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COMMERCIAL REAL ESTATE: DO RISING DEFAULTS POSE A SYSTEMIC RISK?

HEARING

BEFORE THE

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CONGRESS OF THE UNITED STATES

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THURSDAY, JULY 9, 2009

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, DC.

The committee met at 10:00 a.m., in Room 2226, Rayburn House Office Building, The Honorable Carolyn B. Maloney (Chair) presiding.

Senators present: Brownback.

Representatives present: Maloney, Hinchey, Sanchez, Brady, Burgess, and Campbell.

Staff present: Gail Cohen; Nan Gibson; Colleen Healy; Aaron Kabaker; Andrew Wilson; Jeff Schlagenhauf; Chris Frenze; and Robert O'Quinn.

OPENING STATEMENT OF THE HONORABLE CAROLYN B. MALONEY, CHAIR, A U.S. REPRESENTATIVE FROM NEW YORK

Chair Maloney. The meeting will be called to order, and it is such a busy time on Capitol Hill. I am told they are going to be calling votes shortly, and I just came from a Financial Services Committee where we were voting in the committee on another bill, but we are focusing on a very important challenge today, and I would like to thank our distinguished guests and experts for agreeing to testify today on the growing financing problems we are facing in the commercial real estate market and the extent to which they pose a systemic risk to our economy.

The current financial crisis is the result of significant losses experienced by key financial institutions with large exposures to residential mortgage assets. But banks now face a second wave of losses as commercial real estate loans, issued at the height of the real estate bubble, are coming due for refinancing.

Tenant rent payments are often not sufficient to cover the loan payments and many borrowers' commercial mortgages are underwater because the property simply isn't worth today what they paid for it a few years ago.

The decline in property values is astounding, particularly when you look at my home city of New York. For the year ending in March 2009, prices on commercial office space properties have dropped almost 13 percent. Deutsche Bank reportedly sold Worldwide Plaza in Manhattan for less than $400 per square foot, which I understand is less than one-third of the price the property could have commanded back in 2006. Many of my constituents and others that come to this committee tell me they can't find any buyers, and they cannot find anyone who will refinance their commercial loans. The bubble has burst, but a 60 to 70 percent collapse in prices poses a tremendous obstacle to the refinancing process.

Moreover, in this highly constrained credit market that we now live in, even borrowers with performing commercial real estate loans who have equity in their properties report to me that they are having trouble getting refinancing.

The commercial real estate time bomb is ticking. An estimated $400 billion in commercial real estate debt is set to mature this year with another $300 billion due in 2010. If mortgagers are unable to refinance, or otherwise pay their large balloon payments, we could expect to see the default rate soar. That, in turn, translates into potentially crippling bank losses, especially among smaller and regional banks.

Doing nothing is not an option, because this looming crisis in commercial real estate lending could lead to an all-too-familiar predicament where banks suffer significant losses, major owners of hotels and shopping centers are forced into bankruptcy, foreclosed properties push commercial real estate prices further downward, and a perfect storm of all these factors combine to inhibit prospects for a sustained economic recovery.

In recent speeches, New York Fed President William Dudley and San Francisco Fed President Janet Yellen raised concern about the potential systemic threats due to commercial real estate defaults and the need to reactivate the secondary market, in part through the TALF—the Term Asset-Backed Securities Loan Facility—in the Federal Reserve.

The Federal Reserve has announced that it will extend the TALF to include both new and legacy commercial mortgage-backed securities in hopes that the July auction will be more successful than the June auction, which drew no takers. The expansion of TALF into legacy commercial-backed securities could increase the supply of credit to the commercial real estate market, which remains frozen with no new securities issued in over a year.

Additionally, further details about the Public-Private Investment Program are emerging, which could potentially help with this problem.

I also look forward to working with the Treasury on what has been referred to as "Plan C"—efforts to head off looming problems, such as commercial mortgage defaults, rising homeowner delinquencies and solvency issues at community and regional banks, before they cascade into a greater crisis.

But as we evaluate proposed solutions, we must be very wary of potential pitfalls. For example, the TALF program is set to expire at the end of this year, which may cut short the program's effectiveness just as it begins to ramp up. Credit rating downgrades for CBMS could significantly limit the impact that the legacy TALF auctions have in providing liquidity to that market.

Uncertainty about the PPIP's future has reportedly kept some on the sidelines, so there is some urgency to the Treasury providing additional clarity about that program.

We are all watching closely to see if these measures help to restart the commercial real estate market, but we need to be ready in the event that they fall short.

I look forward to testimony from our panel to help us find the keys to unlocking the commercial real estate loan market, and I thank all of my colleagues for coming.

[The prepared statement of Representative Maloney appears in the Submissions for the Record on page 34.]

And I recognize the ranking minority member, Senator Brownback.

OPENING STATEMENT OF THE HONORABLE SAM BROWNBACK, RANKING MINORITY, A U.S. SENATOR FROM KANSAS

Senator Brownback. Thank you very much, Chairwoman, appreciate that. And thank you very much for holding this hearing.

I think this is one of the most important issues for us to keep our eye on at this point in time. Clearly, it is one that has been brewing for some period of time. Now it is on us. And I think we need to look at what it is that is taking place and what policy issues we can address to try to make it better or at least not as bad as it could possibly get.

Similar to the market for residential real estate, the CRE market saw significant price increases from 2005 to 2007, and that resulted in large numbers of commercial properties being purchased or refinanced at unsustainable values.

As in the housing market, we witnessed significant price declines. Prices have fallen by more than 20 percent since peaking in late 2007, and my guess is there is still further downward trending taking place, and I look forward to what the witnesses say, what they see taking place now and what looks to be in the future.

Credit markets for commercial real estate are under significant stress, and the market for securitized commercial mortgages has evaporated. This coupled with tighter lending by banks is particularly troublesome in light of the hundreds of billions of dollars worth of commercial real estate loans that are maturing in the near future and must be refinanced, as the chairman noted.

I know that the Federal Reserve has taken steps under the TALF to attempt to assist these markets returning to normal operations, but a number of items cause me concern, and I hope our witnesses will be able to touch upon those issues in their testimony or any questions we would have.

From a financial market's perspective, the defaults in the subprime mortgage market specifically in the broader residential market appears to have taken its toll primarily on large, supposedly more sophisticated, financial institutions.

I know from my conversations with my banks back home and lending institutions, they didn't have much exposure to the subprime market. However, lending on commercial real estate is the bread and butter of most community and regional backs, and I am very interested to understand the potential threats posed to those institutions by current and projected market conditions.

I am also interested to learn whether, under current market conditions, the recently completed stress test was stressful enough to provide a clear picture of potential risk posed by deteriorating conditions in the commercial real estate market.

And I go back to my only early personal experiences of the early 1980s when we went through a farm crisis. We had loans going into a number of situations where you had 50 percent equity in the loan, but then the land value cut in half, and now, you are at a 100 percent debt in this situation, and unfortunately, it happened rapidly, and it put a lot of people in a very difficult situation very fast.

Lastly, I am concerned that the recent actions by FASB in relation to qualified special purpose entities will serve to exacerbate already challenging market conditions. I hope that our witnesses will be able to discuss the potential impact of FASB's actions, as well as discuss how the use of PSPEs in the commercial market differs from the use of SIBs in the residence and consumer lending side of the ledger.

Overall, I really hope the witnesses can give us an accurate picture of where we are today, where a reasonable projection is that we could be headed to in the next 6 to 12 months and what policy issues you are most concerned about that we need to address to try to alleviate to the degree that we can further problems from happening in the commercial real estate market that could be caused by government action or inaction. So I hope you will really put your comments on a fine point to give us actionable items that we can follow on.

And again, Ms. Chairwoman, I really appreciate you holding this hearing because I think it is very timely for what we are facing right now.

Chair Maloney. Thank you. Thank you for your kind comments. And Mr. Hinchey is recognized for 5 minutes.

OPENING STATEMENT OF THE HONORABLE MAURICE HINCHEY, A U.S. REPRESENTATIVE FROM NEW YORK

Representative Hinchey. Well, just very briefly, I want to express my appreciation to you for being here because the subject that you are dealing with, of course, as has been mentioned, is critically important, and we respect your insight into this.

The commercial real estate market now is in dire trouble. We are seeing a whole host of banks that have failed. I think the estimate is something in the neighborhood of 50 banks have so far failed. There is some speculation that that number is going to go up dramatically, that a dramatically increasing number of these banks is likely to fail. The huge debt of commercial real estate is very, very significant and roughly about half of what the value of the real estate market really is.

So the circumstances we are facing are difficult and dire and need to be addressed. It is an interesting headline in the Financial Times this morning talking about how the International Monetary Fund is being optimistic about the global recession and how it is about to recover. Well, eventually it probably will, but there are a lot of things that need to be done I think to deal with this aspect of it, and the commercial aspect is critically important.

Other things that we have to face, of course, is the dramatic increase in unemployment which is very, very severe, and it is likely to continue to increase in spite of the fact that a small fraction of the stimulus bill has just begun to get out there.

But in any case, the issues that you are dealing with are critically important. We understand how critical it is. We very much appreciate your being here, and look very much forward to hearing what you are about to say, and I thank you very much.

Chair Maloney. Thank you very much.

And Mr. Brady for 5 minutes.

OPENING STATEMENT OF THE HONORABLE KEVIN BRADY, A U.S. REPRESENTATIVE FROM TEXAS

Representative Brady. Thank you, Madam Chairman, for hosting and holding this hearing. I want to join you in welcoming the witnesses before the committee.

The spreading crisis in the commercial real estate sector poses a serious threat to our financial system and economic recovery. The good news is, Americans hate to be in a recession. We are naturally positive, anxious to move toward positive recovery.

The problem, though, in commercial real estate, it is not so much a pothole in the road to economic recovery but a sink hole, and I think issues we need to address today include liquidity, include cyclically biased appraisals that tend to magnify value swings in the commercial real estate market. And I think we are seeing bank regulators who assume today that every commercial real estate loan is a problem loan and are practically pressuring local bankers, especially small- and medium-sized banks, to reduce their commercial real estate lending, even when the loans are solid and even when the local market conditions are favorable.

What I have heard repeatedly from people associated with the commercial real estate industry is that they are unable to refinance outstanding mortgage loans when they mature. While officials here in Washington talk about the need to boost the economy, Federal regulators are pressuring banks to reduce their exposure to commercial real estate loans. The result is that even some profitable commercial real estate firms that cannot rollover their debt now face bankruptcy proceedings.

The magnitude of this problem is huge with at least $1 trillion of commercial real estate debt requiring refinancing over the next several years. Bank loans typically have maturity of 5 years or less. Loans on commercial mortgage-backed securities typically have longer ones, and these loans were made when credit conditions were very favorable and now have to be refinanced during the most serious liquidity crisis in many decades.

The economic weakness resulting from the bursting of the credit bubble has reduced the market value of shopping centers, hotels and office buildings. Consumers are cutting back purchases, and companies are retrenching to cut coasts. High vacancy rates are boosting delinquency rates on commercial mortgage loans, and although the commercial real estate crunch began after the housing bubble burst, there is little doubt that the financial crisis has now spawned another dangerous threat to our prospect of economic recovery.

Consequently, now is the time to repeal the punitive tax treatment of commercial real estate, including provisions taxing foreigners on U.S. capital gains from real estate sales. Congress should consider reducing the depreciation period for commercial real estate and reject proposed tax increases that will undermine the potential economic recovery.

Another problem affecting commercial real estate relates to depressed appraisals of property. Obviously, low appraisals on property are only going to make mortgage rollovers even more difficult in a liquidity crisis. Although it is understandable that appraisals will be affected by current depressed conditions in the industry, perhaps there is an alternative to valuing a long-lived asset in the trough of a severe recession. If a longer period of time were used as the basis for a property appraisal, a more accurate view of its long-term value might be available.

In conclusion, the problems in the commercial real estate industry are a serious threat to the economy. Congress should consider policies to increase financial liquidity in the industry and avoid policies such as tax increases that will only aggravate the financial and economic distress.

I would yield back, Chairwoman.

[The prepared statement of Representative Brady appears in the Submissions for the Record on page 34.]

Chair Maloney. I thank the gentleman for his testimony.

And I thank Congresswoman Sanchez and Congressman Campbell for relinquishing their opening statements in the interest of moving to our distinguished panel, and in the interest of time, since we will be called for votes, I would like to put all of your extremely impressive bios into the record and just introduce you with your current title.

[Witness biographies appear in the Submissions for the Record on page 35.]

Mr. Greenlee, the Associate Director for Risk Management in the Division of Banking Supervision and Regulation at the Federal Reserve Board of Governors.

Also, followed by Mr. Richard Parkus. He has been global head of CMBS Research at Deutsche Bank Securities.

And Mr. Jeffrey DeBoer, who is the founder and President of the Real Estate Roundtable.

And also, Mr. James Helsel. He is a realtor from Pennsylvania who currently serves as Treasurer for the National Association of Realtors.

Thank you all for coming.

And Mr. Greenlee, you are recognized for 5 minutes. Thank you.

STATEMENT OF JON D. GREENLEE, ASSOCIATE DIRECTOR, DIVISION OF BANKING SUPERVISION AND REGULATION, FEDERAL RESERVE BOARD OF GOVERNORS, WASHINGTON, DC

Mr. Greenlee. Chair Maloney, Vice Chairman Schumer, Ranking Members Brownback and Brady, and other members of the committee, I am pleased to appear today to discuss commercial real estate lending.

Financial market dislocation and the continuing economic downturn are clearly challenging CRE markets. The pace of property sales has slowed dramatically since peaking in 2007, in large part due to accelerating job losses, declining demand for commercial space, and increasing vacancies.

According to first quarter 2009 data, about 7 percent of commercial real estate loans almost doubled the level a year ago on banks' books were considered delinquent, a reflection of the current challenges in the CRE market. To address some of these challenges in the CRE markets, the Federal Reserve——

Chair Maloney. Mr. Greenlee, could you pull your mike closer and speak a little louder? Some of the panelists are having difficulty hearing you.

Mr. Greenlee [continuing]. I am sorry.

To address some of the challenges in the CRE market, the Federal Reserve announced that, starting in June 2009, newly issued high quality CMBS would be eligible collateral under TALF, followed by an announcement on May 19th that high quality legacy CMBS issued before January 1, 2009, would be eligible collateral under TALF beginning this month.

The provision of TALF financing for high quality issued CMBS is consistent with other Federal Reserve programs to improve credit markets and should support new lending for credit worthy properties.

From a supervisory perspective, the Federal Reserve has been focused on CRE exposures for some time. In response to concerns about building CRE concentrations in the early 2000s, we led an interagency effort to issue guidance on CRE concentrations in 2006 to ensure institutions have effective risk management processes. As economic conditions have deteriorated, we have devoted more resources to assessing the quality of CRE portfolios at institutions with large concentrations, and we have also enhanced our training efforts.

The recent Supervisory Capital Assessment Process, or SCAP, of 19 firms, which is more commonly known as the stress test, provided an important perspective on CRE exposure risk. The SCAP estimated that cumulative 2-year CRE losses under the adverse scenario would be more than 8 percent of total exposure with losses on construction loans significantly higher. Using this information, we are working with smaller firms that have substantial CRE exposure to ensure that their risk management practices are adequate and that reserves of capital can support increased losses.

The Federal Reserve has longstanding policies that promote proven risk-management practices that support sound bank lending. More recently, interagency guidance in November 2008 encouraged banks to meet the needs of credit worthy borrowers. Across the Federal Reserve system, we have also enhanced our training efforts to underscore these intentions. We are mindful of the potential for bankers to overshoot in their attempt to tighten lending standards and want them to understand it is in their own interests to continue making loans to credit-worthy borrowers.

In summary, it will take some time for the financial markets to fully recover. The Federal Reserve is committed to working with other banking agencies and the Congress to promote the concurrent goals of fostering credit availability and a safe and sound banking system.

Accordingly, we thank the committee for holding this important hearing, and I look forward to your questions.

[The prepared statement of Jon D. Greenlee appears in the Submissions for the Record on page 36.]

Chair Maloney. Thank you.

Mr. Parkus.

STATEMENT OF RICHARD PARKUS, HEAD OF CMBS AND ABS SYNTHETICS RESEARCH, DEUTSCHE BANK SECURITIES, INC., NEW YORK, NY

Mr. Parkus. Chair Maloney, Ranking Members Brownback and Brady, and other distinguished members of the committee, my name is Richard Parkus. I am a research analyst at Deutsche Bank, specializing in commercial mortgage-backed securities. It is a privilege for me to testify at this important meeting today to explore the growing problems in commercial real estate and the potential impact on regional and local banks.

Before addressing my research, I must note that my views today are expressly my own and do not necessarily represent those of Deutsche Bank or any of its members.

The commercial real estate sector is currently under greater stress than at any time since the crash of the early 1990s. In fact, I believe the severity of the current downturn is likely to exceed, possibly by a significant magnitude, that of the 1990s.

The problems are twofold.

First, the extraordinarily severe economic downturn has resulted in vacancy increases and rent declines that are similar to what was experienced in the previous crash. This, in turn, has already pushed default rates to levels of those approaching the 1990s.

The second problem, one that is potentially even more serious, is that for those loans that do reach maturity, a very large percentage, perhaps in excess of 65 percent, may not qualify for refinancing under the dramatically tighter new underwriting standards, particularly in view of the fact that commercial real estate prices have already declined by 25 to 35 percent or more from their 2007 peak and almost surely have further to fall.

In order to work through this extremely stressful process, it will be critically important that commercial real estate financing markets begin to function again with some degree of normalcy. By this, we mean that loans which qualify under the new tighter underwriting standards must be able to obtain financing at commercially reasonable rates.

At the moment, this is not the case. Commercial real estate financing markets are largely closed, at least for loans in excess of $35 million to $55 million. Smaller loans on properties that are performing well continue to have some degree of success in refinancing, namely, with regional banks. However, this source of financing is likely to continue to deteriorate as problem loans in bank portfolios mount.

One common misconception, in my view, is that commercial real estate problems started in the CMBS and somehow spread to banks and other commercial real estate finance sectors. In fact, we believe that banks will once again prove to be the epicenter of commercial real estate loan problems.

When looking at commercial real estate exposure in banks, one must distinguish between three categories of loans: construction and development loans; core commercial real estate loans and multifamily loans.

In aggregate, banks have exposure to about $550 billion in construction loans; about $1.1 trillion in core commercial real estate; and $150 billion in multifamily loans.

By far, the most problematic of these is construction loans, which contain high proportions of both loans to home builders and condo construction loans. Furthermore, exposure to construction loans as a percentage of total bank assets rises rapidly as one moves from large money center banks to smaller regional and local banks. The four largest U.S. banks have an average exposure of less than 2 percent of total assets, while the 31st to 100 largest banks have an average exposure of 12 percent.

Given that commercial real estate prices are already down 40 to 45 percent on stabilized commercial properties, they must be down vastly more than this on newly completed or only partially completed properties. Loss severities on defaulted construction loans could well exceed 80 percent.

The 90-plus day delinquency rate for construction loans in bank portfolios was in the 12 percent region by the end of the first quarter of 2009, approximately 12 times higher than that for CMBS loans indicating the extreme risk in this project. Nevertheless, it is quite surprising that delinquency rates are not far higher. This is explained by the fact that construction loans are typically structured with reserves that are used to cover interest payments until the expected completion of the project. Thus, construction loan delinquency rates are currently artificially low due to interest reserves but will likely rise dramatically within the next 6 to 12 months.

Losses on construction loans are likely to be in excess of 25 percent, possibly well in excess, which would imply losses of at least $140 billion for banks. This, of course, would be disproportionately borne by regional and local banks as they have much higher exposures to these loans.

In terms of core commercial real estate, the story is much the same, at least qualitatively. Again, exposures are much higher for regional and local banks than for the largest money center banks. The four largest banks have an average exposure of 3 to 4 percent for commercial real estate loans; while smaller regional banks have an average exposure of 15 to 20 percent.

In my view, commercial real estate loans in bank portfolios are likely to be riskier than those in fixed rate CMBS. The view that core commercial real estate loans in bank portfolios are likely to underperform those in CMBS is supported by the fact that delinquency rates for bank loans have for many years exceeded those for CMBS loans. As of the end of the first quarter of 2009, delinquency rates on core commercial real estate loans in banks was approximately two and a half times that of fixed rate CMBS loans.

In terms of specific loss estimates, it is reasonable to assume that loss rates on core commercial real estate loans in bank portfolios will be at least as large as those on the 2005 to 2007 vintage CMBS loans, which I expect will be in the 12 to 15 percent range. This would imply losses of at least $120 billion to $150 billion on bank core commercial real estate loan portfolios.

The problems facing commercial real estate today are severe and will likely take many years to work through. There are no easy solutions. However, there are measures that can be taken that will help mitigate the pain and disruption of this process. By far, the most important of these are steps that promote the recovery of commercial real estate financing markets. These should focus on reviving the public securitization market.

We expect that over the coming 3 to 5 years, the amount of capital from traditional sources, e.g. banks, insurance companies, pension funds, committed to financing commercial real estate will decline significantly. It is absolutely critical that a revitalized CMBS market be able to step in and help fill the void.

The CMBS market worked effectively and efficiently for well over a decade providing critical pricing information and tremendous transparency to the market. With the right changes and modifications, it is capable of playing a vital role again in the future.

I thank you for your time and am happy to take questions that you may have.

[The prepared statement of Richard Parkus appears in the Submissions for the Record on page 40.]

[Deutsche Bank research report "The Future Refinancing Crisis in Commercial Real Estate" appears in the Submissions for the Record on page 42.]

[Deutsche Bank research report "TALF for New Issue CMBS: Fed Releases Terms" appears in the Submissions for the Record on page 66.]

[Deutsche Bank research report "TALF for Legacy CMBS: Fed Releases Terms" appears in the Submissions for the Record on page 74.]

[Deutsche Bank research report "The Future Refinancing Crisis in Commercial Real Estate. Part II: Extensions and Refinements" appears in the Submissions for the Record on page 86.]

Chair Maloney. Thank you.

Mr. DeBoer.

STATEMENT OF JEFFREY D. DEBOER, PRESIDENT AND CHIEF EXECUTIVE OFFICER, THE REAL ESTATE ROUNDTABLE, WASHINGTON, DC

Mr. DeBoer. Good morning. My name is Jeff DeBoer. I am president and CEO of The Real Estate Roundtable. Thank you for the opportunity to testify here this morning.

I want to commend you, Madam Chairwoman and members of the committee, for holding this hearing, for sounding the alarm about the ongoing commercial real estate financing problems and the dangers that it poses to the economy. I also want to commend you for helping to lay the foundation for policy actions that are much needed to address this increasingly troublesome situation.

The bottom line is this: The current financial system in America simply cannot meet the financing demands of the commercial real estate marketplace. Today, even well-positioned, strong assets which have good debt coverage find it very difficult, if not impossible, to find financing. This is true for all types of assets, and it is true all across America.

With very limited capacity to meet the ongoing demand for credit, there is an increasing concern in our industry about a potential wave of maturity defaults. This fact, coupled with what has already been discussed about net operating income having dropped substantially, has caused commercial property values to plunge. Most estimate across the board drops in commercial real estate at somewhere between 25 and 35 percent. Mr. Parkus just gave a larger number. In any event, it is serious.

In fact, the number of distressed commercial properties in the Nation has more than doubled in the past year and is expected to continue to rise. Maturity defaults, caused by the inability to refinance, and the distressed properties, caused by the weak economic conditions, are resulting in an incredibly stressed commercial real estate marketplace.

Some might ask, why should we care? I will leave to others to discuss the potential impact on the financial institutions and systems in general, but let me offer a couple of other quick reasons.

We should all care because a sick commercial real estate market reduces revenues for local governments. People are sometimes surprised to learn that about 50 percent of local revenues come from local property taxes, recording fees and transaction taxes. These fund education, road construction, law enforcement, energy planning and other things that we all like to have in our communities.

Further, a sick commercial real estate marketplace means fewer transactions. Commercial property transactions on a year-over-year basis are down about 80 percent. This means fewer jobs. It means fewer construction jobs. It means fewer retrofitting jobs, and it means fewer opportunities for building owners to become more energy efficient and create green jobs. And importantly, we should care because a growing number of Americans invest in real estate through their pension and retirement plans. About $160 billion today is in it.

So, as real estate goes, so go local budgets, so go jobs and so go retirement accounts. In my written statement, I detail a policy mix that we believe policymakers on and off the Hill should look at.

First, we favor the TALF, but it must be given time to work. It only became operative for commercial real estate in mid June; yet it is scheduled to expire at year end. We need this announcement soon that the TALF will be extended into the end of 2010.

Second, we need a new program to incentivize new lending. Without it, we don't think new lending will start. We think that a privately funded—and my testimony offers a couple of ideas. We think one might be to explore a privately funded insurance program for securities backed by new loans similar to the FDIC program that now exists, or alternatively, a public-private financing vehicle similar to the PPIP that now is operative to buy legacy assets. It could be put in place to purchase new loans.

Third, banks need to be encouraged, not discouraged, from extending performing loans. We have a proposal at the Treasury Department now that would provide greater guidance to the process of restructuring loans that have been securitized in a REMIC format.

Fourth, there is a huge need—and Senator Brownback mentioned it in the agriculture situation—a huge need for equity infusion. We estimate this in our testimony to be about $1 trillion shortfall in equity across America. We think one way to get this is to reform the laws applicable to foreign investment in U.S. real property. Congressman Brady mentioned that, appreciate that. The current law is called FIRPTA. It is badly outdated, and it discriminates against investment in real estate. Simple reforms could be done that would bring more robust investment without turning control over to foreigners.

And finally, I would conclude by saying, now is certainly not the time for tax increases on real estate ownership. In particular, the carried interest proposal that seems to rear its head every few years is particularly a bad idea now given the state of the markets. This would seriously increase taxes on general partners in real estate partnerships, large and small, and all property types. We would urge that Congress reject that.

Thank you again for the opportunity to be here. It is a very important hearing, and I look forward to your questions, and hope I can answer them. Thank you.

[The prepared statement of Jeffrey D. DeBoer appears in the Submissions for the Record on page 117.]

Chair Maloney. Thank you.

Mr. Helsel.

STATEMENT OF JAMES HELSEL, PARTNER, RSR REALTORS, HARRISBURG, PA, AND TREASURER, NATIONAL ASSOCIATION OF REALTORS, WASHINGTON, DC

Mr. Helsel. Thank you.

Chairwoman Maloney, Vice Chairman Schumer, Ranking Members Brady and Brownback, and members of the Joint Economic Committee, thank you for inviting me to testify on the crisis facing the commercial real estate markets. My name is Jim Helsel. I am the 2009 Association of Realtors treasurer.

I have been a realtor specializing in the commercial sector for more than 34 years. Currently I am a partner with RSR Realtors, a full service real estate company in Harrisburg, Pennsylvania. I testify today on behalf of 1.2 million Realtors who are involved in all aspects of the real estate industry.

Having a sound and well functioning commercial and multifamily real estate sector is critical to our country's economic growth and development and to millions of U.S. businesses of all sizes that provide local communities with jobs and services.

Many of us in the commercial real estate business have been warning for some time that the liquidity crisis facing our industry has the potential to wreak havoc on the overall economy. In fact, an apt description for this situation is that commercial real estate is the next shoe to drop.

A crisis is looming in the commercial real estate market due to a confluence of issues, including deteriorating property fundamentals, declining property values and a severe tightening of the lending markets.

Banks remain reluctant to extend loans, and the commercial mortgage-backed securities markets, or CMBS, which have been a key source of liquidity, have ceased to function. At the same time, hundreds of billions of dollars of commercial real estate loans from a variety of sources are expected to mature in 2009 and over $1 trillion by 2012.

Under current conditions, there is an insufficient credit capacity to refinance a huge wave of loan maturities. Without greater liquidity, we face a threat of rising delinquencies and foreclosures.

The biggest challenge in this environment is the inability to complete transactions due to the severe lack of liquidity in the markets. Underscoring this fact, a full 44 percent of our members reported financing as the most significant current challenge in recent real estate and realtor market history.

On a personal note, I would just tell you this is a very interesting time for this hearing. I am in the process of refinancing a very small property of my own, about 10,000 square feet. When I purchased the property in 1999 the loan-to-value ratio I had was 60 equity, 40 percent loan. Today, I am lucky if it is still at that number. At one time it was 80 percent equity, 20 percent loan. I have gone to three banks. I am frankly going to a credit union right now who is going to refinance the property. Three banks—it is a performing asset, it has been a performing loan. I have never missed a payment. The property has positive cash flow. It tells you the position that most of our members are in, as myself as a member. So, on a personal note, kind of tells you where our marketplace is right now.

The overall economic downturn has taken a toll on the commercial market. As demand for space has dropped, vacancies have risen across all sectors, and investment activity has slowed down considerably. During the first quarter of 2009, nationwide only 607 major properties exchanged hands for a total volume of $9.5 billion. This figure represents a 51 percent drop in investment activity compared to the fourth quarter of 2008.

The troublesome market fundamentals are taking a toll on property values. Declining property values only further exacerbate the difficulty in securing financing. We see this reflected in the fact that the volume of distressed commercial properties more than doubled this year alone.

Geographically, as Madam Chairman indicated, New York represents the largest problem, Manhattan possessing nearly $8 billion distressed commercial properties. We support the development and implementation of innovative programs, such as the Term Asset-Backed Lending Facility, what we commonly call TALF, and the PPIP program, the Public-Private Investment Program.

And we strongly support recent efforts to strengthen the TALF program, including expanding TALF to include CMBS as eligible collateral while also extending TALF loans to 5 years. However, this important program is set to expire, as Mr. DeBoer mentioned earlier, at the end of this year. We believe it is absolutely essential that the TALF program be extended for another year. This move will ensure that important economic recovery efforts continue.

In addition, NAR believes it is essential to protect and promote policies that support securitized credit markets. This will include action on the part of accounting policymakers.

With respect to the issue of mark-to-market accounting, NAR believes that the ability to value assets in inactive markets continues to be a serious issue. Under current conditions, clear policy guidance is needed to encourage reporting entities and auditors to look at alternative and appropriate methods of asset valuation, such as the discounted cash-flow method.

Finally, NAR will continue to support and promote Federal tax policies that strengthen and support commercial real estate. The commercial real estate market is in a state of crisis and remains vulnerable to any modifications to current tax rules that would result in reduced property values or investment. NAR stands ready to oppose any such modifications and would urge policymakers to do the same.

In conclusion, I would say that, on behalf of the 1.2 million realtors that I represent today, I want to thank you for this opportunity to give this presentation. NAR stands ready to help Congress, the financial regulators and the administration in any way possible to find solutions to stabilize and ensure strong recovery of the real estate markets.

Thank you very much for this time.

[The prepared statement of James Helsel appears in the Submissions for the Record on page 132.]

Chair Maloney. I thank all the panelists for your testimony, and regretfully, we have been called for a series of votes. So I am going to place this hearing in recess subject to the questions of Senator Brownback, who will then be called for votes, too.

So we are wanted on the floor. Please excuse us, and after his questioning, we will be in recess and back as quickly as we can. Thank you very much.

Senator Brownback. I want to thank the chairwoman for doing that, and I promise I won't do a coup here.

Chair Maloney. Helping the economy is a bipartisan effort.

Senator Brownback. There you go.

Thank you very much. I think it is an excellent panel. Although you have put me in quite bit of distress from what I hear you say.

Mr. Helsel, I wanted to start with you. You say a 51 percent drop in investment activity the first quarter of this year. Is that correct? Am I getting your number right?

Mr. Helsel. What I said was that 50 percent—there is a 50 percent reduction over the fourth quarter of 2008 activity and the first quarter of 2009. I think I am answering your question. Yes, to answer your question.

Senator Brownback. So we are seeing half the commercial real estate activity the first quarter this year of what we did the last quarter of last year?

Mr. Helsel. And that was based on—and I am going to go back to my testimony—607 of the larger transactions done in the United States.

Senator Brownback. I guess what I am asking is, I have been in one of these before where you can't get a price for anything because there is just nobody out there buying. And so we are talking about a drop in 25 percent in commercial real estate, I used the term; Mr. Parkus used 35 to 45, but the actual truth of the matter is nobody is buying.

Mr. Helsel. That is correct.

Senator Brownback. So there is just not much of a market that you can establish at this point in time, or are some properties moving but just at a very distressed——

Mr. Helsel. Mr. Brownback, there are properties that are moving. The problem is, if I find a buyer, I can't find the financing.

Senator Brownback. So even at that 50 percent equity, you were giving an example of, you think you have got a property you have 60 percent equity in it, and you are not getting financing for it?

Mr. Helsel. I thought I had one that had 80 percent equity in it that I own, and I am down now to probably about 50, 60 percent equity. I have gone to three banks. It is a performing asset. It is a performing loan. We have never missed a payment. It is a positive cash flow, and the banks are saying, you know what, we are just not lending right now.

Senator Brownback. At any rate——

Mr. Helsel. At any rate, and if they do, the lending rates both in terms of interest and time are so severe that it makes the property almost become a nonperforming asset.

Senator Brownback. Mr. Parkus, you studied the overall numbers on this. What is—we just don't have it? There is just not a market there right now?

Mr. Parkus. There are very, very, very few transactions taking place at the moment.

Senator Brownback. Give me a number on that, can you?

Mr. Parkus. I can't give you an absolute number, but I can tell you that percentage-wise the number of commercial real estate transactions has dropped by roughly 95 percent or more.

Senator Brownback. From last year or from normal?

Mr. Parkus. Over the last 18 months.

Senator Brownback. Over the last 18 months, you have had a 95 percent drop?

Mr. Parkus. That is right.

Senator Brownback. So the only thing that is selling is something at a real fire sale or distressed, somebody just dumping on the market?

Mr. Parkus. That is right.

What we are seeing today and use as a gauge for price declines to the extent that we can are distressed assets like the office buildings that we have recently sold in New York for roughly one-third of their value over—a decline of one-third—I am sorry, a decline of two-thirds in their value over the past 24 months. So those are the magnitudes for the distressed side.

Our best guess is that prices pretty much overall across property types, across markets, are down 35 to 45 percent. Many markets will see prices like New York office will see prices down potentially well in excess of 50 percent by the end.

Senator Brownback. Now, my experience again on these things, everybody is bottom feeding, if you will, on these, that once a bottom is found, the price jumps 20 percent just because a lot of people are waiting, sitting on the sideline, and if I can get a good deal out of this, I will do it, but I am not getting in while the thing is still going down. And when the bottom is found—I am pulling that number a bit out of the air but not that much. You find a bottom, it bounces back 20 percent. But we are nowhere finding the bottom yet?

Mr. Parkus. We don't believe the bottom—I should say we believe the bottom is several years away.

Senator Brownback. Several years away?

Mr. Parkus. Several years away.

Senator Brownback. That was going to be my next question. If the Fed Chairman is right that we start to—we have had this real precipitous fall off in economic activity where we are going to start to see a less slow fall off and then a weak uptick first part of next year, do you know any factors as to what the length of time is before the commercial real estate market recovers once the economy starts to flatten out and pick back up?

Mr. Parkus. Typically, commercial real estate fundamentals begin to pick up 12 to 18 months after unemployment begins to pick up.

Senator Brownback. After unemployment? Unemployment lags the economic activity?

Mr. Parkus. That is right. So you are typically pegged to sort of unemployment.

Senator Brownback. All right. So unemployment is not projected presently to pick up until middle part of next year, I don't think.

Mr. Parkus. I would say at the earliest, that is right.

Senator Brownback. So you are looking at a year after the middle of 2010.

Mr. Parkus. Before we expect to see palpable improvements.

Senator Brownback. So we are in the middle of 2011 before you would project an improvement in commercial real estate markets based on historical——

Mr. Parkus. I would say beyond that.

Senator Brownback. What is that?

Mr. Parkus. I would say beyond that, 2012, and the problem is that there will be, we are expecting to see—it is hard to imagine fundamentals improving in an environment where we are likely to see or beginning to see and already seeing massive increases in defaults occurring now. Commercial real estate is really, it is kind of between a rock and a hard place. The rock is the very, very real quick pick-up in current defaults, where buildings that are under severe cash flow constraints simply cannot meet their current mortgage payments. This is happening right now and at an alarming rate.

Then you look down the road, somewhere between three to 7 years, and you find at the maturity of these assets potentially even greater problems with assets failing to qualify to refinance. So there are problems at both ends, and in that kind of environment, it is difficult to have—it is certainly difficult to have valuation growth.

Senator Brownback. Mr. DeBoer—I appreciate, Mr. Parkus, your assessment. That is one of the more bearish ones I have heard in this climate, but I am not discounting it.

But, Mr. DeBoer, do you agree generally with his assessment from your industry's perspective?

Mr. DeBoer. Absolutely. First——

Senator Brownback. 2012 or——

Mr. DeBoer [continuing]. Well, it depends on what you are asking is going to happen in 2012. I guess I would start off by saying, both of these problems that the industry is facing, the fundamentals in the overall economy, meaning net operating incomes—if you own office buildings, people are not extending their office leases.

They are not committing for more office space. If you are in the mall business, people aren't shopping. Retailers are having difficulties. If you are a hotel owner, business and personal travel is down. So net operating income across the board is down, and that is pushing values down, and that is not going to turn around.

And I think Mr. Parkus has hit it correctly in terms of, it is not going to turn around until employment settles and starts to rise. And it is not going to turn around until consumers and businesses feel like spending money again, and so we are a lagging indicator in terms of the fundamentals of the asset.

On top of that, we have this financial crisis where the box that is left standing, in terms of the financing system, is too small to fit the items that we need to put in the box, meaning all of this debt that is coming due. And so there is a lot of tension from that, and we don't see that clearing up anytime soon.

So, yeah, I am unhappy to associate myself with Mr. Parkus' bearish comments, but I don't think there is any other way to look at it.

Senator Brownback [continuing]. But I am just trying to track this timeline. If we are saying an economic recovery happens, things bottom out the end of this year, start to pick up very slowly next year, unemployment usually doesn't start following that for a year normally. Then a year, a year after that, we are already 2 and a half years out from where we are today.

Mr. DeBoer. Yes, and so then if you want to——

Senator Brownback. And you agree with that?

Mr. DeBoer [continuing]. Yes, certainly. If your metric is valuation in terms of comparing the peak of values, which were let's say 2007 for commercial real estate, when will those values be back up at that level? I think that Mr. Parkus and others on the panel would agree it will be many years.

Senator Brownback. Yeah, that is—let's talk about policy proposals here.

Several of you have talked about the TALF for commercial real estate needing to be extended and done quickly to try to help that market. I think that is an agreement that most people on the panel have.

And then programs to incentivize I found interesting to try to get more capital. We need to get more equity infusion into the system. Some of the foreign investment rules that you were citing to, Mr. DeBoer, that apparently are hurting from being able to get those in.

Those are the—and then I think, Mr. Parkus, you also talked about getting a securitization market for commercial real estate going again. Is that by use of the TALF or how?

Mr. Parkus. It would be by I think making some refinements to TALF through the use of the PPIP program. There are a number of different alternative suggestions to raise in which securitization can be modified, different paradigms, if you will, that are out there. And some of those paradigms, the government, some of those paradigms envision government at least in the early stage as partner. There are a number of different possibilities on the table.

But I think the critical thing is, is that, as this incredibly stressful process unfolds, we must have a financing market out there.

