

U.S. DEPARTMENT OF THE TREASURY

Press Center



Assistant Secretary for Financial Institutions Michael S. Barr Written Testimony Senate Committee on Banking, Housing, and Urban Affairs

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Chairman Dodd, Ranking Member Shelby, and members of the Committee, thank you for the opportunity to testify before you today about the Administration's plan for financial regulatory reform.

On June 17th, President Obama unveiled a sweeping set of regulatory reforms to lay the foundation for a safer, more stable financial system; one that properly delivers the benefits of market-driven financial innovation while safeguarding against the dangers of market-driven excess.

In the weeks since the release of those proposals, the Administration has worked with Congress in testimony and briefings with your staff to explain and refine our legislation.

Today, I want to first speak in broad terms about the forces that led us into the current crisis and the key objectives of our reform proposal. I will then turn to discuss the role that third party credit ratings and rating agencies played in creating a system where risks built up without being accounted for or properly understood. And how these ratings contributed to a system that proved far too fragile in the face of changes in the economic outlook and uncertainty in financial markets.

This committee provided strong leadership to enact the first registration and regulation of rating agencies in 2006, and the proposals that I will discuss today build on that foundation.

Where our Economy Stands Today

President Obama inherited an economic and financial crisis more serious than any President since Franklin Roosevelt. Over the last seven months, the President has responded forcefully with a historic economic stimulus package, with a multi-prong effort to stabilize our financial and housing sectors, and, in June, with a sweeping set of reforms to make the financial system more stable, more resilient, and safer for consumers and investors.

We cannot be complacent; the history of major financial crises includes many false dawns and periods of optimism even in the midst of the worst downturns. But I think you will agree that the sense of free-fall that surrounded the economic statistics earlier this spring has now abated. Even amidst much continued uncertainty, we must reflect on the extraordinary path our economy and financial system have taken over the past two years, and take this opportunity to restore confidence in the system through fundamental reform. We cannot afford to wait.

Forces Leading to the Crisis

At many turns in our history, we have seen a pattern of tremendous growth supported by financial innovation. As we consider financial reform, we need to be mindful of the fact that those markets with the most innovation and the fastest growth seemed to be at the center of the current crisis.

But in this cycle, as in many cycles past, growth often hid key underlying risks, and innovation often outpaced the capacity of risk managers, boards of directors, regulators, rating agencies and the market as a whole to understand and respond.

Securitization helped banks move credit risk off of their books and supply more capital to housing markets. It also widened the gaps between borrowers, lenders, and investors – as lenders lowered underwriting standards since the securitized loans would be sold to others in the market, while market demand for securitized assets lowered the incentives for due diligence.

Rapidly expanding markets for hedging and risk protection allowed for better management of corporate balance sheets, enabling businesses to focus on their core missions; credit protection allowed financial institutions to provide more capital to business and families that needed it, but a lack of transparency hid the movement of exposures. When the downturn suddenly exposed liquidity vulnerabilities and large unmanaged counterparty risks, the uncertainty disrupted even the most deeply liquid and highly collateralized markets at the center of our financial system.

It is useful to think about our response to this crisis in terms of cycles of innovation. New products develop slowly while market participants are unsure of their value or their risks. As they grow, however, the excitement and enthusiasm can overwhelm normal risk management systems. Participants assume too soon that they really "know how they work," and these new products, applied widely without thought to new contexts -- and often carrying more risk -- flood the market. The cycle turns, as this one did, with a vengeance, when that lack of understanding and that excess is exposed. But past experience shows that innovation survives and thrives again after reform of the regulatory infrastructure renews investor confidence.

Innovation creates products that serve the needs of consumers, and growth brings new players into the system. But innovation demands a system of regulation that protects our financial system from catastrophic failure, protects consumers and investors from widespread harm and ensures that they have the information they need to make appropriate choices.

Rather than focus on the old, "more regulation" vs. "less regulation" debate, the questions we have asked are: why have certain types of innovation contributed in certain contexts to outsized risks? Why was our system ill-equipped to monitor, mitigate and respond to those risks?

Our system failed to provide transparency in key markets, especially fast developing ones. Rapid growth hid misaligned incentives that people didn't recognize. Throughout our system we had inadequate capital and liquidity buffers -- as both market participants and regulators failed to account for new risks appropriately. The apparent short-term rewards in new products and rapidly growing markets created incentives for risk-taking that overwhelmed private sector gatekeepers, and swamped those parts of the system that were supposed to mitigate risk. And households took on risks that they did not fully understand and could ill-afford.

