REPORT ON THE SUBPRIME CRISIS

FINAL REPORT



TECHNICAL COMMITTEE OF THE INTERNATIONAL ORGANIZATION OF SECURITIES

COMMISSIONS

INTRODUCTION TO THE TASK FORCE

Over the past several months, a rise in foreclosures in the subprime retail mortgage market in the United States has led to instability in global credit markets. As a consequence of these events, at the November 2007 meeting of the International Organization of Securities Commissions (IOSCO), the Technical Committee agreed to establish a Chairmen's Task Force to systematically study the subprime market turmoil and its effects on the public capital markets and make any necessary recommendations to better protect public markets from the spillover effects resulting from possible systemic problems caused by activity on private markets. The Task Force's analysis and recommendations may prove useful not to just securities regulators but to other international organizations studying the issue as well.

In conducting this study, the Task Force has reviewed the work currently being undertaken by securities regulators and other governmental bodies in a number of large markets to assess how markets have reacted to the recent events and how different regulators and market participants have responded. Because of the pivotal role that credit rating agencies (CRAs) play in how structured financial instruments are designed and marketed, the Task Force also has worked closely with the IOSCO Technical Committee's Chairmen's Task Force on Credit Rating Agencies (IOSCO CRA Task Force), and as a result, the IOSCO CRA Task Force's work on the role of CRAs in structured finance markets is incorporated into the final section of this Report. ¹

This Report is organized into five parts. The first section is a brief summary of events related to the subprime markets that may have regulatory implications for international capital markets. While it is clear that the recent market turmoil may involve important regulatory issues relating to consumer protection and even fraud at the local levels, and perhaps to bank safety and soundness at both the local and international levels, this Report focuses primarily on the regulatory implications for global capital markets as different organizations may be better situated to comment on these other aspects of the subprime market turmoil.

The second section addresses issues relating to issuer transparency and investor due diligence. A third section reviews institutional investor risk management and prudential supervision. A fourth section investigates accounting and valuation issues for structured finance products under conditions of market stress, while the fifth section incorporates findings from the IOSCO CRA Task Force's report. Each of the final four sections contains a set of recommendations regarding possible future IOSCO work.

The IOSCO Technical Committee has published the work of the IOSCO CRA Task Force, as the final report, *The Role of Credit Rating Agencies in Structured Finance Markets*, dated May 2008, available at http://www.iosco.org/library/pubdocs/pdf/IOSCOPD270.pdf.

While the Task Force consulted with IOSCO members undertaking their own analyses of recent market events, some of which involve non-public information, the Report itself primarily is based on publicly available information about these events.

I. BACKGROUND RELATING TO THE SUBPRIME MARKET TURMOIL

In June 2007, credit spreads (the premium riskier borrowers pay compared to the least risky borrowers) in some of the world's major financial markets began to increase. While the degree of this increase was comparatively minor vis-à-vis historic levels and the causes unclear at the time, the effects were significant. Several large takeovers and mergers were postponed or cancelled as were a number of new bond issuances. The iBoxx² index of credit spreads for a BBB-rated issue shifted from just under 60 basis points at the end of June to 80 basis points at the end of July. At the same time, the first wave of significant downgrades was announced by the major credit rating agencies.³ By August, it was clear that at least a large part of this new investor risk aversion stemmed from concerns about the subprime home mortgage market in the United States and questions about the degree to which many institutional investors were exposed to potential losses through their investments in residential mortgage-backed securities (RMBSs), collateralized debt obligations (CDOs) and other securitized and structured finance instruments. By the end of October, the iBoxx index of credit spreads had moved to 95 basis points for BBB-rated issues and another massive wave of downgrades was announced by the same agencies (with 3713 negative rating actions announced on October 11, 15, 17 and 19).4

In general, "subprime" retail mortgages can be characterized as loans to homebuyers who do not qualify for lower-interest mortgages. A significant number of people who did qualify for lower-interest mortgages nevertheless elected to obtain a subprime mortgage for a variety of reasons. Even though they present a higher risk of default, subprime RMBSs, asset-backed securities (ABSs) and home equity loan CDOs have proven to be popular investments among institutional investors because of the high returns they offered over the past several years. Furthermore, as the U.S. economy grew and U.S. housing prices increased (sometimes dramatically) over the past few years, actual investor losses on these products in some cases until recently were minimal. This was true even for the higher-risk mezzanine tranches on many subprime structured finance instruments.

iBoxx is an independent group of high-quality fixed income indices created using selected multiple contributor pricing sources to provide investors with a liquid and transparent benchmark for European bonds as well as publishing U.S. dollar fixed-income prices and indices.

Approximately 1150 negative rating actions were announced on July 10, 12 and 19 by the three main CRAs. Bloomberg, French AMF calculations.

⁴ Bloomberg, French AMF calculations.

Between 2000 and 2006, outstanding mortgage loan increased from US\$ 4.8 trillion to nearly US\$ 9.8 trillion, a rise of about 13 percent per year. During the same period, loans to subprime borrowers tripled. At the end of 2006, subprime loans totaled US\$ 1.17 trillion accounting for almost 12 percent of all mortgages.

The turmoil in financial markets clearly was triggered by a dramatic weakening of underwriting standards for U.S. subprime mortgages, beginning in late 2004 and extending into early 2007. The loosening of credit standards and terms in the subprime market was also symptomatic of a much broader erosion of market and regulatory discipline on the standards and terms of loans to households and businesses. According to some reports, in 2004 profit margins for some subprime lenders decreased as interest rates for subprime mortgages also decreased. To attract new business, some lenders appear to have begun to lower their lending standards at this time as a way to increase market-share. This appears to have led to competition based on lending terms rather than on interest rates with a resulting increase in the number of lower-quality subprime mortgages issued. In late 2005, delinquency rates on subprime adjustable rate mortgages began rising from less than four percent to over 10 percent in September 2007.

While originally designed to lessen investor risk through diversification such that an investor is not overly harmed by a default on a particular mortgage, under certain circumstances CDOs and other structured finance instruments appear to have actually concentrated investor risk in certain areas. By the last trimester of 2007, exactly this situation appears to have occurred: changes in expected default rates among the subprime mortgages created considerable uncertainty about the cash flow prospects of subprime RMBSs and CDOs. This uncertainty caused credit markets to tighten and by mid-August 2007 actually led to a liquidity crisis for some investors with significant positions in these securities. This liquidity crisis itself had ramifications far beyond the United States and the subprime debt markets.

How this liquidity crisis developed relates directly to how structured finance functions. As noted above, structured finance vehicles were originally designed to ameliorate the risk a particular financial firm or bank normally faced by providing long-term loans financed by short-term deposits. In turn, these vehicles would offer investors potentially better returns at lower risk through diversification. Indeed, some economists have suggested that the development of structured finance in the 1980s is partly responsible for the relative soundness of major financial institutions in the United States and other major markets through the past two global recessions and the 1997 Asian financial crisis. CDOs can extend this diversification even farther by combining together many RMBSs (each itself comprising small parts of potentially thousands of individual retail mortgages) and possibly other investment devices as well, such as credit default swaps that act as an insurance policy against credit defaults. Because CDOs are organized into "waterfall" structures, with higher-yield tranches absorbing default losses before lower-yield tranches, this diversification theoretically can be tailored according to risk preferences as well.

Some CDOs have been structured to improve potential returns by focusing on the riskier aspects of the subprime market and by using credit default swaps to insure other investors against defaults in return for premium payments. In many cases, CDOs used credit default swaps instead of actually buying mortgage-backed securities as assembling a CDO consisting of such derivatives is often quicker than assembling one only after purchasing the RMBSs. Further, by relying on leverage, investors in such CDOs could magnify potential returns, albeit at significant risk.

The subprime crisis and innovations in the financial market

Until relatively recently, certain institutional investors, such as pension funds, tended to avoid some RMBSs and similar ABSs because the risky nature of the investment and correspondingly low credit ratings violated their investment mandates. Innovations in how ABSs or CDOs are structured, however, theoretically allow even risky groupings of RMBSs and ABSs to have a relatively low-risk tranche in which some traditionally cautious institutional investors could invest. Nonetheless, some observers argue that many of these "low risk" tranches, which in many cases received very high credit ratings from prominent CRAs, are only "low risk" insofar as no systemic shock or other widespread adverse event has an effect on all assets of a given type that comprise the underlying cash flow for a CDO.

Under normal conditions, such an assumption about low risk might seem reasonable given that such an event never occurred previously and, arguably, has yet to occur. As of the date of this Report, none of the AAA and Aaa-rated tranches of the CDOs held by the major institutional investors appear to have actually defaulted, even though 45 percent of the nearly 12,000 rating changes made to CDOs from January through November 2007 affected these most senior tranches. Yet even under worst case scenarios, only a fraction of subprime mortgages that make up the underlying assets of many CDOs are expected to default. Despite these facts, CDO structures of the sort now under scrutiny are relatively new – most are too new to have performed under a full business cycle. Many are also highly leveraged, meaning that the risk some investors take when investing in these products is both concentrated and magnified vis-à-vis the actual default risk of the assets underlying them. Likewise, the widespread use of subprime mortgage-related derivatives, such as credit default swaps in place of actual securities further magnified the potential systemic risk, since it allowed firms to create any number of CDOs linked to the same underlying mortgages.

By the end of 2006, approximately 10 percent of subprime mortgages in the United States were more than 60 days delinquent or in foreclosure, nearly double the 5.4 percent of subprime mortgages in this situation in December 2005. A default on a mortgage, of course, does not necessarily translate into a complete loss for holders of RMBSs, particularly for investors in more senior tranches. Mortgages are secured loans, and even in a market with declining property values, investors will recover some losses through foreclosure. However, the combination of rising defaults and lowering property values created considerable uncertainty; investors feared

Some critics have claimed that RMBSs and RMBS-linked CDOs are riskier than other diversified investment vehicles because, while they limit the risk that an investor might incur by a single mortgage default, these investors nonetheless are vulnerable to economic shocks that may cause many mortgage borrowers to default simultaneously. However, this risk is shared by other diversified investment vehicles as well, since large economic shocks (such as a recession) can adversely affect a large number of firms in a wide range of industries simultaneously. Furthermore, historically US residential mortgages were not viewed as a making up a single market, but a series of numerous local markets to some degree insulated from each other.

AMF Research Department, "Analysis of subprime RMBS Ratings in the USA," (January 2008).

⁸ U.S. Federal Reserve data.

that widespread foreclosures could further depress property prices, creating even more uncertainty about potential CDO losses.

In August 2007, this uncertainty created a liquidity crisis among some institutional investors and hedge funds. In June 2007, several hedge funds managed by a major investment bank began to suffer severe losses because of their leveraged investments in mezzanine tranche subprime mortgage-backed CDOs. As investors began to withdraw their investments and the funds needed to repay borrowed cash, they found few buyers for these CDOs, as other investors began to question the quality of even the most highly rated of these assets. As the subprime market situation worsened, many CRAs began to downgrade many mezzanine-level CDOs and, in a few cases, the most senior-level tranches, in addition to several billion dollars worth of RMBSs.⁹ These downgrades further made investors unwilling to purchase subprime RMBSs and CDOs, even at fire-sale prices. Consequently, to repay their investors and lenders, many hedge funds and institutional investors began to sell off their holdings in more liquid, publicly traded securities. While the vast majority of these publicly traded securities were not exposed to the subprime market, these sudden sales by so many large investors at roughly the same time had the effect of lowering share prices on several of the world's larger stock markets. Even though in most cases the drops in share prices were temporary and largely unrelated to issuer fundamentals, it nonetheless further affected the performance of the firms and institutional investors exposed to the subprime market.

The uncertainty regarding the quality of CDO ratings also had spill-over effects in other areas, particularly in the market for commercial paper. Commercial paper is a short-term loan that many companies rely on to supplement their liquidity to pay for immediate expenditures. However, some firms and issuers have used Structured Investment Vehicles (SIVs) that partially invested in RMBSs and CDOs to issue this commercial paper, with the RMBSs, CDOs and other assets acting as collateral. As investors began to question the ratings assigned to certain CDOs and RMBSs, they also began to question the value of commercial paper ratings, which had an effect on issuers with little or no other exposure to the subprime mortgage market.

Complicating matters further, because subprime mortgage CDOs and other structured finance instruments tend to trade privately among institutional investors and not on the public markets, the number of potential buyers for these products is relatively small. ¹⁰ Ideally, securitization allows financial firms to shed some of the risk they face through the loans they make. However, many of the firms that securitized their subprime mortgages also control investment funds (including hedge funds) that invested heavily in these same securitized products or identical products sold by other lenders. In many cases, these firms also provided hedge funds and other

By some estimates, the largest CRAs made approximately 8,822 downgrades to subprime RMBSs and 11,892 downgrades to CDO tranches during the first 11 months of 2007, with the bulk of the RMBS downgrades occurring in July through October and the majority of CDO tranche downgrades occurring in October through November. AMF Research Department, "Analysis of subprime RMBS Ratings in the USA," January 2008.

