	--
In-process R&D	1	(1,308.0)	--	--	--	--	--	--	--	--	--
Asset retirement obligations	1	--	--	--	--	--	(2.0)	--	--	--	--
Share buyback:- treasury shares	1	--	--	--	--	--	(17.0)	--	--	--	--
Convertible debt	1	--	--	--	--	--	--	--	--	--	--
Total reconciling items		(1,755.0)	(771.0)	(130.0)	(112.0)	(63.0)	(10.0)	(494.4)	90.0	950.0	(208.2)
IFRS Earnings		7,019.0	12,257.0	634.0	(4.0)	1,214.0	1,599.0	6,889.1	126.0	53,912.0	(3,452.8)
US GAAP Earnings		5,264.0	11,486.0	504.0	(116.0)	1,151.0	1,589.0	6,394.7	216.0	54,862.0	(3,661.0)
Difference in earnings		33%	7%	26%	-97%	5%	1%	8%	-42%	-2%	-6%
	Avg.										
Positive adjustments	2.5	5	5	4	5	4	3	3	2	3	3
Negative adjustments	3.8	8	7	7	6	5	5	4	4	3	3
Total adjustments	6.2	13	12	11	11	9	8	7	6	6	6

Could analysts and investors come up with the adjustments noted above and on the next page all on their own? Highly doubtful; those adjustments are the result of transactions being given different accounting treatments. Those transactions reside deep in the bowels of the firms' general ledger and that's where the different accounting treatments are applied - not at the 30,000 foot level that analysts and investors see. Investors who believe that the two systems result in consistently close results or that they can compensate for the major differences that occur without help from the firm are kidding themselves.

"Pure IFRS" Filers: Earnings Reconciliation To GAAP (Part 2)

(All figures in millions of native currencies)	Turkcell Iletisim	Grupo TMM	Petro-china	Nat'l Telephone Venezuela	Yanzhou Coal Mining	Sinopec Shanghai Petrochem.	Credi-corp	China Telecom Corp.	Calcitech	Guangshen Railway
Net tax effect of GAAP adjustments	--	--	(174.0)	--	--	(1.0)	(5.1)	1,737.0	--	--
Other	--	--	--	--	(97.8)	--	--	--	--	(0.4)
Deferred taxes methodology	(93.9)	(0.4)	--	(994.0)	(64.3)	--	--	(17.0)	--	--
PP&E/Long-term assets	--	--	528.0	--	187.9	15.9	--	(6,816.0)	--	--
Pensions/OPEBs	--	(3.6)	--	9,588.0	--	--	--	--	--	--
Minority Interests on adjustments	--	(0.0)	(1,128.0)	(2,955.0)	--	--	(12.0)	--	--	--
Capitalization of interest	--	--	--	(6,583.0)	--	(9.3)	--	--	--	--
Purchase price accounting	--	--	--	--	--	--	--	--	--	--
Asset impairment	--	--	--	--	--	--	--	--	--	--
Goodwill and business combinations	--	--	--	--	--	--	--	--	--	--
IFRS Minority Interests	42.6	--	--	--	--	--	--	--	--	(0.0)
Securities and investments	(4.6)	--	--	--	--	--	(55.2)	--	--	--
Inventory	--	--	--	--	--	--	--	--	--	--
Derivatives	--	--	--	--	--	--	--	--	0.9	--
Leases	--	--	--	--	--	--	--	--	--	--
Compensation costs: share based	--	--	--	--	--	--	--	--	--	--
Derivatives on own shares	--	--	--	--	--	--	--	--	--	--
Equity method investments	(1.6)	--	350.0	--	--	--	--	--	--	--
Foreign exchange gains/losses	--	1.2	--	--	--	--	--	--	--	--
Restructuring provisions	--	--	--	--	--	--	--	--	--	--
Revenue recognition	--	--	--	--	--	--	--	--	--	--
Fair value of securities	--	--	--	--	--	--	--	--	--	--
Translation of financial statements	240.2	--	--	--	--	--	--	--	--	--
Start-up costs	--	--	--	--	--	--	--	--	--	--
Real estate investments	--	--	--	--	--	--	--	--	--	--
Consolidation/deconsolidation of VIEs	--	--	--	--	--	--	--	--	--	--
Other intangible assets	--	--	--	--	--	--	--	--	--	--
GAAP Disc. Ops	--	--	--	--	--	--	--	--	--	--
Debt restructuring	--	8.4	--	--	--	--	--	--	--	--
Assets held for disposal	--	--	--	--	--	--	--	--	--	--
Onerous contracts	--	--	--	--	--	--	--	--	--	--
Environmental provisions	--	--	--	--	--	--	--	--	--	--
Mining rights	--	--	--	--	7.0	--	--	--	--	--
In-process R&D	--	--	--	--	--	--	--	--	--	--
Asset retirement obligations	--	--	--	--	--	--	--	--	--	--
Share buyback: treasury shares	--	--	--	--	--	--	--	--	--	--
Convertible debt	--	--	--	--	--	--	--	--	(0.1)	--
Total reconciling items	182.7	5.6	(424.0)	(1,024.0)	32.8	5.6	(72.2)	(5,096.0)	0.9	(0.4)
IFRS Earnings	832.9	69.9	19,143.0	1,130,375.0	2,373.0	844.4	247.3	27,142.0	(0.6)	98.9
US GAAP Earnings	1,015.6	75.6	18,719.0	1,129,351.0	2,405.8	850.0	175.0	22,046.0	0.3	98.5
Difference in earnings	*-18%*	*-7%*	*2%*	*0%*	*-1%*	*-1%*	*41%*	*23%*	*-337%*	*0%*
Positive adjustments	2	2	2	1	2	1	0	1	1	0
Negative adjustments	3	3	2	3	2	2	3	2	1	2
Total adjustments	**5**	**5**	**4**	**4**	**4**	**3**	**3**	**3**	**2**	**2**

Should the SEC quit on the idea of dropping the reconciliation? Should it abandon efforts to hasten convergence? "No" to both questions. That reconciliation can be a tool for the SEC to prod the FASB and IASB to hasten their convergence efforts by (the end of) 2009, if they help the standard setters focus efforts on the standards creating the most significant differences. If the differences are due to legacy differences that won't ever go away - like the differences between accounting treatments for business combinations before the two systems became more alike - then those differences should continue to be disclosed. Perhaps a full-fledged reconciliation might not be necessary, but investors deserve to know where convergence efforts can't improve financial reporting.

To simply eliminate the reconciliation anytime sooner, without working on those differences, is to simply declare victory and go home. It's convergence by decree, not in substance.

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Understanding the Securitization of Subprime Mortgage Credit

Adam B. Ashcraft
Til Schuermann

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Understanding the Securitization of Subprime Mortgage Credit

Adam B. Ashcraft and Til Schuermann

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Abstract

In this paper, we provide an overview of the subprime mortgage securitization process and the seven key informational frictions that arise. We discuss the ways that market participants work to minimize these frictions and speculate on how this process broke down. We continue with a complete picture of the subprime borrower and the subprime loan, discussing both predatory borrowing and predatory lending. We present the key structural features of a typical subprime securitization, document how rating agencies assign credit ratings to mortgage-backed securities, and outline how these agencies monitor the performance of mortgage pools over time. Throughout the paper, we draw upon the example of a mortgage pool securitized by New Century Financial during 2006.

Key words: subprime mortgage credit, securitization, rating agencies, principal agent, moral hazard

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Executive Summary

Section numbers containing more detail are provided in [square] brackets.

- Until very recently, the origination of mortgages and issuance of mortgage-backed securities (MBS) was dominated by loans to prime borrowers conforming to underwriting standards set by the Government Sponsored Agencies (GSEs) [2]
  - By 2006, non-agency origination of $1.480 trillion was more than 45% larger than agency origination, and non-agency issuance of $1.033 trillion was 14% larger than agency issuance of $905 billion.

- The securitization process is subject to seven key frictions.
  1) Fictions between the mortgagor and the originator: predatory lending [2.1.1]
     - Subprime borrowers can be financially unsophisticated
     - Resolution: federal, state, and local laws prohibiting certain lending practices, as well as the recent regulatory guidance on subprime lending
  2) Frictions between the originator and the arranger: Predatory borrowing and lending [2.1.2]
     - The originator has an information advantage over the arranger with regard to the quality of the borrower.
     - Resolution: due diligence of the arranger. Also the originator typically makes a number of representations and warranties (R&W) about the borrower and the underwriting process. When these are violated, the originator generally must repurchase the problem loans.
  3) Frictions between the arranger and third-parties: Adverse selection [2.1.3]
     - The arranger has more information about the quality of the mortgage loans which creates an adverse selection problem: the arranger can securitize bad loans (the lemons) and keep the good ones. This third friction in the securitization of subprime loans affects the relationship that the arranger has with the warehouse lender, the credit rating agency (CRA), and the asset manager.
     - Resolution: haircuts on the collateral imposed by the warehouse lender. Due diligence conducted by the portfolio manager on the arranger and originator. CRAs have access to some private information; they have a franchise value to protect.
  4) Frictions between the servicer and the mortgagor: Moral hazard [2.1.4]
     - In order to maintain the value of the underlying asset (the house), the mortgagor (borrower) has to pay insurance and taxes on and generally maintain the property. In the approach to and during delinquency, the mortgagor has little incentive to do all that.
     - Resolution: Require the mortgagor to regularly escrow funds for both insurance and property taxes. When the borrower fails to advance these funds, the servicer is typically required to make these payments on behalf of the investor. However, limited effort on the part of the mortgagor to maintain the property has no resolution, and creates incentives for quick foreclosure.
  5) Frictions between the servicer and third-parties: Moral hazard [2.1.5]
     - The income of the servicer is increasing in the amount of time that the loan is serviced. Thus the servicer would prefer to keep the loan on its books for as long as

possible and therefore has a strong preference to modify the terms of a delinquent loan and to delay foreclosure.

- In the event of delinquency, the servicer has a natural incentive to inflate expenses for which it is reimbursed by the investors, especially in good times when recovery rates on foreclosed property are high.
- Resolution: servicer quality ratings and a master servicer. Moody's estimates that servicer quality can affect the realized level of losses by plus or minus 10 percent. The master servicer is responsible for monitoring the performance of the servicer under the pooling and servicing agreement.

6) Frictions between the asset manager and investor: Principal-agent [2.1.6]
   - The investor provides the funding for the MBS purchase but is typically not financially sophisticated enough to formulate an investment strategy, conduct due diligence on potential investments, and find the best price for trades. This service is provided by an asset manager (agent) who may not invest sufficient effort on behalf of the investor (principal).
   - Resolution: investment mandates and the evaluation of manager performance relative to a peer group or benchmark
7) Frictions between the investor and the credit rating agencies: Model error [2.1.7]
   - The rating agencies are paid by the arranger and not investors for their opinion, which creates a potential conflict of interest. The opinion is arrived at in part through the use of models (about which the rating agency naturally knows more than the investor) which are susceptible to both honest and dishonest errors.
   - Resolution: the reputation of the rating agencies and the public disclosure of ratings and downgrade criteria.

- Five frictions caused the subprime crisis [2.2]
  - Friction #1: Many products offered to sub-prime borrowers are very complex and subject to mis-understanding and/or mis-representation.
  - Friction #6: Existing investment mandates do not adequately distinguish between structured and corporate ratings. Asset managers had an incentive to reach for yield by purchasing structured debt issues with the same credit rating but higher coupons as corporate debt issues.[1]
  - Friction #3: Without due diligence of the asset manager, the arranger's incentives to conduct its own due diligence are reduced. Moreover, as the market for credit derivatives developed, including but not limited to the ABX, the arranger was able to limit its funded exposure to securitizations of risky loans.
  - Friction #2: Together, frictions 1, 2 and 6 worsened the friction between the originator and arranger, opening the door for predatory borrowing and lending.
  - Friction #7: Credit ratings were assigned to subprime MBS with significant error. Even though the rating agencies publicly disclosed their rating criteria for subprime, investors lacked the ability to evaluate the efficacy of these models.
  - We suggest some improvements to the existing process, though it is not clear that any additional regulation is warranted as the market is already taking remedial steps in the right direction.

[1] The fact that the market demands a higher yield for similarly rated structured products than for straight corporate bonds ought to provide a clue to the potential of higher risk.

- An overview of subprime mortgage credit [3] and subprime MBS [4]

- Credit rating agencies (CRAs) play an important role by helping to resolve many of the frictions in the securitization process
  - A credit rating by a CRA represents an overall assessment and opinion of a debt obligor's creditworthiness and is thus meant to reflect only credit or default risk. It is meant to be directly comparable across countries and instruments. Credit ratings typically represent an unconditional view, sometimes called "cycle-neutral" or "through-the-cycle." [5.1]
  - Especially for investment grade ratings, it is very difficult to tell the difference between a "bad" credit rating and bad luck [5.3]
  - The subprime credit rating process can be split into two steps: (1) estimation of a loss distribution, and (2) simulation of the cash flows. With a loss distribution in hand, it is straightforward to measure the amount of credit enhancement necessary for a tranche to attain a given credit rating. [5.4]
  - There seem to be substantial differences between corporate and asset backed securities (ABS) credit ratings (an MBS is just a special case of an ABS – the assets are mortgages) [5.5]
    - Corporate bond (obligor) ratings are largely based on firm-specific risk characteristics. Since ABS structures represent claims on cash flows from a *portfolio* of underlying assets, the rating of a structured credit product must take into account systematic risk.
    - ABS ratings refer to the performance of a static pool instead of a dynamic corporation.
    - ABS ratings rely heavily on quantitative models while corporate debt ratings rely heavily on analyst judgment.
    - Unlike corporate credit ratings, ABS ratings rely explicitly on a forecast of (macro)economic conditions.
    - While an ABS credit rating for a particular rating grade should have similar expected loss to corporate credit rating of the same grade, the volatility of loss (i.e. the *un*expected loss) can be quite different across asset classes.
    - Rating agency must respond to shifts in the loss distribution by increasing the amount of needed credit enhancement to keep ratings stable as economic conditions deteriorate. It follows that the stabilizing of ratings through the cycle is associated with pro-cyclical credit enhancement: as the housing market improves, credit enhancement falls; as the housing market slows down, credit enhancement increases which has the potential to amplify the housing cycle. [5.6]
    - An important part of the rating process involves simulating the cash flows of the structure in order to determine how much credit excess spread will receive towards meeting the required credit enhancement. This is very complicated, with results that can be rather sensitive to underlying model assumptions. [5.7]

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1. Introduction

How does one securitize a pool of mortgages, especially subprime mortgages? What is the process from origination of the loan or mortgage to the selling of debt instruments backed by a pool of those mortgages? What problems creep up in this process, and what are the mechanisms in place to mitigate those problems? This paper seeks to answer all of these questions. Along the way we provide an overview of the market and some of the key players, and provide an extensive discussion of the important role played by the credit rating agencies.

In Section 2, we provide a broad description of the securitization process and pay special attention to seven key frictions that need to be resolved. Several of these frictions involve moral hazard, adverse selection and principal-agent problems. We show how each of these frictions is worked out, though as evidenced by the recent problems in the subprime mortgage market, some of those solutions are imperfect. In Section 3, we provide an overview of subprime mortgage credit; our focus here is on the subprime borrower and the subprime loan. We offer, as an example a pool of subprime mortgages New Century securitized in June 2006. We discuss how predatory lending and predatory borrowing (i.e. mortgage fraud) fit into the picture. Moreover, we examine subprime loan performance within this pool and the industry, speculate on the impact of payment reset, and explore the ABX and the role it plays. In Section 4, we examine subprime mortgage-backed securities, discuss the key structural features of a typical securitization, and, once again illustrate how this works with reference to the New Century securitization. We finish with an examination of the credit rating and rating monitoring process in Section 5. Along the way we reflect on differences between corporate and structured credit ratings, the potential for pro-cyclical credit enhancement to amplify the housing cycle, and document the performance of subprime ratings. Finally, in Section 6, we review the extent to which investors rely upon on credit rating agencies views, and take as a typical example of an investor: the Ohio Police & Fire Pension Fund.

We reiterate that the views presented here are our own and not those of the Federal Reserve Bank of New York or the Federal Reserve System. And, while the paper focuses on subprime mortgage credit, note that there is little qualitative difference between the securitization and ratings process for Alt-A and home equity loans. Clearly, recent problems in mortgage markets are not confined to the subprime sector.

2. Overview of subprime mortgage credit securitization

Until very recently, the origination of mortgages and issuance of mortgage-backed securities (MBS) was dominated by loans to prime borrowers conforming to underwriting standards set by the Government Sponsored Agencies (GSEs). Outside of conforming loans are non-agency asset classes that include Jumbo, Alt-A, and Subprime. Loosely speaking, the Jumbo asset class includes loans to prime borrowers with an original principal balance larger than the conforming limits imposed on the agencies by Congress;[2] the Alt-A asset class involves loans to borrowers with good credit but include more aggressive underwriting than the conforming or Jumbo classes (i.e. no documentation of income, high leverage); and the Subprime asset class involves loans to borrowers with poor credit history.

Table 1 documents origination and issuance since 2001 in each of four asset classes. In 2001, banks originated $1.433 trillion in conforming mortgage loans and issued $1.087 trillion in mortgage-backed securities secured by those mortgages, shown in the "Agency" columns of Table 1. In contrast, the non-agency sector originated $680 billion ($190 billion subprime + $60 billion Alt-A + $430 billion jumbo) and issued $240 billion ($87.1 billion subprime + $11.4 Alt-A + $142.2 billion jumbo), and most of these were in the Jumbo sector. The Alt-A and Subprime sectors were relatively small, together comprising $250 billion of $2.1 trillion (12 percent) in total origination during 2001.

Table 1: Origination and Issue of Non-Agency Mortgage Loans

	Sub-prime			Alt-A			Jumbo			Agency		
Year	Origination	Issuance	Ratio	Origination	Issuance	Ratio	Origination	Issuance	Ratio	Origination	Issuance	Ratio
2001	$ 190.00	$ 87.10	46%	$ 60.00	$ 11.40	19%	$ 430.00	$ 142.20	33%	$ 1,433.00	$1,087.60	76%
2002	$ 231.00	$ 122.70	53%	$ 68.00	$ 53.50	79%	$ 576.00	$ 171.50	30%	$ 1,898.00	$1,442.60	76%
2003	$ 335.00	$ 195.00	58%	$ 85.00	$ 74.10	87%	$ 655.00	$ 237.50	36%	$ 2,690.00	$2,130.90	79%
2004	$ 540.00	$ 362.63	67%	$ 200.00	$ 158.60	79%	$ 515.00	$ 233.40	45%	$ 1,345.00	$1,018.60	76%
2005	$ 625.00	$ 465.00	74%	$ 380.00	$ 332.30	87%	$ 570.00	$ 280.70	49%	$ 1,180.00	$ 964.80	82%
2006	$ 600.00	$ 448.60	75%	$ 400.00	$ 365.70	91%	$ 480.00	$ 219.00	46%	$ 1,040.00	$ 904.60	87%

Source: Inside Mortgage Finance (2007).
Notes: Jumbo origination includes non-agency prime. Agency origination includes conventional/conforming and FHA/VA loans. Agency issuance GNMA, FHLMC, and FNMA. Figures are in billions of USD.

A reduction in long-term interest rates through the end of 2003 was associated with a sharp increase in origination and issuance across all asset classes. While the conforming markets peaked in 2003, the non-agency markets continued rapid growth through 2005, eventually eclipsing activity in the conforming market. In 2006, non-agency production of $1.480 trillion was more than 45 percent larger than agency production, and non-agency issuance of $1.033 trillion was larger than agency issuance of $905 billion.

Interestingly, the increase in Subprime and Alt-A origination was associated with a significant increase in the ratio of issuance to origination, which is a reasonable proxy for the fraction of loans sold. In particular, the ratio of subprime MBS issuance to subprime mortgage origination was close to 75 percent in both 2005 and 2006. While there is typically a one-quarter lag between origination and issuance, the data document that a large and increasing fraction of both subprime and Alt-A loans are sold to investors, and very little is retained on the balance sheets of the institutions who originate them. The process through which loans are removed from the

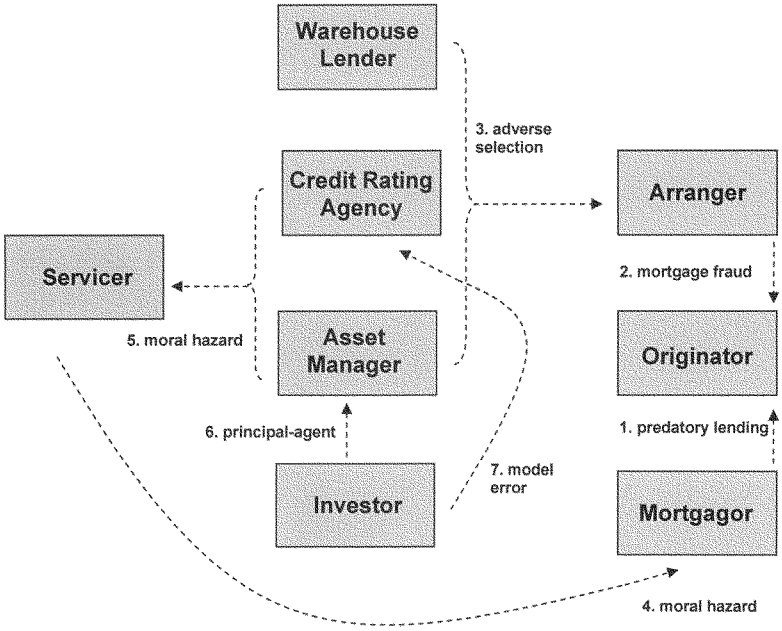
[2] This limit is currently $417,000.

balance sheet of lenders and transformed into debt securities purchased by investors is called securitization.

2.1. The seven key frictions

The securitization of mortgage loans is a complex process that involves a number of different players. Figure 1 provides an overview of the players, their responsibilities, the important frictions that exist between the players, and the mechanisms used in order to mitigate these frictions. An overarching friction which plagues every step in the process is asymmetric information: usually one party has more information about the asset than another. We think that understanding these frictions and evaluating the mechanisms designed to mitigate their importance is essential to understanding how the securitization of subprime loans could generate bad outcomes.[3]

Figure 1: Key Players and Frictions in Subprime Mortgage Credit Securitization



[3] A recent piece in *The Economist* (September 20, 2007) provides a nice description of some of the frictions described here.

Table 2: Top Subprime Mortgage Originators

		2006		2005	
Rank	Lender	Volume ($b)	Share (%)	Volume ($b)	%Change
1	HSBC	$52.8	8.8%	$58.6	-9.9%
2	New Century Financial	$51.6	8.6%	$52.7	-2.1%
3	Countrywide	$40.6	6.8%	$44.6	-9.1%
4	CitiGroup	$38.0	6.3%	$20.5	85.5%
5	WMC Mortgage	$33.2	5.5%	$31.8	4.3%
6	Fremont	$32.3	5.4%	$36.2	-10.9%
7	Ameriquest Mortgage	$29.5	4.9%	$75.6	-61.0%
8	Option One	$28.8	4.8%	$40.3	-28.6%
9	Wells Fargo	$27.9	4.6%	$30.3	-8.1%
10	First Franklin	$27.7	4.6%	$29.3	-5.7%
	Top 25	$543.2	90.5%	$604.9	-10.2%
	Total	$600.0	100.0%	$664.0	-9.8%

Source: Inside Mortgage Finance (2007)

Table 3: Top Subprime MBS Issuers

		2006		2005	
Rank	Lender	Volume ($b)	Share (%)	Volume ($b)	%Change
1	Countrywide	$38.5	8.6%	$38.1	1.1%
2	New Century	$33.9	7.6%	$32.4	4.8%
3	Option One	$31.3	7.0%	$27.2	15.1%
4	Fremont	$29.8	6.6%	$19.4	53.9%
5	Washington Mutual	$28.8	6.4%	$18.5	65.1%
6	First Franklin	$28.3	6.3%	$19.4	45.7%
7	Residential Funding Corp	$25.9	5.8%	$28.7	-9.5%
8	Lehman Brothers	$24.4	5.4%	$35.3	-30.7%
9	WMC Mortgage	$21.6	4.8%	$19.6	10.5%
10	Ameriquest	$21.4	4.8%	$54.2	-60.5%
	Top 25	$427.6	95.3%	$417.6	2.4%
	Total	$448.6	100.0%	$508.0	-11.7%

Source: Inside Mortgage Finance (2007)

Table 4: Top Subprime Mortgage Servicers

		2006		2005	
Rank	Lender	Volume ($b)	Share (%)	Volume ($b)	%Change
1	Countrywide	$119.1	9.6%	$120.6	-1.3%
2	JP MorganChase	$83.8	6.8%	$67.8	23.6%
3	CitiGroup	$80.1	6.5%	$47.3	39.8%
4	Option One	$69.0	5.6%	$79.5	-13.2%
5	Ameriquest	$60.0	4.8%	$75.4	-20.4%
6	Ocwen Financial Corp	$52.2	4.2%	$42.0	24.2%
7	Wells Fargo	$51.3	4.1%	$44.7	14.8%
8	Homecomings Financial	$49.5	4.0%	$55.2	-10.4%
9	HSBC	$49..5	4.0%	$43.8	13.0%
10	Litton Loan Servicing	$47.0	4.0%	$42.0	16.7%
	Top 30	$1,105.7	89.2%	$1,057.8	4.5%
	Total	$1,240	100.0%	$1,200	3.3%

Source: Inside Mortgage Finance (2007)

2.1.1. Frictions between the mortgagor and originator: Predatory lending

The process starts with the mortgagor or borrower, who applies for a mortgage in order to purchase a property or to refinance and existing mortgage. The originator, possibly through a broker (yet another intermediary in this process), underwrites and initially funds and services the mortgage loans. Table 2 documents the top 10 subprime originators in 2006, which are a healthy mix of commercial banks and non-depository specialized mono-line lenders. The originator is compensated through fees paid by the borrower (points and closing costs), and by the proceeds of the sale of the mortgage loans. For example, the originator might sell a portfolio of loans with an initial principal balance of $100 million for $102 million, corresponding to a gain on sale of $2 million. The buyer is willing to pay this premium because of anticipated interest payments on the principal.

The first friction in securitization is between the borrower and the originator. In particular, subprime borrowers can be financially unsophisticated. For example, a borrower might be unaware of all of the financial options available to him. Moreover, even if these options are known, the borrower might be unable to make a choice between different financial options that is in his own best interest. This friction leads to the possibility of predatory lending, defined by Morgan (2005) as the welfare-reducing provision of credit. The main safeguards against these practices are federal, state, and local laws prohibiting certain lending practices, as well as the recent regulatory guidance on subprime lending. See Appendix 1 for further discussion of these issues.

2.1.2. Frictions between the originator and the arranger: Predatory lending and borrowing

The pool of mortgage loans is typically purchased from the originator by an institution known as the arranger or issuer. The first responsibility of the arranger is to conduct due diligence on the originator. This review includes but is not limited to financial statements, underwriting guidelines, discussions with senior management, and background checks. The arranger is responsible for bringing together all the elements for the deal to close. In particular, the arranger creates a bankruptcy-remote trust that will purchase the mortgage loans, consults with the credit rating agencies in order to finalize the details about deal structure, makes necessary filings with the SEC, and underwrites the issuance of securities by the trust to investors. Table 3 documents the list of the top 10 subprime MBS issuers in 2006. In addition to institutions which both originate and issue on their own, the list of issuers also includes investment banks that purchase mortgages from originators and issue their own securities. The arranger is typically compensated through fees charged to investors and through any premium that investors pay on the issued securities over their par value.

The second friction in the process of securitization involves an information problem between the originator and arranger. In particular, the originator has an information advantage over the arranger with regard to the quality of the borrower. Without adequate safeguards in place, an originator can have the incentive to collaborate with a borrower in order to make significant misrepresentations on the loan application, which, depending on the situation, could be either construed as predatory lending (the lender convinces the borrower to borrow "too much) or

predatory borrowing (the borrower convinces the lender to lend "too much"). See Appendix 2 on predatory borrowing for further discussion.

There are several important checks designed to prevent mortgage fraud, the first being the due diligence of the arranger. In addition, the originator typically makes a number of representations and warranties (R&W) about the borrower and the underwriting process. When these are violated, the originator generally must repurchase the problem loans. However, in order for these promises to have a meaningful impact on the friction, the originator must have adequate capital to buy back those problem loans. Moreover, when an arranger does not conduct or routinely ignores its own due diligence, as suggested in a recent Reuters piece by Rucker (1 Aug 2007), there is little to stop the originator from committing widespread mortgage fraud.

2.1.3. Frictions between the arranger and third-parties: Adverse selection

There is an important information asymmetry between the arranger and third-parties concerning the quality of mortgage loans. In particular, the fact that the arranger has more information about the quality of the mortgage loans creates an adverse selection problem: the arranger can securitize bad loans (the lemons) and keep the good ones (or securitize them elsewhere). This third friction in the securitization of subprime loans affects the relationship that the arranger has with the warehouse lender, the credit rating agency (CRA), and the asset manager. We discuss how each of these parties responds to this classic lemons problem.