There will be an overwhelming number of loans that default over the next 5 years. Those loans have to be able to be foreclosed upon and sold. You can't sell a loan, you can't foreclose a loan and sell it unless there is somebody out there who can finance it somewhere. And until these issues are dealt with, the problems will remain in commercial real estate. There is no waiting this out. It has to be dealt with.

Senator Brownback. In looking at past commercial real estate difficulties, you cited to the early 1990s, Mr. Parkus. Can we learn anything from past difficulties on policy moves that we should or should not make that can either make this easier or exacerbate it? And I open that up to anybody on the panel.

Mr. Helsel. I will speak to it just quickly. I would say that the 1986 and early 1990s tax policies that changed real estate and created the problems that we had during that time have to be looked at again, and we have to make sure we don't do those things again.

Senator Brownback. What specific——

Mr. Helsel. Things that affect passive loss, capital gains, depreciation, things like that, that automatically stop or do not incentivize investment in real estate, hurt us terribly back then.

Senator Brownback [continuing]. So any of those that we can change to make it easier and make it more value on depreciation, or any of these investments, would be helpful?

Mr. Helsel. If we don't decrease the length of time for depreciation, if we increase the capital gains tax so that the capital gains tax that somebody who is involved in real estate pays exceeds what anybody else does for any other form of investment in the United States or if we change it so that the capital gains tax goes up, it stops people from buying. It stops people from selling because they can't afford to sell because they pay too much in taxes.

Senator Brownback. I sure want to invite you or any of your industry associations to come up with specific proposals to put forward because certainly my office would be interested in putting them forward. Whether we get them through or not, I think if we people are talking about looking at a second stimulus package, the one we have got to do this time, if we do something, is to stimulate the economy, not to stimulate the government.

And these are the sort of things that I think we ought to be looking at anyway, that you try to give more incentivization or incentivizing the marketplace to work and to get people's capital out here and in the system rather than taking it away. But please feel free to put forward those, and I hope you will.

Mr. Helsel. We will.

Senator Brownback. In the overall.

Any other historical lessons?

Mr. DeBoer. I think one positive that came out of the last real estate debacle in the early 1990s was the move on both debt and equity to a more public, more transparent world. And part of what I think Mr. Parkus is talking about is we need to not be afraid to get a securitization market going again. It has to be a new securitization market that has stronger underwriting features, has more equity involved and so forth, but securitization in and of itself has to be part of the solution. The TALF will be helpful, but it is not a panacea. The PPIP will be helpful.

Some of these other ideas, for example, I put out this notion that we might have a federally chartered insurance program that is financed by private issuers and users of securitization models. That would ensure a securitization product that would then go out and be attractive or more attractive to investors.

So I just want to throw this out that in 1992, 1993, one of the things that really helped the commercial real estate industry and the overall economy get over the problems it then faced was the expansion of both debt and equity in the public or at least spreading of activities. Again, the system we have now is too small to absorb what needs to go in it. It simply won't work the way it is.

Senator Brownback. It is interesting, too small of a capital pool to absorb the problem that you are in?

Mr. DeBoer. Yes. Well, keep in mind, if you turn the clock back, seven of the more significant providers of capital to the commercial real estate market no longer exist in terms of large financial institutions that have either been merged out of existence or have simply gone out of existence. They are gone.

On top of that, the securities market that was providing roughly $200-plus billion a year to this marketplace last year did 12 and this year did zero and is expected to do zero. And so when you just take all of those players off the field, those that are left are not—they don't have the capacity to meet the very legitimate demand. Even at more sustainable loan-to-value levels, at more equity infusions, it is just not going to happen.

Senator Brownback. Mr. Greenlee, you have a comment on this?

Mr. Greenlee. I would agree that if you look back at history, the previous cycle in 1990, 1991, the tax law change was a key driver, and clearly the introduction of the capital markets for commercial real estate properties provided a lot of liquidity and additional capital into the system.

You know, looking at the banks, I mean, they roughly hold half of all outstanding CRE debt at the present time, and of those banks that we looked at in the stress test process, they hold roughly around $600 billion in commercial real estate loans with the total market being $3.5 trillion.

You know, in terms of what we learned from the 1990, 1991 experience is, again, we put in a place, a number of regulations were put in place around appraisals, real estate lending standards, and we have also tried to, as I mentioned in my testimony, work with our examiners in terms of taking a balanced approach to how we evaluate banks' loan portfolios in terms of making sure there is proper risk identification by the bank and based on real estate market values and realistic assumptions and not to go to too far in terms of taking too Draconian of a view.

Senator Brownback. Just an excellent panel.

Mr. Parkus, in conclusion, I just want to, what number are you pegging for a loss in value when we hit the bottom of this commercial real estate trough? You were saying we were falling off 35 to 45 percent I believe from the values that were at the peak. Do you project a bottom on the trough?

Mr. Parkus. Right. I would think that 40 to 45 percent on average, but that will be more severe in certain MSAs, certain cities, locations and property types. In particular, the assets that depreciated the most during the run up, for example, New York office, I would expect to be down potentially significantly more.

Senator Brownback. What about retail space, big boxes?

Mr. Parkus. Very badly hit. Very badly hit. I think much of that——

Senator Brownback. What are you projecting on those?

Mr. Parkus [continuing]. About 45 percent.

Senator Brownback. But at the bottom of the trough?

Mr. Parkus. At the bottom.

Senator Brownback. And that is not far, so if you are going to have any that if they are going to be moving——

Mr. Parkus. Fire-sale prices are—I would prefer not to mention today. They are down 60 to 70 percent.

Senator Brownback [continuing]. Today?

Mr. Parkus. Fire-sale prices on distressed assets. As we were saying, these office towers in New York that are being sold under sort of unfortunate circumstances, some of them have vacancy issues. You know, any office building with a vacancy issue today is in a lot of trouble.

Senator Brownback. Well, gentlemen, thank you very much for the information. Again, I invite you on the policy proposals to get them forward because they would be ones I would be interested in putting forward so we can get some view on it. I think, on these things, what we have got to do is try to stimulate money back into the marketplace. That is what I see our role as trying to do is help you get money back into the marketplace. It isn't going to change the basic fundamentals of the overall situation, but it can help get a market to function again and hopefully help fund some of the severity.

As the Chairperson noted, this hearing will go into recess at this point in time. I know the other members will be back subject to however—I am being told about 45 minutes to an hour. So we will be in recess for that period of time subject to call of the Chair. Thank you very much for being here.

[Whereupon, the Committee recessed, to reconvene at 12:45 p.m.]

Chair Maloney. My apologies to the witnesses. We had quite a series of votes. Thank you for being here. We are back in session, and we have to be out of this room very shortly.

So I really would like to ask any of the panelists about systemic risks, and what are the risks about doing nothing in the commercial real estate sector? Are there concentrations of loans and securities and important banks or financial institutions that might cause a shock to the fragile financial sector, as the Lehman Brothers failure did?

I would just like two of you to respond because we have to move on to other questions. I have quite a series, and as I said, we don't have much time in the room. Is it systemic risk? Is it going to be a shock to our fragile financial sector?

Mr. Helsel.

Mr. Helsel. Yes is the short answer to your question. It is systemic, I believe. I think doing nothing, which was one of your options, will only increase the problems that already exist, exacerbate them. I think that if nothing happens, if we don't move, we being both Congress and the GSEs and everyone else involved in this process, if we don't move in a manner that will begin to shore up what right now is a financial crisis in terms of even the simple availability of funds for financing, I think you will find that the problem will be considerably worse.

Chair Maloney. I would like to specifically hear from the Federal Reserve since their goal is safety and soundness. Do you see this as a possible shock to the fragile financial sector? Do you see it as a systemic risk, Mr. Greenlee?

Mr. Greenlee. Yes. If you look at the exposure on banks' balance sheets from commercial real estate, it is roughly half of the total outstanding commercial real estate. It is about $1.8 trillion. We have been focused on this naturally as an asset class and as an issue for many years and have worked hard to try to expand our information around the markets and, you know, try to share that across the system.

In the SCAP process, where we did the stress test, we looked specifically at the commercial real estate exposures, and we looked at the loss rates of about 8 percent for the CRE portfolios of the 19 largest domestic banking organizations to, under a stress scenario, to make sure they have enough capital in reserves to, you know, absorb those losses and remain as viable entities. So we have put a lot of effort into looking at how this plays out.

Coming out of the SCAP process, we are taking those lessons and those observations and are actively working now to look at how that would play out.

Chair Maloney. Do you see it as systemic risk?

Mr. Greenlee. We view it as a very key risk in the banking sector, and we have put a lot of emphasis on it.

Chair Maloney. I would like to ask a question about regional effects, and Mr. DeBoer probably on this one. Is it hitting states and large cities like New York equally, or is there a disproportionate share of losses in some areas? I think Mr. Helsel testified that there was $8 billion that could be lost in Manhattan alone. I believe that was your testimony. If we are not—if individuals or companies are not able to obtain the financing to roll over their expiring loans, what will the effect be across the country? Will it be even across the country? Are there certain areas that will be more impacted?

Mr. DeBoer. Right. Well, first of all, in my opening statement, I said that the problems that we are seeing on refinancing are pretty consistent across the country and pretty consistent across asset type. So it really doesn't matter if you have an office building or a shopping mall or a hotel, and it really doesn't matter that much where you are in the country. It is very, very difficult to get financing.

Having said that, certainly regions of the country that are harder hit by the employment problems are going to have more difficulties in the fundamentals of real estate to begin with. So there will be some regional disparity, but the basic problem of finance runs across the board.

Chair Maloney. Okay. This question is for the Federal Reserve. Many people have testified, several in the group here, that we need to extend the TALF program that just went into effect in June. Can we extend it? What is involved in extending it? And are there other steps that the Fed could take to modify the TALF program that will address the lack of financing in the commercial real estate sector?

What I find so troubling was the testimony that people can make their payments, but no one will refinance them. So, therefore, you are going to have a default or a bankruptcy that is going to close a viable business, board it up, lose jobs and roll the economy backwards. Are there other things that we could do, such as extend the TALF program, modify it, or have a blanket statement that possibly, in this case, commercial real estate loans could have another year before they become due so that we could work on changing the laws to address these issues.

My time is up—but, I would just like to ask any of the panelists to talk about ways that we can address this to stop what would be a devastating blow to the overall economy. Also, what percentage of our economy is real estate, would you say?

Mr. DeBoer. Well, I will take a crack at the percentage because it is in our statement. On a revenue basis, commercial real estate is measured around 13 percent of GDP, commercial real estate. Now, if you throw in single family, it may get a little higher and there are different ways to measure the relative percent per GDP. We have done it on revenue basis, and it is 13 percent. So reasonably significant.

Chair Maloney. So it is huge. Solutions, Mr. Greenlee? What is involved in getting the TALF program extended? You have heard it from many of the panelists today. Do you need a bill from Congress to extend it? What do you need to extend it? Will you be extending it, and what are the other ways the Fed could modify the TALF program or address the financing of commercial real estate?

Mr. Greenlee. So the TALF program was originally created to ease some of these pressures in the marketplace, particularly on the CMBS. As you noted, it has just gone into effect in June for the new CMBS, and July will be the first round for the legacy CMBS assets.

The TALF was created and improved by the Board of Governors under 13(3) of the Federal Reserve Act where loans can be extended under unusual and exigent circumstances. So to extend the TALF would require the Board to make a finding and vote to approve to extend that.

Chair Maloney. Okay. And other ways that we could modify or help alleviate this problem? Do you have any other ideas?

And then I would like to hear from Mr. Parkus, Mr. DeBoer and Mr. Helsel.

Mr. Greenlee. We look at and we have had discussions with various industry groups and look at the issues and how we can, you know, address the challenges in the financial markets. We have rolled out a number of these programs. We periodically look at how they are working and consider—the Board would consider how they might want to modify to address specific issues that come up.

Chair Maloney. Mr. Parkus.

Mr. Parkus. Thank you. Chairman Maloney, there is one thing that comes to mind in terms of the current way the TALF renew issue operates, and I think, I guess from my perspective, I am mainly interested in starting—restarting markets and, therefore, mainly interested in TALF renew issue.

Right now, one of the problems in getting borrowers to step up to TALF has to do with the cost of borrowing. The cost of borrowing today under TALF turns out to be roughly 8.5 to 10.5 or 8.5 to 10 percent mortgage rates, which is quite high. In order to get borrowers to sort of step up and be interested, I think that we need to offer floating rate loans as well as fixed rate loans. That would allow us with some additional details to I believe lower the cost of borrowing, potentially significantly, to borrowers and potentially bring in significantly more interest.

Chair Maloney. Good idea.

Mr. DeBoer.

Mr. DeBoer. I think what was just mentioned on the TALF is right on in terms of not just fixed rate but also floating.

There is also this issue out there about downgrading of earlier issued or rated triple-As that are no longer triple-As, and I think that, obviously, given what is happening in the marketplace, downgrades are probably appropriate. I am not criticizing the downgrades, but I am saying that maybe the program should be flexible enough to adapt to the new market that we are seeing here to make the program work as well.

I also want to reiterate what Mr. Parkus just said. The main focus here needs to be on new lending, new issuance going forward, new securitization, new lending, bringing new equity. We need to turn the page and get the market back working again.

Chair Maloney. I agree with you, Mr. DeBoer, not only for commercial real estate but for our economy as a whole. We need to get liquidity and lending out there. I find it shocking that some of the most respected and successful businessmen and women from the district that I am honored to represent tell me they can't get loans. They have been in business their whole lives. They have never missed a payment. They have always paid on time, and yet the liquidity's not there.

I had a major captain of industry suggest to me that maybe we should start a bank in the Fed. I almost fell out of my chair. But if they can't get loans from the private sector, maybe some money should be put at the Federal Reserve where they can get a loan.

So the main question is, how do we get the liquidity out there and the money into the system, because it is not there. It is not there for commercial real estate, probably more pinched than others in other areas, but the liquidity is not there.

Maybe we need some hearings on that, Mr. Brady, on the crucial issue of the lack of liquidity in the economy?

Mr. Helsel.

Mr. Helsel. Good afternoon. I agree with what Mr. DeBoer and Mr. Parkus both said.

I would add one other thing that maybe makes it clear a little bit, and that is, I would say we supported expanding the TALF to include commercial mortgage-backed securities and also extending TALF loans to 5 years. But, right now, as we know, the program dies at the end of this year. I would want to make sure it is extended. So that if we can collateralize the use of mortgage-backed securities, that would help a lot as well.

Chair Maloney. That is a very good suggestion.

Mr. Greenlee, what is the degree of probability of expanding it for mortgage-backed securities and extending it for 5 years?

Mr. Greenlee. It is an issue that is being looked at right now in terms of broader asset classes, as we have started the TALF with student loans and auto loans and those types of things. We have introduced CMBS.

Chair Maloney. Certainly the commercial loans are far larger and a greater threat to the economy, should there be a default, than the other categories. Wouldn't you say?

Mr. Greenlee. Well, I think that is something we have been trying to address through introducing the new CMBS and the legacy CMBS TALF.

Chair Maloney. Well, I hope you will take these recommendations back to your board.

My time has expired, and I recognize Mr. Brady for 8 minutes. Because I took 8 minutes, you are certainly entitled. This is a bipartisan committee effort here. You are entitled to 8 minutes. Thank you.

Representative Brady. Thank you. Madam Chairman, thank you for holding the hearing, and I support any follow-up on this. There is a lot here to go into, so thank you for your leadership on that.

Let me telegraph my questions in advance. What I would like to ask the entire panel, on the issue of liquidity, should Congress give clear legal authority to servicers to renegotiate commercial real estate loans within the CMBSs because they hold 25 percent of the capital for commercial real estate today?

Mr. DeBoer, I wanted to have you elaborate a little on your idea on privately funded insurance programs, again might create liquidity within the system.

Wanted to hear from our practitioners, Mr. DeBoer and Mr. Helsel, you know, do you believe the pendulum has swung too far on the issue of bank regulation, that there is too much pressure to reduce solid commercial real estate lending at the local level, even when the market conditions support it?

And then, finally, for our guidance as we look at a number of tax proposals, can you elaborate further on the impact of repatriating standard U.S. profits back to U.S. to invest in real estate, the issue of opening up more foreign investment in real estate, and then the thoughts on how carried interest, which is shooting at the giant hedge funds but hitting the traditional real estate partnerships, the ones that actually we are depending upon these days and this hearing is about, what impact that might be, and I would open it up.

Mr. Helsel. I will start. Just quickly, I would say that the question on regulation of the banks—and I forget how you exactly worded it—but the essence of it is I think that we have gone where we needed to go, but it has almost become a circle because, on one hand, we are telling the banks to lend money, and on the other hand, the regulators are saying, be careful what you do, don't lend money. So it puts the banks in a very difficult position. If they don't lend the money that is out there, if they don't use the money they were given under TARP and they have available to them through other programs now, I don't know how we can get out of the cycle we are in.

Representative Brady. This even relates though to banks that haven't accepted TARP.

Mr. Helsel. That is correct. That is absolutely correct.

Representative Brady. Small- and medium-sized banks that have capital, have longstanding relationships with local lenders but are still being told by regulators, we want these types of loans off your books, which is what we are seeing.

Mr. Helsel. Mr. Brady, you are absolutely correct. I would also say that I guess you raised one of the questions I wanted to speak to you—it seems to me that if the Federal Government, at any level, whether it is the GSEs, whether it is Congress, whether it is any of the regulators, doesn't matter who it is, if they don't step back in and encourage actions that will create financing—and I want to just take a side note and say, to go to a place where we haven't really talked about today—much of what we have talked about today has dealt with large office towers, large big-box buildings, things like that.

I don't want the committee to forget the typical investor in the street every day as a practitioner who is dealing with a family who has a property that might be worth $300,000 to $1 million, that they can't get the financing for right now either. And I don't know what the range or the delta is between the total dollars of what I will call large and jumbo transactions versus a typical transaction in the marketplace today, but I can tell you those people are the ones who feed the small communities across the country right now, with tax dollars for the schools and things look that. They are not here either right now. They can't get financing right now either, and that creates a huge problem. It goes well beyond where the REITs and all the other people are who are suffering as well right now.

Representative Brady. All right. Thanks.

Mr. DeBoer.

Mr. DeBoer. Concerning overregulation or the pendulum swinging too far, I think it probably has, but I think that is probably expected.

Part of the problem out there I think now for a bank to lend into the real estate world is the inability to clearly determine what the value of the asset is. And when we are in a situation when values are dropping like they are, and you are basically asking people to catch the falling knife, if you will, it is very hard for and understandable that people would be reluctant to lend on appraisals. And perhaps there could be a period of time where bank examiners would tell banks to lend on a cash flow basis or on a debt service coverage basis rather than on an appraisal basis, and that might help get through this temporary period of time. I just throw that out.

The other issues that you suggested that I talk about, one was this insurance concept, and this goes to this idea of encouraging new lending. There may be a model that could be looked at built off of the FDIC model that provides insurance for deposits where issuers and originators of loans would pay a fee into a federally chartered insurance corporation that would then provide insurance to the securities that are backed by new commercial real estate lending. And if that was done, you might get more issuers and new lenders to come into play if those securities had some insurance. And again, what I am talking about is a privately funded over time by a fee from originators and from issuers.

And the final thing that I think you asked me to talk about was the whole issue of foreign investment, and I think you had two different——

Representative Brady. Repatriation of stranded profits, as well as in your testimony you talked about sort of the disparate treatment.

Mr. DeBoer. Right. The repatriation issue, we have heard about that. We know that you are looking at it, and Mr. Crowley and others are looking at the idea of allowing institutions or companies that have their profits parked overseas, they don't want to bring them back to face taxation, and there may be something there that if they brought the profits out of a foreign bank and put it in a U.S. bank, I suppose that you can make the argument that that will spur U.S. lending. We are anxious to look at that and learn a more about it, as I know you are.

On the foreign equity side of things, we know precisely that there are a lot of foreign pension plans, sovereign wealth funds, wealthy families that would love to invest more equity into U.S. real estate, but because of this law that was put into place in 1980, they are discouraged from doing it today, and we have seen foreign investment drop now to a trickle in the U.S. where it could be incentivized a lot more.

And I'll just end with this note. We have a policy in the United States where foreigners can buy as much of our Treasury debt as they want. They can buy as much of our private debt as they want. They can buy as much stock as they want without paying a capital gains tax, but when they buy U.S. real estate or they invest equity in U.S. real estate, they face a capital gains tax. And all I would suggest is that given the situation where we are so short in equity and need this to rebalance loans, that now is the time for Congress to take a fresh look. It has been two decades or more and just take a look at this and see whether there is a way to bring some of this equity that wants to come inside our borders.

Representative Brady. Should real estate partnerships, traditional real estate partnerships that have had no abuses, have operated for decades in virtually every community of the country, should they be carved out from the carried interest efforts that are generally focused on, you know, quote giant hedge funds, whatever the current phrase is? Should real estate be carved out of that because it really fits in a whole different category?

Mr. DeBoer. I guess, you know, it is up to other people to talk about carve-outs. What I would say is I don't think that it makes sense to apply these rules to real estate. Now, whether it makes sense to apply the rules to other people, I am not in that business, I don't know. But for real estate to take the incentive motivation away from a general partner and increase their taxes by 150 percent, as the carried interest proposal does, will dramatically reduce the risk taking and entrepreneurial activities of real estate.

The final thing that I would say is, at its core, this proposal is a pro- debt, anti-equity proposal. It encourages people to get debt from banks as opposed to getting equity from equity partners, and again, in a world where there is a short supply of debt and a world where we are in liquidity, I don't understand why we would now have a policy that would tell every partnership in America to go out and get bank debt as opposed to equity debt. So I think it is questionable.

Representative Brady. Well, my time is up, but Mr. Parkus, could you answer on legal authority to renegotiate commercial mortgage backed securities, your thoughts, and I need to turn it back to the chairwoman.

Mr. Parkus. Yes, I do believe that that would be a positive to allow special servicers to renegotiate loans. Yes, I believe that would be a positive.

Representative Brady. I know there are a lot of dynamics involved with that.

Chair Maloney. I would be glad to join you in such a bill. We can work on it.

Representative Brady. Thank you and I yield back, Madam Chairwoman.

Chair Maloney. Is any Federal agency responsible for making sure that underwriting standards in the commercial real estate sector are sound or is it the assumption that the market will take care of any problems? Does anyone know?

Mr. Greenlee. In terms of broader underwriting across the marketplace, I am not aware of any, but I do know out of the early 1990s as part of the FDICIA Act, there were real estate lending standards that were established by the banking agencies.

Chair Maloney. Do you think it would be helpful to have one Federal agency responsible for underwriting standards?

Mr. Greenlee. I am not aware that the board has taken a position on that.

Chair Maloney. Okay. Thank you. And looking at where the majority of defaults in the sector are, were these loans originated in state or federally chartered financial institutions?

Mr. Greenlee. In terms of the real estate loans that set on banks books, it is a mixture of both.

Chair Maloney. Given potential risks to tenants in apartment buildings, should the proposed consumer financial protection agency be responsible for monitoring underwriting standards for these loans?

Mr. Greenlee. Again, I am not sure the Federal Reserve's taken a position on that, and I think the multifamily runs into where you do have a property that then leases out to individuals. That is the way that works. There is a consumer aspect to it.

Chair Maloney. Let's look at some lessons from history.

During the S&L crisis in the late 1980s and early 1990s commercial lending also experienced a severe contraction. Can any of you comment on the effect that this contraction had, especially in States like Texas that were severely affected and are there lessons learned from the S&L crisis that would help us with the current crisis and how we could stop this from happening again? Anyone's comments.

Mr. DeBoer. Well, look, obviously what happened in Texas and some parts of country following the commercial real estate collapse of the late eighties, early nineties was devastating, you know, but there are a lot of reasons for that. Part of it is in the roots of the 1980s that had overly generous lending rules, overly generous—some—tax rules. They were shut down abruptly. Then the regulators came in and clamped down too hard on the regulating lending policy, and it shut the whole system down in the late 1980s, early 1990s.

Part of that was due to overbuilding; too much supply was on. That is not what we have here today. And so while the recess was on, Senator Brownback asked a similar question, and we talked in terms of re-instate—one thing that did come out of that debacle that was worthwhile was a move to a more transparent and public ownership of both debt and equity in commercial real estate, and we need that again. We need securitization to come back in a new, more safe way, and you raised some very positive questions that need answers about new underwriting and so forth. But the point is to get this stuff moving back in a new world and sounder footing.

Chair Maloney. Yes, Mr. Parkus.

Mr. Parkus. I just wanted to make one comment, Chair Maloney, and that is, that I think many of the panelists here today believe, along with I, that securitization is critically important to play a role in helping to improve the situation as we go forward and that there are today quite a number of proposed regulations which pose a significant threat to securitization, some of them, some of which if enacted, would probably kill CMBS, and I think that we need to think very carefully about those, the proposed new regulations. I think the Fed has itself come out and said that it is critical that securitization sort of come back to sort of life and play this role.

Chair Maloney. Thank you. Thank you.

What is the impact of defaults? If we don't do something, we will be facing defaults and bankruptcies across our country. What will the impact of defaults or bankruptcies of commercial real estate mortgage holders be on tenants of these commercial buildings? Are there risks to renters in multifamily dwelling units of losing electricity in the heat of the summer or lack of maintenance during a period of time before a new mortgage holder could be found? And what about tenants in office buildings and retail malls if there is a default or bankruptcy what happens? Are they booted out, too? Anyone?

Mr. DeBoer. Well, so far, certainly on the commercial side in the retail world, it has been—although there has been a large retail owner that has gone into bankruptcy, mall owner, that is, it has been more likely that the retailers themselves are having difficulty. I don't know of any cases so far in the multifamily area where tenants have had their electricity or water disrupted because of problems by the owner, and I would share your concern and hope that does not be a result that we see. That is not a good outcome. Again, I don't know of anything like that.

Chair Maloney. Any other comments? Well, my time has expired.

Mr. Brady.

Representative Brady. Thank you. I am convinced one of the reasons we continue to have capital sitting on the sidelines and we have not yet restored confidence in the economy is that the commercial real estate crisis is viewed as the other shoe that will drop here soon in the next year or two and which is, again, why I am so grateful for the Chairwoman to be holding this hearing.

You know, you pointed out earlier that half of all of our commercial real estate capital comes from banks, many of them regional and local. A quarter comes from the CMBS, and then the rest from insurers and pension funds. So clearly liquidity is key in the top two tiers. Appraisals seem like an arcane issue to discuss, but in the practical standpoint, when people are trying to roll over their notes, it is really critical.

The two dynamics I see today, one, we have a procyclical bias in our appraisals. When the market is going up, appraisals look at rental income. They tend to evaluate it artificially high for years to come, sort of encouraging the cycle to continue. In the TALF situation, like they have today, the opposite occurs where basically they look at low rental incomes, extrapolate it for far too many years and you have got artificially low values and prices.

And the regulators today, in my view, are discounting those appraisals even further, making tougher again either for those to come up with massive equity calls or basically to be denied loans. And again, my question would be from the congressional standpoint, without micromanaging the issue of appraisals, is there another approach that can be taken that normalizes the rental income or market income of commercial properties that would create more of a true picture of the value of these as people go in to rollover their notes? And again, they tend to be 5-year cycles for the regular banks, 10-year cycles for the mortgage backed securities.

You know, should we as Congress—what should we be looking at, or what approach could we take to try to get a truer value of appraisals that would not exacerbate the problem we have today? And I would open it up to the panel members.

Mr. Helsel. Certainly a discounted cash flow model would help that. The problem that you speak to, Mr. Brady, is serious, especially right now in the refinancing situation. It is also bad when it comes to just new financing, but the fact of the matter is—and I am a former appraiser so I understand the methodology a little bit probably. I would tell you that appraisers I think have a little bit of a conundrum themselves right now to the extent that they look at what is happening around them, they try and estimate what is going to happen as it relates to cash flow. They see a building go a little bit dark. They get worried that that might go further dark, and it almost self-perpetuates itself.

So if they don't begin to look at, for instance, discounted cash flow, if they don't take—and I don't mean to say that they should take an optimistic attitude when they are doing an appraisal that creates a false value that doesn't exist, but I think if they continue to take a pessimistic attitude, it is a little bit of a problem. It drives the values down, which just exacerbates everything else we have talked about today. Whether Congress should step in and tell an appraiser how to do appraisals is a different issue. I don't think that is the right thing to do.

Representative Brady. I don't either.

Chair Maloney. Gentlemen, we are running out of time and I want to recognize Mr. Campbell for his 5 minutes, but first I would like to place in the record Congressman Burgess's statement.

[The prepared statement of Representative Michael C. Burgess appears in the Submissions for the Record on page 139.]

Chair Maloney. And I will be submitting additional statements and questions for the record.

[A letter from Chair Maloney to witness Greenlee appears in the Submissions for the Record on page 140.]

[A letter from witness Greenlee in response to Chair Maloney appears in the Submissions for the Record on page 141.]

Chair Maloney. Mr. Campbell will have to be the last one to speak because we need to move out of this room for the next committee meeting.

You are recognized for 5 minutes.

Representative Campbell. Thank you, Madam Chair, and I apologize for missing the other questions if I am asking something that has been asked already.

The first question I have generally for the panel, as a number of people deep in the commercial real estate market that I have spoken to have said this—interestingly used the same analogy, have had at least three different ones use it—say that we are in the third inning, that if this were a baseball game, we are in the third inning of the crisis, if you will, within commercial real estate and the CMBS and so forth. Do you all generally agree with that or not?

Mr. Parkus. No.

Representative Campbell. I see a big no from Mr. Parkus. Please.

Mr. Parkus. Congressman Campbell, I think we are in the first inning.

Representative Campbell. Oh, wow.

Mr. Parkus. This has a long time to go. We are just now—it is only over the past 12 months that we have seen severe stress in rents and vacancies, prices declining, and delinquencies shooting up. We know from historical experience that commercial real estate performance lags economic activity with a 12- to 18-month lag. So, no. Maybe we are somewhere between the first and the second inning. We are definitely not in the third inning.

Representative Campbell. Is there anyone who believes we are in the fourth inning or beyond then? All right. So we have got a ways to go.

Next question, I think for Mr. Greenlee and Mr. Parkus. What if we do nothing here? What if there is no activity from Congress or the government whatsoever and this situation runs its natural course, what is the effect of that? What is the economic effect, the broader macro effect on banks or whoever? What effects do you see?

Mr. Greenlee. Well, in terms of the exposures in the banking system, it is roughly about $1.8 trillion is what banks hold in terms of commercial real estate. So if there is a continued decline in values and problems and delinquencies and bankruptcies, we will see more losses that banks take. It could threaten the viability of certain institutions, and we have tried to—again, we went through the stress test, the SCAP process, recently to look at the 19 largest. We looked at the CRE exposures there to ensure they had enough capital and reserves to absorb those losses over that time period.

Representative Campbell. In the stress test, have you factored in it running its course then?

Mr. Greenlee. We looked over a 2-year time horizon. We are taking that as observations and lessons we have learned from the SCAP, looking at other organizations that we supervise, as well as, you know, we will be thinking about a longer horizon at some point, depending on how things play out.

Representative Campbell. Mr. Parkus, do you have a comment?

Mr. Parkus. I think what Congress can potentially do here that would be extremely valuable is to help restart financial markets. So I guess I take your question to mean what would the difference in outcomes be between going through this process with poorly or ill-functioning financing markets versus one where we——

Representative Campbell. My question is simply trying to get you to explain better to us. Oftentimes CMBS, commercial, all seems very abstract, and so to try and say what is the effect on the financial system, on the banking system, on employment, on anything that, you know, those sorts of things out there that are less abstract.

Mr. Parkus [continuing]. Right. Well, I think that the effect will be much more severe if we do not have a viable commercial real estate financial system, financing market, operating as we proceed through this.

Representative Campbell. Okay. And then my final question for Mr. Helsel and Mr. DeBoer would be, you both mentioned either in your verbal testimony or your written testimony some thoughts that I think you have five or various ideas, thoughts, different things that Congress should do, that we should be looking at doing. Let me ask you, what is the most important? And I know sometimes people hate this question. I mean, if there is the single most important thing we could do that would have the most impact in softening the effects that we are going to have through the next eight innings of this process, what would that be?

Mr. Helsel. Increased liquidity, get more liquidity into the marketplace. Find a way to get the money to the banks and get the banks to lend the money to people who need the money to stop the foreclosures and to stop defaults.

Representative Campbell. Commercially regulated banks you are saying?

Mr. Helsel. Yes.

Representative Campbell. Okay.

Mr. DeBoer. I mean, what is within the authority of Congress to do versus the regulators, I think those are different questions. You know, the TALF needs to be extended. It needs to be made to be reactive to changing market conditions, and it will be helpful, but we need something to, as Jim said, to restart the lending process. We need some sort of a program to start new lending.

As far as what Congress can actually do, I think that this issue of equity investment from foreigners is well within the purview of Congress. Simple reforms there would go a long way to bring about new liquidity.

I will say one other thing on the RIMIC issue that was brought up. There is a request pending at the Treasury Department to provide more flexibility for servicers to renegotiate mortgages that have been securitized. It was done on the residential side. It should be done on the commercial side. And thank you for your comments.

Representative Campbell. Thank you, panel.

Thank you Madam Chair.

Chair Maloney. I thank you.

And the final question is really an issue that was brought up by the Special Inspector General for TARP when he testified before this committee earlier. He testified that there were potential pitfalls in pitting the PPIP program and the TALF together, and he basically made the point that he was concerned that taxpayers will be on the hook for losses if those two could leverage and work together. Are you familiar with the points that he was making? If not, maybe you should read his testimony and get back to us and tell us your concerns.

Mr. Greenlee.

Mr. Greenlee. I am not specifically familiar with that point. I do know how the TALF was set up was, we are only going to take the highest quality CMBS securities, and there will be, you know, a haircut taken in the lending process to ensure that the taxpayers aren't exposed to any potential losses.

Chair Maloney. Well, the Chair would appreciate, and I am sure the members, if you take a look at his testimony and respond to the concerns that he raised on those two programs.

I would like to thank the panelists and thank all of our witnesses for being here today to examine the potential solutions to the commercial real estate time bomb which risks posing a systemic risk to our economy.

And I thank my colleagues. This meeting is adjourned. Thank you.

[Whereupon, at 1:30 p.m., the committee was adjourned.]

SUBMISSIONS FOR THE RECORD

PREPARED STATEMENT OF REPRESENTATIVE CAROLYN B. MALONEY, CHAIR

Good morning. I would like to thank our distinguished experts for agreeing to testify today on the growing financing problems we are facing in the commercial real estate market and the extent to which they pose a systemic threat.

The current financial crisis is the result of significant losses experienced by key financial institutions with large exposures to residential mortgage assets. But banks now face a second wave of losses as commercial real estate loans issued at the height of the real estate bubble are coming due for refinancing.

Tenant rent payments are often not sufficient to cover the loan payments and many borrowers' commercial mortgages are underwater because the property simply isn't worth today what they paid for it a few years ago.

The decline in property values is astounding, particularly when you look at my home city of New York. For the year ending in March 2009, prices on commercial office space properties have dropped almost 13 percent. Deutsche Bank reportedly sold Worldwide Plaza in Manhattan for less than $400 per square foot, which I understand is less than one-third of the price the property could have commanded back in 2006. The bubble has burst, but a 60 to 70 percent collapse in prices poses a tremendous obstacle to the refinancing process.

Moreover, in this highly constrained credit market that we now live in, even borrowers with performing C.R.E. loans who have equity in their properties report to me that they are having trouble getting refinancing.

The commercial real estate time bomb is ticking. An estimated $400 billion in commercial real estate debt is set to mature this year with another $300 billion due in 2010. If mortgagers are unable to refinance or otherwise pay their large balloon payments, we could expect to see the default rate soar. That in turn translates into potentially crippling bank losses—especially among smaller and regional banks.

Doing nothing is not an option, because this looming crisis in commercial real estate lending could lead to an all-too-familiar predicament, where banks suffer significant losses, major owners of hotels and shopping centers are forced into bankruptcy, foreclosed properties push commercial real estate prices further downward, and a perfect storm of all these factors combine to inhibit prospects for a sustained economic recovery.

In recent speeches, New York Fed President William Dudley and San Francisco Fed President Janet Yellen raised concern about the potential systemic threats due to C.R.E. defaults and the need to reactivate the secondary market, in part through the TALF—the Term Asset-Backed Securities Loan Facility.

The Federal Reserve has announced that it will extend the TALF to include both new and "legacy" commercial mortgage-backed securities (C.M.B.S.), in hopes that the July auction will be more successful than the June auction which drew no takers. The expansion of TALF into legacy C.M.B.S. should increase the supply of credit to the commercial real estate market, which remains frozen with no new securities issued in over a year.

Additionally, further details about the Public Private Investment Program are emerging, which could potentially help with this problem.

I also look forward to working with the Treasury on what has been referred to as "Plan C"—efforts to head off looming problems—such as commercial mortgage defaults, rising homeowner delinquencies and solvency issues at community and regional banks—before they cascade into a crisis.

But as we evaluate proposed solutions, we must be wary of potential pitfalls. For example, the TALF program is set to expire at the end of this year, which may cut short the program's effectiveness just as it begins to ramp up. Credit rating downgrades for CBMS could significantly limit the impact that the legacy TALF auctions have in providing liquidity to that market.

Uncertainty about the PPIP's future has reportedly kept some on the sidelines, so there is some urgency to the Treasury providing additional clarity about the program.

We are all watching closely to see if these measures help to restart the commercial real estate market, but we need to be ready in the event they fall short.

I look forward to the testimony from our panel to help us find the keys to unlocking the commercial real estate loan market.

PREPARED STATEMENT OF REPRESENTATIVE KEVIN BRADY, SENIOR HOUSE REPUBLICAN

I am pleased to join in welcoming the witnesses before the Committee this morning. The spreading crisis in the commercial real estate sector poses a serious threat to our financial system and economic recovery.

What I have heard repeatedly from people associated with the commercial real estate industry is that they are unable to refinance outstanding mortgage loans when they mature. While officials here in Washington talk about the need to boost the economy, federal regulators are pressuring banks to reduce their exposure to commercial real estate loans. The result is that even some profitable commercial real estate firms that cannot rollover their debt now face bankruptcy proceedings.

The magnitude of this problem is huge, with at least $1 trillion of commercial real estate debt requiring refinancing over the next several years. Bank loans typically have a maturity of five years or less. Loans in commercial mortgage-backed securities typically have longer terms. These loans were made when credit conditions were very favorable and now will have to be refinanced during the most serious liquidity crisis in many decades.

The economic weakness resulting from the bursting of the credit bubble has reduced the market value of shopping centers, hotels, and office buildings. Consumers are cutting back purchases, and companies are retrenching to cut costs. Higher vacancy rates are boosting delinquency rates on commercial mortgage loans. Although the commercial real estate crunch began after the housing bubble burst, there is little doubt that the financial crisis has now spawned another dangerous threat to the prospect of economic recovery.

Consequently, now is the time to repeal the punitive tax treatment of commercial real estate, including provisions taxing foreigners on U.S. capital gains from real estate sales. Congress should consider reducing the depreciation period for commercial real estate and reject proposed tax increases that will undermine a potential economic recovery.

Another problem affecting commercial real estate relates to depressed appraisals of property. Obviously, low appraisals on property being refinanced are only going to make mortgage rollovers even more difficult in a liquidity crisis. Although it is understandable that appraisals will be affected by current depressed conditions in the industry, perhaps there is an alternative to valuing a long-lived asset in the trough of a severe recession. If a longer period of time were used as the basis for a property appraisal, a more accurate view of its long-term value might be available.