Not all residential mortgage-backed securities and asset-backed securities are privately traded and, notably, those RMBSs and ABSs that are publicly traded and subject to public disclosure requirements appear not to have been affected by a liquidity crisis as were those privately traded.

institutional investors with the leverage they needed to take large positions in subprime mortgage CDOs – essentially selling off their risk with one hand while taking on related risk again with the other. In other cases, even though the investment funds that took large positions in subprime mortgage CDOs were off-balance sheet entities, the banks that owned the funds appear to have provided them with liquidity puts, essentially transferring the risk back to the banks under difficult market circumstances.

By March 2008, the direct and indirect spill-over effects of the subprime crisis led to a near-failure of Bear, Stearns & Co., Inc., one of the world's largest investment banks. Although Bear, Stearns held capital in excess of regulatory requirements, concerns about liquidity and Bear, Stearns' concentration in certain markets appear to have made it impossible for the firm to borrow against even high quality assets.

Poor underwriting practices in the subprime mortgage sector

A principal cause of the turmoil in financial markets appears to have been a breakdown in underwriting standards for subprime mortgages. This was most conspicuous in poor underwriting and some questionable practices in the U.S. subprime mortgage sector. Underwriting standards for U.S. adjustable-rate subprime mortgages weakened dramatically between late 2004 and early 2007. Originators had weak incentives to maintain strong underwriting standards, as did state-licensed mortgage brokers, who take loan applications and shop them to depository institutions or other lenders. An increasingly competitive environment led lenders to lower underwriting standards and offer products that lowered monthly payments, which in turn helped feed housing appreciation. As of the first quarter of 2007, commercial and retail credit underwriting standards eased for a fourth consecutive year for the largest U.S. national banks (which primarily offer prime mortgages), although large banks were beginning to tighten standards in the real estate areas in 2007. In retrospect, this reflected a breakdown of both market and regulatory mechanisms.

The easing of underwriting standards and wider use of certain loan features resulted in more loans with features that increased the risk of default and foreclosure, such as higher loan-to value ratios, piggyback loans (used to finance all or part of a down payment), adjustable interest rates, prepayment penalties, limited or no documentation of income or assets, high debt service-to-income ratio, and deferred payment of principal or interest. From essentially zero in 1993, subprime mortgages originations grew to hundreds of billions in dollars by 2005 – approximately one-fifth of total mortgage originations in that year.

Weak government oversight of these entities also contributed to the rise in unsound underwriting practices. Limited government oversight of mortgage companies not affiliated with regulated depositories, which made about half of higher-priced mortgages in 2006, contributed to a rise in unsound underwriting practices in the subprime sector, including, in some cases, fraudulent and abusive practices. Additionally, consumer protection rules and disclosure requirements did not sufficiently protect consumers against improper lending.

As competition for a share of the subprime market increased, loan covenants in the leveraged loan market were also weakened. In a range of credit market segments, business volume grew

much more quickly than did investments in the supporting infrastructure of controls and documentation.

As housing prices subsequently softened, the delinquency rate for such mortgages soared, exceeding 20 percent of the entire outstanding stock of adjustable-rate subprime mortgages in late 2007.

II. ISSUER TRANSPARENCY AND INVESTOR DUE DILIGENCE

The crisis that has shaken the subprime market in the United States demonstrates the interrelation of today's global markets. The initial triggering event appears to have stemmed from defaults on risky mortgage loans in the United States. This resulted in a chain of events affected by issues relating to liquidity and transparency.

Disclosure Regarding Structured Finance Products

Investor due diligence is a necessary component of an efficient market, and IOSCO has published principles and best practices designed to enhance the abilities of investors to make informed investment decisions by improving disclosure of relevant information by issuers of securities traded on the public markets. With respect to collective investment schemes and investors, securities regulators and exchanges often mandate a certain level of disclosure to account for the retail investor. As described in Appendix A to this Report, several jurisdictions have disclosure requirements for publicly offered RMBSs and ABSs. By contrast, in the private markets on which many structured finance products are sold, the degree of disclosure is individually negotiated by the large institutional investors for which the products are designed (i.e., investment banks, pension and mutual funds, hedge funds and other institutions) and the originators and issuers. However, despite dissimilarities between the securities offered in the public and private markets, it appears at least anecdotally there may be little difference between the level of disclosure provided by the originators and underwriters in the private and public markets.

Given the nature of structured finance products, some observers have explained the current turmoil in the subprime market by arguing that some institutional investors were misled by inadequate disclosure about these complex structured finance instruments. However, evidence for these claims varies considerably by jurisdiction, based in part on the fact that disclosure reporting requirements vary by jurisdiction; institutional investors in some markets may have demanded less information from originators and underwriters than in others.

Given that publicly reporting ABSs have been somewhat insulated from some of the market turmoil that has affected the private markets, private investors in these types of products may wish to seek disclosure similar to that used in the public markets.¹¹ Consequently, following the

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Some regulators and market participants have already begun working on initiatives aimed at improving disclosure of information provided at each stage of the securitization process regarding the risk profile of the assets underlying securitized products and the content of documentation related to structured finance primary transactions. A model disclosure document is being redesigned to cover aspects such as the

model offered by the types of disclosure mandated in the public markets, private investors in structured transactions may want issuers to provide essential information about the duties, backgrounds, experience, performance and roles of the following parties, including:

_		_
— the sponsor;		
— the issuing e	entity;	
— the servicers	s;	
— the trustees;		
— the deposito	r; and	
— the originate	ors.	
	or to accurately assess the securities, private in the following information about the transaction:	nvestors may also want to
_	f the transaction (description of the securities, of the cash-flow analysis, <i>etc.</i>)	a diagram and flow-chart
— the composi	tion of the asset pool;	
financial ass	other descriptive information regarding third sets that reach pool concentration levels or prov at or other cash flow support for the ABSs);	
•	nancial background of the transaction, such as all formulas and calculations, voting rights, it;	-
— asset underv	vriting standards and background of the offering	(underwriter, etc.);
— potential ris	ks related to the transaction and information on	credit ratings;
-	nformation (explaining performance of specific oints in time as well as distribution and pool per	•

description of the details of the short term paper, information on the issuer, on the liquidity support provided by the sponsor as well as information on the structure of the conduit. Insofar as such work improves market transparency and the stability of the financial system, the Task Force believes such efforts are laudable. (See *Appendix A*.)

— documentation and legal issues (tax matters, differences in legal or tax treatment,

disclosure of pool performance information and reporting obligations); and

— credit enhancement (information about any external and internal credit enhancement factors that are designed to affect or ensure timely payment).

To provide a better understanding of the types of requirements that different jurisdictions require of publicly traded structured finance instruments, as well as recent initiatives regarding improving disclosure of information at each stage of the securization process regarding the risks associated with assets underlying securitized products, *Appendix A* includes summaries of the relevant regulations in select IOSCO jurisdictions regarding disclosure requirements for ABSs.

Disclosure by arrangers and sponsors

The current crisis has clearly highlighted the need for pertinent information concerning arrangers and sponsors of structured finance products; when they are listed companies, public information is available. However, some information directly related to structured finance products is currently missing or not clearly reported.

In particular, information on banks' contingent liabilities and the use of special purpose vehicles (SPVs) needs to be rendered more accessible and clearer. The vehicles created for the structured financial products are designed so as to be legally independent of the originators or arrangers; however, recent events have highlighted the lack of harmonization and clarity of consolidation/deconsolidation rules that currently exist. As the SPV interacts with a number of entities, it may be difficult to determine which entity should consolidate the SPV onto its balance sheet, when it should be done and even if it is necessary. Differences exist among jurisdictions regarding the methods to consolidate as well as the interpretations regarding those methods, thus leading to potentially different accounting treatments of the similarly structured transactions.

Furthermore, when the SPVs remain deconsolidated, their existence and the information on their performance should be reflected in the notes to the financial statement of the sponsor. This information should include a description of the transaction, the nature of the relationship between the SPV and the sponsor and the context which might bring the sponsor to consolidate the assets and liabilities onto its balance sheet.

As existing disclosure requirements vary, the harmonization of methods for consolidation as well as a complete view of disclosure requirements would enhance the transparency and the quality of the transaction structuring.

Investor Due Diligence

The profile of the investors in securitization products often differs with the type and ensuing complexity of the products. Those who invest in the junior/mezzanine tranches of synthetic products most likely have a greater in-house capacity to assess the risk they are taking than those who have invested in highly rated asset-backed, short-term products. As mentioned above, the latter are very often mutual funds which have particular regulatory or contractual obligations in terms of the frequency of valuation of liquidity to respond to their redemption policy.

In addition to the information given by issuers, investors should proceed with appropriate due diligence in order to ensure that they have a clear understanding of the different characteristics of

each type of investment, in particular regarding their risk-reward profile. Since securitization vehicles have specific features, it would be most helpful to list the due diligence procedures that are expected from any asset manager wishing to invest into such vehicles. Examples of codes of conduct provide for a list of the due diligence requirements that are well-known in the asset management industry when it comes to investing in complex vehicles, as shown by the example of the due diligence process to be performed by the manager of a fund of hedge funds. Although such common standards raise enforcement issues, growing market pressure should lead to a general compliance with their rules. Such a code of conduct for investment in securitization vehicles would have to address both the risk/reward profile as well as the valuation of the vehicle to be invested in.

Transparency in the Secondary Market

The recent market turmoil involving the subprime mortgage market has involved securities and investment vehicles that for the most part are not publicly traded. As noted previously, structured finance securities that traded publicly under a regulatory regime mandating the disclosure of the types of information outlined above generally did not suffer a liquidity crisis that affected the private markets. While part of this may be a result of issuer/originator disclosure regulations, as a rule public secondary markets also tend to be more liquid than private markets, because among other things, the number of potential buyers tends to be larger and trading information tends to be more transparent. By contrast, structured finance transactions often involve securities and investment vehicles that are unique products traded among a small number of institutional investors. Consequently, the price discovery mechanisms of these products are not always as developed as might be the case with securities and debt instruments traded on a public exchange or even on an over-the-counter market with public reporting requirements.

Furthermore, as is discussed in more detail in the following sections, the relative weakness of the price discovery mechanisms in the secondary market for RMBSs and CDOs has led to accounting and valuation issues under stress conditions. This has led some commenters to suggest that the market for structured finance products should develop a secondary market trade reporting system so that buyers and sellers of these products are provided with more information regarding the frequency with which a given security trades and the most recent bid and ask prices. Such a system could be designed to capture secondary market structured finance transactions even if the transactions are entirely private. For example, certain eligible fixed income securities that trade over-the-counter in the United States are exempt from registration because they trade only among institutions; these securities nonetheless are reported under a trading system. ¹² Notably, however, this mandatory reporting does not apply to ABSs, primarily because many structured finance products, such as CDOs, are unique in structure, privately held, and actively managed, making secondary trading infrequent and arguably making the information provided about a specific trade of little value to other investors.

The reporting system is called the Trade Reporting and Compliance Engine ("TRACE") of the U.S. Financial Industry Regulatory Authority ("FINRA"). Any broker or dealer that is a member of FINRA must report the transactions pursuant to a U.S. Securities and Exchange Commission-approved set of rules.

As is discussed in more detail in Section V and the CRA Task Force's Report, The Role of Credit Rating Agencies in Structured Finance Markets, secondary market transparency appears to also have been reduced by a lack of competing analyses of many structured finance products. These competing analyses are made difficult because certain critical information concerning these products is non-public. This appears to have had the effect of both reducing the degree of analysis of these products, with a concomitant effect on market pricing mechanisms, but also may have led to a degree of "ratings shopping" by which some issuers and originators may have used competition in the market for CRA services and their own control over critical information about certain structured finance products to pressure some CRAs into providing favorable ratings for fear of losing business.

However, where this critical information is publicly available, both investors and competing CRAs can offer alternative analyses of structured finance products. These alternative analyses may lead to more effective pricing mechanisms and a more transparent secondary market. Consequently, it is the view of the Task Force that issuers and originators of structured finance products should make all relevant information regarding these products publicly available in a format which CRAs and sufficiently sophisticated investors can analyze. Where issuers and originators decline to make such information publicly available, investors should be on notice that the secondary market trading for the products in question may be less transparent and the securities more volatile under conditions of market stress.