Adverse selection and the warehouse lender

The arranger is responsible for funding the mortgage loans until all of the details of the securitization deal can be finalized. When the arranger is a depository institution, this can be done easily with internal funds. However, mono-line arrangers typically require funding from a third-party lender for loans kept in the "warehouse" until they can be sold. Since the lender is uncertain about the value of the mortgage loans, it must take steps to protect itself against overvaluing their worth as collateral. This is accomplished through due diligence by the lender, haircuts to the value of collateral, and credit spreads. The use of haircuts to the value of collateral imply that the bank loan is over-collateralized (o/c) – it might extend a $9 million loan against collateral of $10 million of underlying mortgages –, forcing the arranger to assume a funded equity position – in this case $1 million – in the loans while they remain on its balance sheet.

We emphasize this friction because an adverse change in the warehouse lender's views of the value of the underlying loans can bring an originator to its knees. The failure of dozens of mono-line originators in the first half of 2007 can be explained in large part by the inability of these firms to respond to increased demands for collateral by warehouse lenders (Wei, 2007; Sichelman, 2007).

Adverse selection and the asset manager

The pool of mortgage loans is sold by the arranger to a bankruptcy-remote trust, which is a special-purpose vehicle that issues debt to investors. This trust is an essential component of credit risk transfer, as it protects investors from bankruptcy of the originator or arranger. Moreover, the sale of loans to the trust protects both the originator and arranger from losses on

the mortgage loans, provided that there have been no breaches of representations and warranties made by the originator.

The arranger underwrites the sale of securities secured by the pool of subprime mortgage loans to an asset manager, who is an agent for the ultimate investor. However, the information advantage of the arranger creates a standard lemons problem. This problem is mitigated by the market through the following means: reputation of the arranger, the arranger providing a credit enhancement to the securities with its own funding, and any due diligence conducted by the portfolio manager on the arranger and originator.

Adverse selection and credit rating agencies

The rating agencies assign credit ratings on mortgage-backed securities issued by the trust. These opinions about credit quality are determined using publicly available rating criteria which map the characteristics of the pool of mortgage loans into an estimated loss distribution. From this loss distribution, the rating agencies calculate the amount of credit enhancement that a security requires in order for it to attain a given credit rating. The opinion of the rating agencies is vulnerable to the lemons problem (the arranger likely still knows more) because they only conduct limited due diligence on the arranger and originator.

2.1.4. Frictions between the servicer and the mortgagor: Moral hazard

The trust employs a servicer who is responsible for collection and remittance of loan payments, making advances of unpaid interest by borrowers to the trust, accounting for principal and interest, customer service to the mortgagors, holding escrow or impounding funds related to payment of taxes and insurance, contacting delinquent borrowers, and supervising foreclosures and property dispositions. The servicer is compensated through a periodic fee by paid the trust. Table 4 documents the top 10 subprime servicers in 2006, which is a mix of depository institutions and specialty non-depository mono-line servicing companies.

Moral hazard refers to changes in behavior in response to redistribution of risk, e.g., insurance may induce risk-taking behavior if the insured does not bear the full consequences of bad outcomes. Here we have a problem where one party (the mortgagor) has unobserved costly effort that affects the distribution over cash flows which are shared with another party (the servicer), and the first party has limited liability (it does not share in downside risk). In managing delinquent loans, the servicer is faced with a standard moral hazard problem vis-à-vis the mortgagor. When a servicer has the incentive to work in investors' best interest, it will manage delinquent loans in a fashion to minimize losses. A mortgagor struggling to make a mortgage payment is also likely struggling to keep hazard insurance and property tax bills current, as well as conduct adequate maintenance on the property. The failure to pay property taxes could result in costly liens on the property that increase the costs to investors of ultimately foreclosing on the property. The failure to pay hazard insurance premiums could result in a lapse in coverage, exposing investors to the risk of significant loss. And the failure to maintain the property will increase expenses to investors in marketing the property after foreclosure and possibly reduce the sale price. The mortgagor has little incentive to expend effort or resources to maintain a property close to foreclosure.

In order to prevent these potential problems from surfacing, it is standard practice to require the mortgagor to regularly escrow funds for both insurance and property taxes. When the borrower fails to advance these funds, the servicer is typically required to make these payments on behalf of the investor. In order to prevent lapses in maintenance from creating losses, the servicer is encouraged to foreclose promptly on the property once it is deemed uncollectible. An important constraint in resolving this latter issue is that the ability of a servicer to collect on a delinquent debt is generally restricted under the Real Estate Settlement Procedures Act, Fair Debt Collection Practices Act and state deceptive trade practices statutes. In a recent court case, a plaintiff in Texas alleging unlawful collection activities against Ocwen Financial was awarded $12.5 million in actual and punitive damages.

2.1.5. Frictions between the servicer and third-parties: Moral hazard

The servicer can have a significantly positive or negative effect on the losses realized from the mortgage pool. Moody's estimates that servicer quality can affect the realized level of losses by plus or minus 10 percent. This impact of servicer quality on losses has important implications for both investors and credit rating agencies. In particular, investors want to minimize losses while credit rating agencies want to minimize the uncertainty about losses in order to make accurate opinions. In each case articulated below we have a similar problem as in the fourth friction, namely where one party (here the servicer) has unobserved costly effort that affects the distribution over cash flows which are shared with other parties, and the first party has limited liability (it does not share in downside risk).

Moral hazard between the servicer and the asset manager[4]

The servicing fee is a flat percentage of the outstanding principal balance of mortgage loans. The servicer is paid first out of receipts each month before any funds are advanced to investors. Since mortgage payments are generally received at the beginning of the month and investors receive their distributions near the end of the month, the servicer benefits from being able to earn interest on float.[5]

There are two key points of tension between investors and the servicer: (a) reasonable reimbursable expenses, and (b) the decision to modify and foreclose. We discuss each of these in turn.

In the event of a delinquency, the servicer must advance unpaid interest (and sometimes principal) to the trust as long as it is deemed collectable, which typically means that the loan is less than 90 days delinquent. In addition to advancing unpaid interest, the servicer must also keep paying property taxes and insurance premiums as long as it has a mortgage on the property. In the event of foreclosure, the servicer must pay all expenses out of pocket until the property is liquidated, at which point it is reimbursed for advances and expenses. The servicer has a natural incentive to inflate expenses, especially in good times when recovery rates on foreclosed property are high.

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[4] Several points raised in this section were first raised in a 20 February 2007 post on the blog http://calculatedrisk.blogspot.com/ entitled "Mortgage Servicing for Ubernerds."

[5] In addition to the monthly fee, the servicer generally gets to keep late fees. This can tempt a servicer to post payments in a tardy fashion or not make collection calls until late fees are assessed.

Note that the un-reimbursable expenses of the servicer are largely fixed and front-loaded: registering the loan in the servicing system, getting the initial notices out, doing the initial escrow analysis and tax setups, etc. At the same time, the income of the servicer is increasing in the amount of time that the loan is serviced. It follows that the servicer would prefer to keep the loan on its books for as long as possible. This means it has a strong preference to modify the terms of a delinquent loan and to delay foreclosure.

Resolving each of these problems involves a delicate balance. On the one hand, one can put hard rules into the pooling and servicing agreement limiting loan modifications, and an investor can invest effort into actively monitoring the servicer's expenses. On the other hand, the investor wants to give the servicer flexibility to act in the investor's best interest and does not want to incur too much expense in monitoring. This latter point is especially true since other investors will free-ride off of any one investor's effort. It is not surprising that the credit rating agencies play an important role in resolving this collective action problem through servicer quality ratings.

In addition to monitoring effort by investors, servicer quality ratings, and rules about loan modifications, there are two other important ways to mitigate this friction: servicer reputation and the master servicer. As the servicing business is an important counter-cyclical source of income for banks, one would think that these institutions would work hard on their own to minimize this friction. The master servicer is responsible for monitoring the performance of the servicer under the pooling and servicing agreement. It validates data reported by the servicer, reviews the servicing of defaulted loans, and enforces remedies of servicer default on behalf of the trust.

Moral hazard between the servicer and the credit rating agency

Given the impact of servicer quality on losses, the accuracy of the credit rating placed on securities issued by the trust is vulnerable to the use of a low quality servicer. In order to minimize the impact of this friction, the rating agencies conduct due diligence on the servicer, use the results of this analysis in the rating of mortgage-backed securities, and release their findings to the public for use by investors.

Servicer quality ratings are intended to be an unbiased benchmark of a loan servicer's ability to prevent or mitigate pool losses across changing market conditions. This evaluation includes an assessment of collections/customer service, loss mitigation, foreclosure timeline management, management, staffing & training, financial stability, technology and disaster recovery, legal compliance and oversight and financial strength. In constructing these quality ratings, the rating agency attempts to break out the actual historical loss experience of the servicer into an amount attributable to the underlying credit risk of the loans and an amount attributable to the servicer's collection and default management ability.

2.1.6. Frictions between the asset manager and investor: Principal-agent

The investor provides the funding for the purchase of the mortgage-backed security. As the investor is typically financially unsophisticated, an agent is employed to formulate an investment strategy, conduct due diligence on potential investments, and find the best price for trades. Given differences in the degree of financial sophistication between the investor and an

asset manager, there is an obvious information problem between the investor and portfolio manger that gives rise to the sixth friction.

In particular, the investor will not fully understand the investment strategy of the manager, has uncertainty about the manager's ability, and does not observe any effort that the manager makes to conduct due diligence. This principal (investor)-agent (manager) problem is mitigated through the use of investment mandates, and the evaluation of manager performance relative to a peer benchmark or its peers.

As one example, a public pension might restrict the investments of an asset manager to debt securities with an investment grade credit rating and evaluate the performance of an asset manager relative to a benchmark index. However, there are other relevant examples. The FDIC, which is an implicit investor in commercial banks through the provision of deposit insurance, prevents insured banks from investing in speculative-grade securities or enforces risk-based capital requirements that use credit ratings to assess risk-weights. An actively-managed collateralized debt obligation (CDO) imposes covenants on the weighted average rating of securities in an actively-managed portfolio as well as the fraction of securities with a low credit rating.

As investment mandates typically involve credit ratings, it should be clear that this is another point where the credit rating agencies play an important role in the securitization process. By presenting an opinion on the riskiness of offered securities, the rating agencies help resolve the information frictions that exist between the investor and the portfolio manager. Credit ratings are intended to capture the expectations about the long-run or through-the-cycle performance of a debt security. A credit rating is fundamentally a statement about the suitability of an instrument to be included in a risk class, but importantly, it is an opinion only about credit risk; we discuss credit ratings in more detail in Section 5.1. It follows that the opinion of credit rating agencies is a crucial part of securitization, because in the end the rating is the means through which much of the funding by investors finds its way into the deal.

2.1.7. Frictions between the investor and the credit rating agencies: Model error

The rating agencies are paid by the arranger and not investors for their opinion, which creates a potential conflict of interest. Since an investor is not able to assess the efficacy of rating agency models, they are susceptible to both honest and dishonest errors on the agencies' part. The information asymmetry between investors and the credit rating agencies is the seventh and final friction in the securitization process. Honest errors are a natural byproduct of rapid financial innovation and complexity. On the other hand, dishonest errors could be driven by the dependence of rating agencies on fees paid by the arranger (the conflict of interest).

Some critics claim that the rating agencies are unable to objectively rate structured products due to conflicts of interest created by issuer-paid fees. Moody's, for example, made 44 per cent of its revenue last year from structured finance deals (Tomlinson and Evans, 2007). Such assessments also command more than double the fee rates of simpler corporate ratings, helping keep Moody's operating margins above 50 per cent (Economist, 2007).

Beales, Scholtes and Tett (15 May 2007) write in the *Financial Times*:

The potential for conflicts of interest in the agencies' "issuer pays" model has drawn fire before, but the scale of their dependence on investment banks for structured finance business gives them a significant incentive to look kindly on the products they are rating, critics say. From his office in Paris, the head of the Autorité des Marchés Financiers, the main French financial regulator, is raising fresh questions over their role and objectivity. Mr Prada sees the possibility for conflicts of interest similar to those that emerged in the audit profession when it drifted into consulting. Here, the integrity of the auditing work was threatened by the demands of winning and retaining clients in the more lucrative consultancy business, a conflict that ultimately helped bring down accountants Arthur Andersen in the wake of Enron's collapse. "I do hope that it does not take another Enron for everyone to look at the issue of rating agencies," he says.

This friction is minimized through two devices: the reputation of the rating agencies and the public disclosure of ratings and downgrade criteria. For the rating agencies, their business is their reputation, so it is difficult – though not impossible – to imagine that they would risk deliberately inflating credit ratings in order to earn structuring fees, thus jeopardizing their franchise. Moreover, with public rating and downgrade criteria, any deviations in credit ratings from their models are easily observed by the public.[6]

2.2. Five frictions that caused the subprime crisis

We believe that five of the seven frictions discussed above help to explain the breakdown in the subprime mortgage market.

The problem starts with friction #1: many products offered to sub-prime borrowers are very complex and subject to mis-understanding and/or mis-representation. This opened the possibility of both excessive borrowing (predatory borrowing) and excessive lending (predatory lending.

At the other end of the process we have the principal-agent problem between the investor and asset manager (friction #6). In particular, it seems that investment mandates do not adequately distinguish between structured and corporate credit ratings. This is a problem because asset manager performance is evaluated relative to peers or relative to a benchmark index. It follows that asset managers have an incentive to reach for yield by purchasing structured debt issues with the same credit rating but higher coupons as corporate debt issues.[7]

Initially, this portfolio shift was likely led by asset managers with the ability to conduct their own due diligence, recognizing value in the wide pricing of subprime mortgage-backed securities. However, once the other asset managers started to under-perform their peers, they likely made similar portfolio shifts, but did not invest the same effort into due diligence of the arranger and originator.

This phenomenon worsened the friction between the arranger and the asset manager (friction #3). In particular, without due diligence by the asset manager, the arranger's incentives to conduct its own due diligence are reduced. Moreover, as the market for credit derivatives

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[6] We think that there are two ways these errors could emerge. One, the rating agency builds its model honestly, but then applies judgment in a fashion consistent with its economic interest. The average deal is structured appropriately, but the agency gives certain issuers better terms. Two, the model itself is knowingly aggressive. The average deal is structured inadequately.

[7] The fact that the market demands a higher yield for similarly rated structured products than for straight corporate bonds ought to provide a clue to the potential of higher risk.

developed, including but not limited to the ABX, the arranger was able to limit its funded exposure to securitizations of risky loans. Together, these considerations worsened the friction between the originator and arranger, opening the door for predatory borrowing and provides incentives for predatory lending (friction #2). In the end, the only constraint on underwriting standards was the opinion of the rating agencies. With limited capital backing representations and warranties, an originator could easily arbitrage rating agency models, exploiting the weak historical relationship between aggressive underwriting and losses in the data used to calibrate required credit enhancement.

The inability of the rating agencies to recognize this arbitrage by originators and respond appropriately meant that credit ratings were assigned to subprime mortgage-backed securities with significant error. The friction between investors and the rating agencies is the final nail in the coffin (friction #7). Even though the rating agencies publicly disclosed their rating criteria for subprime, investors lacked the ability to evaluate the efficacy of these models.

While we have identified seven frictions in the mortgage securitization process, there are mechanisms in place to mitigate or even resolve each of these frictions, including for example anti-predatory lending laws and regulations. As we have seen, some of these mechanisms have failed to deliver as promised. Is it hard to fix this process? We believe not, and we think the solution might start with investment mandates. Investors should realize the incentives of asset managers to push for yield. Investments in structured products should be compared to a benchmark index of investments in the same asset class. When investors or asset managers are forced to conduct their own due diligence in order to outperform the index, the incentives of the arranger and originator are restored. Moreover, investors should demand that either the arranger or originator – or even both – retain the first-loss or equity tranche of every securitization, and disclose all hedges of this position. At the end of the production chain, originators need to be adequately capitalized so that their representations and warranties have value. Finally, the rating agencies could evaluate originators with the same rigor that they evaluate servicers, including perhaps the designation of originator ratings.

It is not clear to us that any of these solutions require additional regulation, and note that the market is already taking steps in the right direction. For example, the credit rating agencies have already responded with greater transparency and have announced significant changes in the rating process. In addition, the demand for structured credit products generally and subprime mortgage securitizations in particular has declined significantly as investors have started to re-assess their own views of the risk in these products. Along these lines, it may be advisable for policymakers to give the market a chance to self-correct.

3. An overview of subprime mortgage credit

In this section, we shed some light on the subprime mortgagor, work through the details of a typical subprime mortgage loan, and review the historical performance of subprime mortgage credit.

The motivating example

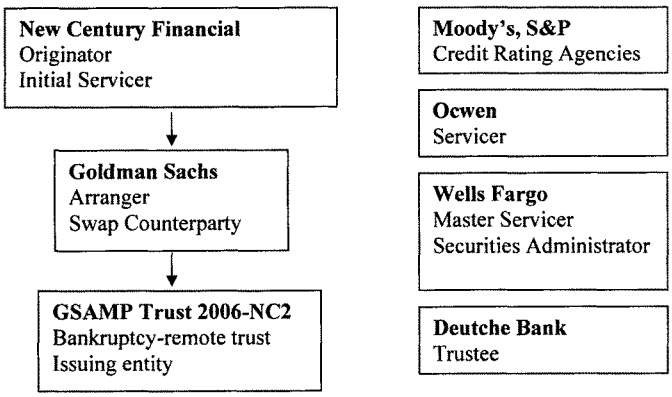
In order to keep the discussion from becoming too abstract, we find it useful to frame many of these issues in the context of a real-life example which will be used throughout the paper. In particular, we focus on a securitization of 3,949 subprime loans with aggregate principal balance of $881 million originated by New Century Financial in the second quarter of 2006.[8]

Our view is that this particular securitization is interesting because illustrates how typical subprime loans from what proved to be the worst-performing vintage came to be originated, structured, and ultimately sold to investors. In each of the years 2004 to 2006, New Century Financial was the second largest subprime lender, originating $51.6 billion in mortgage loans during 2006 (Inside Mortgage Finance, 2007). Volume grew at a compound annual growth rate of 59% between 2000 and 2004. The backbone of this growth was an automated internet-based loan submission and pre-approval system called *FastQual*. The performance of New Century loans closely tracked that of the industry through the 2005 vintage (Moody's, 2005b). However, the company struggled with early payment defaults in early 2007, failed to meet a call for more collateral on its warehouse lines of credit on 2 March 2007 and ultimately filed for bankruptcy protection on 2 April 2007. The junior tranches of this securitization were part of the historical downgrade action by the rating agencies during the week of 9 July 2007 that affected almost half of first-lien home equity ABS deals issued in 2006.

As illustrated in Figure 2, these loans were initially purchased by a subsidiary of Goldman Sachs, who in turn sold the loans to a bankruptcy-remote special purpose vehicle named GSAMP TRUST 2006-NC2. The trust funded the purchase of these loans through the issue of asset-backed securities, which required the filing of a prospectus with the SEC detailing the transaction. New Century serviced the loans initially, but upon creation of the trust, this business was transferred to Ocwen Loan Servicing, LLC in August 2006, who receives a fee of 50 basis points (or $4.4 million) per year on a monthly basis. The master servicer and securities administrator is Wells Fargo, who receives a fee of 1 basis point (or $881K) per year on a monthly basis. The prospectus includes a list of 26 reps and warranties made by the originator. Some of the items include: the absence of any delinquencies or defaults in the pool; compliance of the mortgages with federal, state, and local laws; the presence of title and hazard insurance; disclosure of fees and points to the borrower; statement that the lender did not encourage or require the borrower to select a higher cost loan product intended for less creditworthy borrowers when they qualified for a more standard loan product.

[8] The details of this transaction are taken from the prospectus filed with the SEC and with monthly remittance reports filed with the Trustee. The former is available on-line using the Edgar database at http://www.sec.gov/edgar/searchedgar/companysearch.html with the company name GSAMP Trust 2006-NC2 while the latter is available with free registration from http://www.absnet.net/.

Figure 2: Key Institutions Surrounding GSAMP Trust 2006-NC2



Source: Prospectus filed with the SEC of GSAMP 2006-NC2

3.1. Who is the subprime mortgagor?

The 2001 *Interagency Expanded Guidance for Subprime Lending Programs* defines the subprime borrower as one who generally displays a range of credit risk characteristics, including one or more of the following:

- Two or more 30-day delinquencies in the last 12 months, or one or more 60-day delinquencies in the last 24 months;
- Judgment, foreclosure, repossession, or charge-off in the prior 24 months;
- Bankruptcy in the last 5 years;
- Relatively high default probability as evidenced by, for example, a credit bureau risk score (FICO) of 660 or below (depending on the product/collateral), or other bureau or proprietary scores with an equivalent default probability likelihood; and/or,
- Debt service-to-income ratio of 50 percent or greater; or, otherwise limited ability to cover family living expenses after deducting total debt-service requirements from monthly income.

The motivating example

The pool of mortgage loans used as collateral in the New Century securitization can be summarized as follows:

- 98.7% of the mortgage loans are first-lien. The rest are second-lien home equity loans.

- 43.3% are purchase loans, meaning that the mortgagor's stated purpose for the loan was to purchase a property. The remaining loans' stated purpose are cash-out refinance of existing mortgage loans.
- 90.7% of the mortgagors claim to occupy the property as their primary residence. The remaining mortgagors claim to be investors or purchasing second homes.
- 73.4% of the mortgaged properties are single-family homes. The remaining properties are split between multi-family dwellings or condos.
- 38.0% and 10.5% are secured by residences in California and Florida, respectively, the two dominant states in this securitization.
- The average borrower in the pool has a FICO score of 626. Note that 31.4% have a FICO score below 600, 51.9% between 600 and 660, and 16.7% above 660.
- The combined loan-to value ratio is sum of the original principal balance of all loans secured by the property to its appraised value. The average mortgage loan in the pool has a CLTV of 80.34%. However, 62.1% have a CLTV of 80% or lower, 28.6% between 80% and 90%, and 9.3% between 90% and 100%.
- The ratio of total debt service of the borrower (including the mortgage, property taxes and insurance, and other monthly debt payments) to gross income (income before taxes) is 41.78%.

It is worth pausing here to make a few observations. First, the stated purpose of the majority of these loans is not to purchase a home, but rather to refinance an existing mortgage loan. Second, 90 percent of the borrowers in this portfolio have at least 10 percent equity in their homes. Third, while it might be surprising to find borrowers with a FICO score above 660 in the pool, these loans are much more aggressively underwritten than the loans to the lower FICO-score borrowers. In particular, while not reported in the figures above, loans to borrowers with high FICO scores tend to be much larger, have a higher CLTV, are less likely to use full-documentation, and are less likely to be owner-occupied. The combination of good credit with aggressive underwriting suggests that many of these borrowers could be investors looking to take advantage of rapid home price appreciation in order to re-sell houses for profit. Finally, while the average loan size in the pool is $223,221, much of the aggregate principal balance of the pool is made up of large loans. In particular, 24% of the total number of loans are in excess of $300,000 and make up about 45% of the principal balance of the pool.

Industry trends

Table 5 documents average borrower characteristics for loans contained in Alt-A and Subprime MBS pools in panel (a) and (b), respectively, broken out by year of origination. The most dramatic difference between the two panels is the credit score, as the average Alt-A borrower has a FICO score that is 85 points higher than the average Subprime borrower in 2006 (703 versus 623). Subprime borrowers typically have a higher CLTV, but are more likely to document income and are less likely to purchase a home. Alt-A borrowers are more likely to be investors and are more likely to have silent 2nd liens on the property. Together, these summary statistics suggest that the example securitization discussed seems to be representative of the industry, at least with respect to stated borrower characteristics.

The industry data is also useful to better understand trends in the subprime market that one would not observe by focusing on one deal from 2006. In particular, the CLTV of a subprime

loan has been increasing since 1999, as has the fraction of loans with silent second liens. A silent second is a second mortgage that was not disclosed to the first mortgage lender at the time of origination. Moreover, the table illustrates that borrowers have become less likely to document their income over time, and that the fraction of borrowers using the loan to purchase a property has increased significantly since the start of the decade. Together, these data suggest that the average subprime borrower has become significantly more risky in the last two years.

Table 5: Underwriting Characteristics of Loans in MBS Pools

	CLTV	Full Doc	Purchase	Investor	No Prepayment Penalty	FICO	Silent 2nd lien
A. Alt-A Loans							
1999	77.5	38.4	51.8	18.6	79.4	696	0.1
2000	80.2	35.4	68.0	13.8	79.0	697	0.2
2001	77.7	34.8	50.4	8.2	78.8	703	1.4
2002	76.5	36.0	47.4	12.5	70.1	708	2.4
2003	74.9	33.0	39.4	18.5	71.2	711	12.4
2004	79.5	32.4	53.9	17.0	64.8	708	28.6
2005	79.0	27.4	49.4	14.8	56.9	713	32.4
2006	80.6	16.4	45.7	12.9	47.9	708	38.9
B. Subprime Loans							
1999	78.8	68.7	30.1	5.3	28.7	605	0.5
2000	79.5	73.4	36.2	5.5	25.4	596	1.3
2001	80.3	71.5	31.3	5.3	21.0	605	2.8
2002	80.7	65.9	29.9	5.4	20.3	614	2.9
2003	82.4	63.9	30.2	5.6	23.2	624	7.3
2004	83.9	62.2	35.7	5.6	24.6	624	15.8
2005	85.3	58.3	40.5	5.5	26.8	627	24.6
2006	85.5	57.7	42.1	5.6	28.9	623	27.5

All entries are in percentage points except FICO.
Source: LoanPerformance (2007)

3.2. What is a subprime loan?

The motivating example

Table 6 documents that only 8.98% of the loans by dollar-value in the New Century pool are traditional 30-year fixed-rate mortgages (FRMs). The pool also includes a small fraction – 2.81% -- of fixed-rate mortgages which amortize over 40 years, but mature in 30 years, and consequently have a balloon payment after 30 years. Note that 88.2% of the mortgage loans by dollar value are adjustable-rate loans (ARMs), and that each of these loans is a variation on the 2/28 and 3/27 hybrid ARM. These loans are known as hybrids because they have both fixed- and adjustable-rate features to them. In particular, the initial monthly payment is based on a "teaser" interest rate that is fixed for the first two (for the 2/28) or three (for the 3/27) years, and is lower than what a borrower would pay for a 30-year fixed rate mortgage (FRM). The table documents that the average initial interest rate for a vanilla 2/28 loan in the first row is 8.64%. However, after this initial period, the monthly payment is based on a higher interest rate, equal to the value of an interest rate index (i.e. 6-month LIBOR) measured at the time of adjustment, plus a margin that is fixed for the life of the loan. Focusing again on the first 2/28,

the margin is 6.22% and LIBOR at the time of origination is 5.31%. This interest rate is updated every six months for the life of the loan, and is subject to limits called adjustment caps on the amount that it can increase: the cap on the first adjustment is called the initial cap; the cap on each subsequent adjustment is called the period cap; the cap on the interest rate over the life of the loan is called the lifetime cap; and the floor on the interest rate is called the floor. In our example of a simple 2/28 ARM, these caps are equal to 1.49%, 1.50%, 15.62%, and 8.62% for the average loan. More than half of the dollar value of the loans in this pool are a 2/28 ARM with a 40-year amortization schedule in order to calculate monthly payments. A substantial fraction are a 2/28 ARM with a five-year interest-only option. This loan permits the borrower to only pay interest for the first sixty months of the loan, but then must make payments in order to repay the loan in the final 25 years. While not noted in the table, the prospectus indicates that none of the mortgage loans carry mortgage insurance. Moreover, approximately 72.5% of the loans include prepayment penalties which expire after one to three years.

These ARMs are rather complex financial instruments with payout features often found in interest rate derivatives. In contrast to a FRM, the mortgagor retains most of the interest rate risk, subject to a collar (a floor and a cap). Note that most mortgagors are not in a position to easily hedge away this interest rate risk.

Table 7 illustrates the monthly payment across loan type, using the average terms for each loan type, a principal balance of $225,000, and making the assumption that six-month LIBOR remains constant. The payment for the 30-year mortgage amortized over 40 years is lower due to the longer amortization period and a lower average interest rate. The latter loan is more risky from a lender's point of view because the borrower's equity builds more slowly and the borrower will likely have to refinance after 30 years or have cash equal to 84 monthly payments. The monthly payment for the 2/28 ARM is documented in the third column. When the index interest rate remains constant, the payment increases by 14% in the month 25 at initial adjustment and by another 12% in month 31. When amortized over 40 years, as in the fourth column, the payment shock is more severe as the loan balance is much higher in every month compared to the 30-year amortization. In particular, the payment increases by 18% in month 25 and another 14% in month 31. However, when the 2/28 is combined with an interest-only option, the payment shock is even more severe since the principal balance does not decline at all over time when the borrower makes the minimum monthly payment. In this case, the payment increases by 19% in month 25, another 26% in month 31, and another 11% in month 61 when the interest-only option expires. The 3/27 ARMs exhibit similar patterns in monthly payments over time.

In order to better understand the severity of payment shock, Table 8 illustrates the impact of changes in the mortgage payment on the ratio of debt (service) to gross income. The table is constructed under the assumption that the borrower has no other debt than mortgage debt, and imposes an initial debt-to-income ratio of 40 percent, similar to that found in the mortgage pool. The third column documents that the debt-to-income ratio increases in month 31 to 50.45% for the simple 2/28 ARM, to 52.86% for the 2/28 ARM amortized over 40 years, and to 58.14% for the 2/28 ARM with an interest-only option. Without significant income growth over the first two years of the loan, it seems reasonable to expect that borrowers will struggle to make these higher payments. It begs the question why such a loan was made in the first place.

The likely answer is that lenders expected that the borrower would be able to refinance before payment reset.

