

# Restoring Confidence in the Securitization Markets

December 3, 2008



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# Executive summary

The securitization and structured credit markets<sup>1</sup> have become critically important to the global capital markets, and thereby also to the world economies. The absence of well-functioning securitization markets negatively impacts consumers, banks, issuers and investors, resulting in lower economic activity and fewer than needed new jobs being created in the future. The price of credit is likely to be higher for the consumer and the availability scarcer. Banks will no longer have a tool to reduce risk and diversify their financing sources to free up capital for other activities. Investors will encounter rising difficulty in gaining exposure to an asset class that has become a significant part of their portfolios.

More broadly, the absence of an efficient and smoothly functioning market has substantial implications for continued economic growth. Based on reasonable estimates and assumptions, banks may fail to meet approximately \$2 trillion of demand for credit origination globally over the next three years in the absence of well-functioning securitization markets.<sup>2</sup> Many financial institutions are already shrinking their balance sheets, tightening lending standards for both businesses and consumers, and reducing resources committed to securitization.

Given the magnitude of what is at stake, the current crisis in the securitization markets merits an immediate, coordinated response to restore the confidence of investors and all other market participants.

As a part of its effort to address this crisis, the Securities Industry and Financial Markets Association (SIFMA), the American Securitization Forum (ASF), the European Securitisation Forum (ESF), and the Australian Securitisation Forum (AuSF) have launched the Global Joint Initiative to Restore Confidence in the Securitization Markets (Global Joint Initiative). These associations represent a diverse range of firms and industry professionals involved in the securitization markets worldwide. The Global Joint Initiative has developed and begun to implement recommendations to help bolster investor and public confidence in these markets in the near-term, and thereby assist their orderly recovery. In the US, the President's Working Group on Financial Markets (PWG) has recognized this joint effort as responsive to its recommendation that a private-sector group develop vital industry best practices to remedy the shortcomings existent in market practices today.

Historically, securitization has offered significant benefits to consumers, investors, financial institutions, and the economy more broadly. Securitization has lowered the cost of mortgages, auto loans, and credit card loans for consumers, while significantly increasing the general availability of credit. US financial institutions securitized approximately 46% of the total credit they originated on average from 2005-07.<sup>3</sup> In Europe, between 14% and 55% of the gross mortgage lending between 2000 and 2006 was funded by RMBS and covered bonds.<sup>4</sup> This freed capital that could be lent back into the US and EU economies to the benefit of consumers and businesses alike. Securitization has also become an important asset class for investors, representing 21.2% of the Lehman Global Aggregate Index as of the end of 2007.<sup>5</sup>

While acknowledging that there is a real need to strengthen the securitization process in the future to correct weaknesses in current market practices that this crisis has revealed, senior policymakers have also attested to the significant benefits to the economy in particular and society in general that this process brings:

US Treasury Secretary Henry M. Paulson, Jr. describes securitization as:  
“A process that has been extremely valuable in extending the availability of credit to millions of homeowners nationwide and lowering their cost of financing.”<sup>6</sup>

José Manuel González-Páramo, Member of the Executive Board of the ECB, portrayed the benefits of securitization for banks in particular as follows:  
“The securitization of their loan portfolios has provided banks with access to an additional funding source and enabled them to mitigate some of the risks intrinsically related to their core business of liquidity transformation... By allowing banks to transform their illiquid assets into marketable securities and providing an additional source of funding to expand lending, securitization provides an effective mechanism to mitigate such risks and reduces the role in liquidity transformation traditionally performed by depository banks.”<sup>7</sup>

Federal Deposit Insurance Corporation Chairman Sheila Bair testified on securitization’s benefits at a Congressional hearing just prior to the outbreak of the crisis: “. . . securitization has had a positive impact on credit availability to the overall benefit of the nation’s homeowners. It is an essential process in the US mortgage markets. By packaging loans into securities and diversifying risk by selling these securities to a broad array of investors, securitization has increased credit availability to borrowers, reduced concentration of mortgage risk and improved the liquidity of the mortgage markets.”<sup>8</sup>

Without well-functioning and efficient securitization markets, financial growth and economic stability could be impaired. Securitization is an essential, long-standing mechanism used by financial institutions for providing the capital and liquidity required to finance worldwide demand for consumer and business credit. Given current capital

constraints and challenges to distributing securitized products, financial institutions are unlikely over the next several years to have the wherewithal to meet the demand for credit necessary to support robust economic recovery and growth.

The speed and eventual form in which securitization returns will ultimately depend on several factors, many of which are beyond the ability of the industry to affect. Macroeconomic and global market conditions, mark to market risk volatility and confidence in forecasting housing prices, delinquencies, defaults, foreclosures and loss severities on residential real estate will have a great impact on the ability and willingness of investors and financial institutions to value, invest in, and distribute existing and future mortgage-related and other securitizations. A new investor base may be needed to augment the demand from financial institutions that are currently very capital-constrained and from investor segments of the last few years that have withdrawn from the market. The recovery of the markets overall also will be very dependent on the successful implementation of a variety of measures taken by governments and regulators worldwide since the worsening of the crisis in the fall of 2008. The Global Joint Initiative recognizes the recent actions by the US Treasury and Federal Reserve to establish the Term Asset Backed Securities Loan Facility, among other policy initiatives, as an important step towards restarting the securitization markets. Nevertheless, there are important market practice improvements that would help restore confidence in the securitization markets and help prevent future market failures that can be taken by the industry. SIFMA, ASF, ESF, AuSF and their members are working actively with regulators and policymakers to address deficiencies in past market practices. The focus of this report is actions that the industry can take that do not require regulatory or legislative action and can begin immediately.

The following report, *Restoring Confidence in the Securitization Markets*, draws upon the expertise of the Global Joint Initiative's Steering Committee<sup>9</sup>, builds upon ongoing efforts, and relies on additional new research. The Global Joint Initiative asked McKinsey & Company to conduct two primary research efforts in support of this report. These were: (1) in-depth interviews with over 100 issuers, investors, dealers, servicers, and rating agencies; and (2) an on-line survey of SIFMA, ASF, ESF, and AuSF members who were active market participants, which elicited 400 responses.<sup>10</sup>

This report, the associated recommendations, and the implementation action plan should be viewed as the early stages of a practical, industry-led response to restore confidence in market practices and proactively guard against future systemic shocks. The Global Joint Initiative's efforts are an integral component of a broader set of initiatives spearheaded by SIFMA, ASF, ESF and AuSF, to restore confidence in, and facilitate the return of, efficient and well-functioning securitization markets. Related projects serving the same goal include Credit Rating Agency (CRA) Task Forces and due diligence initiatives of SIFMA and ASF, the AuSF Transparency Task Force, the ESF's Ten Industry Transparency Initiatives, as well as ASF's Project on Residential Securitization

Transparency and Reporting (Project RESTART).<sup>11</sup> This report and the associated recommendations are meant to complement efforts by other private and public-sector groups, including work underway by the Credit Risk Management Policy Group III, Institute of International Finance, International Organization of Securities Commissions, International Monetary Fund, President's Working Group on Financial Markets, Financial Stability Forum, Basel Committees, European Commission and European Level 3 Committees, and other regulators and legislators worldwide.

Following this Executive Summary, this report contains four sections. Section I reviews the multiple factors that contributed to the current crisis. Section II presents the likely near- and medium-term outlook for the market and the potential threat to US and global economic growth. Based on interview and survey findings, Section III prioritizes those areas of focus for an industry response that are likely to have the greatest impact. Section IV offers eight recommendations to enhance industry practices in the securitization and structured credit markets, segmented into two groups: one to improve practices in the near-term; and one to guard against future systemic shocks in the longer term.

## **MULTIPLE FACTORS CONTRIBUTED TO THE CURRENT CRISIS**

Many of the factors that contributed to the rapid growth in securitization and structured credit over the last several years also left the market particularly vulnerable to any misstep. Moreover, these factors also increased the severity of the crisis and the speed with which the securitization and broader credit markets deteriorated.

**Deteriorating loan underwriting standards undermined underlying asset quality.** For instance, \$47 billion in “covenant-lite” leveraged loan transactions took place in the US between January and May 2007 alone, more than twice the level of covenant-lite issuance in all of 2006.<sup>12</sup> US subprime mortgages rose from about 9% of all mortgage originations from 1996 through 2004 to 21% from 2004 through 2006.<sup>13</sup> The introduction of more esoteric and less resilient loan features, along with the expansion of eligibility criteria and risk layering features, also created incremental risk, especially in vintages issued shortly before the onset of the crisis. Uneven regulation of American financial institutions, mortgage brokers, and other market participants at both the state and national levels also played a role by allowing problems to go undetected or unremedied for longer than they should have. The allegedly fraudulent conduct of some mortgage professionals and borrowers likely also contributed to the overall deterioration in the creditworthiness of underlying loans.

**The market relied too extensively on ratings that in some instances proved to be overly optimistic.** In some cases, investors were overly reliant on rating agencies to

assess the quality of underlying assets and potential risks created by certain transaction structures. The favorable overall economic environment and consistent rise in home prices over the past decade provided near-term cover for the deterioration in standards and the potential ramifications of any significant decline in asset prices.

**Complex, highly leveraged positions created a precarious market position.** The level of complexity of products developed during the height of the market boom, such as collateralized debt obligations of asset backed securities (CDOs of ABS), CDOs of CDOs (CDOs-squared), and constant proportion debt obligations (CPDOs), exceeded the analytical and risk management capabilities of even some of the most sophisticated market participants. Some of the products offered to consumers that supported the constant stream of new originations driving growth in the securitization market were also likely too complex and/or contained features that were untested under significant economic duress. A significant number of market positions were effectively highly-levered triggers which, when tripped by a rating action or price movement, could cause a systematic deleveraging that could potentially reach beyond the asset class that was the initial source of the market movement.

**Dealers and investors misjudged liquidity risk and fell victim to the carry trade.** Investors and financial intermediaries established risk positions that were multiples of the daily volume of secondary trading under pre-crisis conditions. These positions implicitly assumed that triple-A rated securities would be liquid and not subject to dramatic moves in market prices. A large part of the securitization market had begun to rely on what was fundamentally a carry trade that incorrectly assumed triple-A structured credit could always be easily funded by short-maturity securities. Rating agencies, investors, dealers and consumers did not adequately assess the potential ramifications of a significant, widespread and sustained fall in housing prices.

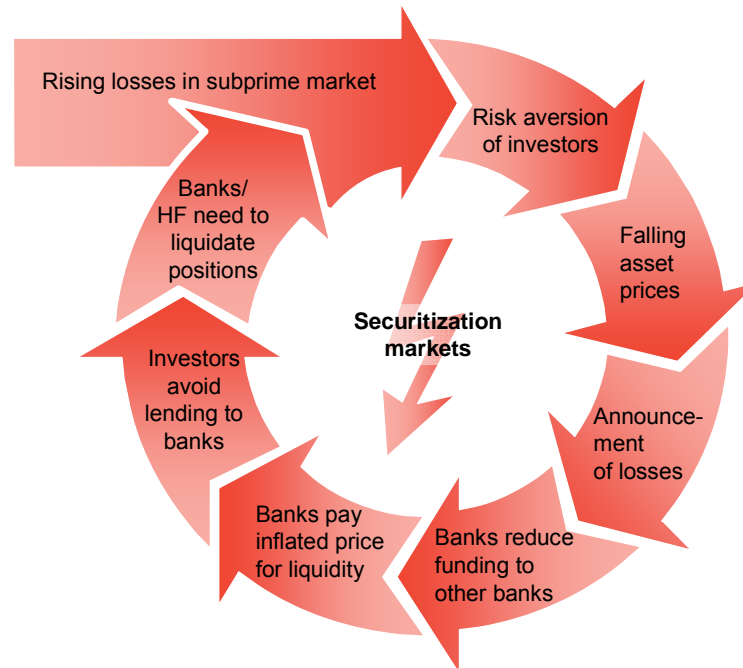
**Lack of a sense of shared responsibility for the integrity of the system as a whole.** An extremely efficient system for originating and distributing risk evolved to meet rapidly growing and expanding investor demand globally. The market was originating and distributing \$234 billion in securitized credit per month in the first half of 2007.<sup>14</sup> The industry was aware of a gradual deterioration in origination and overall credit standards. But market players did not feel sufficient responsibility for ensuring discipline across all parts of the securitization value chain despite significant incentives to do so.

**Rising losses in the US subprime market triggered a crisis in confidence that drove a self-reinforcing and vicious downward cycle.** What started as a problem with the performance of US subprime quickly affected other products and spread to European markets as well [*Exhibit 1*].

## Exhibit 1

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### Rising losses in the subprime market drove the vicious cycle that yielded the current crisis




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## CONTINUING MARKET DISTRESS THREATENS ECONOMIC GROWTH

The securitization markets currently remain under significant duress. The annualized issuance volumes for overall global securitized and structured credit issuance in 2008 through the end of September are approximately \$2.4 trillion less than in 2006<sup>15</sup> [Exhibit 2]. Unless confidence in securitization is restored quickly, sustained economic activity needed to pull the global economies out of potential recession will be negatively impacted by this shortfall.

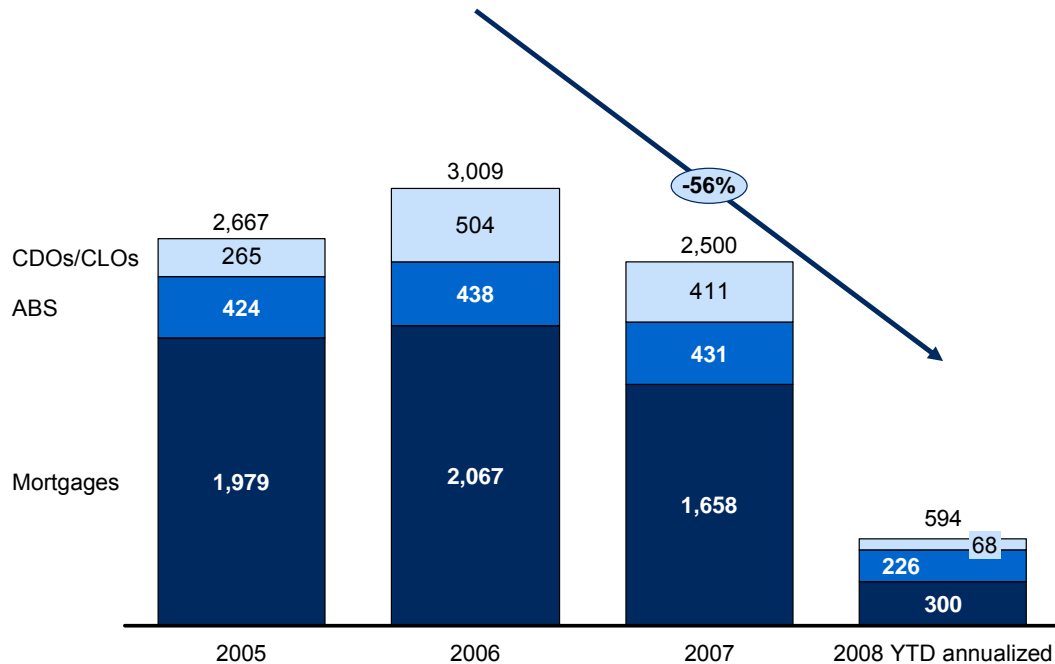
Signs of recovery in the securitization markets will differ considerably by asset class and by region. Prior to the worsening of the crisis in the fall of 2008, a few US ABS markets had shown modest recovery, but real estate remained stagnant. Credit cards, autos and the US government-guaranteed student loan markets had shown some early signs of recovery. Global volumes for non-agency real estate<sup>16</sup> issuance are very low and, in some cases, the markets have almost ceased to exist. However, the conditions for all securitized markets significantly worsened in the late fall of 2008.

## Exhibit 2

### Securitization markets remain anemic

Global structured product issuances  
\$ Billions

— x% → Compound annual growth rate



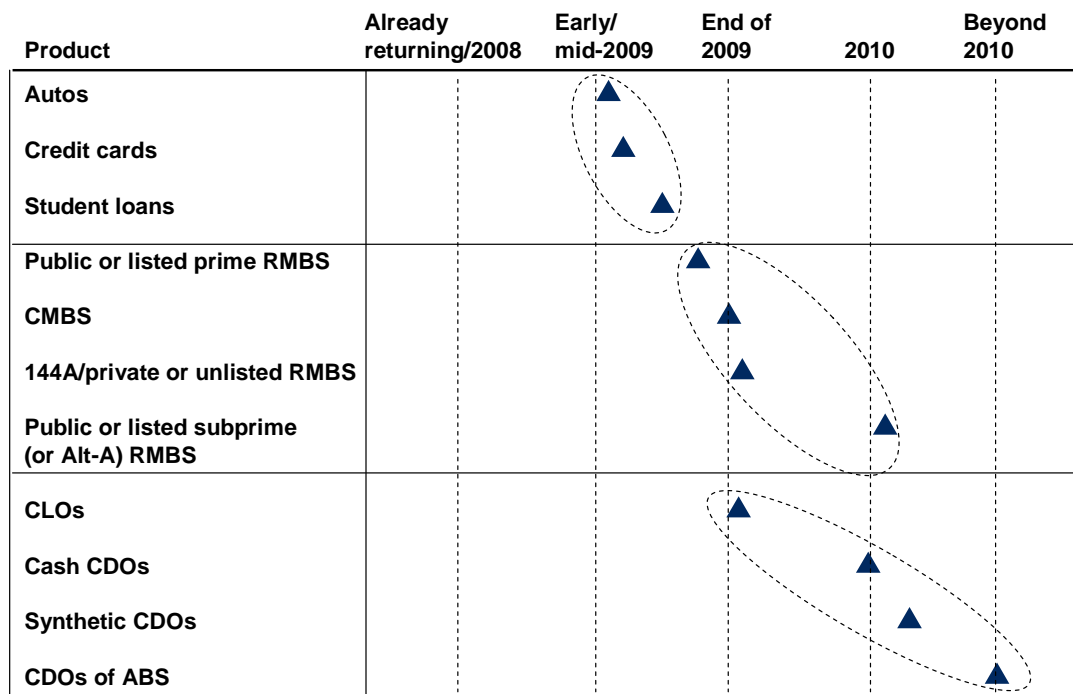
The two types of structured credit that drove growth in the overall CDO market, CLOs and CDOs of ABS, differ greatly in terms of likely longer-term prospects. The explosive growth and high volumes that characterized the market for CDOs of ABS in recent years are unlikely to return. Investor discomfort with the higher level of complexity that characterizes structured finance CDOs, combined with the discovery of higher correlation (and thus lower diversification) than originally assumed significantly reduces the appeal of securitization as a viable structuring tool for this type of product. By contrast, the CLO market had shown some signs of recovery prior to the worsening of the crisis.

The European markets show few signs of recovery. 2008 annualized volumes for European securitizations publicly syndicated and placed to third party investors<sup>17</sup> are \$49 billion compared to \$670 in 2006, a 93% drop in volume in just over 18 months.<sup>18</sup> European securitizations as a percentage of global issuance has also fallen from 27% to just 8%.<sup>19</sup> Since most European assets targeted for securitization are floating rate, with corresponding floating rate ABS liabilities issued, the investor base was concentrated among floating rate buyers (e.g., banks and money market funds.) The capital constraints currently facing banks and the pullback of money market funds therefore represent significant near-term challenges for the return of the European securitization markets.

Market expectations for the return to “more normal” conditions<sup>20</sup> are for some asset classes to return by mid-to-late 2009, but for others to take much longer. In our survey, market participants expected<sup>21</sup>, on average, that consumer ABS such as autos, credit cards and consumer loans would return to “more normal” trading conditions before non-agency RMBS, CMBS and CLOs, and other CDOs, subprime and non-conforming mortgages to not return until at least 2010, if at all [Exhibit 3]. Market expectations for the levels of new securitization issuance imply a significant tightening of credit in the overall economy that threatens economic growth. Participants also expected to see at least some product simplification in virtually all asset classes compared to 2006 and did not expect the most complex products to return at all in the near-term. The market also faces important challenges in retaining a sufficient investor base: a significant number of the investors that fuelled growth in 2005-2006 (e.g., SIVs, CDOs) are unlikely to return to the securitization markets in the near-term.

### Exhibit 3

#### Market participants expect products to recover at different speeds



The banking system as a whole is unlikely to have the capital needed to support the likely demand for credit if the securitization market is no longer a viable tool for capital relief.

Financial institutions, which have already announced writedowns equal to just under \$1trillion<sup>22</sup>, face the prospect of raising additional capital to offset loss projections to return to pre-crisis levels. Even if the losses are not as severe as projected or financial institutions are recapitalized to pre-crisis levels, the financial system would be unlikely to raise the additional capital for the level of on-balance sheet lending needed to meet the current demand for credit formerly channeled through the securitization markets. Many financial institutions are shrinking their balance sheets, tightening lending standards for both businesses and consumers, and reducing resources committed to securitization.

The absence of well-functioning securitization markets will impact consumers, banks, issuers and investors. The price of credit is likely to be higher for the consumer and the availability scarcer. Banks will no longer have a tool to reduce risk and diversify their financing sources to free up capital for other activities. Investors will encounter rising difficulty in gaining exposure to an asset class that has become a significant part of their portfolios. More broadly, the current absence of an efficient and smoothly functioning market has substantial implications for continued economic growth. Based on reasonable estimates and assumptions, banks may fail to meet approximately \$2 trillion of demand for credit origination over the next three years in the absence of well-functioning securitization markets.<sup>23</sup> The significant investor demand in recent years for high quality, diversified pools of credit must now find alternatives in the absence of well-functioning securitization markets.

## **PRIORITIES FOR ACTION BY THE INDUSTRY**

No single action or combination of actions the industry can take is likely to be sufficient, in the near-term, to return the securitization market to a normal level of functionality, let alone to restore it to the level of the last few years. The damage caused by the current crisis will take time to repair. Equally important, the volumes at the height of the market in 2006 and early 2007 were likely excessive and should not be the gauge for success in returning the markets to health. Nevertheless, there are a number of areas where industry initiatives could be effective in restoring confidence in the markets.