Our proposals identify sweeping reforms to the regulation of our financial system, to address an underlying crisis of confidence--for consumers and for market participants. We must create a financial system that is safer and fairer; more stable and more resilient.

Protecting Consumers

We need strong and consistent regulation and supervision of consumer financial services and investment markets to restore consumer confidence. In early July, we delivered the first major portion of our legislative proposals to the Congress, proposing to create a Consumer Financial Protection Agency (CFPA).

We all aspire to the same objectives for consumer protection regulation: independence, accountability, effectiveness, and balance -- a system that promotes financial inclusion and preserves choice. The question is how to achieve that. A successful regulatory structure for consumer protection requires mission focus, market-wide coverage, and consolidated authority.

Today's system has none of these qualities. It fragments jurisdiction and authority for consumer protection over many federal regulators, which have higher priorities than protecting consumers. Banks can choose the least restrictive supervisor among several different banking agencies. Non-bank providers avoid federal supervision altogether; no federal consumer compliance examiner ever lands at their doorsteps. Fragmentation of rule writing, supervision, and enforcement leads to finger-pointing in place of action and makes actions taken less effective.

The President's proposal for one agency for one marketplace with one mission -- protecting consumers -- will resolve these problems. The Consumer Financial Protection Agency will create a level playing field for all providers, regardless of their charter or corporate form. It will ensure high and uniform standards across the market. It will support financial literacy for all Americans. It will prohibit misleading sales pitches and hidden traps, but there will be profits made on a level playing field where banks and nonbanks can compete on the basis of price and quality.

If we create one federal regulator with consolidated authority, then we will be able to leave behind regulatory arbitrage and inter-agency finger-pointing. And we will be assured of accountability.

Our proposal ensures, not limits, consumer choice; preserves, not stifles, innovation; strengthens, not weakens, depository institutions; reduces, not increases, regulatory costs; empowers, not undermines, consumers; and increases, not reduces, national regulatory uniformity.

Systemic Risk

Much of the discussion of reform over the past two years -- both in our proposals and among other commentators -- has focused on both the nature of and proper response to systemic risk.

To address these risks, our proposals focus on three major tasks: 1) providing an effective system for monitoring risks as they arise and coordinating a response; 2) creating a single point of accountability for tougher and more consistent supervision of the largest and most interconnected institutions; and 3) tailoring the system of regulation to cover the full range of risks and actors in the financial system, so that risks can no longer build up completely outside of supervision and monitoring.

Many have asked whether we need a "systemic risk regulator" or a "super regulator" that can look out for new risks and immediately take action to address them or order other regulators to do so. That is not what we are proposing. We cannot have a system that depends on

the foresight of a single institution or a single person to identify and prevent risks. That's why we have proposed that the critical role of monitoring for emerging risks and coordinating policy responses be vested in a Financial Services Oversight Council.

At the same time, a council of independent regulators with divergent missions will not have operational coherence and cannot be held accountable for supervision of individual financial firms. That's why we propose an evolution in the Federal Reserve's power to provide consolidated supervision and regulation of any financial firm whose combination of size, leverage, and interconnectedness could pose a threat to financial stability if it failed. The financial crisis has demonstrated the crucial importance of having a consolidated supervisor and regulator for all "Tier 1 Financial Holding Companies," with the regulator having the authority and responsibility to regulate these firms not just to protect their individual safety and soundness but to protect the entire financial system.

This crisis has also clearly demonstrated that risks to the system can emerge from all corners of the financial markets and from any of our financial institutions. Our approach is to bring these institutions and markets into a comprehensive system of regulation, where risks are disclosed and monitored by regulators as necessary. Secretary Geithner has testified about the need to bring all over-the-counter derivatives markets into a comprehensive regulatory framework. In the next few days we will deliver legislative text to this committee that would accomplish that goal. We have delivered proposed legislation that would strengthen the regulation of securitization markets, expand regulatory authority for clearing, payment, and settlement systems, and require registration of hedge funds.