Industry trends

Table 9 documents the average terms of loans securitized in the Alt-A and subprime markets over the last eight years. Subprime loans are more likely than Alt-A loans to be ARMs, and are largely dominated by the 2/28 and 3/27 hybrid ARMs. Subprime loans are less likely to have an interest-only option or permit negative amortization (i.e. option ARM), but are more likely to have a 40-year amortization instead of a 30-year amortization. The table also documents that hybrid ARMs have become more important over time for both Alt-A and subprime borrowers, as have interest only options and the 40-year amortization term. In the end, the mortgage pool referenced in our motivating example does not appear to be very different from the average loan securitized by the industry in 2006.

The immediate concern from the industry data is obviously the widespread dependency of subprime borrowers on what amounts to short-term funding, leaving them vulnerable to adverse shifts in the supply of subprime credit. Figure 3 documents the timing ARM resets over the next six years, as of January 2007. Given the dominance of the 2/28 ARM, it should not be surprising that the majority of loans that will be resetting over the next two years are subprime loans. The main source of uncertainty about the future performance of these loans is driven by uncertainty over the ability of these borrowers to refinance. This uncertainty has been highlighted by rapidly changing attitudes of investors towards subprime loans (see the box below on the ABX for the details). Regulators have released guidance on subprime loans that forces a lender to qualify a borrower on a fully-indexed and -amortizing interest rate and discourages the use of state-income loans. Moreover, recent changes in structuring criteria by the rating agencies have prompted several subprime lenders to stop originating hybrid ARMs. Finally, activity in the housing market has slowed down considerably, as the median price of existing homes has declined for the first time in decades while historical levels of inventory and vacant homes.

Table 6: Loan Type in the GSAMP 2006-NC2 Mortgage Loan Pool

Loan Type	Gross Rate	Margin	Initial Cap	Periodic Cap	Lifetime Cap	Floor	IO Period	Notional ($m)	% Total
FIXED	8.18	X	X	X	X	X	X	$ 79.12	8.98%
FIXED 40-year Balloon	7.58	X	X	X	X	X	X	$ 24.80	2.81%
2/28 ARM	8.64	6.22	1.49	1.49	15.62	8.62	X	$ 221.09	25.08%
2/28 ARM 40-year Balloon	8.31	6.24	1.5	1.5	15.31	8.31	X	$ 452.15	51.29%
2/28 ARM IO	7.75	6.13	1.5	1.5	14.75	7.75	60	$ 101.18	11.48%
3/27 ARM	7.48	6.06	1.5	1.5	14.48	7.48	X	$ 1.71	0.19%
3/27 ARM 40-year Balloon	7.61	6.11	1.5	1.5	14.61	7.61	X	$ 1.46	0.17%
Total	8.29	X	X	X	X	X	X	$ 881.50	100.00%

Note: LIBOR is 5.31% at the time of issue. Notional amount is reported in millions of dollars.
Source: SEC filings, Author's calculations

Table 7: Monthly Payment Across Mortgage Loan Type

Monthly Payment Across Mortgage Loan Type							
Month	30-year fixed	30-year fixed	2/28 ARM	2/28 ARM	2/28 ARM IO	3/27 ARM	3/27 ARM
1	$ 1,633.87	$ 1,546.04	$ 1,701.37	$ 1,566.17	$ 1,404.01	$ 1,533.12	$ 1,437.35
24	1.00	1.00	1.00	1.00	1.00	1.00	1.00
25	1.00	1.00	1.14	1.18	1.19	1.00	1.00
30	1.00	1.00	1.14	1.18	1.19	1.00	1.00
31	1.00	1.00	1.26	1.32	1.45	1.00	1.00
36	1.00	1.00	1.26	1.32	1.45	1.00	1.00
37	1.00	1.00	1.26	1.32	1.45	1.13	1.18
42	1.00	1.00	1.26	1.32	1.45	1.13	1.18
43	1.00	1.00	1.26	1.32	1.45	1.27	1.34
48	1.00	1.00	1.26	1.32	1.45	1.27	1.34
49	1.00	1.00	1.26	1.32	1.45	1.27	1.43
60	1.00	1.00	1.26	1.32	1.45	1.27	1.43
61	1.00	1.00	1.26	1.32	1.56	1.27	1.43
359	1.00	1.00	1.26	1.32	1.56	1.27	1.43
360	1.00	83.81	1.26	100.72	1.56	1.27	105.60
Amortization	30 years	40 years	30 years	40 years	30 years	30 years	40 years

Note: The first line documents the average initial monthly payment for each loan type. The subsequent rows document the ratio of the future to the initial monthly payment under an assumption that LIBOR remains at 5.31% through the life of the loan.
Source: SEC filing, Author's Calculations

Table 8: Ratio of Debt to Income Across Mortgage Loan Type

Ratio of Debt to Income Across Mortgage Loan Type							
Month	30-year fixed	30-year fixed	2/28 ARM	2/28 ARM	2/28 ARM IO	3/27 ARM	3/27 ARM
1	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%
24	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%
25	40.00%	40.00%	45.46%	47.28%	47.44%	40.00%	40.00%
30	40.00%	40.00%	45.46%	47.28%	47.44%	40.00%	40.00%
31	40.00%	40.00%	50.35%	52.86%	58.14%	40.00%	40.00%
36	40.00%	40.00%	50.35%	52.86%	58.14%	40.00%	40.00%
37	40.00%	40.00%	50.45%	52.86%	58.14%	45.36%	47.04%
42	40.00%	40.00%	50.45%	52.86%	58.14%	45.36%	47.04%
43	40.00%	40.00%	50.45%	52.86%	58.14%	50.83%	53.53%
48	40.00%	40.00%	50.45%	52.86%	58.14%	50.83%	53.53%
49	40.00%	40.00%	50.45%	52.86%	58.14%	50.83%	57.08%
60	40.00%	40.00%	50.45%	52.86%	58.14%	50.83%	57.08%
61	40.00%	40.00%	50.45%	52.86%	62.29%	50.83%	57.08%
359	40.00%	40.00%	50.45%	52.86%	62.29%	50.83%	57.08%
360	40.00%	3352.60%	50.45%	4028.64%	62.29%	50.83%	4223.92%
Amortization	30 years	40 years	30 years	40 years	30 years	30 years	40 years

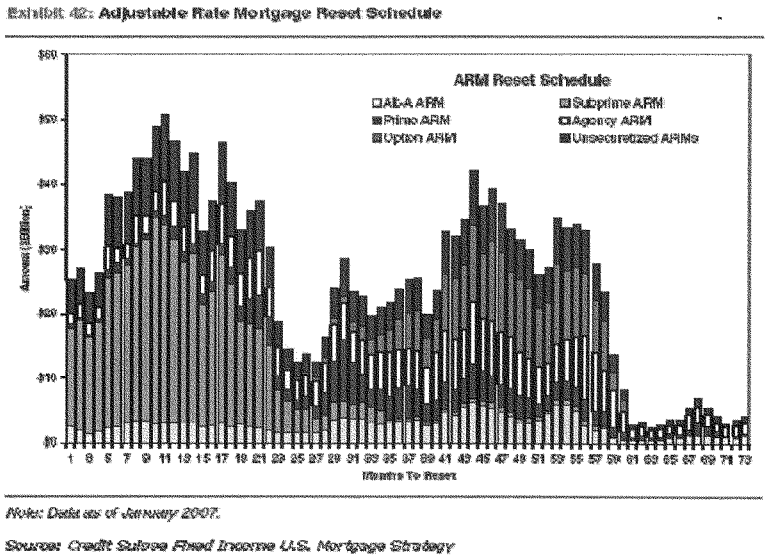
Note: The table documents the path of the debt-to-income ratio over the life of each loan type under an assumption that LIBOR remains at 5.31% through the life of the loan. The calculation assumes that all debt is mortgage debt.
Source: SEC filing, Author's Calculations

Table 9: Terms of Mortgage Loans in MBS Pools

Year	ARM	2/28 ARM	3/27 ARM	5/25 ARM	IO	Option ARM	40-year
A. Alt-A							
1999	6.3	2.6	0.9	1.9	0.8	0.0	0.0
2000	12.8	4.7	1.7	3.4	1.1	1.1	0.1
2001	20.0	4.9	2.3	8.8	3.9	0.0	0.0
2002	28.0	3.7	2.8	10.9	7.7	0.4	0.0
2003	34.0	4.8	5.3	16.7	19.6	1.7	0.1
2004	68.7	8.9	16.7	24.0	46.4	10.3	0.5
2005	69.7	4.0	6.3	15.6	38.6	34.2	2.7
2006	69.8	1.8	1.7	15.8	35.6	42.3	11.0
B. Subprime							
1999	51.0	31.0	16.2	0.6	0.1	0.0	0.0
2000	64.5	45.5	16.6	0.6	0.0	0.1	0.0
2001	66.0	52.1	12.4	0.8	0.0	0.0	0.0
2002	71.6	57.4	12.1	1.4	0.7	0.0	0.0
2003	67.2	54.5	10.6	1.5	3.6	0.0	0.0
2004	78.0	61.3	14.7	1.6	15.3	0.0	0.0
2005	83.5	66.7	13.3	1.5	27.7	0.0	5.0
2006	81.7	68.7	10.0	2.5	18.1	0.0	26.9

Source: LoanPerformance (2007)

Figure 3: ARM reset schedule



The impact of payment reset on foreclosure

The most important issue facing the sub-prime credit market is obviously the impact of payment reset on the ability of borrowers to continue making monthly payments. Given that over three-fourths of the subprime-loans underwritten over 2004 to 2006 were hybrid ARMS, it is not difficult to understand the magnitude of the problem. But what is the likely outcome? The answer depends on a number of factors, including but not limited to: the amount of equity that these borrowers have in their homes at the time of reset (which itself is a function of CLTV at origination and the severity of the decline in home prices), the severity of payment reset (which depends not only on the loan but also on the six-month LIBOR interest rate), and of course conditions in the labor market.

A recent study by Cagan (2007) of mortgage payment reset tries to estimate what fraction of resetting loans will end up in foreclosure. The author presents evidence suggesting that in an environment of zero home price appreciation and full employment, 12 percent of subprime loans will default due to reset. We review the key elements of this analysis.[9]

Table 10 documents the amount of loans issued over 2004-2006 that were still outstanding as of March 2007, broken out by initial interest rate group and payment reset size group. The data includes all outstanding securitized mortgage loans with a future payment reset date. Each row corresponds to a different initial interest rate bucket: RED corresponding to loans with initial rates between 1 and 3.9 percent; YELLOW corresponding to an initial interest rate of 4.0 to 6.49 percent; and ORANGE with an initial interest rate of 6.5 to 12 percent. Subprime loans can be easily identified by the high original interest rate in the third row (ORANGE). Each column corresponds to a different payment reset size group under an assumption of no change in the 6-month LIBOR interest rate: A to payments which increase between 0 and 25 percent; B to payments which increase between 26 and 50 percent; C to payments which increase between 51 and 99 percent; and D to payments which increase by at least 100 percent. Note that almost all of subprime payment reset is in either the 0-25% or the 26-50% groups, with a little more than $300 billion in loans sitting in each group. There is a clear correlation in the table between the initial interest rate and the average size of the payment reset. The most severe payment resets appear to be the problem of Alt-A and Jumbo borrowers.

Table 10: Distribution of Loans by First Reset Size

	Reset size ($ billions)				
Initial interest rate	A (0-25%)	B (26-50%)	C (51-99%)	D (100%+)	Total
RED (1.0-3.9%)	$0	$0	$61	$460	$521
YELLOW (4.0-6.49%)	$545	$477	$102	$0	$1,124
ORANGE (6.5-12%)	$366	$316	$49	$0	$631
Total	$811	$793	$212	$460	$2,276

Source: Cagan (2007); data refer to all ARMs originated 2004-2006.

Cagan helpfully provides estimates of the distribution of updated equity across the initial interest rate group in Table 11. The author uses an automated appraisal system in order to estimate the value of each property, and then constructs an updated value of the equity for each

[9] The author is a PhD economist at First American, a credit union which owns LoanPerformance.

borrower. The table reports the cumulative distribution of equity for each initial interest rate bucket reported in the table above. Note that 22.4 percent of subprime borrowers (ORANGE) are estimated to have no equity in their homes, about half have no more than 10 percent, and two-thirds have less than 20 percent. Disturbingly, the table suggests that a national price decline of 10 percent could put half of all subprime borrowers underwater.

Table 11: Cumulative distribution of equity by initial interest rate

	Initial Rate Group		
Equity	Red	Yellow	Orange
<-20%	2.2%	1.5%	2.7%
<-15%	3.2	2.0	4.0
<-10%	4.9	2.9	6.2
<-5%	8.2	4.8	11.6
<0%	14.1	8.6	22.4
<5%	23.9	15.5	36.0
<10%	36.7	24.5	47.7
<15%	49.7	34.7	57.9
<20%	62.4	45.4	67.3
<25%	73.3	56.8	76.8
<30%	81.3	67.5	84.6

Source: Cagan (2007); data refer to all ARMs originated 2004-2006.

In order to transform this raw data into estimates of foreclosure due to reset, the author makes assumptions in Table 12 about the amount of equity or the size of payment reset and the probability of foreclosures.[10] A borrower will only default given difficulty with payment reset and difficulty in refinancing. For example, 70% of borrowers with equity between -5% and 5% are assumed to face difficulty refinancing, while only 30% of borrowers with equity between 15% and 25% have difficulty. At the same time, the author assumes that only 10 percent of borrowers with payment reset 0-25% will face difficulty with the higher payment, while 70 percent with a payment reset of 51-99% will be unable to make the higher payment.

Table 12: Assumed probability of default by reset size and equity risk group

		Reset Size Group			
		A	B	C	D
		25% or less	26-50%	51-99%	100% or more
Equity	Pr(difficulty)	10%	40%	70%	100%
>25%	10%	1%	4%	7%	10%
15-25%	30%	3	12	21	30
5-15%	50%	5	20	35	50
-5-5%	70%	7	28	49	70
<-5%	90%	9	36	63	90

Source: Cagan (2007).

Estimates of foreclosure due to reset in an environment of constant home prices are documented in Table 13. The author estimates that foreclosures due to reset will be 3.5% (= 106.2/3033.1) for the 0-25% reset group and 13.5% (= 446.4/3282.8) for the 26-50% group.

[10] The author offers no rationale for these figures, but the analysis here should be transparent enough that one could use different inputs to construct their own alternative scenarios.

Given the greater equity risk of subprime mortgages documented in Table 11, a back-of-the-envelope calculation suggests that these numbers would be 4.5% and 18.6% for subprime mortgages.

Table 13: Summary of foreclosure estimates under 0% home price appreciation

Reset Size	Reset Risk	Equity Risk	Pr(loss)	Loans (t)	Foreclosures (t)
A (25% or less)	10%	35%	3.5%	3033.1	106.2
B (26-50%)	40%	34%	13.6%	3282.8	446.4
C (51-99%)	70%	31%	21.7%	839.2	182.1
D (100% or more)	100%	36%	36.0%	1,216.7	438.0
			Total	8,371.9	1,172.7
			Percent foreclosures		14.0%

Source: Cagan (2007).

The author also investigates a scenario where home prices fall by 10 percent in Table 14, and estimates foreclosures due to reset for the two payment reset size groups to be 5.5% and 21.6%, respectively. Note that the revised July 2007 economic forecast for Moody's called for this exact scenario by the end of 2008.

Table 14: Summary of foreclosure estimates under 10% national home price decline

Reset Size	Reset Risk	Equity Risk	Pr(loss)	Loans (t)	Foreclosures (t)
A (25% or less)	10%	55%	5.5%	3033.1	166.8
B (26-50%)	40%	54%	21.6%	3282.8	709.1
C (51-99%)	70%	51%	35.7%	839.2	299.6
D (100% or more)	100%	56%	56.0%	1,216.7	681.3
			Total	8,371.9	1856.8
			Percent foreclosures		22.2%

Source: Cagan (2007).

Market conditions have deteriorated dramatically since this study was published, as the origination of both sub-prime and Alt-A mortgage loans has all but disappeared, making the author's assumptions about equity risk even in the stress scenario for home prices look optimistic. Moreover, the author's original assumption that reset risk is constant across the credit spectrum is likely to be optimistic. In particular, sub-prime borrowers are less likely to be able to handle payment reset, resulting with estimates of foreclosures that are quite modest relative to those in the research reports of investment banks.

3.3. How have subprime loans performed?

Motivating example

Table 15 documents how the GSAMP 2006-NC2 deal has performed through August 2007. The first three columns report mortgage loans still in the pool that are 30-days, 60-days, and 90-days past due. The fourth column reports loans that are in foreclosure. The fifth column reports loans where the bank has title to the property. The sixth column reports actual cumulative losses. The last column documents the fraction of original loans that remain in the pool.

Table 15: Performance of GSAMP 2006-NC2

Date	30 day	60 day	90 day	Foreclosure	Bankruptcy	REO	Cum Loss	CPR	Principal
Aug-07	6.32%	3.39%	1.70%	7.60%	0.90%	3.66%	0.25%	20.35%	72.48%
Jul-07	5.77%	3.47%	1.31%	7.31%	1.03%	3.15%	0.20%	20.77%	73.90%
Jun-07	5.61%	3.09%	1.43%	6.92%	0.70%	2.63%	0.10%	25.26%	75.38%
May-07	4.91%	3.34%	1.38%	6.48%	0.78%	1.83%	0.08%	19.18%	77.26%
Apr-07	4.68%	3.38%	1.16%	6.77%	0.50%	0.72%	0.04%	15.71%	78.68%
Mar-07	4.74%	2.77%	1.12%	6.76%	0.38%	0.21%	0.02%	19.03%	79.84%
Feb-07	4.79%	2.59%	0.96%	6.00%	0.37%	0.03%	0.00%	23.08%	81.29%
Jan-07	4.58%	2.85%	0.88%	5.04%	0.36%	0.00%	0.00%	28.54%	83.12%

Source: ABSNet

What do these numbers imply for the expected performance of the mortgage pool. UBS (June 2007) outlines an approach to use actual deal performance in order to estimate lifetime losses. Using historical data on loans in an environment of low home price appreciation (less than 5 percent), the author documents that approximately 70 percent of loans in the 60-day, 90-day, and bankruptcy categories eventually default, defined as the event of foreclosure. Interestingly, only about 60-70 percent of loans in bankruptcy are actually delinquent. Moreover, these transitions into foreclosure take about 4 months.

The amount of default "in the pipeline" for remaining loans in the next four months is constructed as follows:

Pipeline default = 0.7 × (60-day + 90-day + bankruptcy)
+ (foreclosure + real-estate owned)

For GSAMP 2006-NC2, the pipeline default from the August report is 15.45%, suggesting that this fraction of loans remaining in the pool are likely to default in the next four months.

Total default is constructed by combining this measure with the fraction of loans remaining in the pool, actual cumulative losses to date, and an assumption about the severity of loss. In the UBS study, the author assumes a loss given default of 37%.

Total default = pipeline default × (fraction of loans remaining) + (Cum loss)/(loss severity)

For the GSAMP 2006-NC2, this number is 11.88%, which suggests that this fraction of the original pool will have defaulted in four months.

Finally, the paper uses historical data in order to estimate the fraction of total defaults over the life of deal. In particular, a mapping is constructed between weighted-average loan age and the fraction of lifetime default that a deal typically realizes. For example, the typical deal realizes 33% of its defaults by month 13, 59% by month 23, 75% by month 35, and 100% by month 60.

Projected cumulative default = Total default/Default timing factor

The New Century pool was originated in May 2006, implying that the average loan is about 16 months old at the end of August 2007. The default timing factor for 20 months, which must be used since defaults were predicted through four months in the future, is 51.2%, suggesting that

projected cumulative default on this mortgage pool is 23.19%. Using a loss severity of 37% results in expected lifetime loss on this mortgage pool of 8.58%.

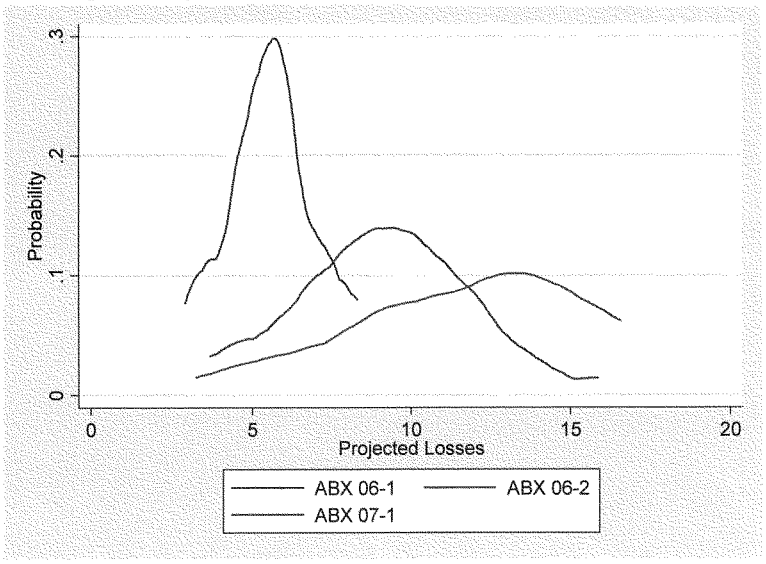
There are several potential weaknesses of this approach, the foremost being the fact that it is backward-looking and essentially ignores the elephant in the room, payment reset. In particular, in the fact of payment reset, losses are likely to be more back-loaded than the historical curve used above, implying the fraction of lifetime losses which have been observed to date is likely to be too small, resulting in lifetime loss estimates which are too low. In order to address this problem, UBS (23 October 2007) has developed a shut-down model to take into account the inability of borrowers to refinance their way out of payment resets. In that article, the authors estimate the lower prepayment speeds associate with refinancing stress will increase losses by an average of 50 percent. Moreover, the authors also speculate that loss severities will be higher than the 37 percent used above, and incorporate an assumption of 45 percent. Together, these assumptions imply that a more conservative view on losses would be to scale those from the loss projection model above by a factor of two, implying a lifetime loss rate of 17.16% on the example pool.

Industry

UBS (June 2007) applies this methodology to home equity ABS deals that constitute three vintages of the ABX: 06-1, 06-2, and 07-1. In order to understand the jargon, note that deals in 06-1 refer mortgages that were largely originated in the second half of 2005, while deals in 06-2 refer to mortgages that were largely underwritten in the first half of 2006.

Figure 4 illustrates estimates of the probability distribution of estimated losses as of the June remittance reports across the 20 different deals for each of the three vintages of loans. The mean loss rate of the 06-1 vintage is 5.6%, while the mean of the 06-2 and 07-1 vintages are 9.2% and 11.7%, respectively. From the figure, it is clear that not only the mean but also the variance of the distribution of losses at the deal level has increased considerably over the last year. Moreover, expected lifetime losses from the New Century securitization studied in the example are a little lower than the average deal in the ABX from 06-2.

Figure 4: Subprime Projected Losses by Vintage



3.4. How are subprime loans valued?

In January 2006, Markit launched the ABX, which is a series of indices that track the price of credit default insurance on a standardized basket of home equity ABS obligations.[11] The ABX actually has five indices, differentiated by credit rating: AAA, AA, A, BBB, and BBB-. Each of these indices is an equally-weighted average of the price of credit insurance at a maturity of 30-years across similarly-rated tranches from 20 different home equity ABS deals. For example, the BBB index tracks the average price of credit default insurance on the BBB-rated tranche.

Every six months, a new set of 20 home equity deals is chosen from the largest dealer shelves in the previous half year. In order to ensure proper diversification in the portfolio, the same originator is limited to no more than four deals and the same master servicer is limited to no more than six deals. Each reference obligation must be rated by both Moody's and S&P and have a weighted-average remaining life of 4-6 years.

In a typical transaction, a protection buyer pays the protection seller a fixed coupon at a monthly rate on an amount determined by the buyer. For example, Table 16 documents that the price of protection on the AAA tranche of the most recent vintage (07-2) is a coupon rate of 76

[11] In the jargon, first-lien sub-prime mortgage loans as well as second- lien home equity loans and home equity lines of credit (HELCOs) are all part of what is called the Home Equity ABS sector. First- lien Alt-A and Jumbo loans are part of what is called the Residential Mortgage-backed Securities (RMBS) sector.

basis points per year. Note the significant increase in coupons on all tranches between 07-1 and 07-2, which reflects a significant change in investor sentiment from January to Jul 2007.

When a credit event occurs, the protection seller makes a payment to the protection buyer in an amount equal to the loss. Credit events include the shortfall of interest or principal (i.e. the servicer fails to forward a payment when it is due) as well as the write-down of the tranche due to losses on underlying mortgage loans. In the event that these losses are later reimbursed, the protection buyer must reimburse the protection seller.

For example, if one tranche of a securitization referenced in the index is written down by an amount of 1%, and the current balance of the tranche is 70% of its original balance, an institution which has sold $10 million in protection must make a payment of $583,333 [= $10m × 70% × (1/20)] to the protection buyer. Moreover, the future protection fee will be based on a principal balance that is 0.20% [= 1% × (1/20)] lower than before the write-down of the tranche.

Changes in investor views about the risk of the mortgage loans over time will affect the price at which investors are willing to buy or sell credit protection. However, the terms of the insurance contract (i.e. coupon, maturity, pool of deals) are fixed. The ABX tracks the amount that one party has to pay the other at the onset of the contract in order for both parties to accept the terms. For example, when investors think the underlying loans have become more risky since the index was created, a protection buyer will have to pay an up-front fee to the protection seller in order to only pay a coupon of 76 basis points per year. On 24 July, the ABX.AAA.07 was at 98.04, suggesting that a protection buyer would have to pay the seller a fee of 1.96% up-front. Using an estimate of 5.19 from UBS of this tranche's estimated duration, it is possible to write the implied spread on the tranche as 114 basis points per year [= 100 × (100 - 98.04)/5.19 + 76].

Figure 5 documents the behavior of the BBB-rated 06-2 vintage of the ABX over the first six and a half months of 2007. Note from Table 16 that the initial coupon on this tranche was 133 basis points. However, the first two months of the year marked a significant adverse change in investor sentiment against the home equity sector. In particular, the BBB-rated index fell from 95 to below 75 by the end of February. Using an estimated duration of 3.3, the implied spread increased from just under 300 basis points to almost 900 basis points. Through the end of May, this index fluctuated between 80 and 85, consistent with an implied spread of about 650 basis points. However, the market responded adversely to a further deterioration in performance following the May remittance report, and at the time of this writing, the index has dropped to about 54, consistent with an implied spread of approximately 1800 basis points.

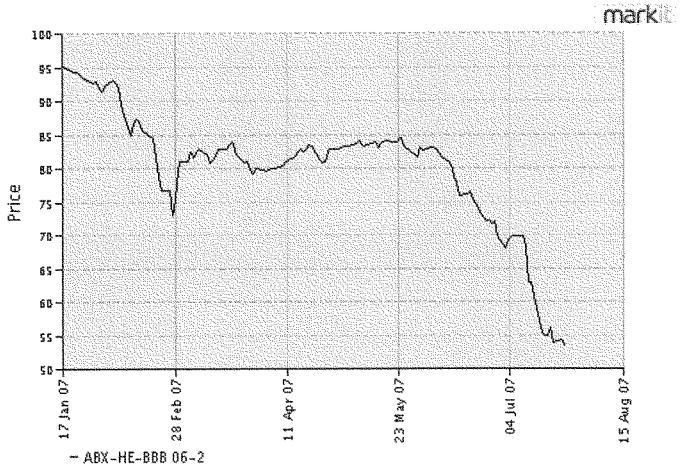
While it is not clear what exactly triggered the sell-off in the first two months of January, there were some notable events that occurred over this period. There were early concerns about the vintage in the form of early payment defaults resulting in originators being forced to repurchase loans from securitizations. These repurchase requests put pressure on the liquidity of originators. Moreover, warehouse lenders began to ask for more collateral, putting further liquidity pressure on originators.

Table 16: Overview of the ABX Index

Vintage	Credit Rating	Coupon Rate	Index Price	Estimated Duration	Implied Spread
07-2	AAA	76	98.04	5.19	114
07-2	AA	192	95.36	3.85	313
07-2	A	369	78.05	3.47	1002
07-2	BBB	500	54.43	3.31	1877
07-2	BBB-	500	47.31	3.30	2097
07-1	AAA	9	95.05	5.07	107
07-1	AA	15	88.36	3.7	330
07-1	A	64	65.5	3.44	1067
07-1	BBB	224	44.55	3.02	2060
07-1	BBB-	389	41.79	2.75	2506
06-2	AAA	11	96.45	4.68	87
06-2	AA	17	92.79	3.21	242
06-2	A	44	74.45	3.05	882
06-2	BBB	133	53.57	2.77	1809
06-2	BBB-	242	46.75	2.53	2347
06-1	AAA	18	99.04	4.27	40
06-1	AA	32	97.82	2.89	107
06-1	A	54	85.04	2.74	600
06-1	BBB	154	74.79	2.57	1135
06-1	BBB-	267	66.93	2.42	1634

Source: Coupon and Price: Markit (24 July 2007); duration: UBS; Implied spread is author's calculation as follows: implied spread = 100*[100-price]/duration + coupon rate.

Figure 5: ABX.BBB 06-2



Source: Markit

4. Overview of subprime MBS

The typical subprime trust has the following structural features designed to protect investors from losses on the underlying mortgage loans:

- Subordination
- Excess spread
- Shifting interest
- Performance triggers
- Interest rate swap

We discuss each of these forms of credit enhancement in turn.