Based on the interviews and survey of market participants [*Exhibit 4*], the Global Joint Initiative has identified four priorities for immediate action by the industry:

- Improve disclosure of information on underlying assets for RMBS
- Enhance transparency with regard to underwriting and origination practices
- Restore the credibility of CRAs
- Improve confidence in valuations, methodologies and assumptions

In addition, the Global Joint Initiative further identified two areas in which improvements to current practices would benefit the markets, but which are less critical to restoring more normal trading conditions in the near-term:

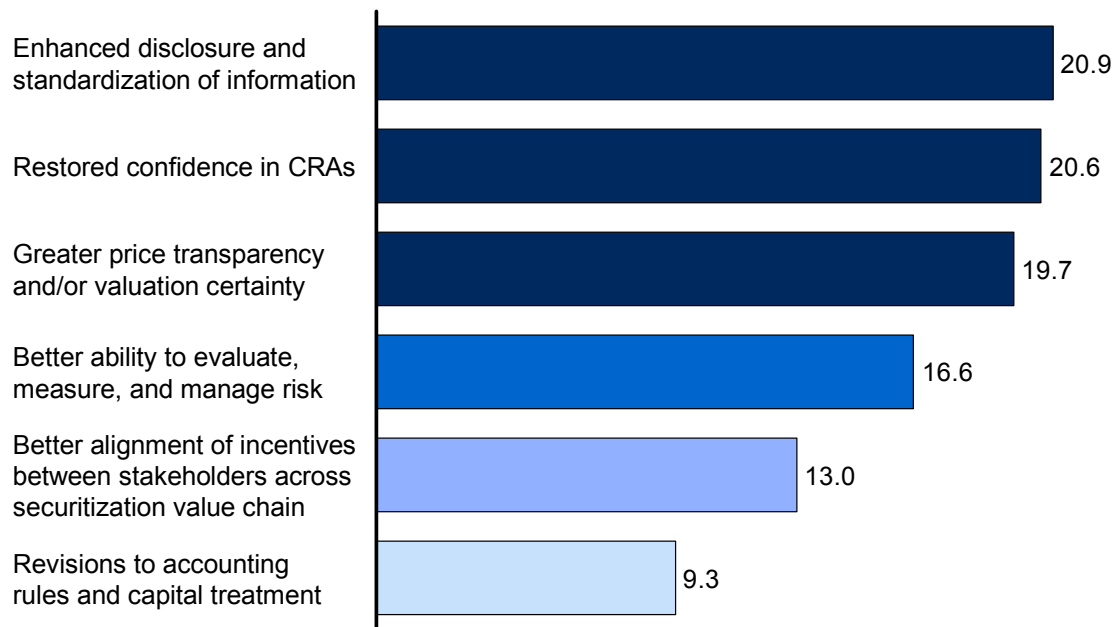
- Ensure there is an alignment of incentives along the securitization and structured credit value chain
- Enhance relevant accounting and capital treatment rules

#### Exhibit 4

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### Respondents see better disclosure, restored confidence in CRAs, and greater valuation certainty as key to restoring confidence

Average weight given by respondents allocating 100 points across 6 factors



## RECOMMENDATIONS FOR RESTORING CONFIDENCE

The recommendations contained in this report are the early stages of a practical, global industry action plan to restore confidence in market practices and proactively guard against future systemic shocks. These recommendations reflect input from a wide range of market participants, regulators and legislators. They also benefit from the work of the numerous groups that have contributed diagnoses of the current problems and proposed recommendations to alleviate the ongoing crisis.

The Global Joint Initiative recognizes that many of the factors that will determine the markets' capacity to recover are beyond the industry's ability to affect. Macroeconomic conditions, trends in real estate prices, the ability of financial institutions to recapitalize and other external factors will have a great impact on the ability and willingness of investors and financial institutions to value, invest in and distribute securitized products. The successful implementation of policy and regulatory responses to the crisis also will impact the speed of return and the structure of the markets going forward.

The Global Joint Initiative also recognizes the need for immediate, focused actions to begin restoring confidence in the securitization and structured credit markets. To that end, SIFMA, ASF, ESF, and AuSF are working with their memberships to implement each of the recommendations detailed in this report, with significant progress already achieved.

Finally, it is important to recognize that the make-up and structure of each of the global markets is different. Whether relating to legislative, product, market practices or other differences, each of the recommendations below will need to be interpreted and implemented depending on the circumstances of each respective jurisdiction (e.g., different methodologies of assessing loans are utilized in the various global markets for various reasons.) Ensuring understanding and transparency of the methodologies used to allow clear credit assessment is the targeted outcome as opposed to an attempt to standardize the global industry to align to a single methodology.

Section IV describes the recommendations and the action plan for implementation outlined below in substantially more detail.

**Recommendation 1: Increase and enhance initial and on-going pool information on US non-agency RMBS and European RMBS into a more easily accessible and more standardized format.**

Recommendation 1 addresses three of the four main dimensions of disclosure of information on US non-agency RMBS and European RMBS: type and quantity of data, standardized presentation and accessibility, and ongoing reporting. The fourth dimension, the issue of reliability of information, is addressed in Recommendation 2. A larger quantity of more standardized and easily accessible data points will facilitate stronger independent evaluations of RMBS by institutional investors and credit rating agencies alike. Increasing and standardizing ongoing reporting information will also significantly improve the valuations of outstanding RMBS as well as their ratings stability. Giving due consideration to the relevant data protection, privacy and other legal requirements that may in various jurisdictions affect whether and how pool- or loan-level data is made available to the market, elements of improved disclosure should include:

- Standardized definitions and calculation methodologies for credit features (e.g., debt-to-income calculations; use of consistent methodology in obtaining consumer

credit scores, where available; consistent definitions of “full documentation” of borrowers’ income)

- Standardized disclosure of defaults and foreclosures
- Additional information beyond what is currently offered (e.g., more qualitative information from mortgage applications including whether closing costs are financed; whether the purchaser is a first time buyer; whether a loan was originated by a mortgage broker)
- Greater accessibility by providing a standard data tape or other format for use by all originators, as adapted for differences in national jurisdictions, which could serve as the foundation for one or more industry-developed issuance data portals
- Enhanced ongoing reporting of RMBS performance through provision of a dynamic set of data elements to be updated by servicers on a regular basis throughout the life of an RMBS transaction, and made available to investors and rating agencies through trustee- or servicer-maintained investor reporting websites and other third party information providers

**Recommendation 2: Establish core industry-wide market standards of due diligence disclosure and quality assurance practices for RMBS.**

Enhanced market practices and transparency around the due diligence efforts that occur during the pre-securitization process would give investors greater comfort with regard to the underlying assets in a securitization. New, industry-endorsed pre-securitization due diligence standards that exceed those that may be required under applicable regulation, as adapted for differences across jurisdictions, will establish a common basis for evaluating the accuracy and integrity of information that is presented and relied upon in evaluating the risk and performance characteristics of securities, including by the rating agencies. The Global Joint Initiative recommends that core standards be developed regarding the pre-securitization due diligence process, as well as regarding disclosure of information about that process.

The standards, which may vary depending on national jurisdiction, are expected to include:

- Guidelines regarding sampling size of loans subject to due diligence
- Due diligence provider attestations, e.g., as to independence and sufficiency of time to review
- Standardized loan scoring and reporting or disclosure of results
- Standards and guidance for the credit, value and compliance components of the due diligence review process

- A standardized investor loan data set for verification during due diligence

The Global Joint Initiative further recommends that CRAs publish assessments of origination practices and relative performance of underlying collateral, measured against the industry-backed standards, by originator.

The Global Joint Initiative also recommends that originators publicly disclose information around their own internal quality assurance practices for all origination.

**Recommendation 3: Strengthen and standardize the representations and warranties as well as repurchase procedures for RMBS.**

The process built into securitization transactions to compel originators to repurchase loans that support payments on securities if certain representations or warranties that originator made were breached is an important market-based mechanism for ensuring the alignment of incentives at the originator and underwriter levels. Current market practices allow investors to effectively return loans that are found not to conform to the representations and warranties made by issuers. However, the conditions under which parties are entitled to “put back” loans to originators vary from transaction to transaction, are sometimes overly vague, and/or the repurchase procedures result in a relatively cumbersome, costly, and potentially litigious process for all parties involved.

If a more effective enforcement mechanism for compelling the repurchase of securities by originators were implemented, market participants could then leverage the greater expected transparency around the performance of originators and underlying assets to price the securities, as well as the terms of the repurchase obligation themselves, to more accurately reflect differences in quality of origination. The model representations and warranties may vary due to differences in national jurisdiction.

**Recommendation 4: Develop industry-wide standard norms for RMBS servicing duties and evaluating servicer performance.**

Equally important to ensuring that investors have the ability to return defective loans to issuers is ensuring that the quality of the underlying assets is not allowed to unduly or unnecessarily deteriorate over time. To that effect, just as it is necessary to improve transparency vis-à-vis the assets themselves to detect any material deterioration, it is also necessary to have a common understanding of the scope of a servicer’s contractual duties and responsibilities and adequate benchmarks for evaluating the servicers who are responsible for collecting and maintaining the asset base. This will allow interested parties to determine whether any deterioration is due to servicer deficiencies, or more exogenous and uncontrollable circumstances.

Contractual, reporting, and enforcement mechanisms to create an incentive system based on greater transparency around servicer performance must accompany the development of these standards. To that end, the Global Joint Initiative recommends the development of:

- A set of RMBS market-standard performance metrics that will cover all relevant aspects of servicer performance that can be objectively and reasonably measured
- A set of model RMBS servicing provisions for pooling and servicing agreements to create more standardized work rules for servicers of private-label RMBS, create more consistent expectations of mortgage borrowers in relevant countries when and how loss mitigation strategies should be employed, as well as clarify and streamline procedures for removing or replacing servicers who fail to live up to the relevant performance standards

**Recommendation 5: Expand and improve independent, third-party sources of valuations and improve the valuation infrastructure and contribution process for specified types of securitization and structured products.**

Current difficulty in establishing valuations undermines investors' confidence and therefore their participation in the securitization markets. In both the surveys and interviews, market participants indicated a strong desire for a solution to the current difficulty in establishing valuations, albeit recognizing the significant difficulty in determining valuations in markets characterized by less liquid, non-standard securities.

The market needs an improvement in the number of securitized products for which valuation information is widely available and an improvement in the quality and transparency of such information. The Global Joint Initiative therefore recommends that the industry form a Valuation Task Force ("Project Value") to determine, among other issues, guidelines for the range of securities for which valuations would be contributed, and the expectations of participants and contributors. The Project Value team would seek to meet with the boards and senior management of the various data providers on the strategic importance of this expanded support. The Global Joint Initiative recognizes that developing and implementing methodologies and protocols will be an important task that will require additional planning and discussion. The purpose of Project Value would not be to anoint an official or sole provider of valuation data to the market, but rather to improve the overall infrastructure and contribution processes for independent valuations.

**Recommendation 6: Restore market confidence in the CRAs by enhancing transparency in the CRA process.**

Interviews highlighted how a combination of investor over-reliance on CRAs and a failure by the market to understand the limits of CRA ratings combined to aggravate participants' miscalculation of potential downside risk to the securitization and structured credit market. The survey confirmed the relative importance of this issue. Greater market transparency from the above recommendations should empower investors and other market participants to do more of their own credit research, and thereby reduce the market's overall reliance on CRAs. These recommendations do not, however, in and of themselves address the need to restore confidence in ratings.

SIFMA and ASF each created CRA Task Forces to develop recommendations seeking to achieve the dual goals of avoiding a repetition of the credit-rating related turmoil of the past year and strengthening the investor confidence that is vital to robust and liquid global financial markets. Key issues were identified and prioritized. The issues that headed the list are the issues that the CRA Task Forces addressed in their recommendations, summarized below:

- CRAs should provide enhanced, clear, concise, and standardized disclosure of CRA rating methodologies, underlying data examination and verification, as well as CRA surveillance procedures, so as to foster greater transparency and allow market users of ratings to understand their bases and limitations
- CRAs should provide access to data regarding CRA performance so as to allow investors to assess how CRAs differ both in the performance of their initial ratings, and in their ongoing surveillance of existing ratings
- CRAs should disclose summary results of due diligence, underlying asset examinations, and other information they relied upon or that forms part of the basis for the rating assigned to a structured finance product
- Lawmakers, regulators, and policymakers across the globe should coordinate more closely in addressing CRA oversight, in order to avoid counter-productive, piecemeal, inconsistent attempts at remediation
- Conflicts of interest should be addressed with a sensitivity towards the difference between core CRA services and ancillary CRA services
- CRAs should ensure that rating performance of structured products are consistently in line with rating performance of other asset classes, which will increase investor confidence in the reliability of ratings. However, regulators should avoid mandating the use of separate ratings scales or unique ratings indicators or modifiers for structured finance ratings

- Investors should understand the limits of ratings, and use them as just one of many inputs and considerations as they conduct their own independent analyses
- All members of the financial industry involved in the generation and use of ratings, including issuers and underwriters, should examine their processes with an eye towards improvement, including working towards standardizing reporting and disclosure on underlying assets

**Recommendation 7: Establish a Global Securitization Markets Group to report publicly on the state of the market and changes in market practices.**

The industry should share responsibility with regulators to understand and manage risks going forward. The mission of the Global Securitization Markets Group (Markets Group) would be to report publicly on the state of the market and on deficiencies and necessary changes in market practices. Composed entirely of industry participants, the Markets Group will accomplish its overall mission through the following discrete actions:

- Oversee publication by SIFMA/ASF/ESF/AuSF of an annual report on the state of the securitization markets that will include at minimum: (1) a review of volumes and economic trends; (2) an assessment of important new products and recent changes to existing products, including an evaluation of any new risks these might present; (3) a review of the ongoing operational/infrastructure requirements and current capabilities to meet market demands; (4) an evaluation of potential legislative and regulatory changes and their impact on the market; (5) an ongoing list of potential areas of improvement for existing market practices
- Engage in ongoing dialogue with regulators and central banks, including hosting an annual or more periodic conference, to which all concerned policymakers globally would be invited, where relevant considerations for the draft report on the state of the market and its evolution, along with the proposed stress scenarios, would be discussed

**Recommendation 8: Establish and enhance educational programs aimed at directors and executives with oversight over securitized and structured credit groups, as well as at investors with significant exposure to these products.**

Participation in the securitization and structured credit markets should be limited to sophisticated investors possessing the capabilities and resources necessary to assess and monitor the risks embedded in those products. Investment firms should also have principles in place to assess the creditworthiness of securitizations without reliance on CRA ratings alone, as well as have effective securitization valuation principles of their own in place.<sup>24</sup>

Financial intermediaries and investors should revisit their policies and procedures to ensure that their own capabilities, as well as those of their counterparties, are consistent with the minimum standards mandated by regulators and supplemented by industry best practices. To do so, directors and senior executives of financial institutions must better understand the risks inherent to the securitization markets and the potential ramifications of ongoing changes in those markets. Such fundamental grounding will also allow senior managers to have more informed dialogues regarding exposures and provide them with a greater ability to assess their institutions' own capabilities.

This recommendation seeks to provide and disseminate that enhanced understanding of the securitization markets by creating, under the collective aegis of SIFMA, ASF, ESF, and AuSF and building upon the ASF's Securitization Institute<sup>25</sup>, an educational program specifically targeting this senior level audience. To complement that effort and further enhance participants' ability to understand the risks and benefits inherent to the securitization markets, the Global Joint Initiative further endorses the recommendations made by the CRMPG III in its August 2008 report seeking to enhance the documentation and disclosures provided to prospective investors in high-risk complex financial instruments.<sup>26</sup>

## **ACTION PLAN FOR IMPLEMENTATION**

The Global Joint Initiative recognizes that the most pressing need is for the industry to take the lead in immediately implementing recommendations to restore confidence in the securitization and structured credit markets. All of the recommendations are implementable without new regulation or legislation: they are intended as significant actions that the industry can and should put into practice immediately to improve market conditions. Working groups of SIFMA, ASF, ESF, and AuSF are aligned against every recommendation and already have made significant progress [*Exhibit 5*].

## Exhibit 5

### Action plan and SIFMA, ASF, ESF, AusSF efforts already underway

Recommendation	Effort	Next steps
1. Increase and enhance initial and on-going pool information on US non-agency and European RMBS into more easily accessible and more standardized format	<ul style="list-style-type: none"> <li>▪ ASF Project RESTART</li> <li>▪ ESF RMBS Issuer Transparency Principles project</li> </ul>	<ul style="list-style-type: none"> <li>▪ Revised request for comment on ASF RMBS Disclosure Package – 2008</li> <li>▪ ESF Issuer Transparency Principles –Dec 2008</li> </ul>
2. Establish core industry-wide market standards of due diligence disclosure and quality assurance practices for RMBS	<ul style="list-style-type: none"> <li>▪ SIFMA US RMBS Pre-securitisation Due Diligence Standards Working Group</li> <li>▪ ASF Project RESTART</li> <li>▪ AuSF Transparency Task Force</li> </ul>	<ul style="list-style-type: none"> <li>▪ Integrated set of recommendations – 2009</li> <li>▪ ESF implementation</li> </ul>
3. Strengthen and standardize the representations and warranties as well as repurchase procedures for RMBS	<ul style="list-style-type: none"> <li>▪ ASF Project RESTART Repurchase Working Group</li> </ul>	<ul style="list-style-type: none"> <li>▪ Initial request for comment on uniform set of repurchase procedures – Early 2009</li> <li>▪ ESF implementation</li> </ul>
4. Develop industry-wide standard norms for RMBS servicing duties and evaluating servicer performance	<ul style="list-style-type: none"> <li>▪ ASF Project RESTART</li> </ul>	<ul style="list-style-type: none"> <li>▪ Request for comment on both servicer performance metrics and model set of servicing provisions –Early 2009</li> <li>▪ ESF implementation</li> </ul>
5. Expand and improve independent, 3 <sup>rd</sup> -party sources of valuations and improve the valuation infrastructure and contribution process for specified types of securitization and structured products	<ul style="list-style-type: none"> <li>▪ SIFMA Project Value Task Force</li> <li>▪ AuSF Transparency Task Force</li> </ul>	<ul style="list-style-type: none"> <li>▪ Project Value Task Force being formed – 2008</li> <li>▪ Australian Best Practice Pricing Model concept launched</li> </ul>
6. Restore market confidence in CRAs by enhancing transparency in the CRA process	<ul style="list-style-type: none"> <li>▪ SIFMA CRA Task Force recommendations released</li> <li>▪ Comment letters on SEC and EC CRA reform proposals submitted by ASF and SIFMA/ESF CRA Task Forces</li> </ul>	<ul style="list-style-type: none"> <li>▪ Second phase of CRA reform proposals</li> </ul>
7. Establish Global Securitization Markets Group to report publicly on the state of the market and changes in market practices	<ul style="list-style-type: none"> <li>▪ Global Securitization Markets Group</li> </ul>	<ul style="list-style-type: none"> <li>▪ Markets Group to be established prior to 2008 year end and publish first report – mid-2009</li> </ul>
8. Establish and enhance educational programs aimed at directors, executives and investors with significant exposure to securitized and structured credit products	<ul style="list-style-type: none"> <li>▪ ASF Securitization Institute</li> <li>▪ AuSF Transparency Task Force</li> <li>▪ ESF Member Education Programs</li> </ul>	<ul style="list-style-type: none"> <li>▪ In progress</li> <li>▪ AuSF proposed Fit and Proper person certification program through its education arm</li> </ul>

\* \* \*

There is an urgent need for global, coordinated action to address the current crisis in the securitization and structured credit markets. The current crisis places at risk the significant benefits of a well-functioning securitization market for consumers, investors, financial institutions and the economy.

The recommendations and plans for implementation contained in this report are an important step in the restoration of confidence in the securitization market and market practices. The most effective way forward is for market participants to commit to accepting responsibility and dedicating sufficient resources to implement the recommendations contained in this report, as well as the other important areas for improvement in market practices identified by other groups.

# I. Multiple factors contributed to the current crisis

Many of the same factors that contributed to the rapid growth in securitization and structured credit over the last several years also left the market particularly vulnerable to any misstep. These factors also increased the severity of the crisis and the speed with which the securitization and broader credit markets deteriorated. This crisis originated primarily in the US, and so the following assessment of its causes starts with a perspective on the factors that contributed to the US crisis.

## **DETERIORATING LOAN UNDERWRITING STANDARDS UNDERMINED UNDERLYING ASSET QUALITY**

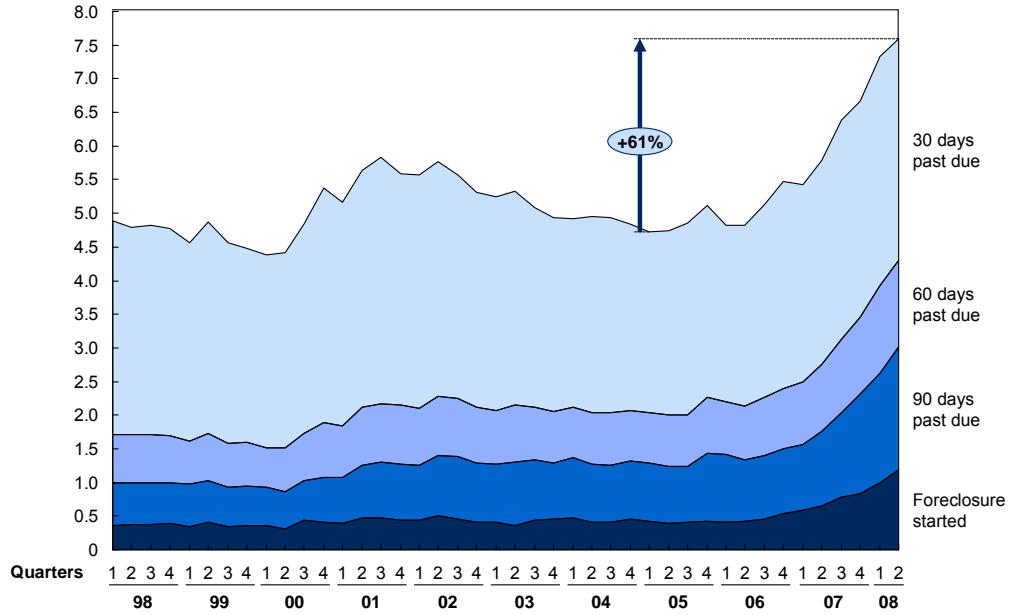
**Poor asset quality.** Underlying assets became significantly riskier as credit standards and market practices were relaxed. The deterioration of credit standards manifested itself in many ways. For instance, the proportion of leveraged loans in the US containing a coverage covenant of any type dropped from 68% in January 2006 to 44% in May 2007, both of which were well below the 1996-2006 average of 78%.<sup>27</sup> Similarly, \$47 billion in “covenant-lite” leveraged loan transactions took place in the US between January and May 2007 alone, more than twice the level of covenant-lite issuance in all of 2006.<sup>28</sup> US subprime mortgages rose from about 9% of all mortgage originations from 1996 through 2004 to 21% from 2004 through 2006.<sup>29</sup> The introduction of more esoteric and less resilient loan features along with the expansion of eligibility criteria, also created incremental risk, especially in vintages issued shortly before the onset of the crisis.