Basic Reform of Capital, Supervision, and Resolution Authority

As Secretary Geithner has said, the three most important things to lower risk in the financial system are "capital, capital, capital." We need to make our financial system safer and more resilient. We cannot rely on perfect foresight—whether of regulators or firms. Higher capital charges can insulate the system from the build-up of risk without limiting activities in the markets. That's why we have launched a review of the capital regime and have proposed raising capital and liquidity standards across the board, including higher standards for financial holding companies, and even higher standards for Tier 1 Financial Holding Companies – to account for the additional risk that the largest and most interconnected firms could pose to our system.

Making the system safe for innovation means financial firms should raise the amount of capital that they hold as a buffer against potential future losses. It also means creating a more uniform system of regulation so that risks cannot build up due to inadequate regulatory oversight. To strengthen banking regulation, we propose removing the central source of arbitrage among depository institutions. Our proposed National Bank Supervisor would consolidate the Office of Thrift Supervision and the Office of the Comptroller of the Currency. We will also close loopholes in the Bank Holding Company Act that allow firms to own insured depository institutions yet escape consolidated supervision and regulation.

Financial activity involves risk, and the fact is that we will not be able to identify all risks or prevent all future crises. We learned through painful experience that during times of great stress, the disorderly failure of a large, interconnected institution can threaten the stability of the entire financial system. While we have a tested and effective system for resolving failing banks, there is still no effective legal mechanism to resolve a non-bank financial institution or bank holding company. We have proposed to fill this gap in our legal framework with a mechanism modeled on our existing system under the Federal Deposit Insurance Corporation (FDIC).

Finally, both our financial system and this crisis have been global in scope. Our solutions have been and must continue to be global. International reforms must support our efforts at home, including strengthening the capital framework; improving oversight of global financial markets; coordinating supervision of internationally active firms; and enhancing crisis management tools. We will not wait for the international community to act before we reform at home, but nor will we be satisfied with an international race to the bottom on regulatory standards.

Credit Ratings and Fragility

It's worthwhile to begin our discussion on credit ratings with a basic explanation of the role that they play in our economy. Rating agencies solve a basic market failure. In a market with borrowers and lenders, borrowers know more about their own financial prospects than lenders do. Especially in the capital markets, where a lender is likely purchasing just a small portion of the borrower's debt in the form of a bond or asset-backed security – it can be inefficient, difficult and costly for a lender to get all the information they need to evaluate the credit worthiness of the borrower. And therefore lenders will not lend as much as they could, especially to lesser known borrowers such as smaller municipalities; or lenders will offer higher rates to offset the uncertainty. Credit rating agencies provide a third party rating based on access to more information about the borrower than a lender may be able to access, and on accumulated experience in evaluating credit. By issuing a rating of the creditworthiness of a borrower, they can validate due diligence performed by lenders and enhance the ability of borrowers to raise funds. Further, the fact the credit rating agencies rate a wide variety of credit instruments and companies allowed debt investors to have the benefit of a consistent, relative assessment of credit risk across different potential investments.

This role is critical to municipalities and companies to access the capital markets, and rating agencies have facilitated the growth of securitization markets, increasing the availability of mortgages, auto loans, and small business loans.

Credit ratings also played an enabling role in the buildup of risk and contributed to the deep fragility that was exposed in the past two years. As I discussed before, the current crisis had many causes but a major theme in each was that risk – complex and often

misunderstood – was allowed to build up in ways that the supervisors and regulators were unable to monitor, prevent or respond to effectively. Earnings from rapid growth driven by innovation overwhelmed the will or ability to maintain robust internal risk management systems.

As the members of this Committee know, the highest rating given by rating agencies is "triple-A." An easy way to understand the importance of a triple-A rating for a borrower or an investor is that this label is the same one given to the United States Government. It means that the rating agency estimates that the probability of default – or the debt investor losing money –in the following year is extremely remote.

The "triple-A" designation was therefore highly valued, but perversely, rather than preserve this designation for the few, the amount of securities and borrowers that were granted this designation became much more prevalent as borrowers and issuers were able to convince the rating agencies that innovation in the structured credit market allowed for the creation of nearly riskless credit investments. Market practices such as "ratings shopping" before contracting for a rating, and the creation of consulting relationships may have contributed to conflicts of interest and upward pressure on ratings.

Rating agencies have a long track record evaluating the risks of corporate, municipal, and sovereign bonds. These ratings are based on the judgment of rating agencies about the credit worthiness of a borrower and are usually based on confidential information that is not generally available to the market, including an assessment of the borrower's income, ability to meet payments, and their track record for doing so.