4.1. Subordination

The distribution of losses on the mortgage pool is typically tranched into different classes. In particular, losses on the mortgage loan pool are applied first to the most junior class of investors until the principal balance of that class is completely exhausted. At that point, losses are allocated to the most junior class remaining, and so on.

The most junior class of a securitization is referred to as the equity tranche. In the case of subprime mortgage loans, the equity tranche is typically created through over-collateralization (o/c), which means that the principal balance of the mortgage loans exceeds the principal balance of all the debt issued by the trust. This is an important form of credit enhancement that is funded by the arranger in part through the premium it receives on offered securities. O/C is used to reduce the exposure of debt investors to loss on the pool mortgage loans.

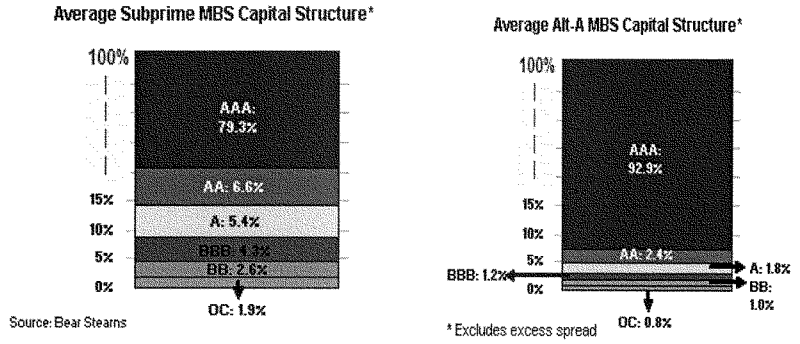
A small part of the capital structure of the trust is made up of the mezzanine class of debt securities, which are next in line to absorb losses once the o/c is exhausted. This class of securities typically has several tranches with credit ratings that vary between AA and B. With greater risk comes greater return, as these securities pay the highest interest rates to investors. The lion's share of the capital structure is always funded by the senior class of debt securities, which are last in line to absorb losses. Senior securities are protected not only by o/c, but also by the width of the mezzanine class. In general, the sum of o/c and the width of all tranches junior is referred to as subordination. Senior securities generally have the highest rating, and since they are last in line (to absorb losses), pay the lowest interest rates to investors.

Table 17: Capital structure of GSAMP Trust 2006-NC2

Tranche description				Credit Ratings		Coupon Rate	
Class	Notional	Width	Subordination	S&P	Moody's	(1)	(2)
A-1	$239,618,000	27.18%	72.82%	AAA	Aaa	0.15%	0.30%
A-2A	$214,090,000	24.29%	48.53%	AAA	Aaa	0.07%	0.14%
A-2B	$102,864,000	11.67%	36.86%	AAA	Aaa	0.09%	0.18%
A-2C	$99,900,000	11.33%	25.53%	AAA	Aaa	0.15%	0.30%
A-2D	$42,998,000	4.88%	20.65%	AAA	Aaa	0.24%	0.48%
M-1	$35,700,000	4.05%	16.60%	AA+	Aa1	0.30%	0.45%
M-2	$28,649,000	3.25%	13.35%	AA	Aa2	0.31%	0.47%
M-3	$16,748,000	1.90%	11.45%	AA-	Aa3	0.32%	0.48%
M-4	$14,986,000	1.70%	9.75%	A+	A1	0.35%	0.53%
M-5	$14,545,000	1.65%	8.10%	A	A2	0.37%	0.56%
M-6	$13,663,000	1.55%	6.55%	A-	A3	0.46%	0.69%
M-7	$12,341,000	1.40%	5.15%	BBB+	Baa1	0.90%	1.35%
M-8	$11,019,000	1.25%	3.90%	BBB	Baa2	1.00%	1.50%
M-9	$7,052,000	0.80%	3.10%	BBB-	Baa3	2.05%	3.08%
B-1	$6,170,000	0.70%	2.40%	BB+	Ba1	2.50%	3.75%
B-2	$8,815,000	1.00%	1.40%	BB	Ba2	2.50%	3.75%
X	$12,340,995	1.40%	0.00%	NR	NR	N/A	N/A

Source: Prospectus filed with the SEC of GSAMP 2006-NC2

Figure 6: Typical Capital Structure of Subprime and Alt-A MBS



The capital structure of GSAMP 2006-NC1 is illustrated in Table 17. First, note that the o/c is the class X, which represents 1.4% of the principal balance of the mortgages. There are two B classes of securities not offered in the prospectus. The mezzanine class benefits from a total of 3.10% of subordination created by the o/c and the class B securities. However, note that the mezzanine class is split up into 9 different classes, M-1 to M-10, which class M-2 being junior to class M-1, etc. For example, the M-8 class tranche, which has an investment grade-rating of BBB, has subordination of 3.9% and pays a coupon of 100 basis points. Investors receive 1/12 of this amount on the distribution date, which is the 25th of each month. The senior class

benefits from 20.65% of total subordination, including the width of the mezzanine class (19.25%).

Note that the New Century structure is broken into two groups of Class A securities, corresponding to two sub-pools of the mortgage loans. In Group I loans, every mortgage has original principal balance lower than the GSE-conforming loan limits. This feature permits the GSEs to purchase these Class A-1 securities. However, in the Group II loans, there is a mixture of mortgage loans with original principal balance above and below the GSE-conforming loan limit.

The table does not mention either the class P or class C certificates, which have no face value and are not entitled to distributions of principal or interest. The class P securities are the sole beneficiary of all future prepayment penalties. Since the arranger will be paid for these rights, it reduces the premium needed on other offered securities for the deal to work. The class C securities contain a clean-up option which permits the trust to call the offered securities should the principal balance of the mortgage pool fall to a sufficiently low level.[12] In our example deal, the offered debt securities are rated by both S&P and Moody's. Note that Table 17 documents that there is no disagreement between the agencies in their opinion of the appropriate credit rating for each tranche.

4.2. Excess spread

Subordination is not the only protection that senior and mezzanine tranche investors have against loss. As an example, the weighted average coupon from the mortgage loan will typically be larger than fees to the servicers, net payments to the swap counterparty, and the weighted average coupon on debt securities issued by the trust. This difference is referred to as excess spread, which is used to absorb credit losses on the mortgage loans, with the remainder distributed each month to the owners of the Class X securities. Note that this is the first line of defense for investors for credit losses, as the principal of no tranche is reduced by any amount until credit losses reduce excess spread to a negative number. The amount of credit enhancement provided by excess spread depends on both the severity as well as the timing of losses.

In the New Century deal, the weighted average coupon on the tranches at origination is LIBOR plus 23 basis points. With LIBOR at 5.32% at the time of issue, this implies an interest cost of 5.55%. In addition to this cost, the trust pays 51 basis points in servicing fees and initially pays 13 basis points to the swap counterparty (see below). As the weighted average interest rate on collateral at the time of issue is 8.30%, the initial excess spread on this mortgage pool is 2.11%.

More generally, the amount of excess spread varies by deal, but averaged about 2.5 percent during 2006. Dealers estimate that loss rates must reach 9 percent before the average BBB minus bond sustains its first dollar of principal loss, about twice its initial subordination of 4.5 percent in Figure 6 above.

[12] The figure also omits discussion of certain "residual certificates" that are not entitled to distributions of interest but appear to be related to residual ownership interests in assets of the trust.

4.3. Shifting interest

Senior investors are also protected by the practice of shifting interest, which requires that all principal payments to be applied to senior notes over a specified period of time (usually the first 36 months) before being paid to mezzanine bondholders. During this time, known as the "lockout period," mezzanine bondholders receive only the coupon on their notes. As the principal of senior notes is paid down, the ratio of the senior class to the balance of the entire deal (senior interest) decreases during the first couple years, hence the term "shifting interest". The amount of subordination (alternatively, credit enhancement) for the senior class increases over time because the amount of senior bonds outstanding is smaller relative to the amount outstanding for mezzanine bonds.

4.4. Performance triggers

After the lockout period, subject to passing performance tests,[13] the o/c is released and principal is applied to mezzanine notes from the bottom of the capital structure up until target levels of subordination are reached (usually twice the initial subordination, as a percent of current balance). In addition to protecting senior note holders, the purpose of the shifting interest mechanism is to adjust subordination across the capital structure after sufficient seasoning. Also, the release of o/c and pay-down of mezzanine notes reduces the average life of these bonds and the interest costs of the securitization.

In our example securitization, o/c is specified to be 1.4% of the principal balance of the mortgage loans as of the cutoff-date, at least until the step-down date. The step-down date is the earlier of the date on which the principal balance of the senior class has been reduced to zero and the later to occur of 36 months or subordination of the senior class being greater than or equal to 41.3% of the aggregate principal balance of remaining mortgage loans. The trigger event is defined as a distribution date when one of the following two conditions is met:

- The rolling three-month average of 60-days or more delinquent (including those in foreclosure, REO properties, or mortgage loans in bankruptcy) divided by the remaining principal balance of the mortgage loans is larger than 38.70% of the subordination of the senior class from the previous month; or,
- The amount of cumulative realized losses incurred over the life of the deal as a fraction of the original principal balance of the mortgage loans exceeds the thresholds in Figure 7.

If the trigger event does not occur, the deal is 36 months old, and the subordination of the senior class is larger than 41.3%, then the deal will step-down. In this case, o/c is specified to be 2.8 percent of the principal balance of the mortgage loans in the previous month, subject to a floor equal to 0.5% of the principal balance of the mortgage loans as of the cut-off date. At this time, any excess o/c is released to holders of the Class X tranche. Note that the trigger event only affects whether or not o/c is released.

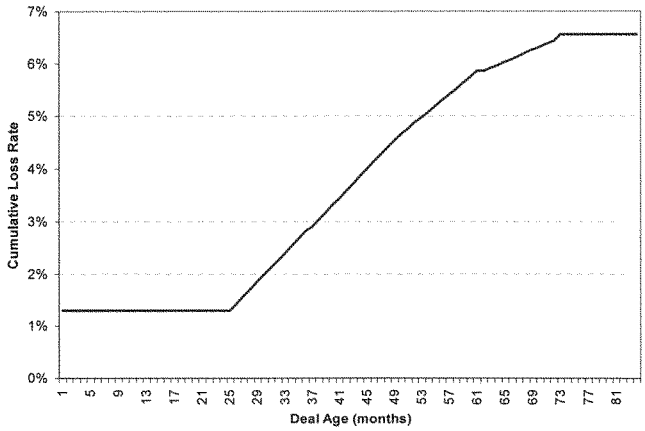
[13] There are two types of performance tests in subprime deals, one testing the deal's cumulative losses against a loss schedule, and another test for 60+ day delinquencies.

4.5. Interest rate swap

While most of the loans are ARMs, as discussed above, the interest rates will not adjust for two to three years following origination. It follows that the trust is exposed to the risk that interest rates increase, so that the cost of funding increases faster than interest payments received on the mortgages. In order to mitigate this risk, the trust engages in an interest rate swap with a third-party named the swap counterparty. In particular, the third-party has agreed to accept a sequence of fixed payments in return for promising to send a sequence of adjustable-rate payments.

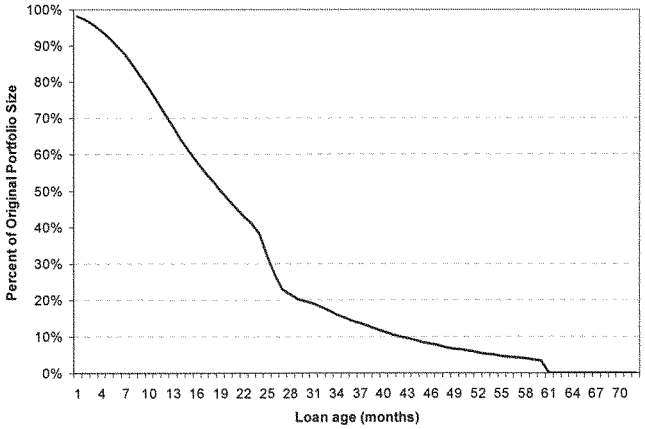
In our example, Goldman Sachs is the Swap counterparty, which has agreed to pay 1-month LIBOR and accept a fixed interest rate of 5.45% on a notional amount described in Figure 8 over a term of 60 months. Note that the notional amount hedged decreases over time, as the trust expects pre-payments of principal on the pool of mortgage loans to reduce the amount of debt securities outstanding.

Figure 7: Cumulative Loss Thresholds for GSAMP Trust 2006-NC2 Trigger Event



Source: SEC Prospectus for GSAMP Trust 2006-NC2

Figure 8: Schedule of Interest Swap Notional for GSAMP Trust 2006-NC2



Source: SEC Prospectus for GSAMP Trust 2006-NC2

4.6 Remittance reports

The trustee makes monthly reports to investors known as remittance reports. In this section, we use data from these reports in order to document the performance of the New Century deal through August 2007.

Table 18 documents cash receipts of the trust. Scheduled principal and interest are collected from a borrower's monthly payment. Unscheduled principal is collected from borrowers who pay more than their required monthly payment, as well as borrowers who either pre-pay or default on their loans. The first three columns of the table report the remittance of scheduled and unscheduled principal as well as interest and pre-payment penalties. The fourth column reports advances of principal and interest made to the trust by the servicer to cover the non-payment of these items by certain borrowers. The fifth column documents the repurchase of loans by New Century which have been determined to violate the originator's representations and warranties. Note that only one loan has been repurchased with a principal balance of $184,956 as of this writing. Finally, realized losses are reported in the sixth column.

Table 18: GSAMP Trust 2006-NC2 cash receipts

Date	Remittances of principal		Remittances of interest and prepayment penalties	Servicer Advances	Loan Repurchases	Realized losses	Deposits
	Scheduled	Unscheduled					
Jul-06	$329,304	$9,067,656	$5,860,567	$233,039	$0	$0	$15,561,090
Aug-06	$328,927	$11,818,842	$5,772,726	$483,778	$0	$0	$18,492,964
Sep-06	$328,005	$18,872,868	$5,099,068	$1,317,531	$0	$0	$25,783,064
Oct-06	$324,632	$21,123,948	$5,874,901	$1,230,848	$0	$0	$28,870,206
Nov-06	$320,165	$21,913,838	$5,669,909	$1,191,300	$0	$0	$29,496,641
Dec-06	$315,176	$42,949,370	$5,496,644	$1,174,086	$0	$0	$50,229,238
Jan-06	$303,981	$20,805,981	$4,992,533	$1,342,346	$0	$0	$27,717,274
Feb-06	$298,715	$15,842,586	$4,874,742	$1,293,706	$184,956	-$1,162	$22,738,857
Mar-06	$294,018	$12,488,956	$4,845,576	$1,346,264	$0	-$179,720	$18,945,495
Apr-06	$292,054	$9,947,596	$4,781,758	$1,369,108	$0	-$166,703	$16,351,873
May-06	$290,315	$12,190,508	$4,605,848	$1,493,314	$0	-$323,425	$18,459,415
Jun-06	$285,113	$16,320,384	$4,554,347	$1,577,756	$0	-$233,174	$22,742,178
Jul-06	$279,953	$12,764,719	$4,386,611	$1,712,117	$0	-$835,539	$18,504,802
Aug-06	$275,885	$12,226,786	$4,425,290	$1,720,552	$0	-$459,357	$18,380,129

Source: remittance reports through ABSNet

Table 19 documents the cash expenses of the trust. The net swap payments are reported in the first column. Recall that the trust pays Goldman Sachs a fixed interest rate of 5.45 percent and receives an amount equal to one-month LIBOR, each on the amount referenced by Table 18 above. The servicer fees are based on the outstanding principal balance of the mortgage loans at the end of the last month, with 50 basis points paid to the servicer (Owcen) and just under 1 basis point paid to the master servicer (Wells Fargo). All principal paid by the borrower is advanced to the holders of Class A certificates. Each tranche is paid the stated coupon from Table 18 above based on the amount outstanding at the end of the previous month. Prepayment penalties are paid to the owners of the Class P tranche. The residual is denoted excess spread, and is paid to the owners of the Class X tranche each month.

The face value of the Class X tranche is $12.3 million. To date, this tranche has been paid excess spread in the amount of $16.1 million. Note that the amount paid to this tranche has decreased over time as credit losses have reduced excess spread. Interestingly, even if the owners of this class are not paid another dollar of interest, they will have received an amount equal to 130.9% of par.[14]

Table 19: Trust cash outlays

Date	Net Swap payments	Servicing fees	Servicer advance reimbursements	LIBOR certificate		Prepayment penalties	Excess Spread
				Principal	Interest		
Jul-06	$62,518	$374,270	$0	$9,396,455	$3,503,784	$70,524	$2,153,539
Aug-06	$47,927	$370,280	$233,039	$12,147,768	$4,159,454	$88,691	$1,445,805
Sep-06	$91,323	$365,123	$483,778	$19,200,881	$4,058,029	$165,593	$1,418,337
Oct-06	$82,957	$356,970	$1,317,531	$21,448,581	$3,844,241	$315,875	$1,504,051
Nov-06	$96,794	$347,863	$1,230,848	$22,234,002	$4,114,629	$401,429	$1,071,070
Dec-06	$82,988	$338,423	$1,191,300	$43,264,545	$3,518,752	$293,963	$1,539,266
Jan-06	$64,178	$320,054	$1,174,086	$21,109,962	$3,463,517	$272,433	$1,313,044
Feb-06	$86,137	$311,091	$1,342,346	$16,141,301	$3,573,069	$245,315	$1,039,598
Mar-06	$72,641	$304,238	$1,293,706	$12,782,974	$3,058,328	$150,401	$1,283,208
Apr-06	$74,677	$298,810	$1,346,264	$10,239,650	$3,219,019	$128,060	$1,045,393
May-06	$71,316	$294,463	$1,369,108	$12,480,823	$3,172,768	$202,855	$868,082
Jun-06	$70,108	$289,163	$1,493,314	$16,605,497	$3,220,305	$237,753	$826,037
Jul-06	$64,543	$282,113	$1,577,756	$13,044,672	$3,041,335	$196,941	$297,443
Aug-06	$67,536	$276,574	$1,712,117	$12,502,671	$3,280,603	$190,972	$349,654

Source: remittance reports from ABSNet

[14] Note given the amount of cash being paid out to equity tranche investors in such a bad state of nature, it is likely that these investors have paid a premium over par for these securities, so this should not be interpreted as a return.

There are two trigger events which prevent the release of over-collateralization at the step-down date, as shown in Table 20. The trigger amount in the third column for the 3-month moving average of 60-day delinquencies is 38.7 percent of the previous month's senior enhancement percentage reported in the fourth column. Recall that the trigger amount for the cumulative losses is constant at 1.3 percent over the first two years of the deal. While losses to date remain lower than the loss trigger amount, the 3-month moving average of 60-day delinquencies has been larger than the threshold amount since the April 2007 remittance report.

Table 20: Key triggers

Date	LIBOR	Moving Average 60d Delinquency		Senior Enhancement		Cumulative Loss	
	1-month	Amount	Trigger	Amount	Specified	Amount	Trigger
Jul-06	5.35%	0.04%	7.99%	20.87%	41.30%	0.00%	1.30%
Aug-06	5.38%	0.02%	8.08%	21.17%	41.30%	0.00%	1.30%
Sep-06	5.32%	0.78%	8.19%	21.65%	41.30%	0.00%	1.30%
Oct-06	5.33%	2.32%	8.38%	22.22%	41.30%	0.00%	1.30%
Nov-06	5.32%	4.84%	8.60%	22.84%	41.30%	0.00%	1.30%
Dec-06	5.32%	6.42%	8.84%	24.18%	41.30%	0.00%	1.30%
Jan-06	5.35%	7.97%	9.35%	24.84%	41.30%	0.00%	1.30%
Feb-06	5.32%	9.12%	9.61%	25.40%	41.30%	0.00%	1.30%
Mar-06	5.32%	4.47%	9.83%	25.86%	41.30%	0.02%	1.30%
Apr-06	5.32%	12.62%	10.10%	26.25%	41.30%	0.04%	1.30%
May-06	5.32%	14.32%	10.16%	26.73%	41.30%	0.08%	1.30%
Jun-06	5.32%	16.07%	10.34%	27.40%	41.30%	0.10%	1.30%
Jul-06	5.32%	17.83%	10.60%	27.94%	41.30%	0.19%	1.30%
Aug-06	5.32%	19.66%	10.81%	28.49%	41.30%	0.24%	1.30%

Source: remittance reports from ABSnet

The remittance report also discloses loan modifications performed by the servicer each month. Note that through the August remittance report, there have been no modifications of any mortgage loan in the pool. This is not surprising as the first payment reset date for these 2/28 ARMs will not be until spring 2008.

Finally, the remittance report also discloses information that permits a calculation of loss severity. At the time of this writing, the trust has incurred a loss of $2.199 million on 44 mortgage loans with principal balance of $5.042 million, for a loss severity of 43.6 percent. This number is only modestly higher than the assumption used in forecasting the lifetime performance of the deal using the UBS methodology.

5. An overview of subprime MBS ratings

This section is intended to provide an overview of how the rating agencies assign credit ratings on tranches of a securitization. We start with a general discussion of credit ratings before moving into the details on the rating process. We continue with an overview of the process through which the credit rating agencies monitor performance of securitization deals over time, and review performance of credit ratings on securities secured by subprime mortgages. In this section there are a number of asides to complement the analysis: conceptual differences between corporate and structured credit ratings; a note on how through-the-cycle structured credit ratings can amplify the housing cycle; an explanation of the timing of recent downgrades.

5.1. What is a credit rating?

A credit rating by a CRA represents an overall assessment and opinion of a debt obligor's creditworthiness and is thus meant to reflect only credit or default risk. To be sure, it is not the obligor but the instrument issued by the obligor which receives a credit rating. The distinction is not that relevant for corporate bonds, where the obligor rating is commensurate with the rating on a senior unsecured instrument, but is quite relevant for structured credit products such as asset-backed securities (ABS). Nonetheless, in the words of a Moody's presentation (Moody's 2004), "[t]he comparability of these opinions holds regardless of the country of the issuer, is industry, asset class, or type of fixed-income debt." A recent S&P document states "[o]ur ratings represent a uniform measure of credit quality globally and across all types of debt instruments. In other words, an 'AAA' rated corporate bond should exhibit the same degree of credit quality as an 'AAA' rated securitized issue." (S&P 2007, p.4).

This stated intent implies that an investor can assume that, say, a double-A rated instrument is the same in the U.S. as in Belgium or Singapore, regardless whether that instrument is a standard corporate bond or a structured product such as a tranche on a collateralized debt obligation (CDO); see also Mason and Rosner (2007). The actual behavior of rated obligors or instruments may turn out to have more heterogeneity across countries, industries, and product types, and there is substantial supporting evidence. See Nickell, Perraudin, and Varvotto (2000) for evidence across countries of domicile and industries for corporate bond ratings, and CGFS (2005) for differences between corporate bonds and structured products.

The rating agencies differ about what exactly is assessed. Whereas Fitch and S&P evaluate an obligor's overall capacity to meet its financial obligation, and hence is best through of as an estimate of probability of default, Moody's assessment incorporates some judgment of recovery in the event of loss. In the argot of credit risk management, S&P measures PD (probability of default) while Moody's measure is somewhat closer to EL (expected loss) (BCBS, 2000).[15] Interestingly, these differences seem to remain for structured products. In describing their ratings criteria and methodology for structured products, S&P states: "[w]e base our ratings framework on the likelihood of default rather than expected loss or loss given default. In other words, our ratings at the rated instrument level don't incorporate any analysis or opinion on post-default recovery prospects." (S&P, 2007, p. 3) By contrast, Fitch incorporates some measure of expected recovery into their structured product ratings.[16]

Credit ratings issued by the agencies typically represent an unconditional view, sometimes called "cycle-neutral" or "through-the-cycle:" the rating agency's own description of their rating methodology broadly supports this view.

(Moody's 1999, p. 6-7) "...[O]ne of Moody's goals is to achieve stable *expected* [italics in original] default rates across rating categories and time ... Moody's believes that giving only modest weight to cyclical conditions serves the interests of the bulk of investors."

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[15] Specifically, EL = PD×LGD, where LGD is loss given default. However, given the paucity of LGD data, little variation in EL exists at the obligor (as opposed to instrument) level can be attributed to variation in LGD making the distinction between the agencies modest at best.

[16] See http://www.fitchratings.com/corporate/fitchResources.cfm?detail=1&rd_file=intro#rtng_actn.

(S&P 2001, p. 41): "Standard & Poor's credit ratings are meant to be forward-looking; ... Accordingly, the anticipated ups and downs of business cycles – whether industry specific or related to the general economy – should be factored into the credit rating all along ... The ideal is to rate 'through the cycle'".

This unconditional or firm-specific view of credit risk stands in contrast to risk measures such as EDFs (expected default frequency) from Moody's KMV. An EDF has two principal inputs: firm leverage and asset volatility, where the latter is derived from equity (stock price) volatility. As a result EDFs can change frequently and significantly since they reflect the stock market's view of risk for that firm at a given point in time, a view which incorporates both systematic and idiosyncratic risk.

Unfortunately there is substantial evidence that credit rating changes, including changes to default, exhibit pro-cyclical or systematic variation (Nickell, Perraudin, and Varotto, 2000; Bangia et. al, 2002; Lando and Skodeberg, 2002), especially for speculative grades (Hanson and Schuermann, 2006).

5.2. How does one become a rating agency? [17]

Credit ratings have a long history of playing a role in the regulatory process going back to the 1930s in the U.S. (Sylla, 2002). Asset managers such as pension funds and insurers often have strict asset allocation guidelines which are ratings driven, such as, for instance, a ceiling on the amount that can be invested in speculative grade debt.[18] With the introduction of the Basel 2 standards, ratings have entered bank capital regulation. But whose ratings can be used is left up to the host country supervisor.[19] In the U.S. we use the SEC designation of a "Nationally Recognized Statistical Rating Organization," NRSRO, introduced in 1975. All three main rating agencies at the time – Moody's, S&P and Fitch – received this designation (White, 2002). It was not until 1997 that the SEC laid out formal criteria for becoming an NRSRO (Levich, Majnoni and Reinhart, 2002). Only with the Credit Rating Agency Reform Act of 2006 did the SEC officially obtain authority to regulate and supervise CRAs that have been designated NRSROs.[20]

Under the Reform Act, in order to qualify as an NRSRO, a credit agency must register with the SEC and it must have been in business as a credit rating agency for at least three consecutive years proceeding the date of its application.[21] The application must contain, among other things, information regarding the applicant's credit ratings performance measurement statistics over short-term, mid-term, and long-term periods; the procedures and methodologies that the applicant uses in determining credit ratings; policies or procedures adopted and implemented to prevent misuse of material, nonpublic information; and any conflict of interest relating to the issuance of credit ratings by the applicant.[22] All documentation submitted by the applicant

[17] We are indebted to Michelle Meertens for help with this section.
[18] ERISA, the Employee Retirement Income Security Act of 1974, is one such example.
[19] European guidelines can be found in "Committee of European Banking Supervisors, Guidelines on the Recognition of External Credit Assessment Institutions (Jan 20, 2006); available at http://www.bundesbank.de/download/bankenaufsicht/pdf/cebs/GL07.pdf.
[20] The final rule did not come out until June 2007 (http://www.sec.gov/rules/final/2007/34-55857fr.pdf).
[21] 15 U.S.C. 78c(a)(62).
[22] 15 U.S.C. 78o-7(a)(1)(B).

must be made publicly available on its website,[23] and the information must be kept up to date and current.[24]

Since the early 1970s (1970 for Moody's and Fitch, S&P a few years later), issuers rather than investors are charged for obtaining a rating. These ratings are costly: $25,000 for issues up to $500 million, ½ bp for issues greater than $500 million (Kliger and Sarig, 2000). Treacy and Carey (2000) report that the usual fee charged by S&P is 3.25 bp of the face amount, though it may be up to 4.25 bp (Tomlinson and Evans, 2007); Fitch charges 3-7 bp (Tomlinson and Evans, 2007). The fees charged for rating structured credit products are higher: up to 12 bp by S&P and 7-8 bp by Fitch (Tomlinson and Evans, 2007). Moody's does not publish its pricing schedule.

5.3. When is a credit rating wrong? How could we tell?

Highly rated firms default quite rarely. For example, Moody's reports that the one-year investment grade default rate over the period 1983-2006 was 0.073% or 7.3 bp. This is an average over four letter grade ratings: Aaa through Baa. Thus in a pool of 10,000 investment grade obligors or instruments we would expect seven to default over the course of one year. What if only three default? What about eleven? Higher than expect default could be the result of either a bad draw (bad luck) or an indicator that the rating is wrong, and it is very hard to distinguish between the two, especially for small probabilities (see also Lopez and Saidenberg, 2000). Indeed the use of the regulatory color scheme, which is behind the 1996 Market Risk Amendment to the Basel I, was motivated precisely by this recognition, and in that case the probability to be validated is comparatively large 1% (for 99% VaR) (BCBS, 1996) with daily data.

There are other approaches. Although rating agencies insist that their ratings scale reflects an ordinal ranking of credit risk, they also publish default rates for different horizons by rating. Thus we would expect default rates or probabilities to be monotonically increasing as one descends the credit spectrum. Using ratings histories from S&P, Hanson and Schuermann (2006) show formally that monotonicity is violated frequently for most notch-level investment grade one-year estimated default probabilities. The precision of the probability of default (PD) point estimates is quite low; see Appendix 3 for further discussion. Indeed there have been no defaults over one year for triple-A or AA+ (Aa1) rated firms, yet surely we do not believe that the one-year probability of default is identically equal to zero.