Technical Committee Recommendations

Given that the Task Force has found that (1) the recent market turmoil had relatively less effect on publicly traded structured finance products in some markets, and (2) that secondary trading of structured finance products, for a variety of reasons, is opaque, the Task Force recommends that:

- 1. The Technical Committee's Standing Committee on Multinational Disclosure and Accounting (Standing Committee 1) will consult with market participants regarding the typical structures and disclosure practices (including disclosure practices for the risks associated with underlying assets) for private placements of ABSs using disclosure requirements pertaining to public offerings and trading of ABSs as a point of comparison.
- 2. Standing Committee 1 review the degree to which existing IOSCO issuer disclosure standards and principles are applicable to public issuance of asset-backed securities and will develop international principles regarding disclosure requirements for public offerings of asset-backed securities if it finds that existing standards and principles are inapplicable to such offerings. Standing Committee 1 will also review the degree to which existing internal controls and due diligence documentation procedures regarding the ownership rights attached to the assets underlying publicly traded securitized products protect the interests of investors in these products.
- 3. Through its Standing Committee on Investment Management (Standing Committee 5), the Technical Committee will review the degree that investment managers who offer collective investment schemes to retail investors have invested in structured products, the type of due diligence typically conducted when making these

investments, the degree to which these investment managers have been affected by the current market turmoil, and if and how investment managers may have shielded retail investors from the effects of their exposure to losses from structured finance products and any broader market implications such activity may have.

4. The Technical Committee's Standing Committee on Regulation of Secondary Markets (Standing Committee 2), together with the financial service industry, will examine the viability of a secondary market reporting system for different types of structured finance products, focusing in particular on whether the nature of structured finance products lends itself to such reporting and the costs and benefits such a system might entail.

III. FIRM RISK MANAGEMENT AND PRUDENTIAL SUPERVISION

The turmoil experienced in the mortgage-backed securities markets caused in many areas severe tests of the total risk management and control system of the major participants in the markets. As noted above, the vast majority of subprime mortgage-backed structured finance instruments, and nearly all CDOs, are bought and sold by institutional investors and dealers. Because these instruments trade privately, many jurisdictions do not directly regulate them. Nonetheless, many institutional investors that participate in this market are overseen by securities regulators or are controlled by entities overseen by securities regulators. Where these institutional investors market products or services to retail investors and customers, or otherwise participate in the public markets, securities regulators typically require these firms to have in place strong internal controls and risk management practices to protect both the financial integrity of firms and client assets.

While only preliminary conclusions are available at the time of this Report, it is clear that the types of problems that financial firms encountered as a result of recent market events vary considerably. All, however, touch directly on issues related to risk management. As outlined above, observers have raised several issues related to risk management and prudential supervision regarding firm operations during the subprime market turmoil. These issues include:

- Inadequate risk modeling and internal controls;
- Over-reliance on credit ratings;
- Inadequate balance sheet liquidity; and
- Off-balance sheet entities with liquidity puts.

These issues, and others, are discussed in greater depth by a report published by the Senior Supervisors Group (SSG) on March 6, 2008. This report, "Observations on Risk Management Practices during the Recent Market Turbulence," is discussed briefly below and the Task Force recommends that the Technical Committee monitor the SSG's work regarding securities firms and particularly its analysis of weaknesses in risk assessment and internal controls among international market participants.

Inadequate Risk Modeling and Internal Controls

By way of background, the securitization of mortgage lending has evolved to a process which unbundled various functions and distributed them to subsequent market participants, which might not all be subject to the same regulatory environment. At the core of the process, the original mortgage brokers sourced lenders and borrowers. Once the loans were booked, both brokers and lenders received a commission, with credit risk rapidly being transferred to other market participants via securitization of the loans. Consequently, while under most circumstances originators stand in the best position to analyze the credit risk of the individual loans they make, as a practical matter they appear to have a reduced incentive to do so since their risk of loss is greatly diminished when the risk is transferred to others. For similar reasons, the arrangers and sponsors of the structured finance transactions, who might otherwise be in a position to monitor the degree to which the originators conducted adequate due diligence regarding the underlying assets of a structured transaction, likewise appear to have a reduced incentive to do so given how these transactions were structured and marketed.

In addition, some institutional investors when purchasing the more complex CDOs appear to have had little understanding of the instruments or the underlying cash flow and security upon which the instruments derived their value. While these assessments are preliminary, it appears that the ability to value complex structured instruments, such as those referencing subprime mortgages, was a crucial determinant of how firms fared during the stressed market environment. Prior to the summer of 2007, it appears that many firms relied entirely on observable market trades to estimate the values of their positions in these securities. When the market for complex structured credit instruments became illiquid, some firms were forced to build essentially from scratch an alternative infrastructure for valuing such positions that was not totally dependent on observable market trades. In some cases, it took several months to develop robust processes for valuing ABSs, CDOs and other structured instruments tied to subprime mortgages by modeling the cash flows of the underlying collateral and simulating how these were allocated to different tranches.

However, many firms already had such robust and advanced processes in place, either wholly or in part by early 2007. The firms with this infrastructure frequently were able to act quickly in response to market signals that largely mitigated their losses when market conditions deteriorated. In some cases, these firms were able to reduce their market risk quickly by hedging or selling positions as it became apparent that cash flows of the underlying collateral had changed. In other cases, they acted to reduce credit risk by adjusting the terms under which they financed positions for counterparties.

Over-reliance on Credit Ratings

By August 2007, in some cases CDO liquidity evaporated almost entirely once questions were raised about the accuracy of the CDO credit ratings. This raised questions about why institutional investors had relied so heavily on CRA ratings of these securities. Indeed, it appears that a number of firms permitted CRA ratings to serve as a substitute for their own risk modeling and internal controls – in essence "outsourcing" their own internal risk management to the CRAs. This issue is discussed in more detail in Section V.

Balance Sheet Liquidity

The critical importance of balance sheet liquidity for financial institutions has become readily apparent from the turmoil in the subprime market. The events of the past year appear to indicate that meeting regulatory capital requirements is a necessary but not sufficient condition for firms to navigate periods of dramatic market stress. As the subprime market turmoil deepened, firms that were adequately capitalized according to relevant international standards in many cases still faced severe distress and even failure where the capital supporting the assets was insufficiently liquid to allow the firm to meet its obligations. The inability to obtain secured or unsecured debt financing, difficulty in obtaining funds from a subsidiary, incapability to sell assets or redeem financial instruments and outflows of cash or capital harm a firm's liquidity. These situations become difficult for firms to control as ABSs, CDOs or other structured products often do not have a liquid market. The situation is exacerbated when many firms are in the market at the same time.

This situation deteriorated when the firms could not unquestionably demonstrate this liquidity to clients and other market participants, in some cases leading to a "run" on the institution further deepening liquidity problems. Firms whose balance sheet showed significant liquidity, by contrast, were able to provide exactly this kind of demonstration, reassuring investors and other market participants and forestalling panic withdrawals.

Firms that proved more resilient during the market turmoil also appear to have actively managed their contingent liquidity needs. In some cases, this led firms to forego investments and business lines related to the subprime market because of the contingent liquidity risk they entailed. By contrast, firms that experienced greater difficulties tended to not align their treasury functions with their risk management processes, or may have based their contingency funding plans on incomplete or inaccurate information or faulty valuation practices.

In this connection, the IOSCO Technical Committee will work the Basel Committee on Banking Supervision in reviewing the management of liquidity at financial institutions.

Off-balance Sheet Entities and Liquidity Puts

As noted in the section on Issuer Transparency and Investor Due Diligence, one of the principal concerns that has arisen as a result of the subprime turmoil involves the quality of the disclosures provided by some investment banks, commercial bank holding companies and the financial guarantors about their exposures to unconsolidated conduits, SIVs or CDOs. In particular, some firms, for either contractual or reputational reasons, guaranteed liquidity for off-balance sheet entities they controlled, creating poorly disclosed obligations that neither investors nor even the firms themselves appeared to have understood. In some cases, triggers associated with the issuers' obligations were also poorly disclosed to regulators and investors, and liquidity puts factored poorly into the firms' own risk analysis.

Senior Supervisor Review of Risk Management Issues at CSEs and Banking Institutions

In late 2007, regulators from seven financial supervisory agencies formed the SSG to investigate risk practices among eleven major international investment banks. As part of its review, the SSG interviewed the senior managers of the eleven major firms to learn their perspectives on what risk management practices worked or did not work in light of the subprime and broader credit market problems. In November 2007, the SSG met with senior management at selected organizations and discussed a range of issues that focused on three areas: the role of senior management oversight, liquidity risk management practices and market and credit risk management practices. The discussions also encompassed stress testing practices.

By analyzing the results of these systematic discussions and using information otherwise available to principal supervisors, SSG members are now coordinating their observations of those risk management practices that differentiated firms' performance over this period of stress. The SSG report, "Observations on Risk Management Practices during the Recent Market Turbulence," was issued on March 6, 2008. 13

Technical Committee Recommendations

Given that the Task Force has found that many institutional investors and investment banking firms (1) had inadequate risk modeling and internal controls in place to understand and address the risks they were assuming when buying many types of structured finance products, (2) relied heavily (or even exclusively) on external credit ratings for their risk analysis, (3) had inadequate balance sheet liquidity even when adequately capitalized, and (4) given the work of the SSG on analyzing these issues, the Task Force recommends that:

- 1. The Technical Committee's Standing Committee on Regulation of Market Intermediaries (Standing Committee 3) will monitor the work and review any report of the SSG and determine whether further work is warranted by IOSCO.
- 2. Standing Committee 3 will survey members' experience on liquidity risk management and liquidity standards to assist and supplement the work being undertaken jointly with the Basel Committee on Banking Supervision.
- 3. Standing Committees 3 and 5 will undertake a study of the internal control systems of financial firms, including asset managers, in different IOSCO jurisdictions and develop principles to address any concerns identified.
- 4. The Technical Committee will ask originators and sponsors of securitization programs to develop best practices to reinforce their due diligence and risk management practices such that the quality of assets originated for transfer off their balance sheets is of the same quality and subject to the same evaluations as for those kept on their balance sheet. This work will be reviewed by Standing

See http://www.sec.gov/news/press/2008/report030608.pdf.

- Committee 3, which will report to the Technical Committee on its opinion of adequacy of these best practices.
- 5. Standing Committee 1 or a Chairs Task Force will consider whether additional guidance and disclosure relating to off-balance sheet entities would be valuable in meeting the needs of investors. Standing Committee 1 would provide such input to the IASB in conjunction with its accelerated work in this area during 2008-2009.

IV. VALUATION

As the recent market turmoil unfolded, issues relating to asset valuation and accounting treatment also became increasingly important. As discussed below, while valuation and accounting are conceptually separate issues from risk management and internal controls, firms with stronger risk management systems and more robust internal controls also appeared better able to address the valuation and accounting issues that arose. Furthermore, in the case of both valuation and accounting, the core issue for regulators is whether the current approach — mark-to-market valuation and fair value accounting — is sufficient to the tasks to which they are put, or whether, as some critics have suggested, better alternatives exist.

Accounting and Valuation

Central to the accounting issues involved in the recent market turmoil is the role of fair value accounting and how both U.S. Generally Accepted Accounting Principles (U.S. GAAP) and International Financial Reporting Standards (IFRS) treat investments in structured finance products on the books of a financial firm. As is described in more detail below, fair value accounting requires that assets be valued at their current market prices (rather than at, for example, the price the firm originally paid for the assets). Some critics of fair value accounting have noted, however, their view that under conditions of severely limited liquidity in the secondary markets, mark-to-market valuation can be difficult. Even where possible, these critics charge, valuation models that require marking to severely depressed asset prices can exacerbate risk aversion in the market and contribute to a pro-cyclical worsening of a market crisis as investors flee financial firms holding these depressed assets. In contrast, it is important to note that a number of investors have indicated that they believe fair value accounting is appropriate for these types of assets and results in companies providing information that is beneficial to investors in the current market.

The outcome the critics charge, though, is determined by how financial firms account for the securities (including structured finance products) they hold. Under most conditions, the securities that a firm holds that are available for sale are recorded on their books with changes in fair value recorded in equity. However, if these assets are impaired – as was the case for many firms holding structured finance products – these impairment losses must then be recorded in the firm's profit and loss statements in accordance with their fair values. In most cases under recent market conditions, such accounting would result in a sizable reduction in the firm's profitability. This was also the case for the fair value adjustments to securities held for trading purposes, as the periodic changes in those fair values are recorded in profit and loss.