Evaluating a structured finance product is a fundamentally different type of analysis. Asset-backed securities represent a right to the cash flows from a large bundle of smaller assets. In this way an investor can finance a small portion of hundreds or thousands of loans, rather than directly lending to a single borrower. This structure diversifies the investor's risk with respect to a given borrower's default and averages out the performance of the investment to be equal to a more general class of borrowers. It also allows more investors to participate in the market, since the investor's capital no longer needs to be tied to the origination of a loan.

Certain asset-backed securities also relied on a process of "tranching" – slicing up the distribution of potential losses to further modify the return of the security to meet the needs of different investors. This process relied on quantitative models and therefore could produce any probability of default. Credit ratings lacked transparency with regard to the true risks that a rating measured, the core assumptions that informed the rating and the potential conflicts of interest in the generation of that rating. This was particularly acute for ratings on asset-backed securities, where the concentrated systematic risk of senior tranches and re-securitizations are quite different from the more idiosyncratic risks of corporate bonds. As we discovered in the past two years, the risks of asset-backed securities are much more highly correlated to general economic performance than other types of bonds. The more complicated products are also sensitive to the assumptions in the quantitative models used to create these products.

Investors, as described earlier, relied on the rating agencies' ability to assess risk on a similar scale across instruments. They therefore saw highly rated instruments and borrowers as generally similar even though the investments themselves ranged from basic corporate bonds to highly complex bonds backed by loans or other asset-backed securities. Investors, and even regulatory bodies, rather than using ratings as one of many tools in their credit decisions, began to rely entirely on the ratings and performed little or no due diligence. Further, investors ventured into products they understood less and less because they carried the "seal of approval" from the rating agencies. This reliance gave the ratings agencies an extraordinary amount of influence over the fixed income markets and the stability of these markets came to depend, to a large degree, on the robustness of these ratings.

Ultimately, this led to a toxic combination of overreliance on a system for rating credit that was not transparent and highly conflicted. Many of the initial ratings made during this period turned out to be overly optimistic. When it became clear that "triple A" securities were not as riskless as advertised, it caused a great amount of disruption in the fixed income markets.

One of the central examples of these problems is in the market for Collateralized Debt Obligations or "CDOs." These products are created by pooling a group of debt instruments, often mortgage loans, then slicing up the economic value of the cash flows to create tailored combinations of risk and return. The senior tranches would have the first right to payments, while the most junior tranche – often called the "equity" tranche – would not be paid until all others had been paid first. These new products were highly complex and difficult for most investors to evaluate on their own. Rating agencies stepped into this gap and provided validation for the sale of these products, because their quantitative models and assumptions often determined that the most senior tranches could be rated triple-A. Without this designation, many pension funds, insurance companies, mutual funds, and banks would never have been willing to invest. Many investors did not realize that the ratings were highly dependent on the economic cycle or that the ratings for many CDOs backed by subprime mortgage bonds assumed that there would never be a nationwide decline in housing prices. This complexity was often ignored as the quarterly issuance of CDOs more than quadrupled from 2004 to mid-2007, reaching \$140 billion in the second quarter of 2007. [1] But following a wave of CDO downgrades in July 2007, the market for CDOs dried up and new issuance collapsed as investors lost confidence in the rating agencies and investors realized they themselves did not understand these investments.

The reforms proposed by this Administration recognize the market failure that the credit rating agencies help to remedy, but also address the deep problems caused by the manner in which these agencies operated and the overreliance on their judgments.

Reform of the Credit Rating System

This Committee, under the leadership of Senator Shelby, Senator Dodd and others, took strong steps to improve regulation of rating agencies in 2006. That legislation succeeded in increasing competition in the industry, in giving much more explicit authority to the SEC to require agencies to manage and disclose conflicts of interest, and helping ensure the existence and compliance with internal controls by the agencies.

This authority has already been used by the SEC over the past year to strengthen regulation and enforcement. The Administration strongly supports the actions that the SEC has taken and we will continue to work closely with the SEC to support strong regulation of credit rating agencies.

But flaws and conflicts revealed in the current crisis highlight the need for us to go further as more needs to be done.