The deterioration in asset quality, particularly in loans originated in 2006-07, contributed to a rapid rise in delinquencies. Delinquencies for all US mortgages rose from 4.7% in Q1 2005 to 7.6% in Q2 2008, a 61% increase in just over 3 years. During the same period, the rate of delinquencies for subprime mortgages nearly doubled, rising from 12.2% to 23.4%<sup>30</sup> [Exhibit 6]. Relatedly, mortgages with “less than full” documentation rose from 18% in 2001 to 49% in 2006.<sup>31</sup> Early delinquencies in 2006 and 2007 were particularly severe and significantly greater than the experience of earlier vintages [Exhibit 7].<sup>32</sup>

**Exhibit 6**

**Deteriorating asset quality contributed to a rapid rise in mortgage delinquencies**

Percent of all outstanding US mortgages, seasonally adjusted



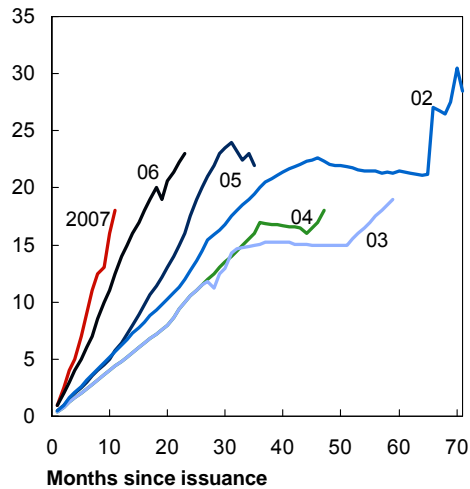
**Exhibit 7**

**Delinquency rates are significantly higher for US mortgages originated since 2005**

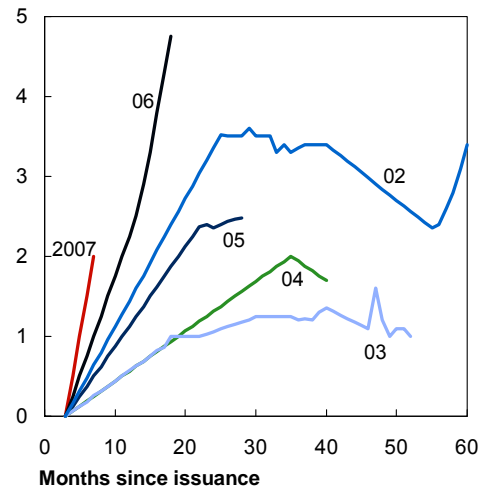
60+ days of delinquency

% of outstanding exposures displayed by vintage

**Subprime loans**



**Alt-A loans**



**Uneven regulation of US brokers and originators.** Uneven regulation of American financial institutions, mortgage brokers, and other market participants at both the state and national levels also played a role. Institutions and individuals involved in the mortgage origination process (including brokers, lenders, appraisers and other parties) are subject to varying licensing requirements, supervisory oversight mechanisms, and enforcement regimes. Permissible loan features and lending standards vary between loans originated by national versus state regulated institutions, as well as between and among institutions regulated by the various states. Different rules apply to loan officers of national banks and state-licensed but unregulated mortgage brokers. There is no formal coordination mechanism that permits all national and state regulators to meet and coordinate policies and procedures across the nation's credit and capital markets.

Collaboration and coordination between regulatory bodies nationally and internationally will be critical to addressing the challenges of a highly and increasingly interconnected global marketplace. The Global Joint Initiative supports the PWG endorsing stronger, nationwide licensing standards for US mortgage brokers<sup>33</sup>, as well as the Federal Reserve's enhanced regulation of unfair or abusive home mortgage lending practices for "higher-priced mortgage loans."<sup>34</sup>

**Allegedly fraudulent practices.** The allegedly fraudulent conduct of some mortgage professionals and borrowers also likely contributed to the overall deterioration in the creditworthiness of the underlying loans. BasePoint Analytics LLC analyzed over 3 million loans originated between 1997 and 2006 (the majority being 2005–06 vintage), including 16,000 examples of non-performing loans that had evidence of fraudulent misrepresentation in the original applications. Their research found that as much as 70% of loans where an early payment default occurred contained fraud misrepresentations on the application.<sup>35</sup> Similarly, Mortgage Asset Research Institute (MARI) records show a 30% increase in loans with suspected mortgage fraud in 2006, with the most common type of fraud being employment history and claimed income. The MARI report also showed that while 55% of overall fraud incidents reported were application fraud, the percentage of subprime loans with application fraud was higher at 65%.<sup>36</sup> According to the Federal Bureau of Investigation, mortgage fraud is one of the fastest growing white collar crimes in the US.<sup>37</sup> The FBI reports that the actual number of convictions for mortgage fraud has increased 131% from 2001 to 2006.<sup>38</sup> The Bureau is now investigating 21 companies tied to the subprime mortgage crisis and looking into at least 1,400 mortgage fraud cases nationwide. More than 400 real estate industry players have been indicted since March 2008.<sup>39</sup>

## THE MARKET RELIED ON RATINGS THAT PROVED TO BE OVERLY OPTIMISTIC

**Deals dependent almost solely on rating.** In some cases, investors were overly reliant on rating agencies to assess the quality of underlying assets and potential risks created by certain transaction structures. “Investors relied exclusively on the credit rating agencies instead of doing their own homework,” mentioned one investor who was interviewed. “You knew that if you hit a certain spread for a given rating, that the deal was sold,” commented a dealer.

**Bull market that covered mistakes.** The favorable overall economic environment and consistent rise in home prices over the past decade provided near-term cover for the deterioration in standards and the potential ramifications of any significant decline in asset prices. As one investor characterized the situation, “Sloppy transactions resulted from bull-market behavior.” Many market participants failed to recognize the implications of the decline in standards. “Investors might not have had sufficient information on the value of underlying assets, but they also did not pay attention to what they did have,” added another investor. Instead, many investors relied too heavily on the views of the credit rating agencies (CRAs) rather than on their own independent analysis.

## COMPLEX, HIGHLY LEVERAGED POSITIONS CREATED A PRECARIOUS MARKET POSITION

**Excessively complex products.** The level of complexity of products developed during the height of the market boom, such as collateralized debt obligations of asset backed securities (CDOs of ABS), CDOs of CDOs (CDOs-squared), and constant proportion debt obligations (CPDOs), exceeded the analytical and risk management capabilities of even some of the most sophisticated market participants. The same dealers who structured these securities have borne several hundred billion dollars in losses to date, suggesting that even they did not fully understand or were unable to monitor and manage the risks embedded in these highly complex products.

Some of the products offered to consumers that supported the constant stream of new originations driving growth in the securitization market were also likely too complex and/or contained features that were untested under significant economic duress. Some US subprime mortgages, for example, called “option” adjustable rate mortgages, offered borrowers very low initial payments and let borrowers delay some interest payments until later years. However, the monthly minimum payments of such mortgages did not cover accruing interest on the loan (negative amortization), thereby resulting in borrowers owing more than they originally borrowed.

**Unwind of a highly levered system.** The interplay between highly levered positions and over-reliance on ratings created a marketplace susceptible to any misstep. Very strong investor demand for incremental-yield over a period of years in which credit and liquidity were relatively abundant drove spreads tighter and the leverage necessary to achieve desired returns higher. Many investors therefore took on additional leverage in order to exceed investment benchmarks and remain competitive. However, many products and counterparty agreements require that action be taken when ratings change or when the market value of securities falls below certain thresholds (which might also trigger rating actions). In other words, a significant number of market positions were effectively highly-levered triggers which, when tripped by a rating action or price movement, could cause a systematic deleveraging that could potentially reach beyond the asset class that was the initial source of the market movement.

## **DEALERS AND INVESTORS MISJUDGED LIQUIDITY RISK AND FELL VICTIM TO THE CARRY TRADE**

**Assuming liquidity was virtually free.** Market participants mispriced liquidity, misjudged the exposures they faced, and consequently failed to understand the impact of low probability / high severity events on these positions. Investors and financial intermediaries established risk positions that were multiples of the daily volume of secondary trading under pre-crisis conditions. These positions implicitly assumed that triple-A rated securities would be liquid and not subject to dramatic moves in market prices. Market players did not adequately consider the effects of the positions of other market participants nor the correlation between their own positions and other risks within their firms. They also failed to appreciate the potential liquidity risk embedded in highly complex products. “Senior management at many of these firms did not know what a liquidity put was or that they had basically given them away for free as part of these transactions,” said one dealer.

A large part of the securitization market had begun to rely on what was fundamentally a carry trade that incorrectly assumed triple-A structured credit could always be easily funded by short-maturity securities. “Investors in many asset-backed commercial paper (ABCP) deals were not buying the commercial paper based on fundamental credit analysis, but for the slight incremental yield. When the triple-A rating and the maturity were questioned, the market completely dried up,” said a dealer. While commercial paper markets for conduits backed by bank liquidity lines continue to function, the market for “maturity transformation trades” without sources of backstop liquidity is unlikely to return in the near-term.

**Not recognizing housing prices can fall significantly.** Rating agencies, investors, dealers and consumers did not adequately assess the potential ramifications of a

significant, widespread and sustained fall in housing prices. Over the past decade, the assumption that housing prices would always rise fueled much of the housing speculation by lenders, consumers and investors. Many risk models also considered, as a worst-case scenario, only modest or temporary declines in house prices. “We assume cars lose considerable value the minute you drive them off the lot. Why didn’t risk models at least consider the possibility that houses could go down significantly in value, too?” noted one interviewee.

## LACK OF A SENSE OF SHARED RESPONSIBILITY FOR THE INTEGRITY OF THE SYSTEM AS A WHOLE

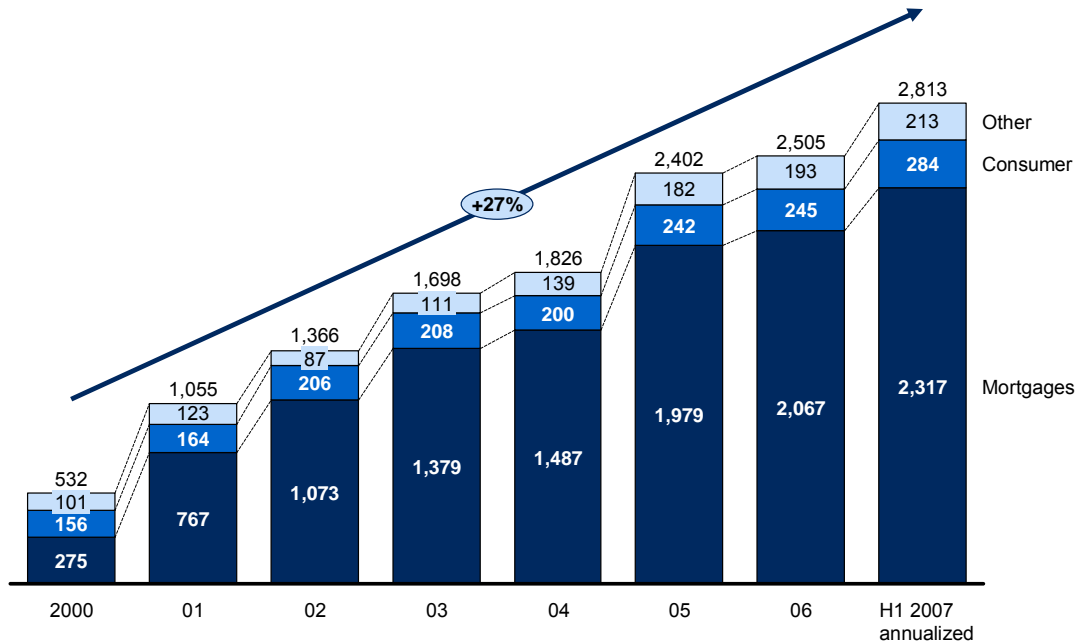
**Explosion of supply to meet very strong demand.** An extremely efficient system for originating and distributing risk evolved to meet rapidly growing and expanding investor demand globally. The market was originating and distributing \$234 billion in securitized credit per month in the first half of 2007.<sup>40</sup> Overall securitized issuance volumes in 2006 were nearly 5 times higher than in 2000 [*Exhibit 8*].

### Exhibit 8

#### Mortgage securities were the primary driver of growth in the ABS markets prior to the crisis

Global ABS issuances  
\$ Billions

x% → Compound annual growth rate



**No shared responsibility and failure despite significant incentives.** The industry was aware of a gradual deterioration in origination and overall credit standards. Many major periodicals wrote about this phenomenon, and some regulators spoke out about deteriorating conditions even before the crisis actually hit. As early as January 2007, for instance, the UK's Financial Services Authority (FSA) urged financial institutions to improve their stress-testing practices because of concerns over the "increasingly complex financial markets and the combination of low volatility of asset prices, a low market pricing of risk and stronger correlations between the prices of different classes of assets."<sup>41</sup> However, each market player focused on executing only their own part of this highly efficient value chain without fully appreciating the potential ramifications of a deficiency in any one part.

Market players did not feel sufficient responsibility for ensuring discipline across all parts of the securitization value chain despite significant incentives to do so. Dealers had significant exposures to the securitization markets from the large holdings of securitized product that they retained. Financial institutions have taken losses approaching \$1trillion<sup>42</sup>, while Bear Stearns, Countrywide, Washington Mutual and Lehman Brothers now cease to exist as independent firms as a result of the crisis. In addition, some portfolio managers have had to shore up money market funds.

## **RISING LOSSES IN THE SUBPRIME MARKET DROVE THE VICIOUS CYCLE THAT CAUSED A CONTAGION EFFECT**

**The subprime trigger event.** Rising losses in the US subprime market triggered a crisis in confidence that drove a self-reinforcing and vicious downward cycle [*Exhibit 9*]. Falling asset prices triggered sales into secondary markets with limited liquidity. Risk aversion of investors increased. Distressed sale prices forced valuation adjustments that triggered additional sales, and large holdings of assets were re-marked based on these sales. Announcement of losses caused banks to reduce funding. Investors avoided lending to banks, and questions developed over counterparty creditworthiness due to opacity around dealer positions and potential exposures to off-balance sheet vehicles. Difficulty establishing values for these securities and other potential obligations that the market would widely accept reinforced the overall market uncertainty and sense that "another shoe would drop." New accounting challenges emerged in the context of assessing market values for whole classes of assets in a financial crisis, which only exacerbated the problem.

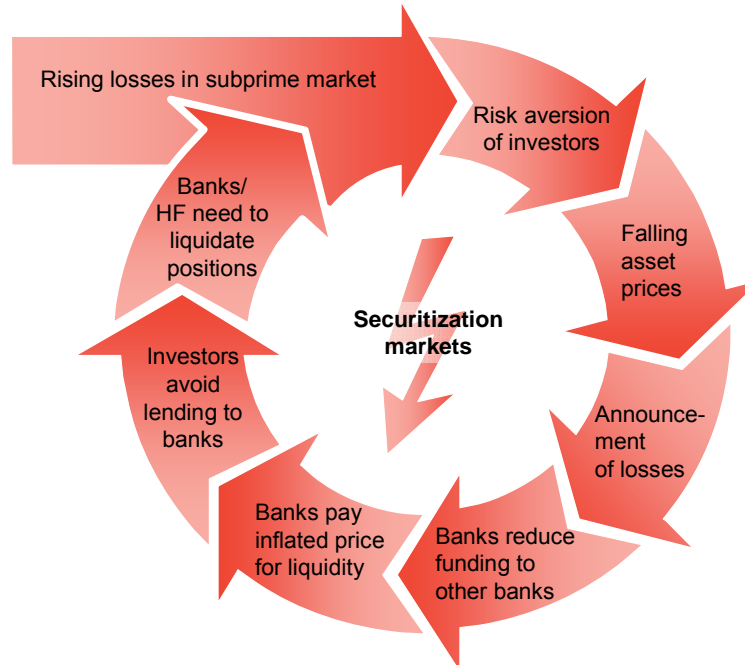
**Contagion across products and geographies.** What started as a problem with the performance of US subprime quickly affected other products and spread to European markets as well. The subprime crisis spread as banks and hedge funds liquidated other positions in the absence of liquidity for subprime mortgages. These sales of other assets

depressed prices for those securities. This led to a crisis of confidence that caused liquidity to further evaporate in other securitized markets.

### Exhibit 9

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#### Rising losses in the subprime market drove the vicious cycle that yielded the current crisis

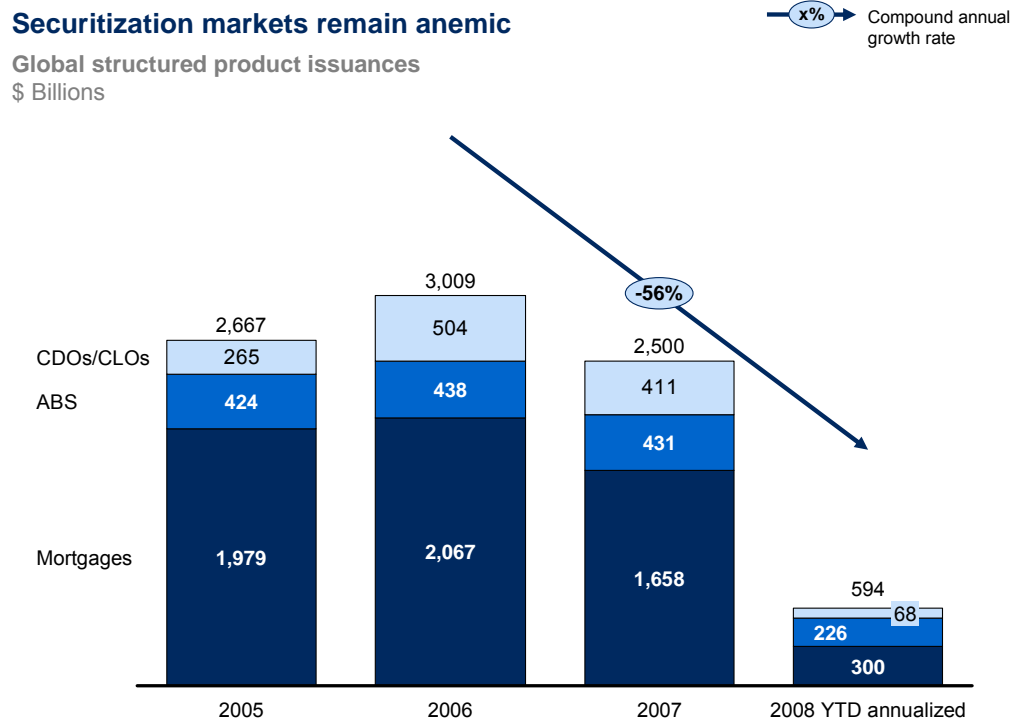


## II. Continuing market distress threatens economic growth

The securitization markets currently remain under significant duress. The annualized issuance volumes for overall global securitized and structured credit issuance in 2008 through the end of September are approximately \$2.4 trillion less than in 2006 [Exhibit 10].<sup>43</sup>

Signs of recovery of the securitization markets will differ considerably by asset class and by geographic region. The securitization and structured credit markets are made up of very different asset classes that may share some of the same structuring characteristics but differ significantly in a number of ways that impact current conditions and future prospects. The markets in the US, Australia, UK and broader Europe have significant differences as well.

### Exhibit 10



## CURRENT US MARKET DYNAMICS VARY BY ASSET CLASS

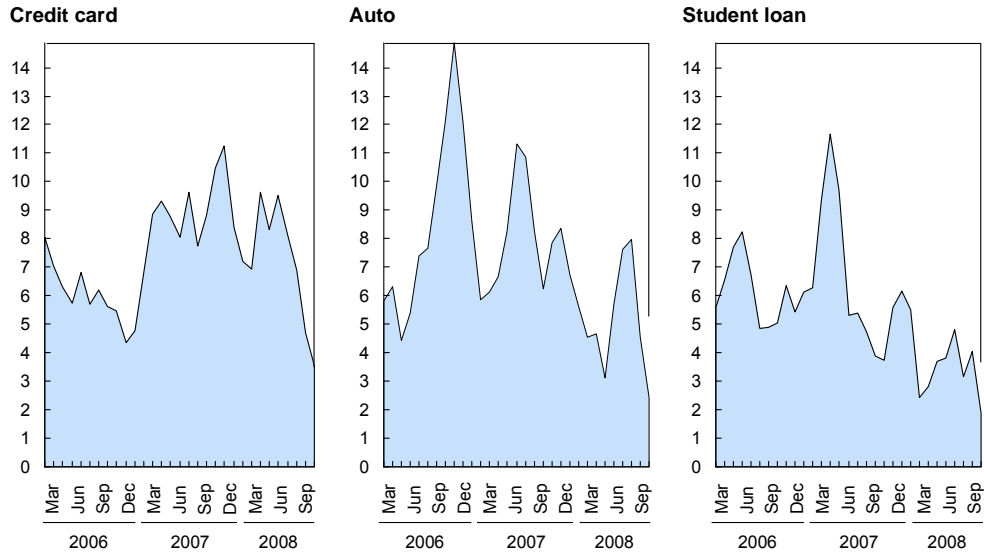
**A few US ABS markets had shown modest recovery.** Credit cards, autos and the US government-guaranteed student loan markets had held up relatively well over the course of 2008. The 3-month running average credit card issuances through July 2008 were in line with 2006 volumes and near the highs of recent years, but have come down materially since then (issuance volumes in September 2008 were just under 50% of those in July, and less than 25% of June levels). Volumes in autos and student loans also held up relatively well until July, but are now flagging [*Exhibit 11*].<sup>44</sup> Some other smaller markets with more specialized investor bases have also remained open or even grew during the crisis. For example, global markets for catastrophe-linked notes, senior entertainment bonds, and financing infrastructure bonds never closed. In fact, combined volumes in 2007 of \$32 billion was an increase of over 50% from average 2005-06 levels.<sup>45</sup> However, the conditions for all securitized markets significantly worsened in the late fall of 2008.