In conclusion, the problems in the commercial real estate industry are a serious threat to the economy. Congress should consider policies to increase financial liquidity in the industry and avoid policies such as tax increases that will only aggravate the financial and economic distress.

WITNESS BIOGRAPHIES

JON D. GREENLEE, ASSOCIATE DIRECTOR, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, DIVISION OF BANKING SUPERVISION AND REGULATION

Jon D. Greenlee is currently the Associate Director for Risk Management in the Division of Banking Supervision and Regulation at the Board of Governors. In this capacity, he oversees the strategic direction and work of the Board's credit, market and liquidity, operational, and compliance risk sections. His responsibilities include the identification and analysis of current and emerging risks in his capacity as Chair of the Division's Risk Committee, and for ensuring the Federal Reserve has appropriate supervisory guidance and policies in place. In addition, he has responsibility for coordinating supervisory activities related to key risks and risk management issues across the organizations supervised by the Federal Reserve System.

Mr. Greenlee has over twenty-two years of experience as a regulator and most recently was the Deputy Associate Director for the Board of Governors Large Banking Organization section. He joined the Board in 2001 as the manager of the Regional Banking Organization and was appointed to the official staff in 2003. Prior to joining the Board of Governors, he was an examiner at the Federal Reserve Bank of San Francisco for 12 years. He also worked for the Office of the Comptroller of the Currency and the Indiana Department of Financial Institutions prior to joining the San Francisco Reserve Bank. Mr. Greenlee has a BS degree in Finance from Indiana State University.

RICHARD PARKUS, GLOBAL HEAD OF CMBS RESEARCH, DEUTSCHE BANK SECURITIES

Richard Parkus has been Global Head of CMBS Research at Deutsche Bank Securities in New York since joining the firm in 1998. Prior to this, Richard worked for Lehman Brothers in London as head of non-dollar exotic option trading from 1994 though 1998. Prior to that, Richard was Co-Head of the Quantitative Mortgage Research group at Lehman Brothers in New York.

Richard graduated summa cum laude with a B.A. in Economics in 1981 and an M.A. in Mathematics in 1983 from the University of Michigan. Richard attended the Ph.D. program at the University of Chicago's Graduate School of Business, and received his M.B.A. in 1989.

JEFFREY D. DEBOER, PRESIDENT AND CHIEF EXECUTIVE OFFICER, THE REAL ESTATE ROUNDTABLE

Jeff DeBoer is the founding President and CEO of The Real Estate Roundtable. The Real Estate Roundtable represents the leadership of the nation's top 100 privately owned and publicly-held real estate ownership development, lending and management firms, as well as the elected leaders of the 16 major national real estate industry trade associations. Collectively, Roundtable members' portfolios contain over 5 billion square feet of office, retail and industrial properties valued at more than $1 trillion; over 1.5 million apartment units; and in excess of 1.3 million hotel rooms.

Mr. DeBoer has served as President and CEO of The Real Estate Roundtable since 1997, and through a variety of positions, he has been at the forefront of every major piece of legislation affecting the real estate industry during the last twenty-five years.

In addition to his position at the Roundtable, Mr. DeBoer serves as Chairman of the Real Estate Industry Information Sharing and Analysis Center (RE-ISAC), an organization dedicated to enhancing the two-way communication between the industry and federal policymakers on matters relating to building security, terrorist threats, and incident reporting. He also serves as co-chairman of the Advisory Board of the RAND Corporation's Center for Terrorism Risk Management Policy, and is chairman of the National Real Estate Organizations, a coalition of real estate trade associations working together to enhance the coordination of the industry's overall Washington advocacy efforts. He is also a founding member of the steering committee of the Coalition to Insure Against Terrorism (CIAT).

Mr. DeBoer has discussed real estate and economic policy issues on FOX News, Bloomberg Television and CNBC; and his editorials have been published in the *Wall Street Journal* and *USA Today*.

He is a member of the Virginia Bar Association and the American Bar Association. A native of Rapid City, South Dakota, Mr. DeBoer earned a law degree from Washington and Lee University in Lexington, Virginia, and an undergraduate degree from Yankton College in Yankton, South Dakota. Mr. DeBoer and his wife, Joan, and son, Mitchell, live in Alexandria, VA.

JAMES L. HELSEL, TREASURER, NATIONAL ASSOCIATION OF REALTORS

James L. Helsel, Jr., a REALTOR from Lemoyne, Pa., is 2009 Treasurer of the National Association of REALTORS. Helsel holds the professional designations of Certified Property Manager, Graduate, Realtor Institute, and Certified Commercial Investment Member.

On the national level, Helsel was treasurer in 2008 and a member of the NAR Board of Directors from 1989 until 1999 and joined again in 2001. He was a member of NAR's Finance Committee in 2002 and 2003, and again from 2005 to 2007. He chaired the Real Property Operations Committee in 2002 and 2003, which was responsible for building NAR's award-winning Washington, D.C. headquarters. He has served on NAR's Executive Committee and Strategic Planning Committee as well as numerous Presidential Advisory Groups.

In 2001, he was selected "REALTOR of the Year" by his state peers.

PREPARED STATEMENT OF JON D. GREENLEE

Chair Maloney, Vice Chairman Schumer, Ranking Members Brownback and Brady, and other members of the Committee, I am pleased to be here today to discuss several issues related to commercial real estate (CRE) lending in the United States. I will start by describing the current conditions in CRE markets, then discuss Federal Reserve efforts to help revitalize CRE markets and promote lending to creditworthy borrowers. I will also outline Federal Reserve supervisory actions relating to CRE, and discuss the need to ensure a healthy balance between strong underwriting, risk management, and financial institution safety and soundness on the one hand, and credit availability, on the other.

CURRENT CONDITIONS IN CRE AND CMBS MARKETS

Financial market dislocations and the continuing economic downturn are clearly challenging CRE markets. The pace of property sales has slowed dramatically since peaking in 2007, from quarterly sales of roughly $195 billion to about $20 billion in the first quarter of 2009. Demand for commercial property is sensitive to trends in the labor market, and, as job losses have accelerated, tenant demand for space has declined and vacancy rates have increased.

The decline in the CRE market has been aggravated by two additional factors. First, the values of commercial real estate increased significantly between 2005 and 2007, driven by many of the same factors behind the residential housing bubble, resulting in many properties either purchased or refinanced at inflated values. Prices have declined about 24 percent since their peak in the fall of 2007 and market participants expect significant further declines. Second, the market for securitized commercial mortgages (CMBS), which accounts for roughly one-fourth of outstanding commercial mortgages, has been largely dormant since early 2008 while many banks have substantially tightened credit. The decline in property values and higher underwriting standards in place at banks will increase the potential that borrowers will find it difficult to refinance their maturing outstanding debt, which often includes substantial balloon payments.

The higher vacancy levels and significant decline in value of existing properties has also placed pressure on new construction projects. As a result, the construction market has experienced sharp declines in both the demand for and the supply of new construction loans since peaking in 2007.

The negative fundamentals in the commercial real estate property markets have broadly affected the credit performance of loans in banks' portfolios and loans in commercial mortgage backed securities. At the end of the first quarter of 2009, there was approximately $3.5 trillion of outstanding debt associated with commercial real estate. Of this, $1.8 trillion was held on the books of banks, and an additional $900 billion represented collateral for CMBS. At the end of the first quarter, about seven percent of commercial real estate loans on banks' books were considered delinquent.[1] This was almost double from the level a year earlier. The loan performance problems were the most striking for construction and land development loans, especially for those that finance residential development. Notably, a high proportion of small and medium-sized institutions continue to have sizable exposure to commercial real estate, including land development and construction loans, built up earlier this decade, with some having concentrations equal to several multiples of their capital.

The Federal Reserve's Senior Loan Officer Opinion Survey regularly provides useful information about lending conditions. In the most recent survey, conducted in April of this year, almost two-thirds of the domestic banks surveyed reported having tightened standards and terms on commercial real estate loans over the previous three months. Additionally, almost two-thirds of the respondents reported weaker demand for CRE loans, the highest net percentage so reporting since the survey began tracking demand for CRE loans in April 1995.

The current fundamentals in CRE markets are exacerbated by a lack of demand for CMBS, previously a financing vehicle for about 30 percent of originations. New CMBS issuance has come to a halt as risk spreads widened to prohibitively high levels in response to the increase in CRE specific risk and the general lack of liquidity in structured debt markets. There has been virtually no new issuance since the middle of 2008. Increases in credit risk have significantly softened demand in the secondary trading markets for all but the most highly rated tranches of these securities. Delinquencies of mortgages in CMBS have increased markedly in recent months and market participants anticipate these rates will climb higher by the end of this year, driven not only by negative fundamentals but also borrowers' difficulty in rolling-over maturing debt. In addition, the decline in CMBS prices has generated significant stresses on the balance sheets of institutions that must mark these securities to market.

FEDERAL RESERVE ACTIVITIES TO HELP REVITALIZE CRE MARKETS

U.S. government agencies have taken a number of actions to strengthen the financial sector and to promote the availability of credit to businesses and households. In addition to aggressive actions related to monetary policy, the Federal Reserve has taken strong actions to improve liquidity in financial markets by establishing numerous liquidity facilities. One of the more recent liquidity programs is the Term

[1] Loans 30 or more days past due.

Asset-Backed Securities Loan Facility (TALF), begun in November 2008, to facilitate the extension of credit to households and small businesses.

In an effort to target CMBS markets, in May of this year, the Federal Reserve announced that, starting in June 2009, certain newly issued high quality CMBS would become eligible collateral under the TALF, followed in July by high quality "legacy" CMBS issued before January 1, 2009. The provision of TALF financing for newly issued CMBS was intended to support new lending for creditworthy properties, especially those whose loans are set to mature soon. TALF financing for legacy CMBS was intended to lower secondary market spreads and enhance liquidity. Lower spreads should then encourage new lending and ease the balance sheet pressures on owners of CMBS. The resulting improvement in CMBS markets should facilitate the issuance of new CMBS, thereby helping borrowers finance new purchases of commercial properties or refinance existing commercial mortgages on better terms.

TALF loans will be offered to finance new issuances of CMBS and purchases of legacy CMBS once a month. No TALF loans collateralized by new CMBS have been made yet, in part because CMBS take some time to arrange. The first subscription to include legacy CMBS will be on July 16, 2009.

FEDERAL RESERVE SUPERVISORY ACTIVITIES RELATED TO CRE

The Federal Reserve has been focused on commercial real estate (CRE) exposures at supervised institutions for some time. As part of our supervision of banking organizations in the early 2000s, we began to observe rising CRE concentrations. Given the central role that CRE lending played in the banking problems of the late 1980s and early 1990s, we led an interagency effort to issue supervisory guidance on CRE concentrations in 2006. In that guidance, we emphasized our concern that some institutions' strategic- and capital-planning processes did not adequately acknowledge the risks from their CRE concentrations. We stated that stress testing and similar exercises were necessary for institutions to identify the impact of potential CRE shocks on earnings and capital, especially the impact from credit concentrations.

As weaker housing markets and deteriorating economic conditions have impaired the quality of CRE loans at supervised banking organizations, we have devoted significantly more supervisory resources to assessing the quality of regulated institutions' CRE portfolios. These efforts include monitoring carefully the impact that declining collateral values may have on institutions' CRE exposures as well as assessing the extent to which banks have been complying with the interagency CRE guidance. Reserve Banks with geographic areas suffering more acute price declines in real estate have been particularly focused on evaluating exposures arising from CRE lending. We have found, through horizontal reviews and other examination activities, that many institutions would benefit from additional and better stress testing, improved management information systems, and stronger appraisal practices, and that some banks need to improve their understanding of how concentrations—both single-name and sectoral/geographical concentrations—can impact capital levels during shocks.

The recently concluded Supervisory Capital Assessment Process (SCAP) provides a perspective of the risks of CRE exposures. The 19 firms reviewed in the SCAP had over $600 billion in CRE loans, of which more than half were for nonfarm/nonresidential properties, and about one-third were related to construction and land development. The SCAP estimated that cumulative two-year CRE losses under the adverse scenario, in which residential house prices would continue to fall dramatically in 2009 and 2010, would be more than eight percent of total CRE exposures, with losses on construction loans significantly higher. Using information gained from the SCAP simulation exercise, we are also working with smaller firms that have substantial CRE exposures to ensure that their risk management practices are adequate and that they continue to maintain appropriate reserves and capital to support an expected increase in CRE losses.

As part of our ongoing supervisory efforts related to CRE, we implemented additional examiner training so that our examiners are equipped to deal with more serious CRE problems at both community and regional banking organizations on a consistent basis. Further, we have enhanced our outreach to key real estate market participants and obtained additional market data sources to help support our supervisory monitoring activities. We have also issued guidance to our examiners on real estate appraisals, proper use of interest reserves in construction and development loans, evaluation of loan loss reserving methodologies, and troubled debt restructuring practices.

MAINTAINING BALANCE IN THE SUPERVISORY PROCESS

The Federal Reserve has long-standing policies and procedures in place to promote institutions' risk identification and management practices that support sound bank lending and the credit intermediation process. In fact, guidance issued in 1991, during the last commercial real estate crisis, specifically instructs examiners to ensure that regulatory policies and actions do not inadvertently curtail the availability of credit to sound borrowers.[2] The 1991 guidance also states that examiners are to ensure that supervisory personnel are reviewing loans in a consistent, prudent, and balanced fashion.

The 1991 guidance covers a wide range of specific topics, including the general principles that examiners follow in reviewing commercial real estate loan portfolios, the indicators of troubled real estate markets, projects, and related indebtedness, and the factors that examiners consider in their review of individual loans, including the use of appraisals and the determination of collateral value. Credit classification guidelines were also addressed.

This emphasis on achieving an appropriate balance between credit availability and safety and soundness continues, and applies equally to today's CRE markets. Consistent with the 2006 CRE guidance, institutions that have experienced losses, hold less capital, and are operating in a more risk-sensitive environment are expected to employ appropriate risk-management practices to ensure their viability. At the same time, it is important that supervisors remain balanced and not place unreasonable or artificial constraints on lenders that could hamper credit availability.

As part of our effort to help stimulate appropriate bank lending, the Federal Reserve and the other federal banking agencies issued regulatory guidance in November 2008 to encourage banks to meet the needs of creditworthy borrowers.[3] The guidance was issued to encourage bank lending in a manner consistent with safety and soundness—specifically, by taking a balanced approach in assessing borrowers' ability to repay and making realistic assessments of collateral valuations.

More generally, we have directed our examiners to be mindful of the pro-cyclical effects of excessive credit tightening. Across the Federal Reserve System, we have implemented training and outreach to underscore these intentions. We are mindful of the potential for bankers to overshoot in their attempt to rectify lending standards, and want them to understand that it is in their own interest to continue making loans to creditworthy borrowers.

CONCLUSION

Financial markets in the United States continue to be somewhat fragile, with CRE markets particularly so. Banking institutions have been adversely impacted by recent problems in CRE markets. The Federal Reserve, working with the other banking agencies has acted—and will continue to act—to ensure that the banking system remains safe and sound and is able to meet the credit needs of our economy. We have aggressively pursued monetary policy actions and provided liquidity to help repair the financial system. The recent launch of the CMBS portion of the TALF is an effort to revitalize lending in broader CRE markets. In our supervisory efforts, we are mindful of the risk-management deficiencies at banking institutions revealed by the current crisis and are ensuring that institutions develop appropriate corrective actions. Within the Federal Reserve, we have been able to apply our interdisciplinary approach to addressing problems with CRE markets, relying on supervisors, economists, accountants, quantitative analysts, and other experts.

It will take some time for the banking industry to work through this current set of challenges and for the financial markets to fully recover. In this environment, the economy will need a strong and stable financial system that can make credit available. We want banks to deploy capital and liquidity, but in a responsible way that avoids past mistakes and does not create new ones. The Federal Reserve is committed to working with other banking agencies and the Congress to promote the concurrent goals of fostering credit availability and a safe and sound banking system.

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[2] "Interagency Policy Statement on the Review and Classification of Commercial Real Estate Loans," (November 1991); *www.federalreserve.gov/boarddocs/srletters/1991/SR9124.HTM.*

[3] "Interagency Statement on Meeting the Needs of Credit Worthy Borrowers," (November 2008); *www.federalreserve.gov/newsevents/press/bcreg/20081112a.htm.*

PREPARED STATEMENT OF RICHARD PARKUS

Chair Maloney, Vice Chairman Schumer, Ranking Members Brownback and Brady, and other distinguished members of the Committee:

My name is Richard Parkus. I am a research analyst working for Deutsche Bank Securities Inc. in New York. I have been employed by Deutsche Bank since 1998 to provide research coverage of the securitization markets, with a focus on the commercial mortgage backed securities (CMBS) market. It is a privilege for me to testify at this important hearing to explore the current state of commercial and industrial lending, and to discuss the effectiveness of government efforts to restart credit markets.

My testimony today will focus on three research reports that I recently published. The first report, published on April 23 of this year, titled "The Future Refinancing Crisis in Commercial Real Estate," addresses what I believe will be widespread refinancing problems for commercial mortgages over the coming decade. The other two reports, both published in May of this year, provide my views on the likely efficacy of the TALF programs, both for legacy CMBS and for new issue CMBS. All three of these reports have been provided to the Panel as my written submission. With the Chair's permission, I would also like to submit as part of the written record a forthcoming report to be issued this month, focusing on the potential impact of commercial real estate loan defaults on banks.

Before addressing my research, I must note that the views I express today are my own and do not necessarily represent those of Deutsche Bank or any of its staff members.

The commercial real estate sector is currently under greater stress than at any time since the crash of the early 1990s. In fact, I believe that the severity of the current downturn is likely to exceed, possibly by a large magnitude, that of the early 1990s. The problems are two-fold. First, the extraordinarily severe economic recession has resulted in vacancy increases and rent declines that are already of a similar magnitude to what occurred in the previous episode. This has pushed default rates to levels approaching those of the 1990s. The second problem, one that is potentially even more serious, is that for those loans that do make it to maturity, a very large percentage, perhaps in excess of 65%, may not qualify for refinancing under the dramatically tighter new underwriting standards, particularly in view of the fact that commercial real estate prices on stabilized properties have declined by 35–45% or more from their peak in 2007, and almost surely have further to go.

On the whole, I expect that total losses in CMBS will be approximately 9–12% of the outstanding CMBS loan universe, or about $65–$90 billion. For the 2005–2007 vintage loans, my estimate of total losses is somewhat higher, about 12–15%. For the 2007 vintage alone, I expect in excess of 20% losses. This compares with approximately 10% total losses for the worst performing vintage—the 1986 vintage—in the early 1990s.

In order to manage through this extremely stressful process, it is critical that commercial real estate financing markets begin functioning again with some degree of normalcy. By this I mean that loans which qualify for refinancing must be able to obtain financing. At the moment, this is not the case. Commercial real estate financing markets are effectively closed, at least for loans in excess of $25–$35MM. Smaller loans on properties that are performing well have continued to have some degree of success refinancing, mainly with regional banks. However, we believe that this source will continue to deteriorate as problem loans mount in bank portfolios.

Within the larger commercial real estate finance sector CMBS has roughly a 25–30% market share, while banks have about 50% market share, life insurance companies about 10% and pension funds about 10%. One common misconception, in my view, is that commercial real estate problems started in CMBS and somehow migrated to banks and other sectors. In fact, I believe that banks will, once again, prove to be the epicenter of commercial real estate loan problems.

When looking at "commercial real estate" exposure in banks, one must distinguish between three categories of loans: construction and land development loans, core commercial real estate loans, and multifamily loans. In aggregate, banks have exposure to about $550 billion in construction loans, $1.1 trillion of core commercial real estate loans and $150 billion of multifamily loans. By far the most problematic of these are the construction loans, which contain high proportions of both loans to home builders and condo construction loans. Moreover, exposure to construction loans rises rapidly as one moves from large money center banks to smaller regional and local banks—the four largest US banks have an average exposure of less than 2% of total assets, while the 31–100 largest banks have an average exposure of about 12%. Given that prices are down 40–45% on stabilized commercial properties, they must be down vastly more than this on newly completed or only partially completed properties. I expect that loss severities on defaulted construction loans could approach 80–90% in many cases. 90+ day delinquency rates are currently in the 12% range for construction loans in bank portfolios, but are somewhat higher for construction loans in regional bank portfolios. In fact, I am perplexed by the fact that construction loan delinquency rates are only 12% at this point. However, I believe that this can be explained by the fact that they are typically structured with interest reserves which are sufficient to cover interest payments until the expected completion of the project. Thus, construction loan delinquency rates are currently artificially low due to interest reserves, but will likely rise dramatically within the coming 6–12 months. In my view, losses on construction loans are likely to be in excess of 25%, possibly well in excess, which would imply losses of at least $140 billion. This, of course, would be disproportionately borne by regional and local banks.

In terms of core commercial real estate, the story is much the same, at least qualitatively. Again exposures are much higher for regional and local banks than for the largest money center banks. The four largest banks have an average exposure of 3–4% to commercial real estate loans, while smaller regional banks have an average exposure of 15–20%. I also believe that core commercial real estate loans in bank portfolios are likely to be riskier than those in fixed rate CMBS. There are two main reasons for this view: First, bank loans tend to have fairly short terms, typically 3–5 years, while fixed-rate CMBS loans have much longer terms, typically 7–10 years. As a result, a much higher percentage of bank loans will have been made at the peak of the market and will come up for refinancing at the bottom of the market, the 2010–2012 period, when they are least likely to qualify. Second, bank loans tend to be used to finance transitional properties, while fixed-rate CMBS loans typically finance stabilized properties. Loans on transitional properties are generally riskier than loans on stabilized properties, particularly in a economic downturn.

The view that core commercial real estate loans in bank portfolios are likely to underperform those in CMBS is supported by the fact that delinquency rates for bank loans have for many years far exceeded those of CMBS loans. As of the end of Q1 2009, the delinquency rate on bank commercial real estate loans was approximately two and a half times that on CMBS loans.

In terms of specific loss estimates, it is reasonable to assume that loss rates on core commercial real estate loans in bank portfolios will be at least as large as those of the 2005–2007 vintage CMBS loans—which I expect will be in the 12–15% range. This would imply losses of at least $120–$150 billion on banks' core commercial real estate loan portfolios.

The problems facing commercial real estate are severe and will likely take many years to resolve. There are no easy solutions. However, there are measures that can be taken that will help mitigate the pain and disruption of this process. By far the most important of these are steps that promote the recovery of commercial real estate financing markets. In my view, these should focus on reviving the public securitization market. I expect that over the coming decade the amount of capital from traditional sources (e.g., banks, insurance companies, pension funds) committed to financing commercial real estate will decline significantly. It is absolutely critical that a revitalized CMBS market be able to step in and fill the void. The CMBS market worked effectively and efficiently for well over a decade and, with the right changes, is capable of playing a vital role again in the future.

I thank you for your time and am happy to answer any questions you may have.

Global Markets Research

Securitization

North America United States

Deutsche Bank

23 April 2009

CMBS Research

Special Report

The Future Refinancing Crisis in Commercial Real Estate*

Estimates of the Magnitude of Refinancing Risk, Equity Deficiency and Losses from Maturity Defaults

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**This is a revised version of a report originally published on 22 April 2009. It contains minor corrections to the text on page 21.*

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I. Introduction

The lesson that was learned (or re-learned) in the commercial real estate (CRE) crash of the early 1990s was that problems associated with massive over-supply can plague the industry for many years. The lesson that will be learned in the current crash (with CRE prices declining by 40-50%, or more, from their peaks, the term crash is, once again, appropriate) is that problems emanating from the financing side—in particular, a massive deterioration in underwriting standards and a concurrent rise of excessive leverage—can lead to problems of a similar (or greater) magnitude, even without supply problems.

While most attention in commercial real estate today is focused on the dramatic deterioration in term loan performance (i.e. the performance of loans prior to maturity), we believe that a potentially even more troublesome issue is the extent to which loans originated during the 2005-2007 period will encounter problems refinancing at maturity. To date, this issue has largely been dismissed with the vague and, in our view, naive observation that lenders will simply extend the maturity dates of loans that fail to qualify for refinancing. However, the scale of this problem is virtually unprecedented in commercial real estate, and its impact is likely to dominate the industry for the better part a decade.

At its core, the issue is fairly straightforward: The dramatic weakening in underwriting quality that began in 2005, along with compressing cap rates and ballooning leverage, led to rapidly rising commercial real estate prices. In 2007 the commercial real estate bubble burst, along with most other credit bubbles. Since that time underwriting standards have tightened back to their original levels, and perhaps further, as allowable leverage has plummeted and cap rates have skyrocketed. Purely as a result of the enormous changes in the available financing terms (e.g. lower leverage, higher cap rates and credit spreads), we estimate that commercial real estate prices have declined 25-30% from their 2007 peak. On top of this, the impact of the worst economic recession in decades on property cash flows will likely push them down additional 15-20% over and above the declines due to financing market changes. We argue in this report that, as a result, there are hundreds of billions of dollars, perhaps more than a trillion dollars, of commercial mortgages scheduled to mature over the next decade that are unlikely to qualify for refinancing without substantial equity infusions from the borrowers.

There are, in fact, two very different sources of refinancing problems, both of which are currently at play to varying degrees. The first source reflects the fact that most credit markets are currently either shut or operating at dramatically reduced levels. The problem here is not that maturing loans do not qualify for refinancing, but rather scarcity of credit makes it difficult for all loans to find refinancing, even those that would normally qualify under the new, tighter underwriting standards. Thus, in the current environment, the percentage of maturing loans that are able to refinance has been declining significantly since late 2008, despite the fact that the great majority of maturing loans is from the 1999 and 2000 vintages, have experienced enormous price appreciation and easily qualify for refinancing. As credit markets begin to heal, this source of refinancing problems will diminish.

The second source of refinancing problems, as previously noted, relates to the fact that a vast swath of the commercial mortgages originated during the bubble years (2005-2007) will not qualify for refinancing under the new standards. It is this source of refinancing problems that we focus in this report, and this problem will not go away as credit market rebound.

The focus of this report is on the refinancing problem for commercial mortgages in CMBS transactions. But CMBS is only 25% of the entire commercial real estate debt market, and the same processes that created a vast refinancing problem here were at work, to varying degrees, in other segments of the commercial real estate financing market as well. In particular, we expect that the same type of refinancing problems will be present in both bank and insurance company loan portfolios, and that they will likely be of a similar magnitude, at least in the case of banks.

The goal of this analysis is to quantify the scale of the refinancing problem in commercial real estate. In particular, by making conservative assumptions, we attempt to determine the minimum size of the problem. The quantitative analysis is carried out only on commercial mortgages in CMBS because only here do we have extremely detailed and complete data about every individual loan, including exact cash flow models. It is then possible, however, to extrapolate the findings on CMBS to the broader commercial real estate debt market.

Our findings with respect to CMBS are as follows:

1. At least two thirds of the loans maturing between 2009 and 2018 ($410 billion) are unlikely to qualify for refinancing at maturity without significant equity infusions from borrowers. For the 2007 vintage, well in excess of 80% of the loans are unlikely to qualify.

2. The aggregate equity deficiency (i.e. the additional amount of equity that borrowers would have to put up in order to qualify to refinance) is at least on the order of $100 billion.

3. Our (conservative) estimate of maturity default-related losses for fixed rate CMBS is $50 billion, 6.5% of the aggregate outstanding balance.

4. We estimate that maturity default-related losses will be at least 4.6% for the 2005 vintage, 5.8% for the 2006 vintage and 12.5% for the 2007 vintage.

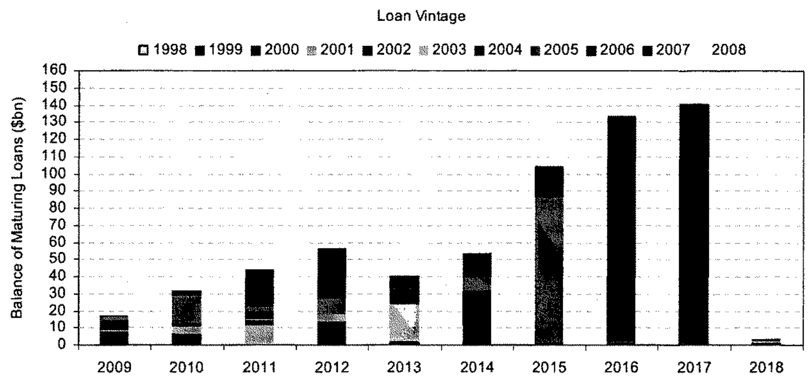
It must be emphasized that this report considers the likely percentage of CMBS loans that would not qualify for refinancing and the associated maturity default-related losses assuming that loans do not default prior to maturity. In reality, a large percentage of these loans are likely to default prior to maturity. Thus, a significant part of what we calculate as maturity default-related losses will actually end up as term default losses. Total losses—the sum of term and maturity-related losses, are likely to be well in excess of the losses shown in this report. We will, in the near future, publish additional results using a combination of our term and maturity default analyses. The purpose of this report, however, was to focus on refinancing and maturity default related issues.

The report is structured as follows: Section II explores the scale of the refinancing problem, including the bank and insurance company components of the commercial real estate financing market. Section III discusses the quantitative analysis upon which our results are based, and presents the underlying assumptions. Section IV examines in some detail the amount of debt that is unlikely to qualify for refinancing without equity infusions from the borrower. In Section VI we provide estimates of the magnitude of the equity deficiency and maturity default-related losses. Average loss estimates are provided for each vintage, and for the 2005, 2006, 2007 and 2008 vintages losses are provided for each CMBS deal. The report concludes with Section VII, which discusses why we do not think that maturity extensions provide a solution to the refinancing problem outlined here.

II. The Magnitude of the Problem

In order to convey the scale of the future refinancing problem, we start by noting that there are approximately $685 billion of non-defeased commercial mortgages in CMBS maturing between now and 2018, of which $640 billion is fixed rate conduit and about $45 billion is floating rate.[1] Of this, approximately $236 billion matures by the end of 2013. Figure 1 provides a breakdown of the maturity profile of fixed rate loans by origination vintage. We include the origination vintage because maturing loans from older vintages clearly pose less of a refinancing problem.

Figure 1: Maturity profile of fixed rate commercial mortgages in CMBS transactions

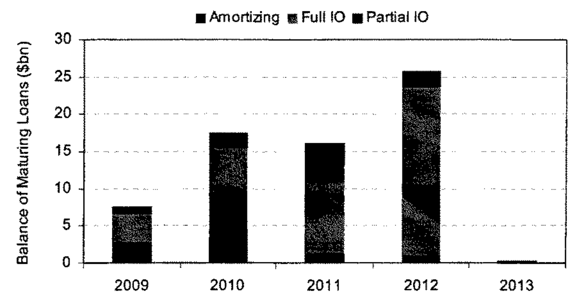


Source: Deutsche Bank, Intex, Trepp

By far the most problematic of the fixed rate CMBS loans are the $67 billion of short-term loans that were originated during the 2005-2007 period and mature in 2010-2013. See Figure 2. These loans were originated at the top of the market, and the subsequent 35-50% price declines will leave a large percentage of them with negative equity just as they approach maturity, making refinancing all but impossible without very significant equity infusions by borrowers, as we will show in the analysis that follows. On top of the shortage of equity issue, these loans also exhibited the worst deterioration in underwriting standards. We argue in a later section that only a small percentage of these loans are likely to be able to qualify for refinancing when they mature.

[1] This excludes whole loans in CRE CDOs, as well as small sectors such as seasoned loan deals.

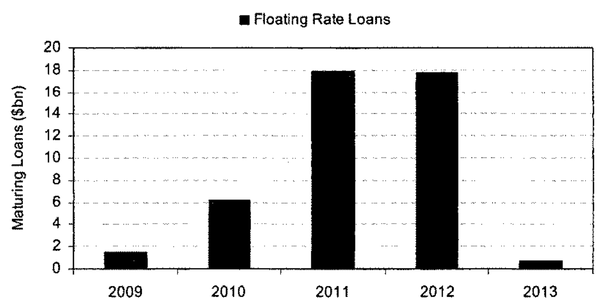
Figure 2: Short term fixed rate CMBS loans maturing through 2013



Source: Deutsche Bank, Intex, Trepp

The $45 billion of floating rate loans (see Figure 3) mentioned above, plus the billions of dollars worth of floating rate whole loans in CRE CDOs that we have not accounted for, are even more problematic than the short-term fixed rate loans. The reason is that these are nearly *all* short-term loans (five to six year terms) on transitional properties. The properties being transitional, this is where pro forma underwriting was most widespread. In addition, these loans were usually the most highly levered with various types of subordinate debt—B-notes and mezzanine loans. We expect that the vast majority of these loans will not qualify for refinancing without extremely large infusions of borrower equity—imagine the required equity infusion to refinance a loan with an original LTV of 90, where the new minimum LTV is 65 and the value of the securing property has declined by 50%. Needless to say, not many borrowers will be willing to make put this amount of additional equity into an underwater loan.

Figure 3: Maturity profile of floating rate CMBS loans



Source: Deutsche Bank, Intex, Trepp

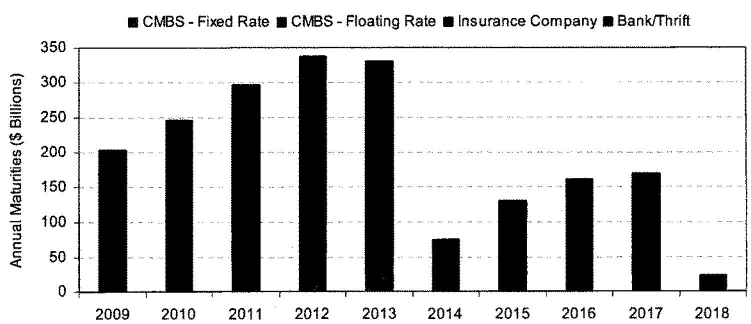
The quantitative analysis in this report focuses only on commercial mortgages in CMBS transactions because only here do we have sufficient data available. However, CMBS represents only about 25% of the $3.4 trillion commercial real estate market. Banks and life companies, which make up approximately 50% and 10% of the market, respectively, must also be considered in the mix. After all, the same combination of deteriorating underwriting standards and excessive price inflation were operating in bank and life company lending (although we do not expect life company direct loans to suffer to same degree as either CMBS or bank loans.)

Banks have $1.068 trillion of core commercial real estate loans on their books, according to the FDIC. This amount does not include $590 billion of (highly combustible) construction loans, $205 billion of multifamily loans or $63 billion of farm loans. We do not know the precise time profile for maturing commercial mortgage loans in bank portfolios. However, bank loans tend to of relatively short term duration to better fit bank liability structures. In order to get a reasonable estimate for the time profile of maturities we assume that all loans have five-year terms and thus mature by 2013. Moreover, this category of bank commercial mortgages has experienced an average annual grown rate of approximately 12% over the past five years. Thus, as a simple approximation, we assume that the amount of bank commercial mortgage maturities each year grow at 12% from 2009 through 2013.

According to the Mortgage Bankers Association, life companies have approximately $222 billion of direct loans maturing through 2018, with annual maturities in the $15-$25 billion range.

The total from these three sources is $1.973 trillion maturing over through 2018, and $1.415 trillion maturing through 2013. See Figures 4 and 5.

Figure 4: Estimated maturity profile of commercial mortgages in CMBS, bank and life company portfolios



Source: Deutsche Bank, Intex, Trepp, Mortgage Bankers Association, Federal Reserve

Figure 5: Annual maturities ($ billion) in CMBS, banks and life companies

Year	CMBS - Fixed Rate	CMBS - Floating Rate	Insurance Company	Bank/Thrift*
2009	17.6	1.5	16.8	168.1
2010	32.2	6.2	19.8	188.3
2011	44.1	17.8	23.1	210.9
2012	57.6	17.7	26.1	236.2
2013	40.9	0.7	24.8	264.6
2014	54.2		20.6	
2015	104.5		25.7	
2016	133.9		27.3	
2017	148.2		21.4	
2018	6.1		16.3	
Total ($bn)	639.3	43.9	221.9	1,068.2

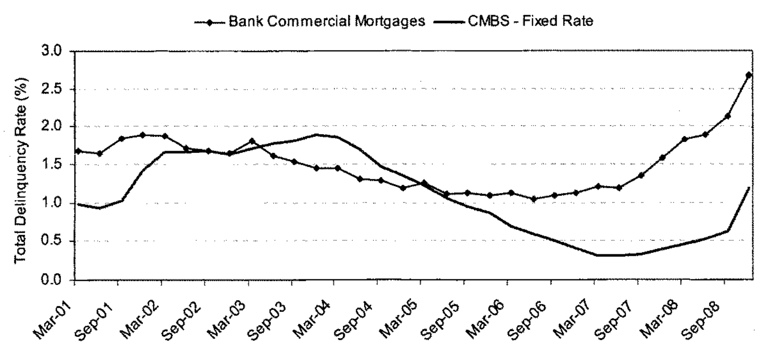
* Maturity timing is estimated

Source: Deutsche Bank, Intex, Trepp, Mortgage Bankers Association, Federal Reserve

When commercial mortgage maturities from bank and life company portfolios are added to the picture, the enormous scale of the problem becomes clear. Without a doubt, the period 2010-2013 will be one of very significant stress in the commercial real estate market. During this period, banks will likely also be taking very large losses not only on residential mortgage portfolios, but also on their construction loan portfolios. According to Foresight Analytics, delinquency rates for construction and land loans stood at 11.4% in 4Q 2008.

In our view, there is also a distinct risk that bank commercial mortgages will under-perform CMBS loans. Figure 6 compares the total delinquency rates for the two universes of loans. On a historical basis, bank commercial mortgages (excluding construction and land loans and multifamily loans) have significantly under-performed CMBS loans. As of Q4 22008, the total delinquency rate for commercial mortgages in bank portfolios bank was more than twice that of fixed rate CMBS. The same is true for multifamily loans as well. As of Q4 2008, multifamily loans in bank portfolios exhibited a total default rate of 4.6%, versus 2.6% for those in CMBS.

Figure 6: Total delinquency rates: fixed rate CMBS versus commercial mortgages in bank portfolios



Source: Deutsche Bank, Intex, Trepp, Foresight Analytics

Our main point is that the amount of commercial mortgages maturing over the next five to seven years that will face formidable refinancing problems could be well in excess of $1 trillion dollars.

Of course, all of this begs the question of precisely where the future financing for commercial real estate will come from. At the moment, the CMBS market is moribund. We speculate

III. Description of the Analysis and Assumptions

The quantitative analysis presented in this report is based entirely on 54,079 currently outstanding and non-defeased fixed rate commercial mortgages in CMBS transactions with an aggregate balance of $601.9 billion.

The analysis begins with the Intex cash flow model for each of the 54,079 loans. Portfolio and Property Research (PPR), an independent commercial real estate research firm, produces 5-year rent, vacancy and NOI projections for each major property segment in the 54 largest commercial real estate markets in the US. For each loan in our sample, we project the NOI of the underlying property five years forward (thorough 2013) using the PPR projections for the appropriate property type and market. After 2013, we assume that NOI returns (linearly) to its peak level at the end of 2007 by 2018. This NOI projection is then run through the Intex cash flow model for the loan until its maturity date. At this point, the property's approximate value is calculated by applying the appropriate cap rate to the property's projected NOI. By making specific assumptions about maximum LTV, minimum DSCR and the future cost of financing (i.e. mortgage rates), we are able to estimate whether the loan would qualify for refinancing at the new tighter underwriting standards, the amount, if any, of the equity deficiency (i.e. the amount of new equity the borrower would need to put into the loan in order to refinance) and an estimate of the maturity default-related loss.