Although the one-year horizon is typical in credit analysis (and is also the horizon used in Basel 2), most traded credit instruments have longer maturity. For example, the typical CDS contract is five years, and over that horizon there are positive empirical default rates for Aaa and Aa1 which Moody's reports to be 7.8bp and 14.9bp respectively (Moody's, 2007c).

"We perform a very significant but extremely limited role in the credit markets. We issue reasoned, forward-looking opinions about credit risk," says Fran Laserson, vice president of corporate communications at Moody's. "Our opinions are objective and not tied to any recommendations to buy and sell."

[23] 15 U.S.C. 78o-7(a)(3).
[24] 15 U.S.C. 78o-7(b)(1).

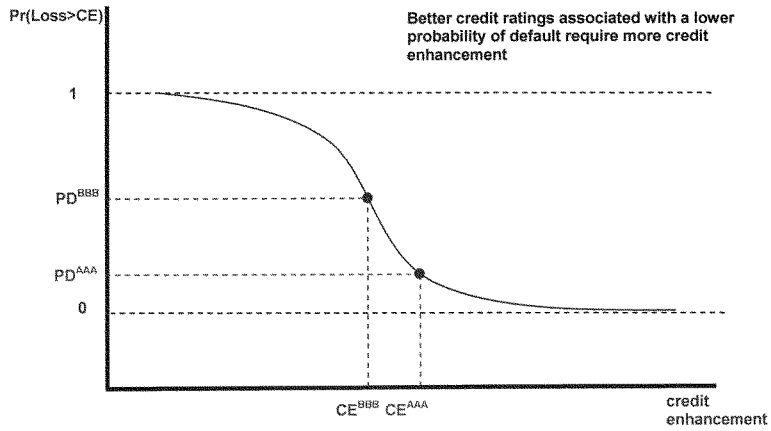
5.4. The subprime credit rating process

The rating process can be split into two steps: (1) estimation of a loss distribution, and (2) simulation of the cash flows. With a loss distribution in hand, it is straightforward to measure the amount of credit enhancement necessary for a tranche to attain a given credit rating. Credit enhancement (CE) is simply the amount of loss on underlying collateral that can be absorbed before the tranche absorbs any loss. When a credit rating is associated with the probability of default, the amount of credit enhancement is simply the level of loss CE such that the probability that loss is higher than CE is equal to the probability of default.

Figure 9 below illustrates how one can use the portfolio loss distribution in order map the PD associated with a credit rating on a particular tranche to a level of credit enhancement required for that tranche. For example, given a PD associated with a AAA credit rating, the credit enhancement is quite high at CE(AAA). However, given a higher PD associated with a BBB credit rating, the required credit enhancement is much lower at CE(BBB). A better credit rating is achieved through greater credit enhancement.

In a typical subprime structure, credit enhancement comes from two sources: subordination and excess spread. Subordination refers to the par value of tranches with claims junior to the tranche in question relative to the par value of collateral. It represents the maximum level of loss that could occur immediately without investors in the tranche losing one dollar of interest or principal. Excess spread refers to the difference between the income and expenses of the structure. On the income side, the trust receives interest payments and prepayment penalties from borrowers. On the expense side, the trust pays interest on tranches to investors, pays a fee to the servicer, and might have other payments to make related to derivatives like interest rate swaps. In most structures, excess spread is captured for the first three to five years of the life of the deal, which increases the amount of subordination for each rated tranche over time. Determining how much credit excess spread can be given to meet the required credit enhancement is a dynamic problem that involves simulating cash flows over time, and is the second step of the rating process. We now discuss each of these two steps in greater detail.

Figure 9: Mapping the Loss Distribution to Required Credit Enhancement



5.4.1. Credit enhancement

In the first step of the rating process, the rating agency estimates the loss distribution associated with a given pool of collateral. The mean of the loss distribution is measured through the construction of a baseline frequency of foreclosure and loss severity for each loan that depends on the characteristics of the loan and local area economic conditions. The distribution of losses is constructed by estimating the sensitivity of losses to local area economic conditions for each mortgage loan, and then simulating future paths of local area economic conditions.

In order to construct the baseline, the rating agency uses historical data in order to estimate the likely sensitivity of the frequency of foreclosure and severity of loss to underwriting characteristics of the loan, the experience of the originator and servicer, and local area and national economic conditions. Most of the agencies claim to rely in part on loan-level data from *LoanPerformance* over 1992-2000 in order to estimate these relationships.

The key loan underwriting characteristics include:

- cumulative loan-to-value ratio (CLTV)
- consumer credit score (FICO)
- loan maturity (15 years, 30 years, 40 years, etc)
- interest rate
- fixed-rate (FRM) vs. adjustable-rate (ARM)
- property type (single-family, townhouse, condo, multi-family)
- home value
- documentation of income and assets

- loan purpose (purchase, term refinance, cash-out refinance)
- owner occupancy (owner-occupied, investor)
- mortgage insurance
- asset class (Jumbo, Alt-A, Subprime)

The key originator and servicer adjustments include:

- past performance of the originator's loans
- underwriting guidelines of the mortgage loans and adherence to them
- loan marketing practices
- credit checks made on borrowers
- appraisal standards
- experience in origination of mortgages
- collection practices
- loan modification and liquidation practices

Table 21 documents how the credit support (the product of the frequency of foreclosure and loss severity) for a pool of mortgage loans is sensitive to changes in loan attributes.

Table 21: Sensitivity of Aaa Credit Enhancement Levels to Loan Attributes

	Sample Pool A		Sample Pool B	
	Aaa credit support	Change from Base	Aaa credit support	Change from Base
Base Pool	3.17		2.57	
LTV+5%	4.28	35%	3.52	37%
LTV-5%	2.32	-27%	1.85	-28%
FICO+20	3.02	-5%	2.49	-3%
FICO-20	3.42	8%	2.75	7%
All Cashout				
Appraisal Quality	4.68	48%	3.91	52%
All Purchase	2.62	-17%	2.15	-16%
All Investor	3.69	16%	2.99	16%
All 15-year term	2.42	-24%	1.93	-25%
All ARM	3.47	9%	2.81	9%
All Condo	3.31	4%	2.68	4%
All Alt Doc	3.35	6%	2.78	8%
Price > $300k, LTV constant	3.8	20%	3.10	21%

Source: *Moody's Mortgage Metrics*
Pool A: LTV 67, FICO 732, CashOut 19%, Purch 21%, Single Fam 89%, Owner 98%, Fulldoc 75%, 30-year 98%, Fixed Rate 100% Pool B: LTV 65, FICO 744, CashOut 17%, Purch 21%, Single Fam 89%, Owner 96%, Fulldoc 95%, 30-year 98%, Fixed Rate 100%

The Aaa credit enhancement for the base pools are illustrated in the first row. As Pool A has a higher LTV, lower FICO, and lower percentage of full documentation than Pool B, it has a higher level of credit support (3.17 percent versus 2.57 percent). Table 21 also illustrates the impact of changing one characteristic of the pool for all loans in the pool, holding all other characteristics constant. For example, if all loans in the pool were underwritten under an Alternative Documentation program, the credit support of Pool A would increase by 6 percent

to 3.35 percent and Pool B would increase by 8 percent to 2.78 percent. Note that the change in support depends on both the sensitivity of support to the loan characteristic as well as the size of the change in the characteristic. Changes in leverage appear to have significant effects on credit support, as an increase of five percentage points is associated with an increase in credit support by more than one-third.[25]

The rating agency will typically adjust this baseline for current local area economic conditions like the unemployment rate, interest rates, and home price appreciation. The agencies are quite opaque about this relationship, and for some reason do not illustrate the impact of changes in local area economic conditions on credit enhancement in their public rating criteria. For example, Fitch employs scaling factors developed by University Financial Associates which control for four different components of regional factors: macro factors like employment rates and construction activity, demographic factors like population growth; political/legal factors; and even topographic factors that might constrain the growth of housing markets. The multipliers typically range from 0.5 to 1.7 and are updated quarterly.

In order to simulate the loss distribution, the rating agency needs to estimate the sensitivity of losses to local area economic conditions. Fitch tackles this problem by breaking out actual losses on mortgage loans into independent national and state components for each quarter. The sensitivity of losses to each factor is equal to one by construction. The final step is to fix a distribution for each of these components, and then simulate the loss distribution of the mortgage pool using random draws from the distribution of state and national components of unexpected loss.[26]

5.5. Conceptual differences between corporate and ABS credit ratings

Subprime ABS ratings differ from corporate debt ratings in a number of different dimensions:

- Corporate bond (obligor) ratings are largely based on firm-specific risk characteristics. Since ABS structures represent claims on cash flows from a *portfolio* of underlying assets, the rating of a structured credit product must take into account systematic risk. It is correlated losses which matter especially for the more senior (higher rated) tranches, and loss correlation arises through dependence on shared or common (or systematic) risk factors.[27] For ABS deals which have a large number of underlying assets, for instance MBS, the portfolio is large enough such that all idiosyncratic risk is diversified away leaving only systematic exposure to the risk factors particular to that product class (here, mortgages). By contrast, a substantial amount of idiosyncratic risk may remain in

[25] Note that Moody's have increased subordination levels in subprime RMBS by 30 percent over last three years, and this can be largely attributed to an increase in support required by a decline in underwriting standards.
[26] Note that Fitch actually simulates the frequency of foreclosure and loss severity separately, but the discussion here focuses on the product (expected loss) for simplicity. Each of the national and state components is likely transformed by subtracting the mean and dividing by the standard deviation, so that the distribution converges to a standard normal distribution. This permits the agency to use a two-factor copula model in order to simulate the loss distribution. Note that the sensitivity of losses to the normalized component would be equal to the inverse of the standard deviation of the actual component.
[27] Note that correlation includes more than just economic conditions, as it includes (a) model risk by the agencies (b) originator and arranger effects (c) servicer effects.

ABS transactions with smaller asset pools, for instance CDOs (CGFS, 2005; Amato and Remolona, 2005).

Because these deals are portfolios, the effect of correlation is not the same for all tranches: equity tranches prefer higher correlation, senior tranches prefer lower correlation (tail losses are driven by loss correlation). As correlation increases, so does portfolio loss volatility. The payoff function for the equity tranche is, true to its name, like a call option. Indeed equity itself is a call option on the assets of the underlying firm, and the value of a call option is increasing in volatility. If the equity tranche is long a call option, the senior tranche is short a call option, so that their payoffs behave in an opposite manner. The impact of increased correlation on the value of mezzanine tranches is ambiguous and depends on the structure of a particular deal (Duffie, 2007). By contrast, correlation with systematic risk factors should not matter for corporate ratings.

As a result of the portfolio nature of the rated products, the ratings migration behavior may also be different than for ordinary obligor ratings. Moody's (2007a) reports that rating changes are much more common for corporate bond than for structured product ratings, but the magnitude of changes (number of notches up- or downgraded) was nearly double for the structured products.

- Subprime ABS ratings refer to the performance of a static pool instead of a dynamic corporation. When a firm becomes distressed, it has the option to change its investment strategy and inject more capital. As long as a firm is deemed to be creditworthy during neutral economic conditions, it is reasonable to expect that the firm could take prompt corrective action in order to avoid defaulting on its debt during a transitory decline in aggregate or industry conditions. However, the pool of mortgages underlying subprime ABS is fixed, and investors do not expect an issuer to support a weakly-performing deal.

- Subprime ABS ratings rely heavily on quantitative models while corporate debt ratings rely heavily on analyst judgment. In particular, corporate credit ratings require the separation of a firm's long-run condition and competitiveness from the business cycle, the assessment of whether or not an industry downturn is cyclical or permanent, and determination about whether or not a firm could actually survive a pro-longed transitory downturn.

- Unlike corporate credit ratings, ABS ratings rely heavily on a forecast of economic conditions. Note that a corporate credit rating is based on the agency's assessment that a firm will default during neutral economic conditions (i.e. full employment at the national and industry level). However, the rating agency is unable to focus on neutral economic conditions when assigning subprime ABS ratings, because in the model, uncertainty about the level of loss in the mortgage pool is driven completely by changes in economic conditions. If one were to fix the level of economic activity – for example at full employment – the level of losses is determined, and according to the model, the probability of default is either zero or one. It follows that the credit rating on an ABS tranche is the agency's assessment that economic conditions will deteriorate to the point where losses on the underlying mortgage pool will exceed the tranche's credit

enhancement. In other words, it is largely based on a forecast of economic conditions combined with the agency's estimated sensitivity of losses to that forecast.

- Finally, while an ABS credit rating for a particular rating grade should have similar expected loss to corporate credit rating of the same grade, the volatility of loss can be quite different across asset classes.

5.6. How through-the-cycle rating could amplify the housing cycle

Like corporate credit ratings, the agencies seek to make subprime ABS credit ratings through the housing cycle. Stability means that one should not see upgrades concentrated during a housing boom and downgrades concentrated during a housing bust.

It is not difficult to understand that changes in economic conditions affect the distribution of losses on a mortgage pool. The unemployment rate and home price appreciation have obvious effects on the ability of a borrower to avoid default and the severity of loss in the event of default.

Consider a AAA-rated tranche issued during an environment of high home price appreciation (HPA). Figure 10 illustrates that the level of credit enhancement is determined using the probability associated with a AAA credit rating and the rating agency's estimate of the loss distribution (blue) in this economic environment. However, as the housing market slows down, the loss distribution shifts to the right, as any level of probability is now associated with a higher level of loss. If the rating agency does not respond to this new loss distribution and uses the same level of credit enhancement to structure new deals in a tough economic environment, the probability of default associated with these AAA-rated tranche will actually be closer to a AA than a AAA. It follows that keeping enhancement constant through the cycle will result in ratings instability, with upgrades during a boom and downgrades during a bust.

Rating agency must respond to shifts in the loss distribution by increasing the amount of needed credit enhancement to keep ratings stable as economic conditions deteriorate, as illustrated in the Figure. It follows that the stabilizing of ratings through the cycle is associated with pro-cyclical credit enhancement: as the housing market improves, credit enhancement falls; as the housing market slows down, credit enhancement increases.

This phenomenon has two important implications:

- Pro-cyclical credit enhancement has the potential to amplify the housing cycle, creating credit and asset price bubbles on the upside and contributing to severe credit crunches and on the downside. In order to understand this point, consider the hypothetical example in Figure 11. On the left is an aggressive structure based on strong housing market conditions. The AAA tranche is 80 percent of the funding, and the weighted-average cost of funds is LIBOR+92 bp. However, as the housing market slows down, the rating agency removes leverage from the structure, and increases the subordination of the AAA-rated tranche from 20 to 25 percent. By requiring a larger fraction of the deal to be financed by BBB-rated debt, the weighted-average cost of funds increases to LIBOR+100 bp. This higher cost of funds will require higher interest rates on subprime

mortgage loans, or will require a significant tightening in underwriting standards on the underlying mortgage loans. Note that the de-leveraging the structure has a knock-on effect on economic activity by reducing the supply of credit. It is difficult at this point to assess the importance of this phenomenon to what appeared to be a bubble in housing credit and prices on the upside. One source of concern is that the ratio of upgrades to downgrades appeared to be fairly stable for home equity ABS over 2001-2006 (see the discussion on rating performance below). However, the impact on the downside is fairly certain. One week after a historical downgrade action by the agencies, leading subprime lenders discontinued offering the 2/28 and 3/27 hybrid ARM (see the discussion of ratings performance below).

- Investors in subprime ABS are vulnerable to the ability of the rating agency to predict turning points in the housing cycle and respond appropriately. One must be fair to note that the downturn in housing did not surprise the rating agencies, who had been warning investors about the possibility and the impact on performance for quite some time. However, it does not appear that the agencies appropriately measured the sensitivity of losses to economic activity or anticipated the severity of the downturn.

Figure 10: Credit enhancement and economic conditions

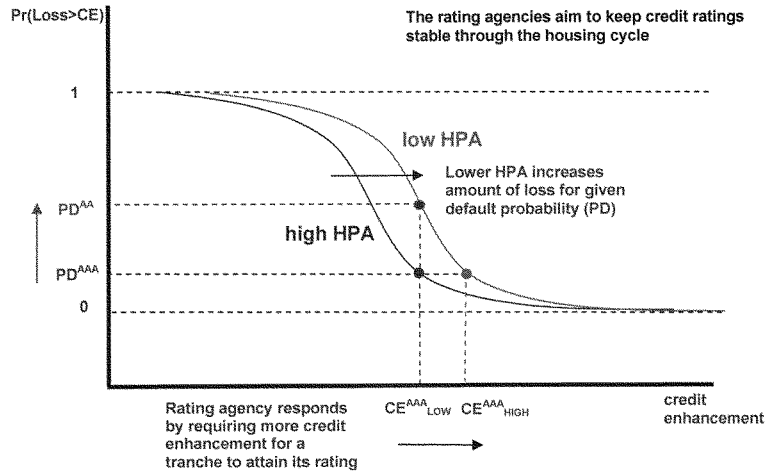
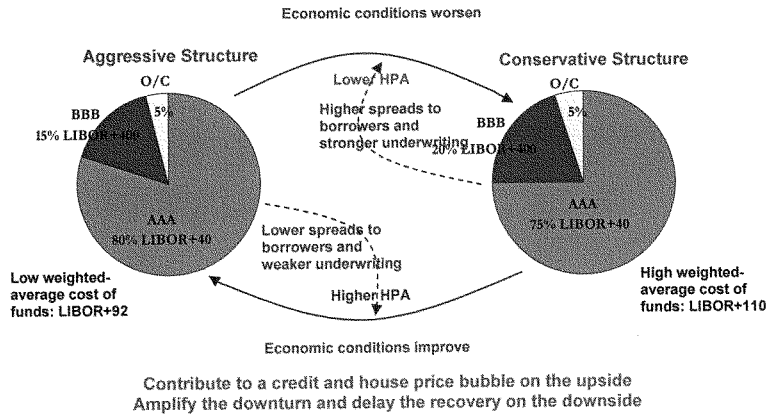


Figure 11: Procyclical credit enhancement



5.7. Cash Flow Analytics for Excess Spread

The second part of the rating process involves simulating the cash flows of the structure in order to determine how much credit excess spread will receive towards meeting the required credit enhancement. As an example, in Table 22 we consider the credit enhancement corresponding to a hypothetical pool of subprime mortgage loans. In this example, the required credit enhancement for the Aaa tranche is 22.50%. A simulation of cash flows suggests that excess spread can contribute 9.25% to meet this requirement, suggesting that the amount of subordination for this tranche must be 13.25%. In this section, we briefly describe how the rating agencies measure this credit attributed to excess spread, focusing on subprime RMBS.

Table 22: Cash flow analytics

Tranche Rating	Required Credit Enhancement	Spread Credit	Subordination	Class Size
Aaa	22.50%	9.25%	13.25%	86.75%
Aa2	16.75%	9.25%	7.50%	5.75%
A2	12.25%	8.75%	3.50%	4.00%
Baa2	8.50%	8.50%	0.00%	3.50%
Total				100%

Source: Moody's

The key inputs into the cash flow analysis involve:

- the credit enhancement for given credit rating
- the timing of these losses
- prepayment rates
- interest rates and index mismatches
- trigger events

- weighted average loan rate decrease
- prepayment penalties
- pre-funding accounts
- swaps, caps, and other derivatives.

The first input to the analysis is amount of losses on collateral that a tranche with a given rating would be able to withstand without sustaining a loss, which corresponds to the required credit enhancement implied from the loss distribution. Note that better credit ratings are associated with higher levels credit enhancement, and thus are associated with a higher level of expected loss on the underlying collateral.

The timing of losses

Table 23 illustrates Moody's assumption about the timing of losses, which is based on historical performance over 1993-1999. Note there are slight differences in the timing between fixed-rate and ARMs. Except for the first year, losses are assumed to be distributed evenly throughout the year. In the first year, losses are distributed evenly throughout the last six months. Adjustments to this assumption need to be made if the pool contains seasoned or delinquent loans.

Table 23: First-lien loss curve (as % of original pool balance)

Year	FRMs	ARMs
1	3%	3%
2	12%	17%
3	20%	25%
4	25%	25%
5	20%	20%
6	15%	10%
7	5%	0%
8	0%	0%
Total	100%	0%

Source: Moody's; based on historical performance over 1993-1999.

Note that an acceleration in the timing of losses implies a lower level of excess spread in later periods, which reduces the contribution that excess spread can make to meet the required credit enhancement. It follows that a conservative approach to rating involves front-loading the timing of losses. Moreover, given the importance of the timing, it is possible to understand how the existence of elevated early payment defaults observed in the 2006 vintages of RMBS will correspond to significant adverse effects on the ratings performance.

Prepayment risk

Prepayments of principal include both the voluntary and involuntary (i.e. default) varieties. Note that the path of the dollar value of involuntary prepayments over time has been tied down by assumptions about the level and timing of losses. It follows that assumptions about the prepayment curve really just pin down the severity of loss on defaulted mortgages (in order to identify the number of involuntary prepayments) and the number of voluntary prepayments. Table 24 documents Moody's assumptions about prepayment rates for a Baa2-rated tranche

secured by a portfolio of subprime loans. The standard measure of prepayment frequency is the Constant Prepayment Rate (CPR), defined as the annualized one-month prepayment rate of loans that remain in the pool.

Table 24: Pre-payment assumption for Baa2-rated tranches

Loan age (months)	FRMs	ARMs	2/28s	3/27s
1	6%	5.5%	5.5%	5.5%
2-18	↑ by 1.33%/mth	↑ by 1.639%/mth	↑ by 1.639%/mth	↑ by 1.639%/mth
19-24	30%	35%	33%	33%
25-30	30%	35%	55%	33%
31-36	30%	35%	33%	33%
37-42	30%	35%	33%	55%
43+	30%	35%	33%	33%

Source: Moody's

For both fixed-rate (FRMs) and adjustable-rate mortgages (ARMs), the CPR increases every month until the 19th month, where it stays constant through the remaining life of the deal. However, for hybrid ARMs, which have a fixed interest rate for either 2 or 3 years and then revert to an ARM, there is a spike in the CPR in the six months following payment reset. Note that since prepayments include defaults, it is necessary to adjust the prepayment curve for the credit rating of the tranche under analysis. Recall that a better credit rating is associated with a higher level of loss on collateral, which means a higher frequency of involuntary prepayments. Table 25 documents adjustments that Moody's makes to the CPR by rating category. For example, the prepayment rate is 15 percent higher for a Aaa-rated tranche than a Baa2-rated tranche in order to capture the higher frequency of involuntary prepayment (i.e. default) associated with the Aaa level of loss.

Table 25: Adjustments by tranche credit rating to Baa2 pre-payment curves

Rating	FRM	ARM
Aaa	133%	115%
Aa1	126%	112.5%
Aa2	120%	110%
Aa3	117%	108.5%
A1	113%	106.5%
A2	110%	105%
A3	107%	103.5%
Baa1	103%	101.5%
Baa2	100%	100%
Baa3	97%	98.5%
Ba1	93%	96.5%
Ba2	90%	95%
Ba3	87%	93.5%
B1	83%	91.5%
B2	80%	90%
B3	77%	88.5%

Source: Moody's

The assumptions made above identify the dollar value of involuntary prepayments and the total number of prepayments. In order to identify the number of involuntary prepayments (and

consequently the number of voluntary prepayments), it is necessary to make an assumption about loss severity. Note that this assumption about severity is different from the one used in the determination of credit enhancement in the first step outlined above. Moody's makes the assumption that the fraction of involuntary prepayments in total prepayments increases with the severity of loss (i.e. as the credit rating improves). This phenomenon is described in Table 26.

Table 26: Loss Severity Assumptions for 1st lien subprime mortgages

Aaa	60%
Aa	55%
A	50%
Baa	45%
Ba	42.5%
B	40%
Source: Moody's	

In the end, voluntary prepayments reduce principal and thus the benefit of excess spread. It follows that a conservative view toward rating will typically make high and front-loaded assumptions about the path of voluntary prepayments, as this reduces the contribution that excess spread makes towards credit enhancement.

Interest rate risk

The key remaining source of uncertainty in the analysis of cash flows is the behavior of interest rates. Note that the coupons on tranches typically have floating interest rates tied to the one-month LIBOR. Moreover, note that interest rates on some of the underlying loans are adjustable, which makes receipts from collateral vary with the level of interest rates. Interest rate risk is created by mis-matches between the sensitivity of collateral and tranches to interest rates. Some examples include:

- Fixed rate loans funded with floating rate certificates
- Prime rate index funded with LIBOR based certificates
- six-month LIBOR loans funded with one-month LIBOR certificates

Based on a number of factors, including the state of the economy, the forward-rate curve, and the current level of interest rates, interest rate stresses are determined.

Interest rate risk had an adverse impact on the performance of RMBS structures issued during the 2002 to 2004. In particular, throughout 2002 to mid-2004, the one-month LIBOR maintained a level to 1% - 1.8%. However, in June 2004, the one-month LIBOR began to increase quickly, reaching 5.3% in 2006. This increase in interest rates has an adverse impact through three channels. First, the coupons on ARM collateral adjust less quickly than the coupons on floating-rate certificates. Second, while rising rates will reduce the prepayment of fixed-rate loans, they also encourage a deterioration in the coupons on adjustable-rate loans as these obligors refinance out of high interest-rate loans, leaving a higher fraction of low- and fixed-interest rates in the pool. Finally, the increase in prepayment rates leads to quick return of principal to investors in senior tranches, where credit spreads are the smallest. Each of these factors leads to a compression of excess spread.

Many structures enter into an interest rate swap agreement which replaces the flexible-rate coupon paid to the tranches with a fixed-rate coupon in order to avoid this type of problem. However, note that this swap does not completely remove interest rate risk. For example, when pools contain ARM mortgages, the structure is vulnerable to a decline in interest rates which reduces the cash flows from collateral.

The approach of the rating agencies to interest rate risk is to construct a path of interest rate stresses in order to capture the worst likely movement in interest rates. Table 24 illustrates the interest rate stresses used by Fitch.

Table 27: Interest Rate Stresses

	Decreases from LIBOR				Increases from LIBOR			
Month	BBB	A	AA	AAA	BBB	A	AA	AAA
6	-1.06%	-1.24%	-1.42%	-1.68%	0.88%	1.40%	2.07%	3.10%
12	-1.81%	-2.09%	-2.37%	-2.76%	1.22%	2.02%	3.06%	4.66%
24	-2.28%	-2.68%	-3.08%	-3.64%	2.01%	3.15%	4.63%	6.90%
36	-2.52%	-2.95%	-3.39%	-4.00%	2.18%	3.43%	5.05%	7.53%
48	-2.52%	-2.97%	-3.43%	-4.09%	2.52%	3.85%	5.58%	8.24%
60	-2.52%	-2.98%	-3.45%	-4.12%	2.65%	4.02%	5.79%	8.52%

Source: Fitch (August 2007)

Note that these are changes (in percentage points) relative to the one-month LIBOR. The magnitude of the interest rate shocks is larger for better credit ratings and longer maturities.

Other details

Cash flow analysis is performed incorporating step-down triggers. For each rating level, the triggers are analyzed for the probability that they will be breached. As the triggers are set at levels which protect the rated tranches, they typically will be breached in stress scenarios. It follows that one typically assumes that the transaction does not step down (i.e. credit enhancement is not released) and that all tranches are paid sequentially for its life. Finally, mortgage loans with higher interest rates tend to prepay first, which reduces excess spread of the transaction over time. In order to capture this, Moody's assumes that the weighted average coupon (WAC) of the loans decreases by one basis point each month over the first three years of the deal.

Motivating example

In order to better understand the cash flow analysis, we will illustrate using a structure similar to GSAMP Trust 2006-NC2. In particular, we focus on a hypothetical pool of 2/28 ARM mortgage loans with an initial interest rate of 8 percent, a margin of 6 percent, and interest rate caps of 1.5%. The servicer receives a fee of 50 bp and master servicer receives a fee of 1 bp, each per annum and senior to any distributions to investors. The trust enters into an interest rate swap with a counterparty paying a fixed rate of 5.45% and receiving LIBOR – initially at 5.32% --according to a swap notional schedule described in Figure 8. Each month, the net payment to the swap counterparty is senior to any distributions to investors. Table 28 documents that the capital structure is similar to that of the New Century deal, but with fewer tranches in order to simplify the analysis.

Table 28: Capital Structure

Tranche	Width	Spread
AAA	79.35%	0.25%
AA	9.20%	0.31%
A	4.90%	0.37%
BBB	3.45%	1.00%
BB	1.70%	2.50%
O/C	1.40%	

Note: spread over 1-month LIBOR

We focus our analysis on the BBB-rated tranche. Our analysis starts with prepayment rates, which are illustrated in Figure 12. The total CPR is the fraction of remaining loans which prepay each month at an annualized rate, and is taken from Table 24 above for 2/28 ARMs. Notice the spike in prepayment rates shortly following payment rest at 24 months. The involuntary CPR is tied down by (a) the level of losses, assumed in this case to be 10% given the BBB rating; (b) the timing of losses documented in Table 23; (c) and the severity of losses from Table 26 in order to convert dollars of principal loss into an involuntary prepayment rate. Since the timing assumption precludes losses after 72 months, we only focus on the first six years of the deal life. As the capital structure of the deal is fixed, this exercise is essentially a test of whether or not the BBB-rated tranche as structured can receive a 6.9% credit (= 10% - 3.1%) from excess spread to meet the required credit enhancement.