**Stagnant real estate.** Global volumes for non-agency real estate<sup>46</sup> issuance are very low and, in some cases, the markets have almost ceased to exist. For 2008 year-to-date, monthly commercial mortgage-backed securities (CMBS), home equity and non-agency residential mortgage-backed securities (RMBS) show volumes that are only 8% of volumes for the same periods in 2006 and 2007 [*Exhibit 12*].<sup>47</sup> While some of the issuance in 2006 and 2007 was likely a result of artificial demand fueled in part by excessive leverage and liquidity in the securitization markets, annualized 2008 issuance through September 30<sup>th</sup> in global non-agency RMBS was also only 35% of average 2000-2003 issuance.<sup>48</sup>

**Exhibit 11**

**Consumer ABS issuances held up relatively well prior to fall of 2008**

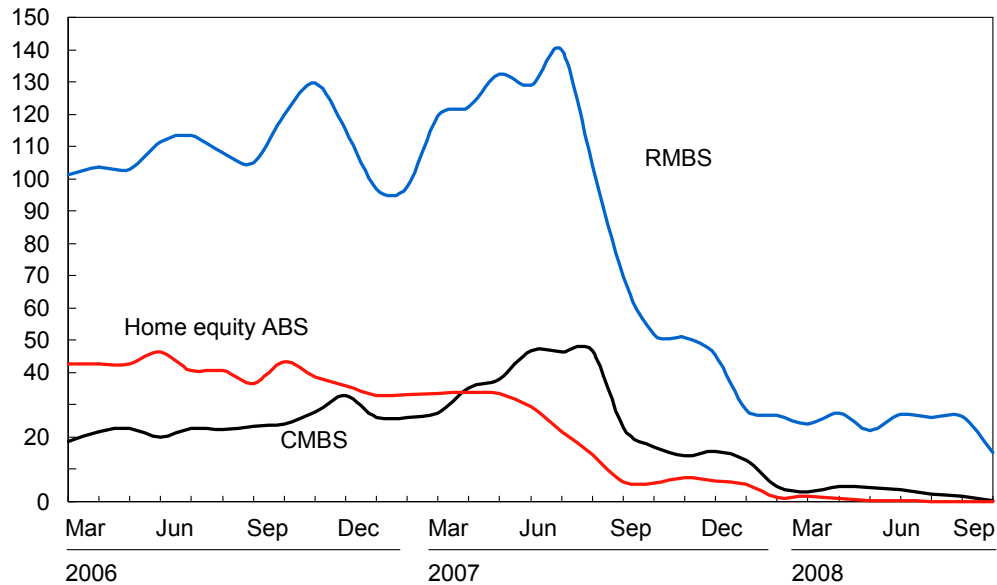
3-months running average global issuance  
\$ Billions



**Exhibit 12**

**Global real estate issuances have ground to a halt**

3-Months running average issuance  
\$ Billions



**CLOs experiencing very different dynamic from structured finance CDOs (CDOs of ABS).** The two types of structured credit that drove growth in the overall CDO market differ greatly in terms of and likely longer-term prospects. CDOs of ABS and CLOs differ in two ways that are key points affecting the future demand for these products: (1) investors have greater confidence in their abilities to analyze the underlying assets of CLOs versus their ability to assess future correlation of RMBS; and (2) CLOs are one of the few products by which most investors can easily gain exposure to the loan market.

The explosive growth and volumes of CDOs of ABS are unlikely to return. Structured finance CDOs grew from \$128 billion in 2005 to an annualized rate of \$310 billion in the first half of 2007, an increase of 143%.<sup>49</sup> However, that market has all but vanished today [*Exhibit 13*]. Annualized volumes for 2008 are under \$60 million, compared to 2006 and 2007 volumes of \$261 billion and \$181 billion, respectively.<sup>50</sup> Several industry players have significantly reduced or even shut down their structured finance CDO businesses altogether. Furthermore, investor discomfort with the higher level of complexity that characterizes structured CDOs, combined with the much higher correlation, and thus lower diversification, than originally assumed (as is the case for most other types of securitized and structured credit) significantly reduces the appeal of securitization as a viable structuring tool going forward for this type of product.

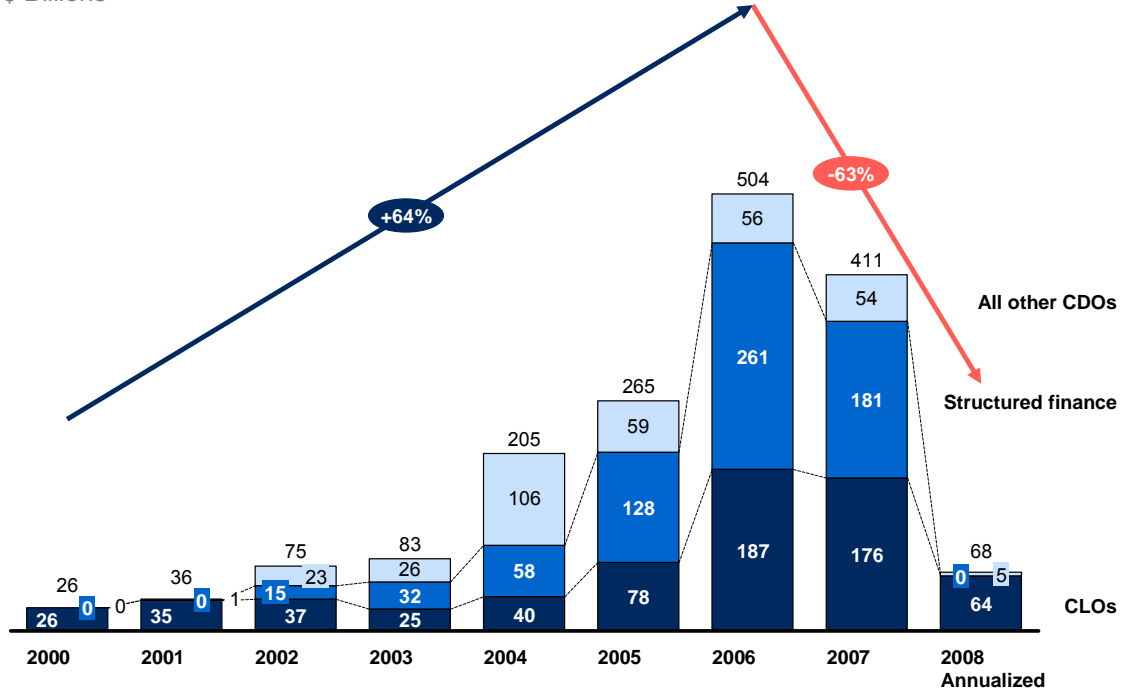
By contrast, the CLO market had shown some signs of recovery prior to the worsening of the crisis in the fall. The general sentiment was more positive, with some new deals returning to the market to supplement the few warehousing and backlog-clearing deals that were done earlier in the year. For instance, deals such as Carlyle's heavily equity-supported \$2.3 billion "CELF" transaction<sup>51</sup> or Blackstone's Columbus Park, Riverside Park and Tribeca Park trilogy<sup>52</sup>, totaling \$1.3 billion, successfully came to market over that period.

**Exhibit 13**

**The structured finance CDOs that drove much of the overall CDO market growth have all but disappeared**

— x% → Compound annual growth rate

Global CDO issuances  
\$ Billions



**EUROPEAN MARKETS SHOW FEW SIGNS OF RECOVERY**

**The European markets differ from US markets.** European securitization markets developed later than the US markets and are primarily focused on real estate/property (RMBS and CMBS), as well as certain small and medium enterprise (SME) loan and CLO products. European securitizations comprised approximately 27% (\$670 billion) of global securitized issuances in 2006 and represent 8% (\$49 billion) of 2008 year-to-date volumes.<sup>53</sup> Seventy-eight percent (\$524 billion) of 2006 issuances were in real estate (RMBS and CMBS) securitizations.<sup>54</sup> The European mortgage markets have been experiencing strong growth on the back of mortgage industry deregulation, the introduction of the euro, as well as relatively low and stable interest rates over the past decade. The main products used to finance European mortgages are deposits, covered bonds, and mortgage backed securities. It is estimated that about 17.5% of the European mortgage market is financed with covered bonds<sup>55</sup> and 10% through RMBS.<sup>56</sup>

The European market is also more fragmented with different country-specific product types, origination standards, definitions, business practices, as well as country-specific national regulations, although certain business practices and regulations are now harmonized through various European Directives. The most important jurisdictions in

terms of balances outstanding are the UK, Spain, the Netherlands, Italy, Germany and France, in that order. Each continental securitization jurisdiction has developed its own legal and regulatory framework, and as a result each jurisdiction implements divergent lending practices depending on the availability of credit information or the underwriting and servicing technology. The market is also characterized by a lesser degree of standardization than the US market.

The underlying structure of the European residential real estate markets also differs from that of the US. The US market is comprised of a high percentage of long duration fixed rate loans with fixed rates for the life of the loan. In contrast, the European residential mortgage markets have a much greater proportion of floating rate products, or mortgages where the interest rate is fixed for a short initial period and then resets to a new market rate for a new period. In addition, the importance of non-conforming loans in Europe is very different from that in the US: the non-conforming European securitization market is limited primarily to the UK, and represents a fraction of the US subprime market.

**Time to recovery depends more on recovery of banking sector.** Interviews of European securitization participants reflected greater concern over the prospects for a near-term recovery. The 2008 annualized volumes for European securitization are \$49 billion compared to \$670 in 2006, a 93% drop in volume in just over 18 months. European securitization as a percentage of the global issuance has also fallen from 27% to just 8%. Since most European assets targeted for securitization are floating rate, with corresponding floating rate ABS liabilities issued, the investor base was concentrated among floating rate buyers – banks (i.e., conduits, trading books, banking books and SIVs to some extent), and money market funds. Banks (including the four categories above) were the largest buyer of European securitizations, with an approximate market share of 50% as of the end of 2006.<sup>57</sup> The capital constraints of banks and the pullback of money market funds represent significant near-term challenges for the return of the European securitization markets.

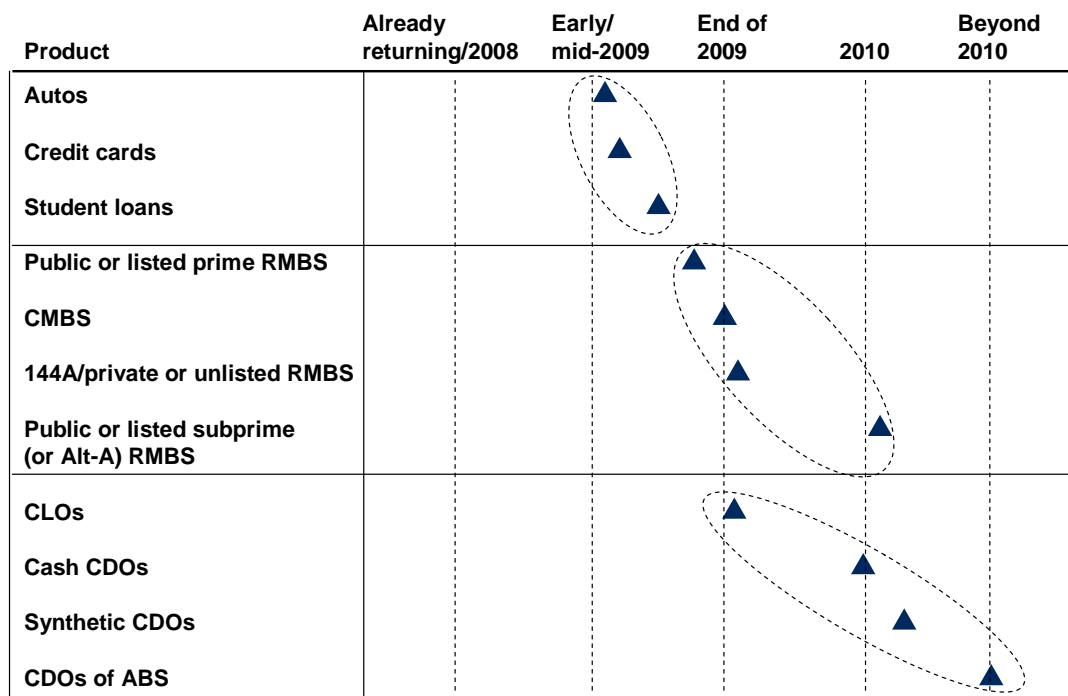
## **MARKETS UNLIKELY TO RETURN UNTIL 2010 AND AT SIGNIFICANTLY REDUCED VOLUMES**

Expectations are for continued difficult market conditions through 2010. Continued deterioration in the world economies could also cause greater stress on asset classes that have not so far experienced the extreme uncertainty or similar losses to real estate (e.g., credit cards, autos, student loans). The markets that have shown early signs of return are still experiencing far from “more normal” trading conditions. Even in markets where volumes have begun to return, typically only the highly-rated securities are trading. Secondary market activity remains at very low volumes.

**Unlikely near-term recovery.** Market expectations for the return to “more normal” conditions<sup>58</sup> are for some asset classes to return by mid-to-late 2009, but for others to take much longer. In our survey, market participants expected, on average<sup>59</sup>, that consumer ABS such as autos, credit cards and consumer loans should return to “more normal” trading conditions by mid- to-late 2009 [Exhibit 14]. Market participants expect non-agency RMBS, CMBS and CLOs to return toward the end of 2009, and other CDOs, subprime and non-conforming mortgages to not return until 2010, if at all.

#### Exhibit 14

#### Market participants expect products to recover at different speeds

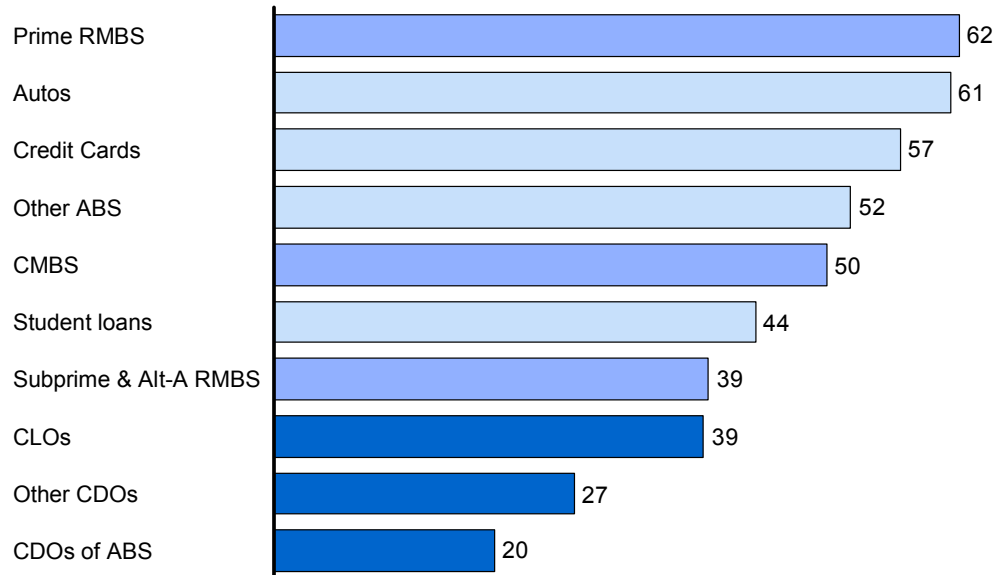


**Expected volumes imply credit contraction.** Market expectations for the levels of new securitization issuance imply a significant tightening of credit in the overall economy that threatens economic growth. Although it is difficult to project the volumes of real estate securitization necessary to support a robust economy, the volumes implied from our survey<sup>60</sup> point to a dramatic near-term decline in activity in the securitization industry, with corresponding adverse effects for underlying lending and credit activities. The expected volumes for 2010 are less than half of 2005 volumes and \$1.7 trillion less than 2006 [Exhibit 15]. Consumer ABS volumes are expected to recover, but CLO/CDO and real estate, including commercial mortgages, are expected to shrink dramatically.

## Exhibit 15

### 2010 volumes expected to decline considerably for non-prime RMBS and CDOs, but ABS to hold up somewhat better

Projected 2010 volumes  
Percent of 2006 volumes

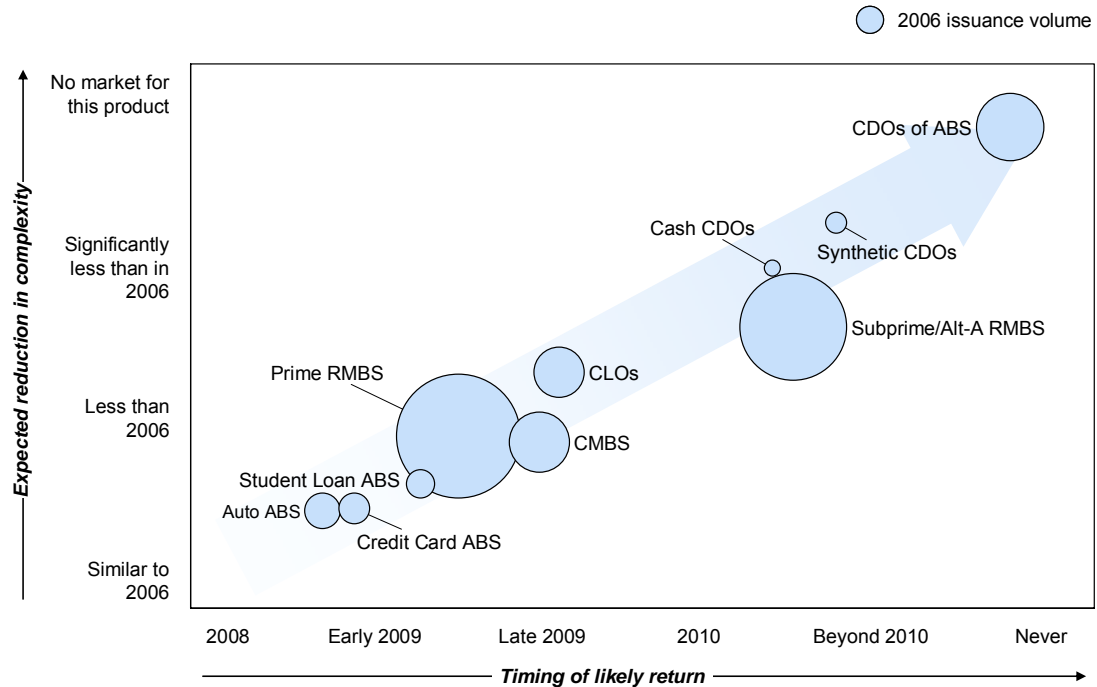


**Most complex products unlikely to return.** Participants expected to see at least some simplification of virtually all asset classes compared to 2006 and expected the most complex to not return in the near-term.<sup>61</sup> Consumer ABS were expected to be least affected, while MBS were viewed as somewhat more in need of structural simplification, particularly for less credit-worthy offerings (subprime in particular). CDOs were the products expected to witness by far the largest degree of simplification, in particular for synthetic CDOs. Many participants questioned the viability of CDOs of ABS without a significant change to structure.

Complex products are also likely to carry a much greater risk premium and take longer to return. Respondents also strongly intimated that the products most in need of simplification were also the ones that were least likely to return, or most likely to see their return delayed [*Exhibit 16*]. As one issuer put it, “People will at first want structured credit to be as simple as corporate securities.” Investors will also need to be paid a greater premium to invest in complexity. “We have to support an infrastructure [models, people] to be able to understand the complexity of a security whether we are buying \$5 million or \$500 million of an individual offering. This is much more costly than what is needed for more traditional securities,” said an investor.

## Exhibit 16

### Expectation of reduced complexity is highly correlated with timing of market return and differs significantly by asset class



**Significant reduction in the investor base.** The market faces significant challenges in developing new investors. A significant portion of the investor base that fuelled growth in 2005-2006 (e.g., SIVs, CDOs) is unlikely to be again a part of the securitization markets in the near-term. Sources of new funds that could potentially be invested (e.g., sovereign wealth funds and private equity) will need to find mechanisms to access the capabilities and infrastructure necessary to manage securitized products. More traditional investors will look for improvements in market discipline and will also likely need to develop additional capabilities to analyze and manage credit, market, liquidity, and other risks.

## FINANCIAL INSTITUTIONS ARE UNLIKELY TO FILL THE GAP

**Capital constrained.** The banking system as a whole is unlikely to have the capital needed to support the likely demand for credit if the securitization market is no longer a viable tool for capital relief. Most banks have responded to the pressure from shareholders, policymakers and their individual regulators to raise more capital during the crisis. Governments have used a variety of mechanisms to inject further capital into the system in an effort to limit the economic impact of a credit contraction and restore

confidence in the financial institutions broadly. As of November, total writedowns approached the \$1 trillion mark. Capital raised was approximately \$875 billion.<sup>62</sup> However, credit losses could continue beyond what has been realized to date. The Bank of England and other estimates put potential global mark-to-market credit losses losses closer to \$2.8 trillion using mid-October levels.<sup>63</sup> If these higher losses estimates are realized, financial institutions would face the prospect of raising additional capital.<sup>64</sup> Even if the losses are not as severe as projected or financial institutions are recapitalized to pre-crisis levels, the financial system would be unlikely to raise the additional capital for the level of on-balance sheet lending needed to meet the current demand for credit formerly channeled through the securitization markets.

**Reducing commitment of balance sheet and resources.** Many financial institutions are shrinking their balance sheets, tightening lending standards for both businesses and consumers, and reducing resources committed to securitization. Even prior to the worsening of the crisis in the fall, standards reported by senior US loan officers had tightened significantly since mid-2007 and were doing so at an accelerating rate.<sup>65</sup> Similarly, spreads on loans to businesses of all sizes, which had narrowed every quarter since mid-2003, have risen again for the past 3 quarters. Lending spreads for household loans and residential mortgages have followed a very similar trend.<sup>66</sup> Securities firms have also significantly downscaled, in some cases shutting down entire areas, resources dedicated to the securitization markets. Accounting standards revisions now being considered may also make it more difficult and expensive to finance a wide range of consumer and business loans off-balance sheet.<sup>67</sup>

## **SUSTAINED CRISIS RAISES CREDIT COSTS TO CONSUMERS AND POSES THREAT TO MARKETS AND ECONOMY**

The absence of well-functioning securitization markets will impact consumers, banks, issuers and investors. The price of credit is likely to be higher for the consumer and the availability scarcer. Banks will no longer have a tool to reduce risk and diversify their financing sources to free up capital for other activities. Investors will encounter rising difficulty gaining exposure to an asset class that has become a significant part of portfolios. More importantly, the current absence of an efficient and smoothly functioning market has substantial implications for continued economic growth.