At each stage of the analysis, we have attempted to make assumptions that are reasonable, but conservative in the sense of giving rise to the least stress or the lowest losses. The exception is the NOI scenarios, which we simply take from PPR.

The PPR NOI scenarios are summarized at an aggregated level in Figure 7 by taking, for each property segment, the weighted average of NOI projections across markets, where the weights represent the size of the property sector in that market.

Scenario 1 is the current PPR severe recession scenario. Scenario 2 is the previous PPR severe recession scenario, which now looks relatively mild. Scenario 1 clearly entails extreme cash flow stress for properties. In our view, the magnitudes of these projections are reasonable.

Figure 7: Summary of aggregated NOI growth scenarios

NOI Growth Assumptions

	PPR Peak-Trough NOI % Change	
Property Type	**NOI Scenario 1**	**NOI Scenario 2**
Industrial	-16.3	-8.5
Multifamily	-15.0	-5.4
Office	-32.6	-13.4
Retail	-26.6	-19.7
Hotel *	-20.0	-20.0

* Hotel projection is not based on PPR

Source: Deutsche Bank, PPR

Cap rates are an important component of the analysis and the results are sensitive to the assumed levels. In order to produce conservative estimates, we have chosen to use what are in our view conservative cap rate assumptions. These are shown in Figure 8.

Figure 8: Cap rate assumptions

Cap Rate Assumptions

Property Type	Current	24 Mnths	60 Months	120 Mnths	240 Mnths
Industrial	8.5	8.5	8.5	8.0	8.0
Multifamily	8.0	8.0	8.0	8.0	8.0
Office	8.5	8.5	8.5	8.0	8.0
Retail	8.5	8.5	8.5	8.0	8.0
Hotel	9.5	9.5	9.5	9.0	9.0

Source: Deutsche Bank

We believe that in many cases actual cap rates are currently 100-200bp, or more, higher

The results of or analysis are contained in the next two sections. We believe that these results are conservative (in the sense that the proportion of loans that will not qualify for refinancing without additional borrower equity infusions, as well as maturity default-related losses, will both be higher than our estimates) for the following reasons:

1. Our analysis does not take account of subordinate debt. However, large conduit loans originated from 2005 through 2007 often had large amounts of subordinate debt either in the form of B-notes, mezzanine loans or both. While we do have fairly complete data on B-notes, we have very sketchy information on mezzanine debt, at least in Intex. The inclusion of subordinate debt would likely significantly increase the equity deficiency in the 2005-2007 vintage loans. On the other hand, the impact the mezzanine loan component may not be as relevant as the B-note component since they are not secured by the property directly and only really determines, ultimately, who the borrower is. Apart from more recently originated loans on larger assets, a significant percentage of smaller seasoned conduit loans also have some amount of subordinate debt, often 2nd lien mortgages. This clearly increases the equity deficiency beyond our estimates. On the other had, subordinate debt is not as relevant for loss estimates since, by definition, it is subordinate to the first mortgage.

2. As already discussed, our cap rates assumptions are conservative.

3. As will be discussed in the next two sections, our underwriting assumptions– maximum LTVs (70%), minimum DSCRs (1.3x) and future mortgage rates (8%)–are conservative.

IV. Estimating the Amount of Non-Refinanceable Loans

To be clear, by not qualifying for refinancing, we mean that when the existing loan matures the borrower will not be able to qualify for a new loan with sufficient proceeds to payoff the existing loan. In particular, the borrower will need to put additional equity to payoff the existing loan.

The amount of refinanceable loans is particularly important because, in our view, commercial real estate borrowers will, for the most part, either be unable or unwilling (or both) to put additional equity into these properties. Instead, borrowers will be faced either with negotiating for maturity extensions from their lenders or walking away from the property. As we argue in the final section, we do not believe that loan extensions offer a way out of this problem and expect that both routes will ultimately lead to losses.

This section provides a variety of results meant to shed light on the nature and scope of the refinancing problem. In order to qualify to refinance an existing loan, the property must satisfy three criteria:

1. The new loan balance must be at least as large as the existing loan balance.

2. The LTV of the loan must be no greater than 70 (current maximum LTVs are between 60 and 65).

3. The DSCR, based on a 10-year fixed rate loan with a 25-year amortization schedule and an 8% mortgage rate, must be no less than 1.3x.

We provide results over two different horizons, the shorter-term horizon consisting of loans maturing between 2009 and 2012 and the full term horizon consisting of all loans. The reason we look at the shorter-term results separately is that our projections have more accuracy over this shorter period. The further out in time we go, the less sure we are that the actual future environment will match up to our projections.

We begin with the shorter-term results. Unless otherwise noted, all results correspond to the more severe NOI Scenario 1.

Figure 9 indicates that of all fixed rate CMBS loans maturing during the 2009-2012 period, approximately 67% (on a balance basis) would not qualify for refinancing.

Figure 9: Estimated percentage of loans that do not qualify for refinancing: NOI Scenario 1

	Loans Maturing 2009 - 2012					
	Refinancing Requirement: LTV < 70 & DCSR > 1.3					
Property Type	# Loans	Balance ($BB)	Loans Not Qualifying (#)	Loans Not Qualifying ($BB)	% Not Qualifying (Loan Count)	% Not Qualifying (Balance)
Hotel	475	7.3	182	4.1	38.3	55.5
Industrial	1,189	5.8	330	2.2	27.8	37.9
Multifamily	3,793	24.4	2,220	18.9	58.5	77.3
Office	2,629	40.9	1,433	30.8	54.5	75.3
Retail	4,156	44.6	1,727	24.6	41.6	55.1
Multi Property	672	29.6	339	21.1	50.4	71.3
Other	1,545	12.0	639	8.7	41.4	71.9
Aggregate	**14,459**	**164.7**	**6,870**	**110.3**	**47.5**	**66.9**

Source: Deutsche Bank

Figure 10 provides the results from the same analysis as the previous case, except that only the LTV constraint is applied for qualifying. Here the percentage that does not qualify drops to 56%.

Figure 10: Estimated percentage of loans that do not qualify for refinancing: NOI Scenario 1

	Loans Maturing 2009 - 2012					
	Refinancing Requirement: LTV < 70					
Property Type	# Loans	Balance ($BB)	Loans Not Qualifying (#)	Loans Not Qualifying ($BB)	% Not Qualifying (Loan Count)	% Not Qualifying (Balance)
Hotel	475	7.3	168	3.9	35.4	52.7
Industrial	1,189	5.8	286	2.0	24.1	34.4
Multifamily	3,793	24.4	1,958	17.3	51.6	70.8
Office	2,629	40.9	1,357	27.1	51.6	66.3
Retail	4,156	44.6	1,655	22.4	39.8	50.3
Multi Property	672	29.6	306	15.0	45.5	50.5
Other	1,545	12.0	573	4.0	37.1	33.0
Aggregate	**14,459**	**164.7**	**6,303**	**91.6**	**43.6**	**55.6**

Source: Deutsche Bank

Figure 11 again applies the same analysis, except that here we only apply the DSCR constraint for qualifying. The result is that 66% do not qualify for refinancing.

Figure 11: Estimated percentage of loans that do not qualify for refinancing: NOI Scenario 1

	Loans Maturing 2009 - 2012					
	Refinancing Requirement: DSCR > 1.3					
Property Type	**# Loans**	**Balance ($BB)**	**# Loans Not Qualifying**	**Balance Not Qualifying ($BB)**	**% Not Qualifying (Loan Count)**	**% Not Qualifying (Balance)**
Hotel	475	7.3	155	3.7	32.6	50.3
Industrial	1,189	5.8	323	2.1	27.2	36.9
Multifamily	3,793	24.4	2,220	18.9	58.5	77.3
Office	2,629	40.9	1,407	30.6	53.5	74.8
Retail	4,156	44.6	1,680	24.2	40.4	54.3
Multi Property	672	29.6	336	21.1	50.0	71.1
Other	1,545	12.0	548	8.2	35.5	68.6
Aggregate	**14,459**	**164.7**	**6,669**	**108.9**	**46.1**	**66.1**

Source: Deutsche Bank

From the preceding three sets of results, we conclude that in general both valuation (via the LTV constraint) and cash flow (via the DSCR constraint) are binding constraints, although cash flow appears to be slightly more significant of a constraint.

Next, Figure 12 indicates that, as would be expected, the situation is much worse for the 2007 vintage loans maturing between 2009 and 2012. Here nearly 80% do not qualify.

Figure 12: Estimated percentage of loans that do not qualify for refinancing: NOI Scenario 1

	2007 Vintage Loans Maturing 2009 - 2012					
	Refinancing Requirement: LTV < 70 & DSCR > 1.3					
Property Type	**# Loans**	**Balance ($BB)**	**# Loans Not Qualifying**	**Balance Not Qualifying ($BB)**	**% Not Qualifying (Loan Count)**	**% Not Qualifying (Balance)**
Hotel	79	2.7	51	2.1	64.6	77.7
Industrial	53	0.6	39	0.4	73.6	73.0
Multifamily	197	3.6	179	3.4	90.9	94.5
Office	197	7.6	172	6.7	87.3	88.0
Retail	118	2.0	96	1.9	81.4	94.6
Multi Property	81	7.9	66	6.9	81.5	87.4
Other	135	3.9	91	1.1	67.4	28.3
Aggregate	**860**	**28.2**	**694**	**22.5**	**80.7**	**79.6**

Source: Deutsche Bank

Figure 13 indicates that for all loans maturing in during 2009 and thereafter, effectively all outstanding loans, more than 68% ($411 billion out of $602 billion) do not qualify for refinancing.

Figure 13: Estimated percentage of loans that do not qualify for refinancing: NOI Scenario 1

	All Loans Maturing 2009 and Thereafter					
	Refinancing Requirement: LTV < 70 & DCSR>1.3					
Property Type	**# Loans**	**Balance ($BB)**	**Loans Not Qualifying (#)**	**Loans Not Qualifying ($BB)**	**% Not Qualifying (Loan Count)**	**% Not Qualifying (Balance)**
Hotel	2,756	34.1	594	12.7	21.6	37.1
Industrial	3,666	20.2	1,292	9.7	35.2	48.2
Multifamily	11,880	81.3	7,118	62.1	59.9	76.4
Office	9,192	162.1	5,515	122.7	60.0	75.7
Retail	18,121	168.6	10,805	118.8	59.6	70.5
Multi Property	2,541	94.6	1,236	58.1	48.6	61.4
Other	5,923	41.0	2,651	26.7	44.8	65.2
Aggregate	**54,079**	**601.9**	**29,211**	**410.9**	**54.0**	**68.3**

Source: Deutsche Bank

For the 2007 vintage loans as a whole, approximately 72% do not qualify under our scenario analysis. See Figure 14.

Figure 14: Estimated percentage of loans that do not qualify for refinancing: NOI Scenario 1

	2007 Vintage Loans Maturing 2009 and Thereafter					
	Refinancing Requirement: LTV < 70					
Property Type	**# Loans**	**Balance ($BB)**	**Loans Not Qualifying (#)**	**Loans Not Qualifying ($BB)**	**% Not Qualifying (Loan Count)**	**% Not Qualifying (Balance)**
Hotel	814	13.1	202	5.8	24.8	44.7
Industrial	732	5.5	358	3.3	48.9	59.3
Multifamily	1,674	19.6	1,158	16.1	69.2	82.4
Office	1,965	47.7	1,256	37.7	63.9	79.0
Retail	3,567	38.2	2,268	30.2	63.6	79.2
Multi Property	629	31.4	324	20.6	51.5	65.6
Other	1,231	12.5	722	7.2	58.7	57.6
Aggregate	**10,612**	**168.0**	**6,288**	**121.0**	**59.3**	**72.0**

Source: Deutsche Bank

Finally, Figures 15 and 16 report the results under the less stressful NOI Scenario 2. As expected, the percentage of loans failing to qualify declines. However, it remains in excess of 50%, enough to have extraordinarily stressful consequences.

Figure 15: Estimated percentage of loans that do not qualify for refinancing: NOI Scenario 2

	Loans Maturing 2009 - 2012					
	Refinancing Requirement: LTV < 70 & DCSR>1.3					
Property Type	# Loans	Balance ($BB)	Loans Not Qualifying (#)	Loans Not Qualifying ($BB)	% Not Qualifying (Loan Count)	% Not Qualifying (Balance)
Hotel	475	7.3	142	3.5	29.9	47.4
Industrial	1189	5.8	266	1.9	22.4	31.9
Multifamily	3793	24.4	1791	16.3	47.2	66.8
Office	2629	40.9	1086	23.5	41.3	57.5
Retail	4156	44.6	1439	20.5	34.6	46.0
Multi Property	672	29.6	300	14.9	44.6	50.1
Other	1545	12.0	482	3.6	31.2	29.6
Aggregate	**14,459**	**164.7**	**5,506**	**84.1**	**38.1**	**51.0**

Source: Deutsche Bank

Figure 16: Estimated percentage of loans that do not qualify for refinancing: NOI Scenario 2

	Loans Maturing 2009 - 2018					
	Refinancing Requirement: LTV < 70					
Property Type	# Loans	Balance ($BB)	Loans Not Qualifying (#)	Loans Not Qualifying ($BB)	% Not Qualifying (Loan Count)	% Not Qualifying (Balance)
Hotel	2,756	34.1	410	9.6	14.9	28.2
Industrial	3,666	20.2	995	7.9	27.1	39.2
Multifamily	11,880	81.3	5571	52.4	46.9	64.4
Office	9,192	162.1	4015	97.7	43.7	60.2
Retail	18,121	168.6	9100	104.5	50.2	62.0
Multi Property	2,541	94.6	1017	43.8	40.0	46.3
Other	5,923	41.0	2259	17.9	38.1	43.7
Aggregate	**54,079**	**601.9**	**23,367**	**333.7**	**43.2**	**55.4**

Source: Deutsche Bank

V. Equity Deficiency and Losses from Maturity Defaults

This section presents our estimates on both equity deficiency and maturity default-related losses. The equity deficiency in a given loan represents the amount of additional equity the borrower would have to inject in order for the loan to meet the 70 LTV hurdle. Losses estimates are calculated in two alternative ways. In the first method—Scenario 1—we assume that for any loan with less than a 100 LTV, the borrower puts in the additional equity, and there is no maturity default. For loans with greater than 100 LTV, the loss is calculated by subtracting 90% of the property value from the maturing loan balance. In the second method—Scenario 2—we assume that the borrower does not put up additional equity for loans having less than 100 LTV. The difference between these two approaches is that loans with less than 100 LTV cannot have losses under Scenario 1, while they can under Scenario 2. Thus, Scenario 1 is more conservative in the sense of producing lower losses.

In both calculations we use 90% of the estimated property value in order to account for:

1. The (quite significant) transactions costs associated with foreclosing upon and liquidating property, and

2. The fact that the liquidations will be taking place in an extremely stressed commercial real estate environment.

We believe that taking 90% of the property value is extremely conservative in this situation.

Figure 17 presents our basic results under NOI Scenario 1. The results are given by CMBS deal vintage. We present, first, maturity default-related loss estimates for loans maturing between 2009 and 2012 and second from all loans.

Figure 17: Estimated equity deficiency and maturity default-related loss rates: NOI Scenario 1

				Scenario 1: Equity Infusions for LTV < 100		Scenario 2: Zero Equity Infusions	
Vintage	# of Deals	Aggregate Balance ($BB)	Avg Equity Deficiency Rate	Avg Loss Rate Through 2012	Avg Loss Rate Lifetime	Avg Loss Rate Through 2012	Avg Loss Rate Lifetime
2000	32	19.4	4.0	1.5	1.5	2.3	2.3
2001	38	27.1	5.6	1.8	1.8	2.8	2.8
2002	38	27.5	6.4	2.1	2.1	2.7	2.7
2003	47	42.2	7.4	2.2	2.3	2.8	2.9
2004	60	64.8	9.0	1.1	2.8	1.3	3.3
2005	63	130.8	13.5	1.8	4.6	2.0	5.2
2006	64	159.6	15.5	1.9	5.8	2.2	6.5
2007	61	190.0	23.7	4.0	12.5	4.1	13.2
2008	8	10.7	12.5	3.0	5.8	3.0	6.1
Aggregate	**411**	**672.0**	**15.1**	**2.4**	**6.5**	**2.7**	**7.2**

Source: Deutsche Bank

Under the more conservative approach, estimated losses are nearly $44 billion, or 6.5% of the total outstanding balance. Under the alternative method, estimated losses are almost $49 billion, or 7.2%. By far the worst vintage is 2007, not surprising. What is surprising is how much worse the 2007 vintage is than either the 2005 or 2006 vintages.

Also interesting is the magnitude of the average equity deficiency. For the 2005-2008 vintages, the average equity deficiency ranges from 12% to nearly 24%. And this excludes subordinates debt!

The results are presented again in Figure 18 under the milder NOI Scenario 2.

Figure 18: Estimated equity deficiency and maturity default-related loss rates: NOI Scenario 1

				Scenario 1: Equity Infusions for LTV < 100		Scenario 2: Zero Equity Infusions	
Vintage	# of Deals	Aggregate Balance ($BB)	Avg Equity Deficiency Rate	Avg Loss Rate Through 2012	Avg Loss Rate Lifetime	Avg Loss Rate Through 2012	Avg Loss Rate Lifetime
2000	32	19.4	3.8	1.4	1.4	2.2	2.2
2001	38	27.1	4.7	1.5	1.5	2.5	2.5
2002	38	27.5	4.5	1.6	1.6	2.1	2.1
2003	47	42.2	5.1	1.5	1.6	2.1	2.1
2004	60	64.8	7.0	0.9	2.0	1.1	2.5
2005	63	130.8	11.2	1.3	3.4	1.5	3.9
2006	64	159.6	13.4	1.4	4.5	1.6	5.2
2007	61	190.0	22.2	3.4	11.2	3.5	11.8
2008	8	10.7	11.3	2.1	4.6	2.2	5.1
Aggregate	**411**	**672.0**	**13.3**	**1.9**	**5.4**	**2.2**	**6.1**

Source: Deutsche Bank

Finally, for each 2005-2008 vintage fixed rate conduit deal, we present both estimated average equity deficiency and losses. See Figures 19-22.

Figure 19: Estimated equity deficiency and losses for 2005 Vintage: NOI Scenario 1

		Scenario 1: Equity Infusions for LTV < 100		Scenario 2: Zero Equity Infusions	
Deal Name	Equity Deficiency	Loss % (Through 2012)	Loss % (Lifetime)	Loss % (Through 2012)	Loss % (Lifetime)
BACM0501	14.98	3.20	5.04	3.30	5.24
BACM0502	21.50	5.29	10.07	5.29	10.45
BACM0503	14.76	3.33	4.61	4.18	5.52
BACM0504	13.29	0.86	3.89	0.96	4.22
BACM0505	15.57	5.18	7.71	5.18	7.81
BACM0506	7.50	0.30	2.19	0.30	2.33
BSC05P10	13.79	0.85	6.44	0.94	6.56
BSC05PW7	11.79	1.58	3.81	1.66	4.22
BSC05PW8	7.62	0.30	2.56	0.30	2.76
BSC05PW9	14.83	3.72	5.50	4.17	6.19
BSC05T18	3.87	0.00	0.47	0.01	0.52
BSC05T20	6.52	0.10	0.65	0.32	1.41
CD05CDC1	14.39	1.02	3.56	1.18	4.06
COM05C06	14.03	0.96	4.44	1.19	4.76
COM05LP5	10.53	1.70	3.09	2.04	3.77
CSF05C01	11.14	0.70	2.55	0.85	3.38
CSF05C02	17.14	3.43	5.77	3.52	7.74
CSF05C03	16.47	1.36	6.08	2.26	7.60
CSF05C04	9.00	0.02	1.54	0.03	2.26
CSF05C05	10.83	0.76	2.52	0.78	3.00
CSF05C06	15.22	0.81	6.05	1.33	6.93
CTG05C03	14.45	0.85	5.12	1.08	5.94
CTG05EMG	2.84	1.04	1.04	1.51	1.51
GCC05GG3	14.39	2.57	4.07	2.77	4.89
GCC05GG5	18.57	3.60	5.25	4.15	6.91
GECC05C1	11.99	1.96	3.11	2.06	3.40
GECC05C2	16.84	6.78	8.44	6.86	8.79
GECC05C3	13.99	2.05	4.73	2.16	5.11
GECC05C4	12.83	0.08	3.38	0.42	4.04
GMAC05C1	13.28	1.14	2.98	1.89	3.97
GSM205G4	16.13	1.98	5.75	2.11	6.66
JPC05C11	12.18	2.31	3.62	2.56	4.33
JPC05C12	12.12	2.39	4.19	2.52	4.45
JPC05C13	17.54	3.39	7.41	3.48	7.68
JPC05LD1	12.04	2.32	4.03	2.56	4.36
JPC05LD2	15.56	3.05	5.85	3.19	6.34
JPC05LD3	15.54	2.49	5.47	2.81	6.26
JPC05LD4	14.65	2.37	4.89	2.42	5.19
JPC05LD5	10.73	0.84	2.76	1.36	3.45
LBUB05C1	11.87	0.89	2.58	1.21	3.36
LBUB05C2	15.43	0.59	3.59	1.27	4.74
LBUB05C3	11.82	1.91	4.09	1.95	4.37
LBUB05C5	21.58	0.77	12.51	0.87	12.63
LBUB05C7	13.70	2.09	7.48	2.24	7.84
MLT05CK1	10.38	0.33	1.69	0.41	2.20
MLT05CP1	12.86	2.45	5.13	2.46	5.25
MLT05LC1	10.45	0.56	1.75	0.57	1.97
MLT05MC1	14.70	1.71	5.42	2.05	6.46
MLT05MK2	7.62	0.35	2.01	0.35	2.16
MSC05HQ5	12.48	0.48	3.24	1.45	4.93
MSC05HQ6	21.78	0.91	9.30	1.57	10.57
MSC05HQ7	12.65	0.17	4.43	0.24	4.87
MSC05I10	18.05	7.73	11.32	7.73	11.71
MSC05IQ9	14.30	1.79	4.34	2.16	5.67
MSC05T17	5.31	0.07	0.18	0.07	0.21
MSC05T19	8.34	0.41	1.45	0.47	2.30
WBC05C16	8.92	0.29	2.78	0.38	3.12
WBC05C17	12.04	0.39	3.50	0.69	4.04
WBC05C18	14.81	2.29	4.56	2.51	5.12
WBC05C19	18.10	4.52	7.70	4.70	8.00
WBC05C20	12.51	2.45	3.66	2.57	4.00
WBC05C21	12.06	0.26	2.96	0.31	3.30
WBC05C22	11.85	0.21	2.69	0.22	3.27

Source: Deutsche Bank

Figure 20: Estimated equity deficiency and losses for 2006 Vintage: NOI Scenario 1

		Scenario 1: Equity Infusions for LTV < 100		Scenario 2: Zero Equity Infusions	
Deal Name	**Equity Deficiency**	**Loss % (Through 2012)**	**Loss % (Lifetime)**	**Loss % (Through 2012)**	**Loss % (Lifetime)**
BACM0601	9.72	0.99	1.84	2.48	3.40
BACM0602	14.17	0.96	3.49	1.12	4.44
BACM0603	16.63	0.97	5.12	0.97	5.84
BACM0604	13.57	2.88	4.54	3.04	5.20
BACM0605	11.37	0.41	2.70	0.65	3.17
BACM0606	25.45	13.11	13.64	13.11	14.23
BSC06P11	9.64	0.00	0.74	0.00	1.61
BSC06P12	8.61	0.28	2.27	0.28	2.49
BSC06P13	11.10	1.11	3.49	1.12	3.79
BSC06P14	13.01	2.71	5.58	2.73	5.76
BSC06T22	4.97	0.13	1.60	0.20	1.80
BSC06T24	11.32	1.36	2.38	1.49	2.96
CD06CD2	15.29	2.92	5.40	2.94	5.67
CD06CD3	11.71	0.24	3.84	0.26	4.34
COB06C01	16.45	3.77	7.41	3.78	8.14
COM06C07	9.80	0.21	2.53	0.22	2.89
COM06C08	23.46	3.07	8.82	9.59	15.43
CSM06C01	11.97	2.41	3.99	2.41	4.89
CSM06C02	14.92	0.29	3.09	0.29	4.12
CSM06C03	20.80	0.05	8.79	0.07	9.91
CSM06C04	21.24	0.63	9.46	0.63	10.10
CSM06C05	16.61	1.34	8.29	1.39	8.86
CSM06K01	7.43	3.13	3.31	3.16	3.34
CTG06C04	10.78	1.65	3.14	1.67	3.46
CTG06C05	13.47	1.09	5.13	1.18	5.44
GCC06GG7	20.21	2.67	7.30	2.69	8.24
GECC06C1	10.74	0.00	2.84	0.02	2.96
GMAC06C1	12.47	0.69	3.83	0.69	4.11
GSM206G6	17.86	4.00	7.41	4.32	7.88
GSM206G8	23.31	2.56	8.75	2.75	9.44
JPC06C14	12.13	0.49	2.95	0.76	3.43
JPC06C15	17.17	0.57	5.81	0.57	6.01
JPC06C16	9.01	0.00	2.65	0.00	3.00
JPC06C17	17.32	0.81	5.49	0.87	6.26
JPC06LD6	10.27	0.71	2.26	0.84	3.68
JPC06LD7	13.30	0.52	3.49	0.68	4.26
JPC06LD8	19.00	0.42	7.25	0.44	9.41
JPC06LD9	22.97	3.91	12.35	4.18	12.86
LBUB06C1	10.28	1.37	3.61	1.75	4.00
LBUB06C3	13.34	5.02	6.82	5.02	6.91
LBUB06C4	19.87	1.33	10.02	1.33	10.10
LBUB06C6	16.46	2.28	5.63	2.42	6.09
LBUB06C7	18.73	3.21	5.37	3.48	6.33
MA111PA2	0.00	0.00	0.00	0.00	0.00
MLCF0601	9.23	0.26	2.20	0.29	2.37
MLCF0602	6.82	0.22	1.61	0.23	1.91
MLCF0603	9.67	0.16	1.96	0.65	2.80
MLCF0604	23.44	4.12	9.34	4.23	9.89
MLT06C01	14.61	0.32	5.52	0.55	6.26
MLT06C02	9.55	0.04	1.64	0.04	2.27
MSC06H10	13.18	0.11	5.07	0.11	5.16
MSC06HQ8	15.96	0.12	6.25	0.32	7.14
MSC06HQ9	16.85	2.87	6.79	2.87	6.85
MSC06I11	4.00	0.00	0.50	0.00	0.63
MSC06I12	18.52	7.15	10.33	7.42	11.36
MSC06T21	8.02	0.35	1.76	0.44	1.96
MSC06T23	8.72	0.16	0.98	0.33	1.69
WBC06C23	14.86	0.16	5.64	0.18	6.42
WBC06C24	13.60	0.00	4.73	0.00	4.91
WBC06C25	9.01	0.42	1.20	0.43	1.62
WBC06C26	20.18	7.88	11.85	7.88	12.16
WBC06C27	18.21	2.58	7.35	2.70	8.07
WBC06C28	23.70	3.69	10.24	3.73	11.55
WBC06C29	21.16	1.59	7.45	2.08	9.01

Source: Deutsche Bank

Figure 21: Estimated equity deficiency and losses for 2007 Vintage: NOI Scenario 1

		Scenario 1: Equity Infusions for LTV < 100		Scenario 2: Zero Equity Infusions	
Deal Name	Equity Deficiency	Loss % (Through 2012)	Loss % (Lifetime)	Loss % (Through 2012)	Loss % (Lifetime)
BACM0701	22.59	9.00	12.08	9.00	12.81
BACM0702	31.20	13.87	17.69	13.88	18.13
BACM0703	32.92	7.31	18.45	7.49	19.30
BACM0704	20.49	0.72	8.56	0.76	8.91
BACM0705	20.33	1.37	9.12	1.44	9.98
BSC07P15	18.00	0.87	7.15	0.87	7.68
BSC07P16	15.24	3.91	6.93	4.16	7.24
BSC07P17	17.14	1.23	5.44	1.36	6.15
BSC07P18	10.98	0.38	1.88	0.40	2.46
BSC07T26	9.70	0.88	3.28	1.00	3.70
BSC07T28	11.15	0.26	2.19	0.36	2.76
CD07CD4	22.35	4.96	11.94	4.96	12.49
CD07CD5	14.05	2.75	5.25	2.78	5.84
COB07C02	16.59	0.81	6.03	0.81	6.23
COB07C03	28.41	1.60	16.27	1.66	16.74
COM07C09	12.77	0.87	3.62	1.01	4.30
CSM07C01	23.51	0.93	13.73	1.01	14.23
CSM07C02	32.30	1.46	19.36	1.54	19.69
CSM07C03	24.93	3.69	13.04	3.79	13.76
CSM07C04	31.61	6.63	21.02	6.65	21.38
CSM07C05	26.26	5.16	15.12	5.19	15.64
CTG07C06	21.46	0.89	6.56	0.90	9.95
GCC07G11	26.92	7.38	15.31	7.38	15.78
GCC07GG9	26.51	4.87	11.64	4.94	12.98
GECC07C1	30.27	8.08	18.15	8.14	18.78
GS207G10	37.58	2.90	23.72	3.02	24.44
JPC07C01	9.42	0.15	2.80	0.28	2.96
JPC07C18	14.55	0.24	4.81	0.25	5.93
JPC07C19	19.83	0.68	8.41	1.35	9.74
JPC07C20	12.63	0.77	4.36	0.77	4.64
JPC07L10	27.78	5.77	15.85	5.87	16.25
JPC07L11	26.58	6.33	13.80	6.39	14.11
JPC07L12	24.79	4.85	11.78	5.13	12.50
LBC07C03	27.14	8.52	17.42	8.60	17.67
LBUB07C1	30.63	3.80	16.31	3.82	17.48
LBUB07C2	20.59	1.56	9.84	1.60	10.40
LBUB07C6	19.70	5.97	10.05	5.97	10.50
LBUB07C7	17.34	2.29	8.12	2.29	8.36
MLCF0705	25.11	0.92	13.73	1.02	14.36
MLCF0706	21.50	3.52	8.18	3.81	9.06
MLCF0707	21.27	3.74	10.33	3.81	10.80
MLCF0708	11.43	0.36	3.87	0.36	4.27
MLCF0709	16.30	0.74	6.78	0.78	7.28
MLT07C01	20.45	4.70	8.71	4.71	9.35
MSC07H11	26.19	6.19	14.64	6.20	14.79
MSC07H12	38.35	17.46	25.48	17.47	25.86
MSC07H13	22.08	4.93	10.32	4.93	11.10
MSC07I13	20.75	4.01	12.49	4.01	12.74
MSC07I14	23.79	7.10	12.29	7.10	12.64
MSC07I15	17.59	1.61	4.35	2.19	5.33
MSC07I16	12.71	1.96	4.04	1.96	4.25
MSC07T25	13.47	0.09	5.16	0.09	5.70
MSC07T27	12.74	0.75	2.85	0.85	3.44
PFCR07PL	0.00	0.00	0.00	0.00	0.00
SVG07C01	20.25	5.91	7.82	7.03	9.07
UCB07001	1.93	0.56	0.68	0.60	0.74
WBC07C30	36.21	6.44	25.76	6.49	25.98
WBC07C31	30.64	3.41	19.21	3.48	19.43
WBC07C32	33.21	7.80	20.03	7.80	20.41
WBC07C33	31.82	5.23	23.46	5.24	23.72
WBC07C34	16.12	2.95	9.64	2.95	10.10

Source: Deutsche Bank

Figure 22: Estimated equity deficiency and losses for 2008 Vintage: NOI Scenario 1

		Scenario 1: Equity Infusions for LTV < 100		Scenario 2: Zero Equity Infusions	
Deal Name	Equity Deficiency	Loss % (Through 2012)	Loss % (Lifetime)	Loss % (Through 2012)	Loss % (Lifetime)
BACM0801	12.40	0.00	7.11	0.04	7.37
CLT08LS1	14.57	0.54	5.28	0.58	6.24
CSM08C01	26.62	13.11	16.97	13.11	17.68
CTG08C07	15.57	5.58	7.44	5.58	7.74
JPC08C02	7.08	2.55	2.73	2.55	2.74
LBUB08C1	4.86	0.00	1.61	0.00	1.62
MLT08C01	10.23	2.92	4.12	2.96	4.22
MSC08T29	7.16	0.29	2.28	0.29	2.32

Source: Deutsche Bank

VI. Concluding Remarks

In this report we have argued that a very large proportion of outstanding commercial mortgages are likely to be unable to refinance at maturity over the coming five to ten years. We have provided what we believe are conservative estimates of the magnitude of the equity deficiency as well as maturity default-related losses.

To date, many market participants have dismissed the seriousness of the future refinancing issue, believing that lenders will simply agree to maturity extensions for loans that fail to qualify. Such an approach might prove fruitful were the percentage of loans failing to qualify relatively small, say five percent of the total. However, our analysis suggests that that percentage is likely to be 60-70% or more.

The underlying premise of a maturity extension as a solution to a loan's qualifying problem is that during the extension period the lender is either able to increase the amortization on the loan by some means (e.g. increasing the interest rate and using the extra cash flow to accelerate the pay down of the loan) or able to achieve value growth sufficient to allow the loan to qualify by the end of the extension period. With respect to the first possibility, we have seen that the equity deficiency for many loans is enormous, far too large, in fact, to be tackled by accelerating the amortization over a moderate period of time. With respect to value growth, we think that with hundreds of billions of dollars of distressed mortgages building up over time via maturity extensions, the likelihood of significant property price appreciation is remote. After all, hundreds of billions of dollars of extended mortgages represent potentially hundreds of billions of dollars of distressed real estate ready to flood the market.

In our view, the belief that maturity extensions present any sort of real solution is naïve. In fact, maturity extensions do little more than push the problem down the road. Moreover, those counting on maturity extensions to save the day may be in for a rude awakening, at least in CMBS. Here, not only are special servicers typically limited to granting at most two to four year maturity extensions, but AAA investors are already mobilizing to stanch any move to widespread extensions as a means of dealing with the refinancing problem.

Finally, there is also the view that the refinancing problem could fix itself. The argument appears to be that commercial real estate cash flows are likely to rebound quickly as the economy begins to improve due to pent-up demand. We do not find this argument particularly compelling. As we noted earlier in the report, even if cash flows were to recover to their peak 2007 levels, values would still be down 25-35% as a result of the paradigm shift in financing terms. It would require cash flows rebounding far beyond their peak levels to push values up sufficiently to overcome the steep declines. In our view, this is tantamount to predicting that the market will be saved by the next rent bubble.

Appendix 1

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6 May 2009

CMBS Research

Special Report

TALF for New Issue CMBS: Fed Releases Terms

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On Friday, May 1st, the Fed finally announced the long-awaited details for the expansion of TALF to commercial mortgage-backed securities. To the surprise of the market, however, details were released for TALF for new issue CMBS, not legacy securities, as had been expected. The market immediately sold off in dramatic fashion, with CMBX AAA indices widening 60-65bp. Much of this move was undone Monday as the indices tightened back 40bp.

This report summarizes the terms and conditions of TALF for new issue CMBS and examines whether they are likely to be sufficient to encourage new lending to emerge. Our conclusions are as follows:

1. The TALF terms for new issue CMBS appear to be less compelling than for the existing new issue consumer ABS program. In the worst case scenario where the investor exercises the put option at the maturity of the TALF loan term, investment ROEs are likely to be significantly negative.

2. Assuming that TALF investors will require at least a mid teens ROE on their investments, the minimum coupon at which commercial mortgage loans would have to be originated is sufficiently high that, in our view, there would be limited appetite on the part of borrowers.

3. Thus, the initial terms for TALF for new issue CMBS appear unlikely to be sufficient to bring many participants, either borrowers or investors, to the table.

4. On the other hand, the basic structure is promising. It is our hope that the terms can be modified to the extent necessary to make this program successful in helping to re-start lending to the commercial real estate sector.

5. We view the resuscitation of the commercial real estate finance market as a critical step not only for the commercial real estate sector, but for banks, which have $2 trillion of commercial real estate loans on their balance sheets.

We begin with a summary of the terms and conditions of the TALF for new issue CMBS program.

Qualifying securities and assets

- Qualifying securities

Qualifying securities include only cash bonds issued after January 1, 2009. The securities must carry a 'AAA' rating without the benefit of a third-party guarantee or on credit watch for downgrade. There must be no other AAA class senior to this class. The securities must receive both interest and principal payments, in other words, neither IO nor PO securities are eligible. Agency issued securities are not eligible for TALF either.

- Qualifying assets

Qualifying assets include amortizing, fixed-rate first mortgages originated on or after July 1, 2008. The FRBNY particularly requires that loans be underwritten based on in-place revenue and expenses only.

- Pooling and Servicing Agreements

Appraisal reduction amounts ("ARA") have been introduced as new triggers in the Pooling and Servicing Agreements ("PSA"). In particular, time-tranched AAA bonds will receive pro rata principal allocations once the credit support is reduced to zero as a result of actual realized losses and ARA. ARA is also introduced in the determination of "directing certificateholder". The shift of control over the servicing of the assets will be triggered once the principal balance of the junior class is reduced to less than 25% of its initial principal balance as a result of both actual realized losses and ARA.

When it comes to post-securitization property appraisals, the FRBNY requires that the appraisals will only be recognized if they are ordered by the servicer. But the FRBNY doesn't specify whether the servicer is master serivicer or special servicer.

Loan term highlights

The FRBNY retains the right to reject any CMBS as TALF loan collateral based on its risk assessment. Each CMBS TALF loan will have either a three-year or five-year term. The financing rate on three-year loans will be 100bp over three-year swap rate, while that on five-year loans will be 100bp over five-year swap rate.

The collateral haircut for CMBS bonds with average lives of five years or less will be 15%. For CMBS bonds with average lives in excess of five years, the haircut will increase by one percent for each additional year of average life beyond five years. No CMBS security may have an average life beyond ten years.

Loan paydown/ amortization features

There are two features of TALF loans that are likely to give rise to paydowns over time. The first is related to principal paydowns on the underlying CMBS security, while the second is related to a turbo paydown feature tied to interest payments from the security.

- Paydowns from principal payments

The New York Fed states that "*Any remittance of principal on the CMBS must be used immediately to reduce the principal amount of the TALF loan in proportion to the TALF advance rate.*" For example, if the initial haircut is, say, 15%, then 85% of any principal payment on the security will be used to pay down the loan and 15% will go to the investor (i.e. TALF borrower).

- Paydowns from interest payments (Turbo paydown feature)

The most unusual and unexpected feature of the TALF terms and conditions is that net interest payments in excess of a specified amount will be used to accelerate the paydown of the loan relative to the paydown of the CMBS security. Specifically, the net interest payments (i.e. the interest received from the CMBS security minus the interest due on the TALF loan) to the investor are capped at 25% of the haircut amount (i.e. equity contribution) during the first three years of the loan term, 10% in the fourth year and 5% in the fifth year. This effectively capped the cumulative net interest payout during the five years at 90% of the equity contribution, and any interest payments in excess of the caps will be used to pay down the TALF loan. This "turbo" feature ensures that the investors will have "skin in the game" through the TALF loan term.