Our legislative proposal directly addresses three primary problems in the role of credit rating agencies: lack of transparency, ratings shopping, and conflicts of interest. It also recognizes the problem of overreliance on credit ratings and calls for additional study on this matter as well as reducing the overreliance on ratings. While there were clear failures in credit rating agency methodologies, our proposals continue to endorse the divide established by this Committee in 2006: The government should not be in the business of regulating or evaluating the methodologies themselves, or the performance of ratings. To do so would put the government in the position of validating private sector actors and would likely exacerbate over-reliance on ratings. However, the government should make sure that rating agencies perform the services that they claim to perform and our proposal authorizes the SEC to audit the rating agencies to make sure that they are complying with their own stated procedures.

Lack of Transparency

The lack of transparency in credit rating methodologies and risks weakened the ability of investors to perform due diligence, while broad acceptance of ratings as suitable guidelines for investment weakened the incentives to do so. These two trends contributed significantly to the fragility of the financial system.

Our proposals address transparency both in the context of rating agency disclosure as well as stronger disclosure requirements in securitization markets more generally. An agency determines a rating with a proprietary risk model that takes account of a large number of factors. While we do not advocate the release of the proprietary models, we do believe that all rating agencies should be required to give investors a clear sense of the variety of risk factors considered and assumptions made.

For instance, there are a number of ways to obtain a high rating for an asset-backed security that are not transparent to investors. First, there is the quality of the underlying assets – a bundle of prime mortgage loans will have higher credit worthiness than a bundle of subprime mortgage loans, all things being equal. Second, the rating agency could consider the quality and reliability of the data – fully documented mortgages or consumer credit instruments with a longer performance history (like auto loans) give greater certainty to the rating. Finally, if the security uses tranching or subordination, then giving a greater proportion of the economic value to a certain class of investors will raise the credit rating for that class. In the current system, there is no requirement that these factors be disclosed or compared for investors along with the credit rating.

Our proposals would require far more transparency of both qualitative and quantitative information so that investors can carry out their own due diligence more effectively. To facilitate investor analysis, we will require that each rating be supported by a public report containing assessments of data reliability, the probability of default, the estimated severity of loss in the event of default, and the sensitivity of a rating to changes in assumptions. The format of this report will make it easy to compare these data across different securities and institutions. The reports will increase market discipline by providing clearer estimates of the risks posed by different investments.

The history of rating agencies assessments in corporate, municipal, and sovereign bonds allowed them to expand their business models to evaluate structured finance products without proving that they had the necessary expertise to evaluate those products. The use of an identical rating system for corporate, sovereign, and structured securities allowed investors to purchase these products under their existing investment standards with respect to ratings. The identical rating systems also allowed regulators to use existing guidelines without the need to consider the different risks posed by these new financial instruments. Our proposals address the disparate risks directly by requiring that rating agencies use ratings symbols that distinguish between structured and unstructured financial products. It is our hope that this will cause supervisors and investors to examine carefully their guidelines to ensure that their investment strategy is appropriate and specific.

Ratings Shopping

Currently, an issuer may attempt to "shop" among rating agencies by soliciting "preliminary ratings" from multiple agencies and enlisting the agency that provides the highest preliminary rating. Consistently, this agency also provides a high final rating.

A number of commentators have argued that either the existence or threat of such "ratings shopping" by issuers played an important role in structured products leading up to the crisis. A recent Harvard University study contains supporting evidence, finding that structured finance issues that were only rated by a single rating agency have been more likely to be downgraded than issues that were rated by two or more agencies. [2] Our proposal would shed light on this practice by requiring an issuer to disclose all of the preliminary ratings it had received from different credit rating agencies so that investors could see how much the issuer had "shopped" and whether the final rating exceeded one or more preliminary ratings. The prospect of such disclosures should also deter ratings shopping in the first place. In

addition, the SEC has proposed a beneficial rule that would require agencies to disclose the rating history – of upgrades and downgrades – so that the market can assess the long-term quality of ratings.

As an additional check against rating shopping, the Administration supports a proposed SEC rule that would require issuers to provide the same data they provide to one credit rating agency as the basis of a contracted rating to all other credit rating agencies. This will allow other credit rating agencies to provide additional, independent analyses of the issuer to the market. Such "unsolicited" ratings, have been ineffective because investors understand that these unsolicited ratings are not based on the same information as the fully contracted ratings, especially for structured products that are often complex and require detailed information to assess. By requiring full disclosure to all rating agencies, this rule would limit any potential benefit from rating shopping and should increase the amount of informed, but independent, research on credit instruments.