**Consumer credit more expensive.** Securitization has had significant, tangible direct benefits for consumers. These benefits are now at risk. A number of studies have shown that securitization has reduced the cost and increased the availability of credit by facilitating the participation of a broad range of institutional investors, which increased the amount of capital available to lend to borrowers.<sup>68</sup> Over the last few years, however, the efficiency of the securitization markets may have facilitated the extension of credit

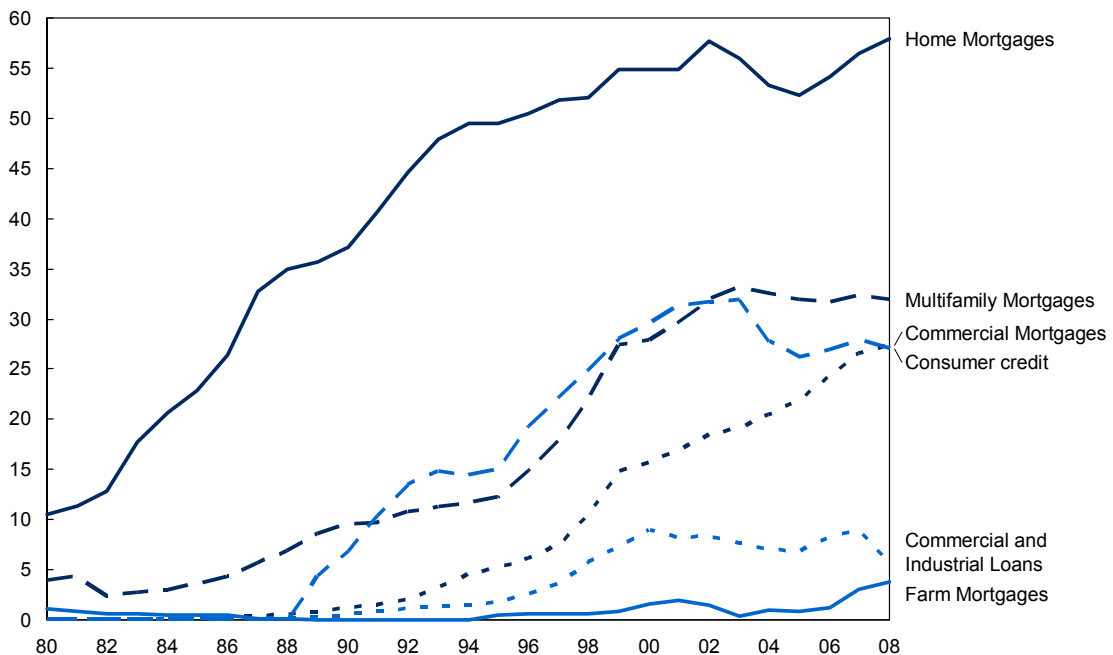
under terms that were not consistent with the underlying risks. Today's high uncertainty over actual risk levels has pushed the pendulum too far in the opposite direction. The resulting standstill in the securitization markets now weighs heavily on the broader availability of credit. This phenomenon is all the more significant because, prior to the crisis, securitization had become a key driver of credit issuance in many important lending markets [Exhibit 17]. For instance, the percentage of securitized home mortgages has gone from approximately 10% to over 55% of overall home mortgages over the past two decades.<sup>69</sup>

## Exhibit 17

### Securitization has fueled the growth of global credit availability

#### Securitization of loans in the US economy 1980 - 2008

% of total loans outstanding, Q1 numbers\*



\* Percent securitized is calculated as the percentage of loans securitized outstanding over total loans outstanding

**Approximately \$2 trillion in unfunded demand.** Based on reasonable estimates and assumptions, banks may fail to meet approximately \$2 trillion of demand for credit origination over the next three years in the absence of well-functioning securitization markets.<sup>70</sup> The analysis assumes that the average total origination over the next 3 years in corporate bonds, leveraged loans, mortgages and consumer debt in the US falls by approximately 20% from 2007 (from \$5.7 trillion to \$4.5 trillion) to equal volumes not seen since 2000. The average percentage securitization for the last 5 years ranged from 40 to 49%.<sup>71</sup> Under the assumption that the percentage of this credit demand securitized will fall over the next 3 years by 15% (a relatively conservative assumption given that 2008

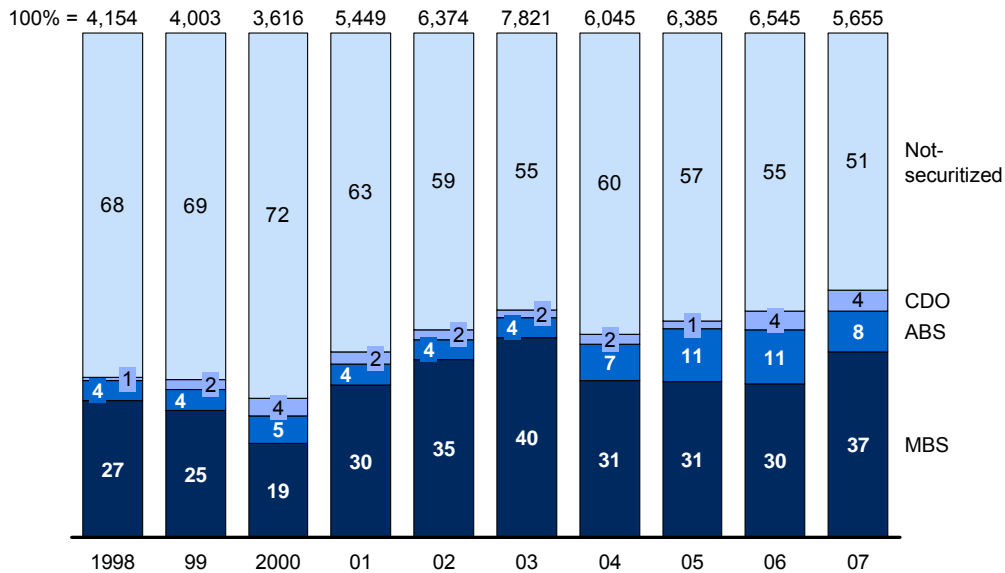
securitization volumes through the end of July are down more than 75% from the average for the same period during 2005-07), then financial institutions would need to assume an additional \$2 trillion in loans on their balance sheets over the three year period. To fill this gap, financial institutions would need to hold approximately \$150 billion in additional capital on their balance sheets above the levels they will need to raise to return to pre-crisis capitalization levels.<sup>72</sup>

**Reduced alternatives for investors.** The significant investor demand in recent years for high quality, diversified pools of credit must now find alternatives in the absence of well-functioning securitization markets. The technology of securitization creates deeper and more liquid capital markets by attracting investors (both domestic and foreign) whose investment guidelines and/or capabilities would not allow direct purchase of underlying loans. Securitization grew from 32% of available US new credit issuances in 1998 to 49% in 2007 [Exhibit 18]. It also represented 21.2% of the Lehman Global Aggregate Index as of December 31, 2007, a common benchmark for many fixed income funds that continues to be produced by Barclays Capital.<sup>73</sup>

**Exhibit 18**

**Securitization increasingly important part of new issue credit markets**

Securitized assets as percent of total origination in corporate bonds, leveraged loans and mortgages in the US  
\$ Billions



## UNDERSTANDING AND PRIORITIZING CHALLENGES TO RESTORING CONFIDENCE

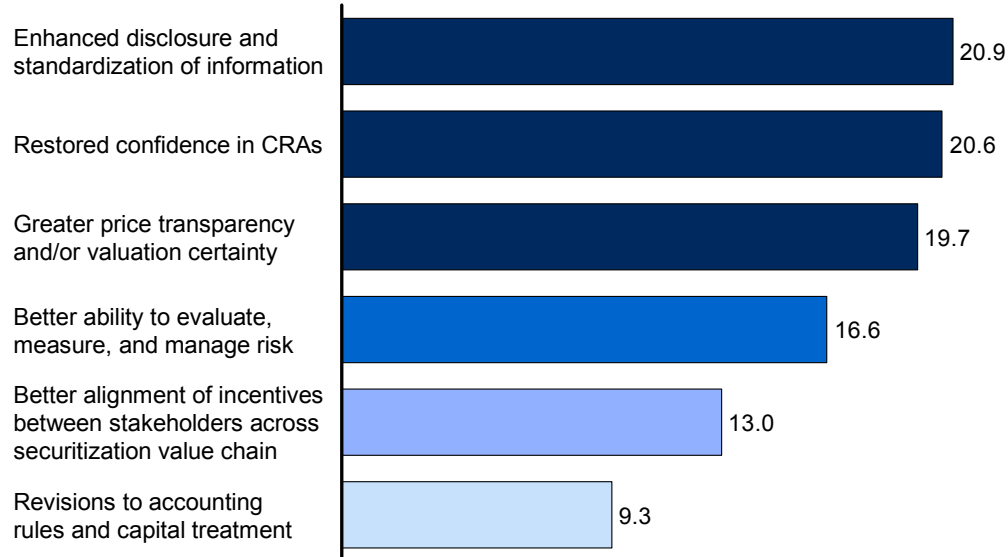
In an effort to understand and prioritize the challenges to restoring confidence in the securitization markets, McKinsey & Company conducted two primary research efforts on behalf of SIFMA, ASF, ESF and AuSF. These were: (1) in-depth interviews with over 100 issuers, investors, dealers, servicers, and rating agencies; and (2) an online survey of SIFMA, ASF, ESF, and AuSF members that elicited 400 responses.

The survey provided insights into the issues that stakeholders prioritized on a forward-looking basis as important to restoring confidence in the securitization and structured credit markets. Pre-survey interviews and research informed both the structure of the survey and its focus on issues within the industry's ability to influence. The survey provided significant statistical data, which was used to prioritize and refine recommendations.

The most significant section of the survey asked this broad group of market participants to evaluate how important each of six issues were to restoring confidence in the securitization markets in the near-term. Restoring confidence in the near-term was defined as increasing the willingness of stakeholders to participate in those markets so as to allow for a return to more normal trading conditions, even if at lower volumes. By allocating 100 points across 6 factors, market participants effectively prioritized these factors according to how impactful they expected each would be. Three factors emerged as materially more important than the others: enhanced disclosure and standardization of information; restored confidence in credit rating agencies; and greater price transparency and/or valuation certainty [*Exhibit 19*]. Also important, though noticeably less so, was an enhanced ability to evaluate, measure and manage risk. The need to improve the alignment of incentives between stakeholders across the securitization value chain ranked materially lower still. Least important of all to the restoration of confidence were revisions to accounting rules and capital treatment.<sup>74</sup>

**Exhibit 19****Respondents see better disclosure, restored confidence in CRAs, and greater valuation certainty as key to restoring confidence**

Average weight given by respondents allocating 100 points across 6 factors



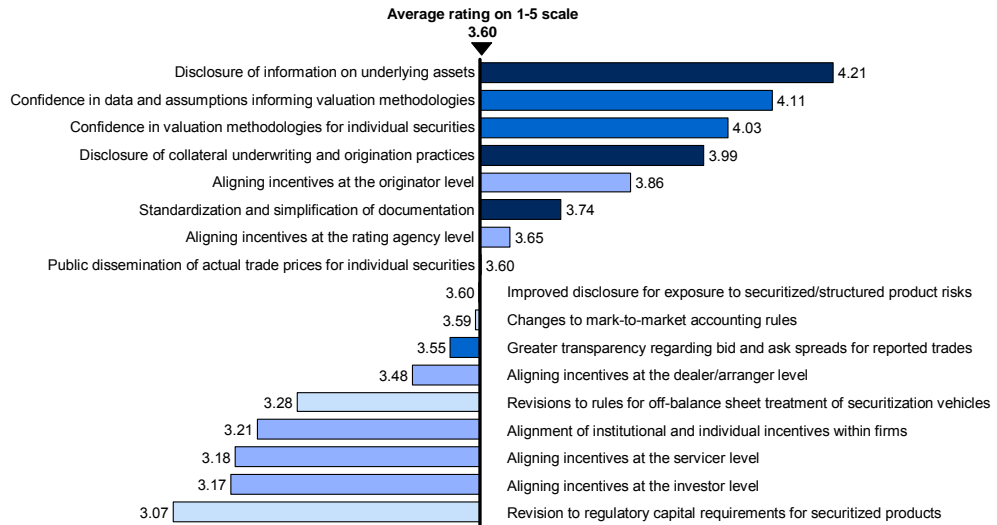
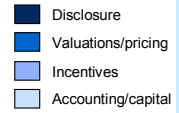
To further refine areas for potential recommendations, the survey asked respondents to evaluate the relative importance of specific issues within the broader six categories. Ratings received confirmed the initial prioritization of high-level factors [*Exhibit 20*], and offered additional insight into specific areas for further study.

Disclosure of information on underlying assets, confidence in data, assumptions and methodologies for valuations, and disclosure of collateral underwriting and origination practices were the factors ranked highest in importance in terms of restoring confidence to the securitization markets in the near-term. The importance of these factors also varied by asset class, as described further in subsequent analysis. Price transparency factors, changes to mark-to-market accounting rules and disclosure of exposure to risks related to securitized products ranked as relatively less important. Aligning incentives along different parts of the value chain (except for originators) and revisions to off-balance sheet treatment and capital requirements rated as much less important.

**Exhibit 20**

**Stakeholders view disclosure and valuation as most critical to restarting the market**

Relative importance of factor to restoring confidence in the securitization markets in the near-term  
Average relative rating received



## III. Priorities for action by the industry

No single action or combination of actions the industry can take is likely to be sufficient, in the near-term, to return the securitization market to a more normal level of functionality, let alone to restore it to the level of the last few years. The damage caused by the current crisis will take time to repair. Equally important, the volumes at the height of the market in 2006 and early 2007 were likely excessive and should not be the gauge for success in returning the markets to health. Nevertheless, there are a number of areas where industry initiatives could be effective in restoring confidence in the markets and which can be started now without new legislation. These areas must be addressed through a coordinated approach involving both industry participants and regulators. If implemented effectively, this approach would serve to both accelerate the pace at which the market mends itself, and create greater longer-term systemic stability for the securitization and structured credit markets.

The Global Joint Initiative has identified four priorities for immediate action by the industry:

- Improve disclosure of information on underlying assets for RMBS
- Enhance transparency with regard to underwriting and origination practices
- Restore the credibility of credit rating agencies (CRAs)
- Improve confidence in valuations

In addition, the Global Joint Initiative further identified two areas in which improvements to current practices would benefit the markets, but which are less critical to restoring the markets to more normal trading conditions in the near-term:

- Improve the alignment of incentives along the securitization and structured credit value chain
- Enhance relevant accounting and capital treatment rules

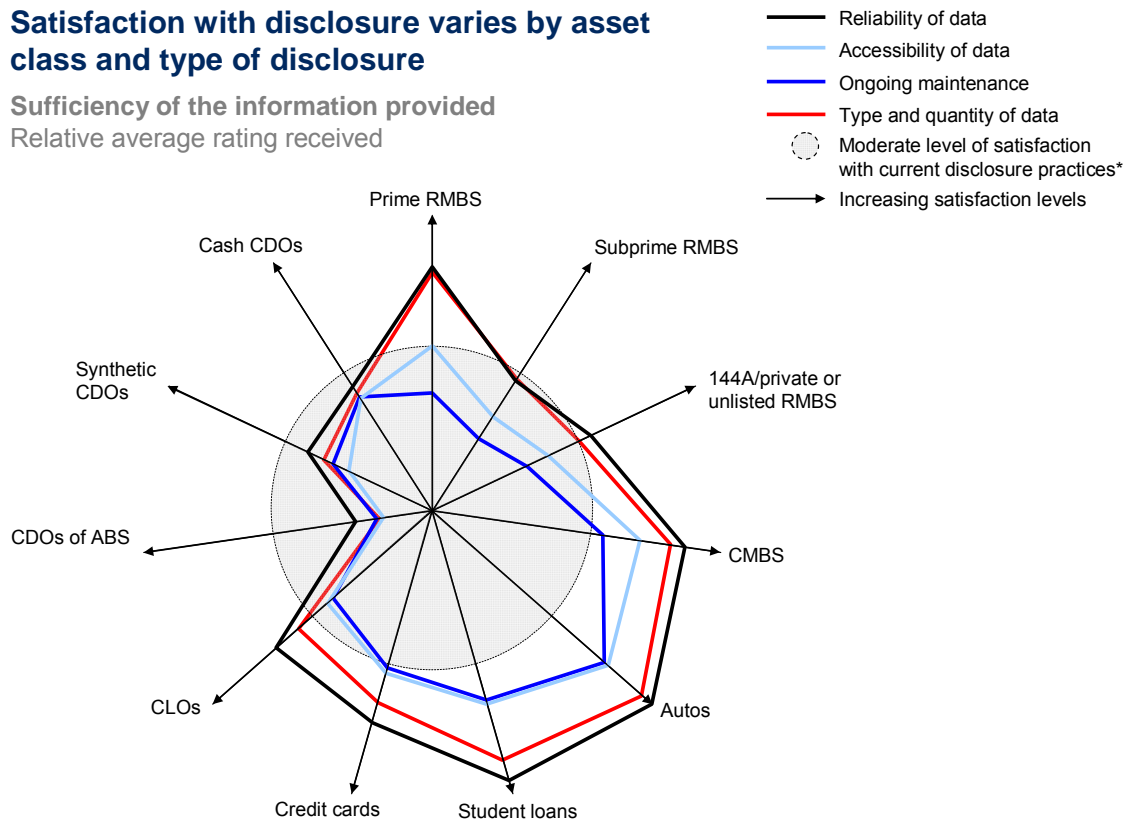
## PRIORITIZE IMPROVED DISCLOSURE OF UNDERLYING ASSETS FOR RMBS

**Need for improved disclosure varies by asset class.** The interviews with market participants highlighted the following areas where improved disclosure would substantially benefit the market: disclosure of information on underlying assets, disclosure of collateral and underwriting practices, and to a lesser extent standardization and simplification of documentation. Survey responses confirmed those findings. Survey responses were also broadly consistent across geographies. There were, however, major differences between asset classes in the degree to which respondents believed that the reliability, accessibility, type and quantity of data, and ongoing maintenance were sufficient to make good investment decisions [Exhibit 21].<sup>75</sup>

**Exhibit 21**

### Satisfaction with disclosure varies by asset class and type of disclosure

**Sufficiency of the information provided**  
Relative average rating received



\* Respondents responded "agree somewhat" to questions asking whether they found current levels of disclosure "sufficient" to make good investment decisions

**Non-agency or equivalent RMBS needs improvement.** Non-prime residential mortgage-backed securities rated significantly lower than consumer ABS or commercial mortgage backed securities in terms of respondent satisfaction with the sufficiency of disclosure.<sup>76</sup> More specifically, industry participants indicated that levels of disclosure for subprime RMBS and 144A private or unlisted RMBS were uniformly unsatisfactory

across the four dimensions surveyed: type and quantity of the data provided to the market, reliability of that data, accessibility, and ongoing maintenance.<sup>77</sup> Disclosure for prime RMBS was regarded as significantly better, with participants' concerns primarily focused on the need for better accessibility and maintenance of the information.<sup>78</sup>

**Data for consumer ABS, CMBS and CLOs generally sufficient.** Survey participants considered the level of disclosure for consumer ABS, CMBS and to a lesser extent CLOs as generally sufficient to make good investment decisions, and markedly better than RMBS. The level of data that would be sufficient for making good investment decisions for certain types of assets could be significantly different from that for other types of assets, depending on the nature of the underlying credit (i.e., credit cards vs. subprime RMBS). Similarly, several interviewees indicated that the presence of US government guarantees in large portions of the student loan market played a role in reducing participants' concerns with any shortcomings in the quality of disclosure for that asset class.

The ratings for CMBS were significantly higher than for RMBS – even prime RMBS.<sup>79</sup> The likely reason is that the much smaller number of loans making up each CMBS asset pool, and the larger size of each underlying credit, makes disclosure of sufficient levels of information much more economical for issuers in that asset class. Guidance to address problems arising from incomplete or defective loan files issued in 2001 by the Commercial Mortgage Securities Association (CMSA), in conjunction with the Mortgage Bankers' Association (MBA), may also have played a role.<sup>80</sup> Several interviewees highlighted the positive impact that these uniform guidelines had on the CMBS market by providing for remedies in case of a breach of the guidelines, simplifying the previously convoluted document trail in the CMBS securitization process, and streamlining procedures and processes in the marketplace.

Participants viewed the reliability and availability of data for CLOs as sufficient<sup>81</sup>, albeit indicating a desire for a slight improvement in ongoing maintenance and accessibility. CLOs likely fared better than other CDOs<sup>82</sup> because of investors' greater comfort in understanding the underlying assets.

**CDOs of ABS and synthetic CDOs suffer from complexity of structure.** Cash CDOs, synthetic CDOs and, in particular, CDOs of ABS, scored very poorly regarding the sufficiency of information provided across the four categories.<sup>83</sup> In interpreting these results with the interview feedback, some of the underlying drivers of this could be both the complexity of the structure and poor disclosure at the underlying asset level. Significant documentation exists for CDOs, but interviews suggested the documentation was cumbersome and investors were too reliant on rating agencies to interpret. The underlying RMBS for CDOs of ABS scored poorly on the different aspects of disclosure that was only compounded in the CDOs by adding a layer of structure.

## **IMPROVE TRANSPARENCY OF UNDERWRITING AND ORIGINATION PRACTICES**

Greater transparency of underwriting and origination practices was very important to investors going forward. Respondents ranked the issue as fourth most important among the seventeen sub-factors evaluated.<sup>84</sup> As one investor put it: “What’s the point of my group investing massive resources to analyze the data that’s out there if we can’t be sure that it actually corresponds to reality?” “We will never have as much information as the person who made the initial loan. What we need is greater confidence in the quality of the process that raw data about income, etc. does not convey,” said another investor. It is therefore important that proposed improvements to disclosure requirements take into account not only the costs and benefits of increasing the market’s visibility into underlying assets, but also transparency with regard to the processes used to originate underlying collateral.

## **RESTORING THE CREDIBILITY OF RATING AGENCIES CRITICAL BUT WILL TAKE TIME**

Restoring the credibility to rating agencies and their methodologies is necessary in the long run for the health of the securitization markets and the markets as a whole. Survey respondents ranked the need to restore confidence in the credit rating agencies as the second most important high-level factor for restoring confidence in the market as a whole [*Exhibit 19*].<sup>85</sup> Industry interviews reinforced the importance of restoring credibility but suggested it would take time. “You can lose credibility overnight, but restoring it takes time,” mentioned one market participant.

One of the reasons investors are demanding improved disclosure is to reduce the reliance on rating agencies. Disclosure will not in itself alleviate the need to restore confidence in the CRAs. It will however provide investors and other participants with an effective means of performing independent analyses of credit risk. Improvements to disclosure and data will also assist rating agencies in their own assessments of these securities.