Figure 12: Decomposing Constant Prepayment Rates (CPRs)

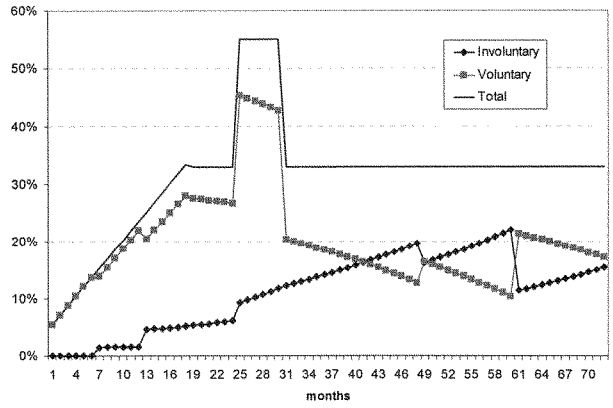
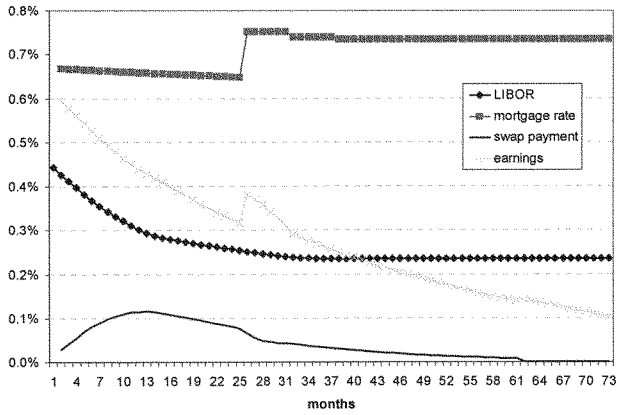


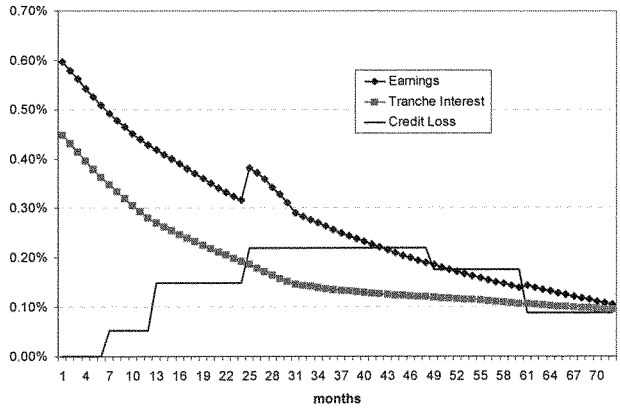
Figure 13: LIBOR stress, trust earnings, and the net swap payment



Note: the swap payment and earnings are each measured at a monthly rate and relative to original portfolio par. Earnings is defined as the difference between mortgage interest income, the net swap payment, and servicer fees of 51 basis points per annum.

Given the path of pre-payments, one needs to use the interest rate stresses in order to simulate future cash flows. Since the structure is hedged, the most severe interest rate shock is a decline in interest rates. When the interest rate on mortgages declines but the interest rate on tranches is fixed there is pressure on earnings. Figure 13 documents that assumed path of LIBOR, taken from Table 27 above, but converted into a monthly interest rate. The slow decrease over the first 24 months in the mortgage income reflects adverse selection in prepayment (high interest rates pre-paying first). There is an obvious spike in the mortgage interest rate at 24 months once payments reset. As LIBOR is falling, there is a net payment made to the swap counterparty, but this declines over time as the amount of swap notional goes to zero over the five-year life of the contract. The earnings of the trust before distributions and loss falls over time as mortgages prepay and the interest rate on remaining mortgages falls.

Figure 14: Earnings, Tranche Interest, and Credit Loss



Note: Earnings, tranche interest, and credit loss are measured each at a monthly rate and relative to original portfolio par

Figure 14 documents the path of trust earnings, tranche interest, and credit losses over time, each measured at a monthly rate and relative to portfolio par. Tranche interest declines over time as interest rates fall and as pre-payments reduce the principal value of the senior tranche. While earnings are adequate to cover tranche interest initially, after the first year credit losses are eating into over-collateralization. After 42 months, earnings no longer cover losses, and the structure is struggling greatly.

Figure 15: Dynamic subordination of mezzanine tranches (10% required enhancement)

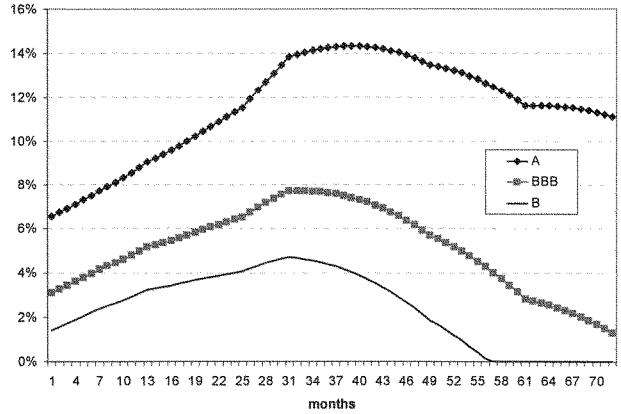


Figure 15 documents that these losses reduce the subordination available to each tranche over time. At 56 months, over-collateralization has been exhausted and the BB-rated tranche defaults. However, the BBB-rate tranche is able to survive until 72 months, suggesting that this tranche could withstand a loss rate of 10 percent. It follows that the deal is structured adequately.

Figure 16: Dynamic subordination of mezzanine tranches (10.5% required enhancement)

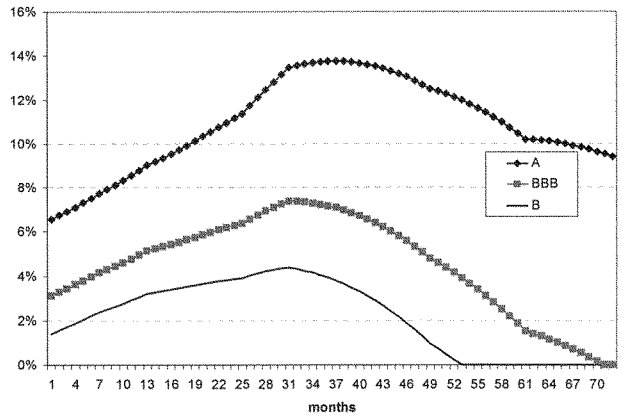


Figure 16 documents the dynamic subordination of the same capital structure in the event that losses are only 50 basis points higher. In this case, the BBB rated tranche defaults in month 70. The actual losses to investors in this tranche would be quite low because there are no losses after 72 months. However, when losses on the pool increase to 14%, the investors in the BBB-rated tranche are completely wiped out and the A-rated tranche defaults.

5.8. Performance Monitoring

The rating agencies currently monitor the performance of approximately 10,000 pools of mortgage loan collateral. Deal performance is tracked using monthly remittance from Intex Solutions, Inc. Since there is no uniform reporting methodology, the first step is to ensure the integrity of the data.

The agencies use this performance data in order to identify which deals merit a detailed review, but do complete such a review for every deal at least once a year. The key performance metric is the loss coverage ratio (LCR), which is defined as the ratio of the current credit enhancement for a tranche relative to estimated unrealized losses. Note that losses are estimated using underwriting characteristics for unseasoned loans (less than 12 months), and actual performance for seasoned loans. When the loss coverage ratio falls below an acceptable level given the rating of the tranche, the agency will perform a detailed review of the transaction, and consider ratings action.

In the example subprime deal described in Table 29, which is taken from a Fitch (2007) and does not correspond to the New Century deal, the pipeline measure of loss is constructed by applying historical default rates to the fraction of loans in each delinquency status bucket, and applying a projected loss severity. For example, the rating agency assumes that 68 percent of loans 90 days past due will default, while only 11 percent of current loans will default.

Table 29: Example of Projected Loss as a Percentage of Current Pool Balance

Status	Delinquency Status Distribution	Projected Default As % of Bucket	Projected Default As % of Pool	Projected Loss Severity	Expected Loss as % of Pool
Current	83	11	9.1	35	3.2
30 Days	4.0	37	1.5	35	0.5
60 Days	2.6	54	1.4	35	0.5
90 Days	2.5	68	1.7	35	0.6
Bankruptcies	1.7	54	0.9	35	0.3
Foreclosure	3.8	76	2.9	35	1.0
REO	2.6	100	2.6	35	0.9
Total	100.0		20.0	35	7.1

Notes: The example transaction is 18 months seasoned, has 63% of the original pool remaining (called the pool factor), incurred 0.77% loss to date, and reports a 60+ day of 13.15% (=2.6+2.5+1.7+3.8+2.6). The delinquency bucket figures (with the exception of REO) have a 98% home price appreciation adjustment applied. The example deal's current three-month loss severity is 25%, and the projected lifetime loss severity is approximately 35%. The expected loss figures are as a percentage of the remaining pool balance. The expected loss as a percentage of original pool balance is 5.25% = (7.1%*63%+0.77%)

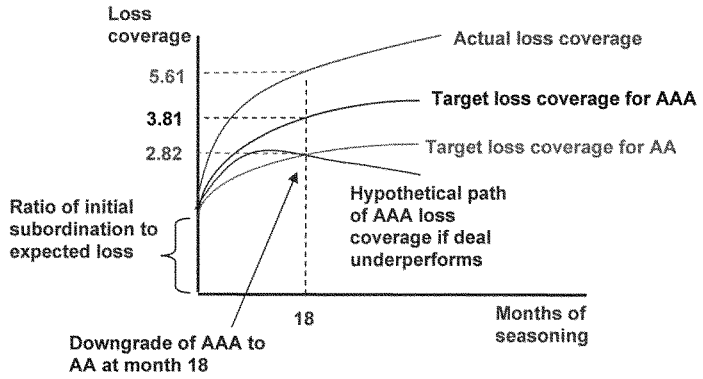
The current subordination of a tranche reflects excess spread that has been retained as well as any losses to date. In this example in Table 30 the M-1 tranche rated AA currently has subordination of 20.61 percent. However, due to expected future accumulation of excess spread, this class can withstand losses of 26.90 percent, corresponding to a loss coverage ratio of 3.8 (= 26.9/7.1). Note that the target loss coverage ratio for the AA rating is 2.82, suggesting that the original rating is sound. However, the B-2 class rated BBB- currently has subordination of 3 percent and a break-loss rate of 10.41 percent. Note that the target break-loss for this rating is 11.04 percent, and the target break-loss of 9.95 for the BB+ rating (not reported). In this case, the rating agency is using tolerance to prevent this tranche from being downgraded at this time. A conversation with a ratings analyst suggested that a tranche would not be downgraded until it failed the target break-loss level for one full rating-grade below the current level.

Table 30: Example of Ratings Analysis Using Break-Loss Figures

Class	Current Rating	Current Subordination (%)	Current Break-Loss (%)	Current Loss Coverage Ratio (%)	Target Break-Loss (%)	Target Loss Coverage Ratio (%)	Model Proposed After Tolerances
A	AAA	31.59	39.71	5.61	27.18	3.84	AAA
M-1	AA	20.61	26.90	3.80	19.95	2.82	AA
M-2	A	12.08	18.25	2.58	15.79	2.23	A
M-3	BBB+	7.50	15.62	2.21	13.32	1.88	BBB+
B-1	BBB	5.92	13.14	1.86	12.09	1.71	BBB
B-2	BBB-	3.00	10.41	1.47	11.04	1.56	BBB-

Notes: The example transaction is 18 months seasoned and has a projected loss as a percent of current balance of 7.1%. Based on the projected delinquency, the triggers will pass at the step-down date and toggle thereafter. The current annualized excess spread available to cover losses is 3.10% (including interest rate derivatives). Current break-loss: the amount of collateral loss that would call the class to default. This figure includes excess spread and triggers. Current loss coverage ratio (LCR): determined by dividing the bond's current break-loss amount by the current base-case projected loss of 7.1%. Model proposed: Considers the difference between the current LCR and the target LCR

Figure 17: Anatomy of a downgrade



It is worth taking the time to highlight how changes in rating criteria affect the ratings monitoring process. In particular, if the rating agencies become more conservative in structuring new deals, it is not clear that anything should change when it comes to making a decision to downgrade securities secured by seasoned loans. The numerator of the loss coverage ratio is the current subordination of the tranche, which is unaffected by any change in criteria. The denominator is the estimated unrealized loss. Unless the rating agency also changes its mapping from current loan performance to the probability of default, or updates its view on loss severity, the key input into the ratings monitoring process is unchanged. In this sense, there is no need to change the way the agency monitors existing transactions. If an existing transaction was structured with inadequate initial subordination, the normal ratings monitoring process will pick this up and downgrade appropriately. In this sense, there is no need to update existing transactions.

5.9. Home Equity ABS rating performance

Table 31 documents the performance of Moody's Subprime RMBS over the last five years. The table documents downgrades in the top panel and upgrades in the bottom panel, broken out across first- and second-lien mortgage loans, as well as by origination year. Rating actions are measured by fraction of origination volume affected, the fraction of tranches affected, and the fraction of deals affected. The first observation to note is that by any measure, the rating agencies have appeared to struggle rating subprime deals throughout the period, as the ratio of downgrades to upgrades is larger than one. That being said, the recent performance of subprime RMBS ratings has been historically bad. The table documents that 92 percent of 1st-lien subprime deals originated in 2006 as well as 84.5 percent of 2nd-lien deals originated in 2005 and 91.8 percent of 2nd-lien deals originated in 2006 have been downgraded.

Note that half of all downgrades of tranches in the history of Home Equity ABS were made in the first seven months of 2007. About half of these were made during the week of 9 July, when Moody's downgraded 399 tranches. About two-thirds of these downgrades involved securitizations by four issuers who accounted for about one-third of 2006 issuance: New Century, WMC, Long Beach, and Fremont. Note that 86% of the downgraded tranches were originally rated Baa2 or worse, which meant that the notional amount downgraded was only about $9 billion. However, the ratings action affected just under 50 percent of 2006 1st-lien deals and almost two-thirds of 2005 2nd-lien deals, and the mean downgrade severity was 3.2 notches. Table 32 documents the ratings transition matrices for the 2005 and 2006 vintages across 1st and 2nd-lien status as of October 2007. It is clear from the table that ratings action has been concentrated in the mezzanine tranches, but there are some notable downgrades of Aaa-rated tranches in the 2006 vintage of 2nd-lien loans.

In addition to the ratings action, the rating agencies announced significant changes to rating criteria, and took a more pessimistic view on the housing market. At the time of the downgrade action, Moody's announced that it expected median existing family home prices to fall by 10 percent from the peak in 2005 to a trough at the end of 2008. The rating agency also significantly increased its loss expectations for certain flavors of sub-prime mortgages (hybrid ARMs, stated-income, high CLTV, first-time home-buyer), reduced the credit for excess spread, and adjusted its cash flow analysis to incorporate the likely impact of loan modifications.

In response to the historic rating action on subprime ABS during the week of 9 July 2007, the rating agencies were heavily criticized in the press about the timing. In particular, investors pointed to the fact that the ABX had been trading at very high implied spreads since February. Some examples of recent business press:

"A lot of these should be downgraded sooner rather than later," said Jeff Given at John Hancock Advisors LLC in Boston, who oversees $3.5 billion of mortgage bonds. The ratings companies may be embarrassed to downgrade the bonds, he said. "It's easier to say two years from now that you were wrong on a rating than it is to say you were wrong five months after you rated it." [*Bloomberg*, 29 June 2007]

"Standard & Poor's, Moody's Investors Service and Fitch Ratings are masking burgeoning losses in the market for subprime mortgage bonds by failing to cut the credit ratings on about $200 billion of securities backed by home loans...Almost 65 percent of the bonds in indexes that track subprime mortgage debt don't meet the ratings criteria in place when they were sold, according to data compiled by Bloomberg." [ibid]

In response, the rating agencies counter that their actions are justified.

"People are surprised there haven't been more downgrades," Claire Robinson, a managing director at Moody's, said during an investor conference sponsored by the firm in New York on June 5. "What they don't understand about the rating process is that we don't change our ratings on speculation about what's going to happen." Bloomberg, 10 July 2007]

From the description of the ratings monitoring process above, it is clear that for unseasoned loans, the rating agencies weight their initial expectations of loss heavily in computing lifetime expected loss on the vintage. While the 2006 vintage did show some early signs of trouble with early payment defaults (EPDs), it was not clear if this just reflected the impact of lower home price appreciation on investors using subprime loans to flip properties, or foreshadowed more serious problems.

Figure 17 documents that the increase in serious delinquencies on a month-over-month basis on the ABX 06-1 and 06-2 vintages was actually slowing down through the remittance report released at the end of April. Figure 18 documents that implied spreads on the ABX tranches retreated from their February highs through the end of May. However, the remittance report at the end of May suggested a reversal of this trend, as serious delinquency accelerated. This pattern was confirmed with the report at the end of June, and the ratings action came approximately two weeks after the June 25 report.

While the aggregated data helps the rating agencies tell a reasonable story, it is certainly possible that aggregation hides a number of deals that were long overdue for downgrade. Given the public rating downgrade criteria, this is a quantitative question that we intend to address with future empirical work.[28]

[28] Note that the rating agencies took another wave of rating actions on RMBS in October.

Figure 17: Change in Serious Delinquency on Mortgages Referenced by the ABX

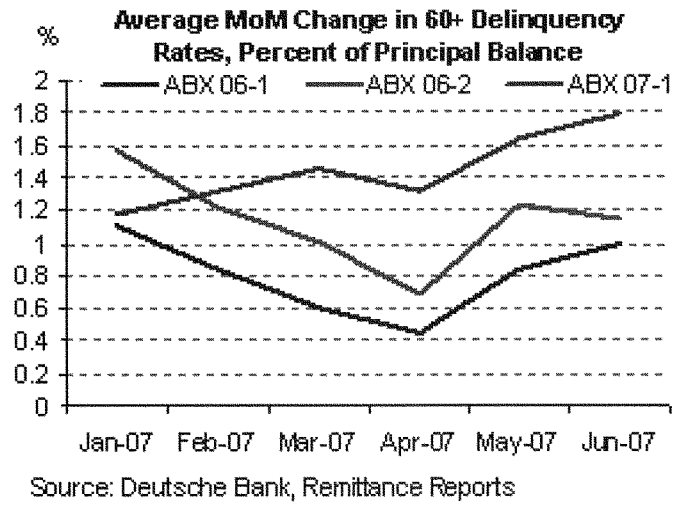


Figure 18: ABX Implied Spreads and Remittance Reporting Dates

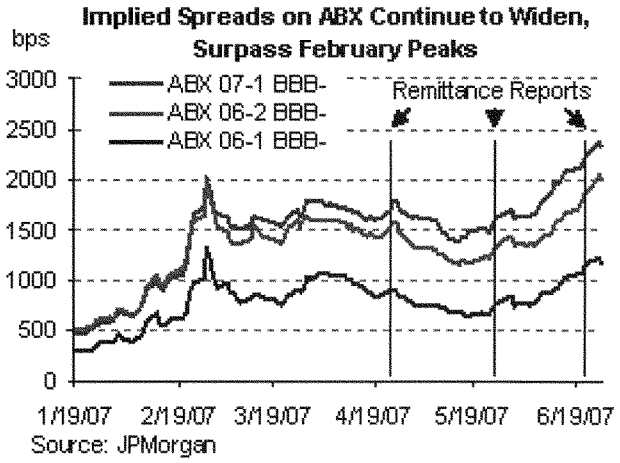


Table 31: Rating Changes in RMBS and Home Equity ABS, by Year

Negative rating action									
	Subprime 1st lein			Subprime 2nd lein			Subprime all Lein		
Vintage	$	# tranche	# deals	$	# tranche	# deals	$	# tranche	# deals
2002	2.90%	13.80%	48.80%	1.50%	4.00%	9.10%	2.90%	13.20%	46.40%
2003	1.70%	10.10%	38.50%	0.70%	2.90%	11.10%	10.60%	9.60%	36.50%
2004	0.90%	6.20%	34.30%	1.70%	5.90%	44.00%	0.90%	6.20%	35.00%
2005	0.60%	3.60%	20.90%	3.30%	18.50%	85.40%	0.70%	4.90%	28.00%
2006	13.40%	48.00%	92.10%	60.00%	84.50%	91.80%	16.70%	52.30%	92.00%
Positive rating action									
	Subprime 1st lein			Subprime 2nd lein			Subprime all Lein		
Vintage	$	# tranche	# deals	$	# tranche	# deals	$	# tranche	# deals
2002	2.10%	6.40%	20.80%	6.70%	17.30%	63.60%	2.30%	7.00%	23.50%
2003	2.80%	8.60%	26.40%	9.20%	30.10%	83.30%	2.90%	10.00%	30.50%
2004	1.20%	3.30%	15.00%	7.20%	22.30%	56.00%	1.40%	4.30%	17.90%
2005	0.00%	0.00%	0.00%	5.30%	9.60%	39.60%	0.20%	0.90%	4.40%
2006	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Source: Moodys (26 October 2007)

Table 32: Rating Transition Matrices

Current Rating/Last Rating (1st lein)												
2005	Aaa	Aa	A	Baa	Ba	B	Caa	Ca	C	Total	Down	Up
Aaa	100.00%									2,058	0	0
Aa		100.00%								983	0	0
A			99.40%	0.60%						1,003	6	0
Baa				94.90%	3.50%	1.40%	0.20%			1,066	54	0
Ba					81.10%	14.50%	4.40%			318	60	0
Current Rating/Last Rating (2nd lein)												
2005	Aaa	Aa	A	Baa	Ba	B	Caa	Ca	C	Total	Down	Up
Aaa	100.00%									113	0	0
Aa	22.00%	78.00%								100	0	22
A	0.90%	14.70%	81.90%	1.70%	0.90%					116	3	18
Baa				81.50%	9.60%	6.80%	1.40%	0.007		146	27	0
Ba					21.20%	34.80%	0.30%	0.273	0.136	66	52	0
Current Rating/Last Rating (1st lein)												
2006	Aaa	Aa	A	Baa	Ba	B	Caa	Ca	C	Total	Down	Up
Aaa	100.00%									2,121	0	0
Aa		100.00%								1,265	0	0
A			43.90%	27.90%	17.80%	10.10%	0.20%	0.001		1,295	726	0
Baa				17.30%	18.80%	32.40%	13.50%	0.111	0.07	1,301	1,076	0
Ba					6.20%	18.40%	8.20%	0.14	0.531	450	422	0
Current Rating/Last Rating (2nd lein)												
2006	Aaa	Aa	A	Baa	Ba	B	Caa	Ca	C	Total	Down	Up
Aaa	53.80%	34.90%	7.00%	4.30%						186	0	86
Aa		23.50%	38.80%	27.90%	6.60%	1.60%	0.50%	0.011		183	0	140
A			7.00%	32.60%	35.80%	11.80%	0.50%	0.064	0.059	187	0	174
Baa				5.60%	13.60%	17.80%	6.10%	0.145	0.425	214	0	202
Ba					1.00%	6.10%		0.051	0.879	99	0	98

Source: Moodys (26 October 2007)

6. The reliance of investors on credit ratings: A case study

A recent New York Times Editorial (08/07/2007) writes:

Protecting pensioners from bad investments will not be easy. A good place to start would be to make rating agencies more accountable, perhaps by asking regulators to monitor their quality. Many pension plans lack the analytical skills needed to evaluate these investments, relying on outside advisers and rating agencies. But the stellar triple-A rating assigned to many of these bonds proved to be misleading -- with the agencies now rushing to downgrade them.

In a recent Fortune article by Benner and Lachinsky (5 July 2007), Ohio Attorney General Marc Dann claims that the Ohio state pension funds have been defrauded by the rating agencies. "The ratings agencies cashed a check every time one of these subprime pools was created and an offering was made. [They] continued to rate these things AAA. [So they are] among the people who aided and abetted this continuing fraud." The authors note that Ohio has the third-largest group of public pensions in the United States, and that The Ohio Police & Fire Pension Fund has nearly 7 percent of its portfolio in mortgage- and asset-backed obligations:

> Dann and a growing legion of critics contend that the agencies dropped the ball by issuing investment-grade ratings on securities backed by subprime mortgages they should have known were shaky. To his mind, the seemingly cozy relationship between ratings agencies and investment banks like Bear Stearns only heightens the appearance of impropriety.

In this section, we review the extent to which investors rely on rating agencies, focusing on the case of this Ohio pension fund, drawing upon on public disclosures of the fund.

- Overview of the fund
- Fixed-income investment guidelines
- Conclusions

6.1. Overview of the fund

The Ohio Police & Fire Pension Fund (http://www.op-f.org/) is a cost sharing multiple-employer public employee retirement system. The fund provides pension and disability benefits to qualified participants, survivor and death benefits as well as access to health care coverage for qualified spouses children, and dependent parents. In 2006, the fund had 912 participating employers from police and fire departments in Ohio municipalities, townships, and villages. Membership in the plan at the end of 2006 included 24,766 retired employees and 28,026 active employees. At the end of 2006, the fund had an investment portfolio of $11.2 billion. The fund's total rate of return was 16.15 percent in 2006 and 9.07 percent in 2005, each relative to an assumed actuarial rate of return of 8.25 percent.

Fund adequacy

The current actuarial analysis performed on the pension benefits reflects an "infinite" amortization period and a funding level of 78.3 percent. While the fund believes that the current funding status is strong, Ohio law requires that a 30-year amortization period is achieved.[29] A plan was approved by the Board and submitted to ORSC that included major changes to health care funding and benefits, and a recommendation that the legislature amend the law to provide for member contribution increases and employer contribution increases. However, the legislature has not taken action on the recommended contribution increases.

[29] Page ix in the 2006 Comprehensive Annual Financial Report, available at http://www.op-f.org/downloads/reports/CAFR2006.pdf.

Portfolio composition

Table 33 documents the exposure of the total fund to different asset classes. At the end of 2006, about 6.7% of total assets are invested in mortgages and mortgage-backed securities.

Table 33: Investment Portfolio

	2006		2005	
	($ m)	%	($ m)	%
Commercial Paper	594.6	5.03%	425.1	3.97
US Government Bonds	596.2	5.04	574.3	5.36
Corporate Bonds and Obligations	783.7	6.62	709.5	6.62
Mortgage & Asset Backed Obligations	799.4	6.76	734.6	6.85
Municipal Bonds		0.00	3.8	0.04
Domestic Stocks	2209.4	18.67	1967.7	18.36
Domestic Pooled Stocks	3181.9	26.89	2957.3	27.59
International Securities	2642.9	22.34	2328.2	21.72
Real Estate	658.	5.56	606.6	5.66
Commercial Mortgage Funds	73.3	0.62	80.4	0.75
Private Equity	291.9	2.47	230.2	2.15
Grand Total	11832.3	100.0	10717.9	100.0

Source: 2006 Comprehensive Annual Financial Report, Ohio Police & Fire Pension Fund

Table 34 documents the composition of the investment-grade fixed-income portfolio in 2006 and 2005. Non-agency MBS are likely included in the first four columns of the second row, which report the amount of mortgage and MBS broken out by credit rating. At the end of 2006, it appears that the fund held $740 million in non-agency MBS which had a credit rating of A- or better. Moreover, note that the share of non-agency MBS in the total fixed-income portfolio increased from 12% (245/2022) in 2005 to 34% (740/2179) in 2006. In other words, the pension fund almost tripled its exposure to non-agency MBS. Further, note that this increase in exposure to risky MBS was at the expense of exposure to MBS backed by full faith and credit of the United States government, or an agency or instrumentality thereof, which dropped from $489.6 million to $58.9 million.

Table 34: Fixed Income Investment Portfolio for 2006 [2005]

Rating of at least	A-	BBB-	B-	C-	Full Faith & Credit	Unrated	Total
Corporate Bond Obligations	$179.9 [$187.6]	$73.9 [$67.1]	$458.2 [$416.2]	$69.5 [$35.8]		$2.1 [$2.9]	$783.7 [$709.5]
Mortgage and ABS	$740.4 [$245.0]				$58.9 [$489.6]		$799.4 [$734.6]
Agency ABS	$37.7 [$3.8]						$37.7 [$3.8]
Munis	-- [$36.4]						-- [$36.4]
Treasury Strips					$62.3 [$29.4]		$62.3 [$29.4]
Treasury Notes					$496.1 [$508.5]		$496.1 [$508.5]
Total	$958.1 [$472.8]	$73.9 [$67.1]	$458.2 [$416.2]	$69.5 [$35.8]	$617.4 [$1027.5]	$2.1 [$2.9]	$2179.3 [$2022.3]

Source: 2006 Comprehensive Annual Financial Report, Ohio Police & Fire Pension Fund

In order to better understand the motivation for such a shift, consider Table 35, which illustrates spreads on the ABX and credit derivatives (CDS) by credit rating during 2006. While MBS backed by full faith and credit trade at close to zero credit spreads, securities secured by subprime loans pay significantly higher spreads.

Table 35: Subprime ABS vs. Corporate CDS Spreads

	June 2006		December 2006	
	ABX	CDS	ABX	CDS
AAA	18	11	11	9
AA	32	16	17	12
A	54	24	44	20
BBB	154	48	133	43

Source: ABX from Markit tranche coupon; CDS spread from Markit, average across US firms for 5-year contract with modified restructuring documentation clause.