The turbo feature also has implications on the coupon rates and ultimately the loan rates on the pooled mortgages. Given the five year swap rate of 2.6% on May 5th, we calculate that any coupon higher than 6.8% will trigger the turbo feature during the first three years of the TALF loan.

In general, the turbo feature reduces the ROE for investors. In order to gauge the magnitude of the impact, consider a simplified example with a non-amortizing 'AAA' security that is purchased at par with the maximum leverage under the TALF program. Assume the bond is either sold at par or the principal is fully paid back exactly on the maturity date of the TALF loan. In order to achieve a 20% ROE, the required coupon rate for the AAA security would be 5.84% in the absence of the turbo feature. With this coupon and the turbo feature, the ROE declines to 19.4%. The difference is small in this example because the coupon rates are both below 6.8%, and thus the turbo feature is only triggered in the last two years. Using an 8% coupon, the ROE would be 38.1% without the turbo and 31.7% with the turbo.

An alternative way of looking at this issue is that for a given required investment ROE, the addition of the turbo feature raises the required AAA coupon rate, which in turn increases the required rate on the underlying commercial mortgages.

Worst case scenario: ROEs under exercise of put at TALF loan maturity[1]

In terms of TALF investment performance, the worst case ROE corresponds to the situation where the terminal market value of the CMBS security is below the TALF loan balance at maturity. In this case, we assume that an investor will exercise the put option. The ending balance of the TALF loan is, in effect, the strike of the put option–if the CMBS security value is below this level, the put is exercised. Figure 1 presents, for a given bond coupon rate, the maximum market value of the CMBS security under which the put is exercised (i.e. the put strike) and the ROE on the TALF investment under this scenario. For example, with a 6% AAA coupon, the investor exercises the put at maturity if the value of the CMBS security is below 81, in which case the investment ROE is -13.6%.

Figure 1: Worst case ROEs and put option strike prices

Bond Coupon	5.0%	6.0%	7.0%	8.0%	9.0%	10.0%
Put Option Strike Price	83	81	79	73	68	62
ROE Under Put Exercise	-22.8%	-13.6%	-5.3%	-5.3%	-5.3%	-5.3%

Source: Deutsche Bank

[1] We assume throughout this report that neither losses nor appraisal reductions in the CMBS collateral pool are high enough to affect the AAA class during the five-year TALF loan. Clearly, absent this, the worst case scenario is for all underlying loans to default immediately with 100% loss severity.

Figure 1 indicates that, due to the turbo feature, the worst case ROE never becomes positive as the bond coupon increases, but rather reaches a ceiling of -5.3%. The reason is that once the coupon rate passes the 6.8% hurdle, the "turbo" feature will be triggered through the entire TALF loan term. In this case, when an investor decides to walk away, the cash flow will be capped at 90% of the equity investment so the ROE will be a constant -5.3% no matter how high the coupon is. In other words, an investor will prefer a coupon rate at or above 6.8% which will provide a floor of -5.3% on its ROE.

Figure 2 presents the CMBS security price at TALF loan maturity that produces a 0% ROE for a given AAA bond coupon. For example, when the bond coupon is 8%, the investor can realize above 0% ROE if the value of the CMBS security is higher than 75 cents on the dollar. Notice that the 0% ROE value is higher than the strike price given a coupon rate.

Figure 2: CMBS market values producing 0% ROEs for given AAA coupon rates

Bond Coupon	5.0%	6.0%	7.0%	8.0%	9.0%	10.0%
Terminal Security Value Producing 0% ROE	90	85	80	75	69	64

Source: Deutsche Bank

Base case scenario

Moving away from worst case scenarios, Figure 3 presents ROEs for more realistic levels of AAA coupons and security market values at the TALF loan maturity. ROEs in the mid teens are clearly achievable.

Note that for AAA coupons above, say, 7%, the interest rates on the underlying mortgages would have to be so high (due to the cost of financing the below-AAA classes) that few borrowers would be interested. This issue is discussed in greater detail in the following section.

Figure 3: Base case ROEs for given CMBS market values and AAA coupon rates

AAA Coupon\Terminal Security Value	90	100
5%	-0.9%	13.3%
6%	8.6%	20.5%
7%	17.4%	27.5%

Source: Deutsche Bank

Expected impact on new issuance

For a particular combination of ROE and terminal CMBS security value, Figure 4 presents the implied AAA coupon. Commercial real estate borrowers have typically shown little interest in borrowing at rates in excess of 8-9%, so a necessary condition for the viability of TALF is a AAA coupon consistent with mortgage rates of no more than 8-9%. Even if we make very conservative assumptions on the deal structure with 20% subordination, 20% yield on the below-AAA component of the deal and zero issuer profit, the AAA coupon rate needs to be lower than approximately 6.5% to originate loans with a mortgage rate lower than 9%. The shaded portion of Figure 4 shows those combinations of ROEs and terminal security values consistent with mortgage rates of 9% and below. The question is whether a sufficient number of TALF investors will be willing to participate in these ranges.

Figure 4: Implied AAA bond coupon rates given ROEs and terminal security values

ROE\Terminal Security Value	70	75	80	85	90	95	100
0%	8.9%	8.0%	7.1%	6.1%	5.1%	4.1%	3.1%
2%	9.1%	8.1%	7.2%	6.3%	5.3%	4.3%	3.4%
5%	9.3%	8.4%	7.4%	6.5%	5.6%	4.7%	3.8%
10%	9.8%	8.8%	7.9%	7.0%	6.2%	5.3%	4.5%
15%	10.4%	9.4%	8.5%	7.6%	6.7%	6.0%	5.2%
20%	11.1%	10.2%	9.3%	8.3%	7.4%	6.6%	5.9%
25%	12.0%	11.1%	10.2%	9.3%	8.3%	7.4%	6.6%
30%	13.2%	12.2%	11.3%	10.4%	9.4%	8.5%	7.6%

Source: Deutsche Bank

Conclusion

While the TALF for new issue CMBS program is clearly a promising start, we believe that the terms and conditions are not yet such that wide scale participation by either investors or borrowers is likely. That said, we remain optimistic that a workable solution exists and will be the end result of the enormous effort that has already gone into this work.

Appendix 1

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CMBS Research

Special Report

TALF for Legacy CMBS: Fed Releases Terms

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The Federal Reserve released the terms and conditions for the TALF for Legacy CMBS program on May 19th. While many terms of the TALF for New Issue CMBS program were carried over to the Legacy program, there were also some important new features. Excluded from TALF-eligibility are the following:

- Both mezzanine and junior AAA classes (AMs and AJs)
- Floating rate CMBS
- Agency CMBS
- Interest-only securities

However, the most interesting term, in or view, is the following:

- The Fed retains the right to reject any CMBS bond for TALF-eligibility

Moreover the Fed intends to engage a collateral monitor to evaluate credit risk in securities and verify pricing. In our view, the Fed approach to TALF-eligibility is likely to push the CMBS market towards more efficient pricing with respect to credit risk, as well as prevent the TALF for Legacy CMBS program from racking up large losses for tax payers.

Under the terms of the program, investors might reasonably achieve ROEs in the 20-30% range assuming that market prices at the maturity of the TALF loan do not erode severely. The opportunities, in our view, look very attractive. We also believe that there is room for further tightening in decent quality super duper AAAs, though we are wary of AAAs from poorer quality deals as they may prove ineligible for TALF.

In reaction to the announcement, cash super duper AAAs tightened approximately 75bp, while the impact on AJs and AMs was more muted. We expect both of these excluded classes to underperform good quality super duper AAAs in the near-term, particularly as both experienced 10+ point rallies over the past month.

Review of Terms and Conditions

The Federal Reserve Bank of New York released the very long-awaited terms for TALF for Legacy CMBS on May 19th. Overall, we view the sophistication of the Legacy CMBS program to be a big step forward relative to the existing TALF for ABS program. The Fed clearly understands the differences between credit risk in AAA CMBS securities and AAA credit card/ student loan securities, and has designed a program that will potentially avoid saddling tax payers with heavy losses. The program is also likely to push the CMBS market towards more efficient pricing of credit risk.

This report is organized as follows. We begin by reviewing the main terms and conditions that were announced for TALF for Legacy CMBS. Next, we present the results of a simple scenario analysis, exploring the achievable ROEs for investors participating in the program. Finally, we discuss our views of the program. We speculate about why the Fed included specific features, and what it is trying to achieve.

Eligible CMBS Securities

TALF for Legacy CMBS imposes the following eligibility constraints on CMBS securities:

- Must be U.S. dollar-denominated, cash securities issued prior to January 1, 2009
    - No synthetic CMBS
    - No commercial real estate CDOs
    - No balance-guaranteed CMBS securities
- Must have a credit rating in the highest rating category (AAA) from at least two TALF for Legacy CMBS-eligible rating agencies (i.e. Moody's, S&P, Fitch, DBRS and Realpoint)
- Upon issuance, must not have been junior to any other securities with claims on the same pool of loans
    - No Mezzanine or junior AAA classes (i.e. AMs or AJs)
- No interest-only or principal-only securities
- No floating rate CMBS
- No agency CMBS (e.g. Fannie Mae Dus bonds)
- Security's rating must not rely on a third-party guarantee

FRBNY Discretionary Eligibility Criterion

The Fed reserves the right to reject any CMBS security for TALF. They indicate that a rejection may be based upon various measures of "unacceptable" collateral performance, including high cumulative loss, high percentage of specially serviced loans, high percentage of watch-listed loans, high percentage of loans with B-notes and/or mezzanine loans and forecasts of high future defaults and losses (presumably from some parametric model). Figures 3-6 present the current percentages of delinquent loans, specially serviced loans and watch-listed loans for each fixed rate CMBS deal, for each vintage from 2005 through 2008. We regard the Fed's ability to reject CMBS securities unilaterally as one of the most important aspects of the program. We explore this feature and its potential impact in the last section of the report.

Timing

First subscription date is expected to be in late July (the exact date to be announced shortly)

Financing Terms

- 3-year or 5-year loans
- Financing rates:
  - 3-year loan: fixed rate at 3yr swaps + 100bp
  - 5-year loan: fixed rate at 5yr swaps + 100bp
- Haircuts
  - To be calculated as percentage of par, not market price
  - 15% of par plus 1% for each year that WAL exceeds 5 years (e.g. 17% for a bond with WAL of 7 years)
  - Proceeds are equal to the market price of security minus the haircut (e.g. for a security with a market price of 85 and a WAL of 7 years, the proceeds are equal to 85-17=68)
  - It is stated that the Fed may make adjustments to the WAL calculation to reflect "default-related circumstances". This seems odd to us. Term default-related losses generally tend to shorten the WAL of AAA classes, so the Fed must have maturity defaults and extensions in mind here. But the TALF program is itself aimed at minimizing extensions by revitalizing the market. Adding features to reduce the impact of extension risk into a program intended to reduce extension risk appears to be self-defeating
- Turbo Amortization Feature
  - 3-year loan: In each of the three years, net interest distributions (i.e. CMBS interest distribution minus interest due on TALF loan) in excess of 30% per annum of the initial haircut (i.e. initial investor equity) will be applied to pay down the TALF loan
  - 5-year loan: In each of the *first* three years, net interest distributions (i.e. CMBS interest distribution minus interest due on TALF loan) in excess of 25% per annum of the initial haircut (i.e. initial investor equity) will be applied to pay down the TALF loan; this cap declines to 10% in year 4 and 5% in year 5

Other

- The TALF borrower must agree not to exercise (or refrain from exercising) any voting, consent or waiver rights without the consent of the Fed
- All settlements must be made through DTC
- The Fed may limit the volume of TALF loans secured by CMBS, and may allocate loans via an auction. How such a process might work is unclear
- The Fed wants TALF to be used for financing "recent secondary market transactions between unaffiliated parties that are executed on an arm's length basis". We interpret this as meaning that the Fed intends TALF to revitalize secondary trading and wants to preclude situations where, for example, a bank with an SIV holding large quantities of eligible AAA CMBS uses TALF for cheap financing.

Potential Investment ROEs

Figures 1 and 2 present the ROEs under the 5-year and 3-year TALF programs. Results are given for various combinations of entry and exit prices, and are based on the COMM 2007-C9 A4 bond.[1]

ROEs assuming a \$80-\$85 initial (entry) price and \$80-\$100 exit price are in the 20-30% range and look quite attractive. The "walk-away" ROEs, however, are in the negative 10-15% range. Depending on the market's view on the likely range of prices at the end of the TALF loan term (i.e. exit price), high quality AAA securities may well have room to rally further. For lower quality AAAs, this is less clear.

Figure 1: ROE given entry/exit price under five-year TALF – COMM 2007-C9 A4

Entry Price\Exit Price	75	80	85	90	95	100	Walk-away*
75	23%	27%	30%	33%	35%	37%	-10%
80	18%	22%	26%	29%	32%	34%	-12%
85	12%	17%	21%	25%	28%	31%	-13%
90	3%	10%	15%	20%	24%	27%	-15%
95	-9%	2%	9%	14%	19%	22%	-16%
100	n/a	-12%	0%	8%	13%	18%	-18%

Source: Deutsche Bank

**ROE numbers are calculated based on compounded monthly IRR*
In the walk-away scenario, we assume that an investor exercises the implied put option at the end of the TALF loan term

Figure 2: IRR given entry/exit price under three-year TALF – COMM 2007-C9 A4

Entry Price\Exit Price	75	80	85	90	95	100	Walk-away*
75	27%	34%	41%	47%	52%	57%	-19%
80	17%	26%	33%	40%	46%	51%	-20%
85	5%	16%	25%	32%	39%	45%	-22%
90	-10%	4%	15%	24%	31%	38%	-23%
95	-40%	-12%	3%	14%	23%	30%	-25%
100	n/a	-43%	-13%	2%	13%	22%	-27%

Source: Deutsche Bank

**ROE numbers are calculated based on compounded monthly IRR*
In the walk-away scenario, we assume that an investor exercises the implied put option at the end of the TALF loan term

Discussion of the Basic Program

The Fed clearly recognizes that credit risk in CMBS securities is quite different than credit risk in credit card and auto loan securities, even at the AAA level. CMBS deals have consistently exhibited extremely wide variation in losses due to the small number of loans and the significant heterogeneity of loans across deals. This, combined with the fact that CMBS market pricing has historically failed to adequately differentiate between bonds of the similar rating but different credit risk, suggests that the Fed could potentially be cherry-picked by investors. This is much less of an issue in consumer ABS where performance tends to be much more homogenous across deals.

TALF for Legacy CMBS appears to be designed to protect against this type of potential problem by allowing the Fed to reject TALF-eligibility for a given bond. The Fed notes that it will engage a "collateral monitor" to assess credit risk and valuations. We believe that the Fed is likely to make use of relatively sophisticated model-based analytics to help in determining TALF-eligibility. In fact, we think the Fed may go one step further and use valuation analytics to determine TALF-eligibility as a function of the combination of credit risk

[1] In calculating the ROEs, we assume 0 CDR and 0 CPR.

and market price. This is entirely reasonable since the Fed's risk of loss from financing even a highly risky bond can be made arbitrarily low simply by agreeing to finance it at a sufficiently low market price. This is just the concept of *effective* subordination. The other great advantage of such a scheme—making TALF eligibility a function of both credit risk and market price—is that it focuses the market on pricing credit risk efficiently. After all, getting the market up and running again and getting it to efficiently price credit risk, are the main objectives of TALF.

We do not expect that the Fed will publish a list of TALF eligible bonds, nor bonds that are TALF eligible at a given price. Nevertheless, to the extent that the Fed uses estimates of credit risk in determining TALF-eligibility, we expect that bonds from middle to high quality deals will outperform relative to bonds from lower quality deals.

When describing the its right to reject TALF-eligibility, the Fed specifically mentioned deals with high exposure to loans with subordinate financing (e.g. B-notes, mezzanine loans) in place. We believe this signals that the Fed is concerned about the heightened credit risk of highly levered loans due to the events surrounding the GGP bankruptcy filing. The more highly levered loan, the greater the risk of the loan sponsor filing for bankruptcy. We also wonder if this played any role in precluding floating rate CMBS, where many loans are highly levered with B-notes and mezzanine debt, from being TALF-eligible.

We were not surprised that mezzanine and junior AAA classes (AMs and AJs) were excluded from the program given the significant credit risk inherent in many of these bonds, particularly the AJs. It seems unlikely to us that the Fed will make them eligible at some future date. Given this, and the fact that both AM and AJ prices have rallied ten points or more over the past month, we would expect them to underperform relative to good quality super duper AAAs.

Overall, the TALF for Legacy CMBS program appears to us to be a well thought out and sophisticated program. Not only is it unlikely to saddle tax payers with heavy losses, but it may well push the CMBS market towards more efficient pricing of credit risk. On the other hand, the price of such sophistication is that it will likely take time to get the program up and running. We think that it is overly optimistic to expect the program to be going by late July. Many of the operational details have yet to be released. Simply selecting the collateral monitor(s) and getting them up and running could take a significant amount of time.

Figure 3: Ranking performance data for the 2005 vintage

Deal Name	Total Delinquency %	Rank	Deal Name	Perf Spec Serv. %	Rank	Deal Name	Watchlist. %	Rank
BACM 2005-1	0.23	11	BACM 2005-1	-	1	BACM 2005-1	14.58	43
BACM 2005-2	-	1	BACM 2005-2	2.17	40	BACM 2005-2	6.58	8
BACM 2005-3	1.91	42	BACM 2005-3	8.60	57	BACM 2005-3	10.30	22
BACM 2005-4	1.22	29	BACM 2005-4	8.11	56	BACM 2005-4	20.02	53
BACM 2005-5	2.50	49	BACM 2005-5	1.94	37	BACM 2005-5	7.74	9
BACM 2005-6	2.45	47	BACM 2005-6	4.79	49	BACM 2005-6	11.68	30
BSCMS 2005-PW10	0.62	19	BSCMS 2005-PW10	-	1	BSCMS 2005-PW10	26.84	63
BSCMS 2005-PWR7	2.63	50	BSCMS 2005-PWR7	-	1	BSCMS 2005-PWR7	13.64	42
BSCMS 2005-PWR8	1.38	30	BSCMS 2005-PWR8	0.30	24	BSCMS 2005-PWR8	13.21	41
BSCMS 2005-PWR9	0.26	12	BSCMS 2005-PWR9	7.89	54	BSCMS 2005-PWR9	15.07	46
BSCMS 2005-T18	0.46	14	BSCMS 2005-T18	0.39	26	BSCMS 2005-T18	5.40	4
BSCMS 2005-T20	0.06	7	BSCMS 2005-T20	-	1	BSCMS 2005-T20	16.02	48
CD 2005-CD1	2.46	48	CD 2005-CD1	3.74	46	CD 2005-CD1	14.98	45
CGCMT 2005-C3	6.11	61	CGCMT 2005-C3	2.05	39	CGCMT 2005-C3	8.37	13
CGCMT 2005-EMG	-	1	CGCMT 2005-EMG	-	1	CGCMT 2005-EMG	8.18	11
COMM 2005-C6	8.11	64	COMM 2005-C6	0.30	24	COMM 2005-C6	6.24	7
COMM 2005-LP5	0.20	10	COMM 2005-LP5	1.53	32	COMM 2005-LP5	16.68	51
CSFB 2005-C1	2.07	43	CSFB 2005-C1	0.89	30	CSFB 2005-C1	24.46	61
CSFB 2005-C2	5.27	60	CSFB 2005-C2	-	1	CSFB 2005-C2	15.73	47
CSFB 2005-C3	2.34	46	CSFB 2005-C3	6.90	52	CSFB 2005-C3	12.15	34
CSFB 2005-C4	3.45	54	CSFB 2005-C4	-	1	CSFB 2005-C4	5.87	6
CSFB 2005-C5	0.78	24	CSFB 2005-C5	0.09	20	CSFB 2005-C5	11.55	27
CSFB 2005-C6	2.21	44	CSFB 2005-C6	5.96	51	CSFB 2005-C6	16.30	50
GCCFC 2005-GG3	0.69	22	GCCFC 2005-GG3	11.16	62	GCCFC 2005-GG3	11.85	31
GCCFC 2005-GG5	0.98	28	GCCFC 2005-GG5	8.96	59	GCCFC 2005-GG5	13.08	38
GECMC 2005-C1	3.77	55	GECMC 2005-C1	10.33	61	GECMC 2005-C1	16.23	49
GECMC 2005-C2	0.49	15	GECMC 2005-C2	1.98	38	GECMC 2005-C2	23.07	58
GECMC 2005-C3	-	1	GECMC 2005-C3	3.95	47	GECMC 2005-C3	11.65	28
GECMC 2005-C4	0.74	23	GECMC 2005-C4	11.91	64	GECMC 2005-C4	9.70	19
GMACC 2005-C1	4.23	56	GMACC 2005-C1	4.44	48	GMACC 2005-C1	12.58	35
GSMS 2005-GG4	0.14	8	GSMS 2005-GG4	1.86	36	GSMS 2005-GG4	20.99	55
JPMCC 2005-CB11	1.65	36	JPMCC 2005-CB11	1.78	35	JPMCC 2005-CB11	8.19	12
JPMCC 2005-CB12	4.57	58	JPMCC 2005-CB12	0.62	28	JPMCC 2005-CB12	8.91	18
JPMCC 2005-CB13	3.10	53	JPMCC 2005-CB13	0.51	27	JPMCC 2005-CB13	23.61	59
JPMCC 2005-LDP1	0.62	19	JPMCC 2005-LDP1	8.85	58	JPMCC 2005-LDP1	9.99	20
JPMCC 2005-LDP2	1.81	40	JPMCC 2005-LDP2	0.25	23	JPMCC 2005-LDP2	14.95	44
JPMCC 2005-LDP3	5.26	59	JPMCC 2005-LDP3	3.12	44	JPMCC 2005-LDP3	20.06	54
JPMCC 2005-LDP4	2.64	51	JPMCC 2005-LDP4	-	1	JPMCC 2005-LDP4	22.64	57
JPMCC 2005-LDP5	4.54	57	JPMCC 2005-LDP5	-	1	JPMCC 2005-LDP5	12.04	33
LBUBS 2005-C1	0.59	18	LBUBS 2005-C1	0.19	22	LBUBS 2005-C1	1.97	1
LBUBS 2005-C2	2.32	45	LBUBS 2005-C2	1.27	31	LBUBS 2005-C2	8.60	14
LBUBS 2005-C3	1.77	39	LBUBS 2005-C3	0.16	21	LBUBS 2005-C3	11.66	29
LBUBS 2005-C5	0.55	16	LBUBS 2005-C5	11.52	63	LBUBS 2005-C5	2.46	2
LBUBS 2005-C7	0.67	21	LBUBS 2005-C7	1.64	33	LBUBS 2005-C7	8.87	16
MLMT 2005-CIP1	1.76	37	MLMT 2005-CIP1	10.14	60	MLMT 2005-CIP1	10.40	23
MLMT 2005-CKI1	1.57	35	MLMT 2005-CKI1	1.68	34	MLMT 2005-CKI1	12.69	36
MLMT 2005-LC1	1.76	37	MLMT 2005-LC1	-	1	MLMT 2005-LC1	22.56	56
MLMT 2005-MCP1	6.30	62	MLMT 2005-MCP1	2.43	41	MLMT 2005-MCP1	10.21	21
MLMT 2005-MKB2	1.40	31	MLMT 2005-MKB2	-	1	MLMT 2005-MKB2	13.18	39
MSC 2005-HQ5	0.92	27	MSC 2005-HQ5	0.73	29	MSC 2005-HQ5	17.23	52
MSC 2005-HQ6	0.55	16	MSC 2005-HQ6	8.05	55	MSC 2005-HQ6	26.82	62
MSC 2005-HQ7	1.89	41	MSC 2005-HQ7	-	1	MSC 2005-HQ7	10.98	25
MSC 2005-IQ10	1.56	34	MSC 2005-IQ10	-	1	MSC 2005-IQ10	31.01	64
MSC 2005-IQ9	1.54	33	MSC 2005-IQ9	7.85	53	MSC 2005-IQ9	12.87	37
MSC 2005-T17	0.83	26	MSC 2005-T17	-	1	MSC 2005-T17	8.82	15
MSC 2005-T19	-	1	MSC 2005-T19	-	1	MSC 2005-T19	8.90	17
WBCMT 2005-C16	-	1	WBCMT 2005-C16	2.89	43	WBCMT 2005-C16	7.83	10
WBCMT 2005-C17	-	1	WBCMT 2005-C17	2.62	42	WBCMT 2005-C17	11.92	32
WBCMT 2005-C18	0.78	24	WBCMT 2005-C18	-	1	WBCMT 2005-C18	11.39	26
WBCMT 2005-C19	0.39	13	WBCMT 2005-C19	-	1	WBCMT 2005-C19	5.82	5
WBCMT 2005-C20	7.06	63	WBCMT 2005-C20	-	1	WBCMT 2005-C20	10.81	24
WBCMT 2005-C21	1.46	32	WBCMT 2005-C21	-	1	WBCMT 2005-C21	5.13	3
WBCMT 2005-C22	2.79	52	WBCMT 2005-C22	3.50	45	WBCMT 2005-C22	13.18	39
WMCMS 2005-C1A	0.17	9	WMCMS 2005-C1A	5.22	50	WMCMS 2005-C1A	23.62	60

Source: Deutsche Bank and Trepp

Figure 4: Ranking performance data for the 2006 vintage

Deal Name	Total Delinquency %	Rank	Deal Name	Perf Spec Serv. %	Rank	Deal Name	Watchlist. %	Rank
BACM 2006-1	3.44	39	BACM 2006-1	2.68	40	BACM 2006-1	7.34	5
BACM 2006-2	1.49	19	BACM 2006-2	6.95	54	BACM 2006-2	11.73	18
BACM 2006-3	7.62	62	BACM 2006-3	1.06	31	BACM 2006-3	19.65	52
BACM 2006-4	1.82	23	BACM 2006-4	0.81	29	BACM 2006-4	16.68	45
BACM 2006-5	3.67	42	BACM 2006-5	7.58	56	BACM 2006-5	11.00	17
BACM 2006-6	0.27	6	BACM 2006-6	0.44	26	BACM 2006-6	42.33	64
BSCMS 2006-PW11	1.05	13	BSCMS 2006-PW11	-	1	BSCMS 2006-PW11	7.68	6
BSCMS 2006-PW12	2.87	32	BSCMS 2006-PW12	0.27	25	BSCMS 2006-PW12	15.81	41
BSCMS 2006-PW13	0.54	7	BSCMS 2006-PW13	1.47	35	BSCMS 2006-PW13	14.96	34
BSCMS 2006-PW14	1.33	17	BSCMS 2006-PW14	4.06	45	BSCMS 2006-PW14	27.97	59
BSCMS 2006-T22	0.20	5	BSCMS 2006-T22	0.21	24	BSCMS 2006-T22	13.94	30
BSCMS 2006-T24	1.75	22	BSCMS 2006-T24	4.28	46	BSCMS 2006-T24	7.01	4
CD 2006-CD2	5.02	51	CD 2006-CD2	-	1	CD 2006-CD2	27.99	60
CD 2006-CD3	3.40	38	CD 2006-CD3	8.74	57	CD 2006-CD3	10.77	15
CGCMT 2006-C4	2.50	28	CGCMT 2006-C4	1.46	34	CGCMT 2006-C4	12.15	22
CGCMT 2006-C5	1.51	20	CGCMT 2006-C5	10.18	60	CGCMT 2006-C5	14.58	33
COMM 2006-C7	0.17	4	COMM 2006-C7	2.78	41	COMM 2006-C7	19.06	51
COMM 2006-C8	6.40	57	COMM 2006-C8	4.99	48	COMM 2006-C8	36.65	63
CSMC 2006-C1	1.24	15	CSMC 2006-C1	6.63	53	CSMC 2006-C1	13.58	28
CSMC 2006-C2	6.54	58	CSMC 2006-C2	11.16	62	CSMC 2006-C2	8.04	8
CSMC 2006-C3	2.31	26	CSMC 2006-C3	10.47	61	CSMC 2006-C3	5.15	1
CSMC 2006-C4	5.59	55	CSMC 2006-C4	7.08	55	CSMC 2006-C4	16.24	42
CSMC 2006-C5	3.61	41	CSMC 2006-C5	5.85	50	CSMC 2006-C5	23.76	57
CSMC 2006-K1A	-	1	CSMC 2006-K1A	-	1	CSMC 2006-K1A	15.42	39
CWCI 2006-C1	3.94	46	CWCI 2006-C1	13.38	65	CWCI 2006-C1	17.18	46
FHMS K001	-	1	FHMS K001	-	1	FHMS K001	15.42	39
GCCFC 2006-GG7	5.40	53	GCCFC 2006-GG7	2.63	39	GCCFC 2006-GG7	11.77	19
GECMC 2006-C1	0.73	9	GECMC 2006-C1	0.85	30	GECMC 2006-C1	6.59	3
GMACC 2006-C1	1.16	14	GMACC 2006-C1	8.91	58	GMACC 2006-C1	18.42	50
GSMS 2006-GG6	6.70	60	GSMS 2006-GG6	-	1	GSMS 2006-GG6	17.58	47
GSMS 2006-GG8	8.64	64	GSMS 2006-GG8	-	1	GSMS 2006-GG8	15.31	37
HCC 2006-1	24.81	65	HCC 2006-1	3.99	44	HCC 2006-1	47.86	65
JPMCC 2006-CB14	6.66	59	JPMCC 2006-CB14	-	1	JPMCC 2006-CB14	12.87	26
JPMCC 2006-CB15	7.23	61	JPMCC 2006-CB15	-	1	JPMCC 2006-CB15	15.34	38
JPMCC 2006-CB16	3.83	44	JPMCC 2006-CB16	-	1	JPMCC 2006-CB16	14.23	32
JPMCC 2006-CIBC17	1.56	21	JPMCC 2006-CIBC17	-	1	JPMCC 2006-CIBC17	23.00	55
JPMCC 2006-LDP6	4.78	50	JPMCC 2006-LDP6	1.96	36	JPMCC 2006-LDP6	11.94	20
JPMCC 2006-LDP7	4.15	47	JPMCC 2006-LDP7	-	1	JPMCC 2006-LDP7	12.63	24
JPMCC 2006-LDP8	1.82	23	JPMCC 2006-LDP8	5.86	51	JPMCC 2006-LDP8	8.41	9
JPMCC 2006-LDP9	2.45	27	JPMCC 2006-LDP9	1.11	32	JPMCC 2006-LDP9	28.91	61
LBUBS 2006-C1	1.36	18	LBUBS 2006-C1	0.17	21	LBUBS 2006-C1	12.90	27
LBUBS 2006-C3	1.26	16	LBUBS 2006-C3	0.50	27	LBUBS 2006-C3	21.16	54
LBUBS 2006-C4	1.97	25	LBUBS 2006-C4	-	1	LBUBS 2006-C4	25.42	58
LBUBS 2006-C6	0.85	11	LBUBS 2006-C6	-	1	LBUBS 2006-C6	14.05	31
LBUBS 2006-C7	5.57	54	LBUBS 2006-C7	0.18	23	LBUBS 2006-C7	8.76	11
MLCFC 2006-1	3.33	37	MLCFC 2006-1	0.60	27	MLCFC 2006-1	13.62	29
MLCFC 2006-2	2.78	30	MLCFC 2006-2	-	1	MLCFC 2006-2	8.46	10
MLCFC 2006-3	3.88	45	MLCFC 2006-3	6.58	52	MLCFC 2006-3	16.37	43
MLCFC 2006-4	4.19	48	MLCFC 2006-4	4.83	47	MLCFC 2006-4	19.86	53
MLMT 2006-C1	3.23	35	MLMT 2006-C1	11.62	63	MLMT 2006-C1	30.99	62
MLMT 2006-C2	4.66	49	MLMT 2006-C2	5.54	49	MLMT 2006-C2	10.90	16
MSC 2006-HQ10	1.01	12	MSC 2006-HQ10	-	1	MSC 2006-HQ10	10.54	14
MSC 2006-HQ8	3.58	40	MSC 2006-HQ8	-	1	MSC 2006-HQ8	12.56	23
MSC 2006-HQ9	3.05	34	MSC 2006-HQ9	-	1	MSC 2006-HQ9	9.32	13
MSC 2006-IQ11	3.32	36	MSC 2006-IQ11	3.80	43	MSC 2006-IQ11	7.74	7
MSC 2006-IQ12	5.03	52	MSC 2006-IQ12	2.04	37	MSC 2006-IQ12	23.44	56
MSC 2006-T21	0.78	10	MSC 2006-T21	-	1	MSC 2006-T21	11.97	21
MSC 2006-T23	-	1	MSC 2006-T23	9.13	59	MSC 2006-T23	5.36	2
WBCMT 2006-C23	2.83	31	WBCMT 2006-C23	3.05	42	WBCMT 2006-C23	18.35	49
WBCMT 2006-C24	7.97	63	WBCMT 2006-C24	2.20	38	WBCMT 2006-C24	16.39	44
WBCMT 2006-C25	0.65	8	WBCMT 2006-C25	-	1	WBCMT 2006-C25	8.79	12
WBCMT 2006-C26	6.17	56	WBCMT 2006-C26	11.73	64	WBCMT 2006-C26	12.66	25
WBCMT 2006-C27	2.92	33	WBCMT 2006-C27	-	1	WBCMT 2006-C27	17.67	48
WBCMT 2006-C28	3.69	43	WBCMT 2006-C28	1.42	33	WBCMT 2006-C28	15.12	35
WBCMT 2006-C29	2.58	29	WBCMT 2006-C29	0.17	21	WBCMT 2006-C29	15.24	36

Source: Deutsche Bank and Trepp

Figure 5: Ranking performance data for the 2007 vintage

Deal Name	Total Delinquency %	Rank	Deal Name	Perf Spec Serv. %	Rank	Deal Name	Watchlist. %	Rank
BACM 2007-1	1.98	33	BACM 2007-1	7.30	66	BACM 2007-1	17.00	23
BACM 2007-2	3.50	50	BACM 2007-2	1.04	46	BACM 2007-2	33.11	60
BACM 2007-3	3.85	53	BACM 2007-3	5.56	62	BACM 2007-3	27.64	52
BACM 2007-4	1.59	27	BACM 2007-4	2.14	53	BACM 2007-4	16.90	22
BACM 2007-5	3.49	49	BACM 2007-5	3.99	57	BACM 2007-5	19.86	32
BSCMS 2007-PW15	0.15	10	BSCMS 2007-PW15	0.04	24	BSCMS 2007-PW15	8.81	9
BSCMS 2007-PW16	1.81	31	BSCMS 2007-PW16	0.49	36	BSCMS 2007-PW16	13.13	16
BSCMS 2007-PW17	0.98	20	BSCMS 2007-PW17	-	1	BSCMS 2007-PW17	19.34	30
BSCMS 2007-PW18	2.57	40	BSCMS 2007-PW18	9.08	67	BSCMS 2007-PW18	19.57	31
BSCMS 2007-T26	3.33	45	BSCMS 2007-T26	0.35	32	BSCMS 2007-T26	6.90	6
BSCMS 2007-T28	-	1	BSCMS 2007-T28	-	1	BSCMS 2007-T28	8.88	10
CCRF 2007-MF1	5.32	60	CCRF 2007-MF1	0.49	36	CCRF 2007-MF1	17.26	24
CD 2007-CD4	0.88	19	CD 2007-CD4	11.40	68	CD 2007-CD4	26.17	48
CD 2007-CD5	2.20	36	CD 2007-CD5	1.69	52	CD 2007-CD5	18.94	28
CGCMT 2007-C6	1.69	29	CGCMT 2007-C6	4.10	58	CGCMT 2007-C6	15.71	19
COMM 2007-C9	1.24	22	COMM 2007-C9	-	1	COMM 2007-C9	15.54	18
CSMC 2007-C1	9.46	65	CSMC 2007-C1	5.59	63	CSMC 2007-C1	34.11	61
CSMC 2007-C2	3.24	44	CSMC 2007-C2	-	1	CSMC 2007-C2	26.47	50
CSMC 2007-C3	5.13	56	CSMC 2007-C3	1.03	43	CSMC 2007-C3	22.71	43
CSMC 2007-C3A	5.13	56	CSMC 2007-C3A	1.03	43	CSMC 2007-C3A	22.71	43
CSMC 2007-C4	2.50	39	CSMC 2007-C4	0.74	41	CSMC 2007-C4	49.88	68
CSMC 2007-C5	7.47	63	CSMC 2007-C5	-	1	CSMC 2007-C5	22.65	42
CWCI 2007-C2	1.59	27	CWCI 2007-C2	5.10	59	CWCI 2007-C2	17.88	26
CWCI 2007-C3	-	1	CWCI 2007-C3	0.27	29	CWCI 2007-C3	20.60	35
FHMS K002	5.13	56	FHMS K002	1.03	43	FHMS K002	22.71	43
GCCFC 2007-GG11	0.67	17	GCCFC 2007-GG11	-	1	GCCFC 2007-GG11	26.27	49
GCCFC 2007-GG9	0.23	11	GCCFC 2007-GG9	1.24	49	GCCFC 2007-GG9	20.78	36
GECMC 2007-C1	2.04	34	GECMC 2007-C1	5.37	61	GECMC 2007-C1	20.16	33
GSMS 2007-GG10	4.33	55	GSMS 2007-GG10	0.70	40	GSMS 2007-GG10	43.42	66
HCC 2007-1A	38.38	68	HCC 2007-1A	-	1	HCC 2007-1A	17.50	25
JPMCC 2007-C1	9.38	64	JPMCC 2007-C1	-	1	JPMCC 2007-C1	25.55	47
JPMCC 2007-CB18	2.79	41	JPMCC 2007-CB18	0.20	27	JPMCC 2007-CB18	25.12	46
JPMCC 2007-CB19	3.54	51	JPMCC 2007-CB19	1.13	48	JPMCC 2007-CB19	20.30	34
JPMCC 2007-CB20	3.45	47	JPMCC 2007-CB20	-	1	JPMCC 2007-CB20	21.97	40
JPMCC 2007-LD11	5.57	61	JPMCC 2007-LD11	-	1	JPMCC 2007-LD11	22.07	41
JPMCC 2007-LD12	1.49	25	JPMCC 2007-LD12	0.97	42	JPMCC 2007-LD12	31.03	58
JPMCC 2007-LDPX	3.77	52	JPMCC 2007-LDPX	7.13	65	JPMCC 2007-LDPX	21.44	38
LBCMT 2007-C3	10.68	66	LBCMT 2007-C3	1.45	50	LBCMT 2007-C3	14.02	17
LBSBC 2007-1A	-	1	LBSBC 2007-1A	-	1	LBSBC 2007-1A	-	1
LBSBC 2007-2A	-	1	LBSBC 2007-2A	-	1	LBSBC 2007-2A	-	1
LBSBC 2007-3A	-	1	LBSBC 2007-3A	-	1	LBSBC 2007-3A	-	1
LBUBS 2007-C1	13.21	67	LBUBS 2007-C1	2.15	55	LBUBS 2007-C1	2.88	5
LBUBS 2007-C2	5.20	59	LBUBS 2007-C2	5.92	64	LBUBS 2007-C2	9.64	11
LBUBS 2007-C6	1.41	24	LBUBS 2007-C6	0.09	25	LBUBS 2007-C6	27.49	51
LBUBS 2007-C7	0.65	15	LBUBS 2007-C7	-	1	LBUBS 2007-C7	16.38	21
MLCFC 2007-5	1.40	23	MLCFC 2007-5	0.20	27	MLCFC 2007-5	28.43	55
MLCFC 2007-6	0.56	13	MLCFC 2007-6	-	1	MLCFC 2007-6	30.88	57
MLCFC 2007-7	6.51	62	MLCFC 2007-7	1.08	47	MLCFC 2007-7	21.61	39
MLCFC 2007-8	2.43	38	MLCFC 2007-8	-	1	MLCFC 2007-8	16.21	20
MLCFC 2007-9	1.12	21	MLCFC 2007-9	2.14	53	MLCFC 2007-9	30.33	56
MLMT 2007-C1	3.46	48	MLMT 2007-C1	-	1	MLMT 2007-C1	10.81	14
MSC 2007-HQ11	1.53	26	MSC 2007-HQ11	0.62	39	MSC 2007-HQ11	35.69	63
MSC 2007-HQ12	-	1	MSC 2007-HQ12	0.46	35	MSC 2007-HQ12	44.79	67
MSC 2007-HQ13	-	1	MSC 2007-HQ13	1.64	51	MSC 2007-HQ13	27.88	54
MSC 2007-IQ13	2.04	34	MSC 2007-IQ13	0.40	33	MSC 2007-IQ13	31.86	59
MSC 2007-IQ14	-	1	MSC 2007-IQ14	-	1	MSC 2007-IQ14	18.10	27
MSC 2007-IQ15	3.18	43	MSC 2007-IQ15	-	1	MSC 2007-IQ15	9.95	12
MSC 2007-IQ16	0.65	15	MSC 2007-IQ16	5.13	60	MSC 2007-IQ16	12.38	15
MSC 2007-T25	3.99	54	MSC 2007-T25	-	1	MSC 2007-T25	10.72	13
MSC 2007-T27	1.90	32	MSC 2007-T27	-	1	MSC 2007-T27	7.46	7
PRFIC 2007-PLA	0.49	12	PRFIC 2007-PLA	-	1	PRFIC 2007-PLA	-	1
SOVC 2007-C1	3.34	46	SOVC 2007-C1	0.14	26	SOVC 2007-C1	20.85	37
TIAAS 2007-C4	-	1	TIAAS 2007-C4	0.41	34	TIAAS 2007-C4	8.39	8
WBCMT 2007-C30	0.76	18	WBCMT 2007-C30	0.30	31	WBCMT 2007-C30	41.43	64
WBCMT 2007-C31	2.33	37	WBCMT 2007-C31	2.80	56	WBCMT 2007-C31	34.81	62
WBCMT 2007-C32	1.74	30	WBCMT 2007-C32	0.28	30	WBCMT 2007-C32	42.32	65
WBCMT 2007-C33	3.10	42	WBCMT 2007-C33	0.56	38	WBCMT 2007-C33	27.65	53

Source: Deutsche Bank and Trepp

Figure 6: Ranking performance data for the 2008 vintage

Deal Name	Total Delinquency %	Rank	Deal Name	Perf Spec Serv. %	Rank	Deal Name	Watchlist. %	Rank
BACM 2008-1	1.24	3	BACM 2008-1	0.8	5	BACM 2008-1	4.33	2
CGCMT 2008-C7	0.96	2	CGCMT 2008-C7	3.61	7	CGCMT 2008-C7	10.76	4
CMLT 2008-LS1	1.51	4	CMLT 2008-LS1	0	1	CMLT 2008-LS1	19.94	7
CSMC 2008-C1	1.58	5	CSMC 2008-C1	0.5	4	CSMC 2008-C1	13.36	5
JPMCC 2008-C2	20.12	8	JPMCC 2008-C2	2.15	6	JPMCC 2008-C2	16.99	6
LBUBS 2008-C1	4.71	7	LBUBS 2008-C1	0	1	LBUBS 2008-C1	2.07	1
MLMT 2008-C1	2.43	6	MLMT 2008-C1	8.35	8	MLMT 2008-C1	6.8	3
MSC 2008-T29	0	1	MSC 2008-T29	0	1	MSC 2008-T29	24.58	8

Source: Deutsche Bank and Trepp

Appendix 1

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Securitization

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CMBS Research

The Future Refinancing Crisis in Commercial Real Estate

Part II: Extensions and Refinements

Special Report

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Securitization

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I. Introduction

This report is a follow-up to a previous report "The Future Refinancing Crisis in Commercial Real Estate", published April 23rd, 2009. That analysis applied a quantitative framework to explore the magnitude of potential refinancing problems faced by the commercial real estate debt markets over the coming decade. In particular, the analysis sought to answer the following question: Assuming that all currently outstanding (and non-defeased) commercial mortgages in CMBS deals reach maturity without defaulting, what proportion would qualify to refinance.[1] The startling conclusion was that, under reasonable assumptions, an extraordinarily large proportion of loans, perhaps 65%, or more, might well fail to qualify to refinance, at least without large equity infusions. In effect, the massive paradigm shift in underwriting standards, combined with 35-45% price declines and severely depressed cash flows, would likely strand a vast swath of the commercial real estate debt markets.

The current analysis both refines and extends the results of the original report. The most significant extension is the introduction of term defaults: both term (i.e. loan defaults occurring prior to maturity) and maturity defaults are now treated simultaneously in an internally consistent manner. This, of course, has a huge impact on maturity defaults, as many loans that, in the previous analysis, were projected to default at maturity, do not survive until maturity, in the current analysis, but rather default at some point prior to maturity due to severe cash flow stress. Thus, a large proportion of the previously projected maturity defaults become term defaults in the new analysis. This, in turn, has a major effect on both the magnitude and timing of losses, and hence on valuations.

We estimate that:

- Total losses, the sum of term and maturity default related losses, on the outstanding CMBS universe will be in the 9-12% range
- Total losses on the 2005-2008 vintages will be 11.6-15.3%
- Total losses on the 2007 vintage will exceed 21%

These loss rates are well above those experienced by life company portfolios during the early 1990s.

Modeling both term and maturity defaults provides a much clearer picture of the timing of defaults and losses. It is also useful in providing a time frame for when distressed real estate is likely to hit the market. This is particularly relevant as one of the main goals of the analysis is to provide a "road map" for the types, magnitudes and timing of distressed opportunities likely to be available within the commercial real estate market. The objective is to help encourage the entry of private capital into the sector. We regard the entry of private capital into commercial real estate as a critical step in dealing with the problems that, without question, lies ahead over the next five year, or more.

The report also addresses, in some detail, commercial real estate loans in bank portfolios, and the risk they pose both to the banks and the commercial real estate sector more generally. It is shown that bank exposures to both construction and core commercial real estate loans are very large, but grow alarmingly as one moves from large money center banks to smaller regional and community banks. The performance of both construction and core commercial real estate loans is also examined and compared to that of loans in CMBS pools. Delinquency rates are surging among construction loans, having already reached the

[1] By "qualify to refinance" we mean qualify for a loan sufficiently large to retire the current outstanding loan.

mid teens. Yet, we believe that the actual performance of construction loans is far worse than current delinquency rates suggest due to presence of interest reserves. We expect that ultimate losses on construction loans will be disastrously high.

We also expect that losses on core commercial real estate loans in bank portfolios will be at least as large as those in CMBS pools. Moreover, the fact that delinquency rates on core commercial real estate loans have consistently been two- to three-times that on CMBS loans over the past three years, lends support to this view. Finally, it appears that banks are far behind in terms of taking adequate charge offs for their problem real estate loan portfolios. We believe that the manner in which regulators deal with problems in banks commercial real estate loan portfolios will have a significant impact on the commercial real estate market more generally.

The structure of this report is as follows: Section II reviews the quantitative methodology we employ for estimating term and maturity default related losses, as well as our basic assumptions. A variety of updated results on the proportion of loans likely to have difficulty refinancing are also presented. Section III presents results on both term and maturity default related losses, and their timing. How the introduction of term defaults changes the basic picture of expected refinancing problems is explored. Section IV examines more deeply the problem of non-refinanceable loans. In particular, we draw a distinction between those that are potentially salvageable and those that are not. The scale of potential opportunities for private capital in commercial real estate is also examined. In Section V, the risks of commercial real estate loans in bank portfolios are examined in detail.

II. Review of the Methodology and Previous Results

This section reviews the quantitative methodology on which the analysis of commercial mortgages in CMBS deals is based. Updated versions of the results on refinanceability and maturity default-related losses, from the original report, are then presented in order to provide a context for the new results, which are presented in the following sections.

The quantitative analysis is based on the entire outstanding (non-defeased) fixed rate conduit sector of CMBS, comprising in excess of 54,000 loans with an aggregate balance of approximately $625 billion.[2] The first step is to project NOI for ten years for each individual loan on the basis of the type of property securing the loan and the MSA in which it is located. The projections are based in part on MSA/property type forecasts produced by Property and Portfolio Research (PPR). PPR produces five year forecasts of rents, vacancy rates and NOI. The analysis employs PPR's forecasts for the first five-year period. For the second five-year period, it is assumed that NOI returns linearly to its Q3 2008 level by the end of year ten. These NOI projections are then run through Intex's loan-level cash flow models. For each loan, the value of the underlying property(s) is estimated by applying a cap rate to projected cash flows. This allespows for the calculation of an approximate LTV and DSCR at each point in time. Finally, assumptions are made about the maximum LTV, minimum DSCR and future financing costs (i.e. the future mortgage rates).

The above NOI projections and refinancing assumptions form the inputs to the term and maturity default models, and allows for estimates of term losses, refinanceability, and maturity related losses.

The analysis employs two different NOI projection scenarios, the Severe Stress Scenario and the Moderate Stress Scenario. Each is based on a specific PPR projection scenario. The Severe Stress Scenario is the "base case" scenario for the analysis. The approximate degree of stress in each of the two scenarios is summarized in Figure 1. For each property type, the average (across MSAs) of the maximum percentage decline in NOI starting from Q3 2008 is reported.

Figure 1: Degrees of Stress in the Two NOI Projection Scenarios

	Average of Maximum NOI Declines Across MSAs	
Property Type	**Severe Recession Scenario***	**Moderate Recession Scenario ****
Industrial	-16.3	-7.5
Multifamily	-15.0	-8.9
Office	-32.6	-12.4
Retail	-26.6	-21.5
Hotel ***	-20.0	-20.0

* PPR's "Severe Recesion Scenario" as of Q3 2008

** PPR's "Deep Recession Scenario Fast Recovery" as of Q4 2008

*** Hotel projection not based on PPR projections

Source: Deutsche Bank and Property and Portfolio Research

There are two final comments about the NOI projections. First, NOI projections for hotels are not based on PPR forecasts. We simply assume that for each hotel NOI declines by 20% through the end of 2012 and then increases back to its Q3 2008 level by 2018. In view of

[2] When a loan is defeased, the borrower delivers to the trustee a portfolio of agency and US Treasury debt that replicates the required payments of the loan in exchange for release of the securing property. Defeased loans have neither credit nor refinance risk, and thus are excluded from this analysis.

recent performance data, this is clearly too small of a decline. According to Smith Travel Research, hotel RevPAR is already down 20% in the aggregate across chain scale categories, and this would translate into declines in NOI that are much larger than 20%, particularly in view of hotel's high operating leverage. The results of this can be seen in the next section, where total losses for hotels, including both term and maturity default related losses are projected to be only 5.5%. That this is far too low can be seen clearly in the recent delinquency data: hotel delinquency rates, as of June stood at 4.32%, up almost 300% in only four months.

Second, as noted above, it is assumed that NOI follows the PPR projections for the first five years, after which it returns to its Q3 2008 level in year ten. This, of course, implies a 10-year cumulative average growth rate (CAGR) of 0%. While this may appear to be a harsh assumption on the surface, in reality it is not. For example, average office NOI needs to grow by nearly 50% over the second five-year period to get back to its Q3 2008 starting point. This represents an extraordinarily fast pace of growth for NOI.

Figure 2 summarizes the cap rates used in the analysis. The cap rates are assumed to decline modestly after five years. The corresponding debt yield, assuming a 70 LTV, is also given.[3]

Figure 2: Assumed Cap Rates for Projections

Property Type	Months 0-24	Months 24-60	Months 60-120	Months 120-240	Debt Yield **
Industrial	8.5	8.5	8.0	8.0	11.5 - 12.5
Multifamily	8.0	8.0	8.0	8.0	11.5
Office	8.5	8.5	8.0	8.0	11.5 - 12.5
Retail	8.5	8.5	8.0	8.0	11.5 - 12.5
Hotel *	9.0	9.0	8.0	8.0	11.5 - 13.0

* Hotel projection not based on PPR projections

** Debt yield at maximum at LTV of 70

Source: Deutsche Bank

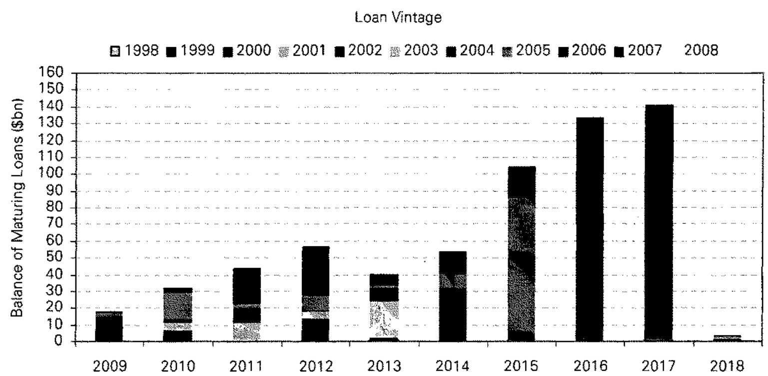
Finally, the following refinancing assumptions are employed to test for refinanceability:

- Mortgage rate: 8%
- Maximum LTV: 70
- Minimum DSCR: 1.3x

Before proceeding, it will be helpful for understanding the non-refinanceability and maturity loss results, to know the amount of loans from each historical CMBS vintage that are scheduled to mature in each year over the coming decade. This information is summarized in Figure 3, which is reprinted from the previous report.

[3] The concept of a debt yield, defined as the NOI divided by the loan amount has gained in popularity recently.

Figure 3: Maturity Profile of Fixed Rate Conduit Commercial Mortgages in CMBS Transactions



Source: Deutsche Bank and Intex

The term and maturity default models have been refined since the publication of the original report. The results for non-refinanceability and maturity default related losses, by maturity year, are summarized in Figure 4 under the severe stress scenario and in Figure 5 under the moderate stress scenario. Three categories are presented in Figures 4 and 5. The "Non-Refinanceable" category reflects all loans that fail to qualify without equity infusions. The "Non-Refinanceable Loans with Losses" category reflects those loans that do not qualify and also experience a loss. Typically, these are loans having an LTV in excess of 90%. Note that a loan with an 80% LTV would not qualify to refinance, but would also probably not lead to a loss. The final category, "Maturity Default Losses", simply reflects the losses from the loans in the previous category. Thus, under the severe stress scenario, 72.5% of loans fail to qualify to refinance, but only 45.2% of loans suffer losses. Total losses are 11.3%, or $70.1 billion. Under the moderate stress scenario, 64.4% of loans fail to qualify, while only 36.6% suffer losses. Total losses are 9.0%, or $55.8 billion.

Under both stress scenarios, the maturity years with by far the highest maturity default related loss rates are 2011, 2012 and 2017. This certainly makes intuitive sense, as 2011 and 2012 have high proportions of 5-year loans from the 2006 and 2007 vintages, respectively. This can be seen in Figure 3. Moreover, 2017 loan maturities are almost exclusively from the 2007 vintage. This certainly suggests that the 5-year loans from the 2006 and 2007 vintages are likely to suffer massive maturity default losses.

As expected, however, the largest dollar amounts of maturity default related losses occur in years 2016 and 2017.

Figure 4: Non-Refinanceability and Maturity Default Related Losses by Maturity Year: Severe Stress Scenario

		Non-Refinanceable		Non-Refinanceable Loans with Losses		Maturity Default Losses	
Maturity Year	Maturities* ($ Billions)	Balance ($ Billions)	%**	Balance ($ Billions)	%**	Balance ($ Billions)	%**
2009	17.5	8.2	46.9	3.6	20.6	1.1	6.2
2010	33.6	22.6	67.3	14.1	41.9	3.0	9.0
2011	43.6	31.6	72.4	21.1	48.5	5.8	13.4
2012	58.3	46.9	80.3	35.6	61.0	11.8	20.3
2013	42.4	29.3	69.0	16.1	37.9	4.3	10.2
2014	51.7	37.9	73.4	23.1	44.6	5.3	10.3
2015	98.7	68.8	69.7	38.8	39.3	7.7	7.8
2016	135.3	99.4	73.4	59.2	43.7	13.2	9.8
2017	135.8	104.4	76.9	69.6	51.3	17.7	13.0
2018	6.1	2.7	45.3	0.6	9.3	0.1	2.1
Total	**623.1**	**451.9**	**72.5**	**281.8**	**45.2**	**70.1**	**11.3**

* Excludes defeased loans

** Percent of current balance of scheduled maturities excluding defeased loans

Source: Deutsche Bank

Figure 5: Non-Refinanceability and Maturity Default Related Losses by Maturity Year: Moderate Stress Scenario

		Non-Refinanceable		Non-Refinanceable Loans with Losses		Maturity Default Losses	
Maturity Year	Maturities* ($ Billions)	Balance ($ Billions)	%**	Balance ($ Billions)	%**	Balance ($ Billions)	%**
2009	17.5	7.7	44.2	3.0	17.3	0.9	5.3
2010	33.6	21.5	64.0	12.7	37.8	2.7	8.2
2011	43.6	28.7	65.8	18.4	42.2	4.8	11.1
2012	58.3	41.4	71.0	31.2	53.5	9.8	16.8
2013	42.4	21.2	50.0	10.5	24.8	2.8	6.5
2014	51.7	29.8	57.5	15.1	29.2	3.4	6.5
2015	98.7	58.4	59.2	25.7	26.1	5.1	5.2
2016	135.3	90.6	67.0	47.1	34.8	10.5	7.8
2017	135.8	99.4	73.2	63.8	47.0	15.6	11.5
2018	6.1	2.5	41.0	0.5	8.9	0.1	2.0
Total	**623.1**	**401.2**	**64.4**	**228.1**	**36.6**	**55.8**	**9.0**

* Excludes defeased loans

** Percent of current balance of scheduled maturities excluding defeased loans

Source: Deutsche Bank

The data in Figures 6 and 7 simply re-organize the results by origination vintage instead of maturity year, a different stratification. (Note that the numbers are slightly different only because we exclude the pre-2000 vintages from the figures.) The figures show the startling degree to which the 2007 vintage is inferior to all preceding vintage, and even the 2008 vintage.

It should be kept in mind that in Figures 6 and 7 losses are calculated as a percentage of *current balances*. Thus, for seasoned vintages which have experienced a great deal of paydowns or defeasance, these loss rates will differ markedly from the more usual calculation of total losses as a percentage of original balances.

Figure 6: Non-Refinanceability and Maturity Default Related Losses by Vintage: Severe Stress Scenario

		Non-Refinanceable		Non-Refinanceable Loans with Losses		Maturity Default Losses	
Origination Vintage	Maturities* ($ Billions)	Balance ($ Billions)	%**	Balance ($ Billions)	%**	Balance ($ Billions)	%**
2000	10.9	4.7	42.9	1.7	15.5	0.5	5.0
2001	18.0	9.3	51.8	3.9	21.4	1.0	5.7
2002	19.5	11.3	58.1	5.4	27.5	1.2	6.1
2003	33.3	19.6	59.0	9.7	29.1	2.1	6.3
2004	54.3	36.5	67.3	19.3	35.4	3.8	7.0
2005	123.5	89.4	72.4	55.0	44.6	11.4	9.2
2006	158.9	117.5	73.9	71.2	44.8	16.0	10.1
2007	189.9	153.1	80.6	110.8	58.4	32.7	17.2
2008	10.7	6.6	62.2	3.5	33.2	0.9	8.2
2000 - 2008	**618.9**	**448.1**	**72.4**	**280.5**	**38.3**	**69.6**	**9.5**
2005 - 2008	**482.9**	**366.6**	**75.9**	**240.6**	**48.0**	**61.0**	**12.2**

* Excludes defeased loans

** Percent of current balance of scheduled maturities excluding defeased loans

Source: Deutsche Bank

Figure 7: Non-Refinanceability and Maturity Default Related Losses by Vintage: Moderate Stress Scenario

		Non-Refinanceable		Non-Refinanceable Loans with Losses		Maturity Default Losses	
Origination Vintage	Maturities* ($ Billions)	Balance ($ Billions)	%**	Balance ($ Billions)	%**	Balance ($ Billions)	%**
2000	10.9	4.2	38.9	1.4	12.8	0.5	4.7
2001	18.0	7.7	42.7	3.1	17.0	0.9	4.8
2002	19.5	8.3	42.6	3.0	15.4	0.8	4.2
2003	33.3	13.4	40.2	5.5	16.6	1.3	3.8
2004	54.3	27.4	50.5	11.5	21.1	2.3	4.2
2005	123.5	78.2	63.3	40.1	32.4	8.1	6.5
2006	158.9	106.9	67.3	56.5	35.5	12.4	7.8
2007	189.9	146.3	77.0	103.3	54.4	28.7	15.1
2008	10.7	6.1	56.8	3.1	28.7	0.7	6.7
2000 - 2008	**618.9**	**398.4**	**64.4**	**227.4**	**36.7**	**55.5**	**9.0**
2005 - 2008	**482.9**	**337.4**	**69.9**	**202.9**	**42.0**	**49.8**	**10.3**

* Excludes defeased loans

** Percent of current balance of scheduled maturities excluding defeased loans

Source: Deutsche Bank

Figure 8 re-expresses the projected maturity default related losses as a percentage of original balance. Existing realized losses are also taken account of so that the results reflect projected average lifetime performance of the vintages. Even though the weak vintages of 2006-2008 are expected to see very high losses, particularly by historical standards, the more seasoned vintages are still expected to perform extremely well.

Figure 8: Expected Losses as % of Original Balance by Vintage for Severe and Moderate Stress Scenarios

				Severe Stress Scenario		Moderate Stress Scenario	
		Existing Losses		Projected Losses		Projected Losses	
Vintage	Original Balance ($ Billions)	Balance ($ Billions)	%*	Balance ($ Billions)	%*	Balance ($ Billions)	%*
2000	27.9	0.4	1.6	0.5	1.9	0.5	1.8
2001	37.0	0.4	1.1	1.0	2.8	0.9	2.3
2002	34.8	0.2	0.5	1.2	3.4	0.8	2.3
2003	54.7	0.1	0.2	2.1	3.8	1.3	2.3
2004	74.5	0.1	0.1	3.8	5.1	2.3	3.0
2005	137.1	0.1	0.1	11.4	8.3	8.1	5.9
2006	162.8	0.0	0.0	16.0	9.8	12.4	7.6
2007	190.9	0.0	0.0	32.7	17.1	28.7	15.0
2008	10.7	0.0	0.0	0.9	8.2	0.7	6.6
Total	**730.6**	**1.3**	**0.2**	**69.6**	**9.5**	**55.5**	**7.6**

* Percentage of original balance

Source: Deutsche Bank

III. Introduction of Term Defaults and Its Impact on the Results

In this section the results of the original report are extended by adding term defaults into the analysis. The triggers for term defaults and maturity defaults are quite different. Term defaults are triggered by cash flow stress when there is negative equity in the deal. In particular, it is assumed that in the presence of negative equity, the borrower will continue to make the mortgage payments as long as the property generates sufficient cash flow to cover debt service. However, as the DSCR declines sufficiently below 1.0x for a sufficiently long period of time, the borrower chooses to default rather than carry the property. The trigger for a maturity default, on the other hand, is related more to refinanceability. Inability to refinance at maturity when there is little or no equity leads to borrowers to opt for maturity default.

Adding term defaults will certainly reduce projected maturity defaults and losses to some degree as some proportion of the loans that previously defaulted at maturity now default prior to maturity. However, there are also loans that previously did not default at maturity that do, in the current analysis, experience a term default. As a result, the total number (and balance) of loans that default is significantly higher than before.

Figure 9 presents, for the Severe Stress Scenario, projected term defaults and term losses, projected maturity defaults and maturity losses and existing losses, all by origination vintage. These are combined to arrive at estimated total default rates and total loss rates. All rates are with respect to original balances, thus these numbers reflect projected lifetime performance. Figure 10 reports the analogous results for the Moderate Stress Scenario.

Figure 9: Projected Term, Maturity and Total Loss Rates by Origination Vintage: Severe Stress Scenario

	Projected Term			Projected Maturity			Existing	Projected Total	
Origination Vintage	Default (%)*	Loss (%)*	Severity (%)*	Default (%)*	Loss (%)*	Severity (%)*	Loss (%)*	Default (%)*	Loss (%)*
2000	2.6	1.4	52.3	4.3	0.9	21.9	1.6	6.9	3.9
2001	2.5	1.2	48.7	8.5	1.9	21.9	1.1	11.1	4.2
2002	3.1	1.4	46.0	12.9	2.2	17.2	0.5	16.0	4.2
2003	4.0	1.9	47.4	14.1	2.2	15.5	0.2	18.2	4.3
2004	6.5	2.9	44.8	20.6	3.0	14.7	0.1	27.1	6.0
2005	8.7	4.2	48.6	32.5	5.5	16.9	0.1	41.2	9.8
2006	14.7	7.4	50.3	31.0	5.5	17.9	0.0	45.6	12.9
2007	21.7	12.1	55.8	38.4	9.2	23.9	0.0	60.0	21.3
2008	17.7	8.5	47.9	19.8	5.7	28.7	0.0	37.5	14.2
2000-2008	**12.2**	**6.3**	**52.2**	**27.7**	**5.5**	**19.7**	**0.2**	**39.8**	**12.0**
2005-2008	**15.8**	**8.3**	**52.9**	**34.0**	**6.9**	**20.3**	**0.0**	**49.7**	**15.3**

* Percent calculated with respect to original balance

Source: Deutsche Bank

The average loss rate for the 2000-2008 vintages is projected to be 12% under the Severe Stress Scenario. This is split fairly evenly between term loss rate (6.3%) and maturity loss rate (5.5%). For the problem vintages, 2005-2008, the total loss rate is 15.3%. Loss rates for the seasoned pre-2005 vintages are higher when we model term defaults, but they remain quite good overall. The 2007 vintage is projected to suffer a staggering 21.3% total loss rate.

Average loss severity rates are also reported. Loss severity rates are much higher for term defaults (52%) than for maturity defaults (20%), which accords well with what is actually observed in practice. It is worth noting that loss severity rates are outcomes of the models, not inputs.

Figure 10: Projected Term, Maturity and Total Loss Rates by Origination Vintage: Moderate Stress Scenario

	Projected Term			Projected Maturity			Existing	Projected Total	
Origination Vintage	Default (%)*	Loss (%)*	Severity (%)*	Default (%)*	Loss (%)*	Severity (%)*	Loss (%)*	Default (%)*	Loss (%)*
2000	2.7	1.4	52.9	3.3	0.8	24.7	1.6	6.0	3.8
2001	3.4	1.5	44.7	5.6	1.2	21.2	1.1	9.0	3.8
2002	3.6	1.6	45.2	5.7	1.0	18.2	0.5	9.3	3.2
2003	3.2	1.5	48.9	7.5	1.1	14.2	0.2	10.6	2.8
2004	4.1	1.9	46.4	12.5	1.8	14.5	0.1	16.6	3.8
2005	5.6	2.8	49.7	24.6	4.0	16.3	0.1	30.2	6.8
2006	8.3	4.3	52.3	27.9	4.9	17.4	0.0	36.2	9.2
2007	15.0	8.4	56.3	40.3	8.7	21.7	0.0	55.3	17.2
2008	11.4	5.4	47.1	23.2	4.8	20.8	0.0	34.5	10.2
2000-2008	**8.1**	**4.3**	**53.1**	**24.2**	**4.6**	**19.0**	**0.2**	**32.3**	**9.1**
2005-2008	**10.2**	**5.5**	**54.0**	**31.6**	**6.1**	**19.3**	**0.0**	**41.8**	**11.6**

* Percent calculated with respect to original balance

Source: Deutsche Bank

The results under the Moderate Stress Scenario are qualitatively similar to those of the Severe Stress Scenario. These two scenarios project that total conduit CMBS loss rates to be in the 9-12% range for the 2000-2008 vintages, and 17-21% range for the 2007 vintage.

Figures 11 and 12 present the same information as in Figures 9 and 10, except that it is presented in terms of dollar amount instead of percentages of original balances. Total losses are projected to be between $66 billion and $88 billion. Total defaults are projected at $235 - $290 billion.

Figure 11: Projected Term, Maturity and Total Loss Amounts by Origination Vintage: Severe Stress Scenario

	Projected Term		Projected Maturity		Existing	Projected Total	
Origination Vintage	Default ($ Billions)	Loss ($ Billions)	Default ($ Billions)	Loss ($ Billions)	Loss ($ Billions)	Default ($ Billions)	Loss ($ Billions)
2000	0.7	0.4	1.2	0.3	0.44	1.9	1.1
2001	0.9	0.5	3.2	0.7	0.39	4.1	1.5
2002	1.1	0.5	4.5	0.8	0.18	5.6	1.4
2003	2.2	1.0	7.7	1.2	0.09	9.9	2.3
2004	4.8	2.2	15.4	2.3	0.09	20.2	4.5
2005	11.9	5.8	44.5	7.5	0.08	56.5	13.4
2006	23.9	12.0	50.4	9.0	0.04	74.3	21.1
2007	41.4	23.1	73.2	17.5	0.01	114.6	40.6
2008	1.9	0.9	2.1	0.6	0.00	4.0	1.5
2000-2008	**88.8**	**46.4**	**202.3**	**39.8**	**1.32**	**291.1**	**87.5**
2005-2008	**79.1**	**41.8**	**170.3**	**34.7**	**0.13**	**249.4**	**76.6**

Source: Deutsche Bank

Figure 12: Projected Term, Maturity and Total Loss Amounts by Origination Vintage: Moderate Stress Scenario

	Projected Term		Projected Maturity		Existing	Projected Total	
Origination Vintage	Default ($ Billions)	Loss ($ Billions)	Default ($ Billions)	Loss ($ Billions)	Loss ($ Billions)	Default ($ Billions)	Loss ($ Billions)
2000	0.7	0.4	0.9	0.2	0.44	1.7	1.1
2001	1.3	0.6	2.1	0.4	0.39	3.3	1.4
2002	1.3	0.6	2.0	0.4	0.18	3.3	1.1
2003	1.7	0.8	4.1	0.6	0.09	5.8	1.5
2004	3.0	1.4	9.3	1.3	0.09	12.4	2.9
2005	7.6	3.8	33.7	5.5	0.08	41.3	9.4
2006	13.5	7.1	45.5	7.9	0.04	59.0	15.0
2007	28.6	16.1	77.0	16.7	0.01	105.6	32.8
2008	1.2	0.6	2.5	0.5	0.00	3.7	1.1
2000-2008	**59.0**	**31.3**	**177.1**	**33.6**	**1.32**	**236.1**	**66.2**
2005-2008	**50.9**	**27.5**	**158.7**	**30.6**	**0.1**	**209.7**	**58.3**

Source: Deutsche Bank

Finally, Figures 13 and 14 reorganize the data in Figures 11 and 12 to present losses in terms of the year in which they occur. This gives important information about the projected timing of losses.

Figure 13: Projected Term, Maturity and Total Loss Amounts by Year of Loss: Severe Stress Scenario

	Projected Term		Projected Maturity		Projected Total	
Year	Default ($ Billions)	Loss ($ Billions)	Default ($ Billions)	Loss ($ Billions)	Default ($ Billions)	Loss ($ Billions)
2009	18.5	9.5	2.6	0.6	21.1	10.2
2010	2.6	1.4	13.4	2.7	16.0	4.1
2011	5.9	2.8	19.4	5.0	25.3	7.8
2012	51.9	27.1	32.4	10.2	84.3	37.3
2013	11.4	6.2	12.2	2.3	23.6	8.5
2014	0.3	0.2	17.8	3.1	18.1	3.3
2015	0.0	0.0	27.7	3.7	27.7	3.7
2016	0.0	0.0	36.8	5.6	36.8	5.6
2017	0.0	0.0	40.3	6.8	40.3	6.8
2018	0.0	0.0	0.2	0.1	0.2	0.1
Total	**90.6**	**47.2**	**202.8**	**40.0**	**293.4**	**87.2**

Source: Deutsche Bank

Figure 14: Projected Term, Maturity and Total Loss Amounts by Year of Loss: Moderate Stress Scenario

	Projected Term		Projected Maturity		Projected Total	
Year	Default ($ Billions)	Loss ($ Billions)	Default ($ Billions)	Loss ($ Billions)	Default ($ Billions)	Loss ($ Billions)
2009	19.3	10.0	2.3	0.6	21.6	10.6
2010	8.0	3.8	11.9	2.3	19.9	6.1
2011	14.2	7.6	15.9	3.8	30.1	11.3
2012	18.0	10.1	26.4	7.2	44.4	17.3
2013	0.9	0.5	7.8	1.3	8.7	1.8
2014	0.3	0.2	12.0	2.0	12.3	2.1
2015	0.0	0.0	19.3	2.6	19.3	2.6
2016	0.0	0.0	35.3	5.6	35.3	5.6
2017	0.0	0.0	46.1	8.2	46.1	8.2
2018	0.0	0.0	0.3	0.1	0.3	0.1
Total	**60.6**	**32.1**	**177.3**	**33.7**	**238.0**	**65.8**

Source: Deutsche Bank

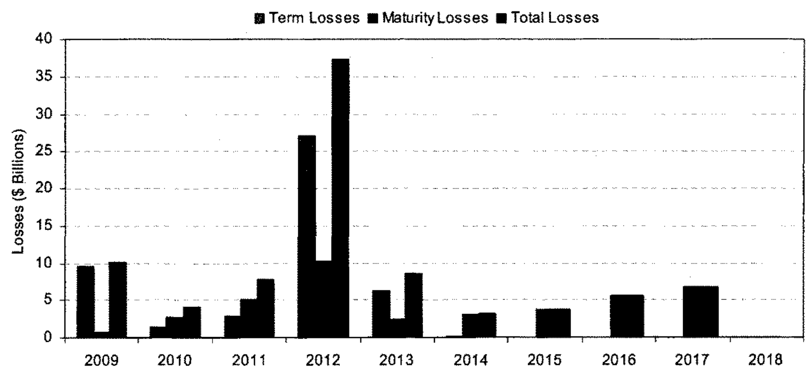
The loss timing data in Figure 13 is presented visually in Figure 15. It is important to note that in both the term and maturity default models losses are assumed to be realized immediately upon default-- loss timing is really just default timing. This approach is taken, despite the fact that in reality there is a long lag between defaults and loss realization (typically 18-24 months), in order to account for appraisal reductions, which are critical in valuing CMBS securities.[4]

Interestingly, maturity default related losses build quickly from 2010 and peak in 2012, not in 2017. This reflects the fact that 2012 is projected to be the trough of the downturn.

Term losses, however, are concentrated in the 2009-2013 time period. The loss timing looks a bit odd because, by design, the term default/loss is taken at that point along the NOI projection that produces the greatest loss. This typically occurs close to 2012, since this is where the maximum decline in NOI takes place. The large losses in 2009 reflect the fact that the model immediately defaults all loans that are currently 60-days delinquent or worse.

[4] From a cash flow and valuation perspective, appraisal reductions effectively shorten the time between defaults and losses to just a few months.

Figure 15: Projected Timing of Term and Maturity Defaults/Losses



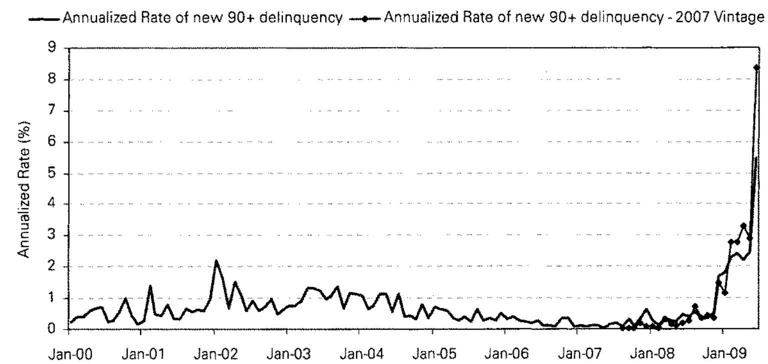
Source: Deutsche Bank

Given that the models are projecting very large losses over the next five years, one naturally wonders about the consistency of current loan performance trends with these projections. In order to gauge this consistency, current delinquency data for fixed rate conduit loans can be used. It turns out that simple delinquency rates are not of much use here, since loans can remain in the 90+ day delinquency category for several years. What is needed is an approximate current default rate for CMBS loans. This can be estimated by calculating the annualized rate of flow of loans into the 90+ day delinquency category.[5]

The new 90+ day delinquency rate, the proxy for the default rate, is presented in Figure 16, both for all outstanding loans (blue line) and for the 2007 vintage loans (black line). The data suggests that for the CMBS universe as a whole, loans are now defaulting at a rate of approximately 5.5% annually. If defaults remain at this level for two years and the loss severity rate is 50%, then losses will reach the projected level of term losses. Turning next to the 2007 vintage loans, the current default rate is about 8.5%. Were this pace to be maintained for three years, with a loss severity, again, of 50%, losses would reach the 12% projected rate for this vintage. Of course, in reality, we expect loan performance to continue to deteriorate for the next 12-24 months. Therefore, we believe that these loss projections are roughly consistent with the current loan performance data, at least for the moment.

[5] In order to avoid double counting, i.e. loans that become 90+ days delinquent, cure and then become 90+ days delinquent again at some point in the future being counted as two separate defaults, we exclude loans from the calculation once they have become 90+ delinquent for the first time.

Figure 16: Approximate Annualized Default Rates for Both the CMBS Universe and the 2007 Vintage



Source: Deutsche Bank and Intex

Finally, Figure 17 presents projected term and maturity default related losses by property type. Not surprisingly, office leads the way with nearly 22% projected total losses. Retail and multifamily lag well behind with 13.9% and 15.1% projected losses, respectively. Clearly, projected total loss rates for hotel loans, at 5.5%, are grossly inadequate.

Figure17: Projected Term and Maturity Default Related Losses by property Sector

	Projected Term		Projected Maturity		Projected Total	
Property Sector	Default %*	Loss %*	Default %*	Loss %*	Default %*	Loss %*
Hotel	5.3	3.0	16.2	2.6	21.6	5.5
Industrial	4.5	2.1	18.1	2.3	22.6	4.4
Multifamily	14.3	7.2	36.9	7.9	51.2	15.1
Office	26.3	14.4	32.9	7.3	59.2	21.7
Retail	13.5	6.6	40.4	7.3	54.0	13.9
Multi-Property	8.9	4.9	35.6	8.0	44.5	12.9
Other	17.7	9.7	30.9	6.1	48.6	15.8

* Percent calculated with respect to balance at time of default

Source: Deutsche Bank

IV. A More Detailed Analysis of Non-Refinanceable Loans

The analysis has, until now, focused on defaults and losses of various types and the proportion of loans that may not qualify for refinancing at maturity. This section takes a somewhat different perspective of the problem by attempting to identify, in more detail, when and where the opportunities for private capital may be in commercial real estate.

To begin with, loans that do not qualify to refinance are categorized into two groups. The first group consists of loans that do not qualify to refinance, but could nevertheless potentially escape foreclosure through the use of mezzanine financing or some type of equity partnership. This group consists, roughly, of loans whose LTVs at maturity are below 100%. (In reality it might be better approximated by loans with LTVs below 90-95%.) The second group consists of loans that likely cannot be salvaged–loans with maturity LTVs in excess of 100%. These loans must, in the end, either be sold to distressed investors or foreclosed upon and the properties liquidated.[6] Thus, the first category of loans represents opportunities for mezzanine finance and/or equity partnerships, while the second category represent opportunities for distressed real estate or loan investors. While this breakdown is admittedly crude, we believe it has some value in helping to refine the estimated magnitude of various types of potential future opportunities.

Figures 18-21 use the above categorization to estimate the approximate size of these opportunities over time. In particular, in Figure 18 it is assumed, once again, that there are no term defaults, only maturity defaults. The aggregate balance of loans in each category, as well as their equity deficiency, is presented for each maturity year, for both the Severe and Moderate Stress Scenarios. Under the Severe Stress Scenario, $402 billion dollars of loans are salvageable, while $180 billion are not. Under the Moderate Stress Scenario, $442 billion are salvageable and $141 billion are not. The results suggest a need for approximately $35-$40 billion in new equity or mezzanine financing in the case of salvageable loans.

It should be noted that in Figures 18-21 the aggregate balance is somewhat lower than in previous figures. The reason is that the balances used are the balances either at maturity or at the time of term default. They are not today's current balances.

[6] Discounted payoffs are another possibility.

Figure 18: Approximate Size and Equity Deficiency for Salvageable and Non-Salvageable Loans by Maturity Year: Assuming No Term Defaults

	Severe Scenario				Moderate Scenario			
	LTV <=100		LTV > 100		LTV <=100		LTV > 100	
Maturity Year	Balance ($ Bil)	Equity Deficiency ($ Bil)	Balance ($ Bil)	Equity Deficiency ($ Bil)	Balance ($ Bil)	Equity Deficiency ($ Bil)	Balance ($ Bil)	Equity Deficiency ($ Bil)
2009	15.6	0.9	2.5	1.2	17.2	0.7	2.0	1.0
2010	24.6	2.3	8.4	3.4	25.9	2.3	7.1	2.9
2011	28.7	2.7	13.9	6.6	31.1	2.6	11.5	5.4
2012	28.6	2.7	27.8	14.0	32.7	2.6	23.6	11.6
2013	29.0	2.4	10.1	4.8	33.3	1.9	5.9	2.9
2014	33.7	3.2	14.1	6.2	39.9	2.9	7.9	3.6
2015	68.9	6.6	20.2	8.7	76.0	5.3	13.1	5.7
2016	88.7	8.8	35.2	15.4	96.5	8.2	27.4	11.9
2017	80.3	7.8	47.1	21.3	85.1	7.7	42.3	18.9
2018	3.8	0.1	0.4	0.2	3.8	0.1	0.4	0.2
Total	**401.9**	**37.4**	**179.6**	**81.9**	**441.5**	**34.3**	**141.3**	**64.1**

Source: Deutsche Bank

Figure 19 simply reorganized the data in Figure 18 and presents in by origination vintage.

Figure 19: Approximate Size and Equity Deficiency for Salvageable and Non-Salvageable Loans by Vintage: Assuming No Term Defaults

	Severe Scenario				Moderate Scenario			
	LTV <=100		LTV > 100		LTV <=100		LTV > 100	
Vintage Year	Balance ($ Bil)	Equity Deficiency ($ Bil)	Balance ($ Bil)	Equity Deficiency ($ Bil)	Balance ($ Bil)	Equity Deficiency ($ Bil)	Balance ($ Bil)	Equity Deficiency ($ Bil)
2000	9.6	0.4	0.9	0.4	9.8	0.4	0.8	0.4
2001	15.2	1.0	1.9	0.9	15.6	0.8	1.5	0.7
2002	15.6	1.2	2.5	1.2	16.5	0.8	1.6	0.8
2003	25.1	2.0	5.1	2.2	27.6	1.4	2.6	1.2
2004	39.4	3.4	10.1	4.3	44.2	2.7	5.5	2.3
2005	82.9	8.5	30.6	13.2	92.0	7.4	21.5	9.2
2006	104.5	10.5	42.3	18.6	115.3	10.0	31.5	13.8
2007	97.0	9.5	83.1	39.6	106.0	10.1	74.1	34.6
2008	7.4	0.5	2.4	1.1	8.0	0.5	1.9	0.8
Total	**396.7**	**37.0**	**178.7**	**81.4**	**435.1**	**34.1**	**140.9**	**63.9**

Source: Deutsche Bank

Figures 20 and 21 present the same information as Figures 18 and 19, except here, term defaults and losses are turned back on again. The loans that term default are not reflected in the figures. Rather, the figures represent the situation at maturity for those loans that survive to maturity. Of course, the term defaults will themselves represent additional opportunities, particularly for distressed real estate and loan investors. These are not captured in the figures.

Figure 20: Approximate Size and Equity Deficiency for Salvageable and Non-Salvageable Loans by Maturity Year: With Term Defaults

	Severe Scenario				Moderate Scenario			
	LTV <=100		LTV > 100		LTV <=100		LTV > 100	
Maturity Year	Balance ($ Bil)	Equity Deficiency ($ Bil)	Balance ($ Bil)	Equity Deficiency ($ Bil)	Balance ($ Bil)	Equity Deficiency ($ Bil)	Balance ($ Bil)	Equity Deficiency ($ Bil)
2009	14.2	0.7	1.5	0.7	14.4	0.6	1.3	0.6
2010	24.2	2.1	7.8	3.1	25.4	2.2	6.5	2.6
2011	28.2	2.5	12.4	5.8	30.5	2.4	9.3	4.3
2012	28.2	2.6	24.7	12.2	32.2	2.5	19.0	8.8
2013	28.8	2.3	6.3	2.6	32.9	1.8	3.3	1.4
2014	33.4	3.1	8.9	3.5	39.5	2.8	5.0	1.9
2015	67.7	6.3	9.6	3.6	74.9	5.2	7.0	2.6
2016	84.0	7.9	15.8	6.0	93.9	7.8	16.4	6.1
2017	74.7	6.8	21.2	8.0	82.8	7.4	25.5	9.8
2018	3.5	0.1	0.2	0.1	3.7	0.1	0.2	0.1
Total	**386.8**	**34.5**	**108.4**	**45.4**	**430.2**	**32.7**	**93.7**	**38.1**

Source: Deutsche Bank

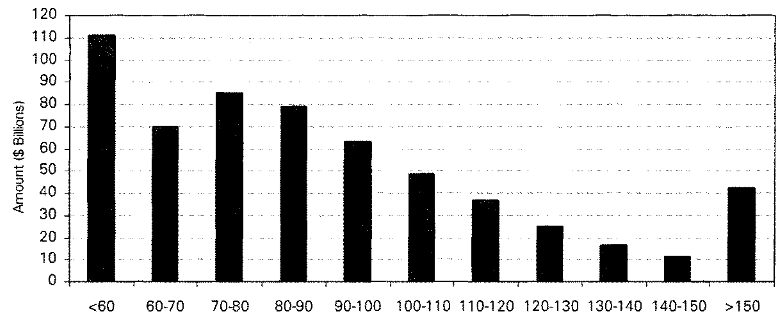
Figure 21: Approximate Size and Equity Deficiency for Salvageable and Non-Salvageable Loans by Vintage: With Term Defaults

	Severe Scenario				Moderate Scenario			
	LTV <=100		LTV > 100		LTV <=100		LTV > 100	
Vintage Year	Balance ($ Bil)	Equity Deficiency ($ Bil)	Balance ($ Bil)	Equity Deficiency ($ Bil)	Balance ($ Bil)	Equity Deficiency ($ Bil)	Balance ($ Bil)	Equity Deficiency ($ Bil)
2000	9.2	0.3	0.5	0.2	9.2	0.3	0.4	0.2
2001	14.7	0.9	1.4	0.6	15.1	0.7	0.6	0.3
2002	15.4	1.1	1.7	0.7	16.2	0.7	0.7	0.3
2003	24.9	1.9	3.2	1.2	27.3	1.3	1.2	0.4
2004	38.5	3.3	6.3	2.4	43.1	2.6	3.5	1.3
2005	81.6	8.3	20.6	8.3	91.0	7.2	15.4	6.1
2006	99.7	9.5	24.4	9.9	112.7	9.6	21.4	8.5
2007	91.3	8.6	48.6	21.3	103.2	9.7	49.1	20.5
2008	6.5	0.3	1.6	0.8	7.3	0.4	1.4	0.6
Total	**381.8**	**34.2**	**108.3**	**45.4**	**425.2**	**32.6**	**93.7**	**38.1**

Source: Deutsche Bank

Figures 22-26 show different stratifications for maturity LTVs assuming there are no term defaults. For each figure, the x-axis is maturity LTV. Figure 22 provides a histogram for maturity LTVs by dollar amount. The very large upper tail of the distribution represents loans with very high LTVs. Of course, most of the very high LTV loans term default prior to maturity.

Figure 22: Distribution of Maturity Date LTVs Assuming No Term Defaults: Severe Stress Scenario

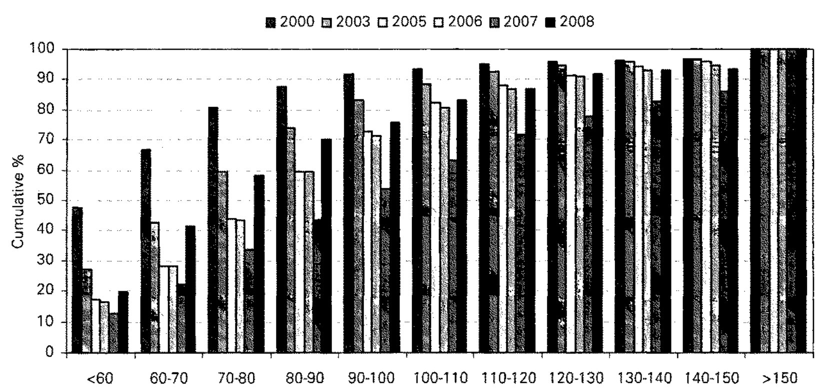


Source: Deutsche Bank

Figures 23 and 24 stratify the maturity LTV data by origination vintage. The figures present the cumulative distribution functions for vintages 2000, 2003, 2005, 2006, 2007 and 2008. Each bar represents the percentage of loans with maturity LTV at, or below, the indicated level. For example, 48% of the 2000 vintage have maturity LTVs below 60%, while only 13% of the 2007 vintage have maturity LTVs of 60% or below.

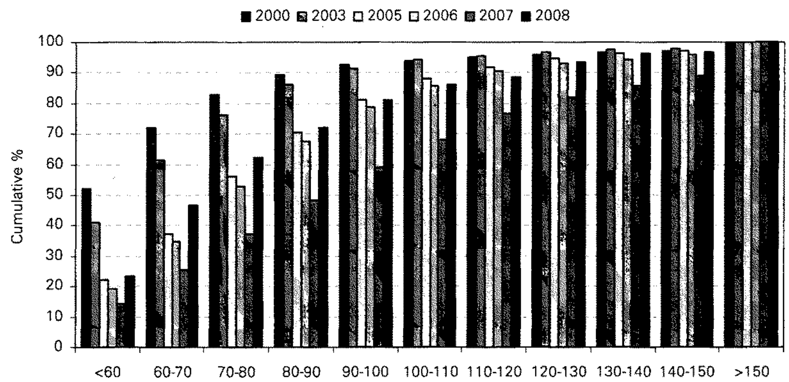
It can be seen that seasoned vintages contain much higher proportions of loans with lower maturity LTVs than more recent vintages.

Figure 23: Cumulative Distribution of Maturity LTVs by Origination Vintage: Severe Stress Scenario



Source: Deutsche Bank

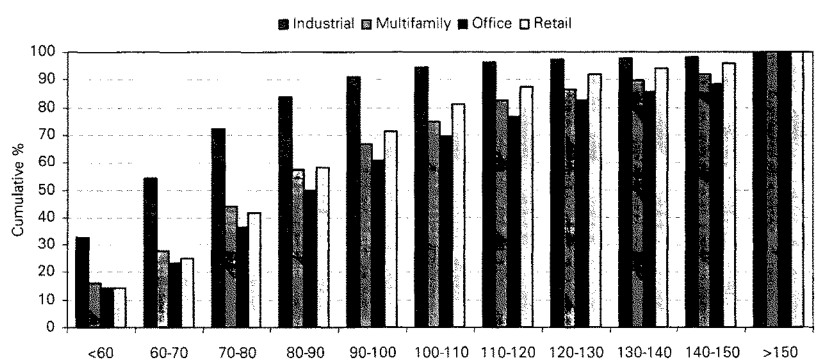
Figure 24: Cumulative Distribution of Maturity LTVs by Origination Vintage: Moderate Stress Scenario



Source: Deutsche Bank

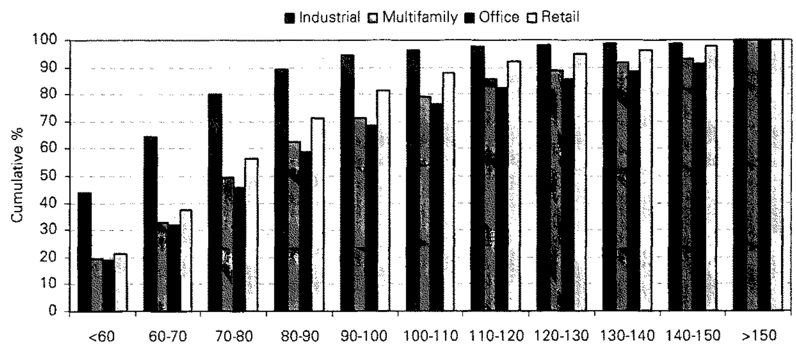
Finally, Figures 25 and 26 provide the same information as Figures 23 and 24, except the data is stratified by property type. These two figures indicate clearly the degree to which loans on office, multifamily and retail were over-leveraged relative to loans on industrial.

Figure 25: Cumulative Distribution of Maturity LTVs by Property Type: Severe Stress Scenario



Source: Deutsche Bank

Figure 26: Cumulative Distribution of Maturity LTVs by Property Type: Moderate Stress Scenario



Source: Deutsche Bank

V. A Look at Commercial Real Estate Problems in Bank Portfolios

It is difficult to conjecture about how the problems in CMBS may unfold without considering, in some detail, the situation of commercial real estate loans in bank portfolios. In fact, we believe that commercial real estate problems in banks are likely to have a dominant impact on CMBS, and the rest of the commercial real estate debt markets as well. There are several reasons for this. First, commercial real estate exposure in bank portfolios is enormous, much larger than the CMBS market. Second, we believe that commercial real estate loans in banks are, on the whole, at least as risky, and possibly significantly riskier, than those in CMBS. And third, extreme stress is likely to develop in bank commercial real estate loans well before it does in CMBS loans.

In aggregate, banks have approximately a $1.7 trillion exposure to loans classified as commercial real estate loans. This is comprised of about $1 trillion of "core" commercial real estate loans, $532 billion of construction and land development loans and $150 billion of multifamily loans. Moreover, their commercial real estate exposure represents more than 25% of total assets. Importantly, this exposure increases markedly for smaller banks. For the four largest banks (on the basis of total assets), this exposure is 12.3%, for the 5-30 largest banks, the exposure is 24.5%, while for the 31-100 largest banks, the exposure grows to 38.9%.

Below, exposures for both construction and core commercial real estate loans are presented separately for four different size categories of banks (where size is based on total assets):

- Category 1: Banks 1-4
- Category 2: Banks 5-19
- Category 3: Banks 20-50
- Category 4: Banks 51-97

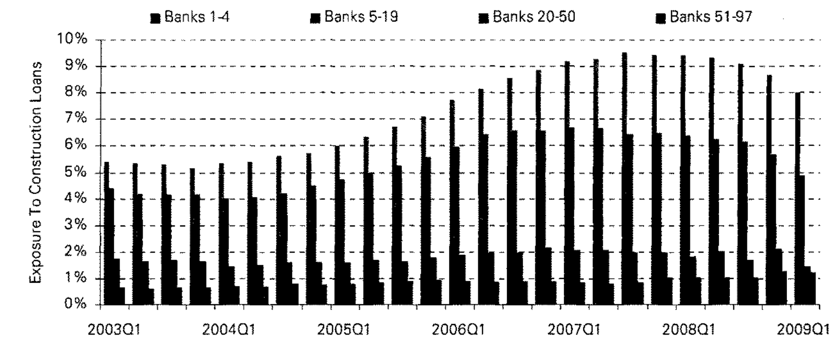
Category 1 represents the largest money center banks; category 2 represents the super regional and large regional banks; category 3 contains average size regional banks having total assets in excess of $25 billion; category 4 reflects smaller regional banks and larger community banks with total assets of $10-$25 billion.

Figure 27 presents the exposures, since Q1 2003, of the four categories of banks to construction and land development loans. The average exposure in recent years has been about 1% for the four largest banks, but 8-9% for banks 51-97.

The story is similar for core commercial real estate loans. Figure 28 presents the data. The exposure of the largest banks has averaged only about a 2% over time, while that of the 51-97 largest banks has been in the 15% range.

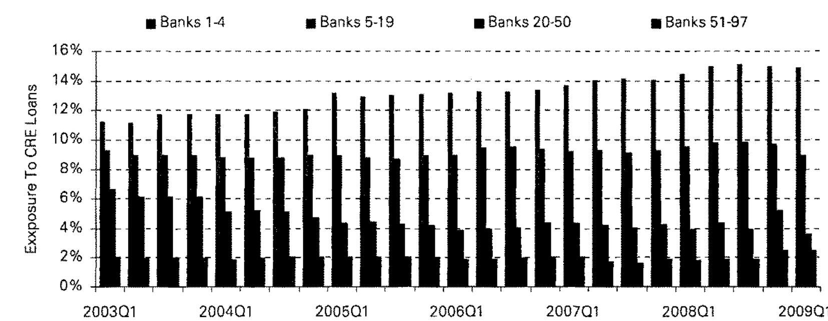
One other interesting observation is that construction loan exposure appears to have been declining over the past 18 months or so, while commercial real estate exposure has been increasing. This is particularly noticeable for the 51-97 largest banks. We conjecture this reflects construction loans on completed projects being transferred to the commercial real estate category, perhaps via mini perm loans or other bridge financing. To the extent that this is the case, the commercial real estate exposure could entail significantly greater risk.

Figure 27: Bank Exposure to Construction and Land Development Loans



Source: Deutsche Bank and SNL Financial

Figure 28: Bank Exposure to Core Commercial Real Estate Loans



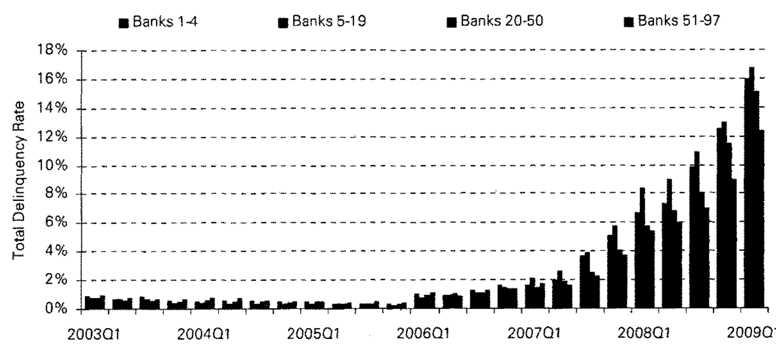
Source: Deutsche Bank and SNL Financial

In terms of risk, construction and land development loans are, without doubt, the riskiest commercial real estate loan product. The credit risk is so significant that they were never deemed appropriate for CMBS and, in fact, there was very little incidence of them appearing.

Values for properties with vacancy issues are down by enormous magnitudes in today's environment, as recent sales of distressed office properties in Manhattan have made it abundantly clear. Properties under construction, or newly completed properties, are the poster children for properties with vacancy issues. Values here must be down by extremely large percentages. As a result, loss severities on defaulted construction loans will be extremely high, possibly as high as 75%, or more.

Construction loans in bank portfolio are already exhibiting surging delinquency rates. Figure 29 presents historical total delinquency rates (i.e. 30 +) for construction loans, again broken out by bank category.

Figure 29: Total Delinquency Rates (30+ Day Delinquency) for Construction Loans in Bank Portfolios



Source: Deutsche Bank and SNL Financial

Total delinquency rates have reached 12% for the largest banks and 16% for regional banks. While this is certainly an appalling number, we believe it vastly understates the true magnitude of the problem. The reason is that construction loans are almost always structured with large upfront interest reserves that are sufficient to pay the interest on the loan during the construction period, typically two to three years. Moreover, as construction loans are typically floating rate loans, and short-term interest rates have plummeted since 2007, the cost of debt service has declined significantly. Therefore, the interest reserves in construction loans may actually be sufficient to carry the loans for another 12-24 months. However, eventually interest reserves, and time, will run out on these loans and at that point we expect to see a massive wave of defaults.

In our view, ultimate losses on construction loans are likely to be at least 25%, and possibly much more. This would imply losses of at least $130 billion on construction loans in bank portfolios.

Turning to core commercial real estate loans in bank portfolios, our view is that this segment is at least as risky as the fixed rate CMBS sector, and probably significantly more risky. Our view is based on the following points:

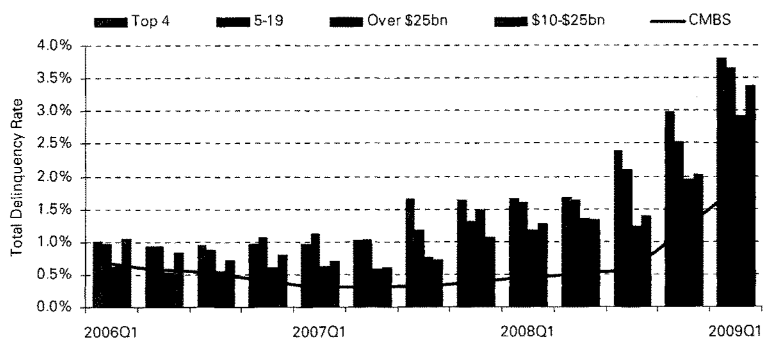
1. First, the CMBS market grew dramatically over the past few years, from $93 billion in issuance in 2004, to $169 billion in 2005, to $207 billion in 2006 to $230 billion in 2007. Much of the growth in market share came at the expense of banks, as CMBS siphoned off many of the desirable loans on stabilized properties with extremely competitive rates. Banks, funding themselves at L-5bp simply couldn't compete on price terms given the execution that was available in CMBS at the time. This forced banks, particularly regional and community banks, into riskier lines of commercial real estate lending, like condo conversion loans.

2. Because of their liability structure, bank commercial lending has always tended to focus more on shorter term lending on properties with some transitional aspect to them—properties with a business plan. Such transitional properties typically suffer more in a downturn as the projected cash flow growth fails to materialize.

3. Because bank loans typically have three to five year terms, a very large percentage were originated at the peak, 2005-2007, and will mature at the trough of the downturn, 2011-2012. Most CMBS loans originated during the 2005-2007 period mature during 2015-2017.

4. The view that core commercial real estate loans in bank portfolios are at least as risky as loans in the fixed rate CMBS sector gains support by the fact that delinquency rates on the former have consistently been significantly higher than those on CMBS loans. Figure 30 compares historical total delinquency rates for the four categories of banks to that of CMBS. The total delinquency rate on bank loans have typically been two to three times higher than that on CMBS.

Figure 30: Total Delinquency Rates: Bank Commercial Real Estate Loans Vs. CMBS



Source: Deutsche Bank and SNL Financial

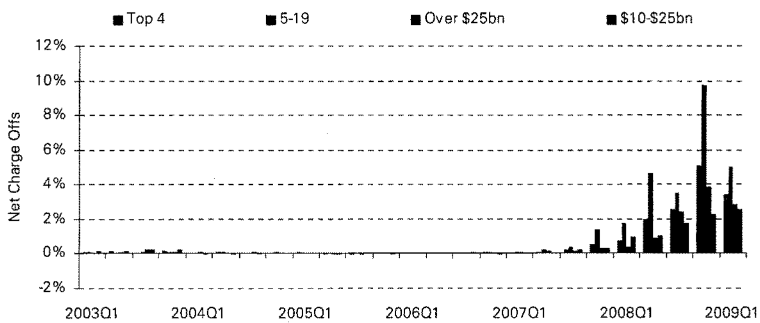
Because of the reasons outlined above, we believe it is reasonable to expect that total losses on bank core commercial real estate loans will be at least as large as those on CMBS loans originated during the same period. From Figures 9 and 10, this suggests losses in the ranges of 11.6% - 15.3%, or roughly $115 - $150 billion.

Thus, our estimate of losses for banks from the combination of construction and core commercial loans alone is $250 - $300 billion. This excludes losses from multifamily loans, which, admittedly, should be much lower given the size of the exposure.

Finally, looking at the net charge offs that have already been taken by banks, the cumulative (since Q1 2008) net charge offs for construction loans ranged from a high of 25% for Category 3, to a low of 8.7% for Category 1. See Figure 31. It appears as though banks have a long way to go in charging off reasonable amounts for construction loans.

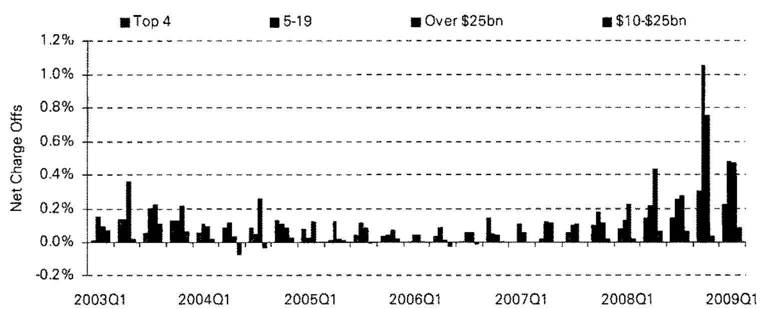
However, the situation is far worse in core commercial real estate loans, where we expect to see 11.6% - 15.3% total losses. Here, cumulative net charge offs since Q1 2008 range from a high of 3.2% to a low of 0.3% (for the large money center banks).

Figure 31: Bank's Net Charge Offs for Construction Loans



Source: Deutsche Bank and SNL Financial

Figure 32: Bank's Net Charge Offs for Core Commercial Real Estate Loans



Source: Deutsche Bank and SNL Financial

For both construction and core commercial real estate loans, net charge offs to date have been highly inadequate. This is clearly a problem that is being pushed out into the future.

In our view, banks will, once again, be at the epicenter of the commercial mortgage crash, just as they were in the early 1990s. Within the banking sector, we believe that smaller regional and community banks are likely to suffer disproportionately. The way in which regulators respond to this crisis will be a key determinant of how long the commercial real estate market remains mired in these problems. If banks are allowed bury problem loans away in their portfolios for years via massive term extensions, this is likely to a very long process. If, on the other hand, banks (and CMBS special servicers too, for that matter) are required to deal with problems in a timely manner, the process, which will be unavoidably painful, is likely to be much shorter duration.

V. Conclusions

Our updated analysis continues to suggest that the majority of CMBS loans that survive until maturity will fail to qualify to refinance without major equity infusions. However, by introducing term defaults into the picture in an internally consistent way, we conclude that a significant proportion of loans of loans (15-20%) are expected to default prior to maturity.

Our estimates of total losses, at 9-12% for the outstanding CMBS universe as a whole, and 11.6-15.3% for the more recent vintages (2005-2008), suggest that the intensity of the current commercial real estate crash may eventually exceed that of the early 1990s, possibly by a significant degree.

Banks, in particular, look vulnerable, especially smaller regional and community banks that have very high exposures to highly toxic construction and land development loans. We expect that they will, once again, mark the epicenter of commercial real estate problems.

Appendix 1

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The Real Estate Roundtable

STATEMENT OF

JEFFREY D. DEBOER

ON BEHALF OF

THE REAL ESTATE ROUNDTABLE

UNITED STATES CONGRESS

JOINT ECONOMIC COMMITTEE

HEARING

ON

COMMERCIAL REAL ESTATE: DO RISING DEFAULTS POSE A SYSTEMIC THREAT?

RAYBURN HOUSE OFFICE BUILDING
ROOM 2226
WASHINGTON, DC

Thursday, July 9, 2009

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INTRODUCTION

Thank you, Chairman Maloney, Vice Chairman Schumer, Ranking Members Brady and Brownback, members of the Committee, for conducting today's hearing on the state of the economy with respect to commercial real estate.

I am Jeffrey DeBoer, and I am the President and Chief Executive Officer of The Real Estate Roundtable, an organization that represents the leadership of the nation's top 130 privately owned and publicly-held real estate ownership, development, lending and management firms, as well as the elected leaders of the 16 major national real estate industry trade associations. Collectively, Roundtable members hold portfolios containing over 5 billion square feet of developed property valued at over $1 trillion; over 1.5 million apartment units, and in excess of 1.3 million hotel rooms. Participating Roundtable trade associations represent more than 1.5 million people involved in virtually every aspect of the real estate business.

Thank you for the opportunity to testify today about the impact the economic downturn and credit market dislocation is having on commercial real estate and how that dislocation will negatively affect the overall economy and impede future economic growth.

By way of background, when I speak of the commercial real estate sector I am speaking of six principal property types – apartment, office, retail, industrial, health care and hotels. It is also important to realize that the commercial real estate market includes many diverse regional and local markets, as well as submarkets within markets, each with their own dynamics. A common attribute through all, however, is that they each depend on a healthy economy for occupancy and operating income, and on a liquid financing market to facilitate investment, development and sales of properties.

My message today is simple and straightforward. The current credit system in America simply does not have the capacity to meet the legitimate demand for commercial real estate debt. As the demands for debt remain unmet, the stress to the financial services system overall, individual financial institutions, and those who have invested in real estate directly or indirectly will increase.

The lack of credit has stalled transaction volume, which has fallen by nearly 80 percent. Asset values are estimated to have fallen from their peak by approximately 35 percent on average, and capitalization rates are presumed to have increased by approximately 250 basis points, while rents have declined up to 20 percent depending on the property type. Yet, with a scarcity of property transactions, there is no effective price discovery, and this further exacerbates the real estate credit market crisis – where loan-to-value is a critical metric used in the lending process. This is a market failure of catastrophic proportions.

With very limited capacity to meet the ongoing demand for credit, there is increasing concern about a potential wave of defaults – from maturing loans - that will further exacerbate the current credit crisis. Needless to say, this has broad systemic consequences and will reverse the progress that has been made in healing the banking system and credit markets to date.

What does this mean for Main Street USA?

The commercial real estate sector of the economy is large, representing $6.7 trillion of value supported by $3.5 trillion in debt. Its health is vital to the economy (estimates show commercial real estate constitutes 13% of GDP by revenue) and our nation's financial system.

An estimated 9 million jobs are generated or supported by real estate — jobs in construction, planning, architecture, environmental consultation and remediation, engineering, building maintenance and security, management, leasing, brokerage, investment and mortgage lending, accounting and legal services, interior design, landscaping, cleaning services and more.

Rising defaults (resulting from a lack of refinancing options) and falling property values in commercial real estate will create a cascade of negative repercussions for the economy as a whole.

- **For millions of Americans whose pension funds invest directly or indirectly in approximately $160 billion of commercial real estate equity**, increased loan defaults and lower property values will mean a smaller retirement nest egg.

- **For millions of construction, hotel and retail workers**, the commercial real estate liquidity vacuum will translate into cancelled or delayed projects, layoff and pinched family budgets — exacerbating rising unemployment and declining consumer spending. This, in turn, will further hurt U.S. businesses and exacerbate falling demand for commercial real estate space.

- **For state and local governments**, erosion of property values will mean less revenue from commercial property assessments, recording fees and transaction taxes resulting in bigger budget shortfalls.

- **For the communities they serve**, it will mean cutbacks in essential public services such as education, road construction, law enforcement, and emergency planning.

I am here today to continue to sound the alarm bell. The policy actions to date have been helpful, but additional steps are called for to help transition the ownership and financing of commercial real estate from a period of higher than desirable leverage and weak loan underwriting to a time of systemically supportable leverage, sounder underwriting, and economic growth.

As detailed below, we recommend that the following policy actions should be enacted as soon as possible:

1. Extend the Term Asset-Backed Securities Loan Facility (TALF) beyond its current December 31, 2009 sunset date, through the end of 2010.

2. Establish a federally-backed credit facility, possibly created from the PPIP structure or a privately funded guarantee program, for originating new commercial real estate loans.

3. Encourage foreign capital investment in U.S. real estate by amending or repealing the outdated Foreign Investment in Real Property Tax Act (FIRPTA).

4. Encourage banks and loan servicers to extend performing loans, based on cash flow analysis; and, temporarily amend real estate mortgage investment conduit (REMIC) regulations to facilitate early review and possible modification to the terms of commercial mortgage loans that have been securitized in CMBS.

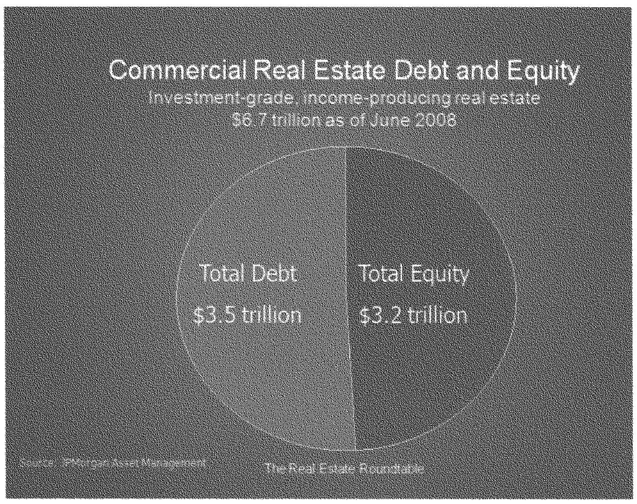
5. Reject new anti-real estate investment taxes, such as the carried interest proposal; and, provide a five year carry back for the net operating losses of all businesses.

THE CURRENT PICTURE

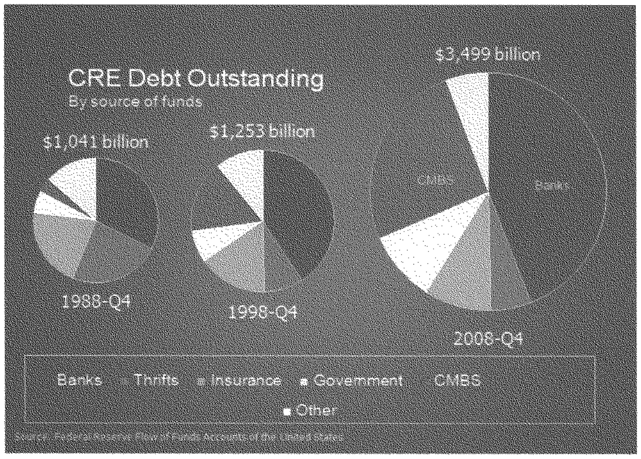
The commercial real estate industry is in deep stress for two reasons. First, the macro economy is caught in a "Great Recession": unemployment is high and likely going higher; consumer spending is down substantially; and business and personal travel is down. All of which results in reduced operating income for property owners and lower property values.

Second, and in many respects more importantly, the credit markets are essentially closed to refinancing existing real estate debt or securing new debt to facilitate transactions. The lack of a functioning credit market is putting further downward pressure on property values and is causing many commercial property owners to face "maturity defaults" on their loans. This will create a great deal of added stress on the banking system, as losses are absorbed, and on the overall economy.

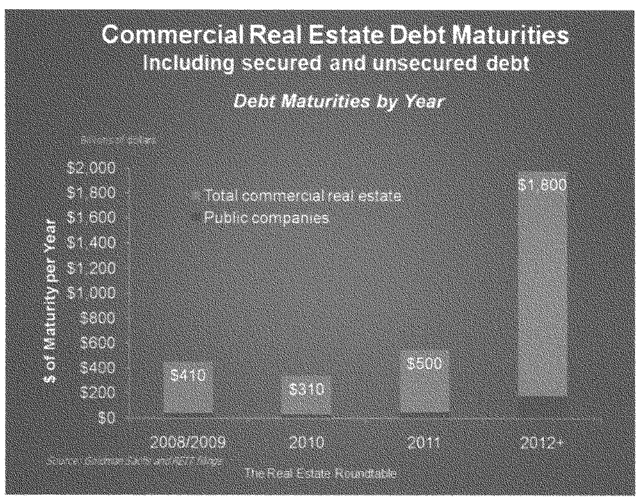
The size of the problem is large today and if not addressed could become large enough to undermine the positive economic growth signs that are starting to appear. Commercial real estate in America is valued at approximately $6.7 trillion. It is supported by about $3.5 trillion of debt.



Most commercial real estate debt has loan terms of 10 years or less, and therefore a significant percentage of outstanding debt matures each year and needs to be refinanced. The three largest providers of credit to the sector are: 1) commercial banks, with $1.5 trillion, or 43%; 2) commercial mortgage backed securities (CMBS) accounts for approximately $750 billion, or 22%; and 3) life insurance companies, with $315 billion or 9%. Additionally, some $330 billion is held by the government sponsored enterprises (GSEs), agencies or GSE-backed mortgage pools.

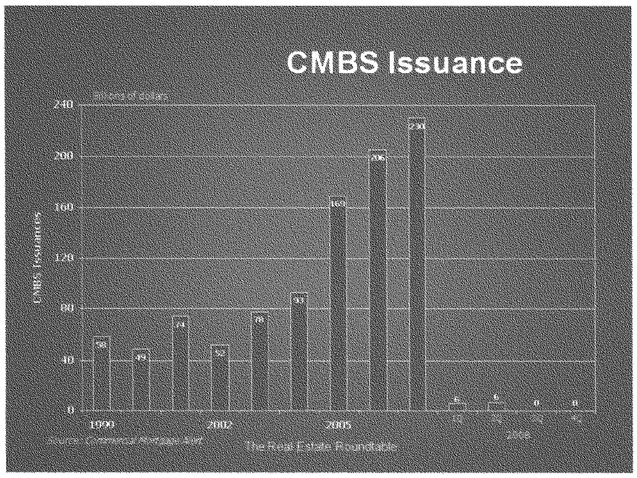


In 2009, the amount of maturing commercial real estate loans is estimated to be between $300 and $500 billion. Maturing debt in this sector continues to expand. With an average $400 billion of commercial real estate debt maturities each year for the next decade, the credit market as it is currently structured does not have the capacity to absorb this demand.



During the last several years, banks and the commercial mortgage backed securities market provided about 83% of the growth in commercial real estate debt. Today both of these large sources of commercial real estate credit are virtually shut down.

The CMBS market is illustrative of the problem. CMBS issuance peaked in 2007 with $230 billion of bonds issued; this plunged to $12 billion in 2008 – a nearly 95% decline. Thus far this year, there has been no new CMBS issuance.



The result is that the $6.7 trillion commercial real estate sector, a very large contributor to overall economic growth, now faces a liquidity crisis of mammoth proportions - where even performing loans, on strong assets in good markets, face extreme difficulty in refinancing their debt.

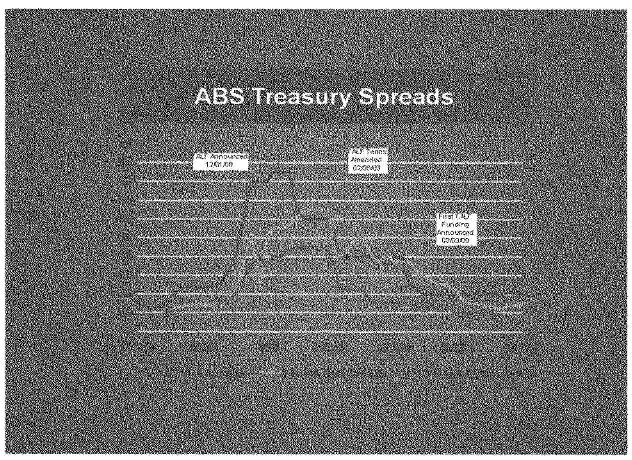
That being said, it is noteworthy that real estate investment trusts (REITs) and other publicly traded real estate companies have raised appreciable amounts of equity, as well as some debt, so far in 2009 as investors have sought opportunities to deploy capital in the more liquid and transparent sectors of the market. Since the beginning of the year, REITs, which represent approximately ten percent of the overall commercial real estate market, have raised nearly $16.3 billion in the public equity markets and approximately $2.4 billion of unsecured debt. These capital raising activities alone do not mean that commercial real estate is out of the woods. The industry overall continues to face tremendous challenges to maintain sufficient liquidity in the face of the current credit crisis. But, it is definitely a positive sign that some capital has been made available through public securities markets to the publicly-traded segment of the commercial real estate business. The only other sources of credit available to the sector are the government sponsored enterprises - Fannie Mae and Freddie Mac - but these sources are limited to the multifamily market. So, additional measures are imperative on the credit front in order to further reduce financial pressures for all owners and operators of commercial real estate.

POLICY ACTIONS ARE NEEDED

We appreciate the steps taken so far by the Congress, the Federal Reserve and the Treasury Department to try to address the vast liquidity crisis that is crippling the economy, destroying jobs and causing a free fall in commercial property values. But much more needs to be done. We suggest policymakers focus on the following principle areas.

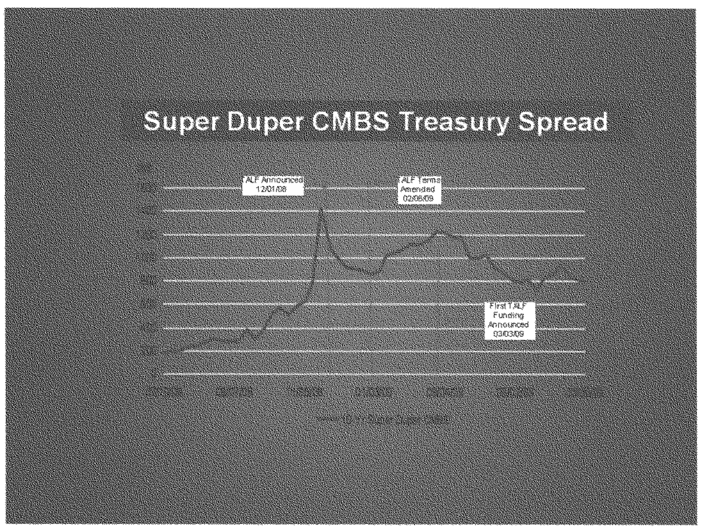
1. **Even if portfolio lenders – such as commercial banks and life companies – returned to the market in force, these institutions simply do not have the capacity to satisfy demand. Therefore, steps must be taken to restore an active commercial mortgage securitization market.**

   - **We are encouraged by the creation of the Term Asset Backed Loan Facility (TALF), which will provide attractive financing to investors who purchase newly issued AAA-rated securities backed by commercial real estate loans**. Newly issued AAA-rated commercial mortgage backed securities (CMBS) became eligible for TALF financing in late June, as will legacy AAA CMBS later in July. This program is intended to help reconnect the loan originators with the secondary markets. This program already has been very helpful in addressing the liquidity problem in consumer debt - such as auto loans and credit card debt and has led to the issuance of nearly $51 billion of financing. For example, newly issued AAA-rated asset backed securities (ABS) were recently priced through TALF at a spread of 155 basis points over LIBOR. That's 100 basis points less than where the market would have priced it, and approximately 400 basis points better than where similar securities were trading at the end of 2008.



- **We believe that, once it is fully functioning for real estate later in the summer, this program will be helpful to commercial real estate as well.** The Federal Reserve Board's recent announcement regarding the much anticipated expansion of the TALF program to legacy CMBS assets brought an even stronger market reaction than when the announcement of the new issue parameters came out. The extension of eligible TALF collateral to include legacy CMBS is intended to promote price discovery and liquidity for legacy CMBS. However, there are concerns that a recent watch listing by Standard & Poor's of many of the potentially qualified legacy securities could limit the eligibility of most potential legacy CMBS bonds for TALF funding.

- For example, since the TALF announcement, risk premiums on the top-rated AAA portions of securities with recent loans as collateral have tightened by 650 basis points over Treasuries from a high of 1350 basis points in November of 2008. The resulting improvement in legacy CMBS markets should ultimately facilitate the issuance of newly issued CMBS, thereby helping borrowers finance new purchases of commercial properties or refinance existing commercial mortgages on better terms.



- **We support the Federal Reserve's recent move to expand the list of acceptable credit rating agency firms from three to five.** This should introduce more competition among the firms and provide investors with a better view of the performance of existing CMBS. Moreover, we have long supported reform of the credit rating agencies. Along those lines, the SEC took long overdue steps recently to increase the transparency of the credit rating agencies' rating methodologies, strengthen their disclosure, prohibit them from engaging in practices that create conflicts of interest, and enhance their' recordkeeping and reporting obligations. This action should provide increased confidence to the investor community regarding the strength of underlying securities.

- **However, due to the long lead time necessary to assemble TALF-eligible CMBS transactions, the program's remaining term does not permit adequate time to develop sufficient volume to address the massive credit shortfall to the sector.** For this reason, we strongly recommend that the Federal Reserve extend the TALF beyond its current December 31, 2009 deadline, through the end of 2010. If not, only a very limited number of CMBS securitizations will take place under TALF, and the program will end before it has had the desired effect on price discovery and a return of an active securitization market.

- **While the TALF is intended to help restart a segment of the CMBS securitization market, it is no panacea.** While the leverage the TALF provides to investors in the AAA-rated securities is attractively priced, it is cost-prohibitive to add debt over the AAA-rated piece due to the frozen credit markets. As a result, the program effectively gives the market 35-45 percent loan-to-value financing. Historically, conservatively underwritten loans were in the 60 percent loan-to-value range. More typically, loans were extended to 75 percent loan-to-value levels. With a drop in collateral asset values of, say, 35 percent, this makes loan-to-value a critical concern. So, only a very narrow segment of the market will be eligible for TALF-based commercial real estate loans. TALF will not be a significant help to the vast bulk of maturing CMBS loans that need to be refinanced, and it will not solve the over-leverage issues affecting the major segment of the market.

- **The TALF's reliance on the credit rating agencies to assess valuation is a concern**. Due to a scarcity of sale transactions, there is no true "market" for property level commercial real estate assets. As a result, values are extremely difficult to ascertain. In an environment where these agencies are struggling to regain their credibility with investors, the credit rating agencies will likely be compelled to value the collateral at a relatively low level, compared to historic norms. The resulting AAA-rated piece will likely be a relatively small portion of the overall financing available to borrowers. The result of this is that TALF will not be able to meet the current demand from maturing commercial real estate loans.

- **We also support the Public Private Investment Program (PPIP) announced by the Treasury and other regulators.** This program will also provide attractive financing to private investors to purchase legacy or toxic assets held by financial institutions. Removing these assets should help to enable banks to return to the business of making sound loans to commercial real estate. While we are concerned about the postponement of the Legacy Loans Program by the Federal Deposit Insurance Corporation (FDIC), we are encouraged by reports that the Treasury will soon be announcing their selection of asset management firms to participate in the program. The PPIP will use matching federal money and funds raised by the selected companies from private investors to buy distressed mortgage-backed securities and other troubled assets from U.S. banks. The purchases are intended to establish market prices for the assets, clean up bank balance sheets, and revitalize lending.

2. **Additional steps must be taken to facilitate "new" real estate loan originations:**

    - We have been studying the creation of a federally chartered, privately funded loan guarantee program for commercial real estate securities. After an initial period of support from TARP and the Federal Reserve (similar to the TALF program), such a program would be self-funded by a fee charged to the issuers of securities – in much the same way the Federal Deposit Insurance Corporation insures bank deposits. Such an entity would create an insurance pool to stand behind these securities and help restore investor confidence and restart securitization markets. While our interest is in focusing such an entity on the CMBS market, it could be used for a variety of asset classes. By creating a loan guarantee facility for newly issued mortgage backed securities, banks and loan originators will have a stable secondary market into which they can sell newly originated, solidly underwritten loans.

    - Another option we have been pursuing would involve the adaptation of the PPIP's public-private investment structure under the stalled Legacy Loans Program (LLP). Under this structure, Public Private Investment Funds (PPIFs) would be created, utilizing private capital with leverage from the federal government. However, instead of using the program for so-called legacy – or troubled – loans, the PPIFs would be used to fund a pipeline of solidly underwritten, *newly originated* commercial real estate loans. Instead of acquiring legacy loans, the program would shift to new loans and provide an important source of liquidity to the industry at the whole loan level. It would also help solve the warehousing problems afflicting potential TALF-eligible CMBS loan originators.

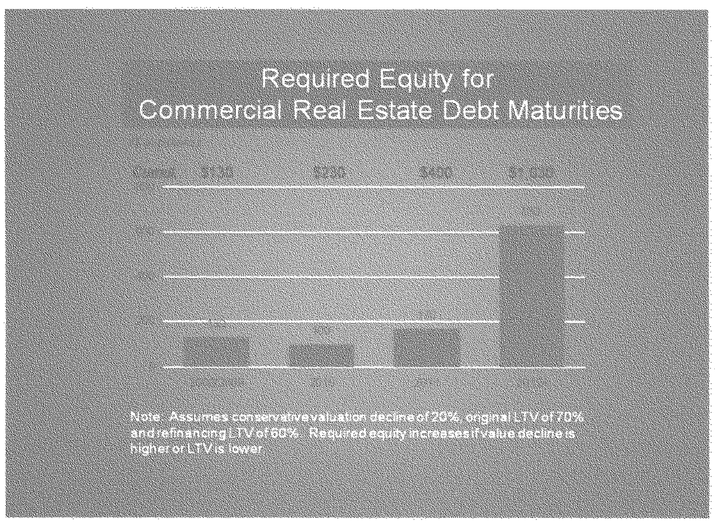
    - Finally, non-U.S. investors could provide significant new real estate lending originations if the Treasury and the Internal Revenue Service would issue a Notice (or other guidance) to confirm that real estate loan originations are encompassed by the proprietary securities trading safe harbor of section 864(b)(2) of the Tax Code and thus such actions do not constitute a U.S. trade or business. Clarifying this would expand real estate lending capacity in the country and enable non-U.S. investors to originate real estate debt just as they are now allowed under current tax law to invest in existing debt.

3. **Given the lack of liquidity, regulators must give lenders and mortgage servicers more flexibility to restructure loans and make modifications when a positive outcome can be generated. It is also important for bank regulators to establish policies – possibly in the form of guidance - that would temporarily encourage banks to extend existing loans that are current – where there is adequate debt service coverage to service debt payments.**

    ➢ As part of this effort, it is important to **amend the real estate mortgage investment conduit (REMIC) rules to facilitate reasonable modifications to the terms of commercial mortgage loans that have been securitized in CMBS**. The current administrative tax rules applicable to REMICs and investment trusts exacerbate the problem by imposing limitations that significantly impede the ability to negotiate and implement a restructuring package on a timely basis. To that end, The Real Estate Roundtable has requested that the Treasury Department issue guidance that would temporarily suspend the current administrative tax rules that, in normal economic conditions; serve to restrict the ability to restructure securitized mortgage loans. We are hopeful that Treasury will act soon in this important area.

- In the banking sector, since long-term value is hard to determine in the current environment, bank regulations should temporarily encourage banks to extend existing loans where there is adequate debt service to cover payments. Such guidance would also encourage banks to focus on cash flow and debt service coverage and minimize dependence on loan-to-value measurements. This could help minimize costly foreclosures and help alleviate the pressure on banks to reduce their commercial real estate exposure.

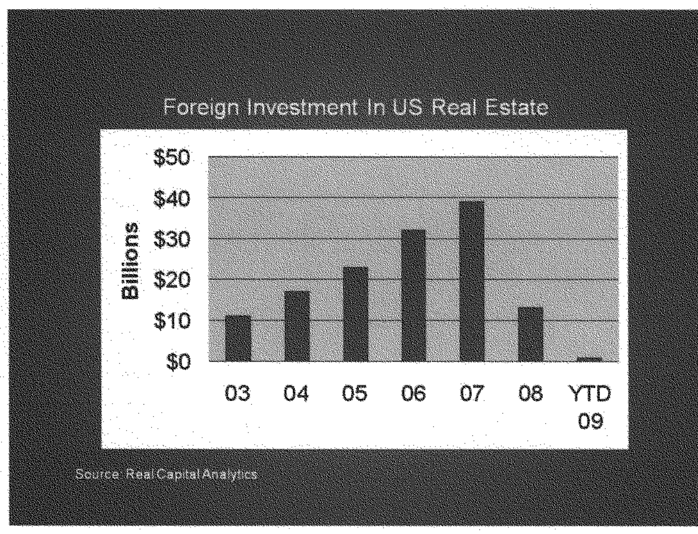
4. **Because of the significant value declines in commercial real estate - estimated by some to be 35% or more - for lending to resume, and transactions to go forward, there must be significant additional equity investment into the market place. Preliminary conservative estimates reveal an "equity gap" exceeding $1 trillion over the next several years. One potential source for this needed equity investment is foreign pension and other non-U.S. fund pools — but policy must facilitate this investment.**



- In the best interest of the economy, the Congress should make a much needed policy change by modifying the Foreign Investment in Real Property Tax Act ("FIRPTA").

As you may know, under current U.S. tax law, gains realized from the sale of U.S. real estate by non-U.S. investors are subjected to U.S. taxation at full U.S. rates under the Foreign Investment in Real Property Tax Act of 1980 ("FIRPTA"). Such taxation is completely at odds with the U.S. tax treatment of a large number of other types of foreign investments in the United States. With a few technical exceptions, FIRPTA is literally the only major provision of U.S. tax law which subjects non-U.S. investors to taxation on capital gains realized from investment in U.S. assets. By modifying FIRPTA, non-U.S. investors will be encouraged to inject much needed capital into the U.S. real estate markets.

- Over the years, FIRPTA has had an adverse effect on foreign investment in U.S. real estate. In fact, the obstacles that are imposed under FIRPTA have led many non-U.S. investors to invest in real estate elsewhere – to such countries as Brazil, China and India - shifting wealth and economic dynamism away from the U.S. market. The **laws relating to foreign investment in U.S. real estate should be reviewed by Congress and corrected in a responsible way** to allow increased investment into US real estate, while still ensuring that the real estate is domestically controlled.



5. **Now is not the time to pursue new anti-real estate investment taxes such as increasing the capital gains rate, or the proposed tax hike on partnership "carried interest."** Both these ideas are anti-investment and should be set aside at least until the economy rights itself. And, all businesses should be made eligible for the five-year carry back of net operating loses

- **The "carried interest" proposal is sometimes discussed as a potential "revenue raiser" but would be a very negative policy change now.** It would significantly raise taxes on a broad range of commercial and multi-family real estate owners of all sizes and property types. The proposal frequently is portrayed simply as a tax increase on a few well-heeled "hedge fund" and private equity managers and as a move toward tax fairness. This could not be further from the truth.

- In fact, it would impose a huge tax increase on countless Americans who use partnership structures for all types and sizes of businesses. It would be especially bad for real estate businesses.

- An increase in this tax rate would be the first time that the sweat equity of an entrepreneur who is building a business would be taxed as ordinary income. The carried interest tax would dampen, if not stifle entrepreneurial activity. A higher tax on entrepreneurial risk taking will have a chilling effect on investment. It would discourage risk taking that drives job creation and economic growth. In short, it would have profound unintended consequences for Main Street America. Now is the time to create jobs, not destroy them.

- Enacting this proposal would be playing Russian roulette with an economy that is already weak in the knees. Taxing carried interest at ordinary income rates is not sound economic practice especially given the current economic crisis. Instead of encouraging equity investment, the proposal would encourage real estate owners to borrow more money to avoid taking on equity partners thereby delivering a huge blow to the 1.5 million workers directly employed in the real estate business and the nation's 800,000 construction workers. These are outcomes the Administration should be trying to avoid at this critical point in the recession.

- About 15 million Americans are partners in more than 2.5 million partnerships. They manage nearly $12 trillion in assets and generate roughly $400 billion in annual income. Virtually every real estate partnership, from the smallest apartment venture to the largest investment fund, has a carried interest component. Through these structures, entrepreneurs match their ideas, knowhow and effort with equity investors. Taxing all carried interests in partnerships as ordinary income would be a whopping 150% tax increase. As much as $20 billion in value annually could be driven from the economy.

- Further, 46% of all partnerships are engaged in real estate, and 60% of their income is capital gain income. Real estate general partners put "sweat equity" into their business, fund the predevelopment costs, guarantee the construction budget and financing, and expose themselves to potential litigation over countless possibilities. They risk much. Their gain is never guaranteed. It is appropriately taxed today as capital gain.

- **Regarding net operating loss (NOL) carry-back,** the NOL provision is one of the strongest tools Congress can provide to help companies in a broad cross-section of industries weather the current economic conditions. Faced with limited access to capital, the ability to transform a future tax benefit into cash today is critical to maintain otherwise viable businesses. As you are aware, Congress provided a five-year carry-back for 2001 and 2002 NOLs and AMT NOL relief to companies of all sizes in the *Job Creation and Worker Assistance Act of 2002* enacted following the September 11 terrorist attacks.

- Currently, the NOL provision that was enacted into law by the *American Recovery and Reinvestment Act* provided a 5 year carry-back for 2008 NOLs, but arbitrarily limited the relief to small companies with annual gross receipts of $15 million or less. As a proven economic stimulus tool, the NOL provision should be expanded to mid to large size companies, which currently are limited to a 2 year allowance for tax years beginning or ending in 2008 and 2009. For many in the commercial real estate industry, the five-year NOL carry-back could provide the capital they need to bridge the gap until the other previously mentioned stimulative measures have an opportunity to work.

CONCLUSION

In summary, conditions in the nation's commercial real estate markets today are quite challenging. Property fundamentals are sliding due to weakness in the overall economy. Defaults and foreclosures are expected to increase due to the paralyzed credit markets. Together, the resulting value declines and debt dislocations threaten to undermine any nascent economic stabilization some believe is now underway.

The overriding concern lies in the credit markets. Here, it is important that government continue to take appropriate steps, along the lines of the TALF and PPIP, to restore functionality to credit markets and create an environment conducive for business and investors to invest and deploy capital. At the same time, it is important that unnecessary barriers to equity investment be lowered and that taxes on risk taking not be increased.

We encourage Congress and the Administration to pursue such measures or a combination of measures that could be rapidly implemented and help address this catastrophic situation. We stand ready to discuss and aid in the development and implementation of such measures.

Thank you for the opportunity to testify today.

NATIONAL ASSOCIATION OF REALTORS®

The Voice For Real Estate®

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TESTIMONY OF
JAMES HELSEL
PARTNER, RSR REALTORS

ON BEHALF OF
THE NATIONAL ASSOCIATION OF REALTORS®

BEFORE
U.S. JOINT ECONOMIC COMMITTEE
HEARING REGARDING
"COMMERCIAL REAL ESTATE: DO RISING DEFAULTS POSE A SYSTEMIC THREAT?"

July 9, 2009

Introduction

Chairman Maloney, Vice Chairman Schumer, Ranking Members Brady and Brownback, and Members of the Joint Economic Committee, thank you for inviting me to testify today on the crisis facing the commercial real estate markets. My name is Jim Helsel and I am a Partner with RSR Realtors, a full-service real estate company in Harrisburg, Pa. I have been involved in real estate for 34 years and currently serve as the 2009 Treasurer of the National Association of REALTORS.

I am here to testify on behalf of more than 1.1 million REALTORS who are involved in residential and commercial real estate as brokers, sales people, property managers, appraisers, counselors, and others engaged in all aspects of the real estate industry. Members belong to one or more of 1,400 local associations/boards and 54 state and territory associations of REALTORS. REALTORS thank the Joint Economic Committee for holding this very important hearing to examine the myriad of severe problems facing the commercial real estate industry.

Overall State of the Commercial Real Estate Markets

Having a sound and well functioning commercial and multifamily real estate sector is critical to our country's economic growth and development, and to millions of U.S. businesses of all sizes that provide local communities with jobs and services. It is estimated that the commercial real estate sector supports more than 9 million jobs and generates billions of dollars in federal, state and local tax revenue. Nonetheless, the overall economic downturn and crisis in the broader financial markets is directly impacting not only the fundamentals of commercial real estate finance, but also the outlook for recovery. And while the commercial and multifamily real estate markets play a vital role in the economy, these markets are now experiencing the worst liquidity challenge since the early 1990's.

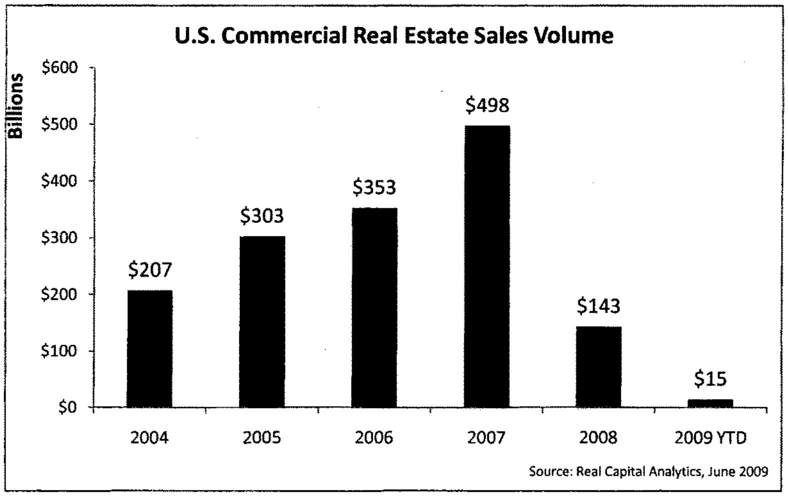
Many of us in commercial real estate have been warning for some time that the liquidity crisis facing our industry has the potential to wreak havoc on the broader economy. In fact, an apt description for the situation is that commercial real estate is the "next shoe to drop". The collapse of the nation's housing market had and continues to have a huge impact on the entire global financial system. Likewise, it is important to recognize the economic ramifications of a widespread collapse in the commercial real estate markets.

Deteriorating property fundamentals, declining property values, and a severe tightening of lending activity are all factors contributing to the current crisis. According to NAR's most recent Commercial Real Estate Outlook report, released in May of this year, "...with credit markets contracting in the wake of the financial crisis, businesses also slashed spending. The result has been a major hit for commercial real estate, translated into shrinking demand, growing space availability and a collapse in the volume of sales. As companies file for bankruptcy and as the ranks of unemployed grow, commercial space finds itself under pressure."

Nowhere is this more evident than in the retail industry. The nation's shopping center owners face a double hit – the economic recession, corresponding unemployment and reduced consumer confidence means that consumer spending is down dramatically while at the same time owners and investors face tremendous difficulties in securing financing. According to a recent International Council of Shopping Centers survey of shopping center owners — which represented a cross section of the industry that accounted for over 5,100 shopping centers and 12.6 percent of all shopping center space — 62.7 percent of respondents cited little or no confidence in refinancing company debt during 2009. In addition, 53.9 percent held that same opinion for 2010. A recent article in U.S. News & World Report entitled, "America's Most Endangered Malls" further highlighted the extent of the financial troubles facing distressed retail properties and included some startling data supporting the bleak outlook for America's retail landscape. One statement from the article bears mentioning here – "By some estimates, about 10 percent of America's malls could close within the next few years."

While demand for space is essentially in a state of full retreat, we also see that vacancy rates are climbing across all property types and transaction activity for commercial properties is in a major slowdown. To highlight this critical situation, during the first quarter of 2009, nationwide only 607 major properties exchanged hands, for a total sales volume of $9.5 billion. The figure represents a 51 percent drop in investment activity compared with the fourth quarter 2008.

The decline is evident in each sector of commercial real estate. Based on the first quarter 2009 data, office investments were down 75 percent compared to a year ago, while industrial sales volume declined 83 percent. At the same time, compared with the prior year, apartment investments dropped a significant 85 percent and retail sales contracted 72 percent.



The lack of liquidity and banks' reluctance to extend lending are also becoming apparent in the increasing level of delinquent properties. Delinquencies on commercial loans 30-plus days past due almost doubled from the first quarter of 2006 to the fourth quarter of 2008. Multi-family properties are leading the delinquency wave, with about $24.5 billion of delinquent loans.

Given that property loans are not being refinanced, there is a growing volume of distressed commercial properties. This year, the volume of distressed real estate has more than doubled. Currently, there are over 5,300 commercial properties in default, foreclosure or bankruptcy. The value of these distressed properties is in excess of $100 billion and rising. The impact is felt across all property types and across all regions of the country, weighing most heavily on the people whose livelihood depends on an economic recovery. In fact, together with retail stores and hotels, apartment buildings are taking the brunt of the refinancing crisis. Together the three sectors account for over 3,500 distressed properties, totaling more than $65 billion dollars. Geographically, New York City presents the largest problem, with Manhattan possessing almost $8 billion of distressed commercial properties. Other markets with large concentrations of distressed commercial real estate are Las Vegas, Los Angeles, Detroit, Phoenix, Chicago, Dallas and Boston.

What is alarming to us, as real estate professionals, is that banks' responses to this growing threat have been slow and inadequate. The rate at which these troubled loans are being resolved has been sluggish. Over $60 billion in assets have become distressed this year but only $4 billion worth of commercial loans have been resolved so far.

In addition, commercial banks and the commercial mortgage-backed securities (CMBS) market represent approximately 70 percent of all outstanding commercial real estate loans. However, banks have tightened their credit standards and reduced commercial real estate loan volume while the CMBS market, which has been a key source of liquidity to the commercial sector, has ceased to function. In 2007, a record high of $230 billion of CMBS was issued. In 2008, this figure dropped to $12 billion and thus far in 2009, there has not been a single CMBS issuance. Hundreds of billions of dollars of commercial real estate loans from a variety of sources are expected to mature in 2009 and over $1 trillion by 2012. Under current conditions, there is clearly insufficient credit capacity to refinance this huge wave of loan maturities. Without greater liquidity, commercial borrowers are facing a growing challenge of refinancing maturing debt and the threat of rising delinquencies and foreclosures that could cause widespread damage.

Members' Experiences

Though commercial REALTORS around the country are experiencing different types of challenges, depending to a large degree on their local markets and what type of business they focus on, I believe that most commercial practitioners, whether they are involved with retail, or office space or industrial warehouse development, will tell you that the biggest challenge in this environment is the inability to complete transactions due to a severe lack of liquidity in the markets. Underscoring this fact, a full 44 percent of our members reported financing as their most significant current challenge in a recent REALTOR® market survey.

I would like to provide you with several examples submitted to us by Commercial REALTORS from around the country: From a Memphis apartment broker and certified commercial investment specialist (CCIM), "I am now on my fifth contract for the Park Tower apartments in Memphis. It is located across from the VA Hospital in the Medical Center area of Memphis. Four out of five contracts have failed due to the lack of available financing...Lenders with and without TARP money are saying no before they review the numbers or clients. It is the worst lending market that I have seen in my 25 years in the business."

And this from a commercial REALTOR in Atlanta who specializes in industrial properties – "We recently bid on an industrial warehouse by the airport. The property was only 25 percent leased, but we were purchasing the property for $6.25 per square foot (probably 80 percent below replacement cost of the potential income stream). In the past, we would have been able to purchase that property with a loan of 75 percent and equity of 25 percent so long as the bank felt we had approached our underwriting and lease up conservatively. We underwrote the property very conservatively, and instead of 75 percent debt, we came with 75 percent equity and asked for a loan of only 25 percent. Our primary bank said no, and several small banks who would have typically strongly considered this deal said no. Over the past 10 years, we have purchased or developed close to a million square feet of industrial real estate. We have never defaulted on a loan or missed a mortgage payment. Without the ability to get a loan to leverage our potential returns, it is impossible to make real estate deals appealing enough to investors. We are basically out of business until banks start loosening their guidelines."

These are but two examples, and clearly there are thousands more around the country. Each failed transaction, foreclosure or distressed property creates further pressure and problems with widespread economic repercussions. We have lost about 6.5 million jobs over the past year and a half of economic recession. Many of these jobs have been in office, industrial, retail and multi-family sectors. A continued increase in distressed commercial properties will result in more job cuts.

Economically, commercial real estate has lagged residential real estate cycles. Even during an economic recovery, commercial real estate continues on a downward trend for a while. The residential real estate sector has been in a severe downturn for over two years. During this time, homeowners have lost over $4 trillion in wealth. Even with some positive recent signs, the residential market is still looking for a bottom. With this relationship in mind, it is obvious that for commercial real estate the worst is yet to come. The length and severity of the downturn along with the accompanying pain to business and consumers depend largely on the credit markets and the banks' willingness to step in and provide financing for properties which are well-capitalized and performing in many cases.

Policy Suggestions

To address the serious problems facing the commercial real estate finance markets, NAR believes that it is imperative that we take proactive steps now to provide liquidity and facilitate lending. We commend Congress, the financial regulators and the Administration for the development and implementation of several innovative programs and initiatives, such as the Term Asset-backed Lending Facility (TALF) and the Public Private Investment Program (PPIP). We strongly support several recent moves on the part of Treasury to strengthen the TALF program – for example, expanding TALF to include CMBS as eligible collateral, while also making the terms of TALF loans 5 years to better accommodate the longer term nature of commercial loans. Nonetheless, the TALF program is set to expire at the end of this year. NAR believes that it is absolutely essential that the TALF program be extended for another year in order to continue to provide the necessary liquidity support to keep economic recovery efforts on track.

NAR also commends the Administration for the development of its comprehensive financial regulatory reform proposal. We truly believe that it is important to have strong supervision and regulation of the nation's financial system. We stand ready to work with policymakers and the Administration in the shaping of this monumental plan but we also believe that it is essential that reform efforts do not negatively impact the efforts currently underway to revitalize and stabilize the commercial real estate markets, in particular those efforts targeted at the securitization markets.

As previously mentioned, the CMBS market has been a key player in supporting commercial real estate lending, but due to challenging capital market conditions, in the past year the CMBS market has ceased to function. The securitization markets represent an important source of liquidity and NAR believes that it is essential to protect and promote policies that support the securitized credit markets and do not impede economic recovery.

Along these lines, we believe that actions on the part of the accounting policymakers are critical as part of the overall federal government's efforts to address capital constraints, provide liquidity, and facilitate lending. NAR believes that the ability to value assets in inactive markets continues to be a serious issue and we urge policymakers to act quickly to provide meaningful and clear guidance so that market participants can effectively address application issues and ensure that "fair value" accounting standards can be achieved and applied consistently for all market conditions. Under current conditions, clear policy guidance is needed to encourage reporting entities and auditors to look to alternative and appropriate methods of asset valuation, such as the discounted cash flow model.

Finally, the intense revenue pressures created by the present economic crisis will undoubtedly drive major tax overhaul efforts. In light of this, NAR will continue to support and promote federal tax policies that strengthen and support commercial real estate. The commercial real estate market is in a state of crisis and remains vulnerable to any modifications to current tax rules that would result in reduced property values. NAR stands ready to oppose any such modifications and would urge policymakers to do the same.

Conclusion

The National Association of REALTORS applauds the bold actions that have been taken thus far to address the serious liquidity problems facing commercial real estate finance. Innovative programs and initiatives, such as the TALF and the PPIP, certainly represent part of the solution but more action is needed. NAR believes that the principles we have set forth today will help Congress and the regulators design a holistic approach that will address the liquidity crisis currently facing the commercial real estate markets.

I thank you for this opportunity to present our thoughts. As always, the National Association of REALTORS is at the call of Congress, the financial regulators, and the Administration, to help in the ongoing effort to find solutions to stabilize and ensure recovery of the commercial real estate markets. Such an effort is particularly important given that the commercial real estate sector is a key component to job creation and economic revitalization for the nation as a whole.

Again, we appreciate the Committee holding this hearing and we stand ready to assist in any way in your efforts going forward.

PREPARED STATEMENT OF REPRESENTATIVE MICHAEL C. BURGESS

Thank you Madam Chair, and I would like to thank the witnesses for testifying here today.

Loan defaults in the commercial real estate market are one of those issues that have been on the fringe of the financial crisis since the beginning of the financial collapse. The observed lack of ability to securitize home mortgages in the secondary market was certainly an indicator that the commercial markets were in a similar position, yet, they're not fixed. So, I'm interested to hear the witnesses' suggested approach to address this very complex problem.

In my observation, the situation in commercial real estate has the potential to cause equal or more collateral damage than the problems in the residential mortgage market because a default by a developer on a major multi-unit apartment complex or double-decker shopping mall obviously affects more lives than a default on a single family home. You can clearly see the domino effect from a default of that nature which leads me to believe that these probable defaults do carry the systemic risk gene if not the "Too Big to Fail" factor we've heard so much about in this committee. As Mr. Parkus points out in his testimony, commercial real estate financing markets are closed for loans in excess of $25–$35 million, so from that assessment it appears the biggest firms are most at risk of failure here.

Placing the potential back-end collateral damage aside for a moment, it seems the only probable solution is some form of government guarantee or a regulation to extend all properly performing commercial mortgages to an unknown point in the future when these financing markets are functioning again. Either choice carries some serious government intrusion into commerce and into the relationship between contractually bound parties. I agree with Ranking Member Brady's assessment that we need to repeal punitive tax treatments and tax increases that will undermine economic recovery efforts.

After what we've witnessed over the last 10 months in the financial markets, I'm concerned that Congress simply doesn't have the tools, the resources, or the will of the public to use the government to back another private market and their participants. Our guarantee is tarnished, and as a result, this will be a very tough situation to deal with legislatively.

I do hope we have a constructive and informative dialogue about this problem and with that, I yield back my time.

Congress of the United States
JOINT ECONOMIC COMMITTEE
CREATED PURSUANT TO SEC. 5(a) OF PUBLIC LAW 304, 79TH CONGRESS
Washington, DC 20510–6602

July 10, 2009

Mr. Jon D. Greenlee
Associate Director, Division of Banking
Supervision and Regulation
Board of Governors of
the Federal Reserve System
20th Street & Constitution Ave, NW
Washington, D.C. 20551

Dear Mr. Greenlee:

The Chair was pleased you could participate in the recent hearing, "Commercial Real Estate: Do Rising Defaults Pose A Systemic Risk?". As mentioned in the hearing, the Chair would like to submit the following question for the record:

> In testimony to the Joint Economic Committee, Special Inspector General of the TARP, Neil Barofsky, expressed concern that "Public Private Investment Funds (PPIFs) under the Legacy Securities Program could, in turn, use the leveraged PPIF funds – two-thirds of which will likely be taxpayer money – to purchase legacy MBS through TALF, greatly increasing taxpayer exposure to losses with no corresponding increase of potential profits." Given that certain legacy CMBS could be used in this way, how will the Federal Reserve ensure that TALF financing is not abused?

The testimony of Mr. Barofsky is attached, as is a copy of the July 9, 2009 hearing transcript. We would appreciate it if you could return your response to the Chair as well as a corrected transcript containing any grammatical edits you may have.

Please have a member of your staff return the materials to Andrew Wilson, Joint Economic Committee, G-01 Dirksen Senate Office Building, Washington, D.C. 20510. Should you have any questions, please email Andrew at Andrew_Wilson@jec.senate.gov.

Thank you for your prompt response.

Sincerely,

Nan Gibson
Executive Director

BOARD OF GOVERNORS
OF THE
FEDERAL RESERVE SYSTEM
WASHINGTON, D.C. 20551

DIVISION OF BANKING
SUPERVISION AND REGULATION

August 4, 2009

The Honorable Carolyn Maloney
Chair
Joint Economic Committee
United States Congress
Washington, D.C. 20515

Dear Chair Maloney:

I am responding to a question you posed during my testimony on July 9, 2009. You asked how the Federal Reserve will address the concerns raised by Neil Barofsky, the Special Inspector General of the Troubled Asset Relief Program (SIGTARP), about borrowing by Public-Private Investment Funds (PPIFs) at the Federal Reserve's Term Asset-Backed Securities Loan Facility (TALF). As I will explain below, the Federal Reserve has fully addressed Mr. Barofsky's concerns.

PPIFs have been established by the Treasury as part of the Public-Private Investment Program to help address the legacy securities problem. PPIFs will be funded with private equity, a matching amount of equity provided by Treasury, and non-recourse debt provided by Treasury. The equity and debt are provided by Treasury under the TARP. A PPIF can elect to receive debt from Treasury equal to the full amount of the PPIF's equity (both private and Treasury), or equal to half of the equity. Only PPIFs receiving debt less than or equal to half of equity will be allowed to borrow from the TALF.

In the SIGTARP's *Quarterly Report to Congress* on April 21, 2009, Mr. Barofsky expressed concern about the potential "leverage upon leverage" that would result when a PPIF borrows from the TALF (p. 152). A TALF loan is always provided for an amount that is less than the value of securities collateralizing the loan by an amount referred to as the "haircut." The investors must contribute the funds for the haircut when purchasing the security, with the remaining financing provided by the TALF loan. The haircut both insulates taxpayers from losses and ensures that the investor has a strong incentive to verify that the security is of high quality. Mr. Barofsky's concern is that when the haircut is partly funded by Treasury-provided debt, the protection for taxpayers and the incentives for investor due diligence are both reduced. Consequently, he recommended that:

> "Treasury should not allow Legacy Securities PPIFs to invest in TALF, unless significant mitigating measures are included to address these dangers. These might include prohibiting the use of TARP leverage if the PPIF invests through TALF, or proportionately increasing haircuts for PPIFs that do so." (p. 152)

The Honorable Carolyn Maloney
Page Two

The Federal Reserve and Treasury have decided to increase the haircuts on TALF loans when PPIFs borrow. PPIFs that have received Treasury debt financing equal to or less than 50 percent of the PPIF's total equity may borrow from the TALF so long as the PPIF satisfies all TALF program requirements, including borrower eligibility requirements. The only securities that PPIFs may purchase that are eligible for collateralizing TALF loans are triple-A-rated legacy commercial mortgage-backed securities (CMBS). If a PPIF were to borrow at the TALF to purchase CMBS, the TALF haircuts would be 50 percent higher than for other borrowers. For example, if the TALF haircut applied to a specific pledge of legacy CMBS is 20 percent for other borrowers, it would be 30 percent for a PPIF. Because of the increased haircuts, the combination of Treasury- and TALF-supplied debt will not exceed the total amount of debt that would be available leveraging the PPIF equity alone.

The SIGTARP has indicated that the adjustment to the TALF haircuts addresses his concerns. The SIGTARP's Quarterly Report to Congress on July 21, 2009, states "This significant concession by Treasury adopts SIGTARP's recommendation and effectively ameliorates the leverage-on-leverage and 'skin-in-the-game' issues that were raised in the April Quarterly Report." (p. 174).

I hope that this information is helpful. Please let me know if I can be of further assistance.

Sincerely,

Jon D. Greenlee
Associate Director