The high degree of importance market participants placed on restoring confidence in the CRAs, as revealed in the survey, underlines the importance of the work of both SIFMA and the ASF’s CRA Task Forces, as well as that of IOSCO and other ongoing efforts (in many of which the rating agencies themselves participate) to address this specific areas of concern. It also provides additional support for the regulatory reform efforts already underway, most notably those of the Securities and Exchange Commission, which aim to “foster increased transparency, accountability, and competition in the credit rating agency industry for the benefit of investors”.<sup>86</sup>

## **IMPROVEMENTS TO VALUATION CRITICAL IN THE NEAR-TERM, IMPROVEMENTS TO PRICE TRANSPARENCY LESS SO**

Respondents indicated that enhancing valuation certainty was critical to restoring confidence to the markets in the near-term. Greater price transparency and/or valuation certainty was one of the top three high-level factors for restoring confidence in the market.<sup>87</sup> Both improving data or assumptions informing valuation methodologies and improving the valuation methodologies themselves, were viewed as important.

The interviews provided further insight into the valuation difficulties that market participants face in managing uncertainty when establishing these values. The uncertainty around performance of the underlying assets can create significant differences in perceived values. “Small assumptions around the path of home prices and rate of foreclosures translate into very large price differences in these securities. Judgment around what these assumptions is what we get paid for. However, the range of opinion has probably never been greater – so, too, the pricing,” said one investor.

Market participants believe that greater price transparency through reporting of trades would not have a material positive impact on the liquidity of the markets in the near-term. The value of reporting trades in the short-run for these non-standard products was considered severely limited by the minimal secondary volumes. Many of our interviewees also expressed concern that near-term reporting of trades might have the unintended consequence of reducing the willingness of dealers to commit capital if information about their exposures and the price were made available in these illiquid markets. “We already have transparency into where dealers are willing to make markets through our trading relationships. The problem we face is getting dealers to make markets and commit capital in this environment,” remarked an investor.

## **SOME TARGETED ACTION NECESSARY ON INCENTIVES**

The capital markets’ focus on short-term performance has always been a challenge to aligning incentives of market participants for the long-run. Many investors measure themselves relative to overall market benchmarks on a monthly or quarterly basis. As public firms, securities firms report quarterly and experience constant shareholder pressure to outperform rivals. The linkage between an individual’s actions in the short-run and a firm’s overall results is also not always clear. Issuer and trader compensation may also not adequately reflect the term over which the profitability of positions is realized, nor the risk taken on in doing so.

The survey and interviews did not indicate that enhancing the alignment of the incentives at most stages of the value chain would restore the market to more normal trading conditions in the near-term. Improving incentives along the value chain was the second-lowest rated of the six high-level factors surveyed for improving confidence in

the markets in the near-term.<sup>88</sup> However, the survey indicates that improved alignment of incentives at the originator level, and to a lesser extent at the CRA level, would be beneficial [*Exhibit 20*].<sup>89</sup> Market participants also expressed significant concern in the interviews over the incentive systems of mortgage brokers and appraisers. The President's Working Group and other regulators have also recognized this as an issue and recommended stronger, nationwide licensing standards for mortgage brokers.<sup>90</sup>

The interviews did indicate a number of areas for strengthening existing incentive mechanisms for the long-run benefit of the market. Greater transparency and underlying data around origination standards allows the market to more effectively price risk and differences in the standards of originators. Improvements to risk management will prevent firms from taking on additional risks without pricing those risks at appropriate levels. Greater clarity and improvements to the representations and warranties that originators already make and strengthening the repurchase procedure enforcement mechanism would help address originator incentives. Many of these improvements are already being considered or implemented since the onset of the crisis.

Market participants also expressed concern that any changes to incentive systems must weigh both the costs and benefits. Some mechanisms for aligning incentives are very difficult to implement and could have significant consequences on the willingness of firms to participate in the securitization markets. In addition, different incentive structures across product classes and regulatory environments could encourage counterproductive "regulatory arbitrage" by forcing activities into different, more favorable jurisdictions or structures.

## **CHANGES IN ACCOUNTING RULES AND CAPITAL TREATMENT NOT CRITICAL TO RESTARTING THE MARKET**

Changes to accounting rules (e.g., fair value accounting) and capital treatment would not in the near-term restore the market to more normal conditions. "Greater clarity around what exposure dealers have, both directly or from a reputational standpoint, would have been helpful in the early part of the crisis but is not a primary concern now [for the securitization markets]," remarked an investor. "Mark-to-market is the lesser of two evils. It causes tremendous overshooting in both directions. Nevertheless, [I] was impressed how quickly given the deplorable state of mortgage assets, that those markets were shut down. There is value in a tool that makes you mark it down, sell it and move on," added another market participant. However, the survey and interviews suggested that these problems should not be the primary focus of a near-term effort to restore confidence in the securitization markets.<sup>91</sup>

Improvements to disclosure of risk positions, accounting and capital treatments should be a part of long-run improvements in market practices. Regulators, accounting standard

setters and risk officers should continue to work toward proposals that would increase transparency. For example, proposals offering greater guidance to address the challenge of determining the fair value of securities for accounting purposes would benefit the industry. Improved methods of conveying risk exposure are also necessary. “We watched as dealers lost multiples of their reported Value at Risk (VaR),<sup>92</sup>” mentioned an investor.

## RECOGNIZING BROADER EFFORTS

This report and the recommendations included herein are a targeted industry response to restoring investor confidence in securitization market practices. The Global Joint Initiative’s recommendations address specific practices that it believes contributed to the crisis and are necessary to address in the near-term to help “restart” the market. The Global Joint Initiative prioritized these issues based on interviews, surveys and its own research and discussions. Although the increasingly interconnected nature of modern capital markets is now such that the significant losses that occurred in securitization yielded massive disruption across the broader capital markets, the root causes that are specific to securitized products and structured credit are actually much more limited.

A coordinated effort by all participants in the capital markets is necessary to address the current crisis. The Global Joint Initiative recognizes the value and importance of efforts by other industry bodies, regulators, legislators and market participants to offer diagnoses of the current crisis and recommendations to improve industry practices going forward and looks. This report and the implementation of recommendations are intended to complement those efforts. Some of the other reports aimed at addressing the crisis include:

- The August 2008 report of Credit Risk Management Policy Group III (CRMPG III) titled “Containing Systemic Risk: The Road to Reform”<sup>93</sup>
- The Institute of International Finance’s July 2008 “Final Report on Market Best Practices: Principles of Conduct and Best Practice Recommendations”<sup>94</sup>
- IOSCO’s May 2008 “Report of the Task Force on the Subprime Crisis”<sup>95</sup>
- The International Monetary Fund’s April 2008 “Global Financial Stability Report – Containing Systemic Risks and Restoring Financial Soundness”<sup>96</sup>
- The President’s Working Group March 2008 “Policy Statement on Financial Market Developments”<sup>97</sup>
- The Financial Stability Forum’s April 2008 “Report on Enhancing Market and Institutional Resilience”<sup>98</sup>

- The Joint Forum’s April 2008 report on “Credit Risk Transfer –Developments from 2005 to 2007”<sup>99</sup>
- The efforts by various market participants and commentators, including the SIFMA and ASF CRA Task Forces<sup>100</sup>, the AuSF Transparency Task Force, as well as the IOSCO CRA Task Force<sup>101</sup> and others, to reform and improve the role played by credit rating agencies in the securitized and structured credit marketplace

The Global Joint Initiative looks forward to working with the authors of these reports, financial institutions, regulators, central banks, and other market participants to develop and promote an improved framework of operation for the international capital markets as a whole that will both enable and strengthen the securitization and overall market practices.

## IV. Recommendations for restoring confidence

The recommendations<sup>102</sup> contained in this report are the early stages of a practical, industry-led response to restoring confidence in market practices and proactively guarding against future systemic shocks. These recommendations reflect input from a wide range of market participants, regulators and legislators. They also benefit from the work of the numerous groups that have contributed diagnoses of the current problems and proposed recommendations to alleviate the ongoing crisis.

The Global Joint Initiative recognizes that many of the factors that will determine the markets' capacity to recover are beyond the industry's ability to affect. Macroeconomic and global market conditions, mark to market volatility, trends in real estate prices, the ability of financial institutions to recapitalize and other external factors will have a great impact on the ability and willingness of investors and financial institutions to value, invest in and distribute securitized products.

The Global Joint Initiative also recognizes the need for immediate, focused actions to begin restoring confidence in the securitization and structured credit markets. No single recommendation will restore confidence in the markets. Furthermore, these recommendations are not an exhaustive list of every action that could be undertaken to improve market practices. For example, efforts to improve risk management practices and ensure that individual incentives reflect risk-adjusted returns are longer-term efforts that would benefit the securities markets in general. The Global Joint Initiative expects that the recommendations and action plan will be improved over time. However, the most pressing need is for the industry to take the lead in immediately implementing recommendations to restore confidence in the securitization and structured credit markets. As a result, all of the recommendations are implementable without new regulation or legislation: they are intended as significant actions that the industry can and should put into practice immediately to improve market conditions.

These recommendations represent a first step in addressing the issues identified through the survey, interviews and research as most critical in the near-term to restoring confidence in the markets. The Global Joint Initiative has focused the recommendations for improving market practices on the key factors prioritized by the research: (1) disclosure and best practices for origination; (2) a greater quantity, availability, and

ongoing maintenance of information on underlying assets; (3) strengthened market-based enforcement mechanisms to leverage the enhanced transparency that improved disclosure will provide with regard to evaluating participants' performance; and (4) valuations. The Global Joint Initiative also recognizes the importance of restored confidence in the credit rating agencies, and defer to the work already accomplished by the SIFMA and ASF CRA Task Forces, which complemented the efforts of other groups in proposing strong recommendations and taking practical steps to address that issue. The Global Joint Initiative endorses the recommendations issued by SIFMA's and ASF's CRA Task Forces, relevant portions of which are described in full below.

Financial crises seldom repeat in exactly the same way. But crises in different parts of the capital markets, involving different types of products and assets, often do have very similar underpinnings. It is therefore important that all stakeholders accept shared responsibility for drawing the necessary lessons from the current market problems and take forward-looking action to reduce the risk of future systemic market failures. For this, there is no "silver bullet." However, communication and constant vigilance around market standards and developments will go a long way toward preventing future market failures, while limiting the impact of others. The final recommendations therefore aim to provide just this kind of industry awareness of a common responsibility to monitor market developments and proactively develop timely solutions to emerging problems before they become endemic failures.

Given the magnitude of the current crisis and its significant impact on the broader US and world economies, it is critical that the industry take effective action as promptly as possible. To that end, SIFMA, ASF, ESF, and AuSF are working with their memberships to implement each of the recommendations detailed in this report, with significant progress already achieved. Operating within the broader framework of the Global Joint Initiative's efforts, the ongoing work of the various task forces and working groups responsible for each recommendation are highlighted below, including a review of their progress to date.

## **TEN INITIATIVES TO INCREASE TRANSPARENCY IN THE EUROPEAN SECURITISATION MARKETS**

SIFMA and the ESF, together with seven other European and global trade associations released a July 2008 report entitled *Ten Industry Initiatives to Increase Transparency in the European Securitisation Markets*. The report was in response to the European Council of Finance Ministers' (ECOFIN) call, in their October 2007 Roadmap, to "enhance transparency for investor, markets and regulators" by "mid-2008".<sup>103</sup> The Ten Initiatives also address some of the issues pointed out in the April 2008 Financial Stability Forum

Report on Enhancing Market and Institutional Resilience and the May 2008 Report of the IOSCO Task Force on the Subprime Crisis.

The Ten Initiatives are part of an ongoing effort of the industry to improve market standards through greater transparency. These initiatives complement the set of recommendations contained in this report. The associations working together on various parts of these initiatives include: the Commercial Mortgage Securities Association Europe, European Association of Co-Operative Banks, European Association of Public Banks, European Banking Federation, European Savings Bank Group, International Capital Market Association, London Investment Banking Association, ESF and SIFMA. Sub-groups of the industry associations that authored the Ten Initiatives are working to finalize and implement each.<sup>104</sup>

### **Summary of Ten Industry Initiatives to Increase Transparency:**

#### **1. Increasing Transparency in the Reporting of Securitization Exposures under the Capital Requirements Directive Pillar 3**

The objective of this initiative is to promote sound, consistent and appropriately granular implementation of the securitization-related disclosure requirements under the Capital Requirement Directive (CRD). In response, the associations developed draft Industry Good Practice Guidelines for Pillar 3 disclosures by banks (included in the Report). The guidelines will be finalized in 2008. Firms will be able to use them in developing their first Pillar 3 disclosures in early 2009.

#### **2. Organize Comprehensive, Frequent and Relevant Statistical Data: New Securitisation Data Report**

To provide further transparency to market participants and assist policymakers in their monitoring and assessing of trends in the securitization market, the associations have developed a new Securitisation Data Report. This Report is the first publicly-available report that consolidates relevant aggregated European and US data about the securitization markets. It will be produced each quarter, with monthly supplements on spread and price data.

#### **3. ABCP Issuer Disclosure Code of Conduct/Principles**

Following a survey of ABCP market activity, investor feedback, and a review of the legal obstacles to disclosure in the ABCP market, the associations have finalized an ABCP issuer disclosure code of conduct to encourage consistent, relevant and regular reporting to investors.

#### **4. Term Securitization Issuer Transparency and Disclosure Principles**

The associations are developing asset-specific recommendations for transparency and reporting by issuers, tailored to the needs of separate RMBS, CMBS, CDO, consumer

ABS, insurance securitization and other asset classes. Drafts of “Issuer Transparency and Disclosure Principles” for RMBS and CMBS are being developed first, with the other asset classes to follow. The associations expect to issue the principles for RMBS and CMBS by the end of 2008, and for the other asset classes soon thereafter.

### **5. Opening Access to Transaction Information**

The associations believe that on EEA-listed public term transactions upfront and ongoing information should be openly accessible. In some cases, the websites used for this purpose utilize passwords to monitor access. If the website provider wishes to retain the password restriction on widely marketed transactions, issuers will be encouraged to either i) make sure that the pertinent information is also available from an unrestricted source or ii) “comply or explain” by including an explanation in the relevant prospectus as to the rationale for retaining password restrictions, and not making the information publicly available through other means. This issue will be addressed as part of initiative 4.

### **6. Development of Industry Data Portals**

The initiatives described above to improve access to EEA issuers and other websites will make prospectuses and investor reports available to a broader category of participants, thereby increasing transparency. It is expected that the competitive environment for the provision of data will drive commercial data providers to develop data portals whereby such information can be centrally accessed through those sites at low or no cost. In June, two ESF member commercial data providers announced such portals, providing free access to over 1,000 EEA-listed securitization prospectuses and investor reports, with other portals possibly to be launched in the autumn

### **7. RMBS and CDO Issuer/Manager Directories on ESF Website**

As a first step in helping to make information more broadly available and more easily accessible, the ESF now provides on its website a centralized listing/directory of known European RMBS issuer and CDO manager links to various portal, issuer/manager, trustee or management company, stock exchange and data provider websites.

### **8. Improve Standardization and Digitization of Reporting Templates and Granularity of Information**

The ESF is developing a project similar to the ASF’s Project RESTART regarding standardized reporting for European RMBS transactions. The effort will focus on developing a single pan-European format for common data fields with country specific annexes to capture national variations. Italy, the Netherlands, Spain and the UK have been selected as the first countries for which the template will be developed. In respect of CMBS, CMSA has also developed and continues to refine a standardized reporting format for CMBS transactions

## **9. Standardizing Definitions**

In a global marketplace, investors and other market participants need consistency in the definitions of various products. For example, “subprime RMBS” and “non-conforming RMBS” have a different meaning in the US, Australia, UK and other countries. The associations prepared questionnaires for RMBS and CMBS structures regarding the use of definitions in RMBS and CMBS structures globally. The ESF and SIFMA are interested to coordinate their RMBS and ABS work in this area with the European Commission’s initiative on credit scoring systems, and the recently established Expert Group on Credit Histories.

## **10. Developing Investor Credit Assessment and Valuations Principles**

The associations are in the process of developing securitization investor credit assessment principles to ensure investors have well articulated investment processes in place to independently assess the credit of a transaction. In addition, the associations are discussing securitization investor valuation principles, in particular for structured credit investors who are subject to mark to market rules.

## **RECOMMENDATIONS FOR IMPROVING KEY MARKET PRACTICES**

Greater disclosure, by itself, would not have prevented the current crisis. The extent and severity of current problems are beyond what anyone had forecast. Market participants lacked an appreciation for the impact of their individual actions on the safety and soundness of the market as a whole, and many did not utilize the large amounts of data and disclosure already available to them. The traditional investment principles of conducting independent credit evaluations, avoiding high concentrations of risk, and augmenting sophisticated model output with good judgment gave way to the kind of bull-market practices that accompany bubbles.

Enhanced disclosure of information on underlying assets and origination practices will in the future serve to increase market participants’ ability to make good judgments around risks. Market perceptions of how much due diligence is required in order to effectively participate in the securitization and structured credit markets have changed markedly since the onset of the current crisis. Greater disclosure will also promote more efficient market-based decision making by allowing for more accurate differential pricing of structured credit. To be effective, these recommendations must target those products and asset classes where current market practices are most lacking. But their effectiveness also depends on the willingness of all to learn from the current crisis and implement the kind of measures that better, more accessible and reliable information will allow.

The first four recommendations address this need, focusing on the RMBS marketplace. Deterioration in the performance of RMBS was the trigger of the crisis and shows fewest

signs of recovery. RMBS prior to the crisis represented the largest percentage of the securitization markets. Furthermore, both the survey and interviews indicated that the RMBS space is a segment of the market in which improvements would most significantly benefit the broader securitization marketplace.

The Global Joint Initiative recognizes that the value of increased transparency and greater accessibility of information is not inherently limited to the RMBS space, but rather spans all asset classes. The interviews and surveys indicated that near-term efforts should primarily target the RMBS market. However, the Global Joint Initiative also encourages industry and third-party providers in the longer term to continue looking for ways to more effectively convey information and documentation to the market, taking advantage of improvements in technology and information transfer, including for asset classes other than RMBS.

**Recommendation 1: Increase and enhance initial and on-going pool information on US non-agency RMBS and European RMBS into a more easily accessible and more standardized format.**

Recommendation 1 addresses three of the four main dimensions of disclosure of information on US non-agency RMBS and European RMBS: type and quantity of data, standardized presentation and accessibility, and ongoing reporting. The fourth dimension, the issue of reliability of information, is addressed in Recommendations 2 and 3. Although jurisdictional differences in privacy laws, data protection requirements, and other factors are concerns in the US, Australia, and Europe, the global securitization industry is working towards increasing, improving and standardizing that information where possible. Additional standardized and easily accessible data points will facilitate stronger independent evaluations of RMBS by institutional investors and credit rating agencies prior to purchasing a security or assigning a credit rating. Increasing and standardizing ongoing reporting of information will also significantly improve the valuations of outstanding RMBS.

In Europe, as part of its deliverables to the European Commission, the ESF is developing standardized reporting practices that may include either aggregate or loan-by-loan reporting depending on jurisdiction, data protection laws, and business practice issues. For the US, more specifically, elements of improved pool and loan-level detail should include:

- Standardized definitions and calculation methodologies for credit features (e.g., debt-to-income calculations; use of consistent methodology in obtaining consumer credit scores, where available; consistent definitions of “full documentation” of borrowers’ income)
- Standardized disclosure of defaults and foreclosures

- Additional information beyond what is currently offered (e.g., more qualitative information from mortgage applications including whether closing costs are financed; whether purchasers are first-time buyers; whether loans were originated by a mortgage broker)
- Greater accessibility by providing a standard data tape or other format for use by all originators, as adapted for differences in national jurisdictions, which could serve as the foundation for one or more industry-developed issuance data portals
- Enhanced ongoing reporting of RMBS performance through provision of a dynamic set of data elements to be updated by servicers on a quarterly basis throughout the life of an RMBS transaction, and made available to investors and rating agencies through trustee- or servicer-maintained investor reporting websites and other third party information providers

### **Implementation of Recommendation 1:**

ASF's Project RESTART was formed in January 2008 to identify areas of improvement in the securitization process and leverage market-based solutions and expectations to address those areas in need of improvements. Directly responsive to the President's Working Group request that the ASF develop disclosure templates to enhance securitization market discipline, the Project issued an initial request for comment on July 16, 2008 of a proposed ASF RMBS Disclosure Package. This Disclosure Package is intended to (1) provide more hard data than currently available to market participants about the underlying mortgage loans; (2) standardize the presentation of deal and loan-level information; and (3) allow investors to perform necessary and sufficient deal and loan-level analysis. More broadly, the initial phase of Project RESTART creates a baseline set of data points that all investors and credit rating agencies should receive prior to purchasing or rating any transaction issued into the market. Comments from numerous market participants were received in late August, and are being incorporated into a revised request for comment on the ASF RMBS Disclosure Package will be disseminated by the end of 2008.

In Europe, the ESF will be liaising closely with the ASF's US initiative, with a goal for the Global Joint Initiative to develop a globally consistent set of principles for the dissemination of information on underlying collateral which are adapted for relevant differences in national regulations and local business practices. In Europe, these principles, as adapted, will be included in the European RMBS issuer principles being developed as part of the fourth initiative presented to the European Commission in June 2008. In Australia, these principals have been adopted as part of the AuSF Transparency Task Force platform of initiatives.

**Recommendation 2: Establish core industry-wide market standards of due diligence<sup>105</sup> disclosure and quality assurance practices for RMBS.**

To ensure that information on securitized products issued into the market is sufficiently reliable to judge the quality of the underlying assets and origination practices, enhanced disclosure must be applied at two key pressure points in the path to securitizing loans: (1) the point at which the loans are originated and (2) the pre-securitization process.

Enhanced practices and transparency around the due diligence efforts that occur during the pre-securitization process would also give investors greater comfort with regard to the underlying assets in a securitization. New, industry endorsed pre-securitization due diligence standards that exceed those that may be required under applicable regulation, as adapted for differences in national jurisdictions, will establish a common basis for evaluating the accuracy and integrity of information that is presented and relied upon in evaluating the risk and performance characteristics of securities, including by the rating agencies. These new standards should not be limited to what may be required under the securities laws of any jurisdiction; rather, they should be sufficiently extensive to promote increased investor confidence in the due diligence and quality assurance process generally. Importantly, the application of these enhanced due diligence and quality assurance practices to the more standard set of data elements and definitions produced via implementation of Recommendation 1 above should, in turn, produce more meaningful and comparable evaluations of data quality and integrity across RMBS transactions. Importantly, the application of these enhanced due diligence and quality assurance practices to the more standard set of data elements and definitions provided through the implementation of Recommendation 1 should produce more meaningful and comparable evaluations of data quality and integrity across RMBS transactions. The Global Joint Initiative recommends that core standards be developed regarding the pre-securitization due diligence process, as well as regarding disclosure of information about that process.