The accounting standards that discuss this accounting treatment for subprime lending as well as securities issued by CDOs and other securitization structures have been around for several years. 14 While quoted market prices are considered to be the easiest to obtain and most reliable, U.S. GAAP and IFRS provide for reasonable estimates of fair value to be made when quoted market prices are not available. Recent accounting standards under U.S. GAAP (e.g., FAS 157)¹⁵ require disclosure based on the observability of the inputs used for valuation commonly known as the "Fair Value Hierarchy," such that quoted market prices are considered Level 1 inputs and unobservable inputs are considered Level 3 inputs. Historically, it appears that because these structured finance securities were liquid under most market conditions, quoted market prices for such securities were generally available and used for measurement purposes in U.S. GAAP and IFRS; that is, Level 1 fair value (for U.S. GAAP). The need for performing independent valuation using other techniques based on either observable or unobservable inputs (Level 2 and Level 3 methodologies in U.S. GAAP) was not as prevalent prior to the market turmoil because of the availability of quoted market prices. Level 2 and Level 3 and the corresponding IFRS methodologies (IAS 39) require valuation and modeling expertise, including knowledge of the market to gather observable inputs, to permit a firm to analyze the cash flow of CDOs and other structured finance securities.

Some have indicated that most firms holding impaired assets in the form of structured finance products would prefer to account for these assets in a manner similar to the equity method of accounting. However, when asking whether fair value accounting generally presents a procyclical systemic problem for the financial system, regulators must first analyze what valuation and financial accounting methods are designed to achieve.

Broadly speaking, accounting principles are designed to provide investors with an understanding of the overall financial position and performance of the firm. In this sense, internal firm valuation and external financial reporting accounting can be seen as offering critical information to two different sets of interested parties: on one hand, to the firms themselves and to regulators interested in the stability of the firm itself; and to investors, interested in the firm's performance. Ultimately, in both instances, valuation methodologies and accounting principles exist to benefit investors.

Calibration of Valuation

How market intermediaries and investment firms value the assets they hold has important implications for a number of regulatory and risk management issues. As market turmoil

FAS 115, Accounting for Certain Investments in Debt and Equity Securities was issued in May 1993 and IAS 39, Financial Instruments: Recognition and Measurement, was issued in March 1999. FAS 125, Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities, replaced by FAS 140 in June 1996.

The IASB is in the process of discussing a standard similar to FAS 157, Fair Value Measurement and has issued a discussion paper. Current guidance in IFRS related to fair value accounting exists in various different standards including IAS 39. They are currently conducting a standard-by-standard review to determine if the use of "fair value" as defined is appropriate in each Standard. The IASB expects to issue a fair value standard in 2010.

increased, many firms attempted to value their financial assets using a mark-to-market valuation, which refers to assigning fair value¹⁶ to positions, portfolio or exposures at a particular point in time. For trading desks, the importance of daily mark-to-market valuation is fundamental, and position and portfolio values change constantly. Derivative assets can quickly become liabilities and vice versa. With a continuous valuation and revaluation of a portfolio, a trader and firm know whether they make or lose money and then act accordingly (for instance, by increasing a position, unwinding a trade or creating a hedge). Mark-to-market valuation also informs counterparty credit risk exposures and supports margining processes. The alternatives to daily mark-to-market valuation (*e.g.*, using historical cost accounting) are frequently insufficient because they do not provide real-time, actionable feedback upon which traders and senior managers can rely.

Given the importance placed on mark-to-market valuation, controls related to the valuation process are essential. One of the principal controls is the verification by independent personnel of valuations assigned by a firm's trading personnel. However, as market turmoil increased in late summer 2007, many firms found it increasingly difficult to independently verify inventory valuations because of illiquid market conditions. Consequently, market participants have become more reliant on modeled prices as opposed to independent third party pricing services and/or transactions. Several firms have revised their valuation procedures to consider more broadly observable market information by looking to trades in the derivative markets, which include single name credit default swaps and subprime mortgage-related index trades in credit default swaps to assist in the calibration of valuations.

For prudential capital purposes and/or for financial reporting purposes, financial firms with investments in structured finance securities report an investment in an asset at fair value, even if there is not an active trading market for the asset. The market turmoil since August 2007 has indicated, however, that there was not a uniform level of skill, experience and alternative planning in place at many firms in undertaking these measurements for use in stress situations where a current, active trading market was unavailable. Given that taking such measurements can be time consuming, especially for capital requirement purposes, and require specific skill-sets, it became very difficult for many firms to educate themselves on these processes and draw up such emergency alternative valuation plans while the crisis itself was underway.

Firms that undertook such steps were able to enhance their valuation procedures. The most successful steps to date appear to have included:

— Ensuring that firm processes and procedures are aligned with current market conditions, and that these policies and procedures with respect to valuation contemplate the possibility of illiquid markets and include alternative pricing methodologies using modeled inputs and the calibration of valuations against trades

Fair value is represented as an exit price, as evidenced by a source exogenous to the firm. For example, fair values of exchange-traded securities and derivatives obtain their value from quoted prices in the market. OTC derivatives such as swaps, options or forwards, however, are valued using models that employ the net present value of estimated future cash flows and prices observed from other derivatives.

or trade information gleaned from activity in similar securities or the derivative markets.

- Having adequate staffing and sufficiently qualified personnel with the knowledge, experience and capability to assess the valuation of the securities that they are charged to review;
- Implementing standards to document support for inventory valuations and valuation of collateral, including retention of records that may be used to determine value and provide the necessary audit trail and transparency that may prove essential to understand the valuation of the securities. Such records may include inputs to models, cash flow analyses and a description of third party valuation sources;
- Mechanisms to ensure consistency of pricing of the same securities in inventory and held as collateral;
- Maintaining internal database to serve as an internal repository for security position information, including periodic valuations, in order to obtain consistency among various inventory trading accounts and collateral valuations; and,
- Adhering to procedures related to the independent verification of valuations, collateral management and margin practices.

Technical Committee Recommendations

Given that the Task Force has found that (1) concerns have been raised regarding the role fair value accounting principles have played in providing investors and regulators with adequate information about the strength of financial firms facing illiquid market conditions, and (2) that some financial firms appear to have inadequate human and technological resources to model their financial positions using fair value accounting principles under illiquid market conditions, the Task Force recommends that:

- 1. Standing Committee 1 or a Technical Committee Chairs Task Force will consider whether additional guidance and disclosure related to measurement at fair value would be valuable in meeting the needs of investors. Standing Committee 1 would provide such input to the IASB in conjunction with its accelerated work in this area during 2008-2009.
- 2. Through Standing Committees 3 and 5, the Technical Committee will explore whether, as a matter of internal control, registered intermediaries and investment advisers avail themselves of practitioners who are skilled or trained enough to model fair valuation adequately in illiquid market conditions.

V. CREDIT RATING AGENCIES

The following section summarizes the findings and conclusions of the Technical Committee's CRA Task Force report, *The Role of Credit Rating Agencies in Structured Finance Markets*. While the recommendations described below are drawn from that report, the Technical Committee's reasons for these recommendations are explained more thoroughly in that report.

As noted in the CRA Task Force's report on the activities of CRAs, credit rating agencies play an important role in most modern capital markets. The *Report on the Activities of Credit Rating Agencies* notes that CRAs assess the credit risk of corporate and government borrowers and issuers of fixed-income securities by analyzing relevant information available regarding the issuer or borrower, its market, and its economic circumstances. ¹⁷ The information processed by the CRA, while generally available to the public for most publicly issued debt securities, may be costly and time-consuming to collect and analyze. Moreover, some CRAs also may obtain non-public information from borrowers and issuers as part of the rating process. The conclusion derived from this analysis is reflected in a credit rating, which communicates the CRA's opinion as to the likelihood that the borrower or issuer will meet its contractual, financial obligations as they become due. The CRAs stress that the credit rating is not a recommendation to buy or sell a security and does not address other risks associated with owning securities such as liquidity, market and volatility risk.

Rating structured finance securities

The CRAs first issued ratings for mortgage-backed securities in the mid-1970s. In subsequent years, they began rating other types of ABSs, including those collateralized by credit card receivables, auto loans, student loans and equipment leases. CRAs began rating cash CDOs in the late 1990s and synthetic CDOs in the early part of this decade.

As with corporate debt securities, many investors require that a structured finance debt security be rated by a CRA before they will purchase it. However, not all structured finance products are rated by CRAs. Indeed, for many particularly complicated or risky CDOs, credit ratings are unusual. Further, some issuers create structured products specifically for a particular investor that does not require a credit rating because it relies solely on internal analytics to assess the credit risk of the security.

CRAs employ varying methodologies to rate structured finance debt securities but generally they focus on the type of collateral underlying the security and the proposed capital structure of the issuer trust. One difference from the rating process for corporate issuers is that much of the information the CRA relies on in rating a structured finance product is not publicly available.

A sponsor typically initiates the RMBS rating process by sending the CRA data on a pool of loans and the proposed capital structure of the trust. The CRA assigns a lead analyst who will be

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Report on the Activities of Credit Rating Agencies, IOSCO Technical Committee, September 2003, available at: http://www.iosco.org/library/pubdocs/pdf/IOSCOPD153.pdf (IOSCO 2003 CRA Report), at p.1.

responsible for analyzing the loan pool and proposed capital structure of the trust and formulating ratings recommendations for a rating committee. The analyst first develops predictions based on models and other factors as to how many of the loans in the collateral pool would be expected to default under stresses of varying severity. This analysis also includes assumptions as to how much principal would be recovered after a defaulted loan is foreclosed.

The purpose of this loss analysis is to determine how much credit enhancement a given tranche security would need to get a particular credit rating. For example, the severest stress is run to determine the credit enhancement required for a AAA rating. This test might result in an output that predicted that under the "worst case" scenario 40 percent of the assets in the collateral pool would default and that after default the trust would only recover 50 percent of the principal amount of each loan in foreclosure. Consequently, to get a AAA rating, a trust security collateralized by the pool would need a credit enhancement level of at least 20 percent (40 percent of loans default x 50 percent recovery at default). Put another way, the tranches below AAA would need to be sized such that they could incur a 20 percent loss in the aggregate principal of the collateral pool before any loss would be allocated to the AAA tranche. The next severest scenario is run to determine the amount of credit enhancement required of the AA tranche and so on down the capital structure. The lowest tranche (typically BB or B) is analyzed under a benign market scenario. Consequently, its required level of credit enhancement – the trust equity – is the amount of loss expected absent any macroeconomic stress. Some CRAs have the analyst bring the credit enhancement requirements to a "loss committee" that will approve the assumptions before the analyst continues with further ratings analysis

After determining the level of credit enhancement required for each credit rating category, the analyst will check the proposed capital structure of the RMBS against these requirements. For example, if the senior level required 20 percent credit enhancement to receive a AAA rating but only would have 18 percent under the proposed structure, the analyst will let the sponsor know that the senior class would only receive a AA rating. The sponsor then could accept that determination and have the trust issue the securities with the proposed capital structure or the sponsor could adjust the structure to provide the requisite credit enhancement for the senior tranche to get the AAA rating (*e.g.*, shift 2 percent of the principal amount of the senior tranche to a lower tranche). Alternatively, the sponsor could choose to not hire the CRA and instead have another CRA rate the security, in which case the sponsor may or may not (depending on the engagement contract) pay the initial CRA a "break-up fee."

After the structure is settled on by the sponsor, the analyst will perform a cash flow analysis on the interest and principal expected to be received by the trust from the collateral pool to determine whether it will be sufficient to pay the interest and principal due on each tranche of the trust. The analyst also will review the legal documentation for the transaction to verify, among other things, that the subordination structure of the trust as documented is consistent with the structure as proposed by the sponsor. If the cash flow is sufficient and the legal documentation in order, the analyst develops a recommendation for a final credit rating for each tranche. The analyst then brings these recommendations to a ratings committee that either approves them or

adjusts them. ¹⁸ The CRA then notifies the sponsor of the final ratings decisions. The sponsor decides whether or not to have the credit rating issued and made public, and the CRA typically only is paid if the credit rating is issued – though, as noted previously, sometimes the CRA receives a breakup fee if the credit rating is not issued.

As with corporate ratings, after a CRA issues an initial rating for a RMBS, it generally will continue to monitor the rating. With corporate ratings, this continued monitoring can be important because factors influencing an issuer's chances of default (e.g., economic circumstances, success of product lines, etc.) can change; with RMBSs, these changing factors may include changes to the composition of the security itself (e.g., some mortgages may be removed from the security and replaced by others if they are paid off early). Some CRAs use separate surveillance teams with different analysts and committee members than those who provided the initial rating, in order to provide a new perspective and avoid possible issues that may arise as a result of the original committee members feeling obligated to stand by their original ratings.

Reliance on CRA Ratings

In practice, many structured finance transactions are more complex than the simple structure outlined above. In order to better tailor the risk profile of the resulting securities, tranches may be combined with swaps or other financial devices. Because these securities are predicated on complex legal structures (to place them ahead of or behind other potential creditors), involve complex financial devices (such as swaps or derivatives), and/or comprise possibly thousands of individual underlying assets about which very little public information is available (such as retail mortgages), structured financial products are often viewed as less transparent and far more complicated than corporate debt instruments. Furthermore, because these products usually are only bought and sold by institutional investors, many jurisdictions require less investor disclosure than might be required for publicly traded securities.

However, this popular view that structured finance debt securities are inordinately complex vis-à-vis traditional bonds is not entirely accurate, at least from a ratings perspective. Even the most complex synthetic CDOs and other structured finance products theoretically involve underlying cash flow projections which can be quantitatively modeled. By contrast, ratings of corporate bond issuers frequently involve difficult-to-quantify factors such as market competition, the success or failure of new products and markets, and managerial competence. On the other hand, because so little information about these structured finance products is publicly available, "unsolicited" ratings of most CDOs are very rare, and even a CRA that is provided information to form a prospective assessment is unlikely to issue a public rating of the product if it is not hired by the investment bank since the final composition of the tranches may vary by the time the security is issued. While sophisticated institutional investors often have the capability to

Not all CRAs use rating committees. While the larger CRAs use rating committees when assigning credit ratings, some critics argue that these committees do not necessarily ensure the quality of credit ratings and that their composition, expertise and the procedures they follow may vary considerably from CRA to CRA and even within CRAs, from market to market. Some critics also argue that CRAs that use rating committees should document the discussions of these committees for either regulatory or public review.

analyze the risk comprising the tranches of a CDO, doing so can be time consuming even where risk modeling is almost entirely automated.

A credit rating, then, is occasionally viewed as not only a CRA's opinion of the loss characteristics of the security, but also as a seal of approval. This perception is not entirely without merit given that a CRA rating of a structured financial product is qualitatively different from a corporate bond rating based on an issuer's past financial statements because, in a structured finance transaction, the CRA provides the investment bank with input into how a given rating can be achieved (*i.e.*, through credit enhancements). However, this perception raises regulatory concerns because CRAs do not generally confirm the validity of the underlying data provided to them. Indeed, some CRAs use quantitative models that rely entirely on publicly available information or quantitative information provided by the originator or even a third party.

The CRAs stress to investors that their ratings are assessments of the creditworthiness of an obligor or debt security and not assessments as to the level of liquidity, market or volatility risk associated with a debt security. Nonetheless, with respect to structured products, particularly CDOs collateralized by RMBSs, many investors appear to have relied heavily or solely on the credit ratings of the CRAs. This may be due to several factors including the quantitative challenge of analyzing correlation risk within a portfolio of loans – which such difficulty is compounded when considering a CDO composed of a portfolio of RMBS each composed of a portfolio of loans. In addition, the secondary market for these securities was relatively inactive. Further, there was limited historical performance data on some of the types of loans underlying the RMBS (e.g., second lien loans). Thus, the investor and CRA models used to predict future performance relied on relatively thin data sets. Finally, because many structured finance products are relatively new, there appears to be no universally understood valuation method and price discovery mechanism in the secondary market, as there is in more mature markets. Consequently, in some cases credit ratings appear to have taken on greater import for institutional investors than they might in most other debt markets.

All of these factors may have contributed in some fashion to a situation where some investors inappropriately relied on CRA credit ratings as their sole method of assessing the risk of holding these securities. Consequently, when the quality of the CRAs' ratings became questioned due to the inordinate number of RMBS and CDO downgrades, some investors were left with no independent means of assessing the risk of these securities. This in turn caused the market for the securities to dislocate.

Notably, many financial regulators also rely on CRA ratings for regulatory purposes, and certain CRAs can be considered External Credit Assessment Institutions (ECAI) under the provisions of the Basel II Accord.

Ongoing Regulatory Issues

The role CRAs play in structured financial transactions raises a number of possible regulatory issues, some of which touch on sections of the of Conduct Fundamentals for Credit Rating Agencies. ¹⁹ Among these are:

- CRA transparency and market perceptions;
- Independence and avoidance of conflicts of interest; and,
- CRA competition and the interaction this competition may have on CRA independence.

Transparency and Market Perceptions

Partly as a result of the IOSCO CRA Code of Conduct the larger CRAs publish considerable information about their rating methodologies. These rating methodologies are transparent enough that financial institutions involved in frequent structured finance transactions can usually anticipate the level of credit enhancement necessary at each tranche to obtain a desired credit rating.

Nonetheless, while the methodologies may be transparent to those investors with the analytical capability to understand and evaluate them, some market observers suggest that some CRAs do not publish verifiable and easily comparable historical performance data regarding their ratings. While the IOSCO CRA Code of Conduct encourages CRAs to publish historical performance data, there are complaints that this data is not readily comparable. CRAs argue that developing a common metric to evaluate the performance of their ratings is not practical or desirable given the differing methodologies they employ.

A second concern is the failure by some investors to recognize the limitations on CRA rating methodologies for structured finance securities. These methodologies rely on models, which, like most financial analytical tools, assume a certain degree of inductive continuity between the past and the future or between assets that are similar to each other. However, economic and financial environments change and the financial history of the past several decades demonstrates that a confluence of events and practices that has never happened before can nonetheless occur. Arguably, this has happened recently with the subprime market turmoil and there have been suggestions that CRAs have been slow to modify either their methodologies or the assumptions used in their methodologies despite rapid market changes. There have also been suggestions that some CRAs do not adequately disclose the assumptions they used when rating these structured finance products.

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Code of Conduct Fundamentals for Credit Rating Agencies, IOSCO Technical Committee, December 2004, available at: http://www.iosco.org/library/pubdocs/pdf/IOSCOPD180.pdf. (IOSCO CRA Code of Conduct)

A further concern is that some investors may take too much comfort in CRA historical performance statistics for structured finance securities. For example, statistics regarding long-term default rates do not necessarily provide information about short-term default probabilities. The same data might indicate a steady default probability over time, or a very low trend punctuated by occasional default "hiccups."

The subprime turmoil has also highlighted another common misperception that credit risk is the same as liquidity risk. Historically, securities receiving the highest credit ratings (for example, AAA or Aaa) were also very liquid – regardless of market events, there could almost always be found a buyer and a seller for such securities, even if not necessarily at the most favorable prices. Likewise, prices for the most highly rated securities historically have not been very volatile when compared with lower-rated securities. Indeed, in some jurisdictions regulations regarding capital adequacy requirements for financial firms implicitly assume that debt securities with high credit ratings are both very liquid and experience low volatility. However, the links between low default rates, low volatility and high liquidity are not logical necessities. Particularly with respect to certain highly-rated, though thinly-traded subprime RMBS and CDOs, a high credit rating has not been indicative of high liquidity and low market volatility.

Given the differences in the amount of historical data available regarding "traditional" debt instruments such as corporate and municipal bonds versus structured finance products, there have been suggestions from some observers that CRAs should consider using a separate system of symbols when opining on the default risk and loss characteristics of a structured product. In theory, separate rating symbols might make it easier for investors to recognize that structured products may be more volatile and less liquid under stress conditions than more traditional debt instruments might be. Separate symbols may also put investors on notice that the structured products being rated may involve the CRA having access to different types of information and using different types of methodologies than they might for a "plain vanilla" corporate bond. Others, however, argue that a separate system of symbols may be confusing to investors and other market participants, since theoretically default risks for structured finance products are not different than they are for other types of debt instruments. Furthermore, a separate set of symbols for structured finance products may give investors the impression that CRAs are, indeed, opining on the volatility and liquidity risks of traditional products when, in fact, they are not.²⁰ Nonetheless, given the common misperceptions that appear to exist regarding what CRA ratings do, the CRA Task Force recommends that CRAs study the efficacy and desirability of such an approach.

In addition, one of the criticisms of the CRAs with respect to subprime RMBS and CDOs is that they were slow to review and, if necessary, downgrade existing credit ratings. The CRAs

As noted above, some observers believe that the volatility and liquidity issues related to recent CRA downgrades of structured finance products are the result of the inadequacy of widely agreed upon alternative market mechanisms for valuing these products. Consequently, when investors lost confidence in the opinions of CRAs regarding these products, this thinly-traded market experienced volatility and liquidity shocks since other price-discovery mechanisms were immature or non-existent. By contrast, "traditional" bonds trade more widely and more transparently, and with far more developed price discovery mechanisms in place. As a result, a sudden loss of confidence in CRA ratings may not have the same effects on liquidity, in particular, that occurred in the market for structured finance products.

respond to such criticism by noting that their ratings are intended to be long-term views and that to avoid ratings volatility they need to respond carefully to market developments in order to avoid reacting to events that are momentary anomalies rather than trends. Nonetheless, the potential exists that a CRA may be reluctant to review an initial rating, particularly if the analysts responsible for the rating also are responsible for monitoring it. Accordingly, CRAs should take steps that are designed to ensure that the decision making process for reviewing and potentially downgrading an initial rating of a structured finance security is conducted in an objective manner which could include separating the initial rating function from the monitoring function, or other suitable means. The CRA Task Force notes that a discussion paper drafted by a group of the larger CRAs proposes (among other things) that the participating CRAs will use such separate surveillance teams as a matter of course.²¹

By contrast, other critics claim that some CRAs very quickly downgraded certain structured finance products that had only recently been issued by an originator and rated by the CRA. Since some structured finance products are actively managed, the reasons for such rapid downgrades may vary. The CRA Task Force believes rapid downgrades of this sort should be explained by a CRA to avoid harm to its reputation, since a pattern of such rapid downgrades may lead investors to question the quality of its initial ratings of these products. Nonetheless, as indicated in IOSCO CRA Code of Conduct provision 1.9(b), the CRA Task Force believes that a CRA should not hesitate to review a rating if it becomes aware of new information that might reasonably be expected to result in a rating action, according to the applicable methodology.

Finally, some observers have noted that when CRAs make changes to a rating methodology, it is not always clear whether a given rating was given under the new methodology or under the older approach.

Independence and Avoidance of Conflicts of Interest

Many observers cite the conflicts of interest inherent in the credit rating industry as a source of concern. The most common conflict noted is that many of the CRAs receive most of their revenue from the issuers that they rate. The fear is that where a CRA receives revenue from an issuer, the CRA may be inclined to downplay the credit risk the issuer poses in order to retain the issuer's business. The IOSCO CRA Code of Conduct contains several provisions designed to mitigate and manage this inherent conflict of interest.²²

A frequent claim in the aftermath of the subprime market turmoil is that this conflict of interest is even more acute where structured finance transactions are being rated, given the volume of deals and corresponding rating business attributable to particular financial institutions. As with "traditional" ratings, the CRAs that rate these transactions usually receive the bulk of their revenue from the issuer of the securities (or the investment bank underwriting the arrangement).

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Discussion Paper about Measures to Enhance the Independence, Quality and Transparency of Credit Ratings, , circulated by A.M. Best Company, Inc.; DBRS Limited; Fitch, Inc.; Moody's Investors Service, Inc.; and Standard & Poor's Ratings Services, December 2007.

See IOSCO CRA Code of Conduct, provisions 2.1-2.16.

While market sector data for most CRAs is not available, there is evidence to indicate that the growth of the CDO market over the past several years has made structured finance ratings one of the fastest growing income streams for the major CRAs. This creates a risk that the CRAs will be less inclined to use appropriately conservative assumptions in their ratings methodologies in order to maintain transaction flow.

An additional concern is that CRAs are doing more than rating structured finance securities, namely: advising issuers on how to design the trust structures. In the corporate area, CRAs will provide a "private rating" based on a pro forma credit assessment of the impact of a potential transaction (*e.g.*, merger, asset purchase) on the company's credit rating. In the IOSCO CRA Code, a CRA is encouraged to "separate, operationally and legally, its credit rating business and CRA analysts from any other businesses of the CRA, including consulting businesses that may present a conflict of interest."²³ Furthermore:

The CRA should ensure that ancillary business operations which do not necessarily present conflicts of interest with the CRA's rating business have in place procedures and mechanisms designed to minimize the likelihood that conflicts of interest will arise.²⁴

The serious question that has arisen is whether the current process for rating structured finance involves advice that is, in fact, an ancillary business operation which necessarily presents a conflict of interest. Conversely, while some observers believe that the structured finance rating process does not necessarily pose an inherent conflict of interest vis-à-vis the CRA's rating business more generally, the further question is whether a CRA has sufficient controls in place to minimize the likelihood that conflicts of interest will arise.

Competition

A final regulatory issue that may have undermined the integrity of the rating process for structured financial transactions is the lack of competition in the CRA industry in the United States and elsewhere. While the IOSCO 2003 CRA Report noted that CRAs were not extensively regulated in most IOSCO jurisdictions and those regulations that did exist are not onerous for new entrants, since that time, some jurisdictions have introduced new regulations regarding CRAs with, at this point, unknown effects on CRA industry competition. Perhaps more importantly, as the IOSCO 2003 CRA Report notes, some observers believe the nature of the CRA "market" may make it difficult for new CRA entrants to succeed, regardless of any regulatory barriers to entry (or lack thereof). According to this view, issuers desire ratings from only those CRAs respected by investors. On the other hand, investors respect only those CRAs with a reputation for accuracy and timeliness in issuing credit ratings. Establishing such a reputation can take considerable time and resources. Furthermore, some observers have suggested that issuers may prefer to retain, and investors may prefer to use the opinions of, CRAs that a government regulator or agency also uses. Where government CRA recognition criteria are based on how extensively a CRA's opinions are used by issuers and investors, such a

See IOSCO CRA Code of Conduct, provision 2.5.

²⁴ *Id*.

situation obviously discriminates against new entrants. Moreover, to the extent that regulatory recognition is based on reliance by the market, and market reliance is influenced by regulatory recognition, the cycle of discrimination is perpetual.

Implicit in the discussions about competition and barriers to entry in the CRA industry is the understandable concern that such lack of competition (1) may have a detrimental effect on the development of new CRA methodologies, and (2) may result in oligopolistic or monopolistic pricing by the dominant CRAs, and (3) may effect ratings quality by inhibiting innovation. Where "traditional" debt securities are involved, the structure of the CRA industry makes these concerns seem quite credible. Some data indicates that the largest three CRAs (Moody's Investment Services, Standard & Poor's, Inc. and Fitch, Inc.) collectively comprise approximately 85 percent of the CRA market. For most traditional debt securities, investors typically have expected that an issuer provide at least two ratings from the larger CRAs, with anecdotal evidence indicating that some investors now expect three such ratings as "younger" CRAs have become more prominent in the CRA industry.

While problematic for issuers because of the limited degree of competition in the CRA industry, these tacit investor requirements may have several beneficial effects from an investor perspective. By effectively mandating that an issuer seek opinions from a relatively small group of CRAs, these investor requirements make it difficult for an issuer to pressure a CRA into providing a favorable rating or else risk losing its business or losing access to critical issuer information. As discussed in the Technical Committee's Report on Securities Analyst Conflicts of Interest, precisely this type of situation led some securities research analysts to avoid downgrading powerful issuers and, in some jurisdictions, led to prohibitions on issuers providing nonpublic information to only favored analysts. Likewise, unsolicited ratings, while controversial, nonetheless are possible and frequently expected of smaller CRAs and may provide a degree of protection against "blackballing" by issuers dissatisfied by a CRA's rating opinions.

As discussed previously, however, structured finance transactions are inherently less transparent and unsolicited ratings for many structured finance products may be difficult. Investment banks and structured finance issuers frequently ask CRAs to provide prospective assessments on CDO tranches before deciding upon which CRA to hire, arguably engaging in "rating shopping" in doing so. It is conceivable, therefore, that CRA competition and the lack of transparency typical in structured finance transactions may combine to undermine the integrity of the credit rating process for these products. Supporting this view are news reports that some CRAs very rapidly

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Report on Securities Analyst Conflicts of Interest (IOSCO Technical Committee, 2003), p. 10 (accessible via the Internet at: http://www.iosco.org/library/pubdocs/pdf/IOSCOPD152.pdf).

See, e.g., U.S. SEC Final Rule: Selective Disclosure and Insider Trading (accessible via the Internet at: http://www.sec.gov/rules/final/33-7881.htm). See also IOSCO Statement of Principles for Addressing Sell-Side Securities Analyst Conflicts of Interest, Principle 5 ("The undue influence of issuers, institutional investors and other outside parties upon analysts should be eliminated or managed....The IOSCO Technical Committee believes the following are core measures to eliminate or manage the undue influence of outside parties: ...Prohibiting issuers from selectively disclosing material information to one analyst and not other analysts, except as specifically permitted by law or regulations"), accessible via the Internet at: http://www.iosco.org/library/pubdocs/pdf/IOSCOPD150.pdf.

lost market share in the market for rating commercial mortgage back securities (CMBSs) by requiring more conservative assumptions following instability in the RMBS market.

Recommendations

Given the role CRAs play in rating structured finance transactions as highlighted by recent turmoil in this market sector, the CRA Task Force recommend modifying the IOSCO CRA Code of Conduct. The Technical Committee adopted the following recommendations, and the IOSCO CRA Code of Conduct has been modified accordingly. The CRA Task Force notes that the IOSCO CRA Code of Conduct provides a mechanism for a CRA to explain why a particular provision is not being complied with.

Quality and Integrity of the Rating Process

The IOSCO CRA Code of Conduct section 1 has been modified such that:

- 1. A CRA should take steps that are designed to ensure that the decision-making process for reviewing and potentially downgrading a current rating of a structured finance product is conducted in an objective manner. This could include the use of separate analytical teams for determining initial ratings and for subsequent monitoring of structured finance products, or other suitable means. If separate teams are used, each team should have the requisite level of expertise and resources to perform their respective functions in a timely manner. Subsequent monitoring should incorporate subsequent experience obtained. Changes in ratings criteria and assumptions should be applied where appropriate to subsequent ratings.
- 2. CRAs establish and implement a rigorous and formal review function responsible for periodically reviewing the methodologies and models and significant changes to the methodologies and models it uses. Where feasible and appropriate for the size and scope of its credit rating services, this function should be independent of the business lines that are principally responsible for rating various classes of issuers and obligations.
- 3. CRAs should adopt reasonable measures so that the information it uses is of sufficient quality to support a credible rating. If the rating involves a type of financial product with limited historical data upon which to base a rating, the CRA should make clear, in a prominent place, the limitations of the rating.
- 4. CRAs should ensure that the CRA employees that make up their rating committees (where used) have appropriate knowledge and experience in developing a rating opinion for the relevant type of credit.
- 5. CRAs should establish a new products review function made up of one or more senior managers with appropriate experience to review the feasibility of providing a credit rating for a type of structure that is materially different from the structures the CRA currently rates.

- 6. CRAs should assess whether existing methodologies and models for determining credit ratings of structured products are appropriate when the risk characteristics of the assets underlying a structured product change materially. In cases where the complexity or structure of a new type of structured product or the lack of robust data about the assets underlying the structured product raise serious questions as to whether the CRA can determine a credible credit rating for the security, the CRA should refrain from issuing a credit rating.
- 7. A CRA should prohibit CRA analysts from making proposals or recommendations regarding the design of structured finance products that the CRA rates.
- 8. CRAs should ensure that adequate resources are allocated to monitoring and updating its ratings.

CRA Independence and Avoidance of Conflicts of Interest

The IOSCO CRA Code of Conduct section 2 has been modified such that:

- 9. A CRA should establish policies and procedures for reviewing the past work of analysts that leave the employ of the CRA and join an issuer that the analyst has rated, or a financial firm with which an analyst has had significant dealings as an employee of the CRA.
- 10. A CRA should conduct formal and periodic reviews of remuneration policies and practices for CRA analysts to ensure that these policies and practices do not compromise the objectivity of the CRA's rating process.
- 11. A CRA should disclose whether any one issuer, originator, arranger, subscriber or other client and its affiliates make up more than 10 percent of the CRA's annual revenue.
- 12. To discourage "ratings shopping" by allowing for the development of alternative analyses of structured finance products, CRAs as an industry should encourage structured finance issuers and originators of structured finance products to publicly disclose all relevant information regarding these products so that investors and other CRAs can conduct their own analyses of structured finance products independently of the CRA contracted by the issuers and/or originators to provide a rating. CRAs should disclose in their rating announcements whether the issuer of a structured finance product has informed it that it is publicly disclosing all relevant information about the product being rated or if the information remains non-public.
- 13. A CRA should define what it considers and does not consider to be an ancillary business and why.

CRA Responsibilities to the Investing Public and Issuers

The IOSCO CRA Code of Conduct section 3 has been modified such that:

- 14. A CRA should assist investors in developing a greater understanding of what a credit rating is, and the limits to which credit ratings can be put to use vis-à-vis a particular type of financial product that the CRA rates. A CRA should clearly indicate the attributes and limitations of each credit opinion, and the limits to which it verifies information provided to it by the issuer or originator of a rated security.
- 15. A CRA should publish verifiable, quantifiable historical information about the performance of its rating opinions, organized and structured, and, where possible, standardized in such a way to assist investors in drawing performance comparisons between different CRAs.
- 16. Where a CRA rates a structured finance product, it should provide investors and/or subscribers (depending on the CRA's business model) with sufficient information about its loss and cash-flow analysis so that an investor allowed to invest in the product can understand the basis for the CRA's rating. A CRA should disclose the degree to which it analyzes how sensitive a rating of a structured financial product is to changes in the CRA's underlying rating assumptions.
- 17. A CRA should differentiate ratings of structured finance products from other ratings, preferably through different rating symbols. A CRA should clearly define a given rating symbol and apply it in the same manner for all types of products to which that symbol is assigned.
- 18. A CRA should disclose the principal methodology or methodology version in use in determining a rating.

Disclosure of the Code of Conduct and Communication with Market Participants

The IOSCO CRA Code of Conduct section 4 has been modified such that:

19. A CRA should publish in a prominent position on its home webpage links to (1) the CRA's code of conduct; (2) a description of the methodologies it uses; and (3) information about the CRA's historic performance data.

APPENDIX A

ASSET-BACKED SECURITIES DISCLOSURE REGIME IN CANADIAN REGULATION

Summary

Asset-backed securities in Canada can be distributed pursuant to a prospectus or in reliance on a prospectus exemption. In a prospectus offering, Canadian securities law mandates specific disclosure regarding the attributes of the asset-backed securities and the underlying pool of assets, among other things. ABCP, a type of asset-backed security, is sold solely on a prospectus-exempt basis in Canada.

No disclosure is required in order to rely on the prospectus exemptions that are typically employed in connection with an issuance of asset-backed securities. Any disclosure provided to investors in such circumstances is provided on a voluntary basis in accordance with market practice or custom. Accordingly, disclosure that is provided to investors in the context of an offering of asset-backed securities may vary significantly depending on whether a prospectus is filed to qualify the securities.

Prospectus Offerings of Asset-Backed Securities

If asset-backed securities are qualified for distribution by a prospectus, Canadian securities law mandates certain disclosure which are substantially similar whether the securities are issued pursuant to a long form prospectus (pursuant to Form 41-101F1) or a short form prospectus (pursuant to Form 44-101F1). The following is a description of the required disclosure:

A description of the material attributes and characteristics of the asset-backed securities such as (i) the rate of interest and any premium, (ii) the date for repayment of principal including circumstances where repayment may occur prior to such date and any events that may trigger early liquidation or amortization of the underlying assets, (iii) provisions for the accumulation of cash flows to provide for the repayment of principal, (iv) provisions permitting or restricting the issuance of additional securities or other material negative covenants, (v) the nature, order and priority of the entitlements of holders of asset-backed securities to receive cash flows generated from the underlying assets, (vi) events or covenants that may impact timing or amount of payments or distributions to be made under the asset-backed securities.

Information on the underlying pool of financial assets for the same period of time for which an issuer is required to include financial statements in a prospectus such as (i) the composition of the pool of assets, (ii) income and losses from the pool on an annual basis or a shorter period if reasonable depending on the nature of the assets, (iii) the payment, prepayment and collection experience of the pool, (iv) servicing and other administrative fees, and (v) any variances in the above-referenced items.

The types of financial assets, the manner in which the assets originated and, if applicable, the mechanism and terms of the agreement governing the transfer of the financial assets comprising

the underlying pool to or through the issuer, including the consideration paid for the financial assets.

Any person who (i) originated, sold or deposited a material portion of the financial assets comprising the pool, (ii) acts as trustee, custodian or agent of the issuer or any holder of the asset-backed securities, (iii) in certain circumstances, administers or services a material portion of the financial assets or provides administrative services to the issuer, (iv) provides a guarantee or other credit support to support the obligations of the issuer or the performance of some or all of the financial assets, or (v) lends to the issuer to facilitate payment or repayment of amounts payable under the asset-backed securities (any such person being referred to as a "Responsible Person").

The general business activities and material responsibilities under the asset-backed securities of any Responsible Person.

The terms of any material relationship between a Responsible Person and the issuer.

Any provisions relating to the termination of services or responsibilities of a Responsible Person and the terms on which a replacement may be appointed.

Any risk factors associated with the asset-backed securities including disclosure of material risks associated with changes in interest rates or prepayment levels, and any circumstances where payments on the asset-backed securities could be impaired or disrupted as a result of any reasonably foreseeable event that may delay, divert or disrupt the cash flows dedicated to service the asset-backed securities.

Issuances of Asset-Backed Securities on a Prospectus Exempt Basis

Asset-backed securities can be issued in reliance on various prospectus exemptions. ABCP is issued in reliance on the exemption in section 2.35 [Short-term debt] of CSA National Instrument 45-106 Prospectus and Registration Exemptions. The prospectus exemptions used to issue ABS do not trigger any form of disclosure document to be provided to investors. Accordingly, to the extent that disclosure is provided to investors, it is done voluntarily by the issuer in response to market expectations or as a matter of market practice.

Typically, disclosure consists of a brief information memorandum that is provided to investors. This document is usually 10 to 20 pages in length and includes basic information regarding the issuer and sponsor as well as basic information about the security (similar to the information outlined in (A) above) such as the interest rate, date of repayment, the dealers distributing the security and details of any guarantee of payments.

This document is considered to be more of a marketing document than a disclosure document and is typically prepared upon the inception of the investment vehicle, and not updated. Accordingly, the document may be several years old when it is provided to investors. As such, the document contains a more limited description of the underlying pool of assets than would be provided in the prospectus context discussed in (B) and (C) above.

The document may include a brief description of the nature of assets that the vehicle may acquire but would not likely extend to disclosing specific details. For example, a document might state that the assets of a trust issuing asset-backed securities is expected to be composed of 50 percent automobile leases, 25 percent credit card receivables and 25 percent mortgage receivables. The disclosure would not likely extend to the auto manufacturers underlying the leases. Historical information such as the performance of the specific underlying assets is not likely to be provided.

However, the issuer may provide investors with publicly available industry-wide performance data for certain classes of assets.

ASSET BACKED SECURITIES DISCLOSURE REGIME IN ITALY

Law no. 130/1999 as subsequently amended (hereinafter Securitization Law - SL) applies to securitization transactions involving assignment for consideration of existing or future monetary receivables, where those receivables are homogeneous in the case of multiple claims, and where: (i) the assignee or the issuer complies with the provisions described below; and (ii) the sums paid by the assigned debtor(s) are applied by the assignee exclusively to satisfy rights attaching to securities issued by it or another company to finance the acquisition of such receivables and the costs of the transaction. It mostly applies to ABS and to covered bonds (i.e.: bonds collateralized by a segregated pool of assets).

The instrument issued under the SL (mostly ABS) are to be considered as financial instruments and as such they are subject to the provisions of Legislative Decree no. 58/1998 as subsequently amended (hereinafter Consolidated Law on Finance - CLF) and relevant Consob's regulations.

To the extent that they are not inconsistent with special rules, the provisions of the SL apply also to:

- securitisation transactions effected by way of the granting of a loan to the assignor by the company issuing the notes in connection with the securitisation transaction; and
- assignments of claims to investment funds relating to the CLF.

When transactions are effected by way of the granting of a loan, references to the 'assignor' and the 'assignee' shall be deemed to be references to the 'borrower' and the 'lender', respectively.

The issuer/SPV

The assignee company or, where different from the assignee company, the company issuing the securities (hereinafter the SPV) shall have as its sole corporate object the undertaking of one or more securitisation transactions.

The SPV must also comply with certain provisions contained in Legislative Decree no. 385/93 as subsequently amended (hereinafter Consolidated Law on Banking - CLB) applicable to financial institutions different from banks and investment firms. Namely, shareholders and directors must satisfy certain good repute and experience requirements, similar to those of banks. Information on the transactions undertaken for the purpose of securitisation must be submitted to the Bank of Italy.

The principle of asset segregation is also applicable to the SPV. The law expressly provides that the claims relating to each transaction constitute assets segregated for all purposes from the assets of the company and from assets relating to other transactions. No creditor other than the holders of the securities issued to finance the acquisition of the claims themselves shall be able to commence proceedings in relation to each asset pool.

In case of insolvency of the SPV, the securitised assets are ring-fenced for the benefit of the holders of the ABS and the other parties involved (if applicable, a trustee, a liquidity provider, a swap counter-party, or a credit enhancer). The terms for the exercise of the claw-back actions are reduced to six and three months and no such action can apply to payments made by the assigned debtors.

Placement and distribution

Offer to institutional investors

SL provides that where the ABS are offered to professional investors the issuer must prepare a memorandum containing the following information:

- the assignor, the assignee company and a description of the transaction, both as regards the claims and the securities issued to finance the transaction;
- the persons responsible for managing the issue and the placement of the securities;
- the persons responsible for the recovery of the assigned claims and the cash flow and payment services;
- the conditions upon which the assignee company may assign the purchased claims for the benefit of the holders of the securities;
- the conditions upon which the assignee company may reinvest in other financial activities the amounts arising from the management of the assigned claims which are not immediately used to satisfy the obligations arising in connection with the securities;
- any secondary finance transactions entered into in the context of the securitisation transaction;
- the minimum essential content of the securities issued and details of the publication of the information memorandum which shall be adequate to make it easily available to holders of securities:
- the costs of the transaction and the terms upon which the assignee company may deduct the same from sums paid to it by the assigned debtor or debtors, as well as details of the forecast in relation to the transaction and the identity of the person receiving the same; and
- any shareholding relationship between the assignor and the assignee company.

- Offer to persons different from institutional investors/offer to the public

The offer is subject to the obligation of publishing a full prospectus and to all the provisions provided for in the CLF on the distribution of financial instruments to the public.

Moreover, in cases where the securities are offered to non-professional investors the securitisation transactions are subject to credit rating issued by qualified third parties which satisfy the criteria established by Consob under the Regulation on the ABS Credit Rating.

Such regulation (no. 12175/1999) provides for experience criteria and independence criteria. The entities issuing the rating should be constituted as a company or a partnership, they should employ adequate resources and staff; persons which contribute to the elaboration of the rating should gave an experience in this activity of at least three years in managerial function. The credit rating agencies must adopt evaluation procedures which are predetermine and in line with relevant international standards. Credit rating agencies operating in the European markets for at least three years should be considered as fulfilling the above-mentioned criteria.

Moreover Consob established that the entities issuing the credit rating must not be controlling or controlled by, or affiliated or connected to any of the persons which participates at any title to the securitization; the prospectus must disclose any ownership participation between the above persons; the natural persons actually issuing the rating shall satisfy certain experience requirements.

ASSET-BACKED SECURITIES REGULATION IN JAPAN

The following is a brief summary of regulations and initiative in Japan with regard to information provided to investors of asset backed securities (hereinafter "ABS" as more generic term), including RMBS, CMBS, CDO and the like²⁷. Please note that the following is not comprehensive list and other regulatory requirements may be required depending upon characteristics of the financial products.

1. REGULATORY REQUIREMENTS

(1) SECURITIES REGULATION: PUBLIC OFFERING

- i) Pursuant to the Financial Instruments and Exchange Act (kinyu-shohintorihiki-ho) (Law No 102.of 2007) and the Cabinet Office Ordinance for Disclosure of Specific Securities (tokuteiyukashoken-no-naiyoto-no-kaiji-ni-kansuru-naikakufurei) (Regulation No.22 of 1993), the issuer of specific securities²⁸ is required to publicly disclose details of the securities such as the status of its underlying assets, not only at their offering (the registration statement) but also on an ongoing basis (the periodical reports) every 6 months.
- ii) Examples of mandatory disclosure items²⁹
 - Summary of legal environments surrounding the managed assets
 - Characteristics of the managed assets
 - History of the managed assets
 - Management system of the managed assets
 - Related parties of the managed assets
 - Basic stance on management and disposition of the managed assets
 - Summary on the underwriters' business

Please note that the "ABS" in this document is not legal definition.

Specific Securities mean securities designated by Cabinet Order as those for which information that will have material influence on investor's investment decisions is information on assets investment or other similar business conducted by the issuer of the securities on assets investment or other similar business conducted by the issuer of the securities (Article 5 of the Financial Instruments and Exchange Act, Article 2-13 of Cabinet Order for Enactment).

See Form 5-2 of the Cabinet Office Ordinance for Disclosure of Specific Securities.

- Asset class of the underlying assets
- Collection method from the underlying assets
- Management of managed asset, managing fee, credit enhancement, etc.
- Restriction of trades with stakeholders, if any
- Status of loss and delinquency
- Risks on investment
- Historical profit status
- Accounting on managed assets (Status of major asset, status of profit/loss, procedure of cash-inflow/outflow etc.)
- iii) A prospectus, containing the items listed above, is required to be delivered to investors before or at the timing of the sales of the securities. However, the requirement is lifted when such sales are made 1) for institutional investors or 2) for investors who hold the same securities, the requirement is exempted and the delivery of the prospectus is required only upon requests by the investors.
- iv) In addition, extraordinary report should be submitted in cases where specified by the Financial Instruments and Exchange Act and the Cabinet Office Ordinance for Disclosure of Specific Securities as necessary or appropriate for the public interest or protection of investors.
- v) Since beneficial interest of a trust (excluding those to be indicated in securities) are generally exempted from disclosure requirements as described above, ABS in the form of beneficial interest of trust are exempted from the disclosure requirements³⁰ and are only subject to the following restrictions of conduct.

(2) SECURITIES REGULATION: RESTRICTION OF CONDUCT

- i) As for the restrictions on conduct of dealers, the dealers are required to deliver to customers, before signing the sales contract, a sales document which states a summary of the financial product and identifies specific risks inherent within the product for the volatilities of the interest rate, currency, stock market index, etc.
- ii) Trust contracts are required to provide detailed information as is stated in the following list. However, the information required more limited than that required in the registration

Article 2 (2) (i) of the Financial and Exchange Law.

documents and periodical reports. Besides, those regulations are applied only for the timing of sales contract, and periodical disclosure is not mandatory (under the FIEA for ABS scheme not deemed as investment management business).

- Types of trust asset, term of trust, management or disposal of trust asset, delivery of the trust asset
- Issues on evaluation of trust asset by the third parties in the creation of the trust, etc.
- Rights and obligation of the beneficial interest
- Loss risk of the beneficial interest
- iii) On April 2nd, 2008, The Financial Services Agency (FSA) has added new supervisory checkpoints for ensuring traceability of the securitized products to the Guidelines for Financial Instruments Business Supervision. This new checkpoints cover the primary and secondary market of securitized products.

Securitized products often have complex structures, involving various parties in the process of its structuring and sales. The risks of securitized products are not always clear to investors, as information and risks of the underlying assets may not be communicated appropriately since multiple parties' participate in the structuring of underlying assets, structuring of securitized product, and sales of securitized products which may sometimes be via a secondary distributor.

While securitized products are mainly traded among professional investors (institutional investors) making disclosure obligations inapplicable, due to the systemic concerns, there is a need to be able to communicate the below items when required.

Further, even when a securities company is only involved in an intermediary role, so long as they communicate with investors, it is recommended that they cooperate with investors so far as practically possible.

- 1. Prior to sales, carry out internal analysis of the underlying assets' contents and risk to enable the provision of appropriate information when required.
- 2. When selling securitised products, internal procedures and rules exist so that internal analysis of underlying assets' contents and risk, and liquidity risk not reflected in the rating is communicated internally. Merely depending on ratings is inappropriate when selling the product.
- 3. Ensuring that internal procedures and rules exist so as to enable information of the underlying assets' contents and risk to be available to customers/investors when requested.
- 4. Ensuring that even when the market value of the product is difficult to ascertain, procedures exist so as to enable smooth provision of information on the theoretical price

and valuation when requested. Further, procedures should exist so that the valuation process is not abused by the providers of information for a specific purpose that would benefit certain parties.

Based on the Guidelines, the FSA will supervise if the financial instruments firms (Distributors) properly carry out the collection, risk valuation, and disclosure of information of underlying assets and other risk factors of securitized products even when they are traded privately (among securities companies and institutional investors).

iv) Moreover, there is a voluntary self-restriction rule by the self-regulatory organization, Japan Securities Dealers Association (JSDA), which additionally requires to provide information upon requests by investors as on a best effort basis. This rule is stipulated in a generic wording as follows.

"For private offerings, members should endeavor to explain to clients and other members, the information on the issuer and the security, in ways such as delivering documents which contains information on issuer or securities provided by the issuer. When members make selling/purchasing of private bonds, members should endeavor to explain information on the issuer and the security to clients and other members in ways such as providing documents to the client or other members upon request, which includes such information (including legislative public information) if the issuers promises as such accordingly in contract."

(3) BANKING REGULATION

As part of the Basel II implementation process, the FSA requires the disclosure of the following information by rating agencies regarding the securitization exposures for their credit ratings to be eligible under the Basel II framework in Japan.

- 1. General information
 - i) Rating criteria
 - ii) Rating transition matrix
- 2. Transaction-specific information
 - i) Name of transaction
 - ii) Rating
 - iii) Issue amount
 - iv) Currency

- v) Type of underlying assets
- vi) Subordination ratio
- vii) Date of issue or month of issue
- viii) Date of statutory maturity or month of statutory maturity
- ix) Coupon type (fixed/floating)
- x) Interest rate
- xi) Report by External Credit Assessment Institutions (ECAIs) stating the outline of securitisation scheme etc.
- xii) Reasons for rating actions

(4) OTHER REGULATIONS UNDER SPECIFIC LAWS

Followings are major legal requirements to provide information to investors, other than those described above.

1) Trust Act

The Trust Act (shintaku-ho)(Law No. 108 of 2006)³¹ stipulates following requirement.

The trustees are obliged to provide annual reports to beneficiaries through balance sheet and profit/loss statement and other legal documents/electronic records.

The entrusters/beneficiaries could require to the trustees the information on the status of trustee's business, asset/debt.

2) Trust Business Act

The trust company is subject to the Trust Business Act (*shintaku-gyo-ho*) (Law No. 154 of 2004). The trust business act stipulates following requirements.

In case that ABS is structured in the form of financial product issued by trustee, related parties should be subject to the Trust Act.

Trust business company, unless otherwise prescribed by regulations, provide trust asset status report to the beneficiaries every trust calculation period.

3) Act on Liquidation of Asset

Act on Liquidation of Asset (*shisan-ryudoka-ni-kansuru-horitsu*) (Law No. 105 of 1998) stipulates following requirements³².

Pursuance to the Act, TMK has legal requirement to inform investors of the summary information which is necessary for to identify the price of the asset. The balance sheet, profit/loss statement and other financial statements should be kept for 5 years at its head office for review by its member and creditors.

2. VOLUNTARY PRIVATE INITIATIVE FOR DISCLOSURE

JSDA, together with originator, arrangers, investors, and the regulator, has established "Working Group for Sales of the Securitized Products" and is making efforts to establish distributor's rules and a standardized format of disclosure of securitized products.

JSDA, monthly issue a report on securitization market based upon information provided by recommended format of disclosure items.

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In case that ABS is structured in the form of financial product issued by Tokutei Mokuteki Kaisha (TMK) prescribed in Act on Liquidation of Asset, related parties should subject to the Act on Liquidation of Asset.

REGULATION AND DISCLOSURE REQUIREMENTS FOR ASSET BACKED SECURITIES IN MEXICO

The most important Institutional Investors in Mexico, such as pension funds, mutual funds and insurance companies, can only invest in securities that are publicly offered and registered before the Mexican National Banking and Securities Commission (CNBV). These types of investors are the main acquirers of Asset Backed Securities (ABS), and therefore, almost all of these securities are registered with the Commission, placed through a public offer and comply with the filing requirements established by the CNBV.

At this time, our rules do not establish specific disclosure requirements for ABS securities; they only distinguish between debt (plain vanilla and guaranteed) and equity. There are only some additional disclosure items required to be included in the prospectus of ABS securities. Therefore, the public information available for ABS is not standardized, particularly in the case of periodic fillings.

We are currently drafting a regulation in which explicit disclosure requirements will be required from ABS. This new regulation will set the specific information to be included in ABS filings, including prospectus; annual and quarterly reports; and in some cases, like in the securitization of mortgages, detailed monthly reports on the behavior of the underlying assets. It will also include a definition of material events that have to be disclosed immediately in the case of price sensitive information.

Under the new rules, there will be specific responsibilities for all the participants in an ABS transaction, including the underwriter, the trustee, the originator, the servicer, and the auditor, and will also include detailed disclosure requirements regarding the performance and characteristics of the assets being securitized, such as information about payment, delinquency, non-performing assets, default, prepayment, legal proceedings, specific ratios, classification of the assets and relevant changes in the portfolio.

Likewise, these rules will require the disclosure of information about the experience; responsibilities and abilities of the servicer to properly perform its duties under the servicing agreement; detailed financial information of the trust; credit enhancements; material related parties transactions between participants; and information about payments to bondholders.

The new regulation for ABS is currently under consultation with participants of the industry and we expect to send it for public consultation during the next month and issue the final rules by the end of the second quarter of 2008.

ASSET-BACKED SECURITIES DISCLOSURE REQUIREMENTS FOR THE ISSUER IN THE UNITED STATES

The SEC issued Regulation AB to provide a comprehensive set of rules and amendments regarding the registration, disclosure, communications and reporting requirements for asset-backed securities ("ABSs"). Release No. 33–8518 (January 5, 2005). Regulation AB constitutes a codification of twenty years of guidance and practice in the regulation of asset-backed securities with the intention of providing enhanced transparency through disclosure appropriate for ABSs.

Regulation AB uses a principles-based approach, which permits flexibility concerning its applicability to a variety of asset types.

Definition:

The definition of ABS is:

a security that is primarily serviced by the cash flows of a discrete pool of receivables or other financial assets, either fixed or revolving, that by their terms convert into cash within a finite time period, plus any rights or other assets designed to assure the servicing or timely distributions of proceeds to the security holders; provided that in the case of financial assets that are leases, those assets may convert to cash partially by the cash proceeds from the disposition of the physical property underlying such leases. 17 $CFR\ 229.1101(c)(1)$.

Regulation AB also requires, among other conditions, that neither the depositor nor the issuing entity be an investment company under the Investment Company Act of 1940 nor will become one as a result of the ABS transaction and that the issuing entity for the ABSs be limited to passively owning a pool of assets and issuing the asset-backed securities supported or serviced by those assets. Regulation AB also imposes restrictions regarding delinquent and nonperforming assets, lease-backed securities and residual values and excludes synthetic securitizations.

Registration and Disclosure:

Filers must register ABSs on one of two forms: Form S-3, for offerings via a shelf registration statement, or Form S-1, for all other offerings.

The instructions to Form S-3 require that each registration statement include a base prospectus and a separate form of prospectus supplement for each asset class that may be securitized in a discrete pool. The rules also include a similar requirement for takedowns involving separate jurisdictions (*i.e.*, each country from where assets originated or where property securing the assets is located). The rules provide that a depositor may not file a shelf registration statement unless all issuing entities established by that depositor or any affiliate thereof has complied with periodic reporting requirements under the Exchange Act for the preceding twelve calendar months with respect to ABSs backed by the same asset class. *17 CFR 239.13*.

Regulation AB also provides that ABS informational and computational material may be incorporated by reference. For example, static pool information provides the performance for specific kinds of assets originated at varying points in time and can provide the investor with trends otherwise unavailable from portfolio data. The static pool data is required for delinquency, loss and prepayment history of a sponsor's portfolio for the past five years that is material to the kind of asset being securitized.

Regulation AB requires disclosure about all of the classes of securities being issued by the trust and the material risks involved. Extensive disclosure is required regarding the asset pool, the sponsors, the servicers, the trustee, the originators and significant obligors. Offering documents must also include details regarding the structure of the transaction, credit enhancements, derivative instruments and tax matters.

Communications:

Issuers and underwriters under Regulation AB have the ability to distribute a variety of written materials to investors prior to availability of a prospectus. The offering reform rules permit publication or distribution by issuers of regularly released factual business information, free writing prospectuses (not only ABS informational and computational material but most information) at any time after filing of a registration statement (with conditions) and detailed information in offering notices. The requirement that a final prospectus be delivered may be satisfied without physical or electronic delivery by filing the prospectus with the SEC and notifying the investor that the securities were sold pursuant to a registration statement.

Reporting Requirements:

On annual reports:

- each servicer states that it has fulfilled its servicing agreement obligations;
- each party participating in the servicing function performs an assessment of compliance with the servicing criteria;
- each servicing party makes an assertion regarding compliance with the servicing criteria;
- accountants' attestation reports evaluate each servicing party's assertion; and
- the person signing the annual report makes a Sarbanes-Oxley 302 certification.

ABS issuers file periodic reports on Form 10-D. The timing of the reports coincides with the payment of the coupon on the security, which typically coincides with the payments on the underlying loans in the pool. Thus, RMBS Forms 10-D are typically required monthly. The Form 10-D discloses material information regarding distributions during the period and the composition of the asset pool. ABS issuers are also required to provide current reports for material or significant events (Form 8-K).

Private Offerings:

The foregoing explanation addresses the requirements that apply to publicly issued ABSs. Another option to public offerings is the market for private offerings. The private offering market is competitive and provides a means to raise capital for issuers who want to avail themselves to an ABS structure. Certain ABS offerings, namely CDOs and asset-backed commercial paper, are almost always offered privately rather than publicly issued. Originators can securitize their assets in private offerings under Regulation D, Rule 144A and Regulation S offerings.

Asset-backed securities and other fixed-income securities where ratings are needed or desired are frequently sold as part of institutional private offerings to qualified institutional buyers pursuant to Rule 144A of the Securities Act, to institutional accredited investors (*i.e.*, investors who are accredited investors under Rule 501 of Regulation D of the Securities Act) pursuant Section 4(2) and in offshore transactions pursuant to Regulation S under the Securities Act. Registered broker-dealers act as the initial purchasers or agents in these offerings. The principal securities firms that act as initial purchasers or agents already have relationships with most qualified institutional buyers who invest in these types of offerings. The initial purchasers or agents may also market these securities to their customers who qualify as institutional accredited investors.

The issuers of these securities prepare extensive private offering memoranda for potential investors. Given the complex nature of asset-backed securities, the involvement of the rating agencies is critical to investor acceptance, even among sophisticated institutional investors. The issuers and the initial purchasers or agents meet with potential investors or provide potential investors with access to road shows in which such investors can view a presentation by representatives of the issuer.

Foreign:

Regulation AB does not contemplate a different registration, disclosure or reporting system for foreign ABSs but sets forth a single regime for both U.S.-issued and foreign-issued ABSs. ABSs offered by foreign issuers or backed by non-U.S. assets (including credit support provided by a foreign entity) are registered on the same forms as domestic ABSs, including shelf offerings on Form S-3. Nevertheless, specific additional disclosures for foreign ABSs are generally provided for investors to reflect current international standards of disclosure in the private market for cross-border ABS deals. 17 CFR 229.1100(e). Such offerings are subject to the same disclosure requirements as U.S. offerings, with the added requirement that the registration statement must adequately describe relevant economic, monetary, legal and other factors that could affect payments to security holders. Note that the EU Prospectus Directive does not have an exemption for offers made by U.S.-based special purpose entities, rather one must look for alternative exemptions based on qualified investors, the number of people and minimum consideration. EU Prospectus Directive 2003/71/EC of the European Parliament and of the Council.

APPENDIX B CHAIRMEN'S TASK FORCE ON THE SUBPRIME CRISIS

Chairmen: Chairman Michel Prada

Autorité des marchés financiers (France)

Chairman Christopher Cox

Securities and Exchange Commission (United States)

Australian Securities and Investments Commission Chairman Tony D'Aloisio

(Australia)

Banking, Finance and Insurance Commission Chairman Eddy Wymeersch

(Belgium)

Comissão de Valores Mobiliários (Brazil) Chairman Maria Helena Santana

Autorité des marchés financiers (France) Chairman Michel Prada

Bundesanstalt für Finanzdienstleistungsaufsicht President Jochen Sanio

(Germany)

Securities and Futures Commission (Hong Kong)

Chief Executive Officer Martin

Wheatley

Commissione Nazionale per le Società e la Borsa Chairman Lamberto Cardia

(Italy)

Financial Supervisory Agency (Japan) Deputy Commissioner Junichi

Maruyama

Comisión Nacional del Mercado de Valores President Guillermo Babatz

(Mexico)

Ontario Securities Commission (Ontario, Canada) Chairman David Wilson

Autorité des marchés financiers (Quebec, Canada) President Jean St. Gelais

Comisión Nacional del Mercado de Valores Vice-Chairman Carlos Arenillas

(Spain)

Swiss Federal Banking Commission (Switzerland) President Eugen Haltiner

Financial Services Authority (United Kingdom) Executive Director Hector Sants

Securities and Exchange Commission (United States)

Chairman Christopher Cox

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