6.2. Fixed-income asset management

From the investment guidelines in the 2006 annual report:

- The fixed-income portfolio has a target allocation of 18% of total fund assets, with a range of 13% to 23%. The portfolio includes investment grade securities (target of 12%), global inflation-protected securities (target of 6%), and commercial real estate (target of 0% and maximum of 2%).
- The investment grade fixed income allocation will be managed solely on an active basis in order to exploit the perceived inefficiencies in the investment grade fixed income markets.
- The return should exceed the return on the Lehman Aggregate Index over a three-year period on an annual basis.

- The total return of each manager's portfolio should rank above the median when compared to their peer group over a three-year period on an annualized basis and should exceed their benchmark return as specified in each manager's guidelines.

Mandates (from ORC Sec 742.11)

1. The main focus of investing will be on dollar denominated fixed income securities. Non-US dollar denominated securities are prohibited.
2. The composite portfolio as well as each manager's portfolio shall have similar portfolio characteristics as that of the Lehman Aggregate Index.
3. Issues must have a minimum credit rating of BBB- or equivalent at the time of purchase.
4. Each manager's portfolio has a specified effective duration band.
5. For diversification purposes, sector exposure limits exist for each manager's portfolio. In addition, each manager's portfolio will have a minimum number of issues.
6. Each manager's portfolio has a maximum threshold for the amount of cash that may be held at any one time.
7. Each manager's portfolio must have a dollar-weighted average quality of A or above.

Note that the Lehman Aggregate Index has a weight of less than one percent on non-agency MBS.

Asset management

In 2006, the fund's assets were 100% managed by external investment managers. The fixed-income group is comprised of eight asset managers who collectively have over $2.2 trillion in assets under management (AUM). They are (with AUM in parentheses):

- JPMorgan Investment Advisors, Inc. ($1.1 trillion, 2006)
- Lehman Brothers Asset Management ($225 billion, 2006)
- Bridgewater Associates ($165 billion, 2006)
- Loomis Sayles & Company, LP ($115 billion, 2006)
- MacKay Shields LLC ($40 billion, 2006)
- Prima Capital Advisors, LLC ($1.8 billion, 2006)
- Quadrant Real Estate Advisors LLC ($2.7 billion, 2006)
- Western Asset Management ($598 billion, 2007)

The 2005 performance audit of this fund suggested that investment managers in the core fixed income portfolio are compensated 16.3 basis points. The fund paid these investment managers approximately $1.304 million in 2006 in order to manage an $800 million portfolio of investment-grade fixed-income securities. While the 2006 financial statement reports that these managers out-performed the benchmark index by 26 basis points (= 459 - 433), this was accomplished in part through a significant reallocation of the portfolio from relatively safe to relatively risk non-agency mortgage-backed securities. One might note that after adjusting for the compensation of asset managers, this aggressive strategy netted the pension fund only 10 basis points of extra yield relative to the benchmark index, for about $2.1 million.

7. Conclusions

While this paper focuses on the securitization of subprime mortgages, many of the basic issues – intermediation and the frictions it introduces – are generic to the securitization process, regardless of the underlying pool of assets. The credit rating agencies play an important role in resolving or at least mitigating several of these frictions.

Our view is that the rating of securities secured by subprime mortgage loans by credit rating agencies has been flawed. There is no question that there will be some painful consequences, but we think that the rating process can be fixed along the lines suggested in the text above.

However, it is important to understand that repairing the securitization process does not end with the rating agencies. The incentives of investors and investment managers need to be aligned. The structured investments of investment managers should be evaluated relative to an index of structured products in order to give the manager appropriate incentives to conduct his own due diligence. Either the originator or the arranger needs to retain unhedged equity tranche exposure to every securitization deal. And finally, originators should have adequate capital so that warranties and representations can be taken seriously.

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Appendix 1: Predatory Lending

Predatory lending is defined by Morgan (2007) as the welfare-reducing provision of credit. In other words, the borrower would have been better off without the loan. While this practice includes the willful misrepresentation of material facts about a real estate transaction by an insider without the knowledge of a borrower, it has been defined much more broadly. For example, the New Jersey Division of Banking and Insurance (2007) defines predatory lending as an activity that involves at least one, and perhaps all three, of the following elements:

- Making unaffordable loans based on the assets of the borrower rather than on the borrower's ability to repay an obligation;
- Inducing a borrower to refinance a loan repeatedly in order to charge high points and fees each time the loan is refinanced ("loan flipping"); or
- Engaging in fraud or deception to conceal the true nature of the loan obligation, or ancillary products, from an unsuspecting or unsophisticated borrower.

Loans to borrowers who do not demonstrate the capacity to repay the loan, as structured, from sources other than the collateral pledged are generally considered unsafe and unsound. Some anecdotal examples of predatory lending:

Ira and Hazel purchased their home in 1983, shortly after getting married, financing their purchase with a loan from the Veterans' Administration. By 2002, they had nearly paid off their first mortgage. The elderly couple got a call from a lender, urging them to consolidate all of their debt into a single mortgage. The lender assured the husband who had excellent credit that the couple would receive an interest rate between 5-6% which would reduce their monthly mortgage payments. However, according to the couple, when the lender came to their house to have them sign the paperwork for their new mortgage, the lender failed to mention that the loan did not contain the low interest rate which they had been promised. Instead, it contained an interest rate of 9.9% and an annual percentage rate of 11.8%. Moreover, the loan contained 10 "discount points" ($15,289.00) which were financed into the loan, inflating the loan amount and stripping away the elderly couple's equity. Under the new loan, the monthly mortgage payments increased to $1,655.00, amounting to roughly 57% of the couple's monthly income. Moreover, the loan contained a substantial prepayment penalty, forcing them to pay approximately $7,500 to escape this predatory loan.
Source: Center for Responsible Lending (2007)

In 2005, Betty and Tyrone, a couple living on the south side of Chicago, took out a refinance loan with a lender in order to refurnish their basement. "We just kept asking them whether we were going to remain on a fixed rate, and they just kept lying to us, telling us we'd get a fixed rate," Betty alleges in a lawsuit against lender. As they later discovered, however, the terms of the loan were not as they expected. Not only did the loan have an adjustable rate that can go as high as 13.4 percent, but the couple allege that the lender falsely told them that their home had doubled in value since they had bought it a few years earlier, thus qualifying them for a larger loan amount. As the lender didn't give them copies of their loan documents at closing, and the couple did not realize that the terms had been changed until well after the three-day period during which they could legally cancel the loan. They have since tried to refinance, but have been unable to find another lender willing to lend them the amount currently owed, as the artificially-inflated appraisal value has in effect trapped them in a loan with a rising interest rate.
Source: Gourse (2007)

One scheme targets distressed borrowers at risk of foreclosure. The predator claims to the borrower that it is necessary to add someone else with good credit to the title, and their good credit will help secure a new loan on good terms. After the title holder uses the loan to make payments for a year, predator claims that the title would

be transferred back to the original borrower. However, predator cashes most of the remaining equity out of the house with a larger loan, and leaves the distressed borrower in a worse situation.
Source: Thompson (2006)

The Center for Responsible Lending has identified seven signs of a predatory loan:

- Excessive fees, defined as points and other fees of five percent or more of the loan
- Abusive prepayment penalties, defined as a penalty for more than three years or in an amount larger than six months interest
- Kickbacks to brokers, defined as compensation to a broker for selling a loan to a borrower at a higher interest rate than the minimum rate that the lender would be willing to charge
- Loan flipping, defined as the repeated refinancing of loans in order to generate fee income without any tangible benefit to the borrower
- Unnecessary products
- Mandatory arbitration requires a borrower to waive legal remedies in the event that loan terms are later determined to be abusive
- Steering and targeting borrowers into subprime products when they would qualify for prime products. Fannie Mae has estimated that up to half of borrowers with subprime mortgages could have qualified for loans with better terms

The role of the rating agencies

The rating agencies care about predatory lending to the extent that federal, state, and local laws might affect the amount of cash available to pay investors in residential mortgage-backed securitizations (RMBS) in the event of violations. Moody's analysis of RMBS transactions "includes an assessment of the likelihood that a lender might have violated predatory lending laws, and the extent to which violations by the lender would reduce the proceeds available to repay securitization investors" (Moody's, 2003).

In particular, Moody's requires that loans included in a securitization subject to predatory lending statutes satisfy certain conditions: (1) the statue must be sufficiently clear so that the lender can effectively comply; (2) the penalty to the trust for non-compliance is limited; (3) the lender demonstrates effective compliance procedures, which include a third-party review; (4) the lender represents that the loans comply with statutory requirements and agrees to repurchase loans that do not comply; (5) the lender indemnifies the trust for damages resulting from a particular statute; (6) the lender's financial resources and commitment to the business are sufficient to make these representations meaningful; and (7) concentration limits manage the risk to investors when penalties are high or statues are ambiguous.

Appendix 2: Predatory Borrowing:

While mortgage fraud has been around as long as the mortgage loan, it is important to understand that fraud becomes more prevalent in an environment of high and increasing home prices. In particular, when home prices are high relative to income, borrowers unwilling to accept a low standard of living can be tempted into lying on a mortgage loan application. When prices are high and rapidly increasing, there is an even greater incentive to commit fraud given that the cost of waiting is an even lower standard of living. Rapid home price appreciation also increases the return to speculative and criminal activity. Moreover, while benefits of fraud are increasing, the costs of fraud decline as expectations of higher future prices create equity that reduces the probability of default and severity of loss in the event of default.

In support of this claim, the IRS reports that the number of real-estate fraud investigations doubled between 2001 and 2003. Recent statistics from the FBI and Financial Crimes Network (FINCEN) document that suspicious activity reports (SARs) filed by federally-regulated institutions related to mortgage fraud have increased from 3,500 in 2000 to 28,000 in 2006. The Mortgage Asset Research Institute (2007) estimates that direct losses from mortgage fraud exceeded $1 billion in 2006, more than double the amount from 2005. The rapid slowdown in home price appreciation has made it more difficult to buy and sell houses quickly for profit, is quickly revealing the extent to which fraud permeated mortgage markets. For example, subprime and Alt-A loans originated in 2006 have experienced historical levels of serious early payment default (EPD), defined as being 90 days delinquent only three months after origination. Moody's (2007) notes that EPDs appear to be driven by borrowers using the loan to purchase for investment purposes, as opposed to borrowers refinancing an existing loan or purchasing a home for occupancy.

Predatory borrowing is defined as the willful misrepresentation of material facts about a real estate transaction by a borrower to the ultimate purchaser of the loan. This financial fraud might also involve cooperation of other insiders – realtors, mortgage brokers, appraisers, notaries, attorneys. The victims of this fraud include the ultimate purchaser of the loan (for example a public pension), but also include honest borrowers who have to pay higher interest rates for mortgage loans and prices for residential real estate. Below, I summarize the most common forms of predatory borrowing.

Fraud for housing

Fraud for housing constitutes illegal actions perpetrated solely by the borrower in order to acquire and maintain ownership of a home. This type of fraud is typified by a borrower who makes misrepresentations regarding income, employment, credit history, or the source of down payment. A recent example from Dollar (2006):

> A real estate agent would tell potential home buyers that they could receive substantial funds at closing under the guise of repair costs that they would be able to use for their personal benefit so long as they agreed to purchase certain "hard to sell" homes at an inflated price. Brokers would facilitate the submission of fraudulent loan applications for the potential homeowners that could not qualify for the loans. In some cases temporary loans were provided to buyers for down payments with the understanding they would be reimbursed at closing from the purported remodeling or repair costs, marketing services fees and other undisclosed disbursements. The buyers in those cases would falsely represent the sources of the down payments.

Fraud for profit

Fraud for profit refers to illegal actions taken jointly by a borrower and insiders to inflate the price of a property with no motivation to maintain ownership. The FBI generally focuses its effort on fraud perpetrated by industry insiders, as historically it involves an estimated 80 percent of all reported fraud losses. A recent example from Hagerty and Hudson (2006):

The borrowers, who include truck drivers, factory workers, a pastor and a hair stylist, say they were duped by acquaintances into signing stacks of documents and didn't know they were applying for loans. Instead, they thought they were joining a risk-free "investment group." Now, many of the loans are in default, the borrowers' credit ratings are in ruins, and lenders are pursuing the organizers of the purported investment group in court. Companies stuck with the defaulting loans include Countrywide Financial Corp., the nation's largest home lender, and Argent Mortgage Co., another big lender. A lawsuit filed by Countrywide accuses the organizers of acquiring homes and then fraudulently selling them for a quick profit to the Virginia borrowers. Representatives of the borrowers put the total value of loans involved at about $80 million, which would make it one of the largest mortgage-fraud cases ever.

A summary by the Federal Bureau of Investigation of some popular fraud-for-profit schemes:

- Property flipping involves repeatedly selling a property to an associate at an artificially inflated price through false appraisals.
- A silent second the non-disclosure of a loaned down-payment to a first lien lender.
- Nominee loans involve concealing the true identify of the true borrower, who use the name and credit history of the of the nominee's name to qualify for a loan. The nominee could be a fictitious or stolen identity.
- Inflated appraisals involve an appraiser acts in collusion with a borrower and provides a misleading appraisal report to the lender.
- Foreclosure schemes involve convincing homeowners who are at risk of defaulting on loans or whose houses are already in foreclosure to transfer their deed and pay up-front fees. The perpetrator profits from these schemes by re-mortgaging the property or pocketing fees paid by the homeowner.
- Equity skimming involves the purchase of a property by an investor through a nominee, who does not make any mortgage payments and rents the property until foreclosure takes place several months later.
- Air Loans involve a non-existent property loan where a broker invents borrowers and properties, establishes accounts for payments, and maintains custodial accounts for escrows.

Source: Federal Bureau of Investigation

The role of the rating agencies

(Moody's, 1996) claim that the vast majority of all securitizations are tightly structured to eliminate virtually all fraud risk. The risk of fraud is greatest when structures and technology developed for large, established issuers are mis-applied to smaller, less experienced issuers. Moreover, the lack of third-party monitors or involvement of entities with little or no track record increases the risk of fraud. The authors identify three potential types of fraud in a securitization:

- borrower fraud: the misrepresentation of key information during the application process by the borrower
- fraud in origination: misrepresentation of assets by the originator before securitization occurs, resulting in assets which do not conform with transaction's underwriting standards

- servicer fraud: the deliberate diversion, commingling, or retention of funds that are otherwise due to investors; the risk most significant among unrated, closely-held servicers that operate without third-party monitoring.

ComFed is a historical example of fraud in a mortgage securitization:

The parties involved at ComFed exaggerated property values to increase the volume-oriented commissions that they received for originating loans. To increase underwriting volumes still more, ComFed employees granted loans to unqualified borrowers by concealing the fact that these obligors had financed down payments with second-lien mortgages.

To prevent such instances of lower-level fraud, the originator's entire underwriting process should be reviewed to ensure that marketing and underwriting capacities remain entirely separate. Personnel involved in credit decisions should report to executives who are not responsible for marketing or sales. Underwriters' compensation should not be tied to volume; rather, if an incentive program is in place, the performance of the originated loans should be factored into the level of compensation.

(Moody's, 1996) claim that exposure to fraud can be minimized by the following:

- determine the integrity and competence of the management of the seller/servicer of a transaction through due diligence and background checks
- complete a thorough review of the underwriting process, including lines of reporting and employee compensation, to eliminate interests conflicting with those of investors
- establish independent third part monitoring of closely held entities with little external accountability that originate or service assets
- consider internal and external factors that could influence a servicer's conduct during the life of a securitization

This statement makes it clear that it is largely the responsibility of investors to conduct their own due diligence in order to avoid becoming victims of fraud.

Investors do receive a small but important amount of protection against fraud from representations and warranties made by the originator. Standard provisions protect investors from misinformation regarding loan characteristics, as well as guard against risks such as fraud, previous liens, and/or regulatory noncompliance.

(Moody's, 2005a) documents that an originator's ability to honor it obligation is the crucial component in evaluating the importance of these warranties. An investment grade credit rating often suffices to meet this standard. Otherwise, the rating agency claims that it will review established practices and procedures in order to ensure compliance and adequate tangible net worth relative to the liability created by the representations and warranties.

Appendix 3: Some Estimates of PD by Rating

A credit rating at a minimum provides an ordinal risk ranking: an AAA rating is better (in the sense of lower likelihood of default and loss) than an AA rating which is better than a BBB rating, and so on. More useful, however, is a cardinal ranking which would assign a numerical value such as a PD to each rating. Roughly speaking obligor PDs increase exponentially as one descends the credit spectrum.

The three major rating agencies have seven broad rating categories as well as rating modifiers, bringing the total to 19 rating classes, plus 'D' (default, an absorbing state[30]) and 'NR' (not rated – S&P, Fitch) or 'WR' (withdrawn rating – Moody's).[31] Typically ratings below 'CCC', e.g. 'CC' and 'C', are collapsed into 'CCC', reducing the total ratings to 17.[32] Although the rating modifiers provide a finer differentiation between issuers within one letter rating category, an investor may suffer a false sense of accuracy. Empirical estimates of *PD*s using credit rating histories can be quite noisy, even with over twenty-five year years of data. Under the new Basel Capital Accord (Basel 2), U.S. regulators would require banks to have a minimum of seven non-default rating categories (FRB, 2003).

A detailed discussion of PD accuracy is given in Hanson and Schuermann (2006), but in Table 36 we provide smoothed one-year PD estimates using S&P ratings histories from 1981-2006 for their global corporate obligor base. We present estimates at both the grade and notch level. Guided by the results Hanson and Schuermann (2006), we assign color codes to the PD estimates reflecting their estimation accuracy, with green being accurate, yellow moderately and red not accurate.[33] Hanson and Schuermann, using a shorter sample period (1981-2002), show that 95% confidence intervals of notch-level PD estimates are highly overlapping for investment grades (AAA through BBB-) but not so for speculative grades (BB through CCC). Since the point estimates for investment grade ratings are very small, a few basis points or less, it is effectively impossible to statistically distinguish the PD for an AA-rated obligor from an A-rated one. Indeed the new Basel Capital Accord, perhaps with this in mind, has set a lower bound of 3bp for any PD estimate (BCBS 2005, §285), commensurate with about a single-A rating.

[30] One consequence of default being an absorbing state arises when a firm re-emerges from bankruptcy. They are classified as a new firm.

[31] The CCC (S&P) and Caa (Moody's) ratings contain all ratings below as well – except default, of course. Fitch uses the same labeling or ratings nomenclature as S&P.

[32] Sometimes a C rating constitutes a default in which case it is included in the 'D' category. For no reason other than convenience and expediency, we will make use of the S&P nomenclature for the remainder of the paper.

[33] Accurate (green) means that adjacent notch-level PDs are statistically distinguishable, moderately accurate (yellow) means that PDs two notches apart are distinguishable, and not accurate (red) means that PDs two notches apart are not distinguishable (but may be so three or more notches apart).

Rating Categories	Smoothed PD estimates (notch level)	Smoothed PD estimates (grade level)[34]
AAA	0.02	0.02
AA+	0.06	
AA	0.6	0.8
AA-	1.3	
A+	1.8	
A	1.9	2.1
A-	2.1	
BBB+	4.4	
BBB	8.0	8.5
BBB-	12.6	
BB+	22.5	
BB	40.1	51.9
BB-	71.3	
B+	145	
B	540	368
B-	964	
CCC[35]	3,633	3,633

Table 36: S&P one-year PDs in basis points (1981 – 2006), global obligor base. Each entry is the average of two approaches: cohort based on monthly migration matrices and duration or intensity based.

[34] Note that grade level PD estimates for a given grade, say AA, need not be the same as the mid-point of the notch level PD estimate because a) PDs increase non-linearly (in fact approximately exponentially) as one descends the ratings spectrum, and b) the obligor distribution is uneven across (notch-level) ratings.
[35] Includes all grades below CCC.

U.S. Senate Committee on Banking, Housing, and Urban Affairs
Subcommittee on Securities, Insurance, and Investment
Hearing on "Transparency in Accounting:
Proposed Changes to Accounting for Off-Balance Sheet Entities"
September 18, 2008
Written Testimony of Elizabeth F. Mooney, CFA, CPA
Accounting Analyst
Capital Group Companies

Thank you Chairman Reed, Ranking member Allard, and committee members for the opportunity to be here today to testify on the topic of accounting for off-balance-sheet entities and activities, a very important issue to investors.

I am an analyst with the Capital Group Companies, an organization which, through affiliates, manages the American Funds Family as well as institutional, endowment and private client accounts. Capital Research Global Investors, Capital World Investors and Capital Guardian Trust Company are long-term investors in equities and fixed income securities globally. We are one of the largest active investment managers with over $1 trillion of assets under management representing over 55 million accounts primarily for individuals and institutions. We employ over 9,000 people globally. We conduct extensive, fundamental, on-the-ground company research and we rely heavily on financial statements prepared by public companies. For more information about The Capital Group Companies, please see our website www.capgroup.com.

Additionally, I am a member of the Financial Accounting Standard Board's (FASB) Investor Task Force and the Investors Technical Advisory Committee (ITAC), the FASB and the International Accounting Standards Board's (IASB) Joint Advisory Committee for the Financial Statement Presentation Project (JIG), and am a former member of FASB's Advisory Council (FASAC).[1]

At the Capital Group Companies, we feel that it is critical that the views of investors be considered in the formulation of accounting standards. So, thank you, again, for the opportunity to be here.

The key points I wish to emphasize are as follows:

1. The current rules are inadequate and allow institutions to have too much involvement and risk exposures with entities off the balance sheet.

2. While the FASB rule proposals have just been released and I have not fully studied them, my preliminary view is that together they represent a good response and significant improvement over what we have today. Reforms in this area should be adopted on a timely basis.

[1] For more information about ITAC, FASAC, ITF and JIG, see FASB.org and IASB.org.

3. The SEC should enforce the new rules as enacted and not weaken them or permit management or auditors to weaken them through interpretation as it did with the current rules. The inadequate accounting as well as the weak enforcement of the current rules equally contributed to the recent well-documented transparency problems.

4. The Congress should be supportive of FASB's efforts and not undermine them. In the oversight capacity with respect to the SEC, Congress should monitor and encourage enforcement of the new rules. Congress does not need to legislate in this area.

5. The FASB rule proposals are better than the current international standards and we are waiting to see improvements to IASB's draft proposal. The US should not adopt the IFRS rules if they are not substantially equivalent to FASB's rules. We must be sure this fix is not undone if IFRS rules are adopted in the U.S. U.S. and International standard setters should converge to the highest-quality accounting and disclosure requirements.

6. Investors are an important constituent without a sufficient voice at the table in accounting standard setting. The FASB and IASB should expand investor representation on their boards.

First I will give you my view of why the issue of off-balance-sheet accounting is extremely important to investors. Then I will address what I consider to be some of the important elements of an accounting solution to this issue.

It is well accepted that the lack of transparency in financial reporting creates unwarranted confusion and unnecessarily produces higher cost of capital, misallocates capital across industries and distorts securities valuations. In particular, the accounting for securitizations[2] and special-purpose entities (SPEs) lacks sufficient transparency for efficient capital markets, and has been a contributing cause to the current financial crisis. In this decade, investors have suffered substantial losses over this accounting issue, twice: once after Enron and again in the current mortgage crisis. The present problems in the financial markets are directly linked to insufficient reporting of exposures on the balance sheet and confusion between what is exposure and what is not.

Many of the losses incurred over the last year stemmed in part from companies' ability to easily transfer loans and other assets to off-balance-sheet entities - entities for which investors often have limited information, with inadequate accounting for, or disclosure of, the risks retained by such companies. As of March 2008, the International Monetary Fund (IMF)

[2] Securitization is defined by Investopedia as "The process through which an issuer creates a financial instrument by combining other financial assets and then marketing different tiers of the repackaged instruments to investors." *at* http://www.investopedia.com/terms/s/securitization.asp. Securitization is the sale or transfer of assets in exchange for cash; the assets are typically transferred to a special-purpose entity (SPE), which raises cash by issuing securities, i.e. the repackaged instruments.

forecasted $720 billion[3] of potential losses primarily on asset-backed securities, which are complex securities typically collateralized by loans and receivables transferred off balance sheets. Often the economics of these transactions were structured financings, yet those assets and liabilities did not appear on the balance sheets, and when the assets declined in value, the accompanying risks and losses were also not apparent to investors or regulators.

Two recent academic papers discuss research on the reasons why loan securitizations result in poor loan origination and screening practices and higher default rates, particularly in the subprime debacle. Research by A. Mian and A. Suffi with The University of Chicago in January 2008 concluded:

> "We directly link the disintermediation process [i.e., the process in which organizations sell mortgages in the secondary market shortly after origination] to credit expansion, house price appreciation, and ultimate defaults by showing that these changes take place in precisely those zip codes that experienced the greatest increase in disintermediation."[4]

Also, research by B. Keys et al. in January 2008 found:

> "Conditional on being securitized, the portfolio that is more likely to be securitized defaults by around 20% more than a similar risk profile group with a lower probability of securitization."[5]

In the recent past, during a period of easy credit availability and without transparent accounting that accurately reflects risks, financial institutions appeared especially profitable and attracted capital to the sector. They also added many jobs. In summary, employment, industry practices, corporate profits, capital allocation, executive compensation, risk management and prudential regulation may be adversely impacted by poor reporting of structured financings. Investors have been surprised that accounting in this area has not been made more transparent since Enron. *It is clearly time to set forth transparent, high quality accounting and disclosure requirements and to enhance the way the standards are implemented and enforced by auditors and the Securities and Exchange Commission (SEC).*

In its letter to FASB dated February 15, 2008, the ITAC wrote:

> "The general consensus of the ITAC: the reporting of securitization transactions currently provided to investors has significant deficiencies, and has contributed to uncertainty and volatility in the capital markets. Accordingly, we applaud and support

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[3] International Monetary Fund. *Global Financial Stability Report, Containing Systemic Risks and Restoring Financial Soundness*, Table 1.1, 12. (April 2008), (Estimated potential losses of the financial sector in total, including unsecuritized loan losses, were $945bn as of March 2008), *at* http://www.imf.org/external/pubs/ft/gfsr/2008/01/pdf/text.pdf.

[4] Atif Mian & Amir Sufi, *The Consequences of Mortgage Credit Expansion: Evidence from the 2007 Mortgage Default Crisis*, p. 2, 5 (Jan. 2008), *at* http://faculty.chicagogsb.edu/workshops/finance/pdf/MianSufi_Housing.pdf.

[5] Benjamin J. Keys, et al., *Securitization and Screening: Evidence From Subprime Mortgage Backed Securities*, (Jan. 2008), *at* http://www2.law.columbia.edu/contracteconomics/conferences/laweconomicsS08/Vig%20paper.pdf.

> efforts of the FASB to improve financial transparency that will allow investors to make fully informed and timely decisions."[6]

Now, I will move on to discuss some important elements of a transparent, high-quality accounting solution.

First, put a stop to financial-engineering opportunities that allow inaccurate reporting of risk and reward profiles. We now know that a number of companies have retained substantial risks in many of their off-balance-sheet entities, while providing at best only limited disclosures to investors regarding their off-balance-sheet risks. *Financial reporting should result in the substance of transactions, rather than their oblique "engineered legal forms" being reported to investors.* Financial engineering should not result in companies being able to report financial results and conditions that misrepresent the underlying economics of their businesses, and to report balance sheets that omit millions or billions of dollars of liabilities, or fail to disclose significant risks. *When a public company effectively controls or has power over the assets and liabilities of other entities, those entities along with their assets and liabilities should be consolidated by the company on the face of its balance sheet.* There may not be any legal obligation for sponsoring institutions to financially support their off-balance-sheet entities, but sponsors have demonstrated willingness to lend to their off-balance-sheet entities and take losses for them, and therefore have significant moral or substantive recourse and other strings attached that need to be considered in the accounting.[7]

In its letter to FASB dated February 15, 2008, the ITAC expressed similar views:

> "Short-term repairs to Statement [of Financial Accounting Standards No.] 140 [Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities] will do nothing to address the issue of structured investment vehicles (SIVs) and other similar asset-backed securitization transactions that are not effected through a QSPE [Qualifying Special Purpose Entity] (e.g., many ABCP [Asset-Backed Commercial Paper] transactions), most of which did not exist on the balance sheets of companies that have originated them and have benefited from their borrowing activities. We believe investors have not been provided with meaningful information about potential risks associated with such activities – partly attributable to the insufficient balance-sheet accounting for them despite the application of Interpretation 46R, and partly attributable to the lack of full-throated disclosures. Such vehicles have been the cause of much market tumult over the last six months, and there appears to be a substantial lack of transparency surrounding them."[8]

Moreover, in its letter to FASB dated July 31, 2003, the Corporate Disclosure Policy Committee (CDPC, formerly the Financial Accounting Policy Committee) of the CFA Institute wrote the following:

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[6] Letter from Investors Technical Advisory Committee, to Robert Herz, Chairman, FASB, (February 15, 2008), available *at* http://www.fasb.org/investors_technical_advisory_committee/ITAC_Stmt140.pdf.
[7] FASB has incorporated the notion of substantive obligations into accounting for other commitments, for example Statements 87 and 106 addressing accounting for pensions and post-retirement obligations.
[8] Letter from Investors Technical Advisory Committee, *supra*, footnote 6.