Conflicts of Interest

Our proposals include strong provisions to prevent and manage conflicts of interest, which we identify as a major problem of the current regime. Many of our proposals are aligned with specific provisions proposed by Senator Reed. Our approach is to solve these problems within the current framework rather than prohibiting specific models of rating agency compensation as some have advocated. Both issuer pay and investor pay models exist today and we do not believe it is the place of government to prescribe allowable business models in the free market. Our proposal will make it simple for investors to understand the conflicts in any rating that they read and allow them to make their own judgment of its relevance to their investment decision.

Most directly, we would ban rating agencies from providing consulting services to issuers that they also rate. While these consulting contracts do not currently form a huge proportion of the revenue of the top rating agencies, they are an undeniable source of conflict since they allow for issuers and raters to work closely together and develop economic ties that are not related to the direct rating of securities. For instance, today a rating agency may consult with an issuer on how to structure and evaluate asset-backed securities, and then separately be paid by the issuer to rate the same securities created. This Committee was at the center of a similar effort that banned these types of cross-relationships for audit firms in the passage of the Sarbanes-Oxley Act of 2002, which also required a study of issues with credit rating agencies. Today, we propose that these cross-relationships be simply prohibited.

Our proposals also strengthen disclosure and management of conflicts of interest. The legislation will prohibit or require the management and disclosure of conflicts arising from the way a rating agency is paid, its business relationships, its affiliations, or other sources. Each rating will be required to include a disclosure of the fees paid for the particular rating, as well as the total fees paid to the rating agency by the issuer in the previous two years. This disclosure will give the market the information it needs to assess potential bias of the rating agency. The legislation also requires agencies to designate a compliance officer, with explicit requirements that this officer report directly to the board or the senior officer, and that the compliance officer have the authority to address any conflicts that arise within the agency. Rating agencies will be required to institute reviews of ratings in cases where their employees go work for issuers, to reduce potential conflicts from a "revolving door."

Strengthen and Build on SEC Supervision

Under the authority created by this Committee in 2006, the SEC has already begun to address many problems with rating agencies. The Treasury supports these actions and has included in our legislative proposal additional authority to strengthen and support SEC regulation of rating agencies.

The Commission has allocated resources to establish a branch of examiners dedicated specifically to conducting examination oversight of credit rating agencies, which would conduct routine, special and cause examinations. Our proposed legislation would strengthen this effort and create a dedicated office for supervision of rating agencies within the Commission. Under the legislation, the SEC will require each rating agency to establish and document its internal controls and processes – and will examine each rating agency for compliance.

In line with the principle of consistent regulation and enforcement, our proposal will make registration mandatory for all credit rating agencies – ensuring that these firms cannot evade our efforts to strengthen regulation.

In response to the credit market turmoil, in February the SEC took a series of actions with the goal of enhancing the usefulness of rating agencies' disclosures to investors, strengthening the integrity of the ratings process, and more effectively addressing the potential for conflicts of interest inherent in the ratings process for structured finance products.

Specifically, the SEC adopted several measures designed to increase the transparency of the rating agencies' rating methodologies, strengthen the rating agencies' disclosure of ratings performance, prohibit the rating agencies from engaging in certain practices that create conflicts of interest, and enhance the rating agencies' recordkeeping and reporting obligations to assist the SEC in performing its regulatory and oversight functions. We support these measures.

Conclusion

In the weeks since we released our plan for reform, we have been criticized by some for going too far and by some for not going far enough. These charges are stuck in a debate that presumes that regulation--and efficient and innovative markets--are at odds. In fact,

the opposite is true. Markets rely on faith and trust. We must restore honesty and integrity to our financial system. These proposals maintain space for growth, innovation and change, but require that regulation and oversight adapt as well. Markets require clear rules of the road. Consumers' confidence is based on the trust and fair dealing of financial institutions. Regulation must be consistent, comprehensive and accountable. The President's plan lays a new foundation for financial regulation that will once again help to make our markets vital and strong.

Thank you very much.

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[1]SIFMA, CDO Global Issuance Data.

[2] Benmelech and Dlugosz 2009, "The Credit Rating Crisis."