The standards, which may vary depending on national jurisdictions, are expected to include:

- Guidelines regarding sampling size of loans to be subject to due diligence
- Due diligence provider attestations, e.g., as to independence and sufficiency of time to review
- Standardized loan scoring and reporting or disclosure of results
- Standards and guidance for the credit, value and compliance components of the due diligence review process
- A standardized investor loan data set for verification during due diligence

The Global Joint Initiative further recommends that CRAs publish assessments of origination practices and relative performance of underlying collateral, measured against the industry-backed standards, by originator.

The Global Joint Initiative also recommends that originators publicly disclose information around their own internal quality assurance practices for all origination.

### **Implementation of Recommendation 2:**

SIFMA created in June 2008 the SIFMA US RMBS Pre-Securitization Due Diligence Standards Working Group as an adjunct to SIFMA's Due Diligence Managers Committee. The Due Diligence Standards Working Group seeks to develop regimented minimum standards for pre-securitization due diligence through which greater disclosure and transparency can be provided in the securitization market.

ASF's Project RESTART, described above, recognizes that providing more information is not in itself sufficient: market participants must have confidence that the proffered data is reliable and representative of what it is meant to depict. At the same time, aggregating and presenting information on assets underlying securitized products in a comprehensive and industry-standard format provides the building blocks for standards of due diligence to be established in order to provide comfort to investors and rating agencies that the ASF RMBS Disclosure Package can be relied upon to make purchasing and rating decisions.

By clearly identifying pool and loan-level data fields, relevant to each jurisdiction, as well as creating specific industry-wide definitions and calculation methodologies for each data field, the due diligence process on the data in the ASF RMBS Disclosure Package can be standardized industry-wide and increase reliability on the underlying data. Subsequent to the release of final recommendations on the ASF RMBS Disclosure Package later in the fall of 2008, the ASF will also release a request for comment on the due diligence procedures to be performed on the information contained in the ASF RMBS Disclosure Package. A final, integrated set of industry recommendations regarding the RMBS due diligence procedures, to be issued in 2009, will draw from the SIFMA and ASF due diligence initiatives outlined above.

In Europe and Australia, the ESF and the AuSF will be liaising closely with the ASF and SIFMA US initiatives, with a goal for the Global Joint Initiative to develop a globally consistent set of due diligence principles which are adapted for relevant differences in national regulations and local business practices. In Europe, these principles, as adapted, will be included in the European RMBS issuer principles being developed as part of the fourth initiative presented to the European Commission in June 2008. In Australia, these principles have been adopted as part of the AuSF Transparency Task Force platform initiatives.

### **Recommendation 3: Strengthen and standardize the representations and warranties as well as repurchase procedures for RMBS.**

A number of market-based tools exist for addressing problems with originators' incentives. Recommendations 1 and 2 strengthen the market's ability to incentivize

originators through differential pricing of securities backed by loans with different credit quality. They address the provision of more data on underlying assets and securitization processes to allow investors to more effectively differentiate between originators and the loans they are selling into the secondary market. Another mechanism to improve market discipline is the process built into securitization transactions to compel originators to repurchase loans that support payments on securities if certain representations or warranties that originator made were breached.

The obligation on the part of an originator to repurchase an underperforming asset that breached a representation or warranty can be an effective mechanism for ensuring alignment of interests of the investor and originator. Current market practices allow investors to effectively return loans that are found not to conform to the representations and warranties made by issuers as to the characteristics of the collateral in the underlying asset pool. However, the conditions under which parties are entitled to “put back” loans to originators vary from transaction to transaction, are sometimes overly vague, and/or the repurchase procedures result in a relatively cumbersome, costly, and potentially litigious process for all parties involved.

If a more effective enforcement mechanism for compelling the repurchase of securities by originators were implemented, market participants could then leverage the greater expected transparency around the performance of originators and underlying assets to price the securities, as well as the terms of the repurchase obligation themselves, to more accurately reflect differences in quality of origination. The model representations and warranties may vary due to differences in national jurisdiction.

### **Implementation of Recommendation 3:**

Since April 2008, ASF’s Project RESTART Repurchase Working Group has been developing recommendations on a uniform set of procedures, including the use of post-securitization forensic reviews, for enforcement of a set of ASF model RMBS representations and warranties and to clearly delineate the roles and responsibilities of transaction parties in that process. Project RESTART is expected to release an initial request for comment on those procedures in late 2008 or early 2009.

In Europe and Australia, the ESF and AuSF will be liaising closely with ASF’s US initiative, with a goal for the Global Joint Initiative to develop a globally consistent set of representation and warranty principles which are adapted for relevant differences in national regulations and local business practices. In Europe, these principles, as adapted, will be added to the European RMBS issuer principles being developed as part of initiatives delivered to the European Commission in June 2008. In Australia, these principles, as adapted, will be incorporated under the mandate of the AuSF Transparency Task Force platform of initiatives.

**Recommendation 4: Develop industry-wide standard norms for RMBS servicing duties and evaluating servicer performance.**

Equally important to ensuring that investors have the ability to return defective loans to issuers is ensuring that the quality of the underlying assets is not allowed to unduly or unnecessarily deteriorate over time. To that effect, just as it is necessary to improve transparency vis-à-vis the assets themselves to detect any material deterioration, it is also necessary to have a common understanding of the scope of a servicer's contractual duties and responsibilities and adequate benchmarks for evaluating the performance of servicers who are responsible for collecting and maintaining the asset base. This will allow interested parties to determine whether any deterioration is due to servicer deficiencies, or more exogenous and uncontrollable circumstances.

Contractual, reporting, and enforcement mechanisms to create an incentive system based on greater transparency around servicer performance must accompany the development of these standards. To that end, the Global Joint Initiative recommends the development of:

- A set of RMBS market-standard performance metrics that will cover all relevant aspects of servicer performance that can be objectively and reasonably measured
- A set of model RMBS servicing provisions for pooling and servicing agreements to create more standardized work rules for servicers of private-label RMBS, create more consistent expectations of mortgage borrowers in relevant countries when and how loss mitigation strategies should be employed, as well as clarify and streamline procedures for removing or replacing servicers who fail to live up to the relevant performance standards

**Implementation of Recommendation 4:**

ASF's Project RESTART will be issuing a request for comment in early 2009 on both servicer performance metrics as well as a model set of servicing provisions to enhance and improve RMBS servicing in the US.

In Europe and Australia, the ESF and AuSF will be liaising closely with the ASF's US initiative, with a goal for the Global Joint Initiative to develop a globally consistent set of servicer evaluation principles which are adapted for relevant differences in national regulations and local business practices. In Australia, these principles, as adapted will be incorporated under the mandate of the AuSF Transparency Task Force platform of initiatives.

**Recommendation 5: Expand and improve independent, third-party sources of valuations and improve the valuation infrastructure and contribution process for specified types of securitization and structured products.**

Current difficulty in establishing valuations<sup>106</sup> undermines investors' confidence and therefore their participation in the securitization markets. Differences in valuations

prevent financing markets from functioning smoothly. Agreement between counterparties on the amount of financing and value of collateral held against the loan is difficult. Investors have less confidence and many are less willing to participate in markets in which the valuations they receive from market makers vary substantially on the same security or the values are difficult to obtain. The distressed condition of many of these securities compounds this problem.

Market participants in the surveys and interviews indicated a strong desire for a solution to the current difficulty in establishing valuations. They also recognized the difficulty in determining valuations in markets characterized by less liquid, non-standard securities even under much more normal trading conditions than currently exist. Small differences in underlying assumptions can cause large discrepancies in price for these types of securities.

Market participants believe that in the near-term post-trade reporting systems for securitizations (such as TRACE for corporate bonds) would not have a significant positive impact on market liquidity or provide enough information to meaningfully reduce the current difficulties in establishing valuations. Outside of agency RMBS, markets for securitized products have significantly less secondary trading, as measured by either volume or percentage of outstanding securities that trade, than the markets where post-trade reporting systems are typically instituted. As a result, very limited information would be available from post-trade reporting in the securitization market, particularly in the current environment where secondary trading volumes are very low. Moreover, most securitizations are customized, non-standard products whose valuations are tied to unique collateral and structural characteristics of individual transactions, and to often varying assumptions about the likelihood, structure and timing of cashflows generated by underlying assets. Some market participants expressed concern that publicly reporting trades could actually have the unintended consequence of reducing liquidity in the near-term. If trades were made public, counterparties might be less willing to sell distressed positions or put capital at risk to buy large positions in the necessary redistribution of the overhang of securities. In addition, empirical evidence of the effect of TRACE-like reporting mechanisms on the liquidity of institutional markets has been mixed.<sup>107</sup>

The market needs an improvement in the number of securitized products for which valuation information is widely available and an improvement in the quality and transparency of such information. The Global Joint Initiative therefore recommends that the industry form a Valuation Task Force (“Project Value”) to determine, among other issues, guidelines for the range of securities for which valuations would be contributed, and the expectations of participants and contributors. The Project Value team would seek to meet with the boards and senior management of the various data providers on the strategic importance of this expanded support. The Global Joint Initiative recognizes that developing and implementing methodologies and protocols will be an important task that will require additional planning and discussion. The purpose of Project Value would not

be to anoint an official or sole provider of valuation data to the market, but rather to improve the overall infrastructure and contribution processes for independent valuations.

The Global Joint Initiative recommends that Project Value consider and develop an implementation plan consistent with the following objectives:

- *Enlisting broad support by market makers, data providers, providers of analytical services, and major investors:* Project Value is composed of a broad and diverse group of market participants and would seek to ensure the commitment of a broad and diverse group of market participants. The Project Value team would seek to meet with the boards and senior management of the various independent data providers on the strategic importance of the expanded support
- *Ensuring broad representative coverage of securities within asset classes:* Project value should balance the need for broad representative coverage of the market with the practical implementation challenges posed by a non-standard market composed of thousands of securities, many of which may be held by only a few investors. The criteria could include specifications with respect to selection of certain benchmark securities on the basis of, for example, rating, notional outstanding, date of issuance, and other factors deemed necessary. These criteria would also contemplate the differences between the many distressed positions from prior years versus new issuance
- *Aggregating high quality inputs to inform valuations:* One alternative for ensuring quality of inputs would be for market makers and investors to provide valuations that they determine independently (i.e., not relying on an outside party for purposes of determining the value) and use as marks for outstanding positions on their books and records
- *Establishing a clear process for responding to changing market conditions:* Project Value should determine the rules, procedures, forum, and responsible body for updating the initial guidelines for valuations based on changing market conditions

#### **Implementation of Recommendation 5:**

The participating industry associations will form the Project Value Task Force before the end of 2008. Members of this Task Force will include representatives of all key securitization market constituencies, including investors, financial intermediaries, and issuers.

In Australia, the AuSF Transparency Task Force has launched the Australian Best Practice Pricing model concept for debate. It has held a number of industry debates and is now setting up a task force to explore the implementation of the initiative. The Australian pricing model is based on the same conceptual ideas and is aimed at solving the same concerns highlight above, but will focus on the daily price making of both market makers

and investors on series of generic/theoretical securitized benchmark deals, in which all issues in the market can be spread from based on their different granularity in collateral. A working paper is in draft form and will be released once approved by the AuSF.

**Recommendation 6: Restore market confidence in the CRAs by enhancing transparency into the CRA process.**

Our interviews highlighted how a combination of investor over-reliance on CRAs and a failure by the market to understand the limits of CRA ratings combined to aggravate participants' miscalculation of potential downside risk to the securitization and structured credit market. The survey confirmed the relative importance of this issue, as respondents indicated that restoring market confidence in the CRAs was one of the three most important overall factors to restarting the securitization markets. Greater market transparency from the above recommendations should empower investors and other market participants to do more of their own credit research, and thereby reduce the market's overall reliance on CRAs. These recommendations do not however in and of themselves address the need to restore confidence in ratings.

SIFMA and ASF each created CRA Task Forces to develop recommendations seeking to achieve the dual goals of avoiding a repetition of the credit-rating related turmoil of the past year and strengthening the investor confidence that is vital to robust and liquid global financial markets. The Task Forces solicited input from a number of CRAs, lawmakers, regulators, investors and other market participants.

To determine priority areas of focus, the Task Forces sought to identify what were the credit-rating-related causal variables that played a significant role in triggering the current crisis. Key issues were identified and prioritized. The issues that headed the list are the issues that the CRA Task Forces addressed in their recommendations, described below:

- CRAs should provide enhanced, clear, concise, and standardized disclosure of CRA rating methodologies, underlying data examination and verification, as well as CRA surveillance procedures, so as to foster greater transparency and allow market users of ratings to understand their bases and limitations
- CRAs should provide access to data regarding CRA performance so as to allow investors to assess how CRAs differ both in the performance of their initial ratings, and in their ongoing surveillance of existing ratings
- CRAs should disclose summary results of due diligence, underlying asset examinations, and other information they relied upon or that forms part of the basis for the rating assigned to a structured finance product
- Lawmakers, regulators, and policymakers across the globe should coordinate more closely in addressing CRA oversight, in order to avoid counter-productive, piecemeal, inconsistent attempts at remediation

- Conflicts of interest should be addressed with a sensitivity towards the difference between core CRA services and ancillary CRA services
- CRAs should ensure that rating performance of structured products are consistently in line with rating performance of other asset classes, which will increase investor confidence in the reliability of ratings. However, regulators should avoid mandating the use of separate ratings scales or unique ratings indicators or modifiers for structured finance ratings
- Investors should understand the limits of ratings, and use them as just one of many inputs and considerations as they conduct their own independent analyses
- All members of the financial industry involved in the generation and use of ratings, including issuers and underwriters, should examine their processes with an eye towards improvement, including working towards standardizing reporting and disclosure on underlying assets

#### **Implementation of Recommendation 6:**

In July 2008, SIFMA's CRA Task Force publicly released its full list of recommendations in response to both the SEC and EU Commission consultations on CRA reform in the US and in Europe, respectively. At the same time, the ASF submitted to the SEC a comment letter on the first phase of its credit rating agency reform proposals. In September 2008, both SIFMA and ASF submitted comments in response to a second set of SEC proposals addressing the uses of ratings in various bodies of securities regulation.

In November 2008, the European Commission adopted a proposed regulation governing the oversight of credit rating agencies. The regulation subjects EU-registered credit rating agencies to a range of substantive operating, governance and disclosure obligations.

The Australia Government Treasury Agency is working closely with the Australian Securities and Investment Commission (ASIC), to review the regulation of CRAs and research houses in Australia.

## **RECOMMENDATIONS FOR PROACTIVELY GUARDING AGAINST FUTURE CRISES**

### **Recommendation 7: Establish a Global Securitization Markets Group to report publicly on the state of the market and changes in market practices.**

The industry should share responsibility with regulators to understand and manage risks going forward. The mission of the Global Securitization Markets Group (Markets Group) would be to report publicly on the state of the market and on deficiencies and necessary changes in market practices. Composed entirely of industry participants, this body is an

acknowledgement by the industry that it must take primary leadership, albeit in collaboration with relevant regulators, to proactively guard against future systemic shocks.

The Markets Group provides a natural mechanism to help align and structure the otherwise disjointed actions of individual market participants by establishing an institution dedicated to identifying and resolving potential problems before they become widespread. More specifically, the Markets Group will accomplish its overall mission through the following discrete actions:

- Oversee publication by SIFMA/ASF/AuSF/ESF of an annual report on the state of the securitization markets that will include at minimum: (1) a review of volumes and economic trends; (2) an assessment of important new products and recent changes to existing products, including an evaluation of any new risks these might present; (3) a review of the ongoing operational/infrastructure requirements and current capabilities to meet market demands; (4) an evaluation of potential legislative and regulatory changes and their impact on the market; (5) an ongoing list of potential areas of improvement for existing market practices
- Engage in ongoing dialogue with regulators and central banks, including hosting an annual or more periodic conference, to which all concerned policymakers globally would be invited, where relevant considerations for the draft report on the state of the market and its evolution, along with the proposed stress scenarios, would be discussed

#### **Implementation of Recommendation 7:**

SIFMA, ASF, AuSF, and ESF will establish prior to year-end 2008 a Global Securitization Markets Group composed of senior securitization industry leaders drawn from the various member constituencies represented by these organizations. The Markets Group is expected to publish its first report by mid-2009.

#### **Recommendation 8: Establish and enhance educational programs aimed at directors and executives with oversight over securitized and structured credit groups, as well as at investors with significant exposure to these products.**

Participation in the securitization and structured credit markets should be limited to sophisticated investors possessing the capabilities and resources necessary to assess and monitor the risks embedded in those products. Investment firms should also have principles in place to assess the creditworthiness of securitizations without reliance on CRA ratings alone, as well as effective securitization valuation principles of their own.<sup>108</sup>

Financial intermediaries and investors should revisit their policies and procedures to ensure that their own capabilities, as well as those of their counterparties, are consistent with the minimum standards mandated by regulators and supplemented by industry best practices. To do so, directors and senior executives of financial institutions must better

understand the risks inherent to the securitization markets and the potential ramifications of ongoing changes in those markets. Such fundamental grounding will also allow senior managers to have more informed dialogues regarding exposures and provide them with a greater ability to assess their institutions' own capabilities.

This recommendation seeks to provide and disseminate that enhanced understanding of the securitization markets by creating, under the collective aegis of SIFMA, ASF, AuSF, and ESF, and building upon the ASF's Securitization Institute<sup>109</sup>, an educational program specifically targeting this senior level audience. To complement that effort and further enhance participants' ability to understand the risks and benefits inherent to the securitization markets, the Global Joint Initiative further endorses the recommendations made by the CRMPG III in its August 2008 report seeking to enhance the documentation and disclosures provided to prospective investors in high-risk complex financial instruments.<sup>110</sup>

### **Implementation of Recommendation 8:**

Leveraging experience acquired through the administration of the ASF Securitization Institute, SIFMA, ASF and ESF are currently developing and enhancing their educational programming specifically targeting directors and senior managers of financial institutions, as well as relevant investors, whose monitoring duties or investment strategies are closely tied to the securitization markets. That group is also reviewing the feasibility of expanding this effort to a broader set of training modules.

Separately, the ESF is also implementing initiative ten of the Ten Transparency Initiatives delivered in June 2008 to the European Commission<sup>111</sup> –that is, member associations are in the process of developing investor credit assessment principles for securitized products to ensure that all institutions participating in the market have the ability to adequately analyze, assess, value and compare securitization investments.

In addition, the AuSF has launched as part of its Transparency Task Force, an effort to explore the concept of Fit and Proper person certification program in Australia to fill the regulatory gap for the professional/sophisticated investor. The concept entails a self regulated certification program that focuses on the investors skills and knowledge, rather than the size of the assets they manage.

# Conclusion

There is an urgent need for global, coordinated action to address the current crisis in the securitization and structured credit markets. The current crisis places at risk the significant benefits of a well-functioning securitization market for consumers, investors, financial institutions and the economy. Sustained economic activity and future job creation are at risk without a rapid return to well-managed, resilient, and transparent securitization processes across markets. All stakeholders should participate actively in efforts to restore confidence in the securitization and broader markets. The industry must take the lead in addressing deficiencies in market practices. Regulators and legislators should continue to draw on insights from the private sector in addressing the crisis. One thing is certain: public and private sector participants must partner quickly and move together to take real action to develop and implement the changes necessary to correct the deficiencies in market practice that contributed to the current dislocation and prevent future crises.

The recommendations and plans for implementation contained in this report are an important step in the restoration of confidence in the securitization market and market practices. This Global Joint Initiative prioritized these sets of actions to address the near-term impediments to restoration of confidence in the markets. All of these recommendations can be acted upon immediately, and several task forces began implementation even prior to the issuance of this report. Some of these recommendations will require further discussion among industry stakeholders to further refine the implementation action plan. The most effective way forward is for market participants to commit to accepting responsibility and dedicating sufficient resources to implement the recommendations contained in this report, as well as the other important areas for improvement in market practices identified by other groups.

The Securities Industry and Financial Markets Association, the American Securitization Forum, the European Securitisation Forum, and the Australian Securitisation Forum are committed to implementing these recommendations and continuing to work with regulators, legislators, and market participants to restore confidence to the securitization markets and to the overall financial markets.

## APPENDIX: SOURCES FOR EXHIBITS

**Exhibit 1:** McKinsey & Company.

**Exhibit 2:** Thomson Reuters; 2008 annualized based on monthly data through September 30, 2008.

**Exhibit 3:** SIFMA/ASF/ESF/AuSF survey; McKinsey analysis. Note: Expected timing of return is the average of the responses received, weighted by the percentage of respondents who gave that response.

**Exhibit 4:** SIFMA/ASF/ESF/AuSF survey.

**Exhibit 5:** SIFMA, ASF, ESF, and AuSF.

**Exhibit 6:** Mortgage Bankers Association National Delinquency Survey; McKinsey analysis.

**Exhibit 7:** Mortgage Bankers Association National Delinquency Survey; Fitch Ratings; S&P.

**Exhibit 8:** Thomson Reuters.

**Exhibit 9:** McKinsey & Company.

**Exhibit 10:** Thomson Reuters; 2008 annualized based on monthly data through September 30, 2008.

**Exhibit 11:** Thomson Reuters.

**Exhibit 12:** Thomson Reuters.

**Exhibit 13:** SIFMA.

**Exhibit 14:** SIFMA/ASF/ESF/AuSF survey; McKinsey analysis. Note: Expected timing of return is the average of the responses received, weighted by the percentage of respondents who gave that response.

**Exhibit 15:** SIFMA/ASF/ESF/AuSF survey; Thomson Reuters; McKinsey analysis.

**Exhibit 16:** SIFMA/ASF/ESF/AuSF survey; McKinsey analysis.

**Exhibit 17:** Federal Reserve's US Flows of Funds Accounts (Table L2, L125, L126).

**Exhibit 18:** SIFMA; IMF; CNW; Thomson Reuters; McKinsey analysis. Note: Exhibit does not include commercial paper, municipal bonds, treasury bonds, Fed agency bonds and bank loans.

**Exhibit 19:** SIFMA/ASF/ESF/AuSF survey; McKinsey analysis.

**Exhibit 20:** SIFMA/ASF/ESF/AuSF survey; McKinsey analysis.

**Exhibit 21:** SIFMA/ASF/ESF/AuSF survey; McKinsey analysis.

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<sup>1</sup> For purposes of this report, “securitization and structured credit” are defined as comprising agency and non-agency residential mortgage-backed securities, commercial mortgage-backed securities, consumer credit-based and other asset backed securities, collateralized loan obligations, other collateralized debt

obligations (both cash and synthetic, as well as CDOs of CDOs), and more complex structured credit (e.g., CPDOs).

<sup>2</sup> McKinsey analysis of SIFMA, IMF, CNW and Thomson Reuters data.

<sup>3</sup> McKinsey analysis of SIFMA, IMF, CNW and Thomson Reuters data. Comprises total origination in corporate bonds, leveraged loans, mortgages and consumer debt in the US; does not include commercial paper, muni bonds, treasury bonds, Fed agency bonds, bank loans.

<sup>4</sup> Merrill Lynch European Structured Finance Monthly Report, September 2007.

<sup>5</sup> Lehman Brothers Global Family of Indices, Global Aggregate Index Fact Sheet, December 31, 2007. See at [http://www.lehman.com/fi/indices/pdf/Global\\_Aggregate\\_Index.pdf](http://www.lehman.com/fi/indices/pdf/Global_Aggregate_Index.pdf). As of November 3, 2008, Lehman indices became part of Barclays Capital Indices.

<sup>6</sup> Hon. Henry M. Paulson, Jr., “Current Housing and Mortgage Market Developments,” Georgetown University Law Center, October 16, 2007, HP-612.

<sup>7</sup> José Manuel González-Páramo, June 1, 2008, Speech at the Global ABS Conference 2008 in Cannes.

<sup>8</sup> Hon. Sheila Bair, “Possible Responses to Rising Mortgage Foreclosures before the Committee on Financial Services,” House Committee on Financial Services, April 17, 2007.

<sup>9</sup> Global Joint Initiative membership led by Co-Chairs Sanjeev Handa (TIAA-CREF) and Jeffrey Perlowitz (Citi).

<sup>10</sup> On behalf of the Global Joint Initiative, the consulting firm McKinsey & Company in the late summer and early fall interviewed over 100 stakeholders globally including issuers, investors, dealers, servicers and regulators. The McKinsey team also captured the views of 400 market participants through an online survey. In addition to the surveys and interviews, McKinsey conducted extensive primary research and worked closely with the law firm Mayer Brown LLP.

<sup>11</sup> Detail about the initiatives: SIFMA’s CRA Taskforce is a global, investor-led initiative made up of more than two dozen firms representing a full cross-section of the financial services industry. The taskforce’s objectives are to develop specific recommendations to rebuild investor confidence in the CRAs, and to facilitate their implementation by interfacing with government officials, legislators, regulators, multilateral authorities, and credit rating agencies.

In recognition of the central role that credit rating agencies play in the securitization markets, and due to the number of pending legislative, regulatory and market initiatives that may reform the oversight and operations of credit rating agencies and the usage their ratings, the ASF formed an ASF Credit Rating Agency Task Force to examine the issues and pursue the development of consensus policy views and recommendations that ASF can contribute to the continuing reform debate.

SIFMA’s Diligence Committee, which brings together CRAs, 3<sup>rd</sup> party due diligence providers, underwriters, and dealers, seeks to establish detailed best practices for how the industry can ensure that data provided on underlying assets is reliable and reflects underlying financial reality.

The ESF’s Ten Transparency Initiatives is a response to the European Council of Finance Ministers’ call to enhance transparency in the securitization markets by mid-2008. This effort brings together nine European and global trade associations to address 3 primary topics: (1) the sufficiency of banks’ public disclosure of

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securitization exposures; (2) policy-makers' ability to monitor the securitization market through the publication of relevant statistical data; and (3) the information provided to investors.

The ASF's Project RESTART, drawing on the expertise of the ASF's broad membership, seeks to develop best practices and templates for the disclosure of relevant information to investors in securitized credits. While the project's initial focus has been on loan-level disclosure in RMBS, similar efforts will follow for other important asset classes, and will reach beyond the strict remit of loan-level data.

<sup>12</sup> Fitch Ratings, "US Leveraged Loan Covenant Decline Accelerating in 2007," June 20, 2007.

<sup>13</sup> Moody's Investors Service, as quoted in John Waggoner (USA Today), 2007, "Subprime woes could spill over into other sectors."

<sup>14</sup> Thomson Reuters.

<sup>15</sup> Thomson Reuters; McKinsey analysis; 2008 annualized based on monthly data through September 30, 2008.

<sup>16</sup> Non-agency RMBS has credit enhancement structured into the issue itself, while agency MBS relies on the corporate guarantee of the issuer, such as FNMA or FHLMC.

<sup>17</sup> Additional European securitization volumes have been used for ECB or Bank of England repo not included in these totals.

<sup>18</sup> Thomson Reuters.

<sup>19</sup> Ibid.

<sup>20</sup> The survey asked respondents to predict when a return to "more normal" conditions might occur, even if at lower volumes or pricing than prior to the crisis.

<sup>21</sup> The survey asked respondents to predict when a return to "more normal" conditions might occur, even if at lower volumes or pricing than prior to the crisis. When converting these answers to numerical values, the following weightings were used: 1=already returning/2008, 2=early/mid-2009, 3=end of 2009, 4=2010, 5=beyond 2010, and 6=never.

<sup>22</sup> Bloomberg as of November 24, 2008.

<sup>23</sup> McKinsey analysis of SIFMA, IMF, CNW and Thomson Reuters data.

<sup>24</sup> See Commercial Mortgage Securities Association Europe, European Association of Co-Operative Banks, European Association of Public Banks, European Banking Federation, European Savings Bank Group, ESF, International Capital Market Association, London Investment Banking Association, and SIFMA, July 2, 2008, Initiative Ten of the "Ten Industry Initiatives to Increase Transparency in the Securitisation Market."

<sup>25</sup> For more information, see <http://www.americansecuritization.com/SI>

<sup>26</sup> "Containing Systemic Risk: The Road to Reform", Report of the Counterparty Risk Management Policy Group III, August 6, 2008.

<sup>27</sup> FitchRatings, "US Leveraged Loan Covenant Decline Accelerating in 2007," June 20, 2007.

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<sup>28</sup> Ibid.

<sup>29</sup> Moody's Investors Service, as quoted in John Waggoner (USA Today), 2007, "Subprime woes could spill over into other sectors."

<sup>30</sup> Mortgage Bankers Association National Delinquency Survey (through 1Q 07); McKinsey analysis.

<sup>31</sup> Credit Suisse, "Mortgage Liquidity du Jour: Underestimated No More," March 12, 2007.

<sup>32</sup> Mortgage Bankers Association National Delinquency Survey (through 2Q 06); Fitch Ratings; Standard & Poor's.

<sup>33</sup> Policy Statement on Financial Market Developments by The President's Working Group on Financial Markets; March 13, 2008.

<sup>34</sup> Board of Governors of the Federal Reserve System, Press Release, July 14, 2008 (<http://www.federalreserve.gov/newsevents/press/bcreg/20080714a.htm>).

<sup>35</sup> "Early Payment Default – Links to Fraud and Impact on Mortgage Lenders and Investment Banks" 2007, BasePoint Analytics LLC.

<sup>36</sup> Merle Sharick, Jennifer Butts, Michelle Donahue, Nick Larson, Mortgage Asset Research Institute, March 2008, "Tenth Periodic Mortgage Fraud Case Report to the Mortgage Bankers Association".

<sup>37</sup> Federal Bureau of Investigation, "Operation Quick Flip," December 2005. (<http://www.fbi.gov/page2/dec05/operationquickflip121405.htm>).

<sup>38</sup> "Financial Crimes Report to the Public Fiscal Year 2006, October 1, 2005 – September 30, 2006", Federal Bureau of Investigation.

<sup>39</sup> Lara Jakes Jordan (Associated Press), "FBI probes IndyMac for fraud," July 16, 2008 ([http://www.presstelegram.com/news/ci\\_9900653](http://www.presstelegram.com/news/ci_9900653)).

<sup>40</sup> Thomson Reuters.

<sup>41</sup> "FSA urges firms to improve stress testing"; January 31, 2007; See <http://www.fsa.gov.uk/pages/Library/Communication/PR/2007/017.shtml>.

<sup>42</sup> Bloomberg as of November 24, 2008.

<sup>43</sup> Thomson Reuters; McKinsey analysis; 2008 annualized based on monthly data through September 30, 2008.

<sup>44</sup> Thomson Reuters.

<sup>45</sup> Dealogic; early indications are that annualized issuances for 2008 will reach nearly \$40 billion.

<sup>46</sup> Non-agency RMBS has credit enhancement structured into the issue itself, while agency MBS relies on the corporate guarantee of the issuer, such as FNMA or FHLMC.

<sup>47</sup> Thomson Reuters.

<sup>48</sup> Ibid.

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<sup>49</sup> Ibid.

<sup>50</sup> Ibid.

<sup>51</sup> Transaction priced on June 4, 2008. The deal was financed only with senior triple A notes supported by a very large equity tranche, amounting to approximately 25% of the total financing.

<sup>52</sup> Transactions priced in April (Columbus Park, Riverside Park) and early May 2008 (Tribeca Park.)

<sup>53</sup> Dealogic.

<sup>54</sup> Ibid.

<sup>55</sup> European Mortgage Federation.

<sup>56</sup> Merrill Lynch European Structured Finance Monthly Report, September 2007.

<sup>57</sup> SIFMA.

<sup>58</sup> The survey asked respondents to predict when a return to “more normal” conditions might occur, even if at lower volumes or pricing than prior to the crisis.

<sup>59</sup> The survey asked respondents to predict when a return to “more normal” conditions might occur, even if at lower volumes or pricing than prior to the crisis. When converting these answers to numerical values, the following weightings were used: 1=already returning/2008, 2=early/mid-2009, 3=end of 2009, 4=2010, 5=beyond 2010, and 6=never.

<sup>60</sup> The survey asked respondents to estimate 2010 volumes for each asset class in comparison to 2006 volumes. Projected 2010 volumes were calculated by multiplying 2006 volumes by the average of respondents’ answers, using the following weightings: “Greater than 2006” = 1.33; “About the same as in 2006” = 1.0; “Somewhat lower than in 2006” = 0.75; “Much lower than in 2006” = 0.50; “Insignificant” = 0.00.

<sup>61</sup> Respondents were asked the following question: “For each of the following [asset classes], how structurally complex do you believe securitized or structured products will be by 2010?”

<sup>62</sup> Bloomberg as of November 24, 2008.

<sup>63</sup> Bank of England October 2008 Financial Stability Report.

<sup>64</sup> McKinsey estimates based on Bloomberg and Bank of England data.

<sup>65</sup> Federal Reserve Board April 2008 Senior Loan Officer Opinion Survey on Bank Lending Practices.

<sup>66</sup> Ibid.

<sup>67</sup> In September 2008, the Financial Accounting Standards Board issued exposure drafts of proposed amendments to FAS 140 and FIN 46R, which set forth accounting standards under US GAAP for derecognizing transfers of financial assets and consolidation of special-purpose entities, respectively. Many industry participants believe that these revisions, if adopted in early 2009 for implementation in 2010 (the timetable announced by FASB), would require a large volume of current off-balance sheet securitized assets and liabilities to be moved onto financial institutions’ balance sheets, with regulatory and other implications.

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<sup>68</sup> See, e.g., Faten Sabry and Chudozie Okongwu (NERA Economic Consulting) , 2008. “Draft Study of the Benefits of Securitization to Consumers, Investors, Financial Institutions and the Capital Market.” See also Mel Jamson, S. Dewan, and C.F. Sirmans , 1990. “Measuring Welfare Effects of “Unbundling” Financial Innovations: The Case of Collateralized Mortgage Obligations.” See also Kolari, J.W., Fraser, D.R. and Anari, A., 1998. “The effects of securitization on mortgage market yields: a cointegration analysis.” See also Naranjo, A., Rich, J., Toevs, A., 2000. “The effects of purchases of mortgages and securitization by Government Sponsored Enterprises on mortgage yield spreads and volatility.” See also Hendershott, P.H. and Shilling, J., 1989. “The impact of agencies on conventional fixed-rate mortgage yields.” See also Brent W. Ambrosea, Richard J. Buttimer Jr., 2004. “GSE impact on rural mortgage markets.”

<sup>69</sup> Federal Reserve Flow of Funds.

<sup>70</sup> McKinsey analysis of SIFMA, IMF, CNW and Thomson Reuters data.

<sup>71</sup> Ibid.

<sup>72</sup> Assumes risk weights by asset class based on Basel II standardized approach, assuming all securitized products return to original loan form when put back onto the balance sheet. Also assumes a 10% tier 1+ tier 2 capital-to-asset ratio (US commercial banks’ average capital ratio from 2003-07 was 9.9%).

<sup>73</sup> Lehman Brothers Global Family of Indices, Global Aggregate Index Fact Sheet, December 31, 2007. See at [http://www.lehman.com/fi/indices/pdf/Global\\_Aggregate\\_Index.pdf](http://www.lehman.com/fi/indices/pdf/Global_Aggregate_Index.pdf). As of November 3, 2008, Lehman indices became part of Barclays Capital Indices.

<sup>74</sup> Risk management, alignment of incentives, and revisions to accounting rules / capital treatment ranked 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> at the 95% confidence interval, respectively, among the 6 options proposed.

<sup>75</sup> Differences in perceptions of the sufficiency of the information provided between asset classes were mostly significant at the 95% confidence interval, save for differences as between the different types of CDOs, where differences were generally not significant.

<sup>76</sup> Differences in responses on overall satisfaction with disclosure as between the consumer ABS and RMBS asset classes were statistically significant in all but one pairing (between Student loans –the least highly rated of the consumer ABS asset classes—and Prime RMBS –the highest-rated of the RMBS asset classes).

<sup>77</sup> For Subprime RMBS, all 4 dimensions of disclosure were below the mean for all responses on each dimension, with the difference in each case being statistically significant at the 95% confidence interval. For 144A/Private, all 4 dimensions of disclosure were also below the mean, but in none of these cases was the difference statistically significant at the 95% confidence interval.

<sup>78</sup> Maintenance was rated as below the mean of all responses for each dimension, and ease of access was slightly above, but in neither case was the difference significant at the 95% confidence interval. Both reliability and type/quantity of data were above the mean, with the difference significant at the 95% confidence interval.

<sup>79</sup> Average satisfaction with disclosure for CMBS was higher than for Prime, Subprime, and 144A/Private RMBS, with the difference significant at the 95% confidence interval.

<sup>80</sup> Joint CMSA/MBA CMBS Loan Documentation Integrity Task Force, June 2001, “Final Report and Recommendations.”

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<sup>81</sup> Disclosure for CLOs was slightly below the mean of all responses for each dimension, but the difference was not significant at the 95% confidence interval for any of the 4 dimensions.

<sup>82</sup> Average satisfaction with disclosure for CLOs was higher than for CDOs of ABS, Cash CDOs, and Synthetic CDOs, with the difference in each case significant at the 95% confidence interval.

<sup>83</sup> Average satisfaction with disclosure for CDOs of ABS, Cash CDOs, and Synthetic CDOs was lower than for all other asset classes, with the difference significant at the 95% confidence interval in all instances but one (disclosure on Synthetic CDOs was viewed as lower than for Subprime mortgages, but that difference was not significant at the 95% confidence interval.)

<sup>84</sup> The difference in average ratings received for the importance for improving “disclosure of collateral underwriting and origination practices” was statistically significant at the 95% confidence interval against all other factors, save for “confidence in valuation methodologies for individual securities”, which rated just above it.

<sup>85</sup> “Restoring confidence in the CRAs” was rated as more important than “revisions to accounting rules and capital treatment”, “better alignment of incentives between stakeholders across the securitization value chain”, and “better ability to evaluate, measure and manage risk”, with the difference being significant at the 95% confidence interval. It also rated higher than “greater price transparency and/or valuation certainty”, and just below “enhanced disclosure and standardization of information”, but those differences were not statistically significant at the 95% confidence interval.

<sup>86</sup> Statement by SEC Chairman Christopher Cox, commenting on the release of the SEC’s “Comprehensive Reforms to Bring Increased Transparency to Credit Rating Process.” See “SEC Proposes Comprehensive Reforms to Bring Increased Transparency to Credit Rating Process” at <http://www.sec.gov/news/press/2008/2008-110.htm>.

<sup>87</sup> “Greater price transparency and/or valuation certainty” rated as more important than “revisions to accounting rules and capital treatment”, “better alignment of incentives between stakeholders across the securitization value chain”, and “better ability to evaluate, measure and manage risk”, with the difference being significant at the 95% confidence interval. It rated below “restoring confidence in the CRAs” and “enhanced disclosure and standardization of information”, but those differences were not statistically significant at the 95% confidence interval.

<sup>88</sup> The difference with each of the 5 other high-level factors was significant at the 95% confidence interval.

<sup>89</sup> “Alignment of incentives at the originator level” ranked 5th amongst the 17 sub-factors evaluated, with the difference with all other sub-factors significant at the 95% confidence interval. “Alignment of incentives at the rating agency level” ranked 7th amongst the 17 sub-factors, the difference with other sub-factors being statistically significant in all cases save for the one sub-factor rated immediately above it (“standardization and simplification of documentation”) and the 4 sub-factors rated immediately below it (“public dissemination of actual trade prices for individual securities”, “improved disclosure for exposure to securitized/structured product risks”, “changes to mark-to-market accounting rules”, and “greater transparency regarding bid and ask spreads for reported trades”).

<sup>90</sup> Policy Statement on Financial Market Developments by The President’s Working Group on Financial Markets; March 13, 2008.

<sup>91</sup> “Changes to mark-to-market accounting rules”, “revisions to rules for off-balance sheet treatment of securitization vehicles”, and “revision to regulatory capital requirements for securitized products” ranked

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10th, 13th and 17th amongst the 17 sub-factors evaluated, respectively. The difference between “changes to mark-to-market accounting rules” and all other sub-factors was statistically significant at the 95% confidence interval in all cases save for the 4 sub-factors rated immediately above it: “standardization and simplification of documentation”, “aligning incentives at the rating agency level”, “public dissemination of actual trade prices for individual securities”, and “improved disclosure for exposure to securitized/structured product risks.” The difference between “revisions to rules for off-balance sheet treatment of securitization vehicles” and all other sub-factors was statistically significant at the 95% confidence interval in all cases, save against “alignment of institutional and individual incentives within firms”, which was ranked just below it. The difference between “revision to regulatory capital requirements for securitized products” was statistically significant at the 95% confidence interval against all other sub-factors.

<sup>92</sup> Value at Risk (VaR) is the maximum loss not exceeded with a given probability defined as the confidence level, over a given period of time VaR is used by securities firms to measure the market risk of their asset portfolios and has wider applications in finance for quantitative risk management for many types of risk. VaR does not, however, give any information about the severity of loss by which it is exceeded.

<sup>93</sup> CRMPG III , 2008. “Containing Systemic Risk: The Road to Reform.”

<sup>94</sup> Institute of International Finance , 2008. “Final Report on Market Best Practices: Principles of Conduct and Best Practice Recommendations.”

<sup>95</sup> International Organization of Securities Commissions, 2008. “Report of the Task Force on the Subprime Crisis.”

<sup>96</sup> International Monetary Fund , 2008. “Global Financial Stability Report –Containing Systemic Risks and Restoring Financial Soundness.”

<sup>97</sup> President’s Working Group on Financial Markets, 2008. “Policy Statement on Financial Market Developments.”

<sup>98</sup> Financial Stability Forum , 2008. “Report on Enhancing Market and Institutional Resilience.”

<sup>99</sup> Joint Forum of the Basel Committee on Banking Supervision, IOSCO and the International Association of Insurance Supervisors , 2008. “Credit Risk Transfer –Developments from 2005 to 2007.”

<sup>100</sup> Footnote the reports when ready.

<sup>101</sup> Technical Committee of the International Organization of Securities Commissions., 2008. “The Role of Credit Rating Agencies in Structured Finance Markets.”

<sup>102</sup> This report sets forth recommendations regarding various improvements and enhancements to securitization market practices. Although the report and recommendations use certain terminology that may have specific meaning and relevance in a legal and regulatory context (e.g., “disclosure” and “due diligence”), no such meaning or relevance is intended. The industry organizations responsible for the content of this report specifically disclaim any usage of or citation to this document, or to the information, analysis and recommendations set forth herein, for the purpose of evaluating the adequacy or sufficiency of any action or practice (past, present or future) by any market participant under any applicable body of law or regulation.

<sup>103</sup> Documentation relating to each initiative is included in the Report, which is available on the ESF website, [www.europansecuritisation.com](http://www.europansecuritisation.com).

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<sup>104</sup> Commercial Mortgage Securities Association Europe, European Association of Co-Operative Banks, European Association of Public Banks, European Banking Federation, European Savings Bank Group, ESF, International Capital Market Association, London Investment Banking Association, and SIFMA, July 2, 2008, “Ten Industry Initiatives to Increase Transparency in the Securitisation Market.”

<sup>105</sup> “Due diligence” as used in this report is not intended to address any legal standard, but merely to generally describe the sort of procedures that may be followed to ensure data integrity.

<sup>106</sup> Price transparency is the ability to see (1) executable levels at which securities are quoted (pre-traded transparency); and (2) actual prices at which securities traded (post-trade transparency). Valuations for the purposes of this report refer to indicative levels other than those derived via pre-trade or post-trade transparency, and that are used by counterparties for a variety of purposes, including as inputs employed in marking their own positions.

<sup>107</sup> “Impact of TRACE on the High-Yield Market”, Greenwich Associates, September 7, 2007. See also: “FINRA’s TRACE and the U.S. Corporate Bond Market”, SIFMA, September 11, 2007.

<sup>108</sup> See Commercial Mortgage Securities Association Europe, European Association of Co-Operative Banks, European Association of Public Banks, European Banking Federation, European Savings Bank Group, ESF, International Capital Market Association, London Investment Banking Association, and SIFMA, July 2, 2008, Initiative Ten of the “Ten Industry Initiatives to Increase Transparency in the Securitisation Market.”

<sup>109</sup> See <http://www.americansecuritization.com/SI>

<sup>110</sup> “Containing Systemic Risk: The Road to Reform”, Report of the Counterparty Risk Management Policy Group III, August 6, 2008.

<sup>111</sup> See initiative ten of the “Ten Industry Initiatives to Increase Transparency in the Securitisation Market”, by the Commercial Mortgage Securities Association Europe, European Association of Co-Operative Banks, European Association of Public Banks, European Banking Federation, European Savings Bank Group, ESF, International Capital Market Association, London Investment Banking Association, and SIFMA, July 2, 2008.