> "The [CDPC] has expressed its concern on several occasions with companies' continued ability under current accounting standards to hide assets and obligations by removing them from the financial statements. Statements that understate assets or liabilities and other risks of a company severely impair the usefulness of the information to investors and other users. The needs of investors for complete, reliable, relevant and timely financial information should supersede all other interests."[9]

What is on-balance sheet for accounting purposes is about conveying to investors information and judgments made by management and agreed to by its auditors. The objective of financial reporting is not to achieve appropriate regulatory capital; that is a different matter between the banks and banking regulators. If the Federal Reserve believes it appropriate for prudential regulation to have temporary regulatory forbearance on capital and reserve requirements that is fine, but in my opinion bank regulators should not manage the financial reporting to investors. That is, if regulators think transparency in financial reporting results in asset sales and therefore excessive losses, then regulators could prevent forced deleveraging by easing up on capital requirements. If the economics are such that banks regulators think holding more or less capital would be prudent then that should be required despite the accounting.

Accounts reported on the face of the financial statements are most critical and relevant to investors. The accounts represent the starting point to financial analysis, which must be complemented by high-quality footnote disclosures. Numerous academic studies[10] reinforce this notion and suggest that data in financial statement footnote disclosures are lower quality and taken far less seriously by companies, auditors, and investors, than what is reported on the face of the financial statements. It is common knowledge in the accounting field that disclosures are an inadequate substitute for good accounting; rather good disclosures must go hand in hand with good accounting.

Second, the accounting solution should be accompanied with useful disclosures. It is important that companies provide additional information that augments and explains items on the face of financial statements so users may understand financial risks and benefits facing companies, and forecast future cash flows. A few examples, and there are many more, of information that should be included in disclosures to investors are as follows:

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[9] Letter from Financial Accounting Policy Committee (FAPC), CFA Institute, to Suzanne Bielstein, FASB (July 31, 2003). ("The FAPC has expressed its concern on several occasions with companies' continued ability under current accounting standards to hide assets and obligations by removing them from the financial statements. Statements that understate assets or liabilities and other risks of a company severely impair the usefulness of the information to investors and other users. The needs of investors for complete, reliable, relevant and timely financial information should supersede all other interests."), *available at* http://www.cfainstitute.org/centre/topics/comment/2003/03fas_proposal.html.

[10] Katherine Schipper, *Required Disclosures in Financial Reports*, The Accounting Review, 82 (2): 301-326 (2007). Robert Libby, Mark W. Nelson, & James E. Hunton, *Recognition v. Disclosure, Auditor Tolerance for Misstatement, and the Reliability of Stock-Compensation and Lease Information*, Journal of Accounting Research, 44 (3): 533 (2006). Anwer S. Ahmed, Emre Kilic, & Gerald J. Lobo, *Does Recognition Versus Disclosure Matter? Evidence From Value-Relevance of Banks' Recognized and Disclosed Derivative Financial Instruments*, The Accounting Review 81 (3): 567–588 (2006). Preeti Choudhary, *Reliability of Recognition versus Disclosure in Input Assumptions to Compensation Expense*, (2006), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=945398.

- Complete and accurate information about the company's continuing involvement in assets that it has transferred to SPEs.
- The nature and financial effect of restrictions on the SPE assets, especially on the assets carried on the balance sheet.
- Sufficiently disaggregated information about assumptions used to value retained interests and sensitivity to those assumptions.
- If there is any continuing involvement with the assets transferred, the company should disclose information about the assets and liabilities transferred, including understandings, terms of any arrangements or other circumstances that could require or compel the company to provide financial support to the SPEs (e.g. economic compulsion, dependency, implicit or indirect guarantees).
- Information about how the company has benefited from or provided any support to the SPE or its beneficial interest.

Third, a high-quality, workable and effective accounting solution should be in place without further delay from the timing in the current FASB proposal.[11] Regulators worldwide have expressed concern about the market impact of poor financial reporting of off-balance-sheet exposures, and have urged accounting standard setters to act. For instance:

- In its report to Congress in June 2005, SEC Staff identified off-balance-sheet financial reporting as an area needing improved transparency in reporting.[12]
- The Financial Stability Forum (FSF) highlighted in its report issued to the G7 group of Finance Ministers and Central Bank Governors that "a lack of adequate and consistent disclosure of risk exposures and valuations continues to have a corrosive effect on confidence,"[13] and recommended that "Standard setters take urgent action to improve and converge financial reporting standards for off-balance-sheet vehicles."
- The European Commission has indicated concern about insufficient disclosures regarding securitization activity and exposures.[14]
- The Senior Supervisors Group in its letter to the FSF expressed a similar view.[15]

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[11] FASB, *Exposure Draft on Amendments to FASB Interpretation No. 46(R), Accounting for Transfers of Financial Assets - an amendment of FASB Statement No. 140, FSP FAS 140-e and FIN 46(R)-e* (September 2008), *available at* http://www.fasb.org/draft/index.shtml.

[12] SEC Office of the Chief Accountant, Office of Economic Analysis and Division of Corporate Finance, *Report and Recommendations Pursuant to Section 401(c) of the Sarbanes-Oxley Act of 2002 On Arrangements with Off-Balance Sheet Implications, Special Purpose Entities, and Transparency of Filings by Issuers, submission to the President of the United States, the Committee on Banking, Housing, and Urban Affairs of the United States Senate and the Committee on Financial Services of the United States House of Representatives*, June 15, 2005. (Staff wrote that it "believes that investors—and the market as a whole—are best served by financial information that is presented fully and clearly...What presents difficulties for investors, as well as the market as a whole, is a lack of information about potential positive and negative cash flows."), *at* http://www.sec.gov/news/studies/soxoffbalancerpt.pdf.

[13] Financial Stability Forum, *Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience*, p. 4, 22. Materials issued to the G7 group of Finance Ministers and Central Bank Governors, April 7, 2008; endorsed by the G7, April 11, 2008, *at* http://www.fsforum.org/publications/r_0804.pdf.

[14] Katie McCaw & Jonathan Walsh, *Basel II Big Bang: Full Implementation of the CRD*, Baker & McKenzie's Securitisation & Structured Capital Markets Newsletter Edition 5, (2008). (In the article the law firm states, "The [European] Commission's view is that there is insufficient disclosure of firms' securitisation activity generally (including their use of offshore special purpose vehicles), as well as a great deal of uncertainty about firms' individual exposures to securitisation transactions).

- The President's Working Group on Financial Markets recommended that "Authorities should encourage FASB to evaluate the role of accounting standards in the current market turmoil. ... include[ing] an assessment of the need for further modifications to accounting standards related to consolidation and securitization,..."[16]

Moreover, since 1999, CFA Institute members have repeatedly expressed their need for better information through their responses to its surveys on corporate reporting and disclosures. In three surveys conducted, respondents consistently ranked information about off-balance-sheet items as being the most important of the corporate disclosures listed in the survey questionnaire. In addition, respondents consistently ranked the quality of off-balance-sheet disclosure near the bottom, resulting in the largest informational gap for those disclosures listed in the survey.[17]

Investors should not have to wait any longer for progress to be made in financial reporting of off-balance-sheet activities. The numerous attempted accounting improvements over the years[18] have not worked. Indeed, for many years, standard setters have thoroughly studied the accounting for off-balance-sheet entities, and they have researched it particularly intensively over the last couple of years. The IASB and FASB understand that both IFRS and US GAAP derecognition standards need improvement. In the *Information for Observers* handout distributed in advance of the joint IASB/FASB meeting on April 21, 2008, it highlighted that "Statement 140 was then [in 2006] deemed to be irretrievably broken, and still is despite ongoing repair and maintenance work. IAS 39 was then, and still is, viewed by many as internally inconsistent, and anecdotal evidence indicates that it is inconsistently applied in practice."[19] *Accordingly, both the FASB and IASB should achieve a standard that results in the substance of these transactions being reflected in the balance sheets and income statements of public companies.*

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[15] Senior Supervisors Group, *Observations on Risk Management Practices during the Recent Market Turbulence,* March 6, 2008. Transmittal letter from William L. Rutledge, Chairman, to FSF Chairman Mario Draghi. "[W]e will support efforts in the appropriate forums to address issues that may benefit from discussion among market participants, supervisors, and other key players (such as accountants). One such issue relates to the quality and timeliness of public disclosures made by financial services firms and the question whether improving disclosure practices would reduce uncertainty about the scale of potential losses associated with problematic exposures. Another may be to discuss the appropriate accounting and disclosure treatments of exposures to off-balance-sheet vehicles."), *at* http://www.newyorkfed.org/newsevents/news/banking/2008/SSG_Risk_Mgt_doc_final.pdf.

[16] The Presidents Working Group on Financial Markets, *Policy Statement on Financial Market Developments,* p. 6, (March 2008), *at* http://www.ustreas.gov/press/releases/reports/pwgpolicystatemktturmoil_03122008.pdf.

[17] Letter from CDPC, CFA Institute to SEC (December 7, 2007). Re: File Number S7-20-07 Concept Release on Allowing U.S. Issuers to Prepare Financial Statements in Accordance With International Financial Reporting Standards. *available at* http://www.cfainstitute.org/centre/topics/comment/2007/pdf/concept_release_reporting.pdf.

[18] See e.g. AICPA Statement of Position (SOP) 74-6;, Financial Accounting Standard No. (FAS) 77, FAS 125, FAS 140; Emerging Issues Task Force Consensus 90-15 (1990), FASB Interpretation No. (FIN) 46, FIN 46R; FASB Staff Position (FSP) papers, and Q&A Implementation Guidance.

[19] Note from the IASB/FASB, *Completing the February 2006 Memorandum of Understanding: Developing a progress report and timetable for convergence between IFRSs and US GAAP (Agenda paper 3)* issued at the IASB/FASB Joint Meeting, (April 21, 2008), p. 11, *at* http//www.iasplus.com/resource/0804j03obs.pdf.

Fourth, the U.S. and International standard setters should converge to the highest-quality accounting and disclosure requirements. Our experience is that both IFRS and US GAAP accounting did not sufficiently capture important off-balance-sheet exposures over the last year, and the disclosures were poor. We noted that in a number of issued annual and interim balance sheets, income statements and footnote disclosures, investors were not advised that off-balance-sheet risk of loss existed. The FSF has recommended that the IASB improve the accounting and disclosure requirements for off-balance-sheet entities and activities.[20] Recent research by PriceWaterhouseCoopers[21] found meaningful deficiencies and incomparability in financial reporting of structured finance activities and entities under IFRS.

In my view the FASB's proposal[22] is superior to current IFRS, and the IASB Staff Working Draft ED,[23] however that Draft appears fairly fluid and not yet approved by IASB board members. In the latest available Draft proposal prepared by IASB Staff, a financial institution could avoid putting a SIV on the balance sheet despite having significant involvement with the SIV, including participating in the SIV's governing body and having sufficient voting rights to appoint directors, servicing and administering the SIV's assets and liabilities, appointing its management personnel, dominating the major contracts and having meaningful reputation risk. Because of that risk, a financial institution could have the obligation to absorb losses, which could potentially be significant. IASB has not yet responded to investor concerns on this issue and should adopt FASB's anticipated new approach and disclosures if it would be more useful than IASB's current draft proposal and help make a better financial reporting system. *It is important at this juncture that we have a coordinated global effort to improve the accounting and enforcement in order to ensure a level playing field and the highest quality compliance with the new rules.*

Fifth, the SEC, external auditors, audit committees, and management should be held accountable if they fail to implement and enforce the standard for securitizations and special-purpose entities. Once we have a clear and high-quality accounting standard that makes sense, compliance can follow. *If it does not, then Congress should support the SEC, auditors, and standard setters to properly enforce the accounting in the interest of investors.* A high-quality accounting standard is of limited value to investors and other market participants if enterprises fail to comply with its requirements, including disclosures. Investors should be able to rely on financial statements and the accompanying disclosures to report the risks and substance of the economics of transactions, including those that are structured financings and not true sales, rather than be left in the dark as current accounting standards permit.

There has been poor compliance and enforcement of the existing accounting rules for securitizations and special-purpose entities put in place following the Enron debacle. FASB Chairman Mr. Bob Herz highlighted several compliance issues in his letter to Senator

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[20] Financial Stability Forum, *supra*, footnote 13, p. 25.
[21] PriceWaterhouseCoopers, *Accounting for Change: Transparency In the Midst of Turmoil*, (August 2008), at http://www.pwc.com/Extweb/onlineforms.nsf/doc
[22] FASB, *supra*, footnote 11.
[23] IASB, *Exposure Draft on Proposed Improvements to IFRSs*, (August 2008), *available at* http://iasb.org/About+Us/About+the+IASB/Response+to+the+credit+crisis.html, Round table meetings on Consolidation, 03 September 2008.

Reed.[24] The SEC must responsibly enforce compliance with the new accounting and disclosure requirements concurrent with the new standard becoming effective, rather than wait until another crisis develops. *The SEC through its Division of Corporation Finance should engage in a targeted review of compliance through its comment letter process with the objective of reducing diversity in practice and improving comparability in application and implementation before any SEC enforcement would be needed.* Knowing that an SEC review of their implementation of the standard was coming, companies would then have a good incentive to have transparent financial reporting, and investors would benefit in the process.

If the accounting is transparent and complied with, then companies would have every incentive to pull together sufficient information to conduct proper internal risk management, regulators would have the data to enforce the rules and prudentially regulate, and investors would have the information for valuing the companies in which they invest and for holding managements and boards accountable.

Sixth, the FASB and IASB should have more investor members and better investor participation in the accounting standard setting process. We believe the boards of trustees, i.e. both the Financial Accounting Foundation (FAF) and International Accounting Standards Committee Foundation (IASCF), should actively seek out, and have as voting FASB and IASB members, several people from the investment community with significant experience using financial statements in the research process. We also believe the trustees of the FASB and IASB should include significant representation from among such investors. *Simply stated, investor participation is critical to developing high-quality, transparent, relevant, consistent and comparable accounting standards.*

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In conclusion, the current lack of transparency has real economic costs including unwarranted confusion and unnecessarily high cost of capital, misallocated capital across industries over the long term, discounted securities valuations through higher risk premiums and uncertainty penalties, and also costs employment practices, people's savings and livelihoods. It is critical for U.S. and non-U.S. capital markets to receive the information necessary for market participants to analyze transactions, so that market disciplinary and capital allocation mechanisms can properly function. If high-quality, properly-enforced financial reporting and information is provided on a timely basis, then reasonable investors can quickly digest it and move forward. If not, market inefficiencies get created that can have unfortunate outcomes for investors, the capital markets and the economy. We must

[24] Letter from FASB Chairman Bob Herz to The Honorable Jack Reed , p. 13-14, March 31, 2008, "[W]e have questions about compliance with the existing standards and requirements in the following areas:

a. The use of QSPEs to securitize assets for which decisions were required that may have extended beyond those specified in legal documents.
b. The completeness and reasonableness of probability assessments used in estimating expected losses for determining the primary beneficiary of a securitization entity.
c. Whether all involvements with a securitization entity were considered in determining the primary beneficiary (including, for example, implied guarantees and support arrangements).
d. The adequacy of disclosures made pursuant to the requirements."

have truth and accountability in financial reporting to help put the current credit and confidence crisis behind us.

Thank you. That concludes my remarks and I would be happy to answer any questions committee members might have.

TESTIMONY OF

GEORGE P. MILLER
EXECUTIVE DIRECTOR
AMERICAN SECURITIZATION FORUM

BEFORE THE

SUBCOMMITTEE ON SECURITIES, INSURANCE AND INVESTMENT
COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS
UNITED STATES SENATE

HEARING ON

TRANSPARENCY IN ACCOUNTING: PROPOSED CHANGES TO ACCOUNTING FOR OFF-BALANCE SHEET ENTITIES

SEPTEMBER 18, 2008

I. Introduction

Chairman Reed, Ranking Member Allard and Members of the Subcommittee on behalf of the American Securitization Forum (ASF)[1] and the Securities Industry and Financial Markets Association (SIFMA)[2], I appreciate the opportunity to testify today on

[1] The American Securitization Forum ("ASF") is a broadly-based professional forum of participants in the U.S. securitization market. Among other roles, ASF members act as issuers, underwriters, dealers, investors, servicers and professional advisers working on securitization transactions. More information about ASF and its involvement in financial accounting matters may be found at www.americansecuritization.com. ASF is an adjunct forum of SIFMA.

[2] SIFMA brings together the shared interests of more than 650 securities firms, banks and asset managers. SIFMA's mission is to promote policies and practices that work to expand and perfect markets, foster the development of new products and services and create efficiencies for member firms, while preserving and enhancing the public's trust and confidence in the markets and the industry. Additional information concerning SIFMA, its members and activities may be found at www.sifma.org.

transparency in accounting, specifically in connection with proposed changes to accounting for off-balance sheet entities under U.S. generally accepted accounting principles (GAAP). We commend you for holding this hearing on this timely and important topic.

I am here today representing the views of ASF and SIFMA, whose members collectively include securitization issuers, investors, financial intermediaries and other institutions involved in the U.S. securitization market. Over the years, our organizations and members have interacted extensively with FASB on issues relating to securitization accounting and financial market accounting matters. Specifically with reference to accounting for securitizations and off-balance sheet entities, we have submitted detailed comments and recommendations on multiple previous FASB proposals, participated in public roundtable meetings and educational sessions sponsored by FASB, and have engaged in an ongoing dialogue with federal regulators and other policymakers.

II. The Role of Accounting Standards in Securitization Transactions

Transparent, timely and accurate accounting is of critical importance to the quality and utility of financial reporting for securitization transactions, and to the efficient functioning of the financial markets generally. We therefore strongly support the need for high quality accounting standards governing when financial assets may be removed

from a transferor's[3] balance sheet, as well as accounting standards governing consolidation and financial reporting for off-balance sheet entities.

As the Committee is aware, FASB has projects underway to revise relevant accounting standards in these areas under U.S. GAAP. These include FAS 140, which deals with accounting for transfers of financial assets, and FIN 46R, which governs consolidation of special purpose entities. In basic terms, FAS 140 governs when financial assets transferred by an entity should be considered as a sale for accounting purposes (in which case those assets are removed from the transferor's balance sheet) versus when that transfer should be considered as a secured borrowing for accounting purposes (in which case the assets remain on the transferor's balance sheet). FIN 46R governs when assets transferred to a special-purpose entity – as further described below, typically a stand-alone entity that exists solely to facilitate a financing transaction – must nevertheless be consolidated on the balance sheet of another entity.

These accounting standards are important in a variety of commercial and financial market contexts. They are of particular relevance to the world of securitization and structured finance, where on- or off-balance sheet accounting treatment for transactions may have significant business and economic consequences.

Securitization and structured finance are terms that include a wide range of capital markets transactions that provide funding and liquidity for an equally wide range of consumer and business credit needs. These include securitizations of residential and commercial mortgages, automobile loans, student loans, credit card financing, equipment loans and leases, business trade receivables, and the issuance of asset-backed commercial

[3] "Transferor" refers to the entity that transfers financial assets into a special purpose entity (which may be an off-balance sheet entity) that issues securities, the payments upon which are supported primarily by cashflows generated by the financial assets.

paper, among others. Collectively, securitization represents by far the largest segment of the debt capital markets in the United States, with over $10 trillion mortgage and asset-backed securities currently outstanding.

Securitization transactions can take a variety of forms, but most share several common characteristics. First, securitizations typically rely on cashflows generated by one or more underlying financial assets (such as mortgage loans), which serve as the principal source of payment to investors, rather than on the general credit or claims-paying ability of an operating entity. Securitization thus often allows the entity that originates or holds the assets to fund those assets more efficiently, since cashflows generated by the securitized assets can be structured, or "tranched," in a way that can achieve targeted credit, maturity or other characteristics desired by investors. To realize this efficiency, most securitizations rely on transaction structures that isolate the assets that are the principal source of investor payments from other assets that may be held on an originator's balance sheet. Second, to achieve this isolation of assets, many transaction structures utilize a special purpose entity, or SPE (also sometimes referred to as a special purpose vehicle, or SPV), which exists solely to hold assets that are transferred to it for purposes of securitization, and to issue securities to investors that are backed by cashflows produced by those assets.

Historically and today, many (but not all) securitizations that utilize SPEs to isolate assets for purposes of financing those assets in capital markets transactions qualify for off-balance sheet accounting treatment under relevant U.S. GAAP accounting guidance, including the current versions of FAS 140 and FIN 46R. Common securitization transaction structures – including the segregation of assets in off-balance sheet SPEs – are long-established, extensively disclosed and well-understood by

investors and other securitization market participants. The funding efficiencies that can be realized via securitization (including off-balance sheet financing) are ultimately passed through to borrowers – both consumers and businesses – who have access to a wider range of credit at lower cost. This is because the sale of assets via securitization and removal of those assets from the transferor's balance sheet generates capital and liquidity that can be used for additional asset origination, often at funding costs that are superior to those available from other financing techniques.

III. Views on Current Accounting Standards Projects Affecting Off-Balance Sheet Entities; Potential Market Impacts

FASB is presently engaged in projects that would significantly revise current accounting standards under FAS 140 and FIN 46R. On September 15th, 2008, FASB issued comprehensive proposed revisions to FAS 140 and FIN 46R, with public comments due by November 14th. FASB's current projects represent the latest phase in an almost continuous dialogue that has taken place regarding revisions and adjustments to these standards ever since they were initially issued. In the case of FAS 140, there have been multiple revisions projects, technical amendments, FASB staff positions and other guidance proposed and enacted since the original adoption of FAS 125 (the predecessor standard to FAS 140) in 1995. FIN 46 has experienced a similar history. Shortly after the original adoption of FIN 46 in January 2003, FASB revised the standard via the adoption of FIN 46R in December 2003, and there have been ongoing interpretative, operational and practical issues surrounding the application of this standard since that time. In early 2008 FASB announced its current projects to revise FAS 140 and FIN

46R, and established a deadline for implementing theses changes. That deadline was subsequently extended to January 2010.

We agree that given the importance of FAS 140 and FIN 46R, the continuing policy debate about the appropriate accounting treatment and financial reporting and disclosure standards for off-balance sheet entities, and the continuing difficulties that have been encountered by both preparers and users of financial statements in applying these standards in a clear, consistent, operational and transparent manner, that a comprehensive revisitation and revision by FASB is in order. We also recognize that FASB and other policymakers believe that speedy and decisive actions are necessary in response to the ongoing credit and liquidity crisis confronting our nation's financial markets. However, we are very concerned that FASB's current course of action and timetable, in which it appears that FASB may adopt far-reaching changes to FAS 140 and FIN 46R in the near term without considering other, and possibly superior accounting frameworks, may have serious and unintended consequences. We believe that a 60-day public comment period[4] does not provide adequate time to consider the proposed revisions and other possible alternatives, before final decisions are made on how current accounting standards will change.

To the extent that FASB's current proposals result in abrupt revisions to existing derecognition guidance and/or the widespread consolidation of securitization SPEs, these outcomes would likely swell the balance sheets of affected entities, impairing financial ratios and financial covenant performance and regulatory capital tests. Without sufficient time to consider appropriate regulatory, rating agency and other responses to

[4] The effective comment period is less than 60 days for organizations like ours, who intend to participate in FASB's public roundtable meeting on November 6th to discuss the proposed changes

such far-reaching changes in accounting, regulated entities will face potentially significant capital constraints, and both regulatory and unregulated entities will face substantial challenges (and their capital raising efforts will be complicated) by being forced to explain dramatic changes in their financial statements to investors and lenders, with potentially little or no change to the economics of the subject transactions. As further discussed below, significant accounting changes that are unrelated to changes in the economic or risk profile of securitizations may lead not only to capital constraints, but also to a diminution of credit and liquidity available to consumers and businesses generally.

Moreover, accounting policy changes under U.S. GAAP without meaningful convergence of international accounting standards in this area risks a prolonged drain on the time and resources of FASB and industry members alike, as further changes to derecognition and consolidation policies are virtually certain to result from the eventual convergence process. In this context, we note that the International Accounting Standards Board ("IASB") recently issued its own proposed staff guidance on these topics, which differs from the approach suggested in FASB's current proposals.

Given that the SEC has recently proposed a roadmap for U.S. public companies to adopt International Financial Reporting Standards (IFRS) as early as 2010, we believe that these revisions projects should be coordinated with the IASB. The IASB also has a project on its agenda to develop a new standard on derecognition and ultimately, the two Boards will seek to issue a converged standard. We believe that implementing these short term revisions and then a different converged standard in several years would be very costly and burdensome for preparers. The two Boards should coordinate to issue a converged standard instead of issuing these short term revisions.

We appreciate that FASB extended (in response to recommendations from industry participants and others) their originally-announced deadline for completing these revisions projects by one year. However, we remain very concerned that FASB is nevertheless moving forward with proposed revisions that could have dramatic and far-reaching consequences, without allowing for a full discussion and deliberation of possible policy alternatives. Given what is at stake, we believe that a more thorough and deliberative process is essential, and will produce better outcomes for accounting policy, the economy and the markets in both the short and long term.

Banks, finance companies and other entities, possibly including Fannie Mae and Freddie Mac, that currently do not consolidate the issuing entities used in securitizations may be required to consolidate some or all of those entities. The affected transactions may include many garden variety transactions (such as prime mortgage loan, credit card, student loan and retail automobile loan securitizations) that have not been contributing factor to the current credit and liquidity crisis. From this perspective, the revisions being contemplated affect large markets that provide substantial funding for U.S. consumers and businesses. As of December 31, 2007, the aggregate outstanding balance of potentially affected transactions include:

- $7.2 trillion mortgage-related securities;
- $2.5 trillion other asset-backed securities (excluding asset-backed commercial paper); and
- $816 billion asset-backed commercial paper

Although we cannot presently estimate which or how many of these transactions would be affected by the proposed changes, consolidation of even a significant fraction would be a momentous change, with significant market and economic consequences.

These could include a material reduction in the availability and increase in the cost of credit, precisely at the time that the availability of capital, credit and liquidity are severely constrained throughout the financial markets.

IV. FASB Should Proceed Carefully and Deliberately in Considering Changes to Existing Standards, and Should Consider Other Alternatives, Including "Linked Presentation"

While we agree that changes in disclosure and financial reporting by entities engaged in securitization transactions that involve on- and off-balance sheet entities should be pursued, we believe that it is essential for FASB to take the time necessary to produce a standard that will result in an improvement in accounting in these areas, rather than merely produce a change for the sake of change, or to meet an arbitrary deadline for making those changes.

As noted above, FASB has been involved in multiple projects relating to securitization accounting in recent years. There are a number of reasons why these initiatives have required the expenditure of significant time and resources to resolve. Among others, the subject transactions are often complex; the market is relatively young and has evolved and grown rapidly; and FASB and the IASB have historically taken different approaches in this area, which are the subject of an ongoing international accounting standards convergence project. Undue haste to revise accounting standards applicable to securitization transactions and off-balance sheet entities will be counterproductive if it prevents FASB and other policymakers from giving full consideration to other accounting policy options, direct and indirect consequences of

proposed accounting policy changes, and possible compensating adjustments to bank capital rules and other regulations.

It is important to remember that over-consolidation of SPEs can be just as confusing to users of financial statements as under-consolidation. We believe that a binary, "all-or-nothing" approach to consolidation (where an entity consolidates either all or none of the assets transferred to a securitization SPE) can produce these distorted effects. To prevent this from happening, we believe that more nuanced approaches should be considered, and in particular, approaches that (1) enable users of financial statements to differentiate between assets that are truly controlled by the consolidated reporting entity versus those that have been isolated from that entity and its creditors, and (2) appropriately recognize differences between and among prevailing structures used for various asset classes. For several years, ASF has advocated "linked presentation" as a concept with great potential as part of a final resolution of current issues and ambiguities surrounding securitization accounting. Unfortunately, FASB has indicated that it does not have sufficient time to consider the relative merits of a linked presentation approach prior to moving forward with the current, proposed revisions to FAS 140 and FIN 46R. We disagree, and strongly advocate that FASB engage in a full exploration of linked presentation – among other possible alternatives – as part of the current round of accounting policy changes.

Briefly, under a linked presentation approach, the liabilities that are issued in securitizations would be shown on the asset side of the balance sheet, as a deduction from the amount of securitized assets. Linked presentation in essence results in an on-balance sheet financial statement presentation, as it would provide users with all relevant information regarding transferred assets directly on the balance sheet.

The principle behind this approach is that to the extent a transfer of financial assets qualifies as a sale under FAS 140, and those assets have been legally isolated from the transferor, it is more appropriate and relevant to present as a liability on the balance sheet of the transferor only the amount of recourse that exists to the general assets of the transferor. Where legal isolation has been established, the transferor no longer has access to the transferred assets, and the cash flows generated by those assets would be used only to repay the related obligations. In this circumstance, we believe that it would be inappropriate to require the transferor to consolidate on its balance sheet *all* of the assets and liabilities of the securitization SPE, as clearly the transferor is neither fully entitled to the benefits of those assets nor fully exposed to those liabilities. Although significant additional work will be needed to define the conditions under which linked presentation may be used, and to specify the elements of this approach, we continue to believe that a linked presentation model along these broad conceptual lines is worth pursuing. ASF and SIFMA stand ready to work with FASB and other policymakers to develop an effective and operational linked presentation model.

V. Conclusion

Once again, ASF and SIFMA appreciate this opportunity to convey our views. We stand ready to work with the Subcommittee, FASB, regulatory agencies and our members to develop and implement sound and operational accounting standards governing securitization transactions, and would be pleased to provide any additional information that may be helpful in achieving